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for Economic Affairs
and Climate Action

Startup strategy of the Federal Government

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The Federal Government is presenting a comprehensive startup strategy for the first time.

Startups are young innovative companies with growth ambitions: they are characterised by an innovative business model, an innovative product, or an innovative service. They also have scaling potential, in other words the potential to grow and develop. Startups are already active in a large number of sectors, not only in information and communication technology, but also, for example, in the health sector and industry. The business models of many startups are also aimed at international markets, which makes these young companies drivers of economic growth and renewal. They develop new markets, challenge established companies and stimulate competition. For this reason, startups are important for the further development and long-term competitiveness of our national economy.

Increasing numbers of startups also have a special social relevance: a positive social or environmental impact is extremely important for 75 per cent of all startups. Almost one third make a significant contribution to the sustainable transformation of the German economy through innovations in the field of climate action and environmental protection¹. Products and services of many startups are helping countries to achieve the 17 Sustainable Development Goals of the United Nations. And with regard to the energy transition and the generation of renewable electricity in particular, green startups have already demonstrated the kind of decisive

contribution they can make. Similar contributions are also possible in the areas of energy and resource efficiency, for example, renewable resources and the circular economy, sustainable heat, mobility, agriculture, and nutrition. When investments are made in young companies, in addition to the financial return, the contribution that is made to solving social, economic and ecological problems is becoming increasingly important ('impact investing')².

This shows that startups are particularly important for the economy, science and society, because they fuel competition and the spirit of innovation: startups are idea generators and innovation drivers. They stand for dynamic growth, renewal and transformation. Strengthening and promoting the startup ecosystem are therefore fundamental goals of the entire Federal Government.

The startup ecosystem has made progress and there is now considerable potential available:

- Two-thirds of the founders recently rated their location as good or very good (in 2021, which is four percentage points more than in 2020)³.
- Startups in Germany employed more than 415,000 people in 2020. By 2030, an increase to 974,000 jobs is considered possible⁴.
- More venture capital has been invested in Germany recently than ever before, with the volume in 2021 amounting to around 15 billion euros⁵.

1 Bundesverband Deutsche Startups e.V. (pub.; 2021): "German Startup Monitor 2021"; at: https://deutschestartups.org/wp-content/uploads/2021/10/Deutscher-Startup-Monitor_2021.pdf (accessed on 07.07.2022). In German only.

2 Bundesinitiative Impact Investing (pub.; 2020): "Impact Investing in Germany 2020 – a dynamic growth market"; at: <https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/Impact-Investing-in-Deutschland-2020.pdf> (accessed on 07.07.2022). In German only.

3 Bundesverband Deutsche Startups e.V. (pub.; 2021): "German Startup Monitor (DSM) 2021"; at: https://deutschestartups.org/wp-content/uploads/2021/10/Deutscher-Startup-Monitor_2021.pdf (accessed on 07.07.2022). In German only.

4 Bundesverband Deutsche Startups e.V., Deutsche Börse and Internet Economy Foundation (pubs.; 2021): Economic miracle 2.0? How startups and scaleups can boost the German labor market/English version available at: <https://www.rolandberger.com/en/Insights/Publications/Startups-could-create-almost-4-million-jobs-in-Germany-by-2030.html>.

5 KfW Research (2021): own calculations based on Preqin Pro.

The potential and challenges for startups have been clearly defined by the Federal Ministry for Economic Affairs and Climate Action in an extensive engagement and coordination process: in the course of an online consultation, a total of around 80 comments were received, which were then systematically evaluated⁶. The Federal Ministry for Economic Affairs and Climate Action invited experts, in addition to the Federal Chancellery and ministries, to a total of six workshops on key topics⁷. It has also intensified discussions with the federal states on the activities of the Federal Government and the federal states. And the engagement and coordination process will continue. On this broad basis, the Federal Government intends to consistently address the challenges that lie ahead and will definitely make use of the enormous potential available for the benefit of the economy and society.

The Federal Government is convinced: Germany needs people in all regions who have the courage to break new ground and take risks in doing so. To this end, it intends to create the best possible framework conditions in cities and rural areas in order to make startups visible as role models – and also to break new ground itself whenever necessary. In this way, a new entrepreneurial spirit will emerge that will produce more startups, allow them to grow in a sustainable manner and generate the momentum required to meet the tremendous economic and social challenges of our time.

Founders take entrepreneurial risks. They should be given social and political recognition for doing so. The Federal Government would also like to explicitly encourage those who have not yet been

active in the field of startups, or only to a limited extent, to become more involved. This applies to prospective founders and investors alike. The Federal Government welcomes startups from all walks of life and a second-chance culture. It is committed to taking into account the different impacts on men and women when implementing the measures mentioned below.

The Federal Government wants to develop both Germany and Europe into strong startup locations. After all, you can't have one without the other. For this reason, the Federal Government will also consistently take startups into account in relevant European projects and become involved at the European level in projects with a clear added value for Germany and Europe as startup locations. Germany wants to join the 'Europe Startup Nations Alliance' in the near future, for example, and also work within this framework to make Europe an attractive startup continent.

The Federal Government will also provide financing for National Contact Points, which advise applicants on the world's largest funding programme for research and innovation, Horizon Europe. A key instrument in the EU's ninth research and framework programme Horizon Europe is the newly established European Innovation Council. It provides support across the entire spectrum of innovation – from early-stage research to scaleup – in addition to identifying and supporting breakthrough technologies and innovations that have the potential to become international market leaders.

⁶ Online consultation on startup strategy. Questions at: <https://www.bmwk.de/Redaktion/DE/Publikationen/Digitale-Welt/start-up-strategie.html> (accessed on 07.07.2022). In German only.

Comments at: <https://www.bmwk.de/Navigation/DE/Service/Stellungnahmen/Start-Up-Strategie/stellungnahmen-startup-strategie.html> (accessed on 07.07.2022). In German only.

⁷ The six workshops were held in March 2022 on the following topics: funding, talent, employee ownership, female startups, spin-offs and data. For reasons of transparency, the results of the discussions are presented in the annex to this strategy. The Federal Government has taken them into account in the preparation of this strategy. They do not, however, necessarily represent the position of the Federal Government.

At the beginning of 2022, there were 25 startups in Germany with a market valuation of at least one billion US dollars (so-called ‘unicorns’)⁸. The Federal Government welcomes the European Commission’s objective of doubling the number of ‘unicorns’ in Europe by 2030. With the measures it is introducing within the framework of its Startup Strategy, the Federal Government is making an important contribution to achieving this objective.

The challenges are very similar in Germany and in Europe⁹. The Federal Government is now tackling these challenges vigorously with this comprehensive startup strategy. The strategy groups the measures being introduced by the Federal Government into the following fields of action:

1. Strengthen funding for startups,
2. Make it easier for startups to attract talent – make employee ownership schemes more attractive,
3. Ignite the startup spirit – make startups easier and more digital,
4. Strengthen female startup founders and diversity in startups,
5. Make it easier to create startup spin-offs from science,
6. Improve the general environment for non-profit startups,
7. Mobilise startup skills for public contracts,
8. Make it easier for startups to access data,
9. Strengthen regulatory sandboxes – make access easier for startups,
10. Put the focus on startups.

The Federal Government will implement the measures included in the Startup Strategy in the course of this legislative period. Insofar as legal measures are required for this purpose, it will submit proposals to the legislature. All measures at federal level mentioned in the strategy or resulting from it are the responsibility of the respective ministries and will be financed on the basis of the applicable budget and financial planning principles. The Federal Government will report annually on the current implementation status. In addition, it will regularly review whether and how the Strategy should be developed further. At the same time, it will continue to engage in dialogue with all the relevant stakeholders and regularly review whether it would be appropriate to broaden the knowledge base by commissioning additional research projects. The Federal Government will also complete a comprehensive analysis and evaluation of all the existing funding and other measures relating to startups.

⁸ CB Insights (2022): “The Complete List Of Unicorn Companies”; at: <https://www.cbinsights.com/research-unicorn-companies> (accessed on 07.07.2022).

⁹ European Commission Communication (2022): A New European Innovation Agenda COM/2022/332 final; at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0332&from=EN> (accessed on 14.07.2022).

Fields of action

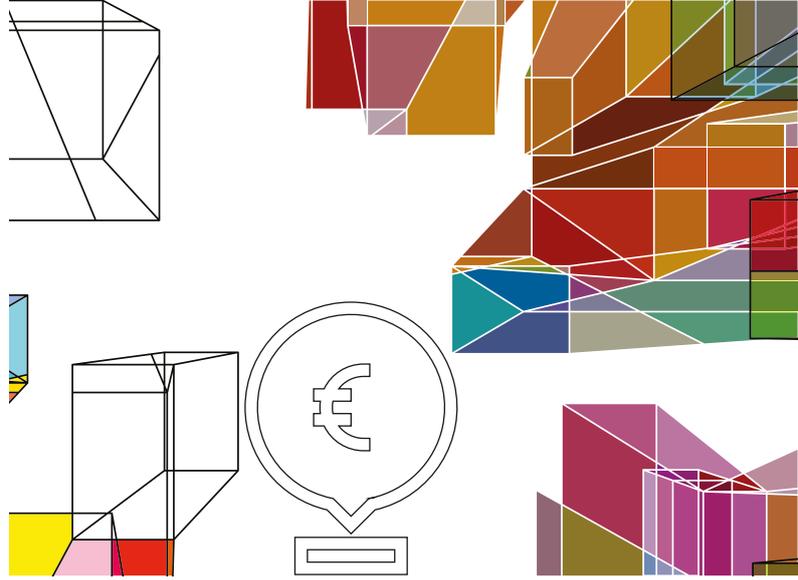


1. Strengthen funding for startups

Germany has an ecosystem of investors, business angels, founders and academia that is respected and recognised worldwide. Particularly in the scaling stage, fast-growing startups need a lot of capital, which they are as yet unable to generate from their own earnings. Traditional bank financing, such as that used by established companies, is virtually impossible for young companies to obtain due to their risk structure. Access to venture capital is therefore crucial.

The German venture capital market has developed quite considerably in the course of the last few years. By international standards, however, there is still room for improvement. While it is true that venture capital investment volumes have risen in recent years, if we look at the share of total venture capital investments in gross domestic product, Germany nevertheless continues to remain in the middle of the pack when compared with other countries¹⁰.

Particularly in the late-stage segment, and that means larger funding rounds, foreign investors – especially in the USA and Asia – set the tone. No less than 63 per cent of the 20 largest European growth companies, for example, are financed by US investors¹¹. This development also gives some cause for concern in terms of technological sovereignty, innovative strength and job security in Germany and Europe. The Federal Government will strengthen the German and European venture capital market further and create additional opportunities for large-volume funding by domestic and European investors. The intention is to ensure that successful and growing startups, together with their value creation and sustainable innovative



strength for the economy, society and the environment, remain in Germany and Europe in the long term and are not forced to leave for financial reasons.

The Federal Government already supports companies in future-oriented areas such as digitalisation, life science, technology development, climate and the environment, in addition to education and social affairs, through its broad range of startup funding instruments.

IPOs are also important for startups, as they allow them to raise funds for further growth. The prospect of launching an IPO at a later date is also a key factor for the supply of venture capital. A study commissioned by the Federal Government shows that the capital market in Germany, which is fairly small compared with other countries, has catchup potential¹². Ways to improve the situation, including changes in capital markets law that could make IPOs easier and more flexible, especially for startups, could also be considered. A key component designed to bring this about is the planned Future Financing Act.

¹⁰ KfW Research (2021): own calculations based on Preqin Pro.

¹¹ Braun, Reiner et al. (2021): "Follow the Money: How Venture Capital Facilitates Emigration of Firms and Entrepreneurs in Europe"; at: <https://ssrn.com/abstract=3415370> (accessed on 07.07.2022).

¹² Oxera; Kaserer, Christoph (2021) on behalf of the Federal Ministry for Economic Affairs and Climate Action: "How can IPOs be facilitated for start-ups in Germany? International comparison and recommendations for action"; at: https://www.bmwk.de/Redaktion/DE/Publikationen/Studien/studie-wie-koennen-boersengaenge-fuer-startups-in-deutschland-erleichtert-werden.pdf?__blob=publicationFile&v=6 (accessed on 07.07.2022). In German only.

The Federal Government will significantly expand financing opportunities for startups and thus strengthen startups in various financing stages, with a focus on the capital-intensive growth and scaling stage. Together with private investors, the Federal Government will make a decisive contribution to mobilising more private and public capital for Germany as a venture capital location.

When providing public funds, care will be taken to ensure that ESG criteria (Environment – environmental impact, Social – employees’ rights, Governance – governance structures) are given appropriate consideration. This is to make sure that all funding measures are in harmony with the guiding principle of sustainable development and with environmental and climate goals. The Federal Government is introducing these measures to pave the way for the next generation of German SMEs and to support the ‘hidden champions’ of tomorrow.

As part of its startup strategy, the Federal Government will report annually on the investment activities of the Future Fund, the startup financing instruments financed by the Special Fund of the European Recovery Programme (ERP Special Fund), in addition to the grant programmes available for funding startups, in order to indicate the progress being made in the development of this area of startup funding.

I. Priority measures to strengthen funding for startups



1. With the Future Fund and its individual modules, the Federal Government supports innovative, technology-based startups during their growth stage and will provide the KfW banking group with 10 billion euros of public funds available for this purpose over an investment period that will last until 2030. Together with private investors, it intends to mobilise 30 billion euros in private and public capital for Germany as a venture capital location during this period. These funds are also intended to flow into key innovation and transformation areas, which are to be prioritised in greater detail at a later date, in particular artificial intelligence (AI), quantum technology, hydrogen, medicine, sustainable mobility, bioeconomy and circular economy, in addition to climate, energy and environmental technology.

The **modules of the Future Fund** take into account the different financing needs of startups during the individual stages of development. The various modules are designed to provide equity, outside and mezzanine capital for innovative technology startups in their early to late growth stages. This will take place both directly via direct investment funds and indirectly via funds of funds, and also via the outside capital instrument venture debt.

a. With the European Tech Champions Initiative, the Federal Government, together with European partners, supports the establishment of European, large-volume funds for late financing stages.

b. The DeepTech & Climate Fund, with its long-term investment perspective, opens up opportunities for high-tech companies in their growth stage and, as a result, strengthens the technological sovereignty of Germany and Europe. As a growth partner and anchor investor, the fund, together with long-term investors, finances deep-tech companies with innovative technologies and the potential to become world leaders. At the same time, there is a strong focus on investments in climate deep tech

companies geared to achieving climate action goals through the efficient use of resources and to paving the way to a climate-neutral, resource-efficient future.

c. With the **‘Wachstumsfonds Deutschland’ (Growth Fund for Germany)** – a fund of funds for growth capital – the Federal Government wants to target new and in particular institutional investor groups for the German venture capital market.

d. Large-volume growth financing in Germany and the EU is being strengthened under the Future Fund – with the support of the ERP Special Fund – via **large-volume growth facilities at the European Investment Fund** (German Future Fund-European Investment Fund Growth Facility/ GFF EIF Growth Facility) **and KfW Capital** (ERP/Future Fund Growth Facility) to close gaps in the funding of growth companies.

e. A **growth fund on the platform of High-Tech Gründerfonds** (HTGF), a venture capital investor for high-tech startups, supports follow-on and growth financing in the HTGF portfolio.

f. The aim and purpose of the **Venture Tech Growth Financing** module is to provide outside capital in the form of so-called ‘venture debt’ for young technology-based growth companies to provide support during the late growth stage and to strengthen the market for venture debt in Germany.

g. The Federal Government is also considering introducing a new module to provide funding for **young innovative companies that to date have had no access to venture capital fund funding.**

2. With the Future Financing Act, the Federal Government intends to increase the efficiency and attractiveness of Germany as a financial centre and in so doing make access to the capital market and the raising of equity capital easier for startups and growth companies in particular. To this end, the Federal Ministry of Finance and the Federal Ministry of Justice have already worked out the key principles, which will subsequently be fine-tuned with the ministries involved in a follow-up stage. In this process, the Federal Government is pursuing a comprehensive approach: in addition to adjustments to financial markets law and the development of company law, the tax framework conditions are also to be improved.

a. The Federal Government will review the requirements for IPOs. In addition to national measures, this will primarily include the ‘Listing Act’ (revision of the Listing Directive) that was announced by the European Commission. The aim of this project is to improve the conditions for the public listings of companies in the EU and in particular to make access to the capital market easier for small and medium-sized enterprises (SMEs). The Federal Government will also take this opportunity to advocate relaxing the free float rule.

b. Furthermore, the Federal Government is striving for improved opportunities to raise equity capital, such as the admission of multiple-voting shares (‘dual class shares’) and facilitating increases in capital.

c. A review is also to be undertaken to determine whether and how the legal framework conditions for modern forms of transactions can be improved to facilitate an IPO.

3. The Federal Government intends to expand the capital market orientation of institutional investors in Germany. It plans to use the consultations relating to Solvency II and the associated delegated act of the European Commission to better exploit the investment potential of large institutional investors, in addition to important financial stability and consumer protection aspects. Germany needs more private capital and the expertise of private individuals in both the planning and implementation of major projects and startups. This is important for the upcoming ecological and digital transformation, but also to finance and implement infrastructure projects.

4. The Federal Government has recognised the key role startups play in bringing about structural change and as providers of ideas and drivers of innovation, particularly in the areas of technological progress, digitalisation and ecological transformation.

a. For this reason, the Federal Government will provide funds **based on fund instruments that are already successful today (in particular via KfW Capital)** in order to extend and strengthen the venture capital ecosystem in a targeted manner, especially in the further development of technologies for important transformation areas. The Federal Government is committed, for example, to greater inclusion of technologies for climate action, the circular economy and conservation of resources in the venture capital ecosystem. In line with its promotional market development mandate, KfW Capital is to make targeted investments in venture capital funds that address important areas still in need of development (e.g. impact investments, climate tech and diversity).

b. Building on the EIF's extensive experience in the fields of social impact and climate investing, the Federal Government will also ensure that, under the **ERP/EIF facility**, in the case of **new fund investments**, an average of at least 20 per cent is to be invested in companies that operate in

fields defined by the EIF as green innovation, sustainability or social impact, and to increase this share further in the medium term.

5. The Federal Government plans to relaunch the INVEST programme, in order to further stimulate the business angel market in Germany in a sustainable manner. A new INVEST funding guideline is scheduled to enter into force on 1 January 2023.

6. In order to additionally strengthen Germany as a fund location for tax purposes, the Federal Government plans to extend the VAT exemption for venture capital funds to the extent permissible under EU law.

7. The Federal Government will also determine whether and to what extent certain public funds may also be suitable for investments in venture capital. The Federal Government will also discuss this at the European level.

II. Further measures to strengthen financing for startups



8. The Federal Government will also strengthen early-stage startup financing: for this reason it is creating a fourth fund generation of the High-Tech Gründerfonds (HTGF IV). Other existing and successful startup financing instruments of the ERP Special Fund will be continued; these include, among others, measures implemented in collaboration with the EIF.

9. The Federal Government will provide more information about the EIF's range of products, such as the European Tech Champions Initiative or the Asset Management Umbrella Fund (AMUF). With the AMUF, smaller institutional investors in particular have the opportunity to participate in the EIF portfolio in the field of private equity and venture capital, and thus benefit from the EIF's expertise.

2. Make it easier for startups to attract talent – make employee ownership schemes more attractive

As is the case for established companies, the recruitment of qualified employees is also becoming increasingly difficult for startups. According to a recent survey, the shortage of skilled workers is the major obstacle for startups in terms of their business activities¹³. There is already a relatively large shortage of skilled workers today in the information technology (IT) professions, for example. The main problem is that specialists with university degrees are in short supply. The gap has been widening steadily since October 2021 and, with a current shortage of 28,700 skilled workers, is larger than ever¹⁴.

In Europe's Digital Compass, the European Commission announced its goal of increasing the number of people employed in information and communication technology in the EU to 20 million by 2030. The Federal Government welcomes this goal and will play its part in ensuring the goal is achieved.

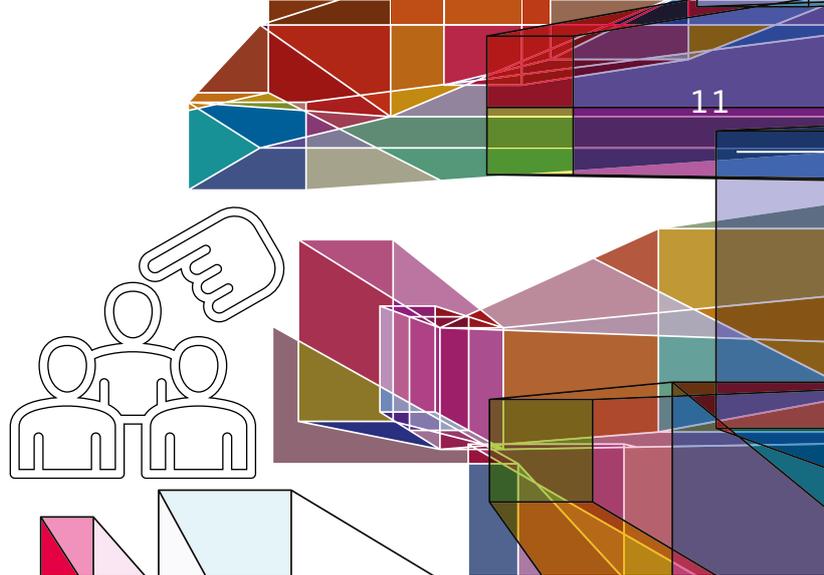
Employee ownership schemes enable startup founders to create an attractive salary package when competing for talent and allow future employees to share in the company's success. Studies show that companies that take this route are more robust and more likely to survive¹⁵. Nevertheless, employee ownership schemes are not very widespread in Germany to date compared with other European countries¹⁶. The Federal Government wants to change that.

13 Bundesverband Deutsche Startups e.V. (pub.; 2022): "Talent as a success factor"; at: https://startupverband.de/fileadmin/startupverband/mediaarchiv/research/sonstige_studien/Report_Fachkraefte.pdf (accessed on 07.07.2022). In German only.

14 Jansen, Anika (2022): "The skilled workers situation in IT professions"; at: https://www.iwkoeln.de/fileadmin/user_upload/Studien/Kofa_kompakt/2022/KOFA_Kompakt_2-2022-IT-Berufe.pdf (accessed on 07.07.2022). In German only.

15 Federal Ministry of Labour and Social Affairs (2013): "Employee ownership, models and funding streams"; at: https://www.bmas.de/SharedDocs/Downloads/DE/Arbeitsmarkt/a191-mitarbeiterkapitalbeteiligung-broschuere.pdf;jsessionid=7D04E31985A27B416B2812CC0B13D2C8.delivery2-master?__blob=publicationFile&v=1 (accessed on 07.07.2022). In German only.

16 Lowitzsch, Jens et al. (2020) study commissioned by the Federal Ministry for Economic Affairs and Climate Action: "Proliferation of employee shareholdings in Germany and Europe – prospects for its development"; at: https://www.bmwk.de/Redaktion/DE/Publikationen/Studien/verbreitung-der-mitarbeiterkapitalbeteiligung-in-deutschland-und-europa.pdf?__blob=publicationFile&v=8 (accessed on 07.07.2022). In German only.



Even beyond the financial rewards, startups can increase their attractiveness as employers by offering good working conditions. They can create a working climate, for example, in which employees feel encouraged to set up works councils in order to exercise their co-determination possibilities. 

I. Priority measures to make it easier to attract talent

1. The Federal Government will continue to develop its skilled labour strategy. The key aspects of this strategy primarily include supporting labour market participation, strengthening education and training and increasing immigration. The aim is also to make use of all the talent available, both in Germany and from abroad. In this context, the European Commission's proposal to set up an EU 'talent pool' can make a significant contribution. With regard to attracting female skilled workers in Germany, the Federal Government is also focusing on the measures it has introduced to increase the percentage of women in the so-called STEM professions (science, technology, engineering, and mathematics).

2. The Federal Government will further develop the country's immigration law and lower existing hurdles, possibly regarding the requirement for recognition of foreign educational and professional qualifications, for example. It will review the special regulation covering information technology in immigration law with regard to its effectiveness, in order to support IT immigration and make better use of the potential of the blue card.

3. The Federal Government will encourage the integration of foreign students into the labour market and thus exploit the skilled labour potential of international students even more effectively. The Federal Government supports refugee and international students in preparing for their future studies, after successfully completing their studies and in course-related studies in preparation for the labour market. This also includes opportunities for second-chance and adjustment qualifications, in addition to supporting the development of language skills.

4. The Federal Government will work to ensure that administrative procedures are simplified and speeded up and subsequently facilitate the immigration of skilled workers from third countries, primarily through digital and customer-oriented administrative procedures in Germany. Its ultimate aim is to provide a fast and digital visa process. It will also provide access to the digital application process for the recognition of foreign professional qualifications via the 'Recognition in Germany' (<https://www.anerkennung-in-deutschland.de/html/en/index.php>) information portal operated by the Federal Institute for Vocational Education and Training (BIBB).

5. The Federal Government wants to make employee ownership schemes easier to apply and more attractive for companies and their employees. For startups in particular, the granting of company shares to employees as part of their salary is an important instrument. This is due to the fact that startups often do not have the financial means to attract qualified employees through competitive salaries.

In order to strengthen employee ownership, the Federal Government will amend income tax legislation as necessary. The draft of the cornerstones for a Future Financing Act already includes appropriate regulations, which will be agreed on with the ministries involved in a follow-up stage. The tax-free allowance for employee ownership schemes (Section 3 no. 39 of the German Income Tax Act), for example, is to be significantly increased. Furthermore, the provisions on deferred taxation of non-cash benefits from employee ownership schemes provided for in Section 19a of the German Income Tax Act are to be extended. To this end, the Federal Government will review the scope of application (amount and temporal component of the SME thresholds) and changes to subsequent taxation. The aim is to base taxation as far as possible on the actual flow of liquidity. The initial target will be the extension of the 12-year period, in addition to the question as to how taxation in the case of a change of employer can be made more suited to practical application and at the same time tax avoidance can be prevented.

6. The Federal Government will examine how it can facilitate 'remote work', for example by clarifying issues relating to tax law, labour law and social security law. It has become clear, particularly in times of pandemics, that the possibility of hiring employees in other European countries and third countries 'remotely', i.e. in places other than at the company's headquarters, is an important approach to attracting talent. Germany must keep up with global developments in this area.

II. Further measures to make it easier to attract talent



7. The Federal Government is making greater use of location marketing to recruit foreign skilled workers (via the 'Make it in Germany' portal, <https://www.make-it-in-germany.com/en/>). Important contributions are also being made by the 'Research in Germany' and 'Study in Germany' portals, which are aimed at international researchers and students (<https://www.research-in-germany.org/en.html>, <https://www.study-in-germany.de/en/>).

8. The Federal Government will intensify the current dialogue on education with the federal states. Among other things, it will work to ensure that digital and financial literacy are strengthened, that the nationwide computer science competitions jointly funded by the Federal Government and the federal states are promoted further in schools, and that the wide variety of digitisation and technology-related vocational fields are communicated in detail at an early stage in order to help students in their choice of career. The Federal Government will encourage the Federal states to further expand initiatives to strengthen entrepreneurship among young people. Together with the Federal states, it intends to develop approaches that will reduce the dropout rate in computer science studies..

9. The Federal Government wants to improve employee co-determination in larger startups in particular. The Federal Government will begin by reviewing works councils in startups. Based on its findings, it will then enter into dialogue with startups to discuss possible improvements. Startups with a rapidly growing workforce in particular must ensure that their employees can exercise their co-determination rights.

3. Ignite the startup spirit – make startups easier and more digital

Startups come into existence only when people muster enough courage to go new ways and are prepared to accept the risks involved. Startup spirit is something that must emerge as early as possible. And startups must be as simple and as digital as possible, so that innovative products and services can quickly develop from new ideas.

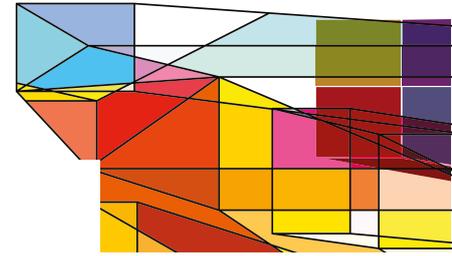
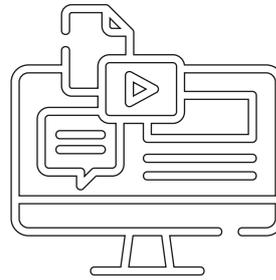
I. Priority measures to make startups easier



1. The Federal Government will make startups more digital. In particular, remote online notarisations, for example, that enable German limited liability companies to be set up by means of a cash formation are planned. This procedure is also to apply in the case of powers of attorney for setting up limited liability companies and unanimous decisions to amend the articles of association of a limited liability company, including capital measures (increase and reduction of share capital) and any transfer agreements they may contain. Online notarisations of certain non-cash formations of a limited liability company are also to be made possible. The online certification of applications to the commercial register, in addition to the register of cooperatives, partnerships and associations, is also planned.

2. The Federal Government aims to ensure that in future company formation processes can be handled completely digitally and, if possible, within 24 hours. To this end, it will link up the various online services provided by the Federal Government, the federal states and notaries public that are relevant to the formation process and will thus be taking an important step towards setting up a one-stop shop. In particular, it will consistently link the business startup platform¹⁷, the Points of Single Contact network, digital application, approval and registration procedures, the startup portal of the Federal Chamber of Notaries and the funding portal (see also Item 3. below) to the portal network of the Federal Government and the federal states.

¹⁷ <https://gruenderplattform.de> (founder platform – in German only)



3. The Federal Government will provide members of the public and companies with access to funding available from the Federal Government, the federal states and municipalities via a digital funding portal – in a user-friendly manner and from a central source. The intention is that interested parties will be able to search for, find and apply for funding, and complete the funding process, via the portal. For startups in particular, this will create unbureaucratic and fast access to funding and financing. In addition, startups can contact the Federal Government's 'Research and Innovation' central funding advisory service for a personal and free initial consultation on funding opportunities for their specific research and innovation project.

II. A further measure to make startups easier



4. The Federal Government is furthermore committed to a uniform single European market in the digital sector, since it believes that in areas where analogue goods are not supposed to come up against borders, then by the same token, this must also apply to digital services. There are still too many hurdles hindering cross-border activities for European startups. The Federal Government plans to monitor them more effectively and will also improve the information it provides to startups relating to European legislative acts on digital topics.

5. The Federal Government wants to persuade startups in the regions as business mentors for the JUNIOR school companies. This is to ensure that, as part of the 'Getting Entrepreneurial Spirit into Schools' initiative, the entrepreneurs of tomorrow come into contact with startups as early as possible. Furthermore, the Federal Government wants to strengthen its activities in sustainable student projects/companies.

6. The Federal Government will initiate a project designed to reduce bureaucratic requirements for newly formed companies, to ensure that founders can concentrate fully on the work they should be doing following the company formation. Within the scope of this project, it will also examine the possibilities for a first year with very little bureaucracy.

7. The Federal Government supports people in various circumstances when starting a business. Under certain conditions, unemployed people interested in starting a business can receive financial support provided by the Federal Employment Agency in the form of a startup grant. With measures for activation and professional integration, the Federal Employment Agency can also support an individual's introduction to self-employment.

4. Strengthen female startup founders and diversity in startups

Women continue to be significantly underrepresented in the startup ecosystem. The percentage of female startup founders in 2021 was 17.7 per cent¹⁸. In the case of female and male investors, the imbalance is even more pronounced. This leads to significant differences in access to financing through business angels and venture capital. These instruments tend to be used much more frequently by male teams, simply because female founders or female teams are more likely to come up against reservations regarding their startup concepts from – mostly male – investors. The disparities are particularly evident in the amounts of funding awarded: only 5.2 per cent of all female founders to date have received one million euros or more, compared with 27.8 per cent in the case of male founders¹⁹.

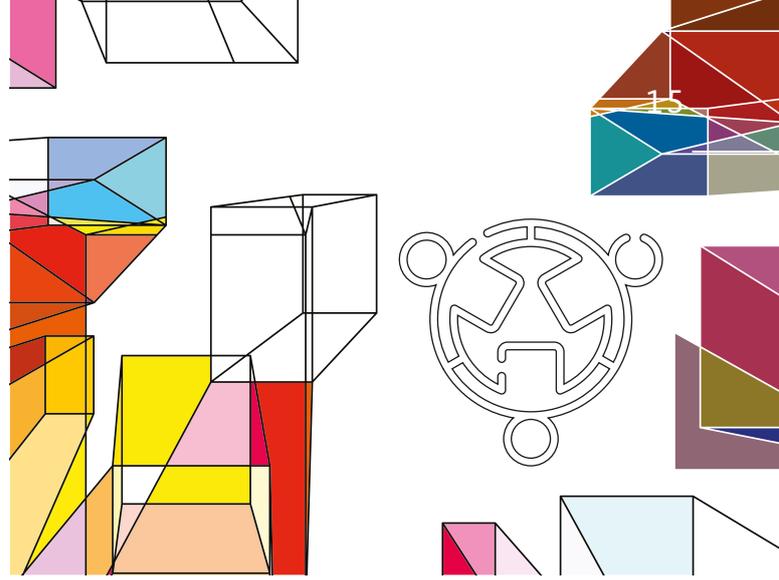
People with a migration background are also underrepresented in startups, albeit to a lesser extent than women. The percentage of startup founders in 2021 in this case was 21.5 per cent, although they represent 25.9 per cent of the labour force. At the same time, migrant founders of startups face particular challenges, such as the absence of networks.²⁰

Diversity in startups also includes regional diversity. Startups are an essential part of the economic activity, but not solely in urban areas. The Federal Government has also identified considerable potential for startups, innovation and diversity of ideas in rural areas. For this reason, the Federal Government's measures are also aimed at startups in rural areas and structurally weak regions. As an element of the overall German funding system for structurally weak regions, the EXIST funding programme,

18 Bundesverband Deutsche Startups e.V. (pub.; 2021): "German Startup Monitor (DSM) 2021"; at: https://deutschestartups.org/wp-content/uploads/2021/10/Deutscher-Startup-Monitor_2021.pdf (accessed on 07.07.2022).

19 Bundesverband Deutsche Startups e.V. (pub.; 2020): "Female Founders Monitor 2020"; at: https://startupverband.de/fileadmin/startupverband/mediaarchiv/research/ffm/ffm_2020_en.pdf (accessed on 07.07.2022).

20 Bundesverband Deutsche Startups e.V. and Friedrich Naumann Foundation (eds.; 2022): "Migrant Founders Monitor 2022"; at: https://startupverband.de/fileadmin/startupverband/mediaarchiv/research/migrant_founders/Migrant_Founders_Monitor_2022.pdf (accessed on 07.07.2022). In German only.



for example, contributes to a balanced regional innovation performance with good working and living conditions throughout Germany.

I. Priority measures to strengthen female startup founders and diversity in startups



1. **As part of the Future Fund, the Federal Government will create a new instrument to strengthen female founders and diversity in startups in the German venture capital market.** The new instrument is aimed at management teams that are new entrants to the venture capital market. They are supported in their fundraising efforts by means of an investment of resources from the Future Fund. The aim is to ensure that women, male and female migrants and other groups that have been under-represented to date in the venture capital market in particular gain better access to venture capital. Targeted funding of female and diverse venture capital funds will produce a multiplier effect and improve access to venture capital for female founders and diverse startup teams.

2. **In the future, the Federal Government will specifically support more female founders in the EXIST funding programme – University-Based Business Startups - and set up a new ‘EXIST Women’ funding line.** Preference will be given to mixed teams, since diversely structured startup teams tend to be more successful in the long

term²¹. The universities will receive a higher flat network fee for coaching and supporting diverse teams. An additional increase is planned if the founding team chooses a mentor. This is intended to provide a financial incentive for female professors to become involved as mentors and to raise their visibility as female role models. To make it easier to reconcile family life and startup, EXIST startup teams will in future be given a funding extension should one of the team members give birth to a child. Furthermore, the Federal Government will specifically target female founders with ‘EXIST Women’, a new dedicated funding line for women, in order to make it easier for them to take the step into self-employment and to increase the participation of women in all team constellations in the long term.

3. **The Federal Government will significantly strengthen the participation of women on investment committees of state funds and investment companies.** For example, the Federal Ministry for Economic Affairs and Climate Action will meet the goal of achieving gender equality through the persons it appoints to the investment committees of the High-Tech Gründerfonds.

4. **The Federal Government will strengthen the ‘FRAUEN unternehmen’ (‘WOMEN Entrepreneurs’) initiative** by increasing the number of role model entrepreneurs from the STEM sector. The aim of the initiative is to use female role model

²¹ Ramboll Management Consulting (2021): “Evaluation of the EXIST Founder Scholarship funding programme and EXIST Transfer of Research programme of the Federal Ministry for Economic Affairs and Energy in the 2014 to 2018 funding period”; at: https://www.exist.de/EXIST/Redaktion/DE/Downloads/EXIST-Publikationen/EXIST-Evaluation-Ramboll.pdf?__blob=publicationFile&v=3 (accessed on 07.07.2022). In German only.

entrepreneurs to communicate to schoolgirls, students and young women in particular that entrepreneurial self-employment is also a good option for women.

5. The Federal Government will continue to implement its measures to improve gender equality in working life, also with regard to the needs of female and male founders. To this end, it will enter into dialogue with both female and male founders. Measures that improve the reconciliation of work and family life and promote the equal sharing of gainful employment and unpaid care work between women and men should meet the needs of company founders and those of employees equally. This applies, for example, to the increase in child-care options and the modernisation of parental allowance entitlement for self-employed persons.

6. The Federal Government will create a forum for better networking of female and male migrant founders with other startups, established companies and scientific institutions. This can be the start of a process to permanently strengthen the integration of both female and male migrant founders into the startup ecosystem. In this way, the Federal Government intends to contribute to more cooperation between migrant startups. The absence of networks is the major challenge for migrant startups, even more so than bureaucratic hurdles and language barriers²².

5. Make it easier to create startup spin-offs from science

Important sources for new technologies and for innovative products and services are universities and research institutions. Vocational schools also contribute to an ever-expanding knowledge base. Knowledge from research, however, must also be transformed into practice quickly, to ensure that future technologies are turned into products and value is created from research. To date, this has not been sufficiently achieved.

Germany and the European Union occupy a leading position in research, but not yet in the case of spin-offs. Startups in Germany that are based on knowledge or science have been declining for years. This applies equally to knowledge-intensive services and industry, which is particularly dependent on research and development. The annual number of knowledge-based startups per 10,000 employees has fallen from 6.9 to 4.2 in the western federal states and from 5.7 to 3.7 in the eastern federal states in the course of the last 20 years²³. This means there is still considerable potential for the creation of startups, which must be exploited in the future.

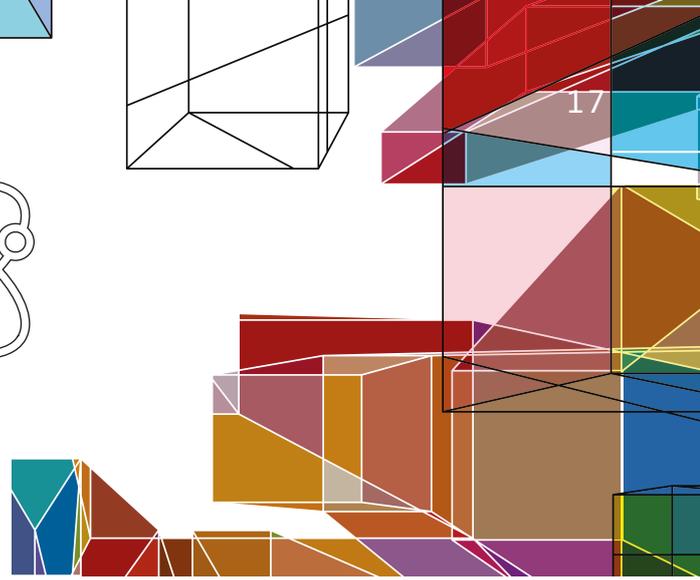
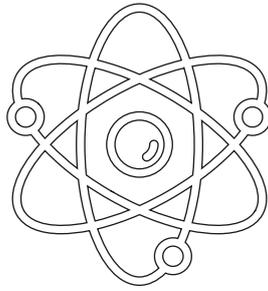
I. Priority measures to make spin-offs easier



1. The Federal Government will supplement the 'EXIST Potentials' funding programme with an 'Entrepreneurship Centres Lighthouse Competition' to increase the number and quality of knowledge-based spin-offs. Funding will be provided for five to ten long-term excellence-based projects designed to set up inter-university ecosystems with international appeal and strong integration into regional and national value chains. To ensure sustainable development, in future it is envisaged that private investors, especially family offices, become involved.

²² Bundesverband Deutsche Startups e. V. and Friedrich Naumann Foundation (eds.; 2022): "Migrant Founders Monitor 2022"; at: https://startupverband.de/fileadmin/startupverband/mediaarchiv/research/migrant_founders/Migrant_Founders_Monitor_2022.pdf accessed on 07.07.2022). In German only.

²³ Bertschek, Irene et al. (2020): "Report on Research, Innovation and Technological Performance in Germany"; at: https://www.e-fi.de/fileadmin/Assets/Gutachten/EFI_Gutachten_2020.pdf (accessed on 07.07.2022).



2. The Federal Government is seeking to relaunch the 'Biotech Startup Initiative' based on the results of an evaluation. This programme will take appropriate consideration of the long development periods and high financial requirements that are typical for biotechnology research projects in particular. The funding measure will be developed further on the basis of evaluations and in line with the EXIST programme.

3. In future, the Federal Government will provide more assistance and support for the transfer of intellectual property (IP) and will promote the implementation of standard solutions (e.g. 'IP for virtual shares'), in addition to setting up an arbitration board (initially as a pilot project) with a deal database to provide more transparency and to avoid disputes. To this end, it will link the range of options available to fund startups from science to the widespread use of these standard solutions for IP transfer and will continue to implement the process that has already been started in order to develop best practice solutions in partnership with science institutions, startups, transfer organisations and other interested actors.

4. The Federal Government will intensify the dialogue with the federal states on startup structures in universities and non-university research institutions. The focus will be on improving support for potential startup founders and establishing a more creative and risk-taking spin-off culture at the institutions. The goal in such cases should at least

be to provide pro rata funding to raise awareness and to provide entrepreneurship training for students and researchers.

Together with the federal states, the Federal Government will examine ways to provide constant and sustained funding for the required measures and structures that have already been implemented through joint initiatives, such as the 'Innovative Hochschule' programme sponsored by the federal and state governments to strengthen the transfer of knowledge – the so-called 'Third Mission'.

In addition, the Federal Government, together with the federal states, will look at how current obstacles hindering spin-offs can be systematically identified and addressed, and how incentive structures for more spin-offs can be improved. The Federal Government will in particular promote a dialogue on best practices relating to university startup funding processes.

II. Further measures to make spin-offs easier



5. The Federal Government will further intensify the practice-oriented exchange of experience between universities and non-university research institutions and experts within the framework of the EXIST workshops. This will be supplemented with individual, subject-related formats, for example on state aid law or the integration of alumni.

6. Together with stakeholders, the Federal Government will examine how different disciplines can be better networked at an early stage – students enrolled in STEM courses, for example, can be networked with business economists in order to set up successful interdisciplinary startup teams.

7. The Federal Government will bring actors from science and industry together and will specifically fund collaboration projects to make successful startups from basic research possible. These activities will be aimed primarily at areas of basic research in the natural sciences at large-scale facilities ('Exploration of the Universe and Matter' framework programme) that are very promising for innovation, transfer and startups.

8. The Federal Government will also make public tenders and procurement processes easier for educational institutions so that hurdles for gov and edtech startups are removed.

6. Improve the general environment for non-profit startups

Due to their combination of social goals and entrepreneurial action, non-profit companies are an important driver for social innovations²⁴. They address a variety of social challenges: from the energy transition and climate change to improving healthcare and supporting social cohesion. Non-profit companies are chiefly characterised by special business models that primarily aim at a positive social impact and not necessarily at maximising corporate gain²⁵.

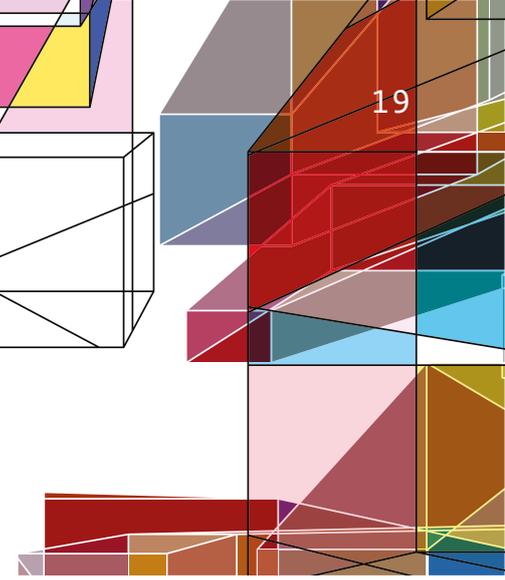
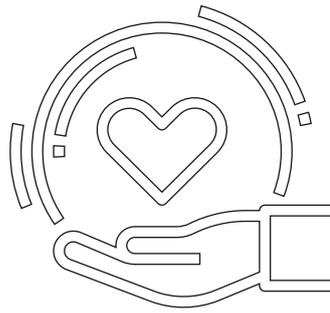
The potential of young non-profit companies to solve social problems using entrepreneurial means is enormous. Startups that focus on the common good are already paving the way for multi-billion euro markets with benefits for society²⁶. For this reason, the Federal Government will adopt its own strategy on social entrepreneurship. This can also contribute to an increase in the number of women in startups, since women founders, more frequently than their male counterparts, tend to focus on goals associated with social entrepreneurship²⁷.

24 KfW Research (2019): "Emerging from the niche: 154,000 'young' social entrepreneurs in Germany in 2017"; Council of the European Union (2015): Council Conclusions on "The promotion of the social economy as a key driver of economic and social development in Europe", Doc. no. 15071/15.

25 Definition based on European Commission (2011): Communication from the Commission "Social Business Initiative Creating a favourable climate for social enterprises, key stakeholders in the social economy and innovation" Doc. No. 682/2011.

26 Ashoka and McKinsey (2019): "From Small becomes Systemic – The Multibillion-Euro Potential in Social Innovations".

27 Bundesverband Deutsche Startups e.V. (pub.; 2020): "Female Founders Monitor 2020"; at: https://startupverband.de/fileadmin/startupverband/mediaarchiv/research/ffm/ffm_2020_en.pdf (accessed on 07.07.2022).



I. Priority actions for non-profit startups



1. The Federal Government will develop appropriate financing instruments for non-profit startups, focusing in particular on European structural funds, and thus make it easier for them to obtain access to funds. This will strengthen the growth opportunities of non-profit startups and enable them to enhance their contribution to society.

2. The Federal Government will develop a comprehensive strategy on social entrepreneurship in which non-profit startups are to be specifically addressed and included in the development of the strategy.

3. The Federal Government will further strengthen the funding of non-profit spin-offs from science in the EXIST programme. It will primarily address previously untapped startup potential at universities with a social science, non-technical profile and develop formats to do this within the framework of the 'EXIST Potentials' funding programme.

4. The Federal Government will determine whether and where there are disadvantages for non-profit companies in terms of advice, funding or regulation and, if so, eliminate them.

II. Further measures for non-profit startups



5. The Federal Government wants to increase the visibility of non-profit startups in public procurement and thus stimulate a more intensive use of public contracts to strengthen social innovations. To this end, it plans to bring both female and male social entrepreneurs together with representatives of the public procurement sector.

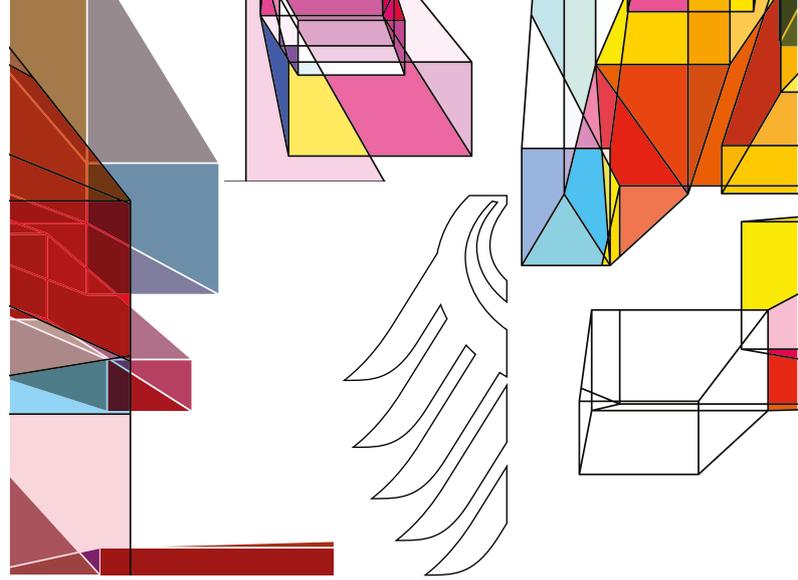
6. The Federal Government wants to support incubator and accelerator projects designed to strengthen the ecosystem for non-profit startups. In this way, it will promote the networking of non-profit startups with each other, but also with investors and industry.

7. Mobilise startup skills for public contracts

Every year, the public sector (federal level, state level and municipalities) awards contracts with a total volume worth well over 100 billion euros²⁸. Estimates put the potential for innovative products and services at more than 10 per cent of the total procurement volume²⁹. This demonstrates that, as a potential client, the State has considerable importance for startups.

The goal must be to give startups with their innovative range of products and services much more consideration in public procurement. To this end, the Federal Government wants to simplify, professionalise and digitise the procurement procedures. It wants to promote quick decision-making in public procurement procedures.

In this way, the State will not only strengthen the startup ecosystem, it will at the same time be able to ensure greater efficiency in public administration and also promote important projects, such as those related to the transition of the energy and transport sector, digital transformation in the healthcare sector, or defence³⁰. On the one hand, it is a matter of making public sector buyers even more aware of the existing opportunities that public procurement legislation provides for innovative and unbureaucratic procurement procedures. On the other hand, startups also need to make more effective use of the opportunities available. To date, only 31 per cent of startups have made an effort to acquire public contracts³¹.



I. Priority measure for public contracts



1. The Federal Government will set up an e-marketplace at the Competence Centre for Innovative Procurement (KOINNO) to improve the market overview. Innovative suppliers and also startups in particular will be given the opportunity to present their innovations on the platform digitally ('startup procurement index'). In addition, public sector buyers will be able to identify new solutions for upcoming needs (by means of 'challenges').

2. The Federal Government will put in place a central notices service which will provide access to the notice data for virtually all the procurement procedures in Germany and make this information available as open data. This will improve the opportunities for startups to obtain digital information relating to attractive public tenders. The implementation of the eForms data standard will further simplify the targeted search for relevant tenders. The procurement data will enable a range of value-added services that can also be provided directly for or by startups. The organisational and administrative effort prior to the participation in a

28 OECD (2019): "Public Procurement in Germany – Strategic Dimensions for Well-being and Growth"; at: <https://www.oecd.org/germany/public-procurement-in-germany-1db30826-en.htm> (accessed on 07.07.2022).

29 Berger, Florian et al. (2016) commissioned by the Federal Ministry for Economic Affairs and Climate Action: "Evaluation of the competence centre for innovative procurement"; at: https://www.bmwk.de/Redaktion/DE/Publikationen/Studien/evaluierung-kompetenzzentrums-innovative-beschaffung.pdf?__blob=publicationFile&v=3 (accessed on 07.07.2022). In German only.

30 Since 2017, the Bundeswehr Cyber Innovation Hub has been active as the first Digital Innovation Unit of a German Federal Ministry and is the Bundeswehr's cyber IT interface to the startup ecosystem. In collaboration between the Federal Ministry of Defence and the Federal Ministry of the Interior, the Agency for Innovation in Cybersecurity GmbH ("Cyber Agency") was also set up.

31 Bitkom e.V. (2021); Opinion in response to the online consultation on the startup strategy of the Federal Government; at: https://www.bmwk.de/Redaktion/DE/Downloads/Stellungnahmen/Stellungnahmen-Start-Up-Strategie/bitkom.pdf?__blob=publicationFile&v=8 (accessed on 07.07.2022). In German only.

procurement procedure, which is often an obstacle for startups in particular, will be significantly reduced through digitisation.

3. The Federal Government will strengthen the legally binding nature of innovative and other aspects (economic, social, ecological) in the procurement procedure to enable greater use to be made of the potential of startups and to counteract any application deficits in practice. At the same time, it will be considered how the concerns of young companies, such as startups, regarding the requirements relating to the abilities of bidders, can be taken into account more effectively. The Federal Government stipulates open standards for public IT projects. Development contracts are usually commissioned as open source and the corresponding software, as a matter of principle, is made public. In particular startups that rely on open source technology also benefit from this stipulation. In its dealings with the European Commission, the Federal Government will advocate an assessment of the innovation partnerships with regard to the instruments' user-friendliness for startups.

4. When KOINNO consultations are conducted, the Federal Government will place the focus even more firmly on the instruments of innovative public procurement and on the rule on the division of contracts into lots. It will even more promote open-solution tenders with functional performance specifications that contain the objective and the scope of delivery, but do not yet include the technical solution. In addition, target group-specific information on the participation in public tenders will be made available to innovative suppliers.

5. The Federal Government supports the 'Procurement for Government' programme of GovTech Campus Germany. In this programme, procurement offices and officers from the federal and state level work together with the startup and tech scene as well as civil society to make digital procurement solutions more easily accessible for administrations from the federal, state and local level from a cen-

tral source, to enable them to test – with legal certainty – models for innovative procurement of technologies, software and digital solutions ('Innovation Procurement') and to strengthen digital procurement expertise in administrations by means of a further training curriculum. This is to be coordinated with the activities of KOINNO.

6. The Federal Government will conduct systematic evaluations to document the development of the consideration given to startups in public tenders.

8. Make it easier for startups to access data

The availability of data is becoming increasingly important for the business models of the future. Startups in particular need data in order to implement their innovative products and processes. Startups are also important actors in making data beneficial to society by transforming such data into practical applications and making it available for the further development of new technologies and processes. The aim is to ensure that added value is created from globally competitive products that will also be developed on the basis of publicly accessible data. Data from satellites, for example, water treatment plants or medical examinations can only create added value when used to develop applications for predicting forest fires, water quality or specific health diagnosis and therapeutic procedures.

Startups can best develop this potential if they have legally certain access to data in sufficient quantity and of good quality, and if there are incentives in place to share the data used. This is still lacking in many cases. Only 38 per cent of the companies surveyed in the German Startup Monitor stated that they had sufficient access to data³². Data intermediation models and data custodian services tailored to the needs of startups, for example, could help in such cases. If startups are provided with access to data in line with European values and data privacy guidelines, this will increase trust and technological sovereignty when compared against competing approaches from other markets.

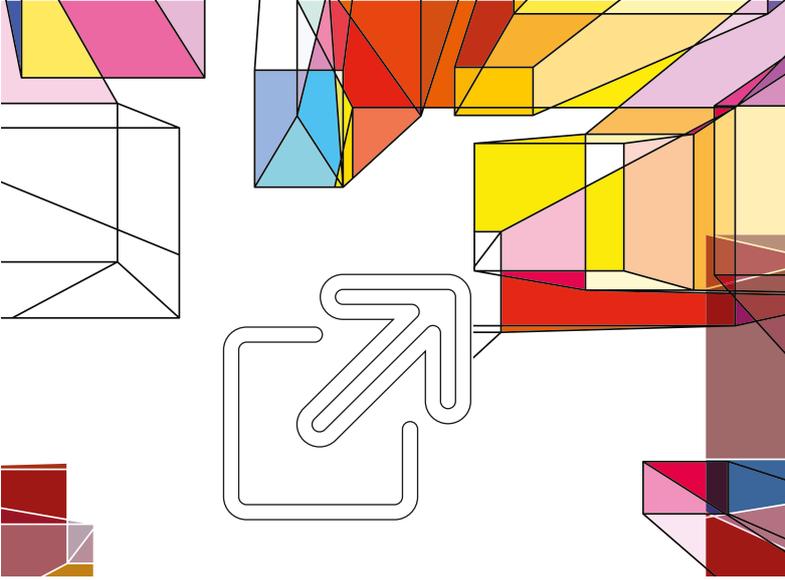
I. Priority measures to make access to data easier



1. During the negotiations on the European Data Act and on sector-specific data spaces, the Federal Government will particularly advocate for appropriate incentives to share data and for selected mandatory accesses to data. It is important to create incentives for business while ensuring compliance with data privacy standards at the European and German level.

2. When setting up the planned data institute, the Federal Government will also take into account the special concerns of startups and make access to data easier. In consultation with startups, the data institute itself is to play an active role in data intermediation through pilot projects on instruments such as data custodians and data altruism, for example. Specific advisory and data usage services are also to target startups in particular and are to be tailored to their needs. The ultimate goal is to strengthen the legal and procedural security of data spaces, data relationships and data links with a practical orientation and to establish and communicate best practices.

32 Bundesverband Deutsche Startups e.V. (pub.; 2021): "German Startup Monitor (DSM) 2021"; at: https://deutschestartups.org/wp-content/uploads/2021/10/Deutscher-Startup-Monitor_2021.pdf (accessed on 07.07.2022). In German only.



3. The Federal Government will introduce a legal entitlement to Open Data against the State and thus make access to public sector data much easier. At the same time, Open Data is to be made available in machine-readable format and free of charge via open interfaces (API – ‘application programming interface’, bulk downloads), where possible, reasonable and legally permissible.

4. The Federal Government is planning to offer AI vouchers to SMEs if they collaborate with startups when adopting AI-based technologies. SMEs are often still reluctant to implement AI projects. The vouchers are intended to reduce the SME's financial risk by covering part of the project costs as a lump sum if the SME collaborates with a startup. This benefits both the SME and the startup at the same time. Networking between startups and SMEs will be enhanced through appropriate formats (e.g. networking events or funding competitions). This way startups will also be supported in their efforts to acquire customers.

5. At national and European level, the Federal Government will also promote an innovation-friendly legal framework in the health sector in order to improve data availability and provide legally admissible testing, training and verification of algorithms. The aim is to ensure that health data is dealt with in a meaningful manner and in compliance with data protection laws, without inhibiting innovation and improvements in healthcare. Permissive rules can strengthen trust in how health data is used and contribute to the secure handling of data.

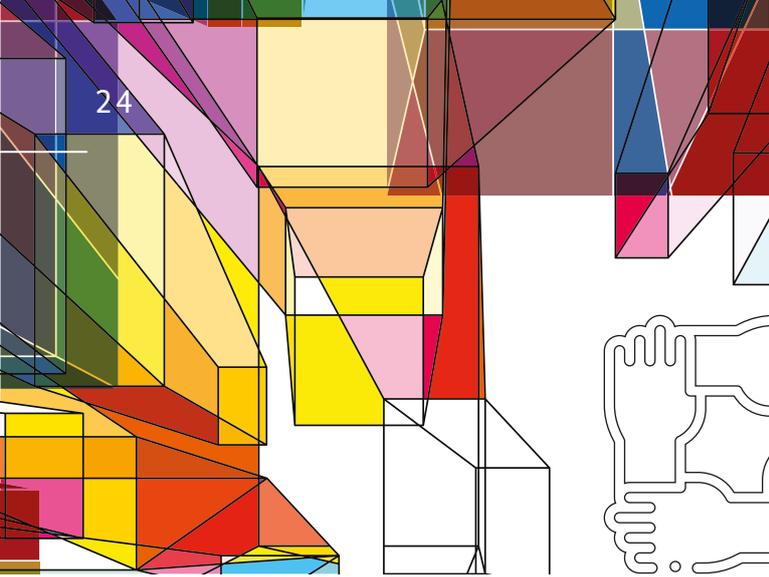
II. Further measures to make access to data easier



6. The Federal Government will work to reduce legal uncertainties in the application of European data protection acts and in the case of instruments such as data custodians and data altruism. The aim, among other things, is to scale data anonymisation and synthesis by means of technical protocols and standards that are as uniform as possible. This can benefit the development of possible marketplaces for data, which in turn can provide incentives for the use and sharing of data.

7. The Federal Government will introduce startups to the Gaia-X data infrastructure. It will in particular support the use of ‘startup ambassadors’. These are startups already involved in Gaia-X that will in future be available as contact partners in the startup community.

8. The Federal Government will work to ensure that public administrations can jointly develop and test data and AI use cases in collaboration with the tech scene. This applies to programmes such as the ‘AI for Government’ programme of GovTech Campus Germany, which provides the infrastructure and computing capacity required to do this in collaboration with well-known tech players.



9. Strengthen regulatory sandboxes – make access easier for startups

In order to be able to use the opportunities of innovations effectively, we need a 'learning and agile law' that provides flexibility to try out something new instead of rigid rules. Under the supervision and guidance of the competent authorities, regulatory sandboxes allow startups to test innovative technologies or business models that are not yet fully compliant with the general legal framework in a real-world environment.

The aim of the regulatory sandbox strategy is to provide legal flexibility required for this and to make access to regulatory sandboxes easier for startups in particular. As a result a high level of protection, for example, for employees and their health as well as for the climate and the environment will be ensured. Furthermore, regulatory sandboxes make a valuable contribution to the digital and sustainable transformation of the economy and society and create new spaces for stakeholder participation.

I. Priority action to make access to regulatory sandboxes easier



1. The Federal Government will initiate a regulatory sandbox law designed to create innovation-friendly framework conditions for regulatory sandboxes. This is to be achieved through overarching standards, new experimentation clauses, a binding experimentation clause check and a one-stop shop for advising startups and other companies.

At the same time, the Federal Government will specifically take the special characteristics of startups into account, such as scalability after testing in the regulatory sandbox and investment security.

II. Further measures to make access to regulatory sandboxes easier



2. The Federal Government is committed to promoting startup-friendly rules for AI regulatory sandboxes as part of the drafting of the EU Artificial Intelligence Act. It is striving for an ambitious implementation of AI regulatory sandboxes in Germany. AI regulatory sandboxes are aimed primarily at startups, which are to be given preferential access.

3. The Federal Government recognises that regulatory sandboxes offer considerable innovation potential for many economic sectors. Cooperation between the established businesses, startups, research and local authorities is a key factor for the success of experimental projects. For this reason, the Federal Government is encouraging municipalities and federal states to develop ideas for regulatory sandboxes and to launch regulatory sandboxes.

4. The Federal Government will further develop the Regulatory Sandbox Network and focus the Regulatory Sandboxes Innovation Award even more strongly on startups. The aim is to make access to regulatory sandboxes easier for startups in particular.

10. Put the focus on startups

A strong startup ecosystem requires the close networking of all the relevant actors. The Federal Government will also make its contribution to achieving this goal and will put the focus of its activities even more on startups.

I. Priority measures to put the focus on startups



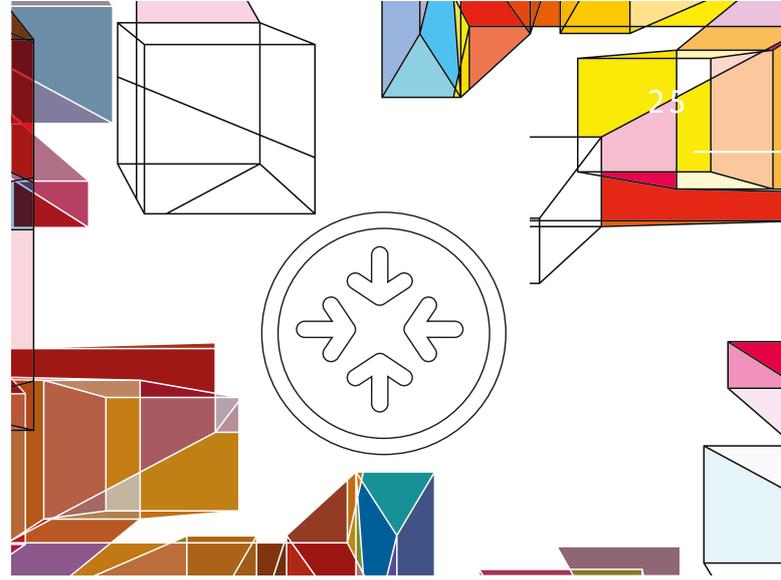
1. The Federal Government will promote the networking of all the relevant actors in the startup ecosystem. To this end, it will organise for the first time a ‘Startup Summit Germany’ together with the stakeholders. The Federal Government will also set up a network of contact points for startups in all federal ministries and subordinate authorities. And it will continue its dialogue with all the relevant stakeholders on a regular basis. This will also apply in particular to the dialogue between federal and state governments.

2. The Federal Government wants to make it easier for startups to access demonstrators and test rooms. The starting point for this can be the SME Digital Centres network and the Digital Hub Initiative. The Federal Government will also make it easier to locate existing services available for the use of demonstrators and testing spaces via a digital startup map.

II. Further measures to put the focus on startups



3. The Federal Government will continue to expand the Digital Hub Initiative regionally and in terms of the topics. It will continue to promote collaboration between established companies, startups and universities in the hubs. It will place a strong emphasis on networking the Digital Hub Initiative with other regional startup ecosystems, both nationally and internationally. When setting up sustainability hubs, the Federal Government



will initially use existing structures (such as those of the Digital Hub Initiative) to provide start-up-specific sustainability-related information and advisory services. In addition, the networking of green startups with established companies will be promoted in order to bring green innovations to market faster.

4. The Federal Government will link the network of SME Digital Centres more closely with startup initiatives, to ensure they can also be used by startups more intensively. Rural areas will also be taken into account.

5. The Federal Agency for Disruptive Innovation (SprinD GmbH) in particular will be the focal point for the challenges of primarily knowledge-based startups with disruptive innovation potential. Their needs will be addressed by SprinD and solutions found with the aid of networks of experts. Startups that are convincing in terms of content but are not considered to have disruptive innovation potential in a SprinD evaluation can be networked with other programmes and providers of capital on the basis of a research transfer arrangement. In addition, companies supported by SPRIND can gain easy access to the European Innovation Council's accelerator instrument (‘EIC Accelerator’) via the ‘plug-in’ mechanism.

6. The GovTech Campus Germany will become a central platform for the application and scaling of digital solutions and technologies from the tech scene for federal, state and local governments ('GovTech').

In the GovTech Campus Germany (for the first time in the European Union), administrative organisations, the tech scene and civil society will find a central hub/point of contact for the transfer of technological innovations in State and public administrations to accelerate the digital transformation of public administration. To this end, the GovTech Campus is developing an innovation and startup ecosystem, which it will network with State and public administrations on strategic technology and innovation topics that meet public administration needs, such as AI, cloud services and open source solutions.

7. With the Startup Competition for Digital Innovations and the Digital Startup of the Year Award, the Federal Government will continue to offer startups an award with high visibility, attractive prize money and extensive coaching and networking opportunities. In addition, existing activities will be examined with a view to promoting the involvement of startups more intensively. One example is the idea contest promoted by the 'Civic Innovation Platform', which awards prize money to startups and their partner institutions for their activities that contribute to the common good.

8. With the planned National Coordination Centre for Cybersecurity, the Federal Government will support startups in implementing their cybersecurity product ideas and transfer the results of their efforts to the startup ecosystem in order to boost cybersecurity.

9. The Federal Government will continue and further extend the Startup Energy Transition Hub at the German Energy Agency (dena). In doing so, it is intensifying the support given to startups from the energy sector, in particular by providing information on regulatory relationships, in addition to

offering three-month coaching sessions. In future, as an extension to the hub, pilot projects will be implemented in the field of smart meter gateway technology. These projects are intended to make it possible for startups to participate in the further development of this technology, which is key to the digitisation of the energy transition.

10. The Federal Government will continue to develop the dena Future Energy Lab and thus further promote networking between startups and established actors in the energy sector and expand the implementation of pilot projects on digital technologies of the future in the Lab (including AI and blockchain). A physical location for the Lab has been found in Berlin, which will be used primarily as a place for collaboration between startups and established companies from the energy industry.

11. The Federal Government will continue to expand the Digital Hub Initiative and the German Accelerator in order to further boost the international networking of the startup ecosystem. At the same time, it wants to give foreign startups a better overview of the heterogeneous German startup landscape and strengthen the international networking of startups overall. This can also include networking with actors from emerging and developing countries. Emerging and developing countries can be interesting markets for startups, also because the entrepreneurial SME segment tends to be largely absent in these countries.

Among other things, a global centre of excellence for AI, which will network with other AI centres, is planned at German Accelerator. The Federal Government will also work with stakeholders to prepare a campaign that will market Germany internationally as a startup location. One element of this campaign could be the development of an umbrella brand. It will also examine to what extent the instruments of foreign trade promotion can be used even more effectively to promote the globalisation of startups.

12. The Federal Government will make the Innovation Programme for Business Models and Pioneering Solutions (IGP) a permanent fixture. The IGP provides innovation funding for non-technical innovations such as creative business concepts or digital organisational models. The programme, which to date has been a time-limited pilot, has primarily reached young companies. Its continuation will now enable even more innovators to put their ideas into practice.

13. The Federal Government will establish an agile digital health innovation laboratory to identify innovations in new technologies and promote the meaningful use of health data. It will examine how digital solutions and innovative ideas from startups and SMEs can be tested in the health sector at an early stage so that they can subsequently be transferred to standard care. Above all, active communication between experienced service providers and agile companies can contribute to improving healthcare.

Annex:

Key results of the workshops³³

1. Workshop on financing

It was confirmed that the current financing/funding instruments of the Federal Government work well. In some instances, a gap was seen in the (large-volume) funding of technology-intensive startups (in particular deep tech) during the spin-off and early stages. There was agreement on the challenges to growth financing and on the need to strengthen national and European investors in this segment. Mobilising institutional investors in particular was important. In this respect, a fund of funds from KfW Capital within the framework of the Future Fund was an important signal and pilot project. Furthermore, the necessity of strengthening exit options was emphasised, especially those available at the stock exchange in question (e.g. stock exchange rules, 'dual class shares', equity focus for retirement provision). In many cases, an improvement of the regulatory and tax framework was also considered necessary (e.g. the problems associated with classifying fund activities as commercial, the structure of VAT exemption for venture capital funds by means of a BMF circular).

2. Workshop on talent

There was agreement that attracting skilled workers is a challenge for startups, especially in the IT sector (also in marketing and sales). A particular need for action was identified in the recruitment of foreign specialists. A need for improvement exists in the visa issuing process in particular. Visa procedures still take far too long compared with other countries and are also too complicated. The introduction of a tech visa was suggested by individual workshop participants, particularly with regard to location marketing. The recognition of degrees was also seen as problematic in a number of cases. Especially in the case of startups, lateral entries were common and made more difficult by complicated regulations relating to the recognition of college and university degrees. Improvements in the welcoming process were suggested, especially the increased establishment of welcome centres in all countries and one-stop shops. It is essential that Germany develop a comprehensive and attractive location marketing strategy. The suggestion was made that Germany Trade and Invest – an agency of the Federal Republic of Germany for foreign trade and location marketing – be given a recruitment mandate.

Potential for improvement was also identified in the integration of asylum seekers into the German labour market (e.g. blue card application during the asylum procedure and more financial resources made available for learning language skills).

³³ The six workshops were held in March 2022 on the following topics: funding, talent, employee ownership, female startups, spin-offs and data. For reasons of transparency, the results of the discussions are presented in this annex to the startup strategy. The Federal Government has taken them into account in the preparation of the strategy. They do not, however, necessarily represent the position of the Federal Government.

There was also agreement that greater emphasis be placed on young skilled workers in Germany. It is important to motivate more young people to study in those areas where there is a shortage of skilled workers.

3. Workshop on employee ownership

There was agreement that employee ownership is a key instrument for attracting (international) talent to startups; at the same time, a general need for improvement was identified (especially when compared with other countries). Possible improvements in company law, tax law and social security law in particular were discussed, in addition to the possibilities of obtaining practical support (e.g. through model contracts and information). It was also agreed that whatever the solution, it should be as simple and as easy to apply as possible.

The debate focused on possible improvements in income tax law (specifically Section 19a of the German Income Tax Act). This special provision was seen primarily as a good basis on which to apply further tax reductions. The need for change was primarily identified in the case of subsequent taxation (primarily in the event of a change of employer, but also after 12 years). It was agreed that the ultimate aim was not tax exemption. The scope of application (the definition of SME as a starting point and the length of the grace period) and the tax rate were also discussed. In the area of social security contributions, a compensation model based on the Israeli model was addressed.

4. Workshop on female startup founders

The general consensus was that there is a need for action. It is not only essential to have equal representation on the investment committees of state funds, but also on the 'general partner'-level of private venture capital funds. A proposal was made for a special instrument within the framework of the Future Fund to promote 'first time teams' with a high proportion of women. Possible quota structures were discussed, e.g. as a prerequisite for state funding (e.g. 30 per cent was mentioned for setting up teams and C-level appointments, for example, for startups and venture capital funds). Potentially negative influences were also mentioned. The importance of raising the visibility of female role models (as well as independent coaching and mentoring by experienced female founders) was also emphasised.

Better reconciliation of family and career (e.g. more and better childcare services, tax deductibility of private childcare, abolition of marital splitting) was also discussed as a general topic.

5. Workshop on startup spin-offs from science

There was agreement that the State's EXIST funding programme was working well and that it would be good idea to increase it. The dialogue on best practices could also be strengthened within the framework of this programme. The subject of startups must be more firmly anchored in university structures (students, lecturers and administration). Basic funding to bring this about is important. Programmes to promote spin-offs should be as flexible as possible. The creation of individual excellence-driven projects with a long lifetime designed to create cross-university ecosystems with inter-

national appeal was also suggested. The transfer of intellectual property in spin-offs was seen as a further challenge: compliance with the requirements of the market create uncertainty, especially for smaller universities with little experience. There was disagreement on the question as to whether the creation of standards would help, while the majority at least advocated the provision of better information and sample standards for less experienced smaller universities.

6. Workshop on data

There is a need for improvement particularly in the provision of data from public records. It is important that data obtained from records is made available in machine-readable form in accordance with uniform standards to make a structured evaluation

possible. The UK's Companies House was mentioned as a specific example. Potential for improvement was also seen when the objective is to offer companies an incentive to share data. This is due to the fact that many companies are not yet aware of data sharing as an additional business model. In this context, working with synthetic data to make the use of sensitive data possible and revenue sharing to make data sharing attractive were discussed.

Legal uncertainties in the sharing of data were identified as one of the key obstacles. Data custodians and data brokerage services could play an important role in data sharing. A large number of the participants wanted the new data institute to adopt a supporting role. On several occasions, participants expressed the wish that the data institute act as a data marketplace or data custodian, in addition to having an advisory function.

