

National Reform Programme 2018



Imprint

Published by

Federal Ministry for Economic Affairs and Energy Public Relations Division 11019 Berlin www.bmwi.de

Current as at

April 2018

Design

PRpetuum GmbH, München

Image credit

StudioD3x / Digitalstock / Title

You can obtain this and other brochures from:

Federal Ministry for Economic Affairs and Energy, Public Relations Division Email: publikationen@bundesregierung.de www.bmwi.de

Central ordering service:

Tel.: +49 30 182 722 72 Fax: +49 30 181 027 227 21

This brochure is published as part of the public relations work of the Federal Ministry for Economic Affairs and Energy. It is distributed free of charge and is not intended for sale. The distribution of this brochure at campaign events or at information stands run by political parties is prohibited, and political party-related information or advertising shall not be inserted in, printed on, or affixed to this publication.



National Reform Programme 2018

Contents

Int	rodu	ction	4
I.	Ma	croeconomic context	6
	A.	Macroeconomic development	6
	B.	The German current account surplus	8
II.	Act	ions to tackle primary macroeconomic challenges	15
	A.	Strengthening public investment at all levels	15
		Strengthening public investment in infrastructure, housing, education, research and innovation	15
		Enabling Länder and municipalities to undertake more investment	17
		Securing sound government finances	18
		Strengthening investment in Europe	18
	B.	Strengthening private investment and stimulating competition further	
		Making the tax system more investment-friendly	18
		Developing competition and procurement law further, reducing bureaucracy	19
		Action to further stimulate competition in the services sector	20
	C.	Increasing incentives for labour force participation	21
		Strengthening incentives to work for second earners	
		Reducing non-standard employment – facilitating the transition to standard employment relationships	22
		Reducing the tax and contribution burden for low-wage earners	23
		Promoting higher real wage growth with due respect for the role of the social partners	25
III.	Eur	rope 2020 headline targets: progress to date and measures	26
	A.	Fostering employment	26
		Strengthening the framework for labour participation	
		Developing a new Skilled Labour Strategy	29
		In the interest of a fair labour market	
	B.	Improving the conditions for innovation, research and development	31
		The Federal Government's Research and Innovation Strategy	
		Promotion of research and innovation by the Federation and the Länder	32
		Taking advantage of the opportunities of the digital transformation	34
	C.	Reducing greenhouse gas emissions, increasing energy from renewables	
		as well as energy and resource efficiency, making mobility sustainable	36
		Meeting climate targets	36
		Renewable energy: strengthening competition, improving the system	37
		Increasing efficiency, reducing energy and resource consumption	38
		Expanding sustainable and modern mobility	38
	D.	Improving education levels	39
		Increasing education spending at all levels	39
		Strengthening life-long learning and digital skills	40
	E.	Promoting social inclusion in particular by reducing poverty	41
		Accelerating integration into the labour market	
		Tackling child poverty and promoting inclusion	43
		Strengthening social participation for the elderly	44
		Promoting social urban development	45
IV.	Dra	afting the NRP 2018: process and stakeholders	46

Table I: Action	ons to tackle primary macroeconomic challenges	47	
Table II: Acti	Table II: Actions to deliver on the national goals within the context of the Europe 2020 strategy		
List of diagra	ams		
Diagram 1:	Private-sector gross fixed capital formation in times of economic expansion		
Diagram 2:	Development of private-sector investment in machinery and equipment	11	
Diagram 3:	Wage and price developments in Germany	12	
Diagram 4:	Development in social security contributions as a percentage of gross assessable earnings	24	
List of boxes			
Box 1:	2017 country-specific recommendations of the Council of the European Union for Germany	15	
List of overv			
Overview 1:	Selected key figures for macroeconomic trends in the Federal Republic of Germany	7	
	The current account surplus and its components		
	Factors explaining Germany's current account surplus		
	Quantitative goals defined under the Europe 2020 strategy and current progress towards goals		

Introduction

- 1. The German economy is experiencing a strong upturn. In 2017, gross domestic product (GDP) grew by 2.2% (price-adjusted), faster than in any year since 2011. This upturn is founded on a broad base in both the domestic and the international economy. The number of gainfully active people in Germany rose to 44.3 million, another all-time high. The unemployment rate fell to 5.7% and is therefore at the lowest level since reunification. In 2017, the public-sector budget achieved a surplus of 1.1% in terms of nominal gross domestic product and the total public-sector debt-to-GDP ratio has dropped further to 64.1% of GDP.
- 2. The economic conditions for 2018 are therefore good and the Federal Government expects the upturn to continue. However, the favourable economic situation must not detract from the fact that Germany is facing major challenges, including digitalisation, globalisation, continued demographic change in Germany and climate change. The Federal Government also wishes to create solid foundations for growth, broad prosperity and employment in Germany on the long term: the social market economy is the basis for this. The global 2030 Agenda for Sustainable Development implemented at national level in the German Sustainability Strategy serves as a guiding principle in this context, and places the focus even more strongly on the long-term and the global implications of national economic and fiscal policy.
- 3. The Federal Government will continue its pro-growth and future-oriented fiscal policy based on the principle of balanced budgets without new borrowing. Needs-oriented, efficiently implemented public investment can strengthen economic output on a lasting basis and thus also contribute to the sustainability of public budgets. Against this background, the Federal Government is using fiscal policy scope to invest more heavily in infrastructure, networking and digitalisation strategies and in education and research. The Federal Government is also making special efforts to strengthen the policy environment for private-sector investment. The euro area economy can also benefit from

- higher investment in Germany. It must be noted, however, that the effects of a further expansion of public-sector investment in Germany on the German current account surplus and on economic development in other European countries are very limited (cf. Chapter I.B).
- 4. The broad-based economic expansion in the European Union (EU) picked up pace again in 2017 and reached all Member States. At the same time, the EU continues to face serious challenges. In order to achieve greater employment and sustainable economic growth throughout Europe, the Federal Government will continue to work towards increased competitiveness. In this context, structural reforms and investment must go hand in hand. The Federal Government will also continue to engage constructively in, and actively shape, the debate on the reform of the Economic and Monetary Union.
- 5. The Federal Government supports the European Commission in the consistent application of the Macroeconomic Imbalance Procedure. In November 2017, the European Commission decided to again subject Germany and eleven other Member States to an in-depth review as part of the Macroeconomic Imbalance Procedure. As in previous years, Germany's consistently high current account surplus triggered the in-depth review. The European Commission identifies an imbalance in the in-depth review for Germany. The Federal Government shares the European Commission's opinion that the German current account surplus is high but that the imbalance is not excessive. In recent years, the surplus has declined slightly but steadily, a development which was also the result of the Federal Government's policy to strengthen domestic demand. For the most part, the German current account surplus can be explained by factors which cannot be influenced, or influenced directly, by economic and fiscal policy measures in Germany. These include exchange rates and low oil prices, but also fundamental factors such as demographic development.

6. The National Reform Programmes 2018 are a cornerstone of the 2018 European Semester which the European Commission launched with the presentation of the Annual Growth Survey on 22 November 2017. The German National Reform Programme (NRP) 2018 is the Federal Government's response to the European Commission's country report of 7 March 2018, which also includes the results of Germany's in-depth review in the Macroeconomic Imbalance Procedure. In particular, the NRP describes the actions Germany will take to address the macroeconomic challenges identified in the 2018 country report. Furthermore, in the NRP 2018 the Federal Government also reports on the implementation of the country-specific recommendations of the Council of the European Union for Germany for the 2017 and 2018 period issued on 11 July 2017, and on progress and measures under the Europe 2020 strategy. The NRP 2018 is aligned with the priorities set out in the Annual Growth Survey and with the conclusions of the European Council of 22 and 23 March 2018.

I. Macroeconomic context

A. Macroeconomic development

7. The German economy is experiencing a period of strong economic expansion. Following GDP growth of 2.2% in 2017 (price-adjusted), the Federal Government expects an increase of 2.3%¹ for 2018 (cf. Overview 1) in its annual projection for the current year. The already robust development of the domestic economy has been increasingly complemented and boosted by stimuli from outside Germany. Employment and incomes, and thus people's potential to consume, are growing tangibly. Companies are exporting more vigorously, and are again investing more in plants and machinery. Despite skills shortages in some occupations and regions, no end to the upswing is in sight at present.

8. The labour market continues to be a key driving force for Germany's economic growth. The rise in employment started back in 2005 and will continue this year. The number of gainfully active persons in Germany increased by 1.5%, or around 650,000, on an annual average in 2017, reaching another record high of 44.3 million. The number of gainfully active persons is set to increase this year by 575,000. Employment will particularly pick up pace in the services market, but is also likely to increase in the manufacturing sector. As in preceding years, the further growth in employment is going hand in hand with a rise in the number of people in jobs subject to social security contributions. Between 2005 and 2017, the number of people in employment subject to compulsory social security contributions increased by 5.9 million, or 22.4%. By contrast, the number of individuals exclusively in marginal employment has fallen.

Unemployment continued to fall in 2017. The number of registered unemployed dropped by roughly 160,000, and reached the lowest level since German reunification, at 2.5 million people. The unemployment rate contracted to 5.7%, and has therefore more than halved since 2005 when it stood at 11.7%. There are, however, stark regional differences between thriving regions with even lower

unemployment rates and structurally weak rural and urban areas with far higher rates of unemployment.

Despite the strong labour market performance, low-skilled workers, the long-term unemployed, older and disabled persons, and people with a migrant background, in particular, face major challenges when it comes to integrating into the labour market.

At the same time, it is becoming increasingly difficult for employers in many industries and regions to successfully fill vacancies in their businesses. The scarcity of labour makes it more difficult to expand production, with the result that the rise in employment will be somewhat less vigorous.

9. In view of the good earnings situation of companies and increasing shortages on the labour market, the parties to collective bargaining are likely to agree on higher wage increases than seen in previous years. Gross wages and salaries per employee (effective earnings) are expected to rise faster this year than last year. The cut in income tax that came into effect at the beginning of the year offsets the impact of fiscal drag at the collective bargaining level. In the course of these developments, monetary welfare benefits are likely to expand substantially, not least due to the regular pension increases.

Corporate income and income from assets are likely to see slightly stronger growth than wages and salaries in the course of the economic recovery. Overall, the macroeconomic wage ratio is expected to remain more or less constant.

Despite the pick-up in growth in the euro area, inflation currently remains below the ECB's target. However, the broad-based upswing is likely to tend to increase wage and price pressures, which are currently still moderate. Given that labour productivity is picking up again, only a moderate rise in unit wage costs is likely, however.

Details of the Federal Government's annual projection, which is based in particular on the Code of Conduct for the stability programmes of the Member States of the euro area, are provided in the 2018 German Stability Programme, which is also presented to the European Commission in April. The spring projection of 25 April 2018 presents the most likely development of the German economy from the Federal Government's perspective at the time the NRP 2018 was submitted to the European Commission.

10. In view of the expansion of real disposable income and the good outlook on the labour market, private households are likely to continue to increase their consumer spending substantially. The additional income will also be used for investment in private housing. Given the further improvement in sales prospects, on-going good financing conditions and the above-average level of capacity utilisation, companies are likely to invest more in expanding their plants and equipment. Public-sector consumption is also likely to see stronger growth in 2018 than last year. The dynamism is due, in particular, to the higher rise in non-monetary welfare benefits. Public-sector investment will also increase significantly. Overall, investment activity in Germany is likely to rise considerably this year.

11. The global economy is in good shape. Global growth is being driven by almost all of the regions in the world. The average pace of growth is likely to pick up again slightly this year. The most important regions for the German economy – the United States and the European Union – are seeing dynamic growth. The broad-based upswing in the euro area is expected to clearly boost German exports to this region. With regard to exports to countries outside

the euro area, last year's appreciation of the euro against the US dollar, for example, has acted as a price increase, but the euro's exchange rate does not seem to have had any negative effects on exports so far. Private-sector investment in machinery and equipment is also likely to pick up speed in light of the continuing good global economy. Business expectations are positive and the financial environment remains very attractive. Due to the dynamic rise in overall demand, imports will continue to rise faster than exports. This means that the current account balance is likely to see another slight drop in terms of GDP.

12. Projections for economic development are always fraught with uncertainty. The domestic and the international market offer chances for a more favourable economic development than that forecast in the 2018 spring projection. For example, the economic recovery in many countries in the European Union might be stronger than anticipated. The main risks are to be found in the global environment, e.g. in a cyclical weakening in China, for example, in a further rise in protectionist barriers to trade, in potential turbulence on the financial markets or in geopolitical events.

Overview 1: Selected key figures for macroeconomic trends in the Federal Republic of Germany

			Spring projection
	2016	2017	2018
	Percentage change	on preceding year, unle	ss otherwise indicated*
Gross domestic product (GDP), output approach			
GDP (real)	1.9	2.2	2.3
Total employment	1.3	1.5	1.3
Unemployment rate in % (Federal Employment Agency definition)**	6.1	5.7	5.2
GDP by expenditure (real)			
Private consumption expenditure	2.1	1.9	1.7
Machinery and equipment	2.2	4.0	5.5
Construction	2.7	2.7	2.6
Domestic demand	2.4	2.2	2.3
Exports	2.6	4.7	5.0
Imports	3.9	5.1	5.8
External balance of goods and services (contribution to GDP growth)***	-0.3	0.2	0.1
Total gross wages and salaries per employee	2.5	2.7	2.9

^{*} Up to 2017 results of the Federal Statistical Office; National Accounts Status: February 2018.

^{**} In relation to the total labour force.

^{***} Absolute change (stocks/external balance) in per cent of pre-year GDP (= contribution to change in GDP).

B. The German current account surplus

13. In 2017, the German current account accumulated a surplus of €263 billion, or 8.0% in terms of nominal gross domestic product (GDP). Over the past three years, the current account surplus therefore averaged 8.5%. The surplus in 2017 was primarily concentrated in traded goods, but primary income – particularly cross-border property income – also made a positive contribution to the surplus on balance. In contrast, the balance of services and the balance of secondary income were negative, as in previous years (cf. Overview 2).

Overview 2: The current account surplus and its components

In billion euro	2015	2016	2017
Current account	+271	+269	+263
Trade in goods	+261	+268	+266
Trade in services	-17	-20	-16
Primary income	+67	+61	+67
Secondary income	-40	-40	-54

The German current account surplus peaked in 2015 at 8.9% and has been narrowing ever since. This development has been supported by the economic policy pursued by the Federal Government. For 2018 and 2019, the Federal Government is expecting the surplus to drop further to 8.0% and 7.5% of GDP, respectively.

In 2017, Germany had a current account surplus of €80 billion with the euro area. This is far lower than in 2007 when the country's surplus with the euro area was at its highest yet, at €105 billion. As a percentage of Germany's economic output, the current account surplus has therefore dropped from 4.2% to 2.5% since 2007, but has risen again recently. This is likely due to the increasing pace of recovery in the euro area, which disproportionately benefits the German export sector. Outside the euro area, Germany's biggest current account surpluses were with the United States (€52 billion) and the United Kingdom (€42 billion).

14. The German current account surplus is high by both historical and international standards. The reasons for this are many and varied.

The surpluses in traded goods are first a reflection of the high proportion of industrial added value created by the German export sector compared with other countries, and of this sector's strong competitiveness. German industry offers an attractive range of products particularly for emerging markets catching up with developed economies, especially high-quality capital and consumer goods. The relatively low external value of the euro in recent years also made a considerable contribution to the increase in the German current account surplus. According to the latest External Sector Report of the International Monetary Fund (IMF), from Germany's perspective the real effective exchange rate in 2016 was undervalued by around 10 to 20%. Overall, the euro exchange rate can only have a limited corrective effect with regard to the reduction of the German current account surplus also over the medium to long term, as it reflects the economic and monetary policy situation of the entire Monetary Union.

With regard to the price of crude oil which fell sharply in 2014, it was long argued that this effect was temporary and would only increase the current account surplus for a short time. In light of new drilling techniques, such as fracking for example, the current low oil prices may, however, continue for the longer term. In this respect, it would appear that a (technological) shift has taken place, which structurally increases the German current account surplus compared with periods of higher oil prices, as the costs of oil imports are lower.

Furthermore, the accumulation of foreign assets associated with the current account surpluses is a source of cross-border property income, which in turn drives up the current account surplus as primary income. Germany had €1.9 trillion in net foreign assets at the end of 2017, and revenue from these foreign assets, particularly in the form of interest and dividends, amounted to €200 billion in 2017. In total, the balance of primary income contributed €67 billion to Germany's current account surplus in 2017, which is equivalent to roughly one quarter of the surplus.

Among the reasons for the high capital outflows is the fact that the returns on German investments abroad are higher than the returns in Germany. For example, German direct investment abroad in the period spanning 2007 to 2013 – i.e. including the period of the financial and economic crisis – generated a return of over 5.9%. By contrast, foreign direct investment in Germany only saw returns of 4.6%.

The deficit in Germany's services account is narrowing increasingly, having shrunk to a third of its size from €49 billion in 2003 to €16 billion in 2017. This, in turn, results in a higher current account surplus. While the balance in the travel services sector is still negative, the balance is more positive (or less negative) in other cross-border service sectors such as transport services and telecommunications, computer services and information services. This indicates that German service providers have been able to improve their position in the international market.

Accounting for roughly €119 billion, these changes – the higher income from foreign assets and Germany's better position in the field of international services trade – explain a large part of the increase in the current account since 2003.

Surpluses in one country inevitably mean deficits in other countries. Within Europe, however, this no longer appears to be a significant factor at present, as the current account deficits have narrowed significantly. For example, while the countries of Greece, Ireland, Italy, Portugal and Spain had, in aggregate, a current account deficit of €220 billion in 2008, this has been transformed into a surplus.

Overall, both the EU and the euro area most recently ran a current account surplus of 1.4% and 3.3%, respectively, with the rest of the world. Corresponding capital outflows are associated with these surpluses. For a developed continent with an ageing population, capital outflows are, on the whole, entirely reasonable and justifiable, particularly considering that foreign investment is a lucrative form of investment. Furthermore, the capital is also used in the target countries not least for investments that are likely to generally boost local growth potential. The extent to which the surpluses also constitute stability risks has less to do with the amount and more with the actual use of the funds in the countries with a current account deficit.

From another economic perspective, the German current account surplus constitutes a macroeconomic savings surplus, i.e. on the whole, the economy saves more than it invests. With regard to Germany's strong tendency to save, it can first be said that Germany accumulates foreign assets

also because of its ageing society. Various studies find that around one to three percentage points of the German surplus alone are attributable to demographic developments.² According to simulations by the Centre for European Economic Research (ZEW), against the backdrop of demographic developments the current account surplus will continue to rise until around 2020 to then drop steadily – particularly as a result of large numbers of people entering retirement and a far lower savings ratio – and even become a deficit over the longer term.³

For an insight into the overall development of the savings ratio in the economy, it is also necessary to examine the savings behaviour of businesses in addition to the savings decisions of private households. The financial surpluses of non-financial corporations have risen steadily since the start of 2000 to recently stand at 3% of economic output. This development reflects the decision of business owners to keep profits in the business sector rather than paying dividends. A number of factors help explain the growing tendency to retain profits.4 The corporate tax reforms of 2001 and 2008 made the retention of profits more attractive from a taxation perspective. Furthermore, the tightening of banking regulations in the course of the Basel II and Basel III Accords also provided incentive for non-financial corporations to improve their equity ratio and increasingly use their own capital to finance increasing investment in intangible fixed assets, which are less easy to finance through external capital investors.

At the same time, the savings surplus means less investment activity – relative to savings – in Germany. In arithmetical terms, macroeconomic growth has been primarily driven by the domestic economy since 2013. While development in private-sector investment in machinery and equipment was temporarily subdued – due to the weaker global economy – following the global financial and economic crisis, this weakness was largely offset by dynamic investment in construction. Overall, growth in private-sector gross fixed capital formation in the current upturn is even slightly more dynamic than in previous phases of expansion (cf. Diagram 1). For example, private-sector gross fixed capital formation had risen by around 14% after 4 years

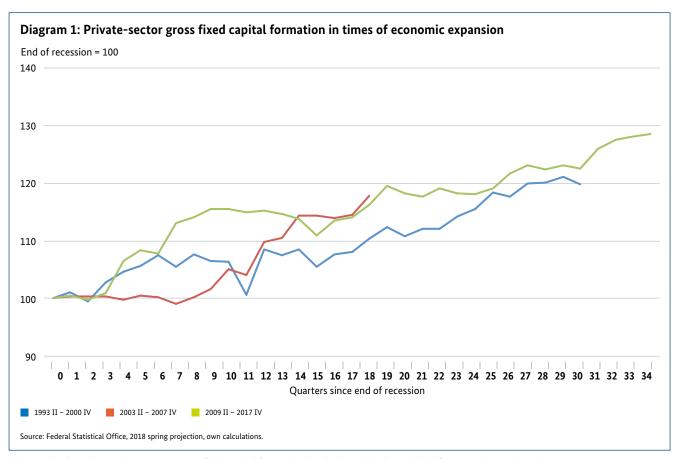
- 2 German Council of Economic Experts (2014): Annual Report 2014/2015; IMF (2017): IMF Country Report No 17/193, Germany Selected Issues.
- 3 Centre for European Economic Research (ZEW) (2012): "Sparen und Investieren vor dem Hintergrund des demografischen Wandels" ("Saving and investing against the backdrop of demographic change").
- 4 Joint Economic Forecast Project Group (2017): "Aufschwung weiter kräftig Anspannungen nehmen zu" ("Upswing remains strong conditions are tightening"), ifo Schnelldienst 70 (19), 3-60.

(16 quarters) in the current upturn, and growth was therefore about as strong as in the previous upturn and stronger than in the period of economic expansion in the 1990s.

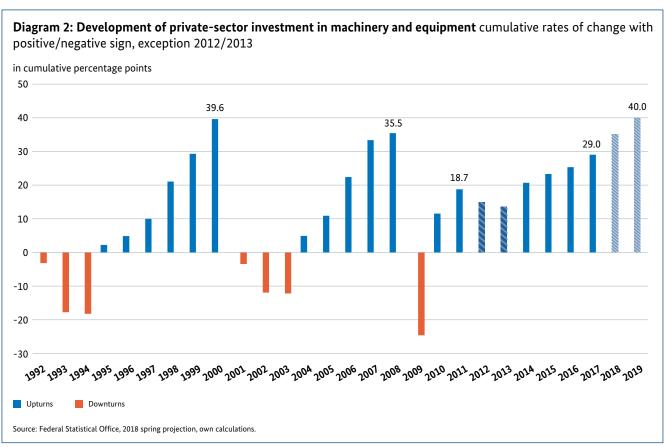
Currently it appears that the "usual" pattern of a business cycle is again forming. In particular, strong business investment in machinery and equipment can again be seen. Private-sector investment in machinery and equipment rose by 9.4% in the course of 2017. In the period from 2010 to 2017, growth rates in price-adjusted terms add up to 29%, despite a weak phase in 2012/2013 (cf. Diagram 2). Over the past number of years, the construction industry has come increasingly closer to the capacity limit and, given the increasing shortage of skilled labour, is likely to find it difficult to maintain or even increase the pace of

expansion. There is therefore little indication of a general lack of investment in the economy. In 2018, investment in machinery and equipment is expected to increase by 5.5% on average and gross fixed capital formation by 3.7% in total.

The Federal Government has rolled out a raft of measures to put this upturn in investment on a permanent footing (cf. Chapter II.A). In the last legislative term, the funds for investment in the federal budget (excluding payment to the ESM) were scaled up by around 40%. Furthermore, the *Länder* and municipalities have received considerable financial relief, which has created additional scope for public investment. Public investment is also expected to increase significantly in 2018 (cf. Chapter II.A).



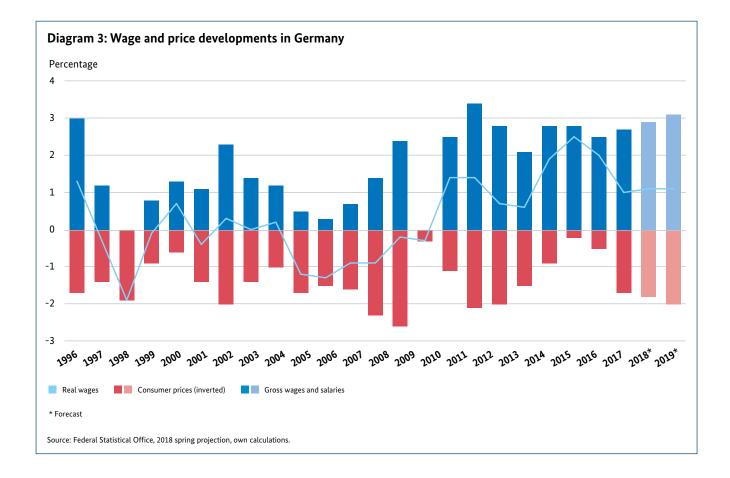
The graphic shows how private-sector gross fixed capital formation has developed in the periods of economic expansion since 1991. The start of each upturn is set to the value of 100.



The graphic shows how private-sector investment in machinery and equipment has developed in the periods of economic expansion since 1991. Consecutive years with positive (negative) growth rates are added in the graphic. An exception was made for 2012 and 2013, which the German Council of Economic Experts did not consider to be recession years in its dating of the German business cycles. Values for 2018 and 2019 are taken from the Federal Government's 2018 spring forecast.

Consumer spending has made a marked contribution to boosting domestic demand, particularly owing to the positive developments on the labour market. Since the start of 2006, employment subject to compulsory social security payments has increased by over six million people and unemployment is at its lowest since reunification. Furthermore, wages have also risen appreciably in recent years (cf. Diagram 3). Gross wages and salaries per worker increased annually on average by 2.7% between 2010 and

2017. This is within the bounds of what can be expected given the very subdued growth in productivity (labour productivity per person in employment rose by 0.7% on an annual average between 2010 and 2017) and an ECB inflation target of around 2%.⁵ The Federal Government expects the growth in wages to continue on a broad scale given the increasing shortages on the labour market and in light of developments on the demographic front. Inclusive economic growth is therefore likely to be put on a permanent footing.



15. In the procedure to prevent and correct macroeconomic imbalances, current account surpluses are a possible indicator of macroeconomic imbalances if the current account balance as a percentage of nominal GDP is above a threshold of 6% on average over the past three years. The assessment of potential imbalances is no small task. Precisely determining the scale of the imbalances, pinpointing the channels contributing to the imbalances, and identifying the point as of which surpluses are problematic is an exercise that is fraught with much uncertainty. And it is at least just as difficult to find economic policy tools to suitably reduce the surpluses (cf. Item 14).

To interpret potential imbalances, the European Commission also uses empirically derived current account values which are intended to represent the contribution of fundamental factors for international current account balances. The value for Germany is in the region of 2.5% (as a percentage of nominal GDP). This comparatively low value is due in part to the fact that in this model – particularly in contrast to comparable estimates of the IMF – demographic developments in Germany only have a marginal

influence on the current account. The corresponding estimates of the IMF in the External Balance Assessment (EBA) come to the conclusion that around half (4.5 percentage points) of Germany's current account surplus can be explained by the variables applied. Common to both methods is the fact that a substantial part of the surplus cannot be explained by the variables used in the model (known as the residual). It would therefore appear that fundamental characteristics of the German economy are not adequately represented in these model calculations. The residual is, however, generally apportioned to the gap, i.e. the difference between the part explained by fundamental variables and the actual surplus, and thereby identified as problematic. The substantial differences between the various analyses clearly demonstrate that the results depend greatly on the selected method and the empirical specifications and therefore appropriate caution should be exercised when used to interpret imbalances. In light of this, it would be appropriate to take greater account of the different calculations and the resulting bandwidth and estimation uncertainties in the analysis and assessment.

Current account surpluses are generally considered problematic if they are the result of the influence of economic policy, e.g. with respect to monetary and exchange rate policies. This charge cannot be levelled against Germany, as monetary policy for the entire euro area is governed by the independent European Central Bank. Furthermore, as a member of the European Union, Germany does not pursue independent trade policy and does not practise any other policies to influence the trade and current account balances, and acts in line with the rules of the World Trade Organisation (WTO).

16. Quite apart from the question of the specific implications of the German current account surplus for Germany and other countries, the effect of economic policy measures on the current account surplus remains open (cf. also Overview 3). Most analyses and studies find that economic and fiscal policy measures only have a very limited impact on the size of the surplus and, on the long term, some measures could even have the opposite of the intended effect.⁶ This is particularly the case if these measures end

up improving the competitiveness of the economy on the long term (e.g. as a result of investing in public infrastructures or increased education spending).

The aforementioned current account analyses conducted by the IMF come to the conclusion that only a small percentage of Germany's surplus is attributable to domestic economic policy. Simulations based on the international NiGEM model also demonstrate that it would only be possible to reach the European Commission's 6% threshold with fiscal policy measures by investing a disproportionately high level of financial resources. More recent simulation studies also verify that the economic policy measures examined can only make a limited contribution to reducing the current account surpluses.7 Analyses conducted with the European Commission's QUEST model arrive at similar conclusions, and show that policy action on the supply side and additional expenditure on research and development could even drive up the current account surplus on the medium- to long-term due to increased competitiveness.8

Overview 3: Factors explaining Germany's current account surplus

Factors (largely) outside the control of eco	Factors which can be influenced by economic policy	
Temporary factors	Fundamental factors	
Exchange rates	Demographic developments	Public-sector investment
Commodity prices	Return on foreign investment	Conditions for private investment
Development in wages	Economic structure, specialisation	Structural reforms
Global economy	International interdependence	

- Schlaglichter der Wirtschaftspolitik (2017): "Der deutsche Leistungsbilanzüberschuss im Lichte der deutsch-amerikanischen Handelsbeziehungen" ("The German current account in the context of US-German trade"), monthly report 5-2017 and in the monthly report of the Federal Ministry of Finance (2017): "Der deutsche Leistungsbilanzüberschuss im Lichte der deutsch-amerikanischen Handelsbeziehungen" ("The German current account in the context of US-German trade"), May 2017.
- Priesmeier (2017): "Lässt sich der deutsche Leistungsbilanzüberschuss mit vertretbarem Aufwand reduzieren?" ("Can fiscal policies be used to reduce Germany's current account surplus at reasonable cost?"), Wirtschaftsdienst; Schlaglichter der Wirtschaftspolitik (2017): Zur Diskussion: Stabilisierung im Euroraum durch expansive Fiskalpolitik in Deutschland? (Discussion topic: expansionary fiscal policy in Germany to stabilise the euro area?) Monthly report 3-2017; Schlaglichter der Wirtschaftspolitik (2015): Auswirkungen höherer öffentlicher Investitionen in Deutschland auf die Wirtschaft des Euroraums. (Effects of higher public-sector investment in Germany on the eurozone economy). Monthly report 7-2015; Kieler Beiträge zur Wirtschaftspolitik: "Wirtschafts-, Finanz- und Geldpolitik: Wirkungen auf die deutsche Leistungsbilanz" ("Economic, fiscal and monetary policy: the effects on the German current account"), No. 11, November 2017.
- 8 Menzel (2017): "Auswirkungen von angebots- und nachfragepolitischen Maßnahmen auf die Handelsbilanz in Deutschland Simulationen mit dem QUEST3-Modell" ("Effects of supply- and demand-side policy action on the trade balance in Germany simulations with the QUEST3 model"), May 2017.

The correlation between real wage developments and the current account were also examined in the simulation models. For example, the French Ministry of Finance calculates that wage moderation in the 2000s can explain roughly 1.5 to 2 percentage points of Germany's current account surplus. At the same time, the authors also conclude that wage moderation also resulted in higher investments (4.7%) and greater macroeconomic activity (3.4%). Other analyses⁹ also confirm the influence of wage developments on the current account surplus: higher wages drive down price competitiveness, reducing real exports as a result. On the other hand, higher wages also tend to limit employment in the export-based industries and can therefore have an effect in the opposite direction on the current account balance. Irrespective of this, the influence of economic policy on the level of real wages is limited, particularly given that the principle of free collective bargaining is enshrined in the German Constitution.

The current account surplus is not an economic policy target set by the Federal Government. In total, however, it can be said that the economic policy measures pursued by the Federal Government, such as a comprehensive investment strategy, a raft of measures to put domestic demand on a permanent footing and the strengthening of partners to collective agreements, have also helped to reduce the current account surplus. Ultimately, however, the scope of economic policy measures to reduce the current account balance is limited. In light of this, any measures that help

stabilise and secure domestic demand and raise potential output – as stipulated in Regulation 1176/2011 for Member States with current account surpluses – continue to appear appropriate. As in previous years, the Federal Government will continue to make every effort to strengthen publicand private-sector investment activity (cf. Chapter II.A).

Despite the high degree of openness of the German economy and Germany's strong inter-connections with international – particularly European – value chains, many studies¹⁰ indicate that Germany's economic policy measures have – at best – minor macroeconomic spillover effects on other European countries. Significant stimulus for growth in these countries, particularly with a view to the long-term improvement in competitiveness, growth potential and the sustainability of public finances, would, however, primarily require national measures to be put in place.

II. Actions to tackle primary macroeconomic challenges

17. In its country report of 7 March 2018, the European Commission analyses Germany's economic development and economic policy and also assesses progress towards the implementation of the country-specific recommendations issued by the Council of the European Union on 11 July 2017 for the 2017 and 2018 period. In its report, the European Commission also presents the findings of its in-depth review performed in the context of the procedure to prevent and correct macroeconomic imbalances.

18. In the 2018 country report, the European Commission emphasises the good and robust economic development witnessed in Germany, and points out that private-sector investment in machinery and equipment rose sharply last year. The European Commission also states that total factor productivity growth has been strong, exceeding the euro-area average. It does, however, also point out that policy-makers should take advantage of the favourable economic climate to increase potential growth. Boosting public-sector investment both in education and in research and development and the better inclusion of under-represented groups in the labour market, particularly to also help address the looming shortage of skilled labour, are the central challenges which the European Commission identifies for the German economy. In the following section, the Federal Government reports on current and planned measures to address these challenges. In this connection, the Federal Government also details how it is implementing the country-specific recommendations for 2017 and 2018 (cf. Box 1).

A. Strengthening public investment at all levels

19. Investment is the main key to securing the long-term growth and employment potential of the German economy. To strengthen competitiveness and boost the forces for growth in Germany, investment in infrastructure, key technologies and innovation, in particular, must be given top priority. This is all the more true the faster the pace of the digital transformation and the more difficult it becomes to secure the skills base in an ageing society. The investment made in the coming years will also determine whether Germany will continue to manage to maintain a modern and efficient infrastructure and further advance its position internationally as a country of innovation.

Strengthening public investment in infrastructure, housing, education, research and innovation

20. The Federal Government intends to take advantage of the fiscal space resulting from the country's favourable economic climate in a socially balanced and responsible manner to benefit the economy as a whole. To this end, it is also setting clear priorities in this legislative term for investment in infrastructure, in networking and digitalisation strategies and in education and research, with investment spending of €36.4 billion budgeted for this in 2018 (cf. Table I, Nos. 1 and 2). In doing so, the Federal Government is continuing the positive trend in investment spending from the last legislative term in which investment in the federal budget

Box 1: 2017 country-specific recommendations of the Council of the European Union for Germany

The Council of the European Union recommends that Germany should take action in 2017 and 2018 to:

- 1. While respecting the medium-term objective, use fiscal and structural policies to support potential growth and domestic demand as well as to achieve a sustained upward trend in investment. Accelerate public investment at all levels of government, especially in education, research and innovation, and address capacity and planning constraints for infrastructure investments. Further improve the efficiency and investment-friendliness of the tax system. Stimulate competition in business services and regulated professions.
- 2. Reduce disincentives to work for second earners and facilitate transitions to standard employment. Reduce the high tax wedge for low-wage earners. Create conditions to promote higher real wage growth, respecting the role of the social partners.

(excluding payment to the ESM) increased by around 40%, reaching a total of €34 billion in 2017.

21. An efficient, well-connected transport infrastructure is of central importance to Germany's economic development. It is therefore necessary to maintain the quality of the federal transport infrastructure and to remove bottlenecks – where necessary – by replacing, upgrading and building transport routes. The Federal Government will continue to press ahead with measures to strengthen infrastructure investment. Investment in the transport infrastructure is set to rise to €14.2 billion in 2018 and will continue at the current level at the very least in the following years.

In addition to public funding, contributions by the users also play a role in strengthening the transport infrastructure. In 2017, revenue from the truck toll amounted to approximately €4.7 billion. The extension of the truck toll to all federal trunk roads, as planned for 1 July 2018, will generate up to €2 billion in additional annual revenues in the future (cf. Table I, No. 3). The planned infrastructure levy (car toll) is also to help fund the transport infrastructure in future (cf. Table I, No. 4).

22. From 1 January 2021, the Federation will have sole responsibility for planning, building, operating, maintaining, financially managing, and funding the federal autobahns. In order to carry out this work, the Federation will establish an infrastructure company for autobahns and other federal trunk roads with the legal structure of a limited company (*GmbH*). In future, sovereign responsibilities will primarily be the remit of the new Federal Trunk Road Office, which is also to be set up (cf. Table I, No. 5). The aim of this restructuring is to address the contract management issues previously experienced by consolidating competencies and responsibilities. As a result of this measure, investment in the expansion and maintenance of the federal autobahns should be implemented more quickly and efficiently in the future.

23. In addition to the transport infrastructure, digital infrastructure is also a key factor for Germany's economy. To ensure that as many people as possible can benefit from the opportunities of digitalisation, the Federal Government continues to provide strong support to the expansion and development of an efficient digital infrastructure by private sector network operators. The Federal Government already provided around €4.4 billion in federal funding for digital

expansion in the last legislative term. This funding initiated total investment of around €7.7 billion and the development of around 320,000 kilometres of fibre optic cables in regions that lack coverage. These federal funds are paid out on the basis of the terms of funding currently applicable (cf. Table I, No. 6). Complementing this, the Länder have also taken action themselves to support broadband rollout (cf. Table I, No. 7) and have also provided comprehensive co-funding for development projects in the federal funding programme. The Federal Government will build on this and intends to have a nationwide infrastructure of gigabit networks by 2025. This will require a joint effort by telecommunications companies and the state. Only the development phases that use fibre optic technology will be eligible for funding from public funds. The assumption is that public-sector funding of between €10 billion and €12 billion will be required in this legislative term. To finance this, the proceeds from the auctioning of spectrum in the 2 GHz and 3.6 GHz frequency range will be ring-fenced. By 2021, it is to be ensured in the budget that the total funding amount will be reached.

The next 5G mobile communications generation will be a core element of the gigabit networks of the future and will enable new flexible information and communications technologies. The Federal Government will push ahead with the expansion of mobile network coverage and make Germany the lead market for 5G. The allocation of frequencies will be tied to development requirements to ensure the dynamic expansion of 5G connectivity and to close existing gaps in network coverage (cf. Table I, No. 8).

In addition, Germany needs a Digital Education Campaign. With the joint "Digital Pact for Schools" announced with a budget of €5 billion over five years (€3.5 billion of which will be provided in this legislative term), the Federation and the *Länder* seek to digitally equip all schools in the country. The aim is for all pupils to be able to avail of a digital learning environment in all subjects and fields of study in order to acquire the necessary skills in the digital world. The Pact is to be backed by appropriate educational approaches and initiatives of the *Länder* in the field of teacher training and continuing education (cf. Chapter III.D).

24. Recent years have seen a worsening of the already tight situation on the housing market in a number of cities and regions in Germany. The Federal Government intends to launch a Housing Campaign. The aim is for 1.5 million privately financed apartments and homes to be built with

public-sector support in this legislative term. The child benefit for homebuyers and home builders (*Baukindergeld*) amounting to €1,200 per child per year and paid over a period of ten years is designed to support families purchasing their first home. The construction of social housing is to continue at least at the current level and be put on a permanent footing on the long term. The Federation is to provide €2 billion specifically for this purpose in 2020 and 2021.

25. Education as well as research and innovation are central to Germany's future. For this reason, the Federal Government is investing record amounts in better education and, as part of the Investment Campaign for Schools, intends to additionally make €2 billion in funding available for the expansion of all-day schools and childcare services. To ensure that Germany remains a country of innovation, the Federal Government has set a target of investing 3.5% of GDP in research and development by 2025. In order to gradually reach this goal, the Federation intends to make €2 billion available in this legislative term. Chapter III describes the substantial efforts of the Federation and the *Länder* in the fields of research and innovation (Chapter III. B) and education (Chapter III. D).

Enabling Länder and municipalities to undertake more investment

26. The Länder and the municipalities are responsible for the bulk of public investment in Germany. To ensure they can meet their responsibilities on a sustained basis, fiscal relations between the Federation and the Länder have been restructured. As a result of this restructuring, the Länder will receive annual relief from the Federation initially of around €9.7 billion from 2020 onwards (cf. Table I, No. 9). Apart from the reorganisation of the fiscal equalisation system, a number of rules have also been introduced to improve the fulfilment of tasks in the federal state.

27. Further to this, to relieve the municipalities the Federation has increased the volume of the Municipal Investment Promotion Funds by €3.5 billion to €7 billion in total (cf. Table I, No. 10). With this measure, the Federation is providing financial assistance to the *Länder* for investment by financially weak municipalities in the repair, rebuilding and functional expansion of general and vocational schools between 1 July 2017 and 31 December 2022. In this context, the equipment required for the proper functioning of the

buildings and necessary complementary infrastructure measures, including measures designed to ensure that digital requirements for school buildings are met, are also eligible for funding support.

28. To improve transport infrastructures in the municipalities, the Federation is granting financial assistance to the *Länder* for certain investments under the Municipality Transport Infrastructure Financing Act (*Gemeindeverkehrsfinanzierungsgesetz*). The intention is to increase the funding under the Act to €1 billion annually by 2021, and then make the funding available annually on a dynamic basis for new infrastructure construction and expansion measures.

29. In this legislative term, the priority will be to roll out the restructuring of the financial relationships consistently between the Federation and the *Länder*. This means, for example, deciding on the procedure in the Stability Council to monitor compliance with the debt brake by the Federation and the *Länder* and implementing the reform of the administration of federal trunk roads, and in doing so ensuring the smooth transition of autobahn administration to the Federation.

30. The restructuring of the 100% state-owned consultancy "Partnerschaft Deutschland – Berater der öffentlichen Hand GmbH" provides consultancy services for all levels of government, offering support with the financial planning and implementation of infrastructure projects. The aim is to ensure investments made are more cost-effective and closer to the defined schedule, and to usefully complement public administration capacities. Access to these consultancy services has been simplified particularly for municipalities, and a special consulting programme has been launched to address the capacity and planning bottlenecks the municipalities are facing.

31. Inefficient planning and approval procedures are a major barrier to investment in businesses and new infrastructures. This negatively impacts Germany's competitiveness and economic growth, particularly in the case of small- and medium-sized enterprises. The Federal Government therefore plans to adopt an Act to Accelerate Planning and Construction (*Planungs- und Baubeschleunigungs-gesetz*) in order to create more dynamism in the transport, infrastructure, energy and housing sectors.

Securing sound government finances

32. Germany's goal continues to be that of having a balanced budget without any new borrowing. Ever since 2012, Germany has complied with the medium-term budgetary objective of a national structural deficit below a maximum ceiling of 0.5% of GDP.

In 2017, the total public-sector debt-to-GDP ratio stood at 64.1% of GDP, and was therefore below the 70% mark for the second year in succession. In its projections for the development of public-sector budgets, the Federal Government expects this ratio to continue to drop towards the "Maastricht threshold" of 60% of GDP.

Strengthening investment in Europe

33. Investing in Europe means investing in a bright future for our country. The Federal Government therefore welcomes the decision to extend the lifetime of the European Fund for Strategic Investments (EFSI) through to the end of 2020 and expand it substantially. The increase in the EFSI guarantee to €26 billion and the contribution from the European Investment Bank to €7.5 billion is intended to mobilise investment of up to €500 billion. The focus is on projects which, due to an increased risk, would not find any, or adequate, funding without the EFSI. The Federal Government believes that the funding should focus on projects in the fields of innovation, research and development, and small and medium-sized enterprises. The Federal Government is working to ensure that the investment programme is continued and expanded.

Here, it is important to ensure that there is no direct competition with the funding provided by the European Structural and Investment Funds (ESIF). As the most important investment policy in the EU, cohesion policy promotes smart, sustainable, innovative and inclusive growth and employment throughout Europe and thereby strengthens economic, social and territorial cohesion in the entire European Union. In the 2014 − 2020 programming period, Germany will receive a total of roughly €19.2 billion from two of the ESI funds, namely the European Regional Development Fund (ERDF) and the European Social Fund (ESF). These funds are invested through 15 *Land*-specific ERDF programmes, 15 *Land*-specific ESF programmes and one *Land*-specific multi-fund programme as well as

one federal programme for the ESF. In addition, there are also a number of programmes for the European Territorial Cooperation goal of cohesion policy (cf. Table I, No. 11). In the debate surrounding the form EU cohesion policy is to take after 2020, the Federal Government has coordinated a joint stance with the Länder. The Federation and the Länder are calling for special emphasis to be placed on cohesion policy also in a multi-year financial framework after 2020. In the future, cohesion policy should continue to consider all regions for support, depending on each region's state of structural development and on the region's individual needs. In this context, within the framework of the fund-specific goals cohesion policy should also promote growth and employment and provide better support to necessary structural reforms in the Member States. The rules governing the management of the ESIFs need to be simplified on a broad front.

B. Strengthening private investment and stimulating competition further

34. With a share of around 90% in total investment, private businesses play a central role in actions to increase investment activity in Germany. Germany needs considerable additional investment to meet the challenges presented, for example, by the digital transformation and demographic developments. The Council of the European Union considers an efficient, pro-investment tax system to be an important lever for the promotion of private investment. The Federal Government will continue its path towards a more efficient taxation system and adopt tax relief. Further to this, to improve the policy environment for private-sector investment, the Federal Government will move forward with additional measures to promote business start-ups and reduce bureaucracy.

Making the tax system more investment-friendly

35. Digitalisation opens up new possibilities to make the taxation procedure more efficient, faster and simpler. The Act on the Modernisation of the Taxation Procedure (Gesetz zur Modernisierung des Besteuerungsverfahrens) provides the framework for the necessary modernisation process (cf. Table I, No. 12). This is intended to ensure that taxation is equal and more economic and efficient by making greater use of information technology. Further to this,

the bureaucratic burden is reduced and the appropriateness of administrative action is adapted.

36. The Federal Government is pushing ahead with the implementation of the G20/OECD Action Plan on Base Erosion and Profit Shifting (BEPS). With this, taxation is to occur at the place where the actual corporate activity takes place and the economic value is added. In 2017, in line with the agreements at international level, the Federal Government launched the Act to Combat Harmful Tax Practices relating to the Transfer of Rights (Gesetz gegen schädliche Steuerpraktiken im Zusammenhang mit Rechteüberlassungen). The royalty restrictions introduced under the Act from 2018 onwards prevent multinational companies from shifting profits by paying for licences in countries with special preferential regimes - e.g. patent and licence boxes (cf. Table I, No. 13). Further to this, the Act raised the threshold for immediate depreciation of low-value assets from €410 to €800, and the lower threshold for the formation of a collective item from €150 to €250. This has improved the depreciation rules and reduced the bureaucratic burden on companies.

Since 1 January 2018, the Act to Reform Investment Taxation (*Gesetz zur Reform der Investmentbesteuerung*) has helped to simplify the taxation of investment funds and investors and thereby substantially reduce the risk of harmful tax structuring models and new abusive tax structuring (cf. Table I, No. 14).

37. Furthermore, at the European level the Federal Government is actively engaged in the promotion of a common framework for corporate taxation. The aim is to have a common corporate tax base. To enable progress to be made in this regard, Germany and France are currently devising a common position to develop a Franco-German economic area with a single set of rules. This is also designed to reduce the potential for cross-border tax arrangements.

38. The Federal Government supports the start-up culture in Germany, and to this end is improving the conditions for venture capital. The Federal Government will continue and further refine existing instruments designed to finance the creation and growth of young business enterprises (cf. Chapter III.B). To attract more private-sector capital and institutional investors for investment in start-ups, the Federal Government intends, inter alia, to set up a Tech Growth Fund that complements public-sector financing

mechanisms in the growth phase by providing loans as venture debt. As the European Commission points out in the country report, this area is indeed still underfinanced.

Steps to promote a culture of entrepreneurship also involve a review of tax incentives to mobilise private venture capital. The aim is for private industry, the public sector, Germany's development bank, the *Kreditanstalt für Wiederaufbau (KfW)*, and European financial partners to be involved in this venture capital financing. In addition, the Federal Government also plans to improve the regulatory framework for young businesses by reducing the bureaucratic burden in the first year of the start-up to a minimum, removing barriers to the start-up process and examining changes to insolvency law.

Developing competition and procurement law further, reducing bureaucracy

39. Functioning competition is a central element of Germany's market-based economic system and a main driver of innovation, investment and growth. The Federal Government intends to modernise competition law further with regard to the digitalisation and the globalisation of the business world. Procedures in general competition law, and particularly in the control of abusive practices, are to be speeded up considerably without restricting guarantees afforded under the rule of law. Strengthening the instrument of interim measures can make a particular contribution in this regard. Furthermore, the power of competition authorities is to be refined further so that authorities can put a quick and effective stop to abuse of market power. Better market monitoring can make a particular contribution in this regard.

European and German digital companies should also be able to grow to an internationally competitive size. The Federal Government therefore plans to review whether and to what extent competition law needs to be developed further to this end, and will set up a "Competition Law 4.0" commission to develop key points for appropriate reforms.

40. Following the entry into force of public procurement above the EU thresholds in April 2016, the Federal Government together with the *Länder* has also introduced the new and more flexible provisions of this reform into an Ordinance for Public-sector Purchasing below the Rele-

vant Thresholds (Unterschwellenvergabeordnung) (cf. Table I, No. 15). It covers the vast majority of contracts awarded for receivables and services as most contracts are below the EU thresholds. The Ordinance has already entered into force for the Federation and three Länder. Since the business community has a justified interest in having public procurement rules which are as similar as possible in all of Germany's Länder, the Federal Government will continue to work intensively towards the fastest possible introduction of the Ordinance throughout Germany. The reform of procurement law was explained in detail in the National Reform Programme 2017, also with a view to sustainability aspects of public contracts.

- 41. Businesses convicted of serious white-collar crime should not benefit from public contracts or concessions. In order to provide contracting authorities with information about grounds to exclude companies from bidding - e.g. cases of bribery, failure to pay social security contributions, or violations of competition law - the legislature adopted the Competition Register Act (Wettbewerbsregistergesetz) in the summer of 2017 (cf. Table I, No. 16).
- 42. Reliable data on the procurement activities of the public sector at federal, Länder and municipal level are becoming more and more important for strategic and sustainable planning of requirements and purchasing. The implementation of public-sector investment, e.g. of infrastructure projects, must be rooted in a solid basis of data. For this reason, the Federal Government has for the first time created the basis for the development of comprehensive nationwide procurement statistics as part of the procurement law reform, in the form of the Procurement Statistics Ordinance (Vergabestatistikverordnung). It is being developed in close cooperation with the Federal Statistical Office, which is responsible for managing it.
- 43. The Federal Government is improving the scope of action of private individuals and businesses by reducing unnecessary bureaucracy and improving the way laws are made. The second Act to Reduce Bureaucracy (Bürokratieentlastungsgesetz) which entered into force in 2017 reduces compliance costs for businesses considerably; relief is estimated to be in the region of €135 million and €360 million each year.¹¹ The findings of the special review of the

application of the bureaucracy brake undertaken in October 2017 also reveal that compliance costs for business have dropped by around €1.5 billion a year since the introduction of the bureaucracy brake. Building on this success, the Federal Government is planning to introduce a third Act to Reduce Bureaucracy under which it aims, inter alia, to standardise limits and thresholds in various areas of law, harmonise regulations under trade and tax law, for example, reduce statistical obligations, and ease the bureaucratic burden on businesses in the start-up and transition phase. Further to this, as part of the digitalisation of public administration, the Federal Government intends to enable easy, secure and also mobile access to all administrative services in a digital government portal for private citizens and for businesses, as set down in the Online Access Act (Onlinezugangsgesetz) (cf. Item 103).

Action to further stimulate competition in the services sector

- 44. In the services sector too, the Federal Government is committed to strengthening competition and leveraging liberalisation potential in the services market for more growth and employment. In this context, Germany is also taking account of the country-specific recommendations of the Council of the European Union.
- 45. In order to strengthen the European internal market for services, the European Commission published proposals for an EU services package in January 2017. In the debate on the draft proposals so far, the Federal Government has actively argued in the Council for unbureaucratic and practical solutions in the interest of the internal market, and will remain actively engaged in the further course of proceedings.

As part of the services package, the European Commission issued a communication in January 2017 on reform recommendations for regulation in professional services in which Germany received recommendations for six of the seven groups of professions analysed. The Federal Government is taking the recommendations as an opportunity to again examine the regulations in professional services addressed in the communication (cf. Table I, No. 17).

In the case of the tax adviser profession, the reserves of activities ensure the high quality of tax advice and effective administration of tax law. The transparency and legal certainty in the provision of tax advisory services by businesses established in other Member States as demanded by the European Commission have been addressed by the amended Act to Combat Tax Avoidance (Steuerumgehungsbekämpfungsgesetz) of 23 June 2017. In the view of the Federal Government, however, the shareholding requirement must be maintained, as it guarantees the independence of tax advisers. Germany's Federal Fiscal Court already ruled in 2012 that the shareholding requirement is compatible with the principle of the freedom of establishment and the free movement of capital under Union law.

With regard to lawyers and patent attorneys, a law entered into force in May 2017 which implements the European Directive on the recognition of professional qualifications with regard to the cross-border provision of services by patent attorneys. Furthermore, the Federal Government and parliament will decide on the implementation of reform recommendations in this area in this legislative term.

In 2017, there were discussions at the political level on whether to regulate the real estate agent profession by introducing a certificate of competence as a requirement to be issued a licence. However, Germany complied with the recommendations of the European Commission and passed a law in July 2017 that only introduced a requirement for regular professional development. As Germany decided not to introduce the certificate of competence as originally planned, the real estate agent profession continues to be unregulated in Germany.

Law governing the skilled trades sector was modernised with the second Act to Reduce Bureaucracy, thereby cutting red tape in this sector. To move forward with digitalisation in the skilled trades sector, the Chambers of Crafts can now publish their announcements in digital media and incorporate electronic data in the register of craft businesses. Further to this, the procedure for recognising professional qualifications acquired abroad has been adapted and foundations laid for the introduction of the European professional card.

46. Not least the measures cited demonstrate that the Federal Government is taking the review of professional

regulations seriously and is committed to modernising and modifying inappropriate or disproportionate regulations. Further to this, the Federal Government is examining additional steps in order to relax professional practice rules and to better balance rules to safeguard the quality of services and consumer protection.

47. The Federal Government is also mindful of the fact that the European Commission opened an infringement procedure against Germany on 18 June 2015 over the binding minimum fees set by the fee scale ordinance for tax advisers and the statutory fee schedule for architects and engineers (cf. Table I, No. 18). The infringement procedure no longer concerns the fee scale ordinance for tax advisers as the rules governing this area have since been appropriately modified. However, with regard to the statutory fee schedule for architects and engineers, which already only applies to domestic service providers, the European Commission has referred the case to the European Court of Justice (ECJ). Germany must assess the potential benefits of modifying the regulation and in doing so weigh up the impact on economic activity, productivity and consumer prices against consumer protection and the quality of services. In light of this, the Federal Government is defending its position, most recently in the rejoinder to the European Commission of 8 December 2017.

C. Increasing incentives for labour force participation

Strengthening incentives to work for second earners

48. The positive development in employment numbers is continuing. Last year, a record 44.3 million people, approximately, were in gainful employment in Germany. In particular, the number of people in jobs subject to compulsory social security also reached a new high in June 2017, at around 32.2 million. The annualised unemployment rate according to the national definition in the Social Code stood at 5.7%, the lowest rate since German reunification. According to the definition of the International Labour Organisation (ILO), 3.8% of the working population aged 15-74 was unemployed in Germany on average in 2017. The Czech Republic was the only country in the European Union with a lower unemployment rate, at 2.9%.

The positive growth and employment trend in Germany has also significantly improved the labour force participation of women, who are often the second earners in two-income households. The employment rate of women aged 20-64 has risen continuously from less than 60% before the turn of the millennium to 74.5% in 2016, and is therefore more than nine percentage points above the EU average of 65.3%. Germany has also seen dynamic growth in the number of employment relationships with compulsory social security payments, particularly in recent years. Furthermore, there has been a slight drop overall in the share of non-standard employment in dependent employment. In addition, development in the labour volume has shown a positive trend and rose further in 2017. The rise in the average hours of work of people in part-time employment also contributed to this increase.

The improvement in conditions for reconciling work and family commitments and new measures in the area of taxation (cf. Item 67) play a significant role in this development.

The taxation measures to further strengthen incentives to work for second earners include the ability to change more easily from the III/V tax bracket combination to the IV/IV tax bracket combination from 1 January 2018 onwards. This is now also possible at the request of just one spouse. In addition, once married, both spouses are, by default, automatically put into tax bracket IV, irrespective of what either party contributes to the household income. The additional option of the factor-based method (Faktorverfahren) has the effect of sharing relief more accurately between both earners and can therefore support efforts to increase the labour supply. With effect from 1 January 2019, the factor can be set, on request, for two years instead of just for one year (cf. Table I, No. 19). The fair distribution of the tax burden among spouses continues to be the goal of the Federal Government. Therefore, married couples will be better informed about the factor-based method in the future in order to increase acceptance for it.

49. An important focus of labour and family policy is to ensure that employees do not have to remain in part-time employment involuntarily. Therefore, the Federal Government intends to introduce a right to limited part-time employment, which is to take the following form: The new right to part-time only applies in businesses generally employing more than 45 workers in total, and provided there are no business or operational reasons to the con-

trary. For businesses employing between 46 and 200 workers, a limit on what is acceptable for the employer is introduced, with the result that the right must only be granted to one worker per every 15 workers or less. The first 45 workers are also included in this calculation. The employer can deny a request if this limit is exceeded. Employers can deny the new entitlement to limited part-time if the period requested is for less than one year or for more than five. Parties to collective bargaining agreements have the right to agree different rules. During the time-limited period of part-time employment, workers do not have the right to extend or shorten their work time or to return earlier to their previous work time arrangement. Once the time-limited period of part-time employment has elapsed, under the terms of the Act on Part-Time and Fixed-Term Employment (Teilzeit- und Befristungsgesetz) employees can only request a new reduction in working hours after one year at the earliest.

Reducing non-standard employment – facilitating the transition to standard employment relationships

50. Employment requiring compulsory social security contributions increased from roughly 28 million to around 32.2 million in the period from 2010 to 2017. This translates to an increase of 15%. The same period saw an increase in the number of people in mini-jobs, i.e. marginal employment, rising from 7 million in 2010 to 7.5 million in 2017. The moderate increase was solely among mini-jobs taken as an additional job on the side (from 2.02 million to 2.7 million, which equates to an increase of 33.2%). Against this trend, however, the number of workers exclusively in marginal employment (i.e. the mini-job is their only source of employment) dropped by 5.5% in the same period.

51. The transition from marginal employment to employment subject to compulsory social security is only of interest to a small percentage of individuals holding a mini-job. Owing to other commitments, a substantial proportion of people exclusively in marginal employment are either unwilling or unable to increase their working hours beyond those of a marginal employment relationship. This is particularly true for people who have a mini-job on the side in addition to a job subject to compulsory social security, but is also true for school-goers, students and pensioners. In particular, the role of pensioners among people who work exclusively in mini-jobs has increased significantly in

recent years. While the percentage of workers over 65 stood at 16.9% in June 2014, it had risen to 20.2% in June 2017. This equates to an increase of 3.3 percentage points. In contrast, there was a disproportionate decline in the number of people aged 25-54 (inclusive) working exclusively in a mini-job during the same period, falling from 43.1% to 38.0%, a drop of 5.1 percentage points. Around 380,000 people in marginal employment claim benefits under Book II of the Social Code (known as supplement-benefit recipients), (cf. Chapter III. E, Item 139). The tax and contribution burden above €450 is of minor significance for this group of persons. Their supply of labour and therefore the transition to standard employment is also influenced by how this would be deducted from government benefits that secure a livelihood under Book II of the Social Code.

52. On an annual average in 2016, around 920,000 people in employment subject to compulsory social security payments were working in the temporary employment sector. This is equivalent to around 2.9% of all workers in jobs subject to compulsory social security contributions. The significance of temporary employment in the German labour market is therefore still relatively limited. Nevertheless, temporary employment is an important instrument that gives businesses the flexibility they need to be competitive on dynamic markets. The Act Amending the Temporary Employment Act (Gesetz zur Änderung der Arbeitnehmerüberlassung), which entered into force on 1 April 2017, is designed to focus temporary agency work on its core function and prevent the abusive deployment of contracts for work and services. For example, a maximum period of 18 months for temporary employment has been set down by law and legal provisions on equal pay apply after nine months at the latest. An evaluation of the Temporary Employment Act is due to be conducted in 2020, which will also include the amendments to the Act. In terms of contracts for work and services, the Federal Government has, for the first time, legally defined when an employment contract applies with Section 611a of the German Civil Code. This provides more legal certainty in the distinction between employed and self-employed activities (cf. Table I, No. 20).

53. The Federal Government wishes to tackle the abuse of fixed-term contracts of employment. In this context, businesses employing more than 75 people should only be permitted to offer fixed-term employment without objective reason to a maximum of 2.5% of the staff. If this limit

is exceeded, all additional fixed-term employment contracts without objective reason are to be deemed unlimited contracts of employment. Furthermore, it should only be permissible to offer fixed-term employment contracts without objective reason for a period of 18 months, instead of 24 months as currently the case. In addition, businesses should only be able to renew the contract once, instead of three times, within this 18 month period.

54. The Federal Government wishes to limit successive fixed-term contracts of employment. Therefore, it should not be permissible to conclude a fixed-term contract if the worker previously had an unlimited contract, or one or more fixed-term employment contracts with a total duration of five years or more, with the same employer. The maximum period of five years is also to include one or more previous periods during which the employee now on a fixed-term contract was lent to the employer by one or more temporary employment agencies. Furthermore, a new fixed-term employment contract with the same employer should be possible only after a three-year waiting period.

Reducing the tax and contribution burden for low-wage earners

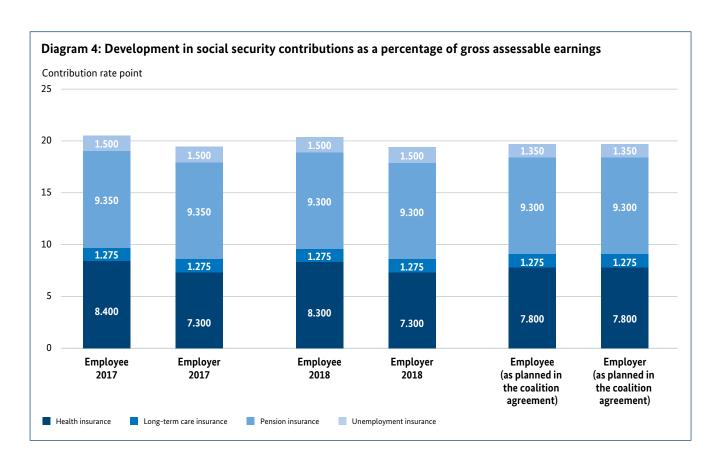
55. The Federal Government has taken additional steps for 2017 and 2018 to increase the basic personal allowance and the child allowance and child benefit, and to offset the effects of fiscal drag. These steps introduced additional relief amounting to over €6 billion in total, almost €4 billion of which is for the new measures in 2018 (cf. Table I, No. 21). The new Federal Government will continue to pursue the policy of tax and contribution relief that promotes growth and employment. This year, the Federal Government will present reports on the effect of fiscal drag and on the subsistence level which should be made tax-free, and will work to adjust the income tax rate accordingly. To further relieve the burden particularly on families with children, the Federal Government intends to increase child benefit further in two phases, with the plan to raise it by €10 per child and month with effect from 1 July 2019 and by a further €15 per child and month from 1 January 2021 onwards. The child allowance under tax law will be adjusted accordingly. The measures contribute to a further improvement in work incentives and purchasing power and thereby help boost potential growth and domestic

demand. These measures will especially benefit low- and middle-income tax-payers, as these income groups are particularly affected by the effects of fiscal drag and, in relative terms, low-wage earners profit the most from increases in the basic personal allowance.

56. To provide further relief to low- and middle-income earners, the Federal Government intends to relieve the burden of the solidarity surcharge on these income groups. The solidarity surcharge is to be gradually phased out, starting with a significant step worth €10 billion from 2021 onwards. Consequently, around 90% of all payers of the solidarity surcharge will receive total relief as a result of the exemption threshold (with linear progression). Furthermore, there are also plans to relieve the social contribution burden on low-wage earners (expansion of rules for midijobs). In this context, lower pension insurance contributions must not result in lower pension payments in old age. These measures could increase incentives to take up parttime employment subject to compulsory social security contributions.

57. The contribution rate to the statutory pension insurance system dropped by 0.1 percentage points to 18.6% with effect from 1 January 2018. Also, the arithmetical average additional contribution rate of the statutory health insurance funds fell to 1.08% on 1 January 2018 (cf. Table I, No. 22). Together with the relief indicated in Item 55, these measures generate labour-related relief of around 0.2% of GDP.

58. Further to this, the Federal Government plans to roll out additional relief with regard to social contributions (cf. Diagram 4). The contribution to unemployment insurance is to drop by 0.3 percentage points. Calls for a reduced contribution burden in the area of social security must consider that social security contributions on the one hand are set against corresponding benefits of the social protection systems – some of which are equivalent to the contributions paid – on the other (principle of equivalence), and the result would be lower benefit entitlements particularly for low-wage earners.



59. In the interest of employees and employers, the Federal Government seeks to keep social security contributions stable at under 40% of income liable to social security contributions. In addition, it wants to reduce the minimum health insurance contributions for self-employed persons on a low income and return to the equal financing of health insurance contributions by employers and employees. Starting on 1 January 2019, the additional contribution is to be equally funded so that contributions to the statutory health insurance system are borne equally again by employers and employees.

Promoting higher real wage growth with due respect for the role of the social partners

60. The influence of economic policy on the level of real wages is limited, particularly given that the principle of free collective bargaining is enshrined in the German Constitution. That said, policy-makers can change the framework for the work of the parties to collective bargaining, as seen in the previous legislative term with the introduction of a number of measures designed to strengthen the bargaining partners (for example, cf. Table II, No. 12 and Table II, No. 94). Further to this, the introduction of the national minimum wage was an important step by the Federal Government to strengthen wage growth in the sections of the labour market not covered by collective wage agreements. Real wages have grown at a stronger pace overall in recent years. In its spring projection, the Federal Government expects nominal wages per employee to increase by 2.9% in 2018.

III. Europe 2020 headline targets: progress to date and measures

61. Germany is committed to the five headline targets of the Europe 2020 strategy for smart, sustainable and inclusive growth in Europe and believes it to be both prudent and necessary to maintain a clear focus on sustainable growth and employment also beyond the horizon of the Europe 2020 strategy. Overview 4 provides a summary of progress made towards achieving the additional ambitious quantitative goals which the Federation and the *Länder* have set in the context of the Europe 2020 strategy. At the EU level, the Federal Government also supports a strategic framework to implement the goals of Agenda 2030 in the relevant policy fields under EU jurisdiction.

62. The European Structural and Investment Funds (ESIFs) make a key contribution to the implementation of the Europe 2020 strategy in Germany, particularly at the *Länder* level (cf. many of the measures funded by the individual *Länder* in Table II). An efficient and simplified cohesion policy is a particularly useful tool especially for improving research and innovation conditions, strengthening the competitiveness of small and medium-sized enterprises, promoting employment and employability as well as climate action and environmental protection as the basis for a strong, resource-efficient economy, as it makes it possible to also take account of regional and local specificities.

63. Germany has continued to make progress in almost all areas compared with the previous year, and has already reached several of the goals set out. The employment rates both of 20-64 year-olds and of older workers and women increased further in 2016 and most probably also in 2017, and continue to exceed the agreed targets. Progress has also been made in combating long-term unemployment. Germany has also far exceeded the national target set here. The proportion of 30-34 year-olds with a tertiary or equivalent education was well above the set target. Despite this positive interim result, particularly with regard to gainful employment, additional efforts in all areas are both advisable and necessary.

64. Individual quantitative indicators can, of course, only give a partial insight into progress made in a policy field. For a full analysis of a policy field, a wide number of quantitative and, in particular, qualitative factors would need to be considered. This report on progress towards attaining the quantitative goals cannot, therefore, claim to give an exhaustive account of the development in individual policy areas. It does, however, provide important information on the development of key indicators in these policy fields.

65. A Social Scoreboard was used for the first time in the 2018 European Semester to identify need for action in labour market and social policy. The Scoreboard was introduced by the European Commission to track social trends and progress in the EU under the European Pillar of Social Rights (EPSR). The Federal Government shares the assessment indicated by the Scoreboard that, by comparison, Germany's performance on social issues is better than average on the whole. The European benchmarking system confirms the already identified need for action to address the relatively low number of weekly working hours of female workers (particularly of mothers) and the gender pay gap. The Federal Government will remain committed to further improving the conditions for people, particularly women, to take up employment and/or increase their working hours. The further expansion of childcare facilities planned for the coming years, the legal entitlement, planned for 2025, to all-day care for children of primary school age and the legal entitlement to part-time work for a limited period with the right to return to previous work time arrangements (cf. Chapter III. A and III. D) will also contribute to achieving this goal. To further promote incentives to work for second earners, the Federal Government aims to further improve the provision of information about the factor-based method and increase acceptance for it (cf. Chapter II.C). In addition, the Federal Government is taking further action to close the pay gap (cf. Chapter III.A). The Pay Transparency Act (Entgelttransparenzgesetz), which entered into force mid-2017, will be evaluated next year. The Federal Government continues to have reservations about the inclusion of health services and long-term care in the European Semester and rejects the inclusion of the Social Scoreboard for the implementation of the EPSR in the European Semester for the area of health and longterm care.

A. Fostering employment

66. Overall, the labour market is in the best shape it has ever been since reunification. Currently, all the national employment goals of the Europe 2020 strategy are well above target (cf. Overview 4). In 2017, gainful activity and employment subject to compulsory social security contributions again rose significantly in year-on-year terms, whilst unemployment and long-term unemployment both declined further: the employment rate of 20-64 year-olds continued to rise to 79.8% (Q4 2017) and was therefore well above the target of 75%. The employment rate for older

Overview 4: Quantitative goals defined under the Europe 2020 strategy and current progress towards goals

Europe 2020 headline targets	EU-wide indicators	National indicators (if different)	Status of quantitative indicators
1. Foster employment	 Employment rate of 75% for people aged 20-64 Greater participation of young people, older workers, low-skilled workers and migrants 	 Employment rate of 77% for people aged 20-64 Employment rate of 60% for older people aged between 55 and 64 Employment rate of 73% for women 	 Employment rate of 79.2% (2017) or 79.8% (Q4 2017) for people aged 20-64 Employment rate of 70.1% (2017) or 71.1% (Q4 2017) for older people aged between 55 and 64 Employment rate of 75.2% (2017) or 75.8% (Q4 2017) for women
2. Improve the conditions for innovation, research and development (R&D)	R&D expenditure of 3% of GDPImprove the conditions for R&D	► R&D expenditure: 3% of GDP (two-thirds from the private sector and one third from the public sector)	▶ R&D expenditure: 2.93% of GDP (2016), approx. two-thirds from the private sector and approx. one third from the public sector
3. Reduce green- house gas emis- sions and increase energy efficiency and energy from renewables	By 2020: ▶ Reduce greenhouse gas emissions by 20% (or 30%¹² if applicable) compared with 1990 levels ▶ Increase the share of renewables in gross final energy consumption to 20% ▶ Increase energy efficiency by 20% in relation to forecast development	 ▶ Reduce greenhouse gas emissions by at least 40% by 2020 compared with 1990 levels and by 80-95% by 2050, or largely establish green-house gas neutrality by 2050 ▶ Increase the share of renewables in gross final electricity consumption to 18% by 2020, to 60% by 2050 and to 80% in the electricity sector ▶ National energy efficiency goals under the Federal Government's Energy Concept of 28 September 2010: reduce primary energy consumption by 20% by 2020, and by 50% by 2050 compared with 2008 levels¹³ 	 ▶ Greenhouse gas emissions: reduced by 27.3% (2016) compared with 1990 ▶ Share of renewables: 14.8% in gross final energy consumption (2016; provisional data) 31.6% in gross electricity consumption (2016; provisional data); the figures indicated in other publications may differ slightly due to the different methodologies applied¹4 ▶ Primary energy consumption: in 2016 6.5% lower than in 2008 (preliminary data)¹5
4. Improve education levels	 Improve education levels, in particular reduce the proportion of early school leavers and people leaving vocational training to below 10% Increase the percentage of 30-34 year-olds with a tertiary or equivalent education to at least 40% 	► Increase the percentage of 30-34 year-olds with a tertiary or equivalent education to 42%	 Proportion of early school leavers and people leaving vocational¹⁶ training in 2016: 10.2% Percentage of 30-34 year-olds with a tertiary or equivalent education: 47.9% (2016)¹⁷
5. Promote social inclusion in particular by reducing poverty	Lift at least 20 million people out of the risk of poverty or exclusion	▶ Reduce the number of long-term unemployed by 20% by 2020 compared with 2008 levels	► Reduction of 58% in the number of long-term unemployed between 2008 and 2017 (comparison of annual averages)

¹² Conditional offer by the EU to achieve a 30% reduction by 2020 compared with 1990 levels if other industrialised countries commit to similar emissions reductions and developing countries make a contribution reflecting their responsibilities and individual abilities.

With regard to the indicative national energy efficiency goal under Article 3 of European Directive 2012/27/EU, reference is made to the communication to the European Commission of 11 June 2013.

The value of 32.6% reported for 2015 in the NRP 2016 has been corrected to 31.3%/31.6%. On the basis of this corrected value there has been an improvement between 2015 and 2016.

The value of -9.1% reported for 2014 in the NRP 2016 has been corrected to -8.8%. The increase in primary energy consumption in 2016 is due to weather conditions and economic effects.

¹⁶ Early school-leavers are 18-24 year-olds who, at the very maximum, have successfully completed lower secondary education (Hauptschule or Realschule), but who have not gone on to earn a further qualification and who are currently not in education.

⁷ Individuals with qualifications equivalent to ISCED level 4 to 8 according to ISCED 2011 are considered when evaluating the status of this indicator. According to the Council Presidency conclusions on education targets in the Europe 2020 strategy at the 3013th EDUCATION, YOUTH AND CULTURE Council meeting of 11 May 2010, Member States may, in justified cases, include ISCED level 4 into their definition of their national target.

workers (aged between 55 and 64) climbed to 71.1% (Q4 2017) and that for women to 75.8% (Q4 2017), (cf. Item 48).

Strengthening the framework for labour participation

67. A good policy framework for balancing family life and work commitments makes a key contribution towards activating the potential skills pool and towards positive economic development. Since the introduction of the parental allowance, parental allowance plus and the partnership bonus and with the expansion of day-care facilities for children, the participation rate of mothers has increased further. The Federal Government intends to make €3.5 billion available by 2021 to improve the day-care situation for children in kindergarten, with the funds to be used to expand the provision of child day-care services, improve quality, and relieve the fee burden on parents. The Federation provided more than €6 billion in the last legislative term alone to support the Länder and municipalities in increasing the quantity and quality of child-care, and in running and improve childcare services, and via federal language teaching programmes. Most recently, from 2017 the funding for language skills development was boosted by €150 million and a new investment programme to fund childcare was set up for the 2017 – 2020 period, with a budget of €226 million in its first year (cf. Table II, No. 1). A variety of programmes have also been launched by the Länder to increase the rate of female labour market participation (cf. Table II, No. 2).

Digitalisation can generate opportunities to improve the compatibility of family life and work via greater flexibility in terms of time and place of work. Almost all parents with children aged under 18 taking advantage of home office options say that they do well at combining the two areas of life. By contrast, only one third of parents who do not have mobile working arrangements say the same. Overall, 30% of parents can imagine using such forms of work. However, only 6% of these parents currently have the option of working from home. With the "Success Factor Family" corporate programme, the Federal Government is working to achieve a family-friendly working environment which takes advantages of the opportunities of digitalisation for a better work-life balance.

With the new digital information tool for family services and benefits (www.infotool-familie.de), by simply entering a few items of information (expectant) parents and fam-

ilies can discover what family benefits and other support services (where applicable) they would be entitled to, and the conditions under which they can apply for them. This makes it easier to search for relevant information and saves time.

68. In the debate surrounding labour law, the social partners are particularly interested in greater flexibility for employers and greater control for employees. To this end, the Federal Government wants to leverage the opportunities afforded by digitalisation and create a legal framework for mobile working arrangements. This also includes the right of workers to information on the possible grounds for refusal and legal certainty for employees with regard to the use of company technology for private purposes. The parties to collective bargaining are also to reach agreement on tele-working. Furthermore, a collective agreement optionality clause is to be included in the Working Time Act (Arbeitszeitgesetz) which will open scope for businesses subject to collective wage agreements to experiment with more self-determined working hours for employees and more flexibility for businesses. On the basis of collective agreements, the weekly maximum number of working hours, in particular, can then be distributed more flexibly throughout the week by means of an agreement between the works committee and management.

69. Following the legal right to all-day care in early childhood, the Federal Government also intends to establish a legal entitlement to all-day care for children of primary school age. The priority here is to focus on flexibility, follow a needs-based approach and factor in the wide variety of care facilities already offered in the *Länder* and municipalities by child and youth welfare services and school day-care programmes. By now, more than every second school in Germany provides all-day services, serving over a third of all pupils. The particular challenges of all-day schooling are already established as part of the teacher-training curriculum at third-level institutions and in initial and continuing training programmes.

70. The Federal Government will support workers and businesses in creating more flexible working arrangements. A right to part-time work for a limited period, which can be exercised under specific circumstances, is being introduced in the Act on Part-Time and Fixed-Term Employment (cf. Chapter II.C). In the future, it should be easier to reconcile having a family with starting a new business. To make it easier to start a business from a position of employment,

the Federal Government intends to examine the introduction of "start-up leave", along the lines of family care leave. The Federal Government seeks to increase the number of women starting their own business. To this end, the aim is to develop support measures further and strengthen the example set by successful business women and female entrepreneurs.

71. With their experience and potential, older employees are indispensable for the world of work. The Act to Flexibilise the Transition from Working Life to Retirement and to Strengthen Prevention and Rehabilitation in Working Life (Gesetz zur Flexibilisierung des Übergangs vom Erwerbsleben in den Ruhestand und zur Stärkung von Prävention und Rehabilitation im Erwerbsleben), also known as the "Flexi-Pension Act", has created even better possibilities in Germany to shape the transition from working life to retirement in a flexible and self-determined manner which meets the individual plans of the employees. Also, this Act has put various measures in place to strengthen the benefits provided by pension insurance funds to the beneficiaries in terms of preventative action on health, rehabilitation and follow-up care. These will help to extend the period in which the beneficiaries are able to work in old age (cf. Table II, No. 3).

Developing a new Skilled Labour Strategy

72. One consequence of the ongoing strength of the German economy and the German labour market is high demand for skilled workers. It is becoming increasingly difficult for employers in many sectors and regions to fill the vacancies in their companies. While Germany is not currently facing an acute nationwide shortage of labour according to the findings of the skills shortage analysis conducted by the Federal Employment Agency, labour bottlenecks are apparent in certain regions and industries and with regard to certain skills and qualifications. According to a business survey conducted by the Association of German Chambers of Commerce and Industry (DIHK) in spring 2018, 60% of the roughly 26,000 businesses asked indicated the shortage of skilled workers as their biggest business risk. In December 2017, around 764,000 vacancies were reported to the Federal Employment Agency, 13.3% more than in December 2016. Alongside the efforts to boost the labour participation rate, investment in initial and continuing training plays a crucial role in securing the supply of skilled labour. Some regions are facing particular

challenges in view of shrinking school year groups, high proportions of school leavers without a qualification, and people leaving the education system.

73. To address the skills shortages in Germany, the Federal Government will develop a three-pillar Skilled Labour Strategy directed at tapping domestic potential, European potential and international potential. Working together with the business sector, the aim is to develop and implement measures to curb and prevent skills shortage in line with market needs. From a domestic perspective, this primarily involves upskilling low-skilled workers, improving the conditions for older workers and strengthening support measures to utilise the professional potential of immigrants. Furthermore, through skills development and continuing training the Federal Government also seeks to give the long-term unemployed and individuals who did not complete their education the tools to better opportunities in the labour market.

In light of demographic developments and the challenges posed by digitalisation, life-long learning is becoming an increasingly important topic. However, domestic potential alone is not enough to effectively address shortages in the recruitment of skilled labour in Germany. Germany must become more attractive for international skilled professionals. A planned Skilled Labour Immigration Act (Fachkräfteeinwanderungsgesetz), which is aligned with the needs of our economy, is to bring together the rules already in place in Germany and make them more efficient, where necessary, in order to put Germany in an even better position in the global competition for international talent and thereby boost the immigration of highly skilled professionals also from non-EU countries. In addition to the needs of our economy, qualifications, age, language and proof of work and the ability to secure a livelihood are key factors to consider with regard to the immigration of international skilled professionals. Within this context, skilled professionals are understood to be both university graduates and immigrants with qualified vocational training or a high level of expertise in a profession.

Apart from a transparent Skilled Labour Immigration Act, the further refinement of accompanying measures, such as on-the-ground support for people interested in working in Germany, assistance in integrating into Germany, and stronger immigration marketing that builds on the official "Make it in Germany" information portal, could also be prove useful to make Germany even more attractive as a

workplace for skilled professionals. In the global battle for international talent, Germany has been using this portal since 2012 to compete with traditional countries of immigration like Canada, Sweden or New Zealand. The portal provides information on living and working in Germany and enables people to apply directly to vacant positions through a job advertisement service. For example, the pilot project "Training Young Vietnamese as Nursing Staff in Germany" (2016 – 2019) identifies new ways for the nursing sector to attract skilled workers from abroad. The *Länder* have also launched a large number of initiatives to recruit skilled workers (cf. Table II, No. 4).

74. Vocational training is to be strengthened further, a measure which also involves ensuring vocational schools are appropriately equipped to address the requirements of an increasingly digital working world. Oriented towards the needs of the business sector, the Federal Government will strengthen cooperation between businesses and vocational schools – the two places of learning in the system of dual education and training – and will support knowledge transfer.

75. In the Alliance for Initial and Further Training, the Federal Government and its partners have already agreed to strengthen the dual system of vocational training in Germany and to promote the recognition of vocational training as being equivalent to academic training (cf. Table II, No. 5). The instrument of Assisted Training initiated by the Alliance aims to give support before and during training to lower-achieving young people and the companies giving them training.

76. Germany is to significantly boost the attractiveness of vocational training – particularly vocational training leading to higher qualifications – in order to safeguard the availability of a new generation of skilled workers and managers. With the planned fourth amendment to the Upgrading Training Assistance Act (Aufstiegsfortbildungss förderungsgesetz), the Federal Government seeks to encourage even more people interested in further training to take advanced courses in their professional field. To this end, benefits are to be significantly improved again and the programmes made more family-friendly. With funding opportunities extended to up to three levels of further training, this also aims to encourage individuals to pursue a career based on vocational training.

77. The digital transformation and demographic change will result in very rapid changes both to demand for labour and to the supply of labour. This means that a major challenge will be to keep adapting the skills and qualifications of the workforce to the constantly changing demand. Education for the digital transformation will become a prerequisite for individual success on the labour market and for business competitiveness. Under the "Educational Campaign for the Digital Knowledge Society" strategy, support is being given to the Länder for the teaching of digital skills (cf. Table II, No. 6). The Federal Government's "Campaign to Improve the Quality of Teacher Training" also focuses on the potential of digital media in teaching and learning (cf. Table II, No. 7). With the "Digital Higher Education" research priority, the Federal Government supports the development of digital teaching and learning formats at higher education institutions (cf. Table II, No. 8). Further to this, the "Digital Media in Vocational Training" programme aims to promote and disseminate the use of digital media in vocational initial and further training. In order to orient dual vocational training to the needs of a digital economy, the training regulations are regularly examined with the help of the social partners in terms of their response to new technologies. The Federal Government has taken a range of further measures to tackle this challenge under the umbrella of the "Vocational Training 4.0" initiative (cf. Table II, Nos. 9 and 10).

78. The recognition of professional qualifications acquired abroad is an important lever for the immigration and integration of skilled professionals. An evaluation of the "Recognition Act" (*Anerkennungsgesetz*) in 2017 verifies the positive impact it has on the labour market (cf. Table II, No. 11).

In the interest of a fair labour market

79. To ensure a fair labour market, the Federal Government also rolled out a raft of additional regulations following the introduction of the minimum wage, such as amendments to the Temporary Employment Act (cf. Item 52). According to initial analyses, the introduction of the statutory minimum wage of €8.50 on 1 January 2015 also played a role in reducing the number of mini-jobs as an exclusive source of employment. The statutory minimum wage was increased to €8.84 on 1 January 2017. To identify the impact the

introduction of the statutory minimum wage has on the labour market, the Minimum Wage Act (Mindestlohngesetz) includes provisions for a comprehensive evaluation of the minimum wage in 2020. Further to this, the Act to Promote Transparency on Remuneration Structures (Gesetz zur Förderung der Transparenz von Entgeltstrukturen) is intended to make wage disparities between women and men visible and, in doing so, to improve the enforcement of the principle of "equal pay for equal or equivalent work" in practice (cf. Table II, No. 12). A first evaluation of the implementation of the Act is set to be presented by the Federal Government in July 2019. With regard to the promotion of equal opportunities for women and men, the Act for the Equal Participation of Men and Women in Executive Positions in the Private Sector and in Public Service (Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern in der Privatwirtschaft und im öffentlichen Dienst) is already having an impact. The proportion of women on supervisory boards of companies which are covered by the fixed quota specified in the Act rose from 25.0% to 27.3% in the 2015 financial year. In companies not subject to the fixed quota, the proportion of women on supervisory boards rose from 19.5% to 21.2%. The goal is to have women make up 30% of the supervisory boards of companies listed on the stock exchange and subject to full co-determination by 2030 (cf. Table II, No. 13).

80. Gender equality is a prerequisite and driver of sustainable development and central to the future viability of our society. Despite the progress made, women are still under-represented in executive positions. The Federal Government wants to improve the effectiveness of the Act for more women in executive positions introduced in the previous legislative term by expanding the penalties for non-compliance with the obligation to report on targets set for management boards and executive levels and by introducing an obligation in the future to state the reason(s) if the target indicated is "zero". In future, a penalty will apply if companies fail to provide a reason. Public service serves as a role model for gender equality. The Federal Government will therefore strive to ensure the equal participation of men and women in management positions in public service by 2025. The *Länder* have also launched initiatives to ensure greater pay equity and support women's career paths (cf. Table II, Nos. 14 and 15). Structural imbalances of women on the labour market, which are a significant driver of the pay gap, are to be specifically addressed and reduced.

81. The Federal Government also intends to remove financial barriers to training in nursing and social service professions. Furthermore, it also seeks to create the framework for a training allowance. Provisions are already in place for an adequate training allowance for the nursing and caring professions that are regulated under federal law. This is also reinforced in the Nursing Professions Act (*Pflegeberufegesetz*) for the new general nursing training programme which was adopted in 2017 and will enter into force in 2020. In addition to improving the quality of the training programme, the Act also ensures that training is free for programme participants (cf. Table II, No. 16).

B. Improving the conditions for innovation, research and development

82. With significant increases in spending on research and development in 2016, the Federation and the *Länder* continued to contribute towards the Europe 2020 goal of R&D expenditure of 3% of GDP. The share of spending on research and development in 2016 amounted to 2.93% of GDP, with the private sector contributing around two-thirds of all R&D spending, and the Federation, the *Länder* and private non-profit institutions accounting for around one third. To ensure that Germany remains a country of innovation, the Federal Government has set a target of investing 3.5% of GDP in research and development by 2025. In order to gradually reach this goal, the Federation intends to make up to €2 billion available in this legislative term.

The Federal Government's Research and Innovation Strategy

83. The Federal Government packages and coordinates its research and innovation activities in its High-tech Strategy, and will take many measures to boost research and development through this Strategy in 2018 also. The Federal Government will continue to develop the High-tech Strategy as an interministerial research and innovation strategy, align it to the major challenges facing our society – digitalisation, health, climate and energy, mobility, security, social innovations and the future of work – and help tackle these issues. To this end, expertise in forward-looking technologies will be developed, the initial and continuing

training of skilled workers modernised and the perspective of the user/public will be included from the very outset. The new Research and Innovation Strategy aims to help establish an open culture of innovation in Germany that provides space for creative ideas and goes beyond the funding and support of technical innovations. Not least, Germany will step up European and international collaboration in research and innovation. With its new Research and Innovation Strategy, the Federal Government will also strengthen the transfer of findings as a central pillar of Germany's research and innovation system on a lasting basis and achieve substantial improvements as a result. New tools for the funding of breakthrough innovations will be created in this context. Furthermore, the Federation will focus its direct research funding more on the transfer of knowledge and technology to business (cf. Table II, Nos. 17, 18 and 19). This is also designed to strengthen the start-up culture in Germany and support SMEs on their path to becoming modern, digital-based businesses. In this context, an important guiding principle of German research policy is that research funding is open to all technologies. The High-tech Forum, an independent body of representatives of science, business and society which advises the Federal Government on research and innovation matters, has also recommended the continuation of the High-tech Strategy.

Promotion of research and innovation by the Federation and the *Länder*

84. The Federation and the *Länder* are together making substantial funding available in this legislative term for research at universities and non-university research centres. In addition to the Excellence Strategy and the Pact for Research and Innovation, funding is also provided for a large number of specifically tailored funding programmes (cf. Table II, Nos. 20, 21 and 22). Within this context, basic funding for third-level institutions is guaranteed by the *Länder*.

85. With the Excellence Strategy adopted in June 2016, the Federation and the *Länder* are together strengthening top-level research at universities and for the first time are making use of the scope for cooperation provided under the new Article 91b of the German Basic Law. With flagship research dotted across the entire university landscape, this also broadly benefits Germany as a location for third-level education and research. The Excellence Strategy supports

internationally competitive fields of research at universities or consortia of universities ("Excellence Clusters") on a project-related basis, as well as universities of excellence or consortia of universities on a permanent basis. To fund the programme, the Federation and the *Länder* are contributing €80 million in 2017, and a total of €533 million annually from 2018 onwards. The Federation will provide 75% of the funding, and the remaining 25% will be provided by the home state of the universities selected for funding. The agreement between the Federation and the *Länder* is openended (cf. Table II, No. 23).

86. The Programme to Promote the Next Generation of Scientists (Tenure-Track Programme), adopted on 16 June 2016, established tenure track professorships as a new career path to a professorship alongside the previous paths at universities and equivalent higher-education institutions in Germany. The joint Federal/Länder programme aims to improve the planning and transparency of career paths to a lifetime appointment as a professor for junior academics by introducing a nationwide and nationally coordinated tenure-track professorship programme, thereby making academic careers in Germany more attractive overall. The Federation will provide funding of up to €1 billion for the programme, due to run through to 2032, in order to sponsor 1,000 additional tenure track professorship positions in the course of a fundamental structural change at universities across the country. The Länder will ensure that the total number of permanent professorships will increase by this amount.

87. In continuing the Pact for Research and Innovation for the period from 2016 through to 2020, the Federation and the *Länder* seek to provide an annual increase in funding of 3% to the individual scientific organisations participating in the Pact. Without prejudice to the funding keys set down between the Federation and the *Länder*, this increase will be funded solely by the Federation in the period 2016 – 2020. The Federation wishes to also continue the Pact for Research and Innovation together with the *Länder* from 2021 onwards. The aim of the Federal Government is an annual increase of at least 3% on the basis of the funding ratios between the Federation and the *Länder*, which have proven effective. The goals and instruments of the Pact are to be developed further and progress reports are to be issued annually (cf. Table II, No. 24).

88. Small and medium-sized enterprises (SMEs) are particularly dependent on innovations to improve their competitiveness. The Federal Government has adopted a range of measures to strengthen the innovative capacity of SMEs (cf. Table II, Nos. 25, 26, 27 and 28). The introduction of tax-based research and development support is agreed in the coalition agreement. The Federal Government is currently examining ways this can be introduced, particularly with small and medium-sized enterprises in mind.

89. In order to accelerate the transfer of technology from research into market-ready products, the Federal Government also provides funding for cooperation on research, such as in the technology-neutral Central Innovation Programme for SMEs (ZIM) or in the Collective Industrial Research (IGF) programme (cf. Table II, Nos. 29 and 30). Under the INNO-KOM programme, the Federal Government funds the transfer of research results of external industrial research establishments to SMEs particularly in structurally weak regions (cf. Table II, No. 31). These programmes will be continued and made more transparent and less bureaucratic. Technology-specific research programmes in which all companies and research establishments can participate are also focal area of the Federal Government's innovation policy.

90. With its new "Innovation & Structural Change" funding concept, the Federal Government supports regions facing particular challenges from structural change. By providing funding that is geared towards research and innovation, the aim is to unlock existing innovation potential and create a new dynamic, such as through the programme entitled "WIR! – Change through Innovation in the Region" (cf. Table II, No. 32).

91. As part of their regional strategies for innovation, the *Länder* also support the research and innovation activities particularly of small and medium-sized enterprises, as well as research at universities and non-university research centres through specifically tailored funding programmes (cf. Table II, No. 33).

92. Start-ups and young, innovative companies, in particular, lay the foundations for more intensive competition and growth with ideas for new products and services. For this reason, the Federal Government will further develop the EXIST (University-based Start-ups) funding programme, co-financed by the European Social Fund (ESF), to improve

the entrepreneurial culture at higher education institutions in Germany and to fund university-based knowledge- and technology-oriented start-ups, and will scale up financial support for the programme (cf. Table II, No. 34). Chapter II. A has described how the Federal Government has made significant improvements to the regulatory framework for access to venture capital. The Federal Government has taken several measures to expand the availability of venture capital. In addition, the Federal Government supports the growth of technology-oriented start-ups. Furthermore, research funding is complemented by tailor-made offerings to support start-ups. This also includes stronger support to validate the potential of research results for economic exploitation in suitable business models.

93. With more than 480 assisted companies so far, the Hightech Start-up Fund is Europe's most active seed fund, and remains the key instrument for the financing of innovative start-ups. In 2017, the High-tech Start-up Fund III was launched, with a budget of approximately €310 million. Around €100 million of this is private-sector capital which the Federation and the KfW raised from some 30 established companies. In this context, the INVEST programme, which supports young, innovative companies through grants towards private venture capital, has also been substantially increased and the eligible volume of investment has been doubled to €500,000 a year. An additional exit grant has also been introduced as flatrate compensation for the tax charged on capital gains (cf. Chapter III.B), (cf. Table II, Nos. 35, 36 and 37). The Federal Government wishes to continue and enhance the existing instruments to finance start-ups and the growth of young businesses. The Länder also support the establishment of businesses and business start-ups (cf. Table II, No. 38).

94. To give a boost to a spirit of entrepreneurship across society and encourage more people to enter self-employment, a wide range of programmes also exists, particularly for women and people with a migrant or refugee background, and for the establishment of welfare companies. The "Start-up Your Future" pilot project, which was launched in 2017, helps refugees to benefit from the sponsorship of experienced business people with the aim of opening up self-employment as a possible source of earnings for them. The "Young Entrepreneurs in Science" initiative aims to raise awareness on the part of researchers and students of the possibility of setting up a science start-up, so that they give greater consideration to this as a way to

exploit scientific findings. Further to this, new methods are being developed to pass on the skills needed for people to run their own business.

Taking advantage of the opportunities of the digital transformation

95. Digitalisation is one of the central policy challenges of our time. For digitalisation to be a success, Europe and Germany must ensure that the business sector, public administration, society and the scientific community have skills and expertise in key digital technologies. This requires research into and the continuous development of key digital technologies by building and developing research, development and skills centres, for example. Close cooperation and collaboration between European and national initiatives is called for in this context and municipalities must play an active role (cf. Smart City Charter, Platform for Dialogue: Smart Cities 2017). In future new technologies will come to the forefront, such as autonomous systems, additive manufacturing and quantum technologies, offering enormous potential to business and society. At the same time, the priority is to gain a better understanding of the foundations for a data-driven economy and of the impact the Internet and digitalisation have on society. Horizontal issues in a networked society, such as IT security and data protection, further training and skills development, a modern regulatory framework for the digital economy, or digital participation, ethics and digital engagement, will have to be addressed and developed appropriately (cf. Table II, No. 39).

96. The Federal Government is fostering digital technologies particularly by providing funding for pre-commercial research and development projects conducted by alliances of science and industry. The aim of this funding is to act on key digitalisation topics and trendsetting developments in cutting-edge technologies (including additive manufacturing, digital twin, advanced system engineering, blockchain and autonomous systems) at an early stage and to accelerate the process of transferring scientific findings into marketable solutions with great potential for practical applications. In addition to ensuring technological feasibility, the aim of the collaborative projects is to establish the economic practicability and usability of the project, verify public acceptance (including change in the world of work/

Work 4.0, IT security) and identify necessary framework conditions (also with regard to the legal framework). The focal areas of funding policy are the Internet of Things (IoT), smart services and smart infrastructures, innovations from data (big and smart data, data economy), autonomous systems, collaborations in dynamic value networks and work in a digital world. The fields of application of the focal areas range from *Industrie 4.0*, logistics, home and living (smart home/smart living), environmental supply and waste disposal systems, mobility, civil security and the development of rural areas through to the energy sector and health and care services. The "Transfer digital" measure helps to further strengthen the successful exploitation of the programmes in the area of the "development of digital technologies" at both the national and international level (cf. Table II, No. 40).

97. Start-ups are of key significance for the technological and economic implementation of digitalisation, and various instruments therefore exist to support them. With regard to the development of digital technologies, these instruments include the funding measure "Start-up Competition - Digital Innovations", which gives all potential entrepreneurs a simple opportunity to have their business idea or start-up idea reviewed by independent experts and actively supports them on the path towards self-employment (cf. Table II, No. 41). In order to foster cooperation among start-ups, established companies and science, the Federal Government's launched the Digital Hub Initiative, among other measures, and will continue and expand this initiative in the future. The twelve hub sites are intended to permit national networking amongst the sites, as well as greater international networking (cf. Table, No. 42).

98. In addition, the White Paper entitled "Digital Platforms. Digital regulatory policy for growth, innovation, competition and participation" was published in March 2017 in order to stimulate the policy debate on the future of the competition rules and regulatory framework for the digital economy (cf. Table II, No. 43). Prior to this, the White Paper "Work 4.0" was published in November 2016 to encourage debate on a modern regulatory framework.

99. The Federal Government aims to further advance digitalisation in the industrial sector (*Industrie 4.0*) as it offers enormous opportunities for Germany as a centre of innovation and business (cf. Table II, Nos. 44 and 45). It is particularly important that the nationwide introduction of Indus-

trie 4.0 succeeds in the case of small and medium-sized enterprises. The Federal Government is supporting this process, particularly in the form of the Mittelstand 4.0-Competence Centres which have been developed as part of the SME Digital funding priority (cf. Table, Nos. 46 and 47). In 2017, the network of 11 regional Competence Centres was expanded further to create a nationwide network of 23 Mittelstand 4.0-Competence Centres. Alongside 17 regional centres with different specializations in the field of digitalisation and Industrie 4.0 and one centre specially dedicated to the skilled crafts sector, there are now also five thematic centres focussing on the areas of usability, e-standards, textile, smart building, and IT Economy.

100. Further to this, the Federal Government wants to expand the activities of the Industrie 4.0 platform and in doing so also act on specific topics that are important for the future. The central goals include the creation of open and interoperable standards for Industrie 4.0 and viable solutions for IT security (cf. Table II, No. 48). It also wishes to continue and expand existing technology programs for application-related research to promote digital cutting-edge technologies such as quantum computing, robotics, autonomous systems, augmented reality (3D virtualisation), blockchain, advanced system engineering, visible light communication and smart homes (cf. Table II, No. 49). Furthermore, the "Learning Systems" platform will help to bring together expertise on artificial intelligence (AI) and leverage practical benefits of AI for society and the economy (cf. Table II, No. 50 and 51). At the same time, the Federal Government will work together with French partners to set up a publicly run Centre for Artificial Intelligence, and also link this to a Master Plan for Artificial Intelligence at the national level. Further to this, the Federal Government wants to set up a Centre for Digital Innovations in System Research together with Poland.

101. Microelectronics is an important driver of innovation in digitalisation. For this reason, the Federal Government gave a big boost to this research-intensive field last year. For example, it was decided to spend a billion euros on supporting investment in microelectronics in the context of an "important project of common European interest". The funding is, however, still subject to authorisation in accordance with state aid rules by the European Commission. This support will strengthen industrial value creation both in Germany and in Europe well beyond the field of micro-

electronics itself. In parallel to this, research capacities are networked, pooled and expanded on a nationwide basis for the first time with the "Microelectronics Research Factory". €400 million is being spent on equipping non-university research institutes and universities with state-of-the-art technology to this end. The aim is to support Germany further as a centre for microelectronics in science and business also in the European setting and thereby enhance its role on the international stage (cf. Table II, No. 52).

102. The next 5G mobile communications generation will be a core element of the gigabit networks of the future and will enable new information and communications technologies. The platform for this is being built by the research funding for the future 5G mobile communications standard within the "Industrial Communication of the Future" research initiative. The Federal Government intends to continue and step up research and tests with 5G and launch the 5x5G Strategy, inter alia, for this purpose (cf. Table II, No. 53).

103. Considerable progress has also been made in the digitalisation of public administration through measures such as the e-Government Act (e-Government-Gesetz). The aims here include giving citizens and companies easy and secure access to public administration, and the handling of administrative matters online. The Online Access Act (Onlinezugangsgesetz) obliges the Federation and the Länder to make their administrative services available online by the end of 2022 via their own administration websites. The Federal Government intends to swiftly move forward with the implementation of a central single digital portal for citizens and businesses for federal administration. At the same time, it also seeks to create a portal network with the Länder, i.e. where the portals of the Federation and the *Länder* are intelligently linked (cf. Table II, No. 54)

104. The Federal Government will actively support the cities, towns, districts and municipalities in their digital modernisation efforts, and to this end will continue the "Smart Cities" platform for dialogue and fund pilot projects for smart cities (cf. Table II, No. 55).

C. Reducing greenhouse gas emissions, increasing energy from renewables as well as energy and resource efficiency, making mobility sustainable

Meeting climate targets

105. Climate change mitigation is a matter of central concern for the Federal Government. The energy transition helps Germany reach its climate targets and is therefore one of the Federal Government's most important projects. The Federal Government reports on progress made towards climate targets in an annual Climate Report (cf. Table II, No. 56). The Federal Government's 2020 Climate Action Programme includes a range of measures for all sectors aimed to meet its national climate target for 2020 (40% reduction in greenhouse gas emissions compared with 1990 levels). The Federal Government also aims to cut greenhouse gas emissions by at least 55% by 2030 compared with 1990 levels in order to attain a large degree of greenhouse gas neutrality by 2050 in line with the Paris Agreement (80 to 95% less than in 1990). To deliver on these goals, the Federal Government is following the principle of technology neutrality and openness to innovation. To ensure that the transport, agriculture and heating sectors also shoulder greater responsibility for mitigating climate change in addition to the electricity and industry sectors, which largely fall under the European emissions trading system, target corridors for 2030 have been introduced for all sectors for the first time ever in the 2050 Climate Action Plan. The Federal Government wants to fully implement the measures and targets agreed in the 2050 Climate Action Plan. Further to this, the Länder are also implementing a broad array of measures to improve climate change mitigation (cf. Table II, No. 57).

106. The Federal Government intends to set up a "Growth, Structural Change and Regional Development" commission involving the various stakeholders from the political arena, the business community, environmental organisations, trade unions and affected *Länder* and regions. On the basis of the 2020 Climate Action Programme and the 2050 Climate Action Plan, this commission is to develop measures by the end of 2018 to close the gap towards reaching the 2020 climate target as much as possible and to reliably reach the 2030 climate target for the energy sector. It is also to present a plan for the gradual reduction and phase-out of coal-based electricity generation, including a completion

date and the accompanying legal, economic, social and structural measures that are required. A procedure for the construction and transport sectors is also to be held in parallel. The Federal Government intends to pass legislation in 2019 that is designed to ensure the 2030 climate targets are met.

107. The Federal Government is also calling at European level for an ambitious energy and climate policy with a view to a robust Energy Union and the reliable attainment of the EU's energy and climate targets for 2030. Central goals of the Federal Government have been implemented with the agreement reached at European level in November 2017 on the reform of the EU emissions trading system. Here, a balance has been struck between the reduction in the supply of certificates and the safeguarding of the international competitiveness of European industry (cf. Table II, Nos. 58, 59 and 60). For those sectors not covered by emissions trading (particularly buildings, transport, agriculture and waste management), the Member States have reached agreement in Brussels with the European Parliament and the European Commission on an Effort Sharing Regulation. For Germany, a national climate target of -38% from the 2005 level is envisaged in sectors outside the emissions trading scheme.

108. An internationally coordinated approach is vital for climate change mitigation. For example, in July 2017 the heads of state and government of the G20 countries stressed the economic opportunities for innovation and growth deriving from investment in climate change mitigation at the G20 summit chaired by Germany. With the exception of the United States, they declared that the Paris Agreement was irreversible and adopted a G20 Climate and Energy Action Plan for Growth. In it, they state their commitment to the full implementation of the Paris Agreement and the targets of the 2030 Agenda for Sustainable Development, and a related efficient transformation of the energy systems. Increased energy efficiency, the use of renewable energy, and the orientation of financial flows to the targets of the Paris Agreement, with corresponding investment in low-carbon technologies and infrastructure for the future, play a key role here (cf. Table II, No. 61). In order to exploit Germany's pioneering role in energy transition at the international level and to support the competitiveness of German businesses, the Federal Government will expand international collaboration on energy and develop additional bilateral energy partnerships. It will also make greater use of international formats (e.g. G7, G20) and international energy institutions (e.g. IEA, IRENA).

Renewable energy: strengthening competition, improving the system

109. The Federal Government has already achieved a great deal on the road to a secure, clean and affordable energy supply. Embedding the energy transition in the European context creates opportunities to reduce costs and take advantage of synergies. Renewable energy has become one of the most important sources of electricity generation in Germany: it already accounts for more than one third of gross electricity consumption. At the same time, Germany's energy supply is one of the most reliable in the world. The continued expansion of renewable energy that is ambitious, efficient, synchronised with the grid and increasingly market-oriented is a key prerequisite for a successful energy transition and climate policy. Under these conditions, the Federal Government is aiming for a renewable energy share of around 65% by 2030. The expansion of renewable energy must be stepped up considerably, also in order to meet the additional demand to reach the climate targets in the transport sector, in buildings and in industry.

110. Since the beginning of 2017, the amount of funding for new installations to generate electricity from renewable energy sources (RES) has mainly been determined in a competitive setting via technology-specific auctions on the basis of the 2017 Renewable Energy Sources Act (Erneuerbare-Energien-Gesetz). This paradigm shift towards funding rates set by competition and to quantity-based rather than price-based funding helps make the expansion of renewable energy much more cost-efficient. The Federal Government is overseeing this process in an ongoing evaluation in order to continue the dynamic expansion of renewable energy. The Federal Government will continue to ensure stakeholder diversity in the future. In the case of onshore wind energy installations, however, it will only allow projects that have approval pursuant to the Federal Immission Control Act (Bundesimmissionsschutzgesetz) to take part in the auction process. To increase public acceptance, the Federal Government will strive to ensure a better balance between the interests of the advocates of the RES installations and the concerns of local residents and nature conservationists. Further to this, in future municipalities where RES installations are located are to have a greater share in the added value created by renewable energy installations. In addition the framework for citizens to take part in projects is to be improved without this driving up the cost of renewable expansion overall. The Federal Government also wishes to gather practical experience with cross-technology auctions. The Federal Network Agency has already

opened the first auctioning round for joint auctions for onshore wind and solar installations for the bid deadline of 1 April 2018. The joint auctions will be held for a three-year pilot period. In order to strengthen the European dimension of the energy transition, there will also be a limited number of "open auctions", in which sites located in other Member States can also be awarded funding. The Federal Government introduced this possibility of "open auctions" for onshore wind energy installations in 2017, in addition to ground-mounted PV installations (cf. Table II, No. 62).

111. In order to attain the long-term goal of a virtually carbon-free energy supply, increased efforts will be needed to further reduce overall energy consumption across all sectors (the principle of "efficiency first") and to make the electricity system even more flexible. In this context, the Federal Government is committed to moving ahead with the coupling of the heating, mobility and industry sectors. The efficient use of renewable electricity here will make an important contribution to decarbonisation. The 2050 Climate Action Plan contains provisions for a review of the incentive and steering effect of the current components of energy prices imposed by the state.

112. The supply of electricity in Germany must remain reliable even with an increasing share of renewable energy in the energy mix. This will depend on factors such as a flexible electricity system, rapid grid expansion, and the upgrading and optimisation of existing grids. It is therefore vital to make rapid progress on the planning and authorisation procedures for all measures to strengthen the existing grid and to build new grid. The Federal Government will also develop an ambitious action plan to optimise existing grids and accelerate the expansion of power grids.

When it comes to the expansion and operation of the grid, costs must be shared fairly. The Act on the Modernisation of the Grid Fee Structure (Gesetz zur Modernisierung der Netzentgeltstruktur) of July 2017 created the framework to harmonise transmission system fees in Germany and gradually remove regional disparities by 2023 by an ordinance of the Federal Government. Also, the "avoided grid fees" are being reduced. This will curtail distribution system costs in 2018, and will thus help to stabilise electricity prices (cf. Table II, No. 63). By reforming the grid fees, the Federal Government wants to share the costs based on a "user pays" principle and with due regard for what best serves the grid, and give electricity consumers greater flexibility while also safeguarding competitiveness.

113. At the European level, the Federal Government supports the position of the European Council in negotiations surrounding the package of legislation entitled "Clean Energy for All Europeans" according to which Member States must gradually open their interconnectors to pan-European electricity trading up to a target level of 75% in 2025. In the course of the negotiations, the Federal Government pushed for an extended timeframe and a realistic target to give appropriate consideration to the limits of cross-border power lines to efficiently provide net transmission capacity.

114. The grids at the borders between Germany, Austria, Poland and the Czech Republic are subject to particularly heavy use. In response to this, Germany and Austria will therefore implement congestion management measures starting in October 2018. This strengthens the security of supply and reduces the necessary balancing measures taken by the grid operators, thereby lowering the burden on German electricity consumers (cf. Table II, No. 64).

Increasing efficiency, reducing energy and resource consumption

115. Energy efficiency is one of the key pillars of the energy transition. The aim is to halve primary energy consumption by 2050 compared to levels in 2008. With its "Green Paper on Energy Efficiency", the Federal Government held a consultation process on the future development of energy efficiency policy. Based on the results of the "Green Paper on Energy Efficiency", the Federal Government wants to refine the National Action Plan on Energy Efficiency and implement it as quickly as possible. With broad participation, it wants to develop an ambitious, cross-sector Energy Efficiency Strategy in which the principle of "efficiency first" is firmly established (cf. Table II, No. 65).

116. The amendment to energy conservation law for buildings is to be addressed again in this legislative term. By merging the Energy Conservation Act (Energieeinsparungsgesetz), the Energy Conservation Ordinance (Energieeinsparverordnung) and the Renewable Energies Heat Act (Erneuerbare-Energien-Wärmegesetz) into the Building Energy Act (Gebäudeenergiegesetz), the aim is to put an end to the existence of parallel legislation and thereby simplify energy conservation law and make it less bureaucratic.

117. Funding for the energy retrofitting of buildings is to be continued and existing programmes are to be revised and better aligned with one another. In this legislative term, the Federal Government also intends to promote the retrofitting of buildings for energy efficiency through favourable tax treatment and adopt and implement a building efficiency decree and an energy retrofitting schedule for federal properties. In doing so, the Federal Government wants to ensure the public sector acts as a role model in the buildings sector.

118. Another goal of the Federal Government as set down in the German Resource Efficiency Programme (ProgRess) is even greater decoupling of economic development from the use of natural resources, i.e. in particular to keep reducing the specific rate of material consumption. ProgRess also makes a key contribution to reaching climate targets. The Federal Government wishes to develop the programme further following the principle of "voluntariness before regulation". Further to this, the Federal Government wishes to continue to develop the National Sustainability Strategy on an ongoing basis and in an ambitious manner (cf. Table II, No. 66). The National Programme for Sustainable Consumption (NPSC) will also undergo continuous development as part of the measures to implement the Agenda 2030 and to promote sustainable development.

Expanding sustainable and modern mobility

119. The Federal Government wishes to make mobility sustainable and climate-friendly and considers Germany to be bound by the Paris Climate Accord and the 2050 Climate Action Plan also in this area. As a response to repeated failures to comply with ceilings for nitrogen dioxide (NO₂) levels in city centres, the Federal Government has developed a number of measures in dialogue with the automotive industry, the Länder and municipalities, which are designed to enable a significant drop in nitrogen oxide emissions from as early as 2018. For example, the "Sustainable Urban Mobility Fund" was set up in August 2017 as part of the "National Diesel Forum". The automotive sector is also contributing to the fund. The fund then became included in the "Immediate Action Programme for Clean Air 2017 - 2020", which is intended to co-finance the rollout of measures in the municipalities affected by excess NO₂ emissions. The fund has a total budget of €1 billion and the aim is to put the funding on a permanent footing (cf. Table II, No. 67).

120. Mobility of the future is sustainable, connected and increasingly energy efficient. The Federal Government's Mobility and Fuel Strategy (MFS) is an important instrument for delivering the energy transition in the transport sector. According to the 2050 Climate Action Plan, the transport sector also needs to make a substantial contribution to cutting carbon emissions. This requires a battery of measures, including the promotion of electric mobility, the digitalisation of municipal traffic systems towards more efficient traffic management that reduces emissions, and the promotion of local public passenger transport services and rail transport. The Federal Government is working at EU level for ambitious CO₂ fleet rules for new passenger cars and light commercial vehicles for the post-2020 period. The intention to introduce a new standard for carbon emissions and fuel consumption of heavy-duty vehicles is also welcomed. Following the planned amendment to the Eurovignette Directive on the charging of heavy goods vehicles for the use of certain roads, the Federal Government will examine whether the toll should be differentiated according to CO₂ emissions. The use of fuels made from renewable energy is to make a key contribution to reducing the carbon footprint in many areas, particularly in air and maritime transport. An important contribution to low-carbon mobility can also be made by advanced biofuels from waste and residual materials, as well as by sustainable conventional biofuels (from starch, sugar and vegetable oils) to a limited extent in the next few years. The conflict of use between the various sectors (particularly for the production of food) must be given due consideration here (cf. Table II, Nos. 68, 69, 70 and 71).

121. Amendments to the Energy Tax and Electricity Tax Act (Energiesteuer- und Stromsteuergesetz) entered into force on 1 January 2018. The preferential tax treatment for natural gas has been continued up to 2026 (inclusive), a measure which is designed to reduce road transport greenhouse gas emissions (GHG). Further to this, requirements of EU rules on state aid have also been implemented (cf. Table II, No. 72).

D. Improving education levels

122. Education gives everyone the opportunity to take part and integrate at the economic, social and cultural level. Particularly in light of digitalisation, demographic change and increased immigration, investment in education and training is of central importance for Germany's competitiveness and future viability. The Federal Government and especially the *Länder* have together made considerable efforts to expand and improve the education system and have steadily increased their spending on education.

123. Overall, Germany is meeting the educational goals of the Europe 2020 strategy. At 10.2%, the share of early school-leavers and people leaving vocational training in 2016 was slightly above the 10% mark (the figure had dropped slightly below 10% in the previous years). Standing at 47.9%, the proportion of 30-34 year-olds with a tertiary or equivalent education was once again well above the national target of 42%.

Increasing education spending at all levels

124. A core responsibility of the education system is to provide a varied portfolio of services to promote education, skills and performance. The Federation and the *Länder* have established extensive funding programmes to this end – also with European Union funds. Total spending on education in Germany in 2015 amounted (provisionally) to €195.1 billion, equivalent to 6.4% of GDP for 2015. According to financial statistics, public spending on education has risen from €106.2 billion in 2010 to €134.8 billion in 2017. In relation to the total public budget, this equates to a growth from 19.1% in 2010 to 20.3% in 2017, with both the Federation and the *Länder* spending more on education.

125. Early childhood education plays a central role in improving education levels over the long term. The Federal Government plans to provide €3.5 billion in total in the 2018 – 2021 period to relieve the burden of child day-care fees on parents and to improve the quality of services (cf. Chapter III. A). The quality of childcare services is already being boosted on a sustained basis through various federal programmes. Measures include advanced training for staff working in child day-care, the expansion of language skills development or also media skills (cf. Chapter III. A and Table II, No. 73). A legal right to all-day care for children of primary school age is to be enshrined in law.

126. School education is also being improved by a series of measures (cf. Table II, No. 74): these include the expansion of all-day services, programmes to promote language and literacy skills and programmes specifically aimed at helping young people at risk of not getting a school-leaving

qualification. The *Länder* have also made special resources available to specifically support children and young people with risk profiles, both by improving quality in the individual stages of education and to improve transition points in the education system (cf. Table II, No. 75).

127. At 46.8%, Germany had already well exceeded the Europe 2020 goal of increasing the percentage of 30-34 year-olds with a tertiary or equivalent education to at least 42% as early as 2015. Ensuring a high percentage of tertiary or equivalent education is a matter of central importance for Germany. In Germany such a qualification can also be obtained through vocational upgrading training (up to Level 7 in the German Qualifications Framework). With the third programme phase of the Higher Education Pact, the Federation and the Länder will offer study places for up to 760,033 additional new students at higher education facilities by 2020 compared with the capacity available in 2005. Financing for this is in place through to 2023. Over the entire duration of all three programme phases of the Higher Education Pact, a total of over €20 billion from the Federation and over €18 billion from the *Länder* will have been invested in third-level institutions from between 2007 and 2023 (cf. Table II, No. 76). With the Teaching Quality Pact, 156 higher education institutions are currently receiving support to improve guidance and assistance for students and the quality of teaching (cf. Table II, No. 77). The Federation is making approximately €2 billion available for this programme in the years 2011 through to 2020. Both programmes make a significant contribution to increasing the graduation rates at higher education institutions. Further to this, the Länder have taken specific measures to increase the rate of third-level graduates or individuals with an equivalent qualification (cf. Table II, Nos. 78 and 79). To ensure the high quality of teaching in view of the consistently high demand for higher education, the Federal Government plans to put both the federal funds from the Higher Education Pact and the Teaching Quality Pact on a permanent footing.

128. In order to ensure, over the long term, that everyone has the opportunity to obtain a good job and, in particular, to open up more career prospects to low-wage earners and to reduce the risks of poverty, current efforts in the field of vocational education and training will also be continued in the future. This will not only secure the competitiveness of Germany as a base for business in the long term but will also contribute to social stability. The Federation and the *Länder* are committed to improving the quality and attractiveness of vocational training in general.

129. Financing facilities that adequately cover living expenses during training and education also help to increase the graduate rate. Means-tested educational assistance (based on parental income) under the Federal Education and Training Assistance Act, known as BAföG, ensures equal opportunities for pupils and students from low-income families. Non-means-tested loans, such as the general student loan from KfW, the state development bank, and through the Federal Government's education loan programme complete the portfolio of financing facilities offered by the state. The latter is aimed at students in advanced phases of education and also applies for school-based vocational training.

Strengthening life-long learning and digital skills

130. Under the "Educational Campaign for the Digital Knowledge Society" strategy, support is given to the *Länder* for the teaching of digital skills. This strategy considers the entire education chain in order to prepare everyone for the challenges in an increasingly digitalised working world and to enable all generations to take part fully in society.

131. Digitalisation is the basic economic trend of our time. We are becoming increasingly interconnected – both economically and technologically - beyond country, sector, market and business borders. The growth opportunities this development presents specifically for Germany are enormous, particularly in the area of Economy 4.0. Germany will only be able to seize these opportunities if the digital transformation is actively managed, the necessary infrastructures are provided and a digital regulatory policy is developed. In particular, digitalisation and Economy 4.0 will call for new skills. Education, training and continuing development are key to preparing our industry, business community and workers for these challenges and to ensuring that our qualification and skills development system is ready for tomorrow. Training in and constant updating of digital skills in all areas of society and groups is of utmost importance. Given the important role they play in society, civil society players must be supported to ensure they can shape this role also in a digitalised world. Innovative formats such as the FamilyLabs or the DemocracyLabs projects are good examples in this context. Numerous measures are in place at the federal and Länder level to improve career orientation, to modernise vocational training and to promote life-long learning (cf. Table II, Nos. 80 and 81).

132. The Federal Government has announced that it will direct €5 billion in five years (€3.5 billion of which in this legislative term) towards the joint federal/Länder Digital Pact for Schools. With this Pact, the Federation and the Länder aim to build strong digital infrastructures (e.g. broadband cabling in school buildings, WLAN coverage and stationary terminals) as well as state-wide or interstate teaching and learning infrastructures. The goal here is to create the framework to ensure that pupils can use a digital learning environment and acquire the necessary skills for a digital world. Furthermore, the Federal Government is planning measures to promote the digital advanced training and further development of school teachers and vocational school teachers, also in collaboration with institutions of higher education. The Federal Government plans to establish the legal framework for this through an amendment to the German Constitution. Regional centres of excellence for digitalisation are to be set up. With regard to vocational training, in addition to the practical use of digital technologies in the classroom particular importance is also attached to equipping training workshops with modern facilities. In the field of adult education, the Federal Government will fund programmes and digital services for people of all ages. More online learning opportunities are also to be developed at higher education institutions. Looking to out-of-school education, the Federal Government wishes to improve the digital skills in civil society, families and across all generations, and support clubs and associations in the process of digital transformation to this end. The measures of the Federation are to be backed by measures at the Länder level. In this context, the allocation of federal funds is tied to conditions jointly agreed with the Länder, such as measures for the digital advanced training and further development of school teachers and vocational school teachers and the development of suitable education plans and curricula.

133. Continuing education and training (CET) is the key to ensuring workers can meet the challenges of a digital working world and the ever more rapidly changing skills and qualifications requirements. Also in light of the ongoing process of digitalisation, the Federal Government intends to work with all stakeholders to develop a national CET Strategy for workers and job-seekers in order to bring together the CET programmes at the federal and *Länder* level and establish a new culture of continuing education and training.

E. Promoting social inclusion in particular by reducing poverty

134. The integration of the long-term unemployed into the labour market is a central priority of the labour market and social policy of the Federal Government and the Länder. Since 2011, Germany has significantly exceeded the national target set down in the Europe 2020 strategy of reducing the number of long-term unemployed by 20% compared with figures for 2008. Furthermore, Germany has a comprehensive social security system in place to tackle the risk of poverty. In this way, unemployed individuals or persons on a very low income who claim these benefits and services are protected against poverty. Germany has a solid social protection system as also confirmed by the European Commission in its 2018 country report. In addition to providing social protection, the policy of the Federal Government is specifically aimed at improving the earnings opportunities of low-skilled individuals through activation, skills development and integration into employment. Furthermore, the Federal Government is also increasingly focusing on inequality of non-material goods (cf. the Federal Government's report on the quality of life in Germany).

135. Alongside fair wages, the distribution of wealth in Germany is also an important factor with regard to the inclusive growth pursued by the Federal Government. In Germany, as in many other countries, wealth is far more unevenly distributed than income. Households in the lower half of the wealth distribution together have only around 1% of total net wealth, while the wealthiest 10% of households hold over 50% of total net wealth. The share of the top decile has increased over time, but this increase has remained stable in recent years. The Gini coefficient for wealth inequality has also been more or less stable in recent years, after increasing at the start of the millennium. Furthermore, for Germany the substantial protection of broad sections of the population, particularly through the systems for old age security, is also a factor that deserves consideration. In terms of methodology, however, it should be noted that the measurement of wealth is fraught with much more difficulty and uncertainty than the measurement of income.

136. Overall, the at-risk-of-poverty rate has hovered at around the same level since 2005. Despite the favourable economic climate and significant increases in employment, latest figures would suggest an increase in the rate. The at-risk-of-poverty rate is far lower for persons in

employment than for the overall population. People at a high risk not only include the unemployed but also single parents, low-skilled workers and people with a migrant back-ground. The substantial increases in employment and income of recent years also have not helped to reduce income inequality because these increases were seen across the entire income distribution spectrum, with the result that the relation of both high incomes and low incomes to the average income has remained more or less unchanged.

137. The Federal Government does not intend to increase the tax burden on private citizens, and plans to specifically relieve the burden on low- and middle-income earners (cf. Item 56). For example, the solidarity surcharge is to be gradually phased out from 2021 onwards. Furthermore, the expansion of rules for midi-jobs could also relieve the social contribution burden on low-wage earners. In this context, lower pension insurance contributions must not result in lower pension payments in old age. The contribution rate to unemployment insurance is to drop by 0.3 percentage points. The Federal Government will relieve the burden on low-income families by improving the child supplement and ensure that more earned income also results in higher disposable incomes.

Accelerating integration into the labour market

138. Despite tangible successes, the reduction of long-term unemployment continues to be a key issue for the Federal Government's labour market policy. The Federal Government's "Creating Opportunities - Ensuring Social Participation" plan has provided a lasting boost to the reduction of long-term unemployment. The aim is to use "networks to activate, advise and offer opportunities" in the job centres across the country to achieve optimised support for people in long-term unemployment and to enable their social participation. The "ESF Federal programme for the integration of long-term unemployed beneficiaries as defined in the Social Code II on the regular labour market" makes it possible to provide comprehensive support to long-term unemployed people furthest from the labour market. The federal programme "Social Participation in the Labour Market" is targeted at long-term unemployed persons very far removed from the labour market who will probably not be able to be placed straight into jobs on the regular labour market. The programme aims to create possibilities to participate in the secondary labour market, thereby improving the medium-term to long-term prospects for

employment on the regular labour market. Support for the transition from marginal employment to employment subject to compulsory social security contributions remains a central focus of the ESF-funded pilot programme "Return to Work − Unlock Potential". Further to this, the Federal Government plans to introduce a new standard instrument entitled "Labour Market Participation for Everyone", which aims to give up to 150,000 people new opportunities to overcome long-term unemployment. Funds amounting to €4 billion in total are set aside for this for the 2018 − 2021 period. The *Länder* have also rolled out a range of measures designed to facilitate the integration of unemployed individuals into the primary labour market and provide support for their families (cf. Table II, No. 82).

139. The average income of dependent workers entitled to receive benefits has risen overall and the number of what are termed "supplement-benefit recipients" has dropped slightly. At 1.15 million on an annual average in 2017, it was slightly below the 2007 value of 1.22 million. In the same period, the number of all employable persons entitled to benefits dropped by around 877,000 from 5.24 million to 4.36 million.

140. Around 187,000 asylum-seekers were registered in Germany in 2017. The integration of people entitled to asylum, asylum-seekers with good prospects of residence in Germany as well as recognised refugees and persons entitled to subsidiary protection is one of the biggest challenges facing Germany in the coming years. Due to the responsibilities and competencies defined by law, much of the effort in this regard falls to the Länder and municipalities, which puts a significant burden on their budgets. As this is a task for the country as a whole, the Federation will contribute towards a large share of these additional costs. The Länder and municipalities as well as the Federation have introduced a broad array of measures to integrate people entitled to asylum, asylum-seekers with good prospects of residence in Germany as well as recognised refugees and persons entitled to subsidiary protection into the training and labour market as quickly as possible. Building on the broad efforts of recent years (cf. the brochure "Presentation of Federal Government Measures to Promote German Language Skills and the Integration of Refugees"), the Federal Government put a number of additional measures in place in 2017 designed to contribute towards the successful integration of this group of individuals into society and the labour market (cf. Table II, Nos. 83, 84 and 85).

141. Education and skills development are of central importance particularly for successful social and professional integration. The Federation and the Länder are therefore giving priority to supporting people entitled to asylum, asylum-seekers with good prospects of residence in Germany as well as recognised refugees and persons entitled to subsidiary protection through a variety of measures - from language acquisition, skills development and career guidance to assistance leading to a university place, an apprenticeship, an internship or a job. The integration of these people into training and employment can only succeed with the broad involvement of businesses, particularly small and medium-sized enterprises. As the vast majority of the refugees are young, the dual system of vocational education and training offers these individuals a good way into the German labour market. For example, the programme "Vocational Orientation for Refugees", "Paths to Training for Refugees" aims to get young refugees into training in the skilled trades sector (cf. Table II, No. 86). The network of 31 KAUSA service centres (KAUSA = Coordination Office for Training and Immigration) provides support services geared to help young people with a migration background and refugees take part in vocational training. These services are closely aligned with regional needs (cf. Table II, No. 87). In addition, business people from a migration background are also promoting the dual system of vocational training and education. The Federation supports the participation and involvement of businesses, such as through the "Businesses Integrate Refugees" network or through "welcome guides" in the Chambers. The Länder have also put numerous measures in place to promote the social inclusion of refugees (cf. Table II, Nos. 88, 89 and 90).

Tackling child poverty and promoting inclusion

142. For single parents and their children, the maintenance advance was significantly improved on 1 July 2017. It is paid for children aged under 18 who live with only one parent and receive no maintenance, no regular maintenance, or only partial maintenance from the other parent (cf. Table II, No. 91). Previously the benefit was limited to a maximum period of 72 months and a maximum age limit of 12 years applied. These rules have now been abolished. Children aged between 12 and under 18 are entitled to a maintenance advance if they do not rely on benefits under Book II of the Social Code or if a single parent claiming benefits under Book II earns at least €600 gross per month. The new rule is intended to make it easier for

single parents to permanently meet their children's needs from their own income without any benefits under Book II of the Social Code, and also to create an incentive – for single parents with children aged between 12 and 18 – to earn their own living. The *Länder* have also taken action to improve the integration opportunities of single parents (cf. Table II, No. 92).

143. The Federal Government intends to produce a package of measures to tackle child poverty. To relieve the burden on low-income families, particularly also single parents and families with several children, among other measures the child supplement is to be increased, the maximum income limits removed and the slow phase-out of the benefit is to be guaranteed. As a time-tested and effective family-related benefit, the child benefit is to be increased by a total of €25 per child per month in two phases during this legislative term. The tax-related child allowance is to be increased accordingly. Together with the child benefit and the benefits for education and participation, the child supplement is designed to cover the minimum required to ensure a child's basic material needs are met. In addition, the Federal Government will improve the benefits for education and participation. Among other measures, the volume of the school-starter package is to be increased to this end. Personal contributions to communal lunches in child daycare facilities and schools and for school transport are to be abolished. Under the existing Participation Pact, general learning support is also to be possible even if the child's progression to the next year of school is not directly at risk.

Overall, the Federal Government intends to make €3.5 billion available for the 2018 – 2021 period for the increase in the child benefit and the child allowance and a further €1.0 billion to tackle child poverty by improving the child supplement.

144. The Federal Government sees it as its ongoing duty to ensure the equal participation of people with disabilities and their protection against discrimination in all domains of life as laid down in the United Nations Convention on the Rights of Persons with Disabilities. The Federal Government's National Action Plan to Implement the United Nations Convention on the Rights of Persons with Disabilities (both the "NAP 1.0" adopted in 2011 and the "NAP 2.0" adopted in 2016) plays an important role in this regard as a long-term overall strategy of the Federal Government. For example, the Federal Government invests to €80 million from the special "equalisation fund for supraregional"

projects to promote the participation of people with severe disabilities in the working world", which is managed by the Federal Ministry of Labour and Social Affairs, in order to support job placement programmes and the better integration of people with severe disabilities in vocational training and employment subject to compulsory social security contributions. Funding of €150 million is provided to create additional jobs in social firms. As with all measures of the NAP 2.0, the implementation of measures to address Articles 24 and 27 of the UN CRPD is also evaluated at regular intervals, and the Federal Government's first status report on the implementation of the measures can be expected mid-2018 (Interim Report on the National Action Plan 2.0 to Implement the UN Convention on the Rights of Persons with Disabilities). The Länder have also taken specific action to facilitate the integration of people with disabilities into the labour market (cf. Table II, No. 93). In this legislative term, the Federal Government plans to update the NAP 2.0 and place emphasis on the issue of "digitalisation and inclusion".

Strengthening social participation for the elderly

145. With the Act to Strengthen Company Pensions (Betriebsrentenstärkungsgesetz), the Federal Government adopted numerous improvements designed to increase the provision of company pensions (cf. Table II, No. 94). The Act gives the parties to collective bargaining more freedom in designing collectively agreed pension plans, particularly with regard to capital investment. Under the terms of a new model introduced to promote company pension schemes, employers who pay into a company pension scheme for the benefit of low-income workers are granted tax deductions. In future, benefits paid out from the occupational "Riester pension" will not be included in the calculation of contributions to statutory health and long-term care insurance. Also, the Riester pension is made more attractive by an increase in the basic supplement and the simplification of procedures. The introduction of a tax allowance for additional pension provision under basic income support in old age and for people with reduced earning capacity (Chapter 11, Book XII of the Social Code) also sends a clear signal that individual pension provision is worthwhile in any situation in life.

The positive employment situation is also reflected in statutory pension insurance. For example, the contribution rate was reduced from 18.7% to 18.6% at the beginning of this year. The current pension insurance report expects this rate to remain in place until 2022. The pension adjustment increased pensions by 1.90% (west) and 3.59% (east) on 1 July 2017. It currently looks as though 2018 could see also another clear rise in pensions.

146. Pensions must be fair and reliable for all generations. This includes recognition of individuals' life work and effective protection against poverty in old age. Trust in the long-term stability of the statutory pension insurance system is a valuable asset in the welfare state. The Federal Government therefore intends to guarantee by law that the statutory pension will remain at the current level of 48% through to 2025. A "reliable intergenerational contract" pension committee is to be set up to address the challenges of guaranteeing and developing the statutory pension insurance system and the two other pillars of the pension system in a sustainable manner from 2025 onwards.

The social protection of self-employed persons is to be improved further. The Federal Government therefore intends to introduce compulsory old-age provision for self-employed persons who are not otherwise insured under an obligatory scheme (e.g. in professional pension funds) in a manner that is entrepreneur-friendly. Self-employed persons are to be able to choose between the statutory pension insurance system and – as an opt-out solution – other suitable types of old-age provision. These are to be protected against insolvency and seizure and in general result in a pension that is above the basic provision level in old age. The Federal Government also intends to reduce the minimum health insurance contributions for self-employed persons on a low income.

In addition, a further benefit improvement is planned for pensions on account of reduced earning capacity under the statutory pension insurance system which will also be carried forward into the subsequent retirement pensions. The introduction of a "basic pension" is also planned. The life-work of people who have worked for decades, raised children and cared for family members is to be recognised and they are to be guaranteed a regular income in old age that is 10% above the level of basic income support.

Promoting social urban development

147. For the promotion of urban development under the National Urban Development Policy, the Federal Government is setting aside €790 million in federal financial assistance in 2018 for urban development assistance alone, and in doing so is continuing to direct a high level of funding towards urban development (cf. Table II, No. 95). Furthermore, additional federal financial assistance amounting to €200 million is earmarked for the "Social Integration in the Neighbourhood" investment pact (cf. Table II, No. 96) and €75 million for the "National Urban Development Projects" programme for the 2018 programme year.

The programmes support municipal investment for social urban development and the creation of sustainable structures in towns/cities and municipalities in urban and rural areas. Urban development assistance is instrumental in activating private- and public-sector follow-up investment and is therefore an importance factor for the regional economy.

148. Further to this, the Federal Government plans to maintain federal interministerial collaboration for social urban development and continue pilot projects in this regard with annual funding of €10 million. The interministerial "Social Integrative City: Strengthening Neighbourhoods – Working Together in the Community" strategy, which was adopted in the last legislative term, will serve as the basis here (cf. Table II, No. 97).

149. The rising numbers of older people with limited mobility and of people with disabilities will further increase the need for age-appropriate dwelling space. Age-appropriate conversion of residential buildings and neighbourhoods allows these people to pursue an independent life in a familiar setting for as long as possible. Therefore, due to the strong demand, the Federal Government has increased the funding for grants under the KfW programme for Age-appropriate Conversions (reintroduced in 2014 until 2017) – most recently to €75 million. Another €75 million are set aside in the federal budget for 2018. Since the programme was launched, grants have been given to 112,033 apartments through the programme. The KfW has been running the "Age-appropriate Conversions" loan programme as a programme financed out of KfW's own resources since 2012 (cf. Table II, No. 98).

IV. Drafting the NRP 2018: process and stakeholders

150. The NRP 2018 was prepared by the Federal Government under the leadership of the Federal Ministry for Economic Affairs and Energy and with the involvement of the *Länder*. Coordinated by Saarland as the state currently chairing the Conference of Minister-Presidents, the *Länder* Conferences of Specialised Ministers and the Joint Science Conference (GWK) supplied articles, delivered comments on the draft versions of the NRP and submitted opinions. The contributions of the *Länder* have been incorporated into the document.

151. Many industry and social associations, trade unions, employer representatives and other civil society groups have also contributed to the creation of this document. These include the German Trade Union Confederation, the Confederation of German Employers' Associations, the Federation of German Industries, the Association of German Chambers of Industry and Commerce, the German Confederation of Skilled Crafts, and the Federal Association of Non-Statutory Welfare. Their opinions are published on the website of the Federal Ministry for Economic Affairs and Energy along with the NRP 2018. In addition, the central associations, the German Trade Union Confederation and the members of the Joint Committee for German Industry and Commerce received the opportunity to discuss the NRP with the Federal Government.

152. The NRP 2018 was adopted by the Federal Cabinet on 25 April 2018. The citing of measures in the report does not, however, prejudice either current or future budget negotiations or the implementation of the coalition agreement of 12 March 2018 and in this respect all measures are subject to the availability of funding. Directly after the Cabinet decision, the NRP was formally submitted to the German Bundestag and the Bundesrat.

153. The Federal Government will submit the NRP 2018 to the European Commission by the end of April.

Table I: Actions to tackle primary macroeconomic challenges

No.	Action name	Description of action and anticipated impact	Status and schedule
A. St	trengthening public investme	ent at all levels	
1.	2017 federal budget	Federal investment spending increased by 2.5% in 2017. In particular, expenditure on material assets rose considerably, at 11.5%. Investment in the transport infrastructure was increased to €13.8 billion in 2017. Expenditure on education rose by 11% and on research and development by 9.6%.	2017 Budget Act (Haushaltsgesetz) in force since 1 January 2017.
2.	2018 federal budget	Federal investment spending is increased to €36.4 billion. Investment in transport is increased to €14.2 billion in 2018.	Cabinet decision on 1st government draft: 28 June 2017, but not yet in force due to parliamentary discontinuity. Therefore budgetary administration for 2018 is only provisional in accordance with Article 111 of the German Constitution.
3.	Fourth Act to Amend the Federal Trunk Road Toll Act (Viertes Gesetz zur Änderung des Bundesfern- straßenmautgesetzes)	The Act makes provisions for the extension of the truck toll to all federal trunk roads from mid-2018. The revenue generated from the extended system of user financing is ring-fenced for investment in the maintenance and expansion of the road infrastructure.	In force since 31 March 2017.
4.	First Act to Amend the Infrastructure Levy Act (Erstes Gesetz zur Änderung des Infrastrukturabgabe- gesetzes)	The Act makes provisions for the introduction of an infrastructure levy (car toll). This will not place an additional burden on owners of passenger cars registered in Germany. Following deductions for system and administrative costs, the revenue collected will be invested in the road infrastructure.	In force since 25 May 2017.
5.	Acts to establish an infrastructure company for autobahns and other federal trunk roads and a Federal Trunk Road Office	To reform the administration of the federal trunk roads, the Acts contain provisions for the creation of an infrastructure company for autobahns and other federal trunk roads and the establishment of a Federal Trunk Road Office.	The necessary amendment to the German Constitution entered into force on 19 July 2017, and the Accompanying Act was announced in the Federal Law Gazette on 17 August 2017.
6.	Funding to support broadband development	In 2017, approximately €400 million were added to the Federal Government's broadband funding programme, which was launched in 2015. This means that the Federal Government invested a total of approximately €4.4 billion in digital infrastructure expansion in the last legislative term. This supports the development of viable, high-speed broadband networks (current goal: minimum download rate of 50 Mbps) in areas in which such networks will not be developed by the private sector in the next three years. In this context, over 90% of the investment funds are invested in the construction of fibre optic networks. Business parks and schools are directly equipped with gigabit-capable fibre-optic broadband connections through special programmes. It is assumed that public-sector funding of between €10 billion and €12 billion will be required for the expansion of gigabit-capable infrastructures in the 19th legislative term.	In force since 22 October 2015, budget increased by €400 million in 2017. Projects are in different stages of implementation.
7.	Measures adopted by the Länder to promote broad- band development	The <i>Länder</i> are rolling out a variety of measures to support the expansion of broadband. Example include:	
		<u>Baden-Württemberg:</u> Land Baden-Württemberg has been supporting the expansion of efficient fast and ultrafast networks in Next Generation Access (NGA) white areas with public funding since 2008. Recipients of the funding can be municipalities, associations of municipalities or counties provided that the majority are located outside the density areas as defined in the 2002 Baden-Württemberg state development plan.	Administrative rule on broadband funding of 1 August 2015. Administrative rule on broadband co-funding of 26 April 2016.

Description of action and anticipated impact

Status and schedule

Continuation:
 Measures adopted by the Länder to promote broadband development

As early as 2012, the administrative rule then applicable for the state of Baden-Württemberg contained provisions for fibre-to-the-building (FTTB) services if the area in question is a commercial site. At the same time, grants were provided for the first time for the development of backbone outline plans and fibre-to-the-building detail plans. This aims to enable counties, towns and municipalities in Baden-Württemberg to take advantage of synergies by laying cables while conducting other development and renovation measures and in the context of construction measures carried out by third parties, and in doing so ultimately reduce the costs of broadband expansion. Almost all counties and urban districts in Baden-Württemberg now have a backbone outline plan and almost every rural county has a FTTB detail plan or are currently having such plans developed. In this way, state-wide fibre optic connections can be developed in a gradual yet targeted manner. In addition, since the current administrative rule on the promotion of broadband entered into force on 1 August 2015, funding is also granted to connecting school premises with their own fibre optic cables. The state also supports municipalities that receive funding under the federal programme for broadband development with co-funding as defined in the administrative rule on the co-funding of broadband development of 26 April 2016. Here, the amount of co-funding provided by the state of Baden-Württemberg is based on the grant provided by the Federal Government. The amount of federal funding is generally 50% of the costs eligible for funding, and the amount of funding from the state of Baden-Württemberg is generally 20%, so funding of 70% is provided in total. For the Federal Government's Special Programme for Business Parks, the state of Baden-Württemberg provides additional funding amounting to 30% of eligible expenditure.

Hesse: Under the Digital Strategy of the State of Hesse, the state set itself the goal of having state-wide access to Internet connection speeds of at least 50 Mbit/s by the end of 2018. With specific coverage guaranteed in the foreseeable future, Hesse's 2018 goal can be considered to have been reached. 84% of households in Hesse have broadband coverage with speeds of 50 Mbit/s (as at the end of 2017). Furthermore, according to TÜV Rheinland/Goldmedia, 62.5% of all households in Hesse already have connections with speeds ≥ 400 Mbit/s (as at January 2018). This means that the scenario put forward in Hesse's Digital Strategy for 2020 already became a reality at the start of 2018. In the current 19th legislative term, the state of Hesse is making around a half a billion euros available for the expansion of its digital infrastructure in the form of loans, consulting services and – for the first time – also direct grants totalling over €100 million. These funds come from the Länder-specific share in the funding allocated through the European Agricultural Fund for Rural Development (EAFRD), funds from the Joint Scheme for the "Improvement of Regional Economic Structures" (GRW) and the Joint Scheme for the Improvement of Agricultural Structures and Coastal Protection (GAK), and also include funds from the state of Hesse. In addition to funding the municipal broadband rollout, which is actively pursued by all 21 counties in Hesse, the funds are also used to co-fund the Federal Government's broadband funding programme, for example. The Northern Hesse Cluster, which was notified to the EU in 2015, is one of the biggest of its kind in Europe (volume: €128.3 million; €20 million in EAFRD funding was granted to the NGA Cluster in Northern Hesse on 15 February 2017). Currently one of the expansion priorities is the direct fibre optic connection of schools, hospitals and business parks. The gradual development of ultrafast fibre optic broadband networks is being implemented in parallel on an as-needed basis in a manner that is as market driven as possible. To this end, an implementation-driven and comprehensible Gigabit Strategy is being developed which takes new plans at federal level into consideration and serves as a guideline for the targeted expansion of broadband in Hesse. The Strategy will also factor in the new 5G mobile communications standard and WLAN. An amendment to the "Guidelines on the funding of broadband coverage in Land Hesse" is planned in the first half of 2018 to promote municipal WLAN infrastructures.

Presented at the 9th Hesse Broadband Summit on 6 June 2018.

Description of action and anticipated impact

Status and schedule North Rhine-Westphalia

Continuation: Measures adopted by the Länder to promote broadband development North Rhine-Westphalia (NRW): The state of North Rhine-Westphalia supports broadband rollout as part of the co-funding of the federal programme, such that a funding rate of 90% or up to 100% for financially weak municipalities is guaranteed. In the five calls for projects under the federal programme, 80 primarily district-wide measures are supported with an investment volume worth around €1.5 billion. Further to this, within the framework of Land-specific programmes NRW is also making funding available for NGA development in the state, broadband development for business parks and for the connection of commercial enterprises to NGA networks. Roughly €600 million in Land funds are available for broadband funding in 2018 alone.

is to have state-wide convergent gigabit networks by 2025.

Lower Saxony: Since 2014, the goal of the Broadband Strategy in Lower Saxony has been to achieve the state-wide expansion of a viable, high-speed and sustainable broadband infrastructure by 2020. Under this Strategy, the state of Lower Saxony will provide grant-funding of roughly €120 million in total, complemented by a loan programme from NBank to fund municipal broadband networks (at county level) worth up to €500 million from funds from the European Investment Bank. In its expansion of broadband, Lower Saxony is relying on the responsibility and competencies of the counties and urban districts. The municipalities have finalised their planning across the state and have made corresponding applications for funding to the Federal Government and/or the Land. In total, applications for over €400 million in funding have been made so far which have already been approved or will be approved shortly. The current demand for municipal broadband loans to finance district-owned networks amounts to around €226 million. The state-wide expansion of the networks is therefore entering the implementation phase.

Will run until 2020.

Saxony-Anhalt: The state of Saxony-Anhalt is making funding available from the European Regional Development Fund (ERDF) and the European Agricultural Fund for Rural Development and additional funds from the joint programme for the "Improvement of Regional Economic Structures", the joint programme for the Improvement of Agricultural Structures and Coastal Protection and the Federal Government's broadband funding programme to bring about the state-wide provision of broadband connections with minimum download speeds of 50 MBit/s. The total budget for digital infrastructure expansion in Saxony-Anhalt is up to €300 million. Looking to the future, the state of Saxony-Anhalt is seeking state-wide coverage with fibre optic networks. The aim is for it to be possible to exchange data at gigabit speed via fibre optic networks across the state from 2030 onwards. Businesses, schools and universities are given particular priority in connecting up to the fast Internet infrastructure.

In force since 8 December 2015 (publication of the NGA guideline).

Saxony: In Saxony, the "Saxony Digital Campaign" programme is in place with two special funding guidelines, and general funding guidelines are also open for the rollout funding guidelines in force of Next Generation Access (NGA) broadband networks. Saxony is providing budget funds of over €450 million to promote the development of digital infrastructures. Of this amount, €350 million are via the Act to Establish a Special Fund entitled "Fund to Safeguard Saxony's Future", approximately €32 million are from the Digital Agenda II and up to €50 million are expected to come from funds under the EU's ERDF programme. A priority is placed on the co-funding of projects under the federal broadband funding programme. The broadband expansion goals are aligned with the federal goals but provisions are also made for state-wide access to speeds of at least 100 Mbit/s by 2025, and also for symmetrical bandwidths of at least 500 Mbps specifically for small and medium-sized enterprises (SMEs) using funds from the ERDF. Under the guidelines for the funding of road and bridge construction projects, funding is provided for the concurrent building of digital infrastructures in tandem with such projects, particularly according to the modified provisions of the Telecommunications Act (Telekommunikationsgesetz) as amended in the Digital Network Act (DigiNetzGesetz). Added to this are mechanisms of support from funds under the Joint Scheme for the Improvement of Agricultural Structures and Coastal Protection (GAK) (up until 2018) and the Joint Scheme for the Improvement of Regional Economic Structures (GRW) as well as funds from the "Bridges to the Future" programme and funding under the LEADER development strategy.

Current version of the since 5 January 2018.

Description of action and anticipated impact

Status and schedule

Continuation:
 Measures adopted by
 the Länder to promote
 broadband development

Rhineland-Palatinate: By cleverly coordinating the Land-specific funding guideline with the federal funding guideline, the state of Rhineland-Palatinate has been able to make optimum use of the funds for fibre-to-the-curb (FTTC) fibre optic infrastructure in the state, and by combining the two guidelines has generated a funding rate of 90%, thereby reducing the municipal share to 10%. Starting in 2015, the state of Rhineland-Palatinate had already established a funding line totalling €124.7 million for the creation and expansion of the broadband infrastructure for the coming years. In the course of the five calls for applications by the Federal Government, Land and federal funding has been allocated, or promised, for 23 broadband infrastructure projects, primarily at county level. Further to this, funds from the Municipal Investment Programme 3.0 have also been used for broadband projects. In the expansion plans, business parks are already chiefly planned with fibre optic connections. Following the broadening of the federal funding guidelines, the counties have included schools in the broadband infrastructure projects on an as-needed basis. As its next step, Rhineland-Palatinate will make additional funding available for fibre-to-the-home/building (FTTH/B) and for the creation of a gigabit society.

24 projects are underway in 22 counties.
All counties should be in the project implementation phase by the end of 2018 (at difference stages of development, depends on county).

Bavaria: The Free State of Bavaria supports its municipalities with a broadband expansion funding programme that is unique in all of Germany. The aim of the programme is the state-wide provision of high-speed Internet. For over four years, the Bavarian State Ministry for Finance, Regional Development and the Homeland has made great progress in the expansion of data highways and provided up to €1.5 billion in funding towards this goal. This offer of support has proven extremely popular, with 2002 of Bavaria's 2056 municipalities already taking part in the funding procedure. 2147 funding award notifications have already been issued for total funding of around €730 million. Many municipalities repeatedly take part in the funding procedure in order to gradually achieve a high level of coverage. Over 3300 funding procedures have already commenced. Currently, infrastructure access is being developed for well over 700,000 households – over 90,000 of which receiving direct FTTB – and around 40,000 kilometres of fibre optic cables are being laid. Since 1 July 2017, particular support is being given to municipalities with a large number of dispersed settlements with the "Farm Bonus" special programme. On 30 May 2017, the Bavarian Cabinet announced an initiative for a gigabit-capable infrastructure in the entire state of Bavaria by 2025 in the Bavaria Digital II Masterplan.

Funding guideline in force since 2014.

5G Strategy for Germany The expansion of mobile network coverage is to be stepped up to make Germany the lead market for 5G. Frequency policy and the frequency-specific regulations of the Federal Network Agency must ultimately ensure full and reliable mobile network coverage, particularly in rural areas.

The allocation of licenses is to be tied to development requirements in order to close existing gaps in network coverage and ensure the dynamic expansion of 5G connectivity. The requirement must be that new frequencies will only be allocated in exchange for full coverage. This is because innovative, viable future mobility solutions will only be feasible, particularly for people in rural areas, if infrastructure providing the latest mobile communications technology (5G) is ensured on federal trunk roads and – with phased implementation – also on subsidiary roads and on all rail routes. Research and testing with 5G is to be continued and stepped up. Priority is to be given to providing five regions with a corresponding mobile telecommunications standard in order to step up research and speed up infrastructure development. Rural regions are also to benefit from this.

Existing dead spots and white areas in cell phone and mobile Internet coverage will be eliminated quickly. A nationwide overall strategy will be developed with the Länder and the mobile telecommunications providers to this end. The Federal Network Agency will enforce compliance with specified service provision conditions. To do so, it will define a test strategy and perform nationwide mobile communications coverage tests to monitor compliance with provision conditions and will impose penalties on a case-by-case basis.

5G is expected to be launched commercially starting in 2020.

No.	Action name	Description of action and anticipated impact	Status and schedule
8.	Continuation: 5G Strategy for Germany	The Federal Network Agency is instructed to expand the functionalities of its app to measure mobile network coverage in such a way that the public can report dead spots to the authority in an easy and unbureaucratic manner. These reports are to be compiled in a mobile network coverage map and published. The Federal Network Agency will publish an annual monitoring report on delivery of the promised network coverage and will issue recommendations for action if necessary.	
9.	Restructuring of fiscal relations between the Federal and <i>Länder</i> governments	Under the new rules, the <i>Länder</i> will receive relief initially of around €9.7 billion in total per year from 2020 onwards. At the same time, the reform will modernise the fulfilment of responsibilities in key areas in the federal state and strengthen the role of the Federation. The restructuring of fiscal relations between the Federation and the <i>Länder</i> establishes the framework for permanently sound budgets at Federal and <i>Länder</i> level and for long-term compliance with the borrowing limits. This safeguards the ability of the federal levels to act and strengthens the assumption of responsibility by the territorial authorities. Not least, this also improves the conditions for sustainable investment which, in a federally structured state, is the responsibility of the territorial authorities competent in each case. Plans are also in place for a nationwide online portal network that gives citizens standardised access to all administrative services.	In force since 20 July 2017 (Act to amend the German Constitution, Gesetz zur Änderung des Grundgesetzes) and since 18 August 2017 (Act on the Restructuring of the National Fiscal Equalisation System from 2020 and on the Modification of Budgetary Provisions (Gesetz zur Neuregelung des bundesstaatlichen Finanzausgleichssystems ab dem Jahr 2020 und zur Änderung haushaltsrechtlicher Vorschriften).
10.	School modernisation programme of the Municipal Investment Promotion Fund (Municipal Investment Promotion Act II (Kommunalinvestitionsförderungsgesetz II)	With Chapter 2 of the Municipal Investment Promotion Act, the Federation is providing support to the Länder for investment by financially weak municipalities to improve the school infrastructure. Financial assistance amounting to €3.5 billion in total will be granted to the Länder from the special "Municipal Investment Promotion Fund" in the period through to the end of 2022. Alongside the provision of funding for the main investment measures, necessary complementary infrastructure measures, including measures designed to ensure that digital requirements for school buildings are met, are also eligible for funding support. With this programme, the Federal Government is helping to reduce the existing backlog in the modernisation of the school infrastructure.	Act in force since 18 August 2017. Administrative agreement in force since 20 October 2017.
11.	ESIF (European Structural and Investment Funds)	Total funding of €28.8 billion from the ESIFs is available to Germany in the 2014 – 2020 programming period. Germany's regions will receive around €11.7 billion from the European Regional Development Fund (ERDF) (this includes around €0.9 billion for the European Territorial Cooperation (ETC) goal of cohesion policy), around €7.5 billion from the European Social Fund (ESF), approximately €9.5 billion from the European Agricultural Fund for Rural Development (EAFRD) and approximately €220 million from the European Maritime and Fisheries Fund (EMFF). The aim of the ESIFs is to reduce locational disadvantages in economically weaker regions, improve the economic structure, create jobs and thereby strengthen growth, competitiveness and employment, produce healthy foods, protect natural resources, improve biodiversity and contribute to climate change mitigation. The ESIFs are co-financed by national public-sector or private-sector funds.	Continued implementation of the operational programmes and development programmes of rural areas in the 2014 – 2020 ESIF programming period.

No.	Action name	Description of action and anticipated impact	Status and schedule
B. St	rengthening private investme	ent and stimulating competition further	
12.	Act on the Modernisation of the Taxation Procedure (Gesetz zur Modernisierung des Besteuerungsverfahrens)	The Act on the Modernisation of the Taxation Procedure renders the tax system more efficient and economical by making greater use of information technology and by ensuring the more targeted allocation of resources. This ensures fair and equal tax enforcement and strengthens Germany's position as a centre for business. The system of tax collection becomes easier, faster and more efficient.	The majority of the provisions under the Act entered into force on 1 January 2017 (Federal Law Gazette 2016 I, No. 35, P. 1679).
13.	Act to Combat Harmful Tax Practices relating to the Transfer of Rights (Gesetz gegen schädliche Steuerpraktiken im Zusam- menhang mit Rechteüber- lassungen)	The Act introduced a new Section 4j in the Income Tax Act (Einkommensteuergesetz) with effect from 2018. Under the new provisions, expenses in connection with the licensing of rights to a related party as defined in Section 1 (2) of the Foreign Tax Relations Act (Außensteuergesetz) may not be deducted, or may only be deducted in part, if the recipient of the payment is not taxed for this payment, or is only taxed at a low rate, on account of a preferential treatment regime (known as "IP boxes", "license boxes" or "patent boxes"). Preferential treatment regimes that meet the substantial activity requirement and therefore comply with the "nexus approach" agreed by the OECD and G20 are not deemed harmful and therefore do not fall within the scope of this rule. In addition, the threshold for immediate depreciation of low-value assets has been raised from €410 to €800, the lower threshold for the formation of a collective item has been increased from €150 to €250 and the tax exemption for the INVEST grant (Section 3, Number 71 of the Income Tax Act) has been adapted to the new funding guidelines that apply with effect from 1 January 2017.	Section 4j of the Income Tax Act is effective for expenses incurred after 31 December 2017.
14.	Act to Reform Investment Taxation (Gesetz zur Reform der Investmentbesteuerung)	 The reform of investment taxation pursues the following goals in particular: Eliminate risks relating to EU law. Prevent individual aggressive tax arrangements and reduce the overall susceptibility of investment taxation law to creative tax structures. Considerably reduce the effort for determining the tax assessment basis on the part of the business community and private individuals on the one hand, and the administrative burden of tax administration on the other, in mass tax procedures for mutual investment funds and their investors. Rule out the avoidance of taxation of dividends through dividend-arbitrage transactions (cum-cum deals). 	In force since 27 July 2016. Rules essentially apply from 1 January 2018.
15.	Ordinance for Public-sector Purchasing below the Relevant Thresholds (Unterschwellenvergabe- ordnung)	Amendment to procurement legislation for contracts below the thresholds by applying the main changes to procurement law in the field above the EU thresholds to procedures and structures for contract awards below the EU thresholds. This makes procurement law for smaller public-sector contracts more flexible and uniform.	In force for the Federation since 2 September 2017. Will be put into force by the <i>Länder</i> in 2018.
16.	Competition register	Establishment of a competition register at the Federal Cartel Office following the entry into force of the Competition Register Act (Wettbewerbsregistergesetz). Details on the reporting of white-collar crimes to the register and the accessing of information from the register will be set down in an accompanying statutory instrument.	Establishment from 2018 to 2020.
17.	Review of the reform recommendations of the European Commission for regulation in professional services	The Federal Government is taking the European Commission's recommendations for regulation in professional services as an opportunity to again examine the regulations in professional services addressed in the communication. The following recommendations have been implemented so far: Implementation of Directive 2013/55/EU for patent attorneys; the recommendation regarding transparency and legal certainty in the provision of tax advisory services by businesses established in other Member States has been implemented in the amended Act to Combat Tax Avoidance (Steuerumgehungsbekämpfungsgesetz) of 23 June 2017; decision not to regulate the real estate agent profession (only introduction of a requirement for regular continuing training).	Review in this legislative term with due regard to the process for tracking the reform recommenda- tions at EU level.

Description of action and anticipated impact

Fee scale ordinance for tax The Federal Government also takes account of the fact that the European Commission advisers and the statutory opened an infringement procedure against Germany on 18 June 2015 over the binding fee schedule for architects minimum fees set by the fee scale ordinance for tax advisers and the statutory fee and engineers

schedule for architects and engineers. The rules governing the fee scale ordinance for tax advisers have since been modified. However, with regard to the statutory fee schedule for architects and engineers, which already only applies to domestic service providers, the European Commission has referred the case to the European Court of Justice (ECJ). The application was served on Germany on 28 June 2017. In its response of 7 September 2017 the Federal Government stated that it cannot recognise that the freedom of establishment has been violated and that the setting of fee rates is justified I P. 1722). for reasons of consumer protection and quality assurance, amongst others. The European Commission responded to this in a reply submitted to the ECJ on 1 November 2017 in which it upholds the position it held previously. Germany submitted its opinion on this in a rejoinder on 8 December 2017.

Status and schedule

The rules for the fee scale ordinance for tax advisers were amended by Article 9 of the Third Ordinance to Amend Tax Regulations (Dritte Verordnung zur Änderung steuerlicher Verordnungen) of 18 July 2016 (Federal Law Gazette

C. Increasing incentives for labour force participation

19. Act to Combat Tax Avoidance (Steuerumgehungsbekämpfungsgesetz) of 23 June 2017.

In the area of taxation, further efforts are being made to raise awareness of the factorbased method (Faktorverfahren) in tax bracket IV. As the factor-based method has the effect of sharing relief between both earners, this can support efforts to increase the supply of labour.

From 2018, the IV/IV tax bracket combination (without a specially calculated multiplying factor) will become the standard tax bracket for married couples and it will be possible to change from the optional III/V tax bracket combination to the IV/IV tax bracket combination at the request of only one spouse.

Entered into force on 1 January 2018 (Federal Law Gazette I P. 1682).

20. Act Amending the Temporary Employment Act and other Acts (Gesetz zur Änderung des Arbeitnehmerüberlassungsgesetzes und anderer Gesetze)

The Act refocuses the temporary employment system more on its core function again. In force since 1 April 2017. A new rule regarding pay parity with comparable regular staff after nine months is a central element of the legislation. Differences in pay for a longer period of time are only possible if a supplementary sectoral collective agreement has been agreed by the social partners. In particular, after a period of 15 months such an agreement must lead to a level of pay defined in the collective agreement as equivalent to remuneration in the specific sector. Furthermore, a gradual increase in the rate of pay must commence after just 6 weeks.

21. Act to Implement the Amendments to the FU Directive on Mutual Administrative Assistance and other Measures to Prevent Base Frosion and Profit Shifting of 20 December 2016 (Gesetz zur Umsetzung der Änderung der EU-Amtshilferichtlinie und von weiteren Maßnahmen gegen Gewinnkürzungen und -verlagerungen)

For 2017 and 2018, the Federal Government has taken further steps to increase the basic personal allowance, the child allowance, the child benefit and the child supplement and to combat fiscal drag (change in the income tax rate to offset the inflation rate of the preceding year). The Act introduces additional relief amounting to over €6 billion in total, almost €4 billion of which are for the new measures in 2018. Together with the two reductions in social security contributions (see below), these measures generate labour-related relief in 2018 of around 0.2% of GDP.

Entered into force on 1 January 2017 and 1 January 2018 (Federal Law Gazette I P. 3000).

22. 2018 Ordinance on the Contribution Rate for Statutory Pension Insurance (Beitragssatzverordnung 2018 für GRV) and reduction in the additional contribution rate for statutory health insurance

The contribution rate to the statutory pension insurance system will drop by 0.1 percentage points from the current rate of 18.7% to 18.6% with effect from 1 January 2018. pension insurance): The arithmetical average additional contribution rate of the statutory health insurance funds fell to 1.08% on 1 January 2018.

Cabinet decision (statutory 22 November 2017. Announcement by Federal Ministry of Health (statutory health insurance): 23 October 2017 Cabinet decision (statutory pension insurance): 22 November 2017.

Table II: Actions to deliver on the national goals within the context of the Europe 2020 strategy

No.	Action name	Description of action and anticipated impact	Status and schedule
A. F	ostering employment		
1.	Measures to expand and improve childcare facilities	The Federation is providing a total of €3.28 billion through the "Childcare Financing" investment programmes in 2008 – 2013, 2013 – 2014 and 2015 – 2018 to support the nationwide expansion of childcare facilities for children under three. With the promulgation of the "Act to Further Promote the Improvement in the Quality and Quantity of Childcare Services (Gesetz zum weiteren quantitativen und qualitativen Ausbau der Kindertagesbetreuung) of 29 June 2017, the Federal Government launched the 2017 – 2020 "Childcare Financing" investment programme and scaled up the "special fund for the expansion of childcare services" by a total of €1.126 billion to create an additional 100,000 childcare places for children until they start school. The Federation has been contributing €845 million annually towards operating costs on a permanent basis since 2015. This was increased again by a further €100 million for the years 2017 and 2018. Furthermore, since 2016 the Federation has been specifically supporting language development in childcare facilities and innovative concepts for needs-driven childcare opening times with the federal programmes "Chatter Matters: Because Language is Your Key to the World" (Sprach-Kitas: Weil Sprache der Schlüssel zur Welt ist) and "Childcare Plus: Because Good Care is Not a Time Issue" (KitaPlus: Weil gute Betreuung keine Frage der Uhrzeit ist). Since the start of 2017, services are also being developed and expanded to prepare and enable children to enter early childhood education and childcare under the federal programme "Starting Nursery School: Building Bridges to Early Education" (Kita-Einstieg: Brücken bauen in frühe Bildung). Funding of around €1 billion is available for these programmes. Further to this, the Federation is providing approximately €2 billion to the Länder and municipalities to improve childcare services. This is financed through funds that have been freed up from the discontinuation of the childcare benefit for home-based care.	In force.
2.	Measures adopted by the Länder to increase the rate of female labour market participation	 Rhineland-Palatinate: "New opportunities" advisory centres: Information, advice and support services surrounding the gainful employment of the "hidden labour force reserve" of inactive persons. Labour market policy programme: Guidance for women and men who are fit for work and are not claiming either unemployment benefit I or II and who have taken a career break of at least 3 years for the purpose of child-rearing or to care for a family member. Pilot project to promote the skills development of women refugees: beyond the framework of existing support instruments, women refugees receive individual coaching and mentoring to help them integrate into society and working life. FiT – Women in Part-time: Service with social and educational support open to all professions in which single mothers on unemployment benefit II learn a profession of their choice on a part-time basis. 	Ongoing since 1 January 2015 (ESF-funded). Ongoing since 1992 with various modifications. New since January 2017. New since March 2017.
3.	Act to Flexibilise the Transition from Working Life to Retirement and to Strengthen Prevention and Rehabilitation in Working Life (Flexi-Pension Act) (Gesetz zur Flexibilisierung des Übergangs vom Erwerbsleben in den Ruhe- stand und zur Stärkung von Prävention und Rehabilita- tion im Erwerbsleben)	The Act to Flexibilise the Transition from Working Life to Retirement and to Strengthen Prevention and Rehabilitation in Working Life (the "Flexi-Pension Act") (Gesetz zur Flexibilisierung des Übergangs vom Erwerbsleben in den Ruhestand und zur Stärkung von Prävention und Rehabilitation im Erwerbsleben) can help to ensure that the positive employment trend amongst older workers continues. Of the new provisions in the Act, the more flexible rules regarding partial pension and supplementary earnings deserve particular mention. It is now possible to combine gainful activity and partial pension more flexibly than before thanks to the introduction of a new rule for supplementary earnings to be counted progressively. Continuing to work while also receiving a pension up until the standard retirement age has the effect of increasing a person's pension more and more. Once the retirement age has been reached, insured parties can earn additional earnings points and thus a higher pension entitlement if they pay contributions to the statutory pension insurance system on their income ("opt-in"). Further to this, for a certain period the employer's contribution to unemployment insurance will cease to be made for pensioners who are in dependent employment after having reached the standard retirement age. In addition, the Act strengthens the benefits provided for preventative action on health, rehabilitation and follow-up care to maintain an individual's ability to work, creating the conditions to enable people to work for longer in old age.	In force since 1 January 2017 and 1 July 2017.

Description of action and anticipated impact

Ongoing implementation through to August 2018, further development

from September 2018.

Status and schedule

4. Measures adopted by the Länder to secure the skills base <u>Lower Saxony</u>: "Lower Saxony Skilled Labour Initiative": Implementation of the agreement to secure the supply of skilled labour between the *Land* government of Lower Saxony and the employer associations, the trade unions, the chambers, the Lower Saxony/Bremen regional office of the Federal Employment Agency, municipal authority central associations and other stakeholders. The agreement is complemented by a framework for action with clear objectives in 13 action areas on the basis of which the partners to the agreement jointly put measures in place to secure the skilled labour base. Further to this, the partners agree to address key focal topics each year. After it expires in its current form, the Skilled Labour Initiative will be developed further from September 2018 onwards.

Ongoing implementation.

Hesse: The overall "Securing Skilled Labour in Hesse" approach is the strategy adopted by Land Hesse and the training and labour market partners to secure the skilled labour base in Hesse in the face of a changing world of work. It is based on a strategy mix of education, labour market policy geared towards unlocking potential, and internationalisation as a locational factor. The central elements of the strategy include attracting skilled professionals from within Germany and abroad, securing the skills base in business enterprises (e.g. by upskilling, maintaining employability and creating attractive, healthy and safe jobs that are suitable for older employees and adapted to the needs of an ageing workforce) and making businesses more attractive employers. A "Secure Skilled Labour Supply in Hesse" department was set up at the Hesse Ministry for Social Affairs and Integration to coordinate the strategy and measures across the state ministries and to refine the strategy further. The department acts as a central point of contact, driving force and supporter of dialogue on skilled labour and networking at Land level. A central line of action in this context is the support and strengthening of the regions, which have been and will be invited to a dialogue for the future of Hesse entitled "Learning from one another and working together to shape Hesse for a sustainable supply of skilled labour in the regions". The motto for 2017 was "Securing the supply of skilled labour in a changing world of work: attractive regions and attractive employers bridging tradition and the modern age" (dialogue for the future for south Hesse: 25 August 2017, central Hesse: 26 October 2017, north Hesse: 6 November 2017). The dialogue for the future provided a platform for the participants – such as businesses and organisations, chambers of crafts, chambers of industry and trade, trade unions, economic development centres, employment agencies, job centres, educational and skills development institutions, employee representatives, associations and other partners of the labour and training market - to examine their current strategies for regional and company-specific retention of skilled labour on the basis of practical examples, to exchange innovative ideas and together develop new projects, strengthen existing alliances and enter new partnerships, and in doing so prepare themselves for the future. There are plans to continue the dialogue in 2018. Further to this, in light of the shortage of skilled labour in the health care and nursing sector, Land Hesse (Hesse Ministry of Social Affairs and Integration, Hesse Ministry for Education and the Arts), the Federal Employment Agency (Hesse regional office) and Provadis launched the joint initiative "Jobs with a Future - Health and Long-term care: Health Camps in Hesse". At the camps, young people get to learn about the wide variety of jobs in the medical, pharmaceutical, nursing and health care sectors, and health care and long-term care institutions get to know their skilled staff of tomorrow. The initiative will be continued in 2018 and 2019. In addition, due to the growing need for qualified professionals in the field of geriatric care and to support efforts to secure the skills base in the nursing sector, the Hesse Ministry of Social Affairs and Integration, the Hesse Ministry for Education and the Arts, the Federal Office of Family Affairs and Civil Society Functions, the Federal Association of Private Social Service Providers (bpa), the Hesse Land Association of the German Red Cross, the German Association for Aid to the Elderly and People with Disabilities and the Hesse regional office of the Federal Employment Agency launched the "Integrated Care in Hesse" Land initiative. This initiative contains the modules "nursing and care days at vocational schools, strengthening the care component in regular educational courses for pre-vocational training at vocational schools, and a pilot project for part-time elder care assistant training with integrated vocational preparation and Hauptschule lower secondary school certificate for refugees/migrants". Furthermore, a project has also been launched to develop a Centre to Support the Recruitment and Long-term Integration of

Description of action and anticipated impact

Status and schedule

Continuation: Measures adopted by the Länder to secure the skills base

International Nursing and Health Care Professionals (ZIP Hesse). In addition, consultant conferences have been held on "Securing skilled labour through the dissemination of knowledge and expertise in small and medium-sized enterprises" where business consultants receive training and instruction in this area. In their capacity as disseminators, this has helped to establish measures to secure the long-term supply of skilled labour in businesses and organisations in Hesse in Hesse's changing work landscape. Plans are in place for additional consultant conferences.

Rhineland-Palatinate: Together with the business associations, trade unions, chambers of crafts, chambers of industry and trade and the Federal Employment Agency, the Land government of Rhineland-Palatinate has decided to continue the "Land Strategy for a Secure Supply of Skilled Labour in Rhineland-Palatinate" with over 200 individual projects.

- Action area 1 focuses on securing a new generation of skilled workers. The central goals here include improving guidance and orientation when it comes to choosing a career, prevention of people leaving school, degree programs and vocational training, improving the quality of the dual system of vocational training and making it more appealing, better permeability in the education system, and ensuring an optimum transition between school and vocational training.
- The focus of action area 2 is to unlock potential that is currently unused. To this end, the integration of unemployed individuals is to be improved, the conditions for reconciling career and family commitments enhanced, the labour force participation of women and older workers increased and, complementing this, international skilled workers are also to be recruited.
- In addition to recruiting new skilled professionals it is just as important to maintain and build on existing skills in the workforce. Therefore action area 3 concentrates on increasing the participation of workers in continuing education and training measures (CET), creating an optimum system of CET advice and support, establishing the principle of "age-appropriate work" and putting the focus on more in-company health management.
- The question of how businesses in the state of Rhineland-Palatinate can present themselves as attractive employers when competing with other businesses for talent is also an important issue. Therefore action area 4 is designed to raise business awareness and support businesses through measures such as HR policies that are geared towards individual phases of a person's life.

Binding rules have been established for each of the 200+ projects that clearly stipulate which partner has lead responsibility for project implementation and the other stakeholders the partner is to work with in the context of the project. Progress on the implementation of each project is reviewed annually, presented in a transparent manner and adjustments are made if necessary.

Saarland: In consultation with the economic and social partners and with labour market A central network unit policy stakeholders, the Land government of Saarland continues to expand its current activities to secure the skilled labour base in the "Saar Future Alliance for Skilled Labour". The strategy paper on skilled labour supply in Saarland has been updated and modules added. The package of measures for securing the supply of skilled workers covers a broad range, with the nine action areas of the skilled labour strategy addressing both individual situations in life and specific target groups. The implementation of the "good work" approach and the targeted support of SMEs are strategic priorities of the "Saar Future Alliance for Skilled Labour". The overriding goal remains that of making Saarland a business location that is fit for the future and an attractive place to live in order to retain skilled workers in the state, qualify skilled workers and attract new ones. A work programme on the topic of "vocational catch-up qualification schemes for unskilled and older job-seekers" was created during the reporting period. The previous action programme "Continuing professional development of employees" is being implemented in the reporting period together with other previous action programmes. The central network unit for "Women at work" commenced operations in

2017.

Ongoing expansion of activities implemented to date. Development of a monitoring system for the Strategy for a Secure Supply of Skilled Labour.

for "Women at work" commenced operations on 1 January 2017.

No.	Action name	Description of action and anticipated impact	Status and schedule
5.	Alliance for Initial and	The Federation, the business community, trade unions, the Federal Employment Agency	May 2018. Strategy
	Further Training 2015 – 2018	 and the Länder have agreed to increase the importance and appeal of vocational training and promote the equality of vocational and academic education. Since the Alliance for Initial and Further Training was established, the partners to the Alliance have rolled out the following central measures to strengthen the dual system of training and education focussing on local young people as well as young refugees. Significant increase in the range of in-company training places registered with the Federal Employment Agency Joint strategy for the placement and second-round placement of young people in training Assisted training as a new instrument to support young people with greater difficulties finding a training position and to support companies providing training Better access to training-related assistance, and "Welcome guides" in the chambers designed to advise and help businesses in all areas surrounding the integration of refugees into the labour market Establishment of a nationwide network of KAUSA service centres (KAUSA = Coordination Office for Training and Immigration) which is specifically active in recruiting 	workshop on the future of the Alliance.
		the migrant community for vocational training and advising businesses with regard	
6.	Strategy for a "Digital Education Campaign for the Digital Knowledge Society"	to the vocational training of people from a migration and refugee background The Federation is lending support to the <i>Länder</i> in the teaching of digital skills subject to the provision of funding by the legislative bodies. The following actions, amongst others, are to be taken to promote digital skills: The Digital Pact for Schools is to be implemented in tandem with the <i>Länder</i>	Ongoing implementation since 2017.
		 The HPI and MINT-EC School Cloud project is to be developed further and implemented on a broad scale Research and development of digital teaching and learning formats at higher education institutions is to be supported with the "Digital Higher Education" research priority The use of digital media in vocational initial and further training is to be promoted under the "Digital Media in Vocational Training" programme Efforts towards the modernisation of training regulations and degree programmes are to be stepped up Incentive structures for continuing education and training are to be specifically geared towards the acquisition of digital skills A series of measures are to be taken under the umbrella of the "Vocational Training 4.0" initiative in order to address this challenge 	
7.	Programme to Enhance the Quality of Teacher Training	Quality teaching staff are key to bringing about further improvements in the field of education. Therefore, the Federation and the <i>Länder</i> decided to further enhance the quality of teacher training in Germany with a joint programme. With a new generation of teaching staff entering schools, the "Programme to Enhance the Quality of Teacher Training" aims to provide impetus to improve the quality – both in terms of content and structure – of the entire teaching training process through to the initial work phase and continuing education and training. At the same time, the comparability of teacher training study-credits and teaching qualifications is to be guaranteed and equal access to, and equal employment opportunities in, practical training positions and teaching positions is to be ensured. This will support the better mobility of student teachers and teaching staff on a binding, lasting basis. Subject to the provision of funding by the legislative bodies, the Federation is providing total funding of up to €500 million. 49 projects in all 16 <i>Länder</i> are supported in the first funding phase from 2015 to 2018/2019. 59 third-level institutions are taking part in these projects, which equates to almost every second teacher-training college in Germany.	Runs from 2014 to 2023.
8.	"Digital Higher Education" research priority	The "Digital Higher Education" research priority aims to take advantage of the opportunities presented by digital technologies to improve the quality of higher education and to embed digital university teaching in a digital university master plan, and thereby foster the innovative capacity of the German higher education landscape. The first funding guideline focuses on the systematisation and generation of knowledge on the impact and effectiveness of digital education formats. The priority of the second funding guideline is to identify didactic organisational and technical concepts (design concepts) with a particularly high potential for innovation with regard to the quality of	Funding announcement of 15 August 2017: guideline for the promotion of research into digital higher education – the potential of digital higher education for innovation.

higher education.

Description of action and anticipated impact

Status and schedule

9. "Vocational Training 4.0" umbrella initiative

Increasing digitalisation and automation is changing the requirements placed on vocational initial and further training. The "Vocational Training 4.0" umbrella initiative brings together measures that are all geared towards creating an attractive and competitive system of vocational education that is ready for the future. Specifically these measures include:

- The Initiative for Professional Qualifications and Skills for Tomorrow's Digitalised Working World. Based on selected occupations, this initiative aims to identify the impact of digitalisation on qualification requirements at an early stage across multiple sectors and – where necessary – set down appropriate recommendations for action at the regulatory level, and also for the further training of trainers.
- The Special Programme to Promote Digitalisation in Inter-company Vocational
 Training Centres and Centres of Excellence. To ensure high-quality, modern training
 of skilled staff for SMEs, the procurement of digital infrastructures is supported and
 selected pilot projects for the customisation of innovative training strategies are
 being developed, trialled and monitored.
- The "Digital Media in Vocational Training" programme. This programme aims to promote and disseminate the use of digital media in vocational initial and further training. Digital media can make a key contribution to modernising vocational training and therefore to increasing its competitiveness. The programme is also designed to help establish the structural framework in businesses for the use of digital media in initial and further training and to increase the digital media skills of trainers and trainees.

The 20 projects under the "Initial and Further Training in the Business Sector 4.0" funding guideline which were launched in the summer of 2017 as part of the "JOBSTARTER plus" programme develop support structures for small and medium-sized enterprises (SMEs) which they can apply to respond at an early stage to personnel requirements associated with the increasing use of digital technology. The ASCOT+ transfer initiative was launched in April 2017. The aim of this initiative is to transfer computer-aided assessment methods, which visualise the vocational skills and abilities of trainees, to real-life teaching and learning processes, to the process of monitoring individuals' learning success and to examination procedures.

20 JOBSTARTER plus projects under the "Initial and Further Training in the Business Sector 4.0" funding guideline began on 1 July and 1 August 2017.

October 2016: start of the eight pilot projects under the special programme for the "Digitalisation of Inter-company Vocational Training Centres".

April 2017: start of the transfer initiative "ASCOT+ – measuring skills and abilities in vocational training".

 Centre of Excellence for Securing Skilled Labour (KOFA) The Centre of Excellence for Securing Skilled Labour [www.kofa.de] helps SMEs to find skilled staff, to present themselves as attractive employers and to stay competitive with a well-qualified, highly skilled workforce. Its services are primarily geared towards the CEOs and HR managers of SMEs but also to disseminators such as associations, chambers and economic development centres, media workers and interested members of the public. The Centre of Excellence for Securing Skilled Labour is currently expanding its information and consulting services with regard to digitalisation and new forms of continuing training and education for workers, such as e-learning or learning platforms.

Ongoing.

 Recognition of professional qualifications acquired abroad A central element in expanding the skills base in Germany is the recognition of foreign qualifications. The recognition of qualifications acquired abroad is an important instrument to support the successful integration of people with foreign professional qualifications into the German labour market. By the end of 2016, a total of over 86,000 applications for the recognition of foreign professional qualifications in state-certified professions had been made since the Recognition Act (Anerkennungsgesetz) entered into force in April 2012. In 2016, 66% of the procedures ended in the qualification being recognised as fully equivalent to the corresponding German qualification, while only 3% of applications were completely rejected. The Federal Government adopted the "2017 Report on the Recognition Act" on 7 June 2017 containing, inter alia, the results of the independent evaluation of the Recognition Act. It also verified the positive impact the Act has had on the labour market: individuals who have successfully gone through a qualifications recognition procedure are in gainful employment more frequently, work more hours and are employed in a job more aligned with their qualifications than at the time of the application for recognition. Following recognition of their qualifications, the former applicants increased their employment income by 40% on average; monthly gross salaries increase by €1,000 on average following a successful recognition procedure.

Cabinet decision regarding the Report on the Recognition Act: 7 June 2017.

No. Action name Description of action and anticipated impact Status and schedule Continuation: The information and support services have undergone continued development in order Ongoing. Recognition of professional to continue the positive trend in the recognition of foreign professional qualifications, with the number of languages supported by the "Recognition in Germany" inforqualifications acquired abroad mation portal expanded further in the reporting year. With French and Russian now supported, information is now available on the website in eleven languages. Business involvement in the professional recognition process is strengthened in collaboration with the partners from the business community. In addition to a travelling exhibition to raise awareness among businesses, this is also achieved with the joint "Businesses for Recognition" prize which is awarded to businesses by the Federal Government, the Association of German Chambers of Commerce and Industry and the German Confederation for Skilled Crafts. The "BQ portal" knowledge and work platform supports the offices (e.g. professional chambers) responsible for checking the equivalence of a foreign professional qualification according to the Recognition Act. This portal contains extensive information on international vocational training systems (85 country profiles) and professional qualifications (roughly 3,000 profession profiles). In 2017, the results of over 1,200 assessment procedures were added internally to the BQ portal so that assessments of equivalency can be performed even more quickly and with greater transparency and uniformity in the future. 12. Pay Transparency Act (Ent-The core elements of the Act include an individual right of employees in companies In force since 6 July 2017. with over 200 workers to information on the average monthly gross pay and up to two gelttransparenzgesetz) individual pay components for an equal or equivalent job, and an obligation for companies with more than 500 workers which are required under Sections 264 and 289 of the German Commercial Code to deliver management reports to report on their measures to promote equality and equal pay. In addition, private-sector employers with over 500 workers are also obliged to regularly conduct in-company audits to examine their pay structures for compliance with the requirement of equal pay between men and women. The Act improves the conditions for employees to enforce their right to equal pay for equal or equivalent work and results in the examination - and where necessary the overhaul - of pay systems and rules and in the broader collective bargaining coverage of businesses. 13. Monitoring of the devel-In addition to complying with its annual reporting duties regarding the development of Cabinet decision: opment of the percentage the equal participation of men and women in senior management, with the presenta-16 August 2017. tion of the Federal Government Report on the Percentage of Men and Women in Senior of men and women in Management and on Executive Boards in the Private Sector and in Public Service, the senior management and on executive boards in the Federal Government has also complied with the special mandate to present a one-time private sector consolidated report to the German Bundestag as set down in Article 23 (2) of the Act for the Equal Participation of Men and Women in Executive Positions (Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen). The report examines the actual impact of the Act on the proportion of women on supervisory and executive boards and at the two managerial levels below executive board level at all companies to which the legal regulations apply, and fosters transparency. 14. Measures adopted by the Hesse: The Hesse "wage atlas" fosters transparency and its data serve as an important Public since Länder to establish fair basis for the dialogues held between the social partners of the biggest industries in 16 August 2017. Hesse. In addition, with the specific data from the counties and urban districts, the The closing event wages is planned for municipal representatives for women's affairs and equal opportunities also have a basis for dialogue and implementation in order to establish a system of fair wages in their 18 March 2018. regions. The wage atlas is a compilation of a variety of openly accessible and public data from 2015 that describe the wage situation in Land Hesse. The collected data are disaggregated by women and men in full-time employment, qualifications, business and economic structure, and regions. A dialogue between the social partners was held to analyse the data and situation in Hesse. This is to be put on a permanent footing and take place once every year. The dialogue is to be a permanent part of the process to establish fair wages in Hesse and develop initiatives on the part of businesses to improve the situation in Hesse. Rhineland-Palatinate: Centre for Equal Pay: raising awareness for the issue of equal pay Ongoing since 1 January and qualifications to identify and remove pay discrepancies in SMEs. 2015, ESF-funded.

Status and schedule

Description of action and anticipated impact

No. Action name

Measures adopted by Funding is provided the Länder to support "Support of career guidance and orientation for female pupils from grade 11 and within the framework young women with a higher education entrance qualification": The process of supof the 2014 - 2020 EU the careers of women in porting and fostering women in STEM professions is to be geared to the various Structural Funds period. engineering and science professions stages in life and increase the opportunities of girls and women in the training or labour market, with support specifically geared towards ensuring women secure their own livelihood. With career guidance and orientation measures aimed at female pupils from grade 11 and young women with a higher education entrance qualification, the aim is to break with traditional gender-related patterns in the choice of profession and study programmes and expand the possibilities for additional professional and study choices, particularly in STEM fields. By supporting and fostering women in STEM professions, the aim is to increase the percentage of female students in study programmes in which women are still under-represented and to support the need for skilled labour in scientific and technical professions. Three projects are currently being funded. With measures that support women pursuing careers in technical and scientific Project duration: 2015 - 2018. fields, female students and young women entering the labour market with an academic qualification are to be prepared for a managerial role in science and business, or also coached with a view to entrepreneurial self-employment. By implementing measures that support women's careers, the state of Saxony-Anhalt is seeking to increase the percentage of women in management positions in technical and scientific professions. One project is currently being funded. 16. Act Reforming the Nursing The Act Reforming the Nursing and Caring Professions has created an important Promulgated on and Caring Professions 24 July 2017. foundation for a new, high-quality system of nursing training that looks towards the (Pflegeberufereformgesetz) future. It makes the caring and nursing professions more appealing through a number of measures, including: - Merging of the nursing training programmes which are currently regulated separately in the Act on Nursing Care (Krankenpflegegesetz) and the Act on Geriatric Care (Altenpflegegesetz) into a new Nursing Professions Act (Pflegeberufegesetz) Introduction of free tuition and entitlement to a training allowance for everyone taking part in the training programme Introduction of the possibility of training at third level that delivers a primary qualification to practise the profession B. Improving the conditions for innovation, research and development The measure builds on the excellent position of the German cluster landscape for col-Implemented since 17. Internationalisation of laboration with top partners at the international level, which has been achieved through December 2014, the first cutting-edge clusters, forward-looking projects the successes owing to the Leading-edge Cluster Competition and other network international collaboraand comparable networks and cluster measures adopted by the Federation and the Länder. The strategy-driven tive projects scheduled to start at the end of 2017/ development of internationalisation concepts and their subsequent implementation in collaboration with selected international partners are supported and funded in three start of 2018. rounds of competition. The measure pursues the following goals: Develop the innovative capacity of the participating clusters and networks to strengthen Germany's position as a place for innovation Strengthen management skills for international research and innovation collabora-The "Validation of the Technological and Social Innovation Potential of Scientific Validation of the Techno-Ongoing. logical and Social Innova-Research - VIP+" funding programme supports researchers in all disciplines to systion Potential of Scientific tematically validate their research findings and, in the process of validation, to develop Research - VIP+ potential areas of application that promise to offer major economic or societal benefits. In this way, researchers also help to strengthen the transfer culture in their institutions and in the science and research landscape overall. Open to all topics, the measure is directed at scientists from higher education institutions, non-university research centres that are jointly funded by the Federation and the Länder, and Federal government facilities carrying out R&D.

No.	Action name	Description of action and anticipated impact	Status and schedule
19.	Research Campus funding initiative	The "Research Campus" funding initiative supports the development of medium- to long-term strategic partnerships between higher education institutions/non-university research centres and businesses under the one roof. In a research campus, partners from science and business pool their talent and expertise to work on a research agenda with a timeline of up to 15 years. The public-sector incentive funding is complemented by substantial contributions made by the partners. Research campuses work on "priority future challenges" as laid down in the High-tech Strategy and develop a new type of research structure.	Gradual transition of the research campuses from the first competition round to the second five-year funding phase starting in 2018. Further conceptual development of the funding initiative and new call for proposals in another competition round planned.
20.	Joint Federal/ <i>Länder</i> "Innovative Third-Level" funding initiative	The joint Federal/ <i>Länder</i> "Innovative Third-Level" funding initiative is designed to specifically strengthen universities of applied sciences and small and medium-sized universities of more than just regional importance in the area of the transfer of research-based ideas, knowledge and technology, support the regional presence of higher education institutions and help contribute to innovation in business and society. The aim is to enable higher education institutions to further develop and expand their role as innovation centres with a regional and transregional impact. In this context, the Federation and the <i>Länder</i> seek to strengthen the transfer of research results from all academic disciplines to benefit the economy and society. In July 2017, in a competitive procedure the independent selection committee selected 48 higher education institutions, 19 individual projects and 10 collaborative projects for funding in a first selection round.	Decision: June 2016. The 29 projects from the first round of funding have been running since 1 January 2018; a second round of funding is planned; total duration: until 2027.
21.	Research at universities of applied sciences	 With a variety of support activities the "Research at Universities of Applied Sciences" programme is geared towards universities of applied sciences (UAS) with the aim of promoting application-related research and training junior researchers and up-and-coming academic talent. The following milestones have been reached in 2017/18: "UAS Social" funding guideline: Aiming to explore and implement social innovations to address social challenges, under this line of funding proposals are invited for practice-oriented, interdisciplinary R&D projects in the area of health promotion and digital inclusion. Funding guidelines "UAS EU Strategy" and "UAS EU Application": Support is given to universities of applied sciences with regard to their strategic positioning in the European research environment and with regard to the initiation, networking and preparation of research applications within the context of the EU's "Horizon 2020" research programme. Relaunch of the "Research at university of applied sciences with businesses" funding line. To enable the even more intensive and sustainable implementation of novel innovative solutions in tandem with partners from industry, easier investment conditions have been established for universities of applied sciences, which are designed to optimise the research-related framework of universities of applied sciences. This results in greater financial scope for capacity-building projects which will significantly improve and ease the basic research conditions of universities of applied sciences. Commencement of partnerships and start of funding of R&D projects as part of the "Universities of Applied Sciences: Fresh Impetus for the Region" funding guideline: This funding measure promotes research and innovation partnerships which universities of applied sciences have entered into, particularly with SMEs. The primary aims are to develop a research focus at the university of applied sciences, build a relevant profile of expertise, and provide fre	The programme has been running since 2003; in 2013 it was agreed to extend the programme through to the end of 2018. Funding measure "Universities of Applied Sciences: Fresh Impetus for the Region": partnership development phase through to 2020.

No.	Action name	Description of action and anticipated impact	Status and schedule
22.	NAKO health study	The Federation and the <i>Länder</i> are jointly funding the creation of a unique research resource in Germany for biomedical research through the NAKO (national cohort) health study. Within the framework of a population-related long-term study with 200,000 participants, the aim is to make solid statements on the causes of widespread diseases. Subject to the provision of funding by the legislative bodies, the study will be supported with total funding of up to €256 million for a 10-year funding period. Funding will be financed on a pro-rata basis, with up to €85 million contributed by the Helmholtz Associations that are involved in the health study, and with up to €171 million mobilised from additional project funds of the Federation and the <i>Länder</i> on a 75:25 basis. The institutions involved in the study – higher education institutions and non-university research centres – have founded the <i>NAKO</i> (National Cohort) Society.	Runs from 2013 – 2023.
23.	Excellence Strategy of the Federation and the <i>Länder</i>	The Excellence Strategy aims to strengthen universities by promoting scientific excellence, image building and partnerships in the science system. Subject to the provision of funding by the legislative bodies, the Federation and the <i>Länder</i> are contributing €80 million in 2017, and a total of €533 million annually from 2018 onwards, to fund the overall programme. Funding will again be provided on a 75:25 basis, with the Federation providing 75% of the funding, and the remaining 25% provided by the home state of the universities selected for funding. This agreement is open-ended. The excellence cluster instrument provides project-related support to internationally competitive fields of research at universities or consortia of universities. In each case the funding is generally provided for two seven-year periods. The universities of excellence funding line serves to strengthen universities as an institution, or a consortium of universities, and to develop their leading international position in the field of research based on successful excellence clusters.	Summer 2018: funding decision for excellence clusters. Summer 2019: funding decision for universities of excellence.
24.	Third Pact for Research and Innovation	By continuing the Pact for Research and Innovation for the period from 2016 through to 2020, the Federation and the <i>Länder</i> intend to give the scientific organisations financial planning certainty. Subject to the provision of funding by the legislative bodies, they seek to provide an annual increase in funding of 3% to the individual scientific organisations: the German Research Foundation (DFG), the Fraunhofer-Gesellschaft (FhG), the Helmholtz Association (HGF), the Max-Planck Society (MPG) and the Leibniz Association (WGL). Without prejudice to the Federation/ <i>Länder</i> funding keys permanently set down in the implementing agreements, the increase will be funded solely by the Federation in this period. In return, the scientific organisations commit to research policy goals and set forth how these goals will be pursued.	Runs from 2016 – 2020.
25.	SME-innovate funding initiative	The "SME-innovate" funding initiative helps SMEs gain faster and easier access to technology-specific specialist programmes. The aim is to strengthen research-specific collaboration between SMEs and scientific institutions. With the SME-innovate programme, support is granted to research-intensive and primarily young businesses in ten technological fields. New announcements have been published for the technology fields of electronic systems, electric mobility, information and communication technology and medical technology. "SME-innovate: Man-machine interaction" is now a separate field of technology in its own right.	2017: fields of technology increased and amended.
26.	SME-innovate: entry module	The "SME-innovate: entry module" funding measure supports projects in advance of industrial research and experimental development plans in order to strengthen the ability of SMEs to innovate. This facilitates access to R&D funding for SMEs that have had little or no experience with research funding up until now.	In force since 25 August 2017.

No.	Action name	Description of action and anticipated impact	Status and schedule
27.	"Think Small First" programme – the 10-point programme for more innovation in small and medium-sized enterprises	 The programme aims to integrate research-intensive SMEs in central innovation pathways. In addition, it also seeks to reach out more to SMEs that have less research know-how so they can benefit from the results of public-sector research. The 10 points of the SME strategy address the following central action areas: More SME involvement in the dynamic key areas of German and international business – particularly in the fields of digitalisation, healthy living and sustainable economic activity. Finding the right partners for SMEs – large corporations, other SMEs, universities, non-university research facilities and regional and international stakeholders, depending on the sector and situation. Finding suitable skilled staff for SMEs – with young talent or through further in-company training. Easier access to funding opportunities – particularly for SMEs with little experience in the area of funding. 	Implemented since January 2016.
28.	SME-NetC: Strategic SME innovation associations in networks and clusters	The SME-NetC funding initiative addresses top-level research at SMEs within the context of networks and clusters, and enables businesses that still have little experience in collaborating in the field of research and development and public funding to develop research-based solutions in collaborative projects. The management and coordination skills of the German network and cluster landscape are used to this end, and the collaborative projects are aligned with existing innovation strategies and technology roadmaps.	Concurrent evaluation of the funding measure since April 2017. Since July 2017: start of the projects from the first call for proposals and selection of the projects from the second call for applications.
29.	Central Innovation Programme for SMEs (ZIM)	The Central Innovation Programme for SMEs funds technology-neutral research projects conducted by innovative SMEs (up to 499 workers) in the form of individual projects or in the form of collaborative projects with other business enterprises or research centres. In addition, funding can also be granted to network projects involving multiple companies and R&D centres. International activities were particularly strengthened in 2017 with new calls for applications with countries such as Finland, France, Israel and Brazil and also for the first time with Japan, Canada and Spain.	Implemented since 2017.
30.	Collective Industrial Research (IGF)	Collective Industrial Research promotes long-term research collaboration in industry-wide networks with the goal of facilitating access to research results, particularly for small and medium-sized enterprises, which they need to catch up with or remain in step with technological progress.	New guideline in force since 1 September 2017.
31.	INNO-KOM	As the successor to the INNO-KOM East programme, INNO-KOM is one of the first innovation funding programmes for SME-oriented industrial research that puts structurally weak regions across Germany at the forefront of the funding activity. The aim is to strengthen the innovative capacity and competitiveness of the region, retain skilled staff and thereby support the process of economic catch-up in structurally weak regions on a lasting basis. External non-profit industrial research facilities are eligible for funding. Funding is granted to the following three modules: "market-oriented research", "preparatory research" and "investment grant for scientific and technical infrastructures".	Implemented since 2017.
32.	"Innovation & Structural Change" funding concept	The new "Innovation & Structural Change" funding concept focuses on regions facing particular challenges with regard to structural change. With a range of innovation policy instruments, the aim is to unlock existing innovation potential in the regions and thereby inject new momentum for sustainable structural change. The funding concept builds on the experience gathered with the "Business Region" programme line. In view of the mandate enshrined in the German Constitution to establish equal living conditions throughout Germany, the funding provided under the "Innovation & Structural Change" framework will also be directed at structurally weak regions in western Germany from 2020 at the very latest. The foundation for the concept was laid in August 2017 with the launch of the new funding programme entitled "WIR! – Change through Innovation in the Region". This programme supports interdisciplinary and cross-sector innovation initiatives that open new prospects for structural change particularly also in regions outside the innovation centres already set up in eastern Germany.	Implemented since January 2017. "WIR!" call for applica- tions in August 2017: selection of 32 alliances in December 2017. Conceptual phase of "WIR!" alliance from April to September 2018.

Description of action and anticipated impact

Status and schedule

33. Measures adopted by the Länder to support research, development and innovation

The Länder support the research activities of business enterprises and research at universities and non-university research centres with the following measures, for example:

Baden-Württemberg:

- Support is granted to six centres for applied research at universities of applied sciences in order to strengthen the research capabilities at universities of applied sciences and to develop long-lasting collaborations between the scientific community and the business sector. At these centres, third-level institutions team up with partners from the scientific and business community to conduct research into areas that are relevant for the future. The Land government is making total funding of €13.5 million (€4.5 million of which from ERDF funds) available for this purpose initially for the next three years. A one-time two-year extension is possible. Additional funding of up to €9 million will be made available for this (up to €3 million of which from ERDF funds).
- March 2017 to February (extension through to February 2022 possible).

Programme duration:

The "UAS-SME-TT Programme" is designed to promote the reciprocal transfer of technology between universities of applied sciences (UAS) and small and mediumsized enterprises (SMEs). With collaborative projects focussed on a specific topic, universities of applied sciences and SMEs work together on a project basis in order to help strengthen the scientific community and the business sector. The call for proposals was held in June 2017. The funding period is expected to commence on 1 March 2018. The sponsored research projects have a maximum implementation period of 24 months. The *Land* government is making total funding of €6 million available for this purpose (co-financed equally from ERDF and Land funds).

Programme duration: March 2018 - February

Bavaria: Programme to promote applied research and development at universities of applied sciences in Bavaria; call for proposals in the fifth round of funding (2017 - 2021): February 2017. Funding First launched in 2008, the programme seeks to raise the profile and expertise of universities of applied sciences in the field of applied research and development and step up and accelerate application-oriented knowledge and technology transfer. This timetested programme is now being continued in a fifth round of funding. To this end, funding of around €15 million will be made available in the 2017 - 2021 period for various pillars of the programme focussing on entry into research and research priority areas.

Notification at the end of commences in 2018.

Hamburg: Expansion of Fraunhofer activities: Expansion of Fraunhofer activities: To strengthen the transfer of research results to economic applications in the fields of nanotechnology and additive production technologies, two outstanding centres were incorporated into the Fraunhofer Society in Hamburg on 1 January 2018. These centres will be gradually expanded and developed jointly by Hamburg and the Fraunhofer Society. Further to this, wind energy research will be expanded in Hamburg in collaboration with other Fraunhofer sites. At the same time, the construction of a new building for an already existing Fraunhofer centre focussing on maritime logistics and services creates the framework for the substantial expansion of this area.

New centres established in 2018, construction of new maritime logistics building from 2016 - 2023

Hesse: Research, development and innovation are strengthened in Hesse by monetary funding primarily from ERDF funds and non-monetary innovation support services in the technology state of Hesse.

Guideline in force since December 2016.

A programme to promote research and development projects in individual and collaborative projects was launched in 2018. With this programme, the state of Hesse funds innovative projects by SMEs and reduces the innovation risk. The funding focus is on projects in the area of technology and innovation, carbon reduction and digitalisation. Furthermore, the programme promotes the transfer of knowledge and technology and supports transfer activities in clusters and networks.

With the new "Hesse: the State of Technology" initiative, Land Hesse is bringing together advisory and support services in key technologies. The goal here is to raise awareness in businesses for their culture of innovation in order to boost the innovative capacity of SMEs in Hesse.

Description of action and anticipated impact

Status and schedule Will run until 2020.

Continuation:
 Measures adopted by the Länder to support research, development and innovation

<u>Lower Saxony:</u> With loans and grants from the ERDF and *Land* funds, the state of Lower Saxony lends targeted support to research and development in businesses in Lower Saxony. Support is granted to innovations of companies as either individual or collaborative projects, as well as collaborations with research institutes that aim to deliver new marketable products, production processes or services; pilot projects and demonstration projects can also be funded. Special low-threshold innovation funding absorbs some of the technical and economic risks facing SMEs and the skilled craft sector when adopting new processes and techniques and when applying product adjustments to another field of application. The portfolio of innovation funding is completed by funding for municipal advisory services regarding knowledge and technology transfer for SMEs, for innovation networks and non-university research institutions and for technology and start-up centres.

North Rhine-Westphalia (NRW):

Start: July 2017.

- Promotion of innovation and digitalisation: The "digitalisation innovation voucher" module has been added to the "SME.Innovative" funding programme, which promotes the transfer of scientific findings to business. The aim of the new funding guideline is to support SMEs in their process of digital transformation and identify new potential for the businesses. With this approach, Land North Rhine-West-phalia is strengthening SMEs' innovative capacity and orientation towards growth with regard to digitalisation and IT security. Under the NRW.Innovation Partners programme, the regional innovation structures in place in the economic regions in North Rhine-Westphalia are strengthened and the quality of innovation advisory services for SMEs is improved on a lasting basis with a focus on innovation management, funding advice and technology transfer. A central back office supports the regions by providing funding- and innovation-related services.
- Digitalisation involves a process of transformation that will radically change the world of science, the business sector and society. Research into digitalisation is geared towards developing ways to shape these changes. The Land government of North Rhine-Westphalia supports research into digitalisation with the following programme lines, amongst others: "Digital Security" (research into the focal areas of modern IT security architectures, security and privacy engineering), "Innovative Medicine in a Digital Society" (linking medical information technology to aspects of society), including projects focusing on medication therapy and the care of people with dementia, and "Digital Society" (research to safeguard and strengthen democracy in a digital world).
- Currently, North Rhine-Westphalia is planning to set up and establish an NRW
 Institute for Digital Research as a think-tank that takes a holistic approach to the
 process of digital change with the involvement of disciplines in the fields of technology, humanities and social sciences, and building on the activities of the Centre
 for Advanced Internet Studies (DAIS).

Start: October 2017.

Saxony: Within the framework of ERDF and ESF technology funding, the Free State of Saxony supports R&D projects conducted by business enterprises, higher education institutions and research centres, the acquisition of technological knowledge by small and medium-sized enterprises (SMEs), the use of external R&D services by SMEs, the hiring and employment of innovation experts and information transfer assistants, and the collaboration of businesses, higher education institutions and research centres under the InnoTeam programme. Another funding measure, which is co-financed with ERDF funds, supports businesses in the development of pilot lines in the area of key technologies. In the current funding period (2014 - 2020), total support of €335 million had been granted to over 4,000 projects by 31 July 2017. Further to this, the Free State of Saxony also supports research centres in R&D projects within the framework of the "ERDF Sustainable Energy Supply" programme. Overall, grants of €67 million were approved in the energy classifications of the Federal Ministry for Economic Affairs and Energy across all funding programmes in Saxony in 2016 alone. Saxony invested a total of approximately €22 million in Land funds, including institutional funding, in energy research in 2016.

Ongoing.

No.	Action name	Description of action and anticipated impact	Status and schedule
33.	Continuation: Measures adopted by the Länder to support research, development and innovation	Saxony-Anhalt: Given that small and medium-sized enterprises are the mainstay of the economic structure in the state of Saxony-Anhalt, the priority is to strengthen the innovative capacity of SMEs. This is supported by specific programmes, such as the guideline for the promotion of research and development, the promotion of innovation assistants and knowledge and technology transfer. Support is also provided for the transfer of knowledge from higher education institutions to the business sector, such as by the Skills Network for Applied and Transfer-oriented Research (KAT), and by various cluster management groups within the context of the lead markets of the Regional Innovation Strategy.	In force since 2015/2016.
		The Halle Centre for Social Research at the Martin Luther University of Halle-Wittenberg (ZSH), the Institute for Structural Policy and Economic Development (isw), the Fraunhofer Institute for Microstructure of Materials and Systems (IMWS) and the Fraunhofer Institute for Factory Operation and Automation (IFF) make up the Centre of Excellence for Social Innovation (KomZ) to shape social change in Land Saxony-Anhalt. By making integrated knowledge available, the intention is to give stakeholders in the scientific and business community, in society and in the political arena the tools to develop and implement innovative solutions with a view to shaping future social infrastructures in Saxony-Anhalt. The aim is to raise awareness for social innovations and create appropriate conditions for innovation of this kind. The work of the centre focuses on the areas of ageing, work, health and social cohesion. The Centre of Excellence for Social Innovation is sponsored through the European Social Fund.	Established in 2017; implementation through to 2021.
34.	ESF federal programme: "EXIST Start-up Culture"	The "EXIST – University-based Start-ups" funding programme seeks to improve the entrepreneurial environment at universities and non-university research centres and increase the number of successful technology-oriented and knowledge-based business start-ups. The introduction of a new incentive bonus for the supporting start-up centres at the scientific institutions provides a competition-based stimulus for more quality in the science start-up landscape. A stronger international element has been introduced into the EXIST programme with the "EXIST Startup Germany Israel" pilot project.	Incentive bonus in place since 2016/2017.
35.	Tax exemption on grants under the INVEST programme	The broad expansion of the INVEST programme adopted in the Key Issues Paper on Venture Capital of September 2015 was implemented at the start of 2017. This includes the doubling of the eligible volume of investment to €500,000 a year and flat-rate compensation for the tax charged on capital gains in the form of an exit grant. As a result of the improved funding conditions under the INVEST programme, the legal regulations governing tax exemptions on the purchase grant also had to be amended. The new exit grant that was introduced also had to be exempted from tax under Article 3, number 71 of the Income Tax Act (Einkommensteuergesetz).	The new INVEST funding guideline entered into force on 1 July 2017. On 27 April 2017 the Bundestag adopted the Act to Combat Harmful Tax Practices relating to the Transfer of Rights and thereby also the exemption of INVEST grants from income tax which was also contained in the Act.
36.	KfW subsidiary for venture capital and equity finance	Creation of a full (100%) subsidiary of the KfW to substantially expand KfW activities in the field of venture capital, equity finance and mezzanine finance on a lasting basis with the involvement of the ERP special fund. This non-aid investment is to take place in all forms of company structures and market segments, with the participation of private investors where applicable. With the inclusion of the ERP Special Fund and the expansion of the KfW equity finance framework, the aim is to have an optimum overall portfolio that is aligned with a coherent overall approach, ensuring a better funding effect, the more efficient use of own resources, and the mobilisation of additional private funding for the market.	the Act on 2 June 2017. Cabinet decision: 11 January 2017. Decision of the German Bundestag: 30 March 2017. Establishment of subsidiary: start of 2018.

No.	Action name	Description of action and anticipated impact	Status and schedule
37.	2018 ERP operating budget	In August 2017, the Cabinet adopted the draft of the 2018 ERP operating budget with funds totalling roughly €6.75 billion. The areas of start-up finance, innovation and export financing, and funding and support in regionally weak areas are the focus of funding under the ERP. Further to this, the bill also gives particular consideration to the increased need for funding in the area of venture capital and equity finance in Germany by including provisions for increased KfW activity in this area.	In force. Promulgation in the Federal Law Gazette of 15 March 2018.
38.	Measures adopted by the Länder to promote business creation and start-ups	Lower Saxony: The state of Lower Saxony is committing to business creation with a new funding package to provide greater support to the start-up environment in Lower Saxony in the future. So far, this funding package comprises three main elements: - 1. The promotion of start-up centres in seven university towns/cities with start-up financing amounting to €1.3 million in Land funds. Start-up businesses can receive more assistance in the form of coaching and intensive support at the regional start-up centres, which focus on the industries and technological strengths of their specific region. The majority of the start-up centres commenced operation at the start of 2018 and have held the first pitches to select start-up companies. - 2. The provision of "NSeed" equity capital currently amounting to €4 million for start-ups in the seed phase. The equity is provided in the form of silent and open investment for a period of 7 to 10 years – and up to 12 years in individual cases – and with a volume of between €150,000 and €600,000. Funding is provided towards growth-related liquidity needs and towards the implementation of innovative and technological ideas. - 3. The creation of a Start-up.nds.de internet platform designed to link up start-ups in Lower Saxony and raise their visibility across Germany. The platform is to create a start-up database with stakeholders and key contacts and present the infrastructures and information on support facilities for start-ups in Lower Saxony. An advisory council comprising central players in the regional start-up business environment in Lower Saxony has been set up to oversee and support the initiative. In addition to businesses that are already well established, business start-ups are of particular importance for every business centre. New businesses foster and strengthen innovation. By providing important stimulus, new businesses not only make a key contribution to ensuring the market undergoes constant continued development and new markets are tapped into, but also create ad	Start-up centres: 1 October 2017 – 28 February 2020. NSeed: ongoing since March 2017. Internet platform: since 4 December 2017.
39.	The Weizenbaum Institute for a Networked Society – The German Internet Institute	Following an interdisciplinary approach, the Weizenbaum Institute for a Networked Society conducts research into the Internet and digitalisation as well as the associated impacts these have on society. Its goal is to understand the legalities, implications and impact of digitalisation and identify courses of action for policy-makers, society and the business sector. With 20 research groups active in the areas of work and innovation, agreements and responsibilities, knowledge and education, democracy, governance and standardisation as well as technological change, the aim is to link existing knowledge and new research findings with new areas of application. The research is to be geared towards problems presented in day-to-day life, address these problems and transfer findings to the spheres of society business and politics.	Institute opened on 21 September 2017.
40.	"Transfer digital"	spheres of society, business and politics. The "Transfer digital" measure helps to further strengthen the successful exploitation of the programmes in the area of the "development of digital technologies" at both the national and international level. Roadshows and exchange forums serve as platforms to disseminate results and establish contacts. The strategy is to be developed further following the success of the "Smart Data Forum" set up in this context and the networking activities of the "Office for Smart Living".	Ongoing.

No.	Action name	Description of action and anticipated impact	Status and schedule
41.	Start-up Competition – Digital Innovations	The "Start-up Competition – Digital Innovations" is directed at start-ups with innovative business ideas that are rooted in ICT-based products and services. Ideas from every conceivable area of application are welcome, including, for example, ideas for the energy sector, the automotive industry, plant construction and mechanical engineering, logistics, health care and the culture and creative industry. Between 500 and 600 applications are regularly submitted every year. The competition winners, which receive active support in taking their first steps towards self-employment, are often successful in getting their business off the ground and entering the market, and have higher-than-average rates of business survival.	Ongoing.
42.	Digital Hub Initiative	The Initiative is designed to support the emergence of digital hubs in Germany. The underlying idea of establishing hubs is that cooperation between companies, business start-ups and the scientific community within a confined area will boost innovation, especially in the digital age. Up to now, interregional networking between the hubs and international visibility of the hubs had been lacking. For this reason, the following support services are now offered: - A Hub Agency with responsibility for cross-regional networking between the hubs. - Launch of an advertising campaign abroad to attract entrepreneurs, start-ups, experts and (venture capital) investors through GTAI.	The International Hub Initiative started in mid-2017, work is currently underway on the development of the international advertising campaign.
43.	"Digital Platforms: Interactive Assistance Systems for People" funding guideline	To ensure the better and more sustainable exploitation of the potential offered by interactive assistance systems currently in use, support is given to the development of digital platforms that serve as a central anchor point for potential users and act as a catalyst for new innovative solutions as well as for the refinement of existing products and their standardisation.	Funding guideline published on 16 August 2017.
44.	Platform <i>Industrie 4.0</i>	As the largest national and recognised international network for <i>Industrie 4.0</i> , over 300 experts from roughly 160 organisations from the business sector, science, trade unions and the political arena develop practical recommendations for action and solutions to support the nationwide implementation of <i>Industrie 4.0</i> in Germany. The key topics currently being addressed are the areas of standardisation, technology and application scenarios, IT security, legal frameworks, work, continuing vocational education and training, and digital business models. Large number of publications and recommendations released and publication of online map already containing 350 examples of <i>Industrie 4.0</i> applications as well as multiple testing and advice centres (cf. www.plattform-i40.de).	Relaunched at the 2015 Hanover Trade Fair. Since then, growing network, continuous expansion of participating parties and of national and interna- tional activities.
45.	Implementation of the "Innovations for Production, Services and Work in the Future" research programme.	The "Innovations for Production, Services and Work in the Future" research programme promotes practical solutions to maintain and expand value creation and jobs in Germany, to make work economically viable and conditions socially acceptable, and to refine and enhance production and service processes in an efficient and environmentally sound manner. Research into production, services and labour aims to provide an appropriate infrastructure for manufacturing processes and procedures in line with needs, knowledge for a well-qualified workforce, suitable organisational forms for modern businesses, and "factories of the future" as a key technology in its own right. The current measures are as follows: German-Chinese collaboration on smart manufacturing (Industrie 4.0) and smart services (DEU-CHN_InFe) Funding guideline "Industrie 4.0 – Collaboration in Dynamic Value Networks (InKoWe)" Funding guideline "Production for Medical Technology – Economical and Top Quality (ProMed)" Funding guideline "SME-innovate: Production Research" Funding guideline "The Future of Work": SMEs – Innovative and Social" Funding guideline "The Future of Work": Working on and with People" Funding guideline "Internet-based Services for Complex Products, Production Processes and Systems"	New funding guide- lines published on 23 February 2017, 10 May 2017, 19 October 2017, 25 August 2017, 25 September 2017, 19 October 2017 and in March 2018.
46.	Funding initiative "SME 4.0 – Digital Production and Work Processes"	The aim of the SME 4.0 Centres of Excellence is to bring the transfer of technology and knowledge to SMEs and to improve the overall understanding for digitalisation and <i>Industrie 4.0</i> in the businesses.	23 regional and subject- specific SME 4.0 Centres of Excellence already set up; the funding period is at least three years.

No.	Action name	Description of action and anticipated impact	Status and schedule
47.	"go-digital"	Following the successful completion of the "go-digital" pilot project in the two pilot regions (Saxony and the Ruhr area), "go-digital" was rolled out in 2017 as a nationwide funding programme. Small and medium-sized enterprises (up to 100 employees) can avail of advisory services from authorised consultants for their digitalisation processes with funding of up to 50%. Three modules are supported: "IT security", "Internet marketing" and "Digitalised business processes". In this context, support ranges from an initial analysis through to the implementation of specific measures.	Implemented since 2017.
48.	Expansion of IT security research	 The following measures are planned to expand IT security research in Germany and develop innovative solutions and defence systems: Examination of the incorporation of the Centre of Excellence for IT Security Research in Saarbrücken, CISPA, into a Helmholtz Centre for Information Security. To this end, the CISPA – Helmholtz Centre (i.G.) GmbH was established on 15 December 2017 with the participation of the Federal Government. Transformation of the Darmstadt "Centre for Research in Security and Privacy" (CRISP) into a National Research Centre for Applied Cyber Security with the participation of the Fraunhofer Society, the Technical University of Darmstadt and Darmstadt University. Examination of the conversion of the Karlsruhe Centre of Excellence for IT Security Research (KASTEL) into a research centre on a lasting basis. Funding guidelines on "Application scenarios of quantum communication" and on "Privacy and informational self-determination in the digital working world". Funding of business incubators for start-ups based on IT security research. 	Agreements to put the Centres of Excellence for IT Security on a permanent footing on 13 April 2017 and on 14 September 2017. Publication of new funding guidelines on 29 March 2017 and 28 April 2017.
49.	Pilot measures for quantum technology	The Federal Government initiated a strategy process for the field of quantum technologies which mapped out and emphasised their importance for Germany as a centre for business and science. At the same time, a number of preparatory measures were put in place: Commencement of pilot projects on high-sensitivity quantum sensors, a high-precision clock based on optical principles and secure satellite communication with quantum keys. Conceptual design of a Centre of Excellence for Quantum Technologies at the PTB – the National Metrology Institute of Germany – with a focus on metrological applications and with the involvement of relevant industry representatives. Publication of calls for applications for the funding of R&D projects in quantum technology, including projects to establish junior researcher groups, projects on basic technologies for quantum technology and projects on quantum communication. Active contributions to shape European research collaboration: The large-scale European "Quantum Flagship" project that is currently being discussed aims to mobilise a total of €1 billion in funding in Europe from 2018 onwards.	Pilot projects commenced on 1 May 2017 and 1 August 2017. Conceptual design of the PTB Centre of Excellence in the first and second quarter of 2017; discussion with business sector and scientific community on 4 July 2017. Publication of new funding guidelines on 13 April 2017 and 11 May 2017.
50.	"Learning Systems – the Platform for Artificial Intelligence"	The national platform "Learning Systems – the Platform for Artificial Intelligence" brings together expertise on artificial intelligence (AI) with the aim of taking a holistic and practice-oriented approach to AI. In addition to identifying key technologies, the focus here is also on the development of concrete scenarios for the use of AI in daily life and on addressing legal, ethical and security-related issues at an early stage.	Inaugural meeting of the steering committee on 16 May 2017. Platform launched on 11 September 2017.
51.	"Machine learning" capacity building	 The Federal Government is pushing ahead with capacity building efforts for machine learning with the following measures: Promotion of skills development approaches for the initial and further training of skilled professionals in the field of machine learning with a particular focus on practical applications Development of Centres of Excellence for Machine Learning that develop strategies, address current and future challenges and coordinate test data, algorithms and benchmarks Funding of research projects for the practical application of machine learning 	Publication of new funding guidelines on 1 March 2017 and 17 May 2017.

Status and schedule

Description of action and anticipated impact

No. Action name

Microelectronics Research capacities in the field of microelectronics are networked, pooled and Research Factory started Research Factory expanded on a nationwide basis for the first time with the "German Microelectronics on 6 April 2017. Research Factory". The aim is to enhance Germany's role internationally as a centre for microelectronics. To this end, as a first step a total of 13 participating non-university research centres will be equipped with cutting edge equipment and systems. They will receive around €350 million in total for this. In a second step, a further €50 million are to be used from 2018 onwards to fund investment in microelectronics at higher education institutions that substantively complements the priority research areas in the Research Factory and takes into account the specific capacities of the higher education institutions in this area. Worth around €400 million in total, the investment programme is the largest investment in German microelectronics research since reunification. 53. 5G Strategy for Germany Comprehensive package of measures to promote 5G network rollout, provision of suit-Cabinet decision: - a campaign to make able radio frequencies, stepping up dialogue with industries, funding and networking of 12 July 2017. Germany the leading research activities and raising the awareness of cities, towns and municipalities for the market for 5G networks potential offered by the new technology standard. 5G connectivity is to be achieved and and applications mobile telecommunications capacities expanded substantially in central locations and rural areas by 2025. 54. Implementation of The "Act to Improve Online Access to Administrative Services" (Online Access Act) 2018: the Online Access Act (Gesetz zur Verbesserung des Onlinezugangs zu Verwaltungsleistungen), which entered Administrative portal (Online-Zugangsgesetz) into force in August 2017, lays the foundation for all additional steps to digitalise public of the Federal Governadministration. The Federation and the Länder are obliged to make all suitable adminment is launched. istrative services also available online within five years. As part of the digitalisation pro-Pilot testing of an gramme, blueprints and reference processes, inter alia, are being developed to support online gateway along all federal levels in making administrative services go digital, and flagship services are the basic lines of the being developed for the portal network. Under the portal network, the administrative portal network and of the "Search & Find" portals of the Federation, the Länder and the municipalities are intelligently linked with due regard to the federal structures. In this way, private citizens and businesses component. can directly access the service they need and the information available regarding this Completion of the service in a fast, easy and secure manner no matter which administrative portal they first blueprints under start out on. As part of the portal network, the Federation will make the new Federal the digitalisation pro-Government administrative portal available which will offer better electronic access to gramme. the services of the federal authorities, structured according to situations in a personal and business context. Following the principle of the portal network, the services of the Länder and municipalities can also be accessed quickly and easily through the administrative portal of the Federal Government. At the same time, the administrative portal of the Federal Government also offers a range of central basic services which all federal authorities can use, e.g. a user account for the electronic identification of private citizens and businesses. "Smart Cities" platform The national Smart Cities platform for dialogue was launched by the Federal Ministry 2016/2017: participatory for the Environment, Nature Conservation and Nuclear Safety on behalf of the State development of the Smart for dialogue Secretaries' Committee for Sustainable Development to promote national and inter-City Charter. national exchange on socio-political issues surrounding digitalisation in municipalities. June 2017: publication of In the Smart Cities platform for dialogue, issues are debated and discussed by around the Charter 70 experts from the municipalities, the municipal central associations (Association of 2018 ff: continuation of German Cities (DST), German Association of Towns and Municipalities (DStGB) and the platform for dialogue Association of German Counties (DLT)), the Länder, the Federal Chancellery and various (1st meeting on 11 April Federal Ministries, the scientific community, civil society, and business, social and pro-2018) and implementation fessional associations. The "Smart City Charter" developed by the platform for dialogue of the Smart Charter. was presented at the National Urban Development Convention in June 2017. The Smart City Charter contains guidelines and recommendations on how to shape the digital transformation in the municipalities (towns, counties and communities) in a sustainable manner. It includes collaboration between municipalities and the interlinkage of densely populated areas and rural areas for the purposes of urban and regional development that looks to the future. The Smart Cities platform for dialogue will be continued in order to support towns, counties and communities in actively shaping digital transformation in the municipalities through the exchange of experience and the transfer of knowledge.

No.	Action name	Description of action and anticipated impact	Status and schedule
C. R	educing greenhouse gas emi	ssions, increasing energy from renewables and energy and resource efficiency, making mo	obility sustainable
56.	Federal Government Climate Action Report	With the 2020 Climate Action Programme, it was decided that the Federal Government must present an annual Climate Action Report on progress towards the 2020 reduction targets for greenhouse gas emissions. With the 2050 Climate Action Plan, it was also decided to continue the Climate Action Reports annually beyond 2020 and to present progress on the implementation of the 2050 Climate Action Plan on the basis of the applicable programmes of measures supporting the plan.	In progress. Cabinet decision sought by mid-2018.
57.	Measures adopted by the Länder in the area of climate change mitigation and the energy transition	Numerous measures are in place in the Länder to strengthen climate change mitigation, e.g.: Baden-Württemberg: In 2013, the Land Parliament of Baden-Württemberg adopted the Climate Action Act for Baden-Württemberg (Klimaschutzgesetz Baden-Württemberg), which sets out binding climate targets for the Land and defines the framework for Baden-Württemberg's strategy for climate action. To meet the climate targets by 2020 (25% reduction compared with 1990 levels), the Land government has adopted an Integrated Energy and Climate Change Concept that addresses 108 measures to support target achievement particularly through funding, information, advice and planning. Adaptation to the inevitable consequences of climate change are also addressed in the Climate Action Act. To this end, the Land government adopted an adaptation strategy in 2015 which addresses necessary measures in nine action areas. An important instrument towards implementing the adaptation strategy is the "Climate Adaptation" funding programme. This originated from a programme for applied research and has been developed into a funding programme for the dissemination and implementation of adaptation measures. The example set by the public sector in mitigating climate change is also a central element of the Climate Action Act. In addition to the goals to make the state administration of Baden-Württemberg climate neutral by 2040, support is also given to the municipalities in their climate action efforts, such as through Baden-Württemberg's Climate Action Plus funding programme. In the transport sector, the Land government will continue to pursue the activities it has begun to achieve sustainable	2013 – 2020.
		mobility and develop these activities further. This comprises the expansion of the local public passenger transport system, measures to digitalise the transport system, the promotion of electric mobility and transport by bike and on foot, and the strengthening of environmentally friendly modes of transport in the movement of passengers and goods. These measures build on strategies that are already established, such as the Cycling Strategy and the Digitalisation Strategy. Progress towards the climate targets is continuously monitored. The Climate Action Act and the Integrated Energy and Climate Change Concept are to be continued with 2030 as the target horizon.	

Description of action and anticipated impact

Status and schedule

57. Continuation:

Measures adopted by
the Länder in the area of
climate change mitigation
and the energy transition

Berlin: The Berlin Senate is pursuing the long-term goal of making Berlin a climateneutral city by 2050. The Berlin Energy Transition Act (Berliner Energiewendegesetz), which entered into force on 6 April 2016, sets down binding rules stipulating that total carbon dioxide emissions must be reduced by 40% by 2020, by 60% by 2030 and by at least 85% by 2050 compared with 1990, the baseline year. Beyond the rules set down by law, a reduction of even 95% is sought by the middle of the century. The Berlin Energy Transition Act also places an obligation on the Senate to present a Berlin Energy and Climate Action Programme to the Berlin House of Representatives outlining the specific strategies and actions to deliver on the climate neutrality goal. The Berlin Energy and Climate Action Programme 2030 which was subsequently developed contains measures in the action areas of energy, transport, buildings and urban development, business, private households and consumption, as well as measures to adapt to the consequences of climate change, for the 2017 - 2020 implementation period and the development timeframe of 2030. The Berlin Energy and Climate Action Programme 2030 was adopted by the Berlin House of Representatives on 25 January 2018 and will be implemented in the future. In parallel to this, an amendment to the Energy Transition Act was introduced. This is to enshrine into law the withdrawal from coal-based energy generation in Berlin. The amendment to the Energy Transition Act requires the Berlin Senate to work towards the withdrawal from lignite-based energy generation by the end of 2017 and from coal-based energy generation by the end of 2030. It entered into force on 8 November 2017. A Berlin Climate Action Council was assembled on 21 September 2017. This Council will advise the Senate and the House of Representatives on issues relating to climate change policy and will closely monitor Berlin's compliance with the climate targets.

North Rhine-Westphalia (NRW): With the "progres.nrw – market launch" programme, the Land government is promoting the market launch of technologies to use renewable energy and increase energy efficiency. The support programme, which is directed at private citizens, businesses, associations and municipalities, makes a key contribution to delivering on the climate targets in North Rhine-Westphalia.

NRW: Climate-neutral Land administration.
NRW: progres.nrw – market launch funding programme.

Rhineland-Palatinate: Adopted in 2014, the Climate Action Act of the Land of Rhineland-Palatinate (Landesklimaschutzgesetz) set out the goal of reducing greenhouse gas emissions in Rhineland-Palatinate by at least 40% by 2020 compared with levels in 1990. While striving to be climate neutral by 2050, the Land seeks at the very least a 90% reduction in greenhouse gas emissions compared with 1990 levels. In meeting these goals, particular importance is paid to the protection of natural resources, the conservation and efficient use of energy, and the expansion of renewable energy sources. The Rhineland-Palatinate Climate Change Mitigation Strategy is a central element on the path to achieving these goals. Following a comprehensive participatory process with private citizens and associations, the Strategy was adopted by the Land government at the end of 2015. It comprises roughly 100 measures arranged by action area, and is to be evaluated and updated on a regular basis. Initial monitoring is envisaged for this year. The Climate Action Act also set out the goal of organising the authorities, higher education institutions and other Land institutions that do not have a legal personality of their own and are under the direct organisational control of the Land, as well as official vehicles and official trips such that they are climate neutral - in the overall balance - by 2030. This is primarily to be achieved by conserving raw materials and energy, by the use of wood as a building material and through the use of renewable energy. A pilot project along these principles began at the Ministry for the Environment, Energy, Food and Forestry in 2017.

Saxony: With the funding guidelines on the provision of funding for measures to increase energy efficiency and for climate action (climate action funding guidelines – guidelines: climate/2014), the Free State of Saxony is promoting investment aimed at unlocking potential to reduce carbon emissions in the public-sector infrastructure, including public buildings, and for preparatory measures to cut carbon emissions in the sector not covered by the emissions trading system. This is achieved, for example, by increasing energy efficiency in tandem with the use of renewable energy. In the non-investment area, projects designed to develop additional basic concepts and instruments are eligible for funding.

2014 - 2020.

Description of action and anticipated impact

Status and schedule

57. Continuation:

Measures adopted by
the Länder in the area of
climate change mitigation
and the energy transition

Thuringia: The Thuringia Land government adopted the draft of a Thuringia Climate Act (Thüringer Klimagesetz) in December 2017. The draft is currently going through the parliamentary procedure. The Climate Act is to define the framework for climate policy in the state and, to this end, set greenhouse gas reduction targets, strengthen municipal climate action and firmly establish the exemplary role to be played by the public-sector in this regard. The Land government is also developing a Climate Action Strategy (Integrated Energy and Climate Action Strategy) in parallel to the Climate Act. This is to define the possibilities for action of the Land of Thuringia and, in particular, contain measures to help reach the energy and climate targets. A broad participatory process was held in 2017 to this end. A new funding guideline ("Climate Invest") entered into force to support climate change mitigation measures in the municipalities. A wide range of measures are eligible for funding (e.g. approaches, energy modernisation measures in municipal properties, investment in the electric mobility of municipal fleets). Another new guideline, in force since October 2017, supports the procurement of electric buses for the Thuringia local transport system. To implement the plan to achieve the climate neutral organisation of the immediate Land administration by 2030, as a first step Thuringia appraised the situation in 2017 to ascertain where it stood in relation to achieving the goal.

Climate Act: decision at the end of 2017. Climate Action Strategy: participatory process in 2017, adoption planned for 2018. Climate Invest guideline in force since September

Hesse: On the basis of the decisions reached at the Hesse Energy Summit in 2011, where possible 100% of all final energy consumption in Hesse is to be covered by renewable energy sources by 2050. At the same time, Hesse is also seeking to achieve significant energy savings by the same year – particularly by increasing the annual rate of energy retrofits on existing buildings to at least 2.5-3% – and limit the negative effects of climate change. These goals are set down in the 2012 Hesse Future of Energy Act (Energiezukunftsgesetz) which, along with a guideline specifying the details, acts as the legal framework for energy-related funding and support in the state. To achieve the goals, the Land government has issued an extensive catalogue of investment-related and non-investment-related funding and support measures. These comprise increased energy efficiency and the expansion of renewable energy, for example, but also the development of innovative energy technologies, the promotion of energy initiatives, energy efficiency plans, advisory programmes, programmes for skills and information development, or acceptance initiatives. Furthermore, the areas of sector coupling (electricity, heating and transport) and digitalisation will also feature heavily in Hesse's future energy policy. Overall, the energy policy objectives and measures are aligned very closely with the Land government's climate policy goal of achieving climate neutrality in Hesse by the middle of the century. An ambitious package of measures was created to this end with the "Hesse 2025 Integrated Climate Action Plan". This gives due consideration to Hesse's structural particularities and focuses on both the densely populated conurbations and rural areas, and on the energy, transport and agriculture sectors. With its Integrated Climate Action Plan, Hesse is also making a substantial contribution to implementing the Paris Climate Agreement of 2016.

Final report on the 2011 Hesse Energy Summit.

Hesse Future of Energy Act in force since 2012.

Guideline of Land Hesse on energy funding within the framework of the Hesse Energy Act in force since 2 December 2015.

Hesse 2025 Integrated Climate Action Plan in force since 2017.

<u>Lower Saxony:</u> Work on a Climate Act (*Klimagesetz*) is currently underway in Lower Saxony. The Act plans to set down targets for the reduction of greenhouse gases and goals to adapt to the consequences of climate change. The inclusion of a voluntary binding commitment of *Land* Lower Saxony to reduce emissions in the area of *Land* administration is also being discussed. The Act is designed as a streamlined set of rules. It is to essentially define the targets, while the actual implementation is to be primarily regulated at the sub-legislative level, particularly in the planned programme of measures for energy and climate action. Work on this is also in progress; a comprehensive participatory process as part of a Round Table on the Energy Transition has already taken place. The *Land* government of Lower Saxony supports measures to increase energy efficiency and reduce carbon emissions through two ERDF guidelines (European Regional Development Fund).

Climate Act: expected by the end of this year. Programme of measures: expected by the end of this year but in 2019 at the latest.

Status and schedule

No. Action name Description of action and anticipated impact Continuation: 1. Guideline on the "provision of grants to fund energy conservation and energy Guideline in force since Measures adopted by efficiency measures at public agencies and cultural establishments". Beneficiaries 26 August 2015. under this guideline are municipalities and other legal persons under public law, as the Länder in the area of well as non-profit organisations, social and health facilities and cultural establish-Guideline in force since climate change mitigation and the energy transition ments. Public wastewater treatment plants continue to receive support. Under the 9 December 2015. guideline, aid is intended for investment, for example, in the energy-retrofitting or new construction of non-residential buildings, the modernisation or purchasing of systems that serve to supply energy to the aforementioned buildings, and the construction of installations for the harnessing of heat from renewable energy. ERDF funding of €87 million is allocated to the guideline. Funding can be granted for up to 50% of the eligible expenditure and is capped at €1 million. Co-funding with funds from Land Lower Saxony is not provided. 2. Guideline on the "provision of grants to fund measures to optimise in-company resource and energy management". Beneficiaries under this guideline are primarily small and medium-sized enterprises in trade and industry. Under the guideline, aid is intended for: · improving resource efficiency • establishing company energy efficiency and climate action networks · measures performed by individual companies to boost energy efficiency - The guideline has a budget of €12 million from ERDF funds and an additional €4.8 million in *Land* funding. Funding can be granted for up to 50% of the eligible expenditure from ERDF funds and up to a maximum of 20% from funds from Land Lower Saxony. The European Parliament 58. Reform of the European The two central concerns of the Federal Government were implemented in the agreeapproved the reform on emissions trading system ment on the reform of the EU emissions trading system for the 2021 - 2030 period: For 6 February 2018 and the (ETS) one, the EU emissions trading system is strengthened as a market-based instrument of European Council on climate change mitigation so that it can fulfil the role it has been assigned as a central 27 February 2018. instrument of climate protection in the EU. Secondly, the situation facing energy-intensive industries which are highly exposed to international competition is addressed by making provisions to protect against the risk of carbon leakage and by avoiding the use of a corrective factor in the free allocation of emission allowances. 59. Effort Sharing Regulation The aim of the ESR is a 30% reduction in pan-EU greenhouse gas emissions compared The Committee of Per-(ESR) for greenhouse gas to 2005 levels in the sectors outside the scope of the emissions trading system. A manent Representatives reductions outside the reduction target for 2030 is set for every Member State essentially on the basis of a agreed to the outcome of scope of the emissions key based on GDP per capita. Member States receive annually decreasing emission the trilogue discussions trading system allowances for the 2021 - 2030 period on this basis. A reduction target of 38% by 2030 on 17 January 2018. compared to 2005 levels is set for Germany. Legislative package on In November 2016, the European Commission presented the comprehensive "Clean The Energy Council agreed Energy Package" (previously known as the winter package) which re-shapes the Euro-"Clean Energy for All on a general approach: pean framework for the energy transition. It is the central legislative package in order to Europeans" 26 June 2017 (Energy deliver the "Energy Union". The package comprises a proposal for the implementation Efficiency Directive and of the Energy Union ("Governance Regulation"), revisions to the Renewable Energy Energy Performance in Directive, the Energy Efficiency Directive and the Energy Performance in Buildings **Buildings Directive)** Directive, and a new European electricity market design (consisting of the Electricity 4 December 2017 Directive, the Electricity Regulation, the ACER Regulation and the Regulation on (Regulation on Risk-preparedness). Risk-preparedness) - 18 December 2017 (Electricity Directive, Electricity Regulation, Governance Regulation and the revision of the Renewable Energy Directive).

No.	Action name	Description of action and anticipated impact	Status and schedule
61.	G20 Climate and Energy Action Plan for Growth	With the adoption of the Plan, the G20 states, with the exception of the United States, are reconfirming their commitment to the full implementation of the Paris Agreement and the efficient transformation of the energy systems in line with the Paris climate policy goals. With the Plan, the G20 states agreed to increase cooperation for the implementation of the Nationally Determined Contributions (NDCs), the development of long-term strategies (LTS), and the alignment of global finance flows with the goals of the Paris Agreement. Furthermore, they emphasise the importance of creating suitable investment conditions and reaffirm their commitment to greater cooperation and the sharing of experiences and good practices with regard to energy efficiency and renewable energy, better energy access and the phase-out of inefficient fossil fuel subsidies.	In force since 8 July 2017 (decision of the G20 heads of state and government).
62.	Amendment to the Cross-Border Renew- able Energy Ordinance (Grenzüberschreitende- Erneuerbare-Energien- Verordnung)	To firmly establish the energy transition at the European level, under the provisions of the 2017 Renewable Energy Sources Act (Erneuerbare-Energien-Gesetz) a limited volume of auctions will also be open to installations located in other Member States. Specifically, the provisions allow for 5% of the annual capacity to be installed to be opened up to bids by installations located in other Member States (approx. 300 megawatts per year). These cross-border auctions complement the national auctions.	In force since 16 August 2017.
63.	Act on the Modernisation of the Grid Fee Structure (Netzentgeltmodernisierungsgesetz)	The Act creates the framework to gradually harmonise transmission system fees by 2023 by an ordinance of the Federal Government. The same transmission system fees are to apply across Germany from 1 January 2023 onwards. Further to this, the Act also contains provisions for the reduction in avoided grid fees.	In force since 22 July 2017.
64.	Electricity congestion management measures at the German/Austrian border	The exchange of electricity between Germany and Austria has reached a level that exceeds the transport capacity of the grids. Therefore both countries agreed to implement congestion management measures starting in October 2018. In future, the exchange of electricity will be limited, but a minimum of 4.9 GW will be available for trade, however. The congestion management measures will help reduce the strain on the grid in Germany, Poland and the Czech Republic and strengthen the security of supply. Furthermore, grid operators have to implement far fewer costly measures, which reduces the burden on German electricity consumers by several €100 million per year.	Entry into force: 1 October 2018.
65.	White Paper on Energy Efficiency	The core hypotheses for a future efficiency policy were formulated in 2016 in a "Green Paper on Energy Efficiency" and discussed with the expert groups. The results of the consultation were published in an Evaluation Report in May 2017. The further refinement of the instrument to achieve the 2030 energy efficiency goals is to be analysed in a follow-up process in 2018 and defined in greater detail in a White Paper on Energy Efficiency.	Green Paper Evaluation Report: May 2017. White Paper: publication is envisaged for July 2018.
66.	German Sustainability Strategy (GSS) to imple- ment the 2030 Agenda	The German Sustainability Strategy (GSS) is the primary framework for the implementation of the United Nations 2030 Agenda at national level. Since being recast in 2017, the GSS presents for the first time the national and international measures of the Federal Government to achieve all the SDGs. The GSS will undergo continued development again in 2018. The State Secretaries' Committee for Sustainable Development is the central steering body of the GSS. Department coordinators for sustainable development have been appointed in every Federal Ministry to ensure the more consistent implementation of the 2030 Agenda. The "Sustainability 2030" platform was launched in May 2017 for scientific oversight of the implementation.	Cabinet decision on the recast GSS: 11 January 2017.
67.	Immediate Action Programme for Clean Air 2017 – 2020	November 2017 saw the launch of the "Immediate Action Programme for Clean Air 2017 – 2020", which is intended to finance the roll-out of measures in the municipalities affected by excess NO_2 emissions. The aim is to reduce NO_2 emissions substantially and to ensure compliance with air quality limits in the short term, but by 2020 at the very latest. The programme priorities are the electrification of urban fleets (particularly taxis and buses in the local public passenger transport system) including the expansion of the recharging infrastructure and measures to stabilise the grid, the retrofitting of diesel buses in the transport system to reduce emissions, better traffic management and the digitalisation and networking of municipal transport systems. Complementary measures include improved logistics and the promotion of bicycle use.	Launched in November 2017.

No.	Action name	Description of action and anticipated impact	Status and schedule
68.	Funding initiative for the "Energy transition in the transport sector: sector coupling through the use of electricity-based fuels"	With the research initiative spanning multiple programmes, the energy sector, the transport sector and the maritime sector are more closely interlinked in terms of both technology and innovation. The Federal Ministry for Economic Affairs and Energy is making roughly €130 million available to this end. The focus of the funding announcement is on research projects to produce and use alternative, electricity-based fuels and to integrate new technologies into the energy sector. The first flagship projects with strong participation from industry are due to start in 2018.	Funding announcement: 27 February 2017. Project planned to start in 2018.
69.	Ordinance on Technical Minimum Requirements for the Safe and Interoperable Establishment and Operation of Publicly Accessible Charging Stations for Electric Vehicles (Verordnung über technische Mindestanforderungen an den sicheren und interoperablen Aufbau und Betrieb von öffentlich zugänglichen Ladepunkten für Elektromobile)	Amends the existing Charging Station Ordinance (Ladesäulenverordnung) to include the EU requirements for recharging on an ad hoc basis: Accordingly, operators of charging stations that are accessible to the public must enable all electric vehicle users to recharge even if the users have not entered into a long-term contract with an electricity supplier. This supports the needs-driven expansion of publicly accessible charging stations by private investors and thereby the market uptake of electric vehicles in Germany.	In force since June 2017.
70.	Funding guideline for the charging infrastructure	With the funding guideline for the charging infrastructure, which has been in force since 15 February 2017, the Federal Government is continuing its support for the development of a publicly accessible charging infrastructure through the legal framework of the Charging Station Ordinance and updated legislation governing measurement and calibration. Federal funds amounting to $\in 300$ million are available in the 2017 – 2020 period and are to go towards funding at least 15,000 charging stations, of which roughly 10,000 are to be regular charging stations and 5,000 fast-charge stations.	In force since 15 February 2017.
71.	Measures adopted by the Länder to expand the charging infrastructure	North Rhine-Westphalia: In the "Immediate Action Programme for Electric Mobility", the North Rhine-Westphalia Ministry for the Economy, Innovation, Digitalisation and Energy is promoting the construction of public and private charging stations and supports the municipalities in the electrification of their fleet. In this context, assistance is given in Germany for the first time to private citizens purchasing a wallbox: - 40% of the procurement costs (max. €30,000) available on purchasing an electric car. - The funding rate of 60% (max. €60,000) applies for purchases of particularly innovative fuel cell vehicles. - 80% (max. €8,000 per charging station) is given to cities, towns, municipalities and counties expanding their charging infrastructure for their electric vehicles. The same amount of funding is also provided for electric mobility advisory services. Businesses and municipalities are entitled to funding worth 40% of the investment cost for the expansion of public charging stations. Support is given to both regular charging of up to 22 kW and to fast-charging from 100 to 150 kW as well as to the connection to the mains. To generate the greatest possible benefit for the environment, North Rhine-Westphalia only funds these projects if the electricity comes from a renewable source.	In force since 5 February 2018.
72.	Second Act to Amend the Energy Tax and Electricity Tax Act (Zweites Gesetz zur Änderung des Energie- steuer- und des Strom- steuergesetzes)	The Act primarily contains provisions to continue the preferential tax treatment for natural gas (CNG/LNG) and liquefied petroleum gas. The preferential tax treatment for CNG/LNG will be extended until the end of 2026 but will gradually be reduced from 2024; the tax benefit for LPG will be extended through to 2022 and will be reduced from 2019 onwards. Requirements of European Union law, particularly those extending to the area of EU rules on state aid, have been implemented. With regard to the area of electric mobility, the Act contains provisions, inter alia, for adaptation to the specifications under Union law of Directive 2003/96/EC (Energy Tax Directive). At the same time, the Electricity Tax Act is adapted to the requirements of the latest technological developments through the introduction of flexibility clauses, definitions and enabling provisions.	In force since 1 January 2018.

No. Action name Description of action and anticipated impact Status and schedule D. Improving education levels Measures adopted by the Bavaria: The pilot programme "Strengthening Media Skills in Early Education" is Runs from 2018 - 2021. Länder to support early designed to transfer into practice scientifically based educational approaches to childhood education early digital education which strengthen children's media skills and support children to ensure they can confidently navigate the digital world and use digital media in a self-determined, critical, creative and, most importantly, responsible and reflective manner. The pilot experiment conducted at up to 100 selected institutions in Bavaria aims to improve the media skills of educational specialists and offer them professional guidance in the use of digital media in the education process. Being the most important educational partner, the parents are to be involved from the outset and their media-related educational skills also strengthened. Berlin: Land Berlin is concentrating on improving quality in the area of early childhood In force since education and care which will facilitate early access to early childhood education for all 1 January 2018. children and also strengthen the quality of education in the field of childcare. Amendment to the Act to Promote Child Daycare (Kindertagesförderungsgesetz) in December 2017. Introduction of a legal right to part-time education and care for children aged one and over, improved conditions for releasing nursing school managers from duty and for funding the hours spent mentoring students during on-the-job training. The Land will spend roughly €55 million on this in the next two years. Act to Amend the Act to Promote Child Daycare and the Ordinance to Promote Child Daycare of 19 December 2017. North Rhine-Westphalia: Land investment programme for children over and under Over-threes: 2016 - 2019. Under-threes: 2015 - 2019. three: Land North Rhine-Westphalia is making a total of approximately €140 million available in the 2016 - 2019 period for the expansion of daycare places for child until they enter school. North Rhine-Westphalia: Land North Rhine-Westphalia is providing additional language Since 2014/2015, development funding totalling €25 million annually to the youth welfare offices for still in place. child daycare facilities attended by a particularly high proportion of children in need of particular speech and language support. The distribution key is based on the number of children under seven receiving benefits under Book II of the Social Code and on the number of children from families in which German is not the primary language spoken. Further to this, by providing additional annual funding amounting to €45 million in total for child daycare facilities in need of particular support (plusKITAs), the Land is making another contribution to more equity in education. Following the principle of "treating inequality unequally" the aim is to address the unacceptable dependence of an individual's educational opportunities on their social background. The distribution key is based on the number of children under seven receiving benefits under Book II of the Social Code. As part of the local youth welfare planning system, the youth welfare offices decide on the distribution of the funds to the child daycare facilities, which receive at least €5,000 annually under the additional programme to promote language skills development or at least €25,000 annually under the plusKITAs programme for child daycare facilities in need of particular support. North Rhine-Westphalia: Digital media are part of life for children and families and Since March 2017. cannot be ignored as a component of everyday education in childcare facilities. Since March 2017, the NRW Ministry for Children, the Family, Refugees and Integration has been running a programme - initially for a period of two years - focussing on "digital media in early childhood education" where selected childcare facilities are to trial the use of digital media, such as tablets and digital cameras. The primary goal of the project is to support high-quality media education at childcare facilities in the state. Best practices in terms of structure and content are to be identified to ensure the successful use of digital media in day-to-day education and then rolled out to all child daycare facilities in the state. Media educators will support and oversee the work of the childcare centres for the entire duration of the project. Concurrent scientific monitoring

of the project will also take place.

No. Action name Description of action and anticipated impact Status and schedule Continuation: Schleswig-Holstein: Schleswig-Holstein has made major advances in the expansion of 2017/2018. Measures adopted by childcare places for children until they start school. Both the amount of investment provided by the Land and the budget for grants towards operating costs were increased the Länder to support early childhood considerably in 2017 to this end. The *Land* provided roughly €179 million towards education investment and operating costs in 2017; the figure for 2018 already stands at around €218 million. Further to this, the Land is investing continuously in improving the quality of child 2018 - 2022. daycare. Measures include making more professionals available for all-day groups for the over-threes, strengthening language and speech development, providing greater support to family centres and supporting their work towards integration, expanding specialist advisory services and other support services (such as trauma-related services) or launching a pilot project for inclusion in child daycare facilities. Roughly €46 million were invested in quality measures in 2017; the figure for 2018 already stands at around €51.4 million. Looking to the future, the *Land* is to commit an additional €210 million to quality improvements by 2022, with funding increasing continuously each year from 2018 to an additional €70 million annually from 2021. 74. Measures adopted by the The Länder are continuing to expand all-day education, including in:

74. Measures adopted by the Länder to improve school education, increase the provision of all-day services and reduce the rate of early school leavers

Hamburg: A state-wide network of all-day education services in primary and post-primary schools has been developed in Hamburg from 2010/11 to the present day. Today, over 80% of primary school pupils avail of all-day services. In the primary school sector, in particular, Hamburg works closely with child and youth welfare services but also with sports clubs and other facilities in the region to provide all-day services across the state. All all-day services are free of charge in the period from 8 a.m. to 4 p.m. Preschool classes are the only exception here. This expansion of services goes hand in hand with substantial growth in jobs, with 2,590 more educational positions assigned to general education schools in 2017/18 compared with 2010/11.

North Rhine-Westphalia: By leveraging demographic effects and by creating new positions, improvements in quality have been financed in a variety of areas in the school system since 2015. For example, improvements in class sizes in primary schools (550 positions) were financed in 2015, and in 2015 - 2017 improvements in class sizes were financed in secondary level I at upper secondary schools (Gymnasium), comprehensive schools (Gesamtschule) and intermediate secondary schools (Realschule) (800 positions); in addition, between 2015 – 2017 multiprofessional teams for inclusion were established at vocational schools (400 positions), and the state has pressed ahead with the expansion of all-day schools with compulsory attendance for all pupils, and with non-compulsory attendance, with funding of approximately €161 million. Further to this, between 2015 and 2017 positions were created within the framework of the Training Consensus (210 positions) and for the comprehensive introduction of Islamic religious education (150 positions). In addition, in 2017 additional positions were created for end-to-end language learning, language development and intercultural school and curriculum development for integration through education (300 positions). Additional positions were also created in 2015 - 2017 for more school management time for multicampus schools (76 positions).

<u>Lower Saxony:</u> With the enshrinement of all-day schooling in the School Law (*Schulgesetz*) and the new all-day school decree, all-day schooling provides a holistic range of educational services that interlink in-class instruction and extracurricular activities. By assigning more teaching staff also to extracurricular programmes, this makes it possible to support and encourage individual pupils irrespective of their social background. With €1.5 billion in funding provided in the period from 2017 through to 2021, the foundation is laid for good development. A framework of corresponding advisory and support services is currently being developed and will help schools make good educational use of the additional time provided by all-day schooling. With continued development towards forms of all-day schools with compulsory attendance, a change in the culture of teaching and learning is also encouraged for the purpose of sustainable school development.

2015 - 2017.

Implementation of conceptual development and support from 2015 to 2017, long-term implementation: from 2018 onwards.

Description of action and anticipated impact

Status and schedule

4. Continuation:

Measures adopted by the

Länder to improve school

education, increase the

provision of all-day services

and reduce the rate of early

school leavers

The Länder have implemented a variety of measures to improve school education and to reduce the rate of early school leavers. Examples include:

Baden-Württemberg:

- Increase in the number of "extra support hours" (Poolstunden) at intermediate secondary schools (Realschule): intermediate secondary schools receive additional extra support hours to facilitate high-quality, successful individual support at intermediate secondary schools. The number of extra support hours is to be increased gradually up until the 2020/2021 academic year so that intermediate secondary schools can fulfil their enlarged remit. Intermediate secondary schools were allocated eight extra support hours per class for support and differentiation measures in the 2016/2017 academic year; 13 extra support hours per class are allocated in the 2017/2018 academic year.
- Digitalisation in the education sector, building a digital education platform for schools: support for schools for the legally secure and convenient use of digital media in the teaching and learning process.
- Increase in the weekly time allocated for German and maths in primary schools. The
 weekly time allocation for primary schools is to be increased by 2 additional hours
 for both German and maths (4 additional hours in total). This corresponds to an
 overall need of 640 teaching hours in total. Primary school children are to develop
 solid basic skills which they can then build on in post-primary schools. All children
 benefit from the increased time allocation.
- Digitalisation in the education sector, continuing training and education (CET) campaign for teachers from all types of school: The development of skills among teachers is a key aspect of the overall programme of digitalisation in the school sector. Specifically, this involves firmly establishing didactic methods in the classroom and having the necessary technical knowledge. To be able to successfully teach and learn with and through media in school, it is essential that teachers - depending on their level of knowledge - not only develop additional methodological and didactic skills, but are also adept at using digital equipment and learning management systems and know where and how they can be put to use. Furthermore, it is important to be aware of legal issues and adapted forms of performance description and assessment, and to remain abreast of new developments and take part in continuous training. In light of this, a well-tailored portfolio of continuing training, support and information services is of utmost importance in this area. Therefore comprehensive services are being established in the following four areas: advanced training for trainers, basic technical offerings, e-learning modules and information services (e.g. tutorials for the digital learning platform) for private study. In addition to the integration of aspects of digitalisation into all advanced training courses for teachers, and the continued refinement of classroom instruction as a result, these measures are also expected to deliver the teaching skills defined in the Strategy for Education in a Digital Age adopted by the Standing Conference of the Ministers of Education and Cultural Affairs.

In force since 1 August 2016 and 1 August 2017.

The platform is currently being developed.
The weekly time allocated was increased by two hours in the 2016/2017 school year (320 teaching hours), and by one additional hour in the 2017/2018 school year. It is to be increased again by one additional hour in the 2018/2019 school year. This corresponds to a total of 640 teaching hours.

Measures commence with the qualification of disseminators at the start of 2018.

Bavaria:

- Media strategies at Bavarian schools shaping digitalisation together: By developing media strategies (consisting of a school media curriculum, an advanced training plan and an equipment plan), the aim is for all Bavarian schools to systematise their media-related work in order to improve pupils' media skills in a world shaped by digitalisation. This measure also serves as the basis for the comprehensive measures that are set to commence in the school sector from 2018 onwards as part of the BAVARIA DIGITAL II master plan.
- Supporting high achievers at Bavarian intermediate secondary schools (Realschule): Particularly high-achieving and talented pupils at intermediate secondary schools take an additional subject in their final examination, and thereby benefit from a broader range of educational opportunities. This approach specifically encourages the young pupils and presents them with a challenge; in turn they reap the benefits both in terms of vocational and school-based further education and training.

Started in July 2017, project runs until the end of the 2018/19 school year.

The service was expanded substantially to 30 sites (previously 23) for the 2017/18 school year.

74. Continuation: Measures adopted by the Länder to improve school education, increase the provision of all-day services and reduce the rate of early school leavers

Description of action and anticipated impact

Berlin: Berlin Land programme "Securing and Strengthening Local Educational Associations on a Sustainable Basis": On the basis of a local education monitoring system, regional educational opportunities are to be aligned with concrete goals (e.g. higher rate of school completion) and focal topics for the work of local educational associations are to be identified and implemented (e.g. the promotion of language development, shaping the transition from kindergarten to school, and school to training, improving school attendance). School administrators can use local education associations as a support and quality development instrument in order to help open schools to children's social environment; expand the range of services available in schools and improve access to services, particularly for educationally disadvantaged children and young people; strengthen collaboration across schools; improve information sharing and exchange; work together to shape the transition between the education institutions (kindergartenschool-job); develop multi-professional, multi-perspective approaches (e.g. in the area of parental work or for children with "complex assistance needs"); help shape and develop preventive and participatory offerings and services in the social environment based on actual needs.

Brandenburg:

- ESF programme "Initiative for Lower Secondary Education (INISEK I)" as a follow-up to the "High School Initiative": This initiative specifically aims to improve school results and pupils' suitability for vocational training. With practical "hands-on learning" in companies and institutions outside the school learning environment, the aim is to give all pupils of classes in grades 7 to 10 the opportunity to broaden and deepen the knowledge and skills acquired in the classroom through practical work, and for them to receive guidance in their choice of career and develop their own impression of the line of work they would like to pursue. By having productive learning experiences, the programme seeks to reach lower-achieving pupils who have difficulties learning. With customised lessons with a reduced number of hours in class and a greater focus on practical activities, these pupils are given the opportunity to obtain a school leaving certificate/qualification to enter vocational training that meets the standards of the Standing Conference of the Ministers of Education and Cultural Affairs.
- Under the ESF programme entitled "School/Youth Work Projects 2020", 28 high schools (Oberschule) and comprehensive schools (Gesamtschule) are receiving support in the 2014 – 2020 EU programming period for school/youth work learning groups directed at pupils who refuse to attend school regularly. The aim of the groups is to successfully integrate the pupils (in grades 7 and 8) into the regular school system or to enable pupils in grade 9 to obtain a school leaving certificate/ qualification to enter vocational training. The school/youth work projects for pupils in grade 9 also offer a reduced number of lessons, concentrating specifically on the subjects and fields of study that are required to obtain a Hauptschule lower secondary school certificate/qualification to enter vocational training which is recognised by the Standing Conference of the Ministers of Education and Cultural Affairs. By creating an inclusive school environment, the "Learning Together" approach also aims to help further reduce the currently high percentage of pupils - particularly pupils from special needs schools - who do not have a Hauptschule lower secondary school certificate/qualification to enter vocational training. This is done by providing individual support to all pupils in the classroom and thereby by giving each pupil the tools to get the best possible school leaving certificate they can.

Status and schedule

Programme commenced in 2016.

Within the scope of existing resources, cooperative relations are to be further consolidated and systematised in the next two years. Furthermore, interministerial projects and measures are to be developed and expanded to ensure the coordinated support of educational opportunities along the educational path from childhood to adulthood. Details are specified within the framework of the annual target agreements between the Senate Administration for Education. Youth and the Family and the Berlin boroughs.

Starting in the 2017/2018 school year, all primary schools as well as all high schools and comprehensive schools will gradually receive additional teacher week hours for teachers and other teaching staff for pupils with special educational needs in the areas of "learning", "emotional and social development" and "language" so they are able to provide better individual support for these pupils.

Description of action and anticipated impact

Status and schedule

74. Continuation:

Measures adopted by the Länder to improve school education, increase the provision of all-day services and reduce the rate of early school leavers Mecklenburg Western-Pomerania:

- ESF measure "Voluntary 10th Grade": In place since 2014, this ESF-funded measure offers a voluntary 10th grade at 27 schools focussing on learning-related special needs so that pupils can pass 9th grade and earn the "Berufsreife" qualification, which qualifies the holder to enter basic vocational training. The target group includes pupils with special educational needs or learning difficulties. This measure aims to reduce the percentage of pupils who would otherwise not obtain the Berufsreife qualification in the general education school system.
- ESF measure "Complementary Hours/Intensive Learning Hours and Coaching": With the ESF-funded "Complementary Hours/Intensive Learning Hours and Coaching" measure which has been in place since 2015, pupils at 34 regional schools and comprehensive schools across the state receive targeted support through additional teaching hours to help them obtain the best possible school qualification they can manage. Pupils in 403 classes in grades 5 to 9 will receive support in the 2017/2018 school year. Each of the classes receiving support are entitled to three hours per week for tuition in the core subjects German, maths and English, and for teacher coaching.
- Lower Saxony: To improve the quality of schools, the government of the state of Lower Saxony has decided to expand and strengthen advisory and support services and has created an additional 28 positions in the field of school development advice on a permanent basis. This provides schools with a comprehensive advice and support system to improve school and teaching development. The school inspection system has been replaced by what is termed the "focus evaluation system", which aims to oversee school and curriculum development in schools over the longer term and thereby help deliver lasting effects in the quality of schools and teaching. With the decision of the Landtag regarding the budget plan, 16 language centres i.e. centres for language development and intercultural education are now also be available to schools on a permanent basis.

Currently being implemented in the 2017/18 school year (398 pupils taking part; graduation rate in 2016/17: 91.2%).

Currently being implemented in the 2017/18 school year (2016/17: 353 classes/ grades 5 to 8; 2017/18: 403 classes/ grades 5 to 9).

school year, 16 centres for language development and intercultural education have been advising and supporting all kinds of schools on an as-needed basis in the school development process in the areas of general language learning as the remit of all school subjects, language development, multilingualism and intercultural skills.

Since the 2017/2018

2017 - 2023.

Saxony-Anhalt: The aim of the "Securing School Success" ESF programme is to ensure a high level of general education for children and young people. The central focus is on reducing early school-leaving and on the promotion of access to high-quality primary and secondary education, including (formal, non-formal and informal) education courses that enable individuals to return to general education and vocational training. Focussing on five priority areas, the ESF sub-programme entitled "Continuing and Advanced Training Measures for the Prevention or Early Identification of School Failure and to Optimise Approaches to Heterogeneity (Inclusion/Inclusive Education)" is designed to support and promote the professional skills of teaching staff as their level of qualification has a direct impact on pupils' performance. Cross-cutting skills, in particular, are to be promoted and additional skills acquired in order to successfully create an inclusive environment in schools and in the classroom.

Description of action and anticipated impact

Status and schedule

Enshrined in Section 22

Ordinance (Mittelschul-

examinations from May

of the Middle School

ordnung) since the 2016/17 school year; first

 Measures adopted by the Länder to improve the education level of disadvantaged persons, particularly also of migrants The Länder have implemented a variety of measures to raise the level of education of disadvantaged persons and to support migrants. Examples include:

Bavaria:

- Final exam with less focus on theory to successfully obtain a middle school qualification (Mittelschulabschluss) in transitional classes for pupils who are not native German speakers: Allowing pupils to take an exam that is less theory-based, and thereby successfully obtain a middle school qualification, gives suitable transitional class pupils who are in the ninth year of school the opportunity to earn a recognised school leaving qualification which facilitates their integration into the labour market. At the same time, the number of young people leaving middle school without a qualification is reduced.
- Folder of material to assist in lesson planning in classes to prepare pupils for vocational integration (career prospects for asylum seekers and refugees): The everyday learning scenarios that are provided in the folder support teachers giving classes to prepare pupils for vocational integration and offer guidance on how to implement the lesson plan.

Since the start of the 2017/18 school year.

<u>Berlin:</u> Resources to oversee the transition from welcome classes to the regular school system: Berlin has decided to keep resources in the system that have been freed up by the drop in the number of new immigrant and refugee children and young people. As a result, periods are available in schools for additional and inclusive support to oversee pupils' transition from welcome classes to the regular school system. This measure is backed by advanced training programmes provided by the Centre for Language Learning

Hamburg:

- Development and trialling of inclusive strategies for vocational schools: The project comprises the development and trialling of inclusive strategies at the transition between school and working life and for vocational schools, and the presentation of a decision paper regarding "inclusion in vocational training".
- Measures for integrated and additional German language development for refugees in the context of vocational training: Development of integrated and additional German language learning measures for dual and full-time school-based vocational training courses to in-crease individuals' prospects of integration through the successful completion of a vocational training course.

Trial completed in July 2017. Implementation in the regular system commenced in August 2017. Part 1 being implemented since February 2017. Part II being implemented since September 2017.

Hesse:

Overall concept for the promotion of German language skills in school developed by the Hesse Ministry of Education and Cultural Affairs: With language services ranging from preparatory courses one year before school enrolment to intensive courses and partially integrated intensive courses at general education schools through to intensive classes at vocational schools (Integration through Integration and Qualifications - InteA), the overall concept for the promotion of German language skills in school supports children, young people and young adults with poor knowledge of German in acquiring and improving their German language skills far beyond the age of compulsory school education. Pupils educated through an InteA programme are given the opportunity to earn an external lower secondary school leaving qualification (Hauptschulabschluss) and an external intermediate secondary school leaving qualification (Realschulabschluss) and to do an internship for the purpose of career guidance and study programme orientation. Furthermore, individuals can also earn the Certificate of German Language Proficiency (DSD I PRO) approved by the Standing Conference of the Ministers of Education and Cultural Affairs which companies providing training are advised to seek as proof of sufficient German language skills when enrolling young refugees and migrants into the dual system of vocational education and training. The Hesse Ministry of Education and Cultural Affairs supports the networking of key regional and national education partners to precisely steer and organise transition within the system. With regard to intensive classes, monthly adjustments in the assignment of teaching positions provides additional resource security in the schools.

Introduction of the DSD I PRO in the 2016/17 school year; extended to all vocational schools (as far as possible) with intensive classes in the 2017/18 school year.

Description of action and anticipated impact

Status and schedule

Continuation: Measures adopted by the Länder to improve the education level of disadvantaged persons, particularly also of migrants

School integration plan developed by the Hesse Ministry of Education and Cultural Affairs: The "Advisory Council for the Teaching of Refugees" was set up with members from the field of education administration, the Central Staff Council, school administration and parents and students councils to provide expertise from real-life teaching practice in schools. Valuable impetus is provided here through networking and knowledge-sharing, and practical and viable solutions are developed. These were incorporated in the 2016/17 school year, for example, in the "School Integration Plan" of the Hesse Ministry of Education and Cultural Affairs. This plan is based on three pillars: the targeted control and distribution of individuals transitioning during the process of full integration into regular classes; increased resources at schools; and a comprehensive coordinated programme of further training and advice

School Integration Plan being implemented since February 2017.

Change of language sequence: People transitioning into regular intermediate-level classroom instruction at a general education school after completing language training are allowed to change the language sequence and choose their mother tongue instead of English as their first foreign language in school. This is designed to ease their introduction into the regular school system. However, to continue to make it possible for individuals to obtain a higher qualification (one equivalent to the intermediate school-leaving certificate (mittlerer Abschluss) and to the entrance qualification for universities of applied sciences (Fachhochschulreife) as well as the entrance qualification for universities of applied sciences (Fachhochschulreife), while complying with the existing quality standards of Hesse school qualifications, plans are in place to introduce English as an ab initio language in vocational schools and vocationally-oriented upper secondary schools (Fachoberschule) and also to modify the admission requirements for vocationally-oriented upper secondary schools in this regard.

Ab initio English as a foreign language from the 2018/19 school year.

Mecklenburg Western-Pomerania:

- Educational Links: As part of the "Educational Links to Obtain a Training Qualification" government initiative, measures of the Federation and the Länder are coordinated and consolidated. Career start coaches, workshop days and potential analysis are the primary focal areas here. Around 100 full-time positions as career start coaches are funded through the initiative. Coaching starts in the penultimate school year and finishes six months after the start of the period of vocational training, but at the very latest 24 months after the end of general education.
- ESF measure to "Promote continuing training to customise teaching and learning processes in the field of inclusive school development": Additional continuing training measures adopted by Land Mecklenburg Western Pomerania for teachers in regional schools and comprehensive schools and also vocational schools in the period 2016 – 2022. This supports the strategy of the Land government to create an inclusive education system in Mecklenburg Western Pomerania. The focus is on advanced training for school administrators and teachers on various aspects of inclusion in the field of education. Inclusive education is to be achieved, in particular, 320 successful participants through individualised lessons for all pupils in lower secondary level. Further to this, support is given to school administrators and teachers at vocational schools (upper secondary level) to introduce and implement inclusive approaches in schools.

Around 800 new pupils incorporated into the programme both on 1 September 2017 and in 2018. The percentage of pupils from a migration background was one of the criteria when selecting the schools to participate in the programme.

Currently being implemented in the 2017/18 school year.

in the 2016/17 school

Lower Saxony:

- Promotion of German language learning measures for refugees: The Lower Saxony Land programme to promote German language learning for adult refugees ensures that everyone seeking protection in Lower Saxony has access to German language teaching measures irrespective of their country of origin and their current legal status. The courses are designed as the first module of a linked-up educational approach. Other measures and further qualification activities can build on this module, thereby logically complementing the services offered by the Federal Government.
- Promotion of measures in the area of basic education for refugees: Many refugees are in great need of basic education. For people in this demographic group, successful participation in "second chance" education measures is considerably more difficult without first receiving basic education/acquiring literacy skills. The funding programme finances measures to improve the basic education of refugees.

1,500 courses on offer per year with the third funding period commencing in April 2017. 30,000 refugees can benefit from the courses each year in 2017 and 2018.

No. Action name Description of action and anticipated impact Status and schedule Continuation: Promotion of "second chance" education measures for refugees: Many of the refu-In force since May 2017. Measures adopted by the gees in Lower Saxony do not have a school-leaving certificate that is recognised in Germany. It is difficult for these people to integrate in the German labour market as Länder to improve the education level of disadvanthey will not have the opportunity to enter a vocational training programme without taged persons, particularly a school-leaving certificate. The funding programme therefore makes additional also of migrants funds available for "second chance" opportunities to acquire a Hauptschule or Realschule school-leaving certificate and for preparatory courses. In force since May 2017. Language and learning portal: In tandem with the ELearning Academic Network (ELAN), the Lower Saxony Ministry for Science and Culture has set up an online information portal which brings together German language development measures of the Land for adult refugees and other language acquisition measures and language courses for people who have fled their homes. The aim is to provide a long-term, transparent overview of the various services on offer which enable both refugees and individuals engaged in the care of refugees to find the perfect-fit language learning solution available in the region. Complementing this, the portal also contains information on digital teach-yourself packages. In force since 2017. Qualification of teachers for German as a second language/German as a foreign language: The Lower Saxony Ministry for Science and Culture together with the Land Association of Adult Education Centres in Lower Saxony have been running the "Adult Education Centre for Training German Language Teachers" programme since April 2017. The demand for suitable "German as a second language" teachers currently exceeds the capacity available. The qualification programme addresses Guideline on the provision of grants for the coordination of regional language In force since April 2017. learning in Lower Saxony: The Lower Saxony Ministry for Science and Culture is funding additional positions at county level for a limited period through to the end of 2018. Action to give as many refugees as possible the best services to meet their needs, ensure transition between the courses and ultimately promote transition into employment calls for coordination and communication among all parties involved at regional level. North Rhine-Westphalia: With the "No Qualifications without Prospects" transition In force since June 2017. programme, North Rhine-Westphalia has created a reliable basis that offers systematically interlinked educational elements for all eighth-grade pupils. This system, Implemented since the which was adopted by all partners to the Training Consensus of the State of North 2016/17 school year. Rhine-Westphalia, also serves all pupils with a refugee background who have transitioned into the regular school system. All pupils who commence regular classes in eighth or ninth grade also take part in the career guidance and study orientation process under the "No Qualifications without Prospects" programme. Young people joining regular school in ninth grade can also avail retroactively of the programme elements for eighth grade. A "No Qualifications without Prospects – Compact" programme has been developed for all pupils who only join the school system at a later stage (tenth grade and international special classes at vocational schools) to also give these young people lasting impetus for their professional orientation. The programme elements of the "No Qualifications without Prospects - Compact" programme comprise potential analysis, practical elements (practical introduction to careers, practical courses) and an introduction to the German training system. These are provided by an education provider in close collaboration with the schools. Saxony-Anhalt: Under the "Continuing Education DIRECT" programme, participation In force since 2015,

in individual work-related further training measures and participation in courses while

in training or school is financed through funding from the European Social Fund. In the

implementation of the programme, a specific focus is placed on disadvantaged groups

of workers in the labour market to improve their employment prospects.

on-going implementation

also in 2018.

education institutions.

No. Action name Description of action and anticipated impact Status and schedule **Higher Education Pact** The aim of the Higher Education Pact is to safeguard the opportunities of the young The third final pro-2020 generation to enter a study programme and secure the next generation of young scigramme phase of the entific talent which the country needs. Under the third phase of the Higher Education 2020 Higher Education Pact, the Federation and the Länder seek to make a study place available for up to Pact has been running 760,033 additional first-year students by 2020 compared with 2005 levels. The Federsince 2016. ation and the Länder consider €26,000 to be the amount needed for each additional first-year student. Of this amount, the Federation will provide €13,000 over a four-year period according to a fixed amount model. The higher-education institutions are to channel 10% of the funds into quality-assured measures to help students successfully complete their studies. Another important goal is to open up third-level education to more individuals with vocational qualifications. With the second pillar of the Higher Education Pact, overhead funding for the German Research Foundation (DFG) will be continued through to 2020, and has been increased to 22% in total for new DFG projects from 2016 onwards. The funding serves to cover the indirect, additional and variable project expenses associated with support for projects. The "Teaching Quality Pact" promotes a wide range of measures to improve the staffing 77. Federal/Länder programme The funding programme for better study conditions of higher education institutions, to support the skills development of teaching staff, and has been in place since and better quality of teachto safeguard and further develop high-quality third-level instruction. The Federation the 2011/2012 winter ing (Teaching Quality Pact) will provide up to €2 billion by 2020 to this end, subject to the provision of funding semester or the 2012 by the legislative bodies, while the Länder will guarantee overall financing. In the first summer semester and funding period, support was granted to 186 higher education institutions from all 16 was initially limited to a Länder to improve their conditions for studying. maximum of five years through to 2016. On the In the second funding period, the Federation and Länder support applications for basis of an interim review, renewal on the basis of interim reviews of the measures funded so far. In total, 156 higher education institutions from all 16 Länder will receive around €820 million in feda decision was made in eral funding from 2016 to 2020. The quality of the renewal applications demonstrates November 2015 on subsequent funding through that the measures for the systematic further development of high-quality teaching to the end of 2020. were successful. The programme has increased appreciation for teaching as an area as important as research. Runs from 2011 - 2020. 78. Measures adopted by the A multitude of measures are in place in the Länder to increase the rate of third-level Länder to increase the rate graduates or individuals with an equivalent qualification, for example: of third-level graduates or individuals with an equiva-Baden-Württemberg: With the "Study Successfully in Baden-Württemberg" fund, 2016 - 2020, first tranche lent qualification third-level institutions in Baden-Württemberg will receive total support of €100 million between 2016 and 2020 to increase students' rate of academic success in their study programmes. The first tranche supports three funding lines through to 2019: "Structural Models in the Introductory Study Phase" to individually support students in the introductory study phase with study structures, orientation and skills upgrad-"Learning and Teaching Science" for the promotion of innovative pilot schemes that systematically implement active learning and teaching at third level. "A Culture of Entrepreneurship in Studying and Teaching" to support innovative projects that encourage entrepreneurship among students. Bavaria: STEM ACTIVE (MINTerAKTIV) project to actively encourage study in STEM April 2016 - September disciplines: With this project, the Bavarian State Ministry for Education, Cultural 2019: implementation Affairs, Science and Art is providing financial support for the third time to Bavarian of measures at higher

universities of applied sciences/institutes of technology and universities with total

talented individuals.

funding of around €2 million through to 2019 to promote study in STEM disciplines and prevent students from dropping out of their study programmes. Project funding is tied to five conditions: reference to the promotion of STEM disciplines, the prevention of people discontinuing STEM study programmes, the promotion of strong regional commitment, the promotion of diversity and permeability, and the support of highly

Status and schedule

Description of action and anticipated impact

No. Action name

Continuation: Through to 2018. Measures adopted by the The filling of new university places taken into consideration in the strategic agreements on targets between the Land and higher education institutions: Higher educa-Länder to increase the rate tion institutions are to fill at least 70% (80% from 2018) of the study places they proof third-level graduates or individuals with an equivavide or otherwise face a reduction in the level of Land funding, which will be shared lent qualification among other higher education institutions. Exemptions are granted for "smaller disciplines" of special national interest. The measure aims to ensure good student take-up of the study courses on offer without encouraging oversubscription, and thereby improve the overall quality of teaching and third-level study programmes. The higher education institutions are given a clear incentive to align the study programmes on offer with the needs of the students and/or promote and advertise their study programmes. Formula Plus: Distribution of €10 million annually to higher education institutions Annually in 2017 and in Lower Saxony with the number of graduates multiplied by a remain-in-study rate 2018 - 2020. (number of students in the fifth programme semester divided by the number of firstyear students two years previously). The remain-in-study rates for each undergraduate course are compiled per teaching unit. This information is public to all higher education institutions in Lower Saxony, and a benchmark is thereby created. This provides a clear incentive to increase the graduation rate. Quality Plus: Programme for the quality assurance and quality development of study Call for applications in programmes and instruction. Higher education institutions are to develop a strategic September 2017, the approach to improving the quality of instruction encompassing all higher education funding measure will institutions and use this as a basis for individual measures that promote improvecommence on 1 October ments for individual study courses. The Land government of Lower Saxony is making 2018 and finishes in 2021. €15 million available for this purpose. 79. Federal/Länder com-The competition promotes activities that develop, trial and prepare the implementa-First round of competipetition "Advancement tion of CVET study programmes at universities on a lasting basis (CVET = continuing tion: 2011 - 2017. through Education: vocational education and training). With this approach, the programme helps secure Second round of compe-Open Universities" the long-term supply of skilled labour and improve permeability between academic education and vocational training. At the same time, it helps towards an open system of tition: 2014 - 2020. higher education with CVET opportunities for various needs and target groups which, up to now, have not really been the focus of third-level institutions and the services they offer. By the time the first competition round expired on 30 September 2017, funding had been received by a total of 122 grant recipients at 95 different German higher education institutions (60 universities of applied sciences, 35 universities) and four non-university research centres or other institutions in a total of 73 collaborative and individual projects. This means that, in Germany, roughly one higher education institution in four is on track to becoming an "open university". Higher education institutions from all Länder are represented. In the second round of the competition, 69 grant recipients at 60 different German higher education institutions (21 of which are universities) and one non-university research centre are currently receiving funding in a total of 34 individual and 13 collaborative projects which are currently still working on around 400 additional new offerings. Subject to the provision of funding by the legislative bodies, the Federation will provide €250 million in total through to 2020 to finance the competition. Each Land guarantees the overall financing of its projects.

Description of action and anticipated impact

Status and schedule

Measures adopted by the Länder to support career orientation and improve vocational training

The Länder have put in place a variety of measures to support career orientation and improve vocational training. Examples include:

Baden-Württemberg: Administrative rule of the Ministry for Education and Cultural Affairs on vocational orientation at general education secondary schools and vocational schools (vocational orientation administrative rule): The binding and individual career orientation services that commence as early as grade five give pupils the opportunity to become familiar with a broad range of professions and gather initial experience in the working world. They receive the opportunity to discover, examine and specifically develop their interests and potential to be able to make an informed choice when transitioning to vocational training, higher education and work. Vocational orientation at schools comprises measures that provide guidance for both vocational training and university-based training. These measures are firmly established depending on the specific school type, and implemented. The measures are structured systematically, with the specific requirements of the individual school taken into account in the conceptual design. Particular importance is given to higher education guidance in schools where pupils can earn a university entrance qualification or which lead to such a qualification. The vocational orientation measures ensure the active involvement of pupils' legal guardians in the process of choosing a profession. With the help of vocational guidance experts at employment agencies in the state, schools create a vocational orientation strategy for their specific school with reference to their particular region.

Vocational orientation administrative rule in force since 6 September 2017.

Bavaria: In tandem with the Bavarian Chambers of Industry and Commerce and Chambers of Crafts, the Bavarian state government rolled out the "Training Makes Parents Proud" image campaign to raise awareness among parents of the opportunities and possibilities that vocational training offers. Appealing to parents' emotions, the campaign specifically informs parents about the prospects of success that their children can expect by pursuing an apprenticeship-based career. The campaign is initially due to run for a period of two years. There are plans to extend the campaign by another two years starting in autumn 2017.

Campaign duration: 2015 to 2019.

Hamburg:

- Making the system of dual education and training more attractive: Development of measures to increase the appeal of the dual training system and analysis of possibilities for obtaining additional qualifications in the dual training system.
- Greater permeability between academic education and vocational training: Development of an "Integrated Vocational Training and Studying" collaborative model between vocational schools, companies providing training and state-owned universities. The goals include the reciprocal recognition of skills and the creation of an experience-based framework for deciding on alternative routes to continuing one's training and education (vocational training, vocational training + bachelor, bachelor).
- Integration of university drop-outs in vocational training: Flagship project for interconnected advice, placement and support of university drop-outs in vocational train- 31 December 2018. ing in Hamburg. The aim is to set up an advisory and placement network for all the stakeholders involved, to optimise the advisory and placement services, to effectively reach university drop-outs so that they can consider vocational training as a career opportunity, and to ensure their effective integration into the vocational training system by giving them credits for earlier academic work.

In progress, until July 2018.

In progress, until August 2018.

In progress, until

Description of action and anticipated impact

Status and schedule

Entered into force on

1 August 2017.

80. Continuation:
Measures adopted by the

Länder to support career

orientation and improve vocational training

Mecklenburg Western-Pomerania:

- In Mecklenburg Western-Pomerania, vocational guidance and study programme orientation is constantly undergoing continued development, with a particular focus placed on ensuring compatibility and the smooth transition between the various stages. On the basis of the "Land Strategy for the Transition from School to Work", the Land recast the administrative rule on vocational guidance and study programme orientation at general education secondary schools and vocational schools with the aim of optimising the system and structuring it.
- "Integrated Vocational Orientation" pilot project: This pilot project includes the continued development of vocational guidance and study programme orientation, also with a view to inclusion. Another focal area is the development of an analysis which can be conducted by schools of a pupil's skills and abilities that are relevant for their choice of career (potential analysis). Together with the Federal Employment Agency, the *Land* is implementing measures geared towards broader, more in-depth career orientation as defined in Section 48 of Book III of the Social Code. In this context, schools can select modules which are organised and provided by educational institutions. A particular priority here is the provision of support to lower-attaining pupils.

Schools years 2016/2017 to 2018/2019.

<u>Hesse:</u> Aiming to ensure access to vocational training for all young people who wish to pursue this career path and to increase the appeal of the dual system of vocational training and education, the 2015 – 2019 "Alliance for Training in Hesse" was signed in 2015 by the business sector, the municipal authority central associations, the Hesse regional office of the Federal Employment Agency, the *Land* government and also by the trade unions for the first time. The partners' activities and measures to improve vocational training are brought together and harmonised under the Alliance.

Implementation: from 2015 until 2019.

Lower Saxony: In the "Lower Saxony Skilled Labour Initiative", the Land government of Lower Saxony has adopted an agreement with the employer associations, the trade unions, the chambers, the Lower Saxony/Bremen regional office of the Federal Employment Agency, municipal authority central associations and other stakeholders to secure the supply of skilled labour. The agreement is based on a framework for action with clear objectives in 13 action areas on the basis of which the partners to the agreement jointly put measures in place to secure the skilled labour base. The key priorities of the agreement are the strengthening of the system of dual vocational training and education, the promotion of STEM professions and the reconciliation of career and family commitments. Furthermore, the Skilled Labour Initiative is also intended to even better unlock the potential of women, unemployed persons, older people and migrants in the future in order to increase the pool of skilled workers.

Agreed measures will be implemented through to 2018

Saxony: Special career counsellors in schools prepare pupils individually for professional life from the seventh grade onwards. The services of the career counsellors complement the work of the career guidance officers at the employment agency. They are additional members of staff, providing professional support for tailor-made career and higher education guidance – combined with support for the individual strengths of the pupils. The aim is to increase pupils' skills and abilities for their choice of career. To this end, the special career counsellors perform a special test with the pupils with practical tasks in the form of individual work and group work. Each pupil is observed to see how he/she approaches and resolves the task and applies his/her skills. Using a special computer programme the career counsellor then creates a personal assessment chart from the test results. The development plan that follows is agreed with the pupils, their parents and class teachers. The "Profil AC" potential analysis procedure that is applied is a high-quality, scientifically evaluated procedure. The special career counsellors are financed through funding from the European Social Fund, the Federal Employment Agency and the Free State of Saxony.

Expansion since the 2016/2017 school year.

Project support planned until 2021.

Description of action and anticipated impact

Status and schedule

BRAFO programme

2015 - 2020.

Continuation:

Measures adopted by the Länder to support career orientation and improve vocational training

Saxony-Anhalt:

- The BRAFO programme, encouraging timely career choices and early orientation, is introduced as an compulsory programme at all schools across the state of Saxony-Anhalt (with the exception of special schools for pupils with intellectual, physical and sensory disabilities). To identify the personal interests and preferences of pupils and to provide support for career guidance and their later choice of career, from the 2016/2017 school year onwards pupils will be required to take part in a one-day computer-assisted skills and aptitude assessment process (BRAFO-KE) to identify their professional interests and preferences in specific environments and with regard to specific activities. Afterwards, the pupils can discover more about working in the four environments on four separate days. Three fields of activity are assigned to each environment. Each day the pupils explore a field of activity in one of the environments so that at the end of the four days they have experienced all four environments and completed one activity in each environment.
- In addition, the programme also focuses on the labour market potential of young refugees in order to support their early and successful integration into vocational training. To this end, measures and projects have been added to the BRAFO programme that are geared specifically towards young refugees. The programme combines traditional career guidance measures with measures to promote language acquisition under the youth integration courses.

Measures for young refugees began in January 2017.

81. Measures adopted by the Länder to support lifelong learning

Numerous measures are in place in the Länder to promote continuing education and training (CET) and lifelong learning, including in:

Hesse: In order to optimise and expand the opportunities for lifelong learning, the Hesse Land government agreed a Continuing Education and Training Pact with publicsector and non-state providers of CET services (runs from 1 January 2017 - 31 December 2020). The goals of the Continuing Education and Training Pact are to "facilitate access to CET", "promote integration, participation and equal opportunities" and "improve quality". Specific action areas are assigned to the goals, such as the expansion of general training advice and mobile/online learning services, educational offerings for politics-related further training and the strengthening of social cohesion, inclusive learning for people with physical and/or intellectual disabilities, advanced training of staff and course instructors in areas such as adult education, basic education, inclusion and volunteering. In addition to the funding already provided under the Hesse Continuing Education and Training Act (Weiterbildungsgesetz), Hesse is making a further €12 million available for implementation, and thereby roughly €3 million on average per year. These funds will be invested on a 50:50 basis in increasing the legal funding for teaching periods under the Hesse Continuing Education and Training Act and for projects.

In force since 1 January 2017.

Increased funding (approximately 20%) for teaching periods under the Hesse Continuing **Education and Training** Act implemented on 1 January 2017; project funding from the start of 2018.

E. Promoting social inclusion in particular by reducing poverty

Measures adopted by the Länder to integrate the long-term unemployed

Bremen:

- LAZLO city district-specific support for the long-term unemployed with the goal of conducting preparatory training for workers, ensuring instruction and scheduling, stabilising employment and removing barriers to placement in employment in order to create opportunities for transitioning into the labour market in the future. Provider: AWO Sozialdienste GmbH.
- "Women, school and work" single mothers who do not have a school leaving certificate or a training qualification are given a "second chance" opportunity to earn the (extended) qualification to enter vocational training (Berufsbildungsreife)/middle school-leaving qualification in a 12-month project and to develop prospects for a subsequent career. Additional remedial instruction and tutoring help to optimally prepare the women for the examinations. In addition, they also receive support with regard to the organisation of childcare and help if they are facing difficult personal and family situations. Furthermore, career prospects are developed and/or initial concrete steps taken to achieve the career goal. The programme participants are assisted in their search for internships, vocational training positions, retraining positions and employment.
- 1 November 2016 -
- 31 December 2018.
- 1 September 2017 -31 August 2020.

Description of action and anticipated impact

Status and schedule

Continuation:
 Measures adopted by the Länder to integrate the long-term unemployed

"Good advice for a good start" – advisory services for single mothers in socially disadvantaged areas to mobilise personal and social resources. The aim here is to identify individual needs and present ways in which they can enter or return to work and manage to combine family and work commitments. The provision of childcare services during the consultations is a parallel component of the programme.

1 January 2017 – 31 December 2017.

Schleswig-Holstein: The aim of the Family Coaching Centre ESF pilot project implemented by the Tertia Centre for Vocational Training and Advancement is to integrate programme participants into the primary labour market and to provide longer-term support to the eligible households claiming unemployment benefit II over an extended period in order to improve conditions in the family on a lasting basis so that the next generation does not drift towards dependency on benefits. Optionally, experts from the job centre can get involved in the project as a job coach and create a team with the project staff. The focus is on the subjective perspective of the eligible household and their needs; solutions are developed together with the household. The holistic advisory approach ensures progress is made in integration and integration success. Intensive follow-up support stabilises the new employment and family situation.

1 January 2017 – 30 June 2018.

North Rhine-Westphalia:

Additional Land funds are available to back the federal programme for "Social Participation in the Labour Market". The federal programme is directed at the long-term unemployed furthest from the labour market. The job centres can receive a maximum of €200 per participant month, which is to be invested, in particular, into coaching, instruction, project assistance and job-related spending of the programme participants. Transferral to a third party is possible.

Under the framework of support and funding for pilot projects to integrate the long-term unemployed, project applications can be submitted by the municipalities of Dortmund, Essen, Gelsenkirchen and Duisburg which are particularly affected by unemployment and long-term unemployment. The support is geared towards individuals who have already been drawing unemployment benefit II for over four years and have no possibilities of employment on the regular labour market. The pilot projects should be close to the regular labour market and develop municipal employment opportunities. Funding is given to staff, skills development measures, coaching and wage subsidies. The municipalities test out different approaches.

A total of €13.6 million is available for the support measures in the 2017 – 2018 period. Places approved in 2017: 3,328; places approved in 2018: 2.720.

€43 million available in total from 2017 to 2019 to support the pilot projects. According to current plans, this means that financial support is granted to over 700 participation places for long-term unemployed persons participating in the programme.

<u>Brandenburg:</u> With the funding guideline for "Integration mentoring for the long-term unemployed and family-based eligible households", support is given to long-term unemployed persons as well as individuals in couple-based eligible households or single-parent eligible households with at least one dependent child under 18 in which no member of the eligible household is in gainful employment (jobless household). The main goals of the support programme are to boost the employability of the participants and improve their social situation. With the help of integration mentors, the aim is to develop individual strategies and solutions to overcome diverse problems and implement these solutions in concrete support modules. This approach also pays particular attention to the situation of the children in the families concerned. Another goal of the measures is to strengthen and cement the aspect of the participating families leading a life together.

36 projects approved across the state in August 2015. Projects run until January 2018. 3,670 participants by 31 December 2017, 21.5% of which placed in employment subject to compulsory social security payments and 9.5% in education. 38 new projects will begin in February 2018 as part of a second selection round. Volume of funding: €40 million ESF in total.

83. Revision of Section 5b of the Act on Benefits for Asylum Applicants (Asylbewerberleistungsgesetz) by the Integration Act (Integrationsgesetz) of 31 July 2016 Section 5b of the Act on Benefits for Asylum Applicants was revised within the context of the Integration Act. The rule introduces the possibility for the providers of benefits under the Act on Benefits for Asylum Applicants to place a sanctions-backed obligation on certain persons entitled to benefits under the Act on Benefits for Asylum Applicants to attend integration courses as defined in Section 43 of the Residence Act (Aufenthaltsgesetz) (based on the principle of "challenging and supporting"; obligations defined and legal consequences of lack of integration efforts set down).

In force since 1 January 2017.

No.	Action name	Description of action and anticipated impact	Status and schedule
84.	First Ordinance to Amend the Ordinance on the Promotion of German Language Skills (Erste Verordnung zur Änderung der Deutschsprachförder- verordnung)	The "First Ordinance to Amend the Ordinance on the Promotion of German Language Skills" essentially contains rules amending the admissions procedure to include contracting options, the extension of participation opportunities to all workers and the deployment of social and educational professionals and teaching advisors.	In force since 31 March 2017.
85.	Third Ordinance to Amend the Ordinance on Integration Courses (Dritte Verordnung zur Änderung der Integrationskurs- verordnung)	Possibility for the Federal Office for Migration and Refugees to assign participants to specific course providers and harmonisation of the procedure to recruit providers in the case of combined measures to expedite the commencement of a course, and better dovetailing between language promotion and labour market policy measures.	In force since 25 June 2017.
86.	Paths to Training/Career Orientation for Refugees	The Federal Government launched the "Paths to Training for Refugees" initiative in tandem with the Federal Employment Agency and the German Confederation for Skilled Crafts. Following measures provided by the Federal Employment Agency or similar service offerings, such as vocational preparation courses at vocational schools, young refugees can take part in the programme where they receive more in-depth career orientation and job-specific German language courses and specialised lessons, preparing them to take up training in a skilled craft/trade. The aim is to place young refugees in training in the skilled craft sector.	Original funding guideline published in the Federal Gazette on 20 April 2016. The extended funding guideline of 29 August 2017 was published in the Federal Gazette of 8 September 2017.
87.	Coordination Office for Training and Immigration (KAUSA)	The aim of the KAUSA service centres (KAUSA = Coordination Office for Training and Immigration) is to strengthen local and regional players, facilitate strategies for the greater participation of young people from a migrant background in training, and recruit business people from a migrant background for the dual training system. Talks are currently being held with the competent departments of the <i>Länder</i> to enable KAUSA service centres to be established on a lasting basis in other <i>Länder</i> (after Brandenburg, Rhineland-Palatinate and Thuringia). The agreements on the implementation of the "Educational Links to Obtain a Training Qualification" initiative serve as the basis for these coordination talks.	Expansion to a nation-wide network with three Land networks starting in 2017 (Brandenburg, Thuringia and Rhineland-Palatinate).
88.	Measures adopted by the Länder to promote social inclusion, tackle poverty and discrimination	Bavaria: A system of support services provided by youth social work ("youth social work at schools" and "work-related youth social work") makes an important contribution to equality of opportunities, social integration and the successful transition from school to work of socially disadvantaged young people, and young people facing particular individual barriers. The Free State of Bavaria is funding these measures on the basis of guidelines in 2017 and 2018 with €23 million and €24 million, respectively, of voluntary state payments. Both the "youth social work at schools" and "work-related youth social work" are suitable measures to make an important contribution to the integration of young refugees. Given the needs of young refugees, starting as early as 2016 Bavaria increased the budget funds available to co-finance ESF-funded work-related youth social work by €1.5 million to an annual amount of approximately €5.5 million. In the case of youth social work at schools, the planned expansion to 1,000 places was brought forward by one year. €17.48 million and €18.22 million are available for youth social work at schools in 2017/2018. Complementing the time-tested measures focussing on work-related youth social work, innovative, extremely low-threshold work approaches are being tested in 2018 under the "Taking Part − Getting Closer" scheme to introduce young people with multiple difficulties to skills development and preliminary measures.	Regular support. Further expansion of youth social work at schools in 2018.
		 Saxony-Anhalt: The projects for "Social Participation: Job Prospects for 58+", which commenced with the creation of a "social labour market" in 2016, will be continued. The concept of a "social labour market" is expanded to include additional components that are to give people with placement difficulties a chance of employment. Social services and solutions for structuring and dealing with everyday life are offered and publicly subsidised employment supported and guided. 	In force since 2016, ongoing implementation also in 2018.

Description of action and anticipated impact

Status and schedule

Continuation:
 Measures adopted by the Länder to promote social inclusion, tackle poverty and discrimination

The development of a local participation management system aims to enable full social and self-determined participation for people with impairments by creating an inclusive local social space. Access to public services is to be enabled by removing barriers to participation. Municipalities can apply for grants to employ local participation managers. In line with the goals of the project, these managers work to create an inclusive community under the specific local conditions. Funding is granted on the basis of a guideline initially for a period of four years.

2016 to 2023 28 approvals have already been granted. Extension to all municipalities planned from 2018.

<u>Thuringia:</u> In three separate areas eligible for funding within the framework of the activation guideline, jobless persons who have been unemployed for more than one year, or who are unlikely to be introduced to the labour market within a year on account of serious or multiple barriers to placement, are to be brought closer to the training and labour market over a long-term period through the creation of opportunities for social participation.

Activation guideline in force since 2 December 2014, funding period through to 31 December 2021.

- Advice centres for younger people: Youth and young people up to the age of 30
 receive support at the advice centres to tackle their personal problems through
 low-threshold, outreach work. Once the situation of these young people has stabilised, the aim is to get them involved in follow-up services and measures that provide support in the sense of a support chain to continue their development.
- Both guidelines are funded by ESF funds and funds from the Free State of Thuringia within the framework of the 2014 2020 European Social Fund Operation Programme in the Free State of Thuringia.
- 2. TIZIAN and TIZIAN plus: TIZIAN: The Thuringia Initiative towards Integration and Combating Poverty in a Sustainable Context (TIZIAN) was developed in 2009 as a measure to combat family and child poverty with the help of the ESF. TIZIAN is geared towards long-term unemployed parents who are at the margins of the labour market, and their children. With close collaboration between youth welfare services and the job centres, the aim is to integrate the parents at a social and occupational level, to strengthen their parenting and family skills, and to support the children's development. TIZIAN plus: Similar to TIZIAN. However, the participants do not need to be parents. In addition, certain specific problems which the participants face can be addressed with a low-threshold approach.
- 3. Practical measures for young people: With group measures and individual measures combined with youth worker support, the aim is to stabilise young people and young adults (up to a maximum age of 30) through local services that provide structure to their day, and make the individuals ready (again) for training and employment within a period of 12 to 18 months.

As part of the poverty prevention guideline, local stakeholders - particularly municipalities - are given the tools to tackle individual situations of poverty on the ground with strategies for the social integration of groups at risk of marginalisation and for poverty reduction and to implement such measures in a qualified manner. Being the providers of public youth welfare services, social services and health services, rural districts and towns not attached to an administrative district receive funding and support in the development of sustainable planning processes that interlink the various disciplines to create a social infrastructure that is aligned with local needs. In the course of the development and implementation process, the local stakeholders, particularly the municipalities, the independent providers and the Federal Employment Agency/job centres take part in a moderated process of information exchange and knowledge sharing. The necessary support structures for skills development, advice and process moderation are also funded under the poverty prevention guideline. Furthermore, the Thuringia Initiative for Integration, Sustainability, Cooperation and Activation (ThINKA) comprising 15 projects will also be continued. This specifically supports the municipalities in efforts to combat poverty in socially vulnerable neighbourhoods.

Poverty prevention guideline in force since 23 December 2014, funding period through to 31 December 2021. The municipal poverty prevention strategies will be gradually adopted by the regional councils and city councils and subsequently implemented from 2018 onwards.

Status and schedule No. Action name Description of action and anticipated impact Measures adopted by the Baden-Württemberg: A) The state is providing funding for up to 1,000 integration managers to improve Länder to promote the Funding commences in labour market integration the integration of refugees into the municipalities. Their job is to provide individual 2017 and is scheduled to support to refugees in follow-up accommodation (after provisional accommodation) of refugees run for two years. and to agree integration roadmaps. This also involves close collaboration with the job centres and employment agencies. The aim is to give refugees access to regular support services as quickly as possible and in this way tap all available potential to ensure the swift integration of refugees into the labour market. Funding is continued in B) The right to advice with regard to the recognition of professional qualifications acquired abroad is standardised under Land law. In this respect, Land Baden-Württemberg provides support to advisory structures in all administrative districts. The advice provided makes it easier for the individuals concerned to apply for recognition of the foreign qualifications, helps speed up the recognition process and contributes to getting people with qualifications obtained abroad into qualified employment. C) Complementing the services offered by the Federal Government, Land Funding is continued in Baden-Württemberg gives individuals who cannot (yet) avail of the language learn-2018. ing services provided by the Federal Office for Migration and Refugees (BAMF) the opportunity to learn German in courses sponsored by the Land. The courses are designed to ensure the smooth transition to language courses provided by the BAMF. In this way, by improving migrants' language skills the Land is helping to ensure that migrants who cannot (yet) benefit from the BAMF courses have better access to the labour market. D) The Land is providing funding for municipal integration and refugee officers in Funding is continued in order to structurally interlink the various local stake-holders and thereby enable fast and effective access for migrants, particularly refugees, to existing support offerings and regular systems. This improves integration into the labour market. Bavaria: Agreement on "Integration through Training and Work": The Bavarian state Agreement signed: government's "Integration through Training and Work" agreement with the Bavarian 13 October 2015. business sector and the employment services contains provisions for key measures to improve the integration into training and employment of recognised asylum seekers and persons with temporary suspension of deportation and good prospects of remaining in Germany. The aim is to offer an internship, training place or job to 20,000 refugees by the end of 2016, and the labour market integration of 60,000 individuals in total by the end of 2019. The individual measures include: The promotion of training places for young asylum seekers Support at the transition between school and training, and training and work, with the provision of additional work-related youth social work measures, particularly measures in youth workshops Expansion of network of training promoters with the aim of encouraging asylum seekers - the majority of whom are not familiar with the dual system of vocational training – to enrol in a vocational training programme Expansion of the network of advice centres to expedite the recognition of professional qualifications Introduction of job coaches to support refugees during and after their placement in employment Promotion of language acquisition as a mandatory requirement for training and

Description of action and anticipated impact

Status and schedule

89. Continuation: Measures adopted by the Länder to promote the labour market integration of refugees

Berlin: Since the start of 2017, the Labour and Vocational Training department of the Senate Department for Integration, Labour and Social Affairs has been developing a "key points paper on the integration of refugees into the labour market" as part of the process to design an overall approach to the integration and participation of refugees. In addition to the various senate departments concerned, the other central players in labour market policy as well as economic and social partners, chambers, non-governmental organisations and migrant organisations are involved in this process. With the overall approach, Land Berlin is paving the way for the integration of refugees living in Berlin for the timeframe of the current legislative term (financial framework: 2018/2019 two-year budget). In a total of nine action areas which are oriented to the various areas of life of the refugees, nine special working groups work on the development of the approach under the supervision of the senate department with lead responsibility for each specific area. In the "Dialogue on Integration" series of events being held, the Berlin Integration Officer and the most important players at district level discuss the issue of "refugee integration and participation" with the urban community. The results of these dialogue events are also to be incorporated in the development of an overall approach.

Key points paper being discussed and refined until spring 2018 in the expert working group for "labour market integration, gainful activity and training of refugees".

Hesse: The "Businesses Integrate" Land initiative of the Hesse Ministry for Economics, Energy, Transport and Regional Development aims to create pathways to vocational qualifications for refugees and migrants in need of language support up to the age of 27. An end-to-end support chain linking career orientation, introductory qualifications and guidance during training provides the support needed to learn an occupation through German. The entire chain of support is therefore backed by a migration-specific portfolio of support services: German lessons, learning support and social and educational assistance. A total of €24 million is provided for this purpose in the 2018 and 2019 budget.

Implemented since April 2016.

Lower Saxony:

- To improve the integration of refugees into the labour market, the Lower Saxony Ministry for Economics, Labour, Transport and Digitalisation has taken a variety of measures directed at this target group since 2015. These measures are implemented along the entire chain to support labour market integration. The measures launched include German language classes, career orientation measures, skills assessment measures, measures to support vocational qualifications and placement in training and employment as well as the creation of information services for businesses on legislation governing residence and employment promotion that is relevant for the labour market. Furthermore, since April 2017 support has been granted to a network of 24 pilot projects across the state for "inter-company integration facilitators" that are to provide practical assistance to support refugees and businesses in the integration of refugees within companies.
- The integration of female asylum seekers and female refugees into the labour market is supported in two labour market programmes: A total of 16 projects in this segment are supported by ESF and Land funds within the framework of the "Coordination Offices for Women and Business" programme and under the programme to "Promote the Integration of Women into the Labour Market".

Implementation through to July 2019.

Programme duration: 2017 – 2019

Description of action and anticipated impact

Status and schedule Implementation com-

menced in autumn 2015.

refinement of the Saar-

land Action Plan in 2016.

ongoing implementation.

89. Continuation:

Measures adopted by the
Länder to promote the
labour market integration
of refugees

Saarland: Saarland Action Plan to Integrate Refugees into the Saarland Training and Labour Market – to promote the integration of migrants, not only has the Saarland "Action Programme on Immigration" been adapted to the increased numbers of migrants, but the state has also presented a "Seven-point plan". The "Seven-point plan" entered into force in October 2015 at a time when only half of all the asylum applications for the year had been filed in Saarland and when the current scale of this development was not foreseeable. At this stage, not only has the importance of early German-language acquisition and of comprehensive support and assistance to integrate refugees into the workforce been confirmed in practice, but the need for additional measures and instruments that go beyond the "Action Programme on Immigration" and the "Seven-point plan" has also been confirmed if Saarland is to successfully integrate asylum seekers and people with the recognised right to asylum. Therefore an additional contribution is made in 2016 and 2017 to successfully integrate the increased numbers of refugees with good residence prospects with the measures and tools provided in the extended "Action Plan for the Integration of Refugees into the Saarland Training and Labour Market". All activities fully include existing potential and skills, such as multilingualism, school education, vocational qualifications and previous experience. The Action Plan contains the following measures:

- Enhanced "training and employment prospects" clearing point
- Practically-oriented expansion of the "skill assessment" process
- Greater range of publicly subsidised employment and vocational skills development for migrants
- Enhanced social assistance and support for young refugees in vocational training centres
- Targeted training preparation and training support for refugees
- Use of refugee networks at the Chamber of Industry and Commerce and the Chamber of Crafts
- Creation of a task force to "Steer the integration of refugees into employment"
- Provision of online information for employers on the residence status of refugees and possibilities for refugee training and employment
- Guarantee of appropriate funding and staffing of job centres to perform the tasks involved under the nationwide asylum and refugee policy.

90. Measures adopted by the *Länder* to support low-threshold services for children with a refugee background or children in comparable circumstances

North Rhine-Westphalia: Since 2015 the state of North Rhine-Westphalia has provided budget funds for "childcare in special cases". The "bridging projects" have essentially been financed through these funds. These are low-threshold childcare services that seek 2018. to introduce children of families with a refugee background and their parents to the institutionalised system of child daycare. Among the people with a refugee background who have come, and continue to come, to North Rhine-Westphalia, many are children who have the right to a childcare space and should benefit from the early childhood care services under the system of child daycare. Not all children attend regular services immediately. There is therefore the need to familiarise children and families with the institutionalised system of childcare and to already provide specific support to the children during this time in line with their particular needs. With these first steps in early childhood education, which also support German language learning through play, the "bridging projects" make an important contribution to a successful integration process. At the same time, the parents are also introduced to the childcare system through their involvement in parent-child groups or play groups which are overseen by qualified teachers. Any concerns or language barriers can be removed or overcome in this way. This specific and needs-oriented support for children and their families is also of particular importance with a view to the prevention of child poverty. In addition to children from families with a refugee background, the care services are also geared towards children from families with comparable circumstances. In this respect, towns and cities in North Rhine-Westphalia that are particularly affected by immigration from south-eastern Europe can also sign up projects for the care of children from these countries for the funding programme. Total budget funds of €28.2 million are available for "childcare in special cases" in the 2018 budget year. There are plans to continue the programme in 2019.

Since May 2015, plans to continue the project in

No.	Action name	Description of action and anticipated impact	Status and schedule
91.	Maintenance advance	For single parents and their children, the maintenance advance was significantly improved with effect from 1 July 2017. It is now paid permanently for children under 18 who live with only one parent and receive no maintenance or no regular maintenance from the other parent. With the maintenance advance and child benefit, they receive support equivalent to the minimum child support payment. The expansion of conditions for the maintenance advance ensures that the state will consistently step in for all children and provide a maintenance advance or benefits under Book II of the Social Code if the children do not receive the maintenance payments they are entitled to. The maintenance advance therefore reliably safeguards the economic stability of families.	In force since 1 July 2017.
92.	Measures adopted by the Länder to increase the integration opportunities of single parents	Saxony-Anhalt: Unemployed single parents are a central demographic in the <i>Land</i> programme to "Strengthen Families – Create Prospects". With family integration coaches providing holistic individual support and counselling and advice focussing on strengths, the aim is to develop (new) employment prospects and pathways out of unemployment. This includes taking up regular employment and also – particularly in the case of young single parents – entering vocational training.	Funding is provided within the framework of the 2014 – 2020 EU Structural Funds period.
93.	Measures adopted by the Länder to integrate people with disabilities into the labour market	 Mecklenburg Western-Pomerania: Land programme to support the transition of severely disabled pupils with special education needs from school into an in-company training programme or employment requiring compulsory social security payments on the regular labour market. Guideline for the funding of the "Inclusion Initiative II – EveryoneAtWork" programme. The programme is implemented in inclusive companies offering employment to people with disabilities in the state to create new jobs for people with severe disabilities. The groups of individuals the programme serves include long-term unemployed people with severe disabilities, people with disabilities wishing to transition from a workshop to the regular labour market as well as people with severe disabilities with a chronic mental illness. 	Duration: through to the end of the 2018/2019 school year.
94.	Act to Strengthen Corporate Pension Provision and to Amend other Acts (Act to Strengthen Company Pensions), (Gesetz zur Stärkung der betrieblichen Altersversorgung und zur Änderung anderer Gesetze (Betriebsrentenstärkungsgesetz))	 The Act strives to make company pension systems more widespread, particularly in small and medium-sized enterprises, with the following regulations, inter alia: The social partners can agree target pensions on the basis of collective agreements (more flexible capital investment by waiving guarantees, no employer liability) and introduce opt-out systems. Introduction of a specific tax-based corporate pension assistance model for low-wage earners. Simplification and improvement of the promotion of company pension schemes and the "Riester" pension through tax incentives. New incentives in social legislation for the development and expansion of additional old age provision for low-wage earners with the introduction of a tax allowance for income from additional pension provision in the system of basic income support in old age and for people with reduced earning capacity (Chapter 11, Book XII of the Social Code). 	In force since 1 January 2018.
95.	Urban development promotion	Within the framework of Federal/Länder programmes for the promotion of urban development ("Social Integrative City", "Urban Redevelopment", "Green City of the Future", "Active Urban and District Centres", "Protection of Urban Architectural Heritage" and "Smaller Towns and Municipalities"), the Federation provides federal financial assistance to the Länder for urban planning measures implemented by the municipalities. The promotion of urban development aims to: - Strengthen inner cities and town centres within the framework of urban renewal and development. - Create sustainable urban structures. - Support towns and municipalities particularly in the face of economic and demographic structural change and as an anchor point for services of general interest. - Reduce the rate of vacant residential properties (stabilise the housing sector). - Maintain architectural heritage, also as a pull factor for economic development and potential tourism.	Federal financial assistance increased to €790 million (guaranteed level of funding) in 2017, thereby reaching a record level, assistance continued at the same level in 2018.

Action name	Description of action and anticipated impact	Status and schedule
Investment pact for "Social Integration in the Neighbourhood"	With the "Social Integration in the Neighbourhood" investment pact the Federation and the <i>Länder</i> are supporting the nationwide expansion and improved quality of the social infrastructure. Child daycare facilities, schools and neighbourhood meeting places are to become local centres of integration and social cohesion. The Federation is providing the <i>Länder</i> with federal financial assistance for investment by the municipalities to this end.	€200 million annually in federal financial assis- tance (2017 to 2020).
"Social Integrative City" programme and inter- ministerial Social Integra- tive City strategy entitled "Strengthening Neighbour- hoods – Working together in the Community"	With the "Social Integrative City" urban development promotion programme, the Federation has been providing support since 1999 to the stabilisation and improvement of economically and socially disadvantaged urban neighbourhoods and districts that are structurally weak and at a disadvantage in terms of urban planning. Urban planning-related investments in the residential environment, the infrastructure and the quality of housing ensure more equity between generations in the neighbourhood and a more family-friendly environment, and improve the prospects of participation and integration for people living in these areas. The primary goal is to promote vibrant neighbourhoods and strengthen social cohesion. The interministerial "Social Integrative City" strategy to strengthen neighbourhoods – "Strengthening Neighbourhoods – Working together in the Community" – aims to pool funding from the ministries in areas with high integration needs. The strategy sets the stage for continued cooperation between the federal ministries concerned with improving neighbourhoods with particular social integration needs. A regular report will be submitted to the Federal Cabinet on progress regarding the implementation of the strategy.	Federal financial assistance continued with €190 million in 2018 and the provision of €10 million annually (2017 – 2020) for interministerial pilot projects within the framework of the interministerial strategy.
KfW programme for "Age-appropriate Conversions" KfW programme for "Age-appropriate Conversions/sub-programme: burglar-proofing homes	Age-appropriate conversion of residential buildings, neighbourhoods and the municipal infrastructure allows older people and people with disabilities to pursue an independent life in a familiar setting for as long as possible. The Federal Government provided programme funds totalling €54 million for the KfW programme for "Age-appropriate Conversions" in 2014/2015 and roughly €50 million in 2016. The programme funds were scaled up to €75 million in 2017. €75 million are set aside for the programme in the draft of the 2018 federal budget. Furthermore, as part of the KfW programme for "Age-appropriate Conversions" grants are also provided towards the burglar-proofing of residential buildings ("Crime Prevention: Burglar-Proofing" programme). €10 million were available for this annually from 2015. The programme funds were scaled up to €50 million in 2017. €75 million are set	Grant towards "Age-appropriate Conversions" in force since 1 October 2014. Grant towards "Crime Prevention: Burglar Proofing" in force since 19 November 2015.
	"Social Integration in the Neighbourhood" "Social Integrative City" programme and interministerial Social Integrative City strategy entitled "Strengthening Neighbourhoods – Working together in the Community" KfW programme for "Age-appropriate Conversions" KfW programme for "Age-appropriate Conversions"	Investment pact for "Social Integration in the Neighbourhood" investment pact the Federation and the Neighbourhood" the Neighbourhood" infrastructure. Child daycare facilities, schools and neighbourhood meeting places are to become local centres of integration and social cohesion. The Federation is providing the Länder with federal financial assistance for investment by the municipalities to this end. With the "Social Integrative City" urban development promotion programme, the Federation has been providing support since 1999 to the stabilisation and improvement of economically and socially disadvantaged urban neighbourhoods and districts that are structurally weak and at a disadvantage in terms of urban planning. Urban planning-related investments in the residential environment, the infrastructure and the quality of housing ensure more equity between generations in the neighbourhood and an amore family-friendly environment, and improve the prospects of participation and integration for people living in these areas. The primary goal is to promote vibrant neighbourhoods and strengthen social cohesion. The interministerial "Social Integrative City" strategy to strengthen neighbourhoods - "Strengthening Neighbourhoods - Working together in the Community" – aims to pool funding from the ministries in areas with high integration needs. The strategy sets the stage for continued cooperation between the federal ministries concerned with improving neighbourhoods with particular social integration needs. A regular report will be submitted to the Federal Cabinet on progress regarding the implementation of the strategy. KfW programme for "Age-appropriate Conversions" in 2014/2015 and roughly €50 million in 2016. The programme funds were scaled up to €75 million in 2017. €75 million are set aside for the programme in the draft of the 2018 federal budget. Furthermore, as part of the KfW programme for "Age-appropriate Conversions" grants are also provided towards the burglar-proofing of residential buildings ("Crime Prev

