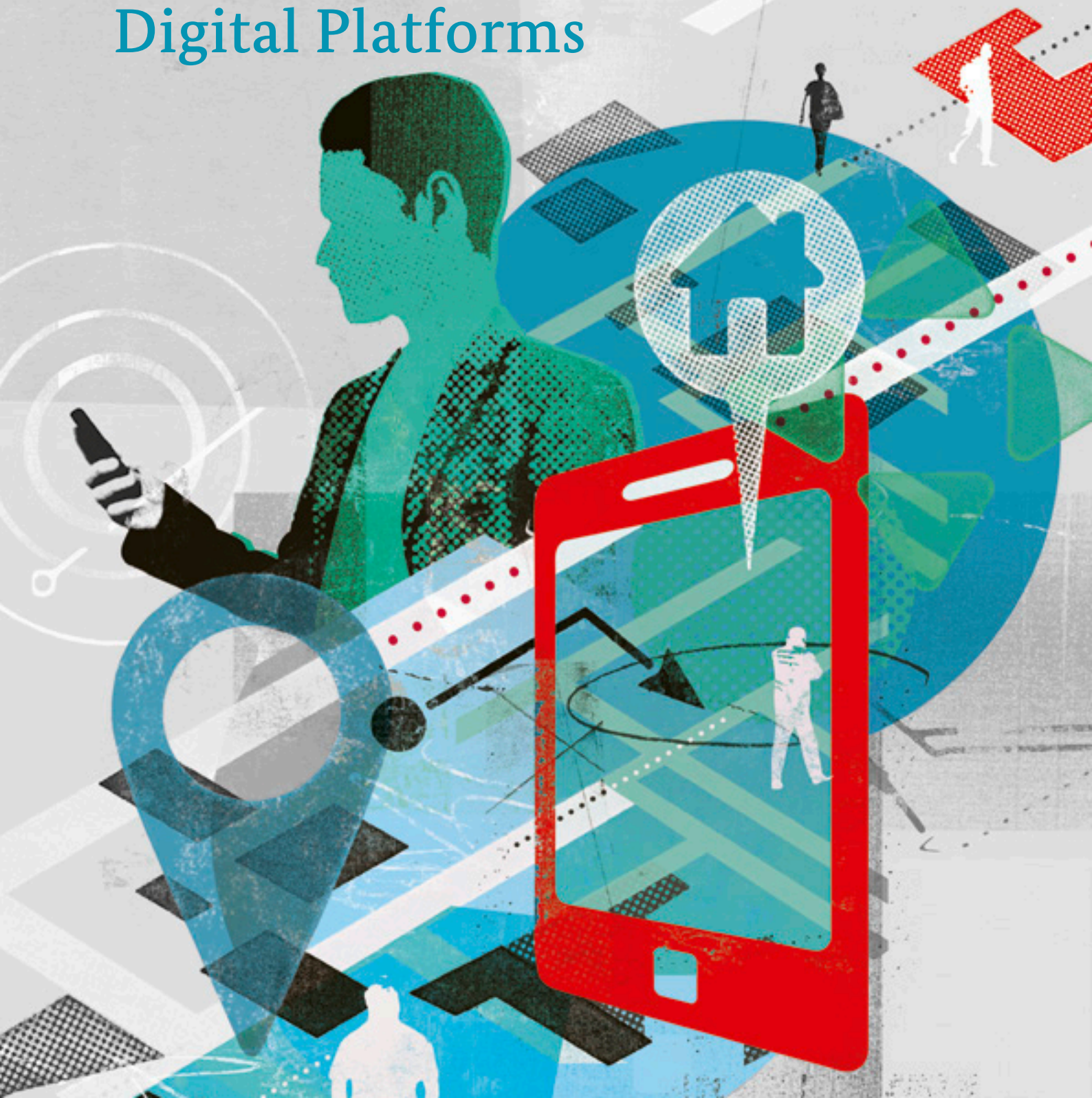
Federal Ministry
for Economic Affairs
and Energy

DE.DIGITAL

GREEN PAPER

Digital Platforms



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Preface

Digital Strategy 2025

Reaching beyond the current legislative period and the purviews of individual ministries, this policy document drafted by the German Federal Ministry of Economic Affairs and Energy is intended as an active contribution to shaping the future direction of digitalisation in the economy and in society as a whole. It addresses investment and innovation promotion as well as infrastructure development and smart networking. The aim of the ten-step plan is to make Germany the most modern location for industry and investment possible and pave the way for tomorrow's digital society.

The present Green Paper forms part of the Digital Strategy 2025, the broad outlines, measures and goals of which were published by the German Federal Ministry of Economic Affairs and Energy at the beginning of March this year. It marks the prelude to a broad discussion. It identifies, defines and correlates the legal and regulatory questions that need to be asked on the issue of digitalisation. The aim is to establish a regulatory framework to facilitate more investments and innovations based on fair competition, while also assuring basic individual and corporate rights and data sovereignty. Success or failure in this task will have a decisive effect on how far digitalisation can enter the mainstream of economic and social life, gain acceptance and be grasped as an opportunity.

Because digital markets differ in some ways fundamentally from conventional ones, we need a new regulatory framework, which means finding new ways to implement effective competition and labour law or ensure high consumer and data protection standards. As we can see in particular from the growing presence and role of digital platforms, such as search engines, social networks and online marketplaces, long-standing principles of the social-market economy are coming under mounting pressure or being undermined. While the progressive expansion of actors such as Facebook, Google, Uber, Airbnb, Amazon and also MyHammer is undoubtedly a measure of growing consumer popularity and power, it is also giving rise to increasing market concentration and the attendant market power, larger volumes of collected and evaluated data and changes in traditional market and competition structures.

This is why the German Federal Ministry of Economic Affairs and Energy already launched a dialogue between experts on a regulatory framework for the digital economy at the end of 2015, to discuss new developments together with the scientific community, businesses, trade unions, associations and the general public, analyse the problems and find solutions. Digital platforms make up a major part of this dialogue.

By virtue of their systematic collection and extremely rapid processing of large volumes of data, platforms can have large network impacts. This means that the benefit and value of a platform is enhanced with every additional user, so that larger platforms keep expanding almost automatically, while most smaller competitors remain small ('winner takes all'). This is even more detrimental to competition if providers (such as Google) transfer their user networks on one market (e.g. search engines) to another (e.g. operating systems – Android) and are successful there due more to consumer coercion than choice.

As the most prominent examples alone attest, competition has already been eroded on certain digital markets: Twenty-one million people in Germany make daily use of just Facebook, and Google has a market share of 90 per cent in search engines. This sort of imbalance raises basic questions about competition, which is why there is a particular need here for a careful analysis of the requisite regulatory framework. At the same time, any necessary amendments to the relevant legislation must also give new innovative business models the chance to develop and thrive. We therefore need to grasp the new opportunities afforded by digital platforms for the benefit of business, industry and society.

To reform the legal framework for the digital age, we need to ask questions such as:

- What does it actually mean when data and not just physical products become a key economic factor?
- How do we regulate for businesses and providers that do not produce or trade in tangible or real goods?
- What do sales figures tell us about a provider whose essential business model revolves around data rather than monetary payments?
- How can we prevent data concentration from sealing off markets?

- How can we ensure equal competition conditions on a single market, so that online and offline actors can compete on a level playing field?
- How can we prevent price discrimination and dictate of pricing?
- How can we detect, prevent and penalise data abuse?
- What must we do to ensure that enterprises can effectively guard against industrial espionage and data and know-how theft?
- How can we induce platform providers to make their own contribution to setting up the necessary digital connections, since these are the basis for their business model, although most do not possess their own access infrastructure (last mile)?
- What must we do so that platforms that are not providers themselves, but only act as intermediaries, also take greater responsibility for pay and working conditions?
- How can we effectively assure other basic rights, such as copyright, the right to informational self-determination, the right to be forgotten, etc.?
- How can we speed up a regulatory response that keeps pace with rapid digital developments?
- How can we ensure consumers' sovereignty over personal data now and in future, also including their ability to decide on who is in possession of their data?
- Do we have enough effective institutional capacities to frame competition policy that can cope adequately with the growing power of large-scale data, Internet and technology companies?
- How can we guarantee that multinational digital companies pay their due taxes so as to contribute to financing infrastructure and community needs?

With this Green Paper, the German Federal Ministry of Economic Affairs and Energy wants to initiate a process of dialogue to culminate in a White Paper at the beginning of 2017. There are many aspects at issue and we shall only be able to deal with these successfully if we engage in learning partnerships with the scientific community, business and society. We want to conduct a broad dialogue and we explicitly invite everyone to take part – personally in workshops that we will organise, in writing or also via the consultation forum on our homepage, http://de.digital/gruenbuch. This inclusive approach is the only way to find balanced solutions for one of the major challenges of our time.

As this Green Paper concentrates on the central economic policy issues of digital platforms, it will have to leave aside directly associated aspects that are also under discussion elsewhere, such as issues of copyright or labour law. Although not a focus of our considerations, they will nevertheless be taken into account here. The Green Paper will also largely omit issues to do with broadcasting law, as these must be settled by federal states under state treaties. The Federal Republic of Germany has also already voiced its opinion on this to the EU Commission in a consultation procedure (http://www.bmwi.de/BMWi/Redaktion/ PDF/P-R/positionspapier-zum-regelungsumfeld-plattformen-online-vermittler-usw).

We would like to thank Prof. Heike Schweitzer, Prof. Thomas Fetzer and Prof. Martin Peitz, who made a major scientific contribution in the course of expert dialogue that laid the foundation for this Green Paper. The Scientific Working Group of the Federal Network Agency and Wissenschaftliche Institut für Infrastruktur und Kommunikationsdienste (WIK) also provided a key impetus.

Summary and propositions

Social networks on the Internet, comparison and review portals, search engines, sharing platforms, app stores, online marketplaces and media platforms – all these are designated in the current debate as digital or online platforms. The distinct economic feature of digital platforms consists in the systematic collection and evaluation of data and the attendant network effects.

Owing to their broad diversity, it is hardly possible to arrive at a uniform definition for a 'digital platform', which is why the various segments need discussing separately. To facilitate a broad discussion, we understand for the purposes of this Green Paper the term digital platform as having a wide meaning: Digital platforms are Internet-based services that draw attention to contents through aggregation, selection and presentation. This also includes media platforms. The debate on these centres primarily on questions of plurality of opinion under broadcasting law, which we shall not, however, deal with here.

In our proposals for reforming the regulatory framework, we shall be guided by the following propositions:

I. Digitalisation and data use alter markets and call existing business models into question. A 'regulatory gap' between traditional and new services and products distorts competition. The present legislation must be reappraised to determine whether the legal framework needs to be amended in response to progressive digitalisation so as to lay out a level playing field among 'analogue', 'digital' and 'hybrid' business models.

We ask:

(1) Is it assured that companies actively engaged on a single market are also subject to the same regulations in all areas?

(2) Where is this not the case?

(3) In what areas is there a relevant competitive relationship between (strictly regulated) telecommunications providers and/or network operators, on the one hand, and (loosely regulated) digital platforms, on the other?

(4) In what areas does the growing role of digital platforms call for reducing or amending sectoral regulation?

(5) What alterations – to the legislative framework or to the application of law – would be specifically needed to ensure equal rights for all players on a level playing field?

II. Owing to rapid technological developments, completely new providers are entering the market in a very short space of time that can even oust previously dominant players. These kinds of new player can also emerge in Germany and Europe, provided, however, that new ideas are not stifled early on by excessive regulation and fair competition is assured at the same time. The point is to strike a balance between innovation and equal competition.

We ask:

(6) How can we guarantee that new innovative business models can also thrive in Germany and Europe, without confining attention to technological aspects alone?

(7) Do we need experimental clauses or exemption regulations?

(8) If so, what practical form could these take?

III. Digital infrastructure must be made fit for the gigabit society. Regulation to date has been concerned primarily with the market shares of telecommunications firms and guaranteeing fair competition. The aim now must be to devise a regulatory framework that sets greater incentives for network investments in gigabit infrastructure and promotes innovations at service level.

We ask:

(9) What specific reforms need to be made to the legal framework (access, price regulation, etc.) to expedite network expansion?

(10) Do more conditions have to be imposed on access rights and obligations to cater for their actual infrastructure impacts?

(11) Can competition for the rural market help expand gigabit networks?

(12) Does it make sense to involve platforms more in infrastructure development?

IV. The data economy poses us with unprecedented challenges that give rise to conflicting goals: Affording opportunities to develop new business models and services through data use, on the one hand, and guaranteeing data security and sovereignty, on the other. We must resolve this conflict of objectives in a productive way.

We ask:

(13) How can we put data to (macro)economic use without infringing individual rights?

(14) Are new forms of consent needed to impress on users the sensitivity and commercial value of requested data?

(15) What practical form could these take, how could they be supervised and by whom?

(16) How can we ensure that the regulatory framework also facilitates the testing or inception of new innovative services/products/business models in Germany, so as to be adequately responsive to opportunities?

V. Due to the particular strength of individual platforms and networks, the present data economy has in part led to a trend towards concentration or quasi-monopolies. Competition will remain the main instrument for growth and innovation in the 'digital market economy' as well. This calls for a robust regulatory framework that ensures undistorted competition to guarantee equal opportunities for market players.

We ask:

(17) Do the special features of platforms and networks require specific rules and oversight?

(18) If so, what would need specific regulation and how?

(19) If there is no need for special rules, might amendments or modifications to existing regulations be required?

VI. This regulatory framework must contain clear rules and enforceable rights for both businesses and consumers.

We ask:

(20) Should ties between portals and product providers be disclosed regardless of any verifiable discrimination?

(21) If so, at what point and how?

(22) If additional transparency and information disclosure obligations are introduced, what specific form must these take?

(23) Do we need to reform procedural law to enable more rapid enforcement?

VII. There is often an information asymmetry between platform operators and consumers. In the digital economy also, private autonomy, however, presupposes that contractual parties are equal, that is, more or less equally well informed. To enable consumers to make sovereign decisions, business relations and possible ensuing conflicts of interest must be made transparent, in review portals, for example. Digital platforms that have business models based on algorithms need not disclose these as such but they must reveal their criteria.

We ask:

(24) Do platforms lead to information asymmetries that require special regulation?

(25) What transparency regulations would be necessary in what cases to remedy information asymmetries?

(26) Should a legal obligation be introduced on indicating the business model?

(27) Should review portals be obliged to publish the extent to which ratings have been checked for their content?

(28) How should this be monitored, by whom and what sanctions would have to be imposed?

VIII. Based on the available (including non-personalised) data on specific users or the terminals used by them, platforms can calculate and charge personalised prices for the products and services supplied. This informational edge places the provider at an undue advantage over the different individual users and discriminates against them. Providers must therefore make this practice and the pricing criteria transparent.

We ask:

(29) Should this kind of price differentiation be allowed?

(30) If so, should the provider have to point this out for the sake of transparency?

(31) If not, what specific regulations are needed?

(32) Should a distinction be made between providers with and without a dominant market position?

IX. To ensure data sovereignty in the digital world, we need new data protection legislation and the European General Data Protection Regulation is the first step towards this. We also need user-friendly identity management to guarantee that data delivery is transparent, intelligible and clear, while also enabling the comprehensive use of anonymised data for business, social and scientific purposes.

We ask:

(33) How should consent to the use of personally identifiable data be regulated to ensure transparency, intelligibility, rationality and clarity?

(34) What would practicable, user-friendly identity management look like and what role could electronic identities with different security levels play?

(35) Where might the fiduciary exercise of data rights by third parties be helpful and what form could this take?

(36) How can the value of data be determined when assessing the appropriateness of a contractual exchange relationship?

(37) Should a separate legal regulation be enacted on data portability under the General Data Protection Regulation and if so, how should such a regulation be framed?

(38) How can we ensure, for example, that the transfer formats for portability do not place a constraint on innovation or competition?

General Data Protection Regulation

As stipulated in the General Data Protection Regulation adopted by the EU Parliament and the European Council in April 2016, every person has the right to the protection of his personally identifiable data. The regulation unifies the EU-wide rules on how private enterprises and public institutions can process data assignable to an identified or identifiable individual.

Identity management

The management of one's own identity is an expression of the conscious use of personal, including intimate, information – also on the Internet. It allows consumers to comprehend and control the use of their personally identifiable data and businesses to make use of disclosed data, for marketing purposes, for example.

X. Search engines are software systems to navigate the Internet. Without them, many pages/sites and services would be much more difficult to find. They therefore provide a requisite infrastructure for a digital marketplace to operate. This key function, which has an influence on diversity and equal opportunities, therefore places a special responsibility on search engine operators, who must meet special obligations in transparency, for example, even if they do not hold a dominant market position.

We ask:

(39) What role do search engines play in a software environment increasingly based on apps?

(40) Do search engines play as essential a communicational role as end-to-end connectivity in conventional telephony, for example?

(41) Should search engines without a dominant market position also be subjected to special transparency obligations?

(42) If so, what should these specific obligations be and which search engines should be subject to them?

XI. Simple, swift procedures are of major importance for the effective enforcement of rights. The law enforcement system needs updating. We need a legal system 4.0.

We ask:

(43) Do changes need to be made to procedural law to combine the enforcement of competition, fair trade and data protection law and consumer protection regulations more closely?

(44) And if so, what specific changes?

(45) How can cooperation among authorities be improved and how would a forward-looking institutional landscape have to be organised?

(46) How should official procedures be combined with elements of self-regulation or co-regulation?

(47) In certain cases of general interest, such as systematic breaches of consumer rights, should an authority have the power to bring proceedings?

XII. In almost all fields, social and economic policymakers are faced with the challenge of keeping pace with the enormous momentum of change due to digitalisation, affecting business models, competition regulations, consumer rights, qualifications and much more. The relevant administrative competencies are, however, highly segmented. We must lay a suitable legal and institutional foundation to be able to chart the course of digitalisation in all these fields in a coherent way, which is why we need to streamline these responsibilities.

We ask:

(48) How and to what extent should competition and consumer and data issues on platform markets be amalgamated under one agency ('Digital Agency')?

(49) How should efficient, unbureaucratic market surveillance be designed in response to the rapid development, internationalisation and diversity of markets?

(50) To what extent would this require ongoing action research, similar to the telecommunications, postal and energy sector?

(51) How should responsibilities be appropriately allocated between the European and national level?

(52) What institutional issues need addressing for implementing requisite measures to deal with multinational enterprises?


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1.

Economic role of digital platforms – a stocktaking

1.

Economic role of platforms – a stocktaking

Internet-based platforms, such as search engines, social networks and trading platforms, are playing a growing economic role. It is, however, difficult to determine their individual value added, since instead of manufacturing physical products they provide services for which they often charge no monetary fee.

In April 2016, for example, Facebook recorded a market capitalisation of some EUR 230 billion and Volkswagen was worth about EUR 58 billion on the stock exchange.[1] The picture is almost the opposite when it comes to turnover, with Facebook earning US$ 12.5 billion in sales in 2014 in contrast with Volkswagen's US$ 268.9 billion.[2] The four major platforms, Google, Apple, Facebook and Amazon (GAFA), account for a combined market capitalisation of approximately EUR 1.5 billion, about almost half of German gross domestic product.[3]

[1] www.finanzen.net
[2] Facebook Annual Report 2014; Volkswagen Annual Report 2014.
[3] Federal Statistical Office; www.welt.de

Facebook and its services, such as WhatsApp or Instagram, attest to the rapid development and growth of successful digital platforms. Facebook was founded in 2004 and counts 1.6 billion users after twelve years. Twenty-eight million people in Germany use Facebook, 21 million of whom every day. The messaging service, WhatsApp, was not founded until 2009 and now serves approximately one billion users. Since its emergence, there has been a drastic decline in the use of SMS services. Between 2012 and 2015, SMS volume in Germany dropped by 75 per cent, while WhatsApp use is estimated to have increased more than thirty-fold. Internet platforms, then, have entered into keen competition with traditional telecommunications providers.

A conservative estimate by McKinsey in 2011 found that the Internet search engines had already contributed about US$ 780 billion to national product worldwide in 2009,[4] with the figure for Germany put at US$ 42 billion.[5] According to the study, advertisers earned a return on investment (ROI) of 7:1 in their targeting campaigns with Internet search engines. A sample survey of almost 5,000 companies in Germany (largely SMEs) in an empirical study conducted by the Cologne Institute for Economic Research showed that advertisers on Google can expect to earn a ROI of EUR 12 for every euro invested.[6]

The development of platforms has the potential to transform markets and their structures institutions very rapidly.[7] A few years after its foundation (2008), the online mail-order company, Zalando (shoes, fashion), is the third largest in Germany measured by turnover. The global market volume of online trade already came to US$ 52 billion in 2013.[8]

Founded in 2009, the online passenger transport placement service, Uber, which has a business model that has prompted protests by the taxi industry in many cities, now operates in more than 50 countries and its corporate value is currently estimated at US$ 50 billion. US$ 11 billion in gross revenue was forecast for Uber trips in 2015, with US$ 2 billion going to Uber.[9]

Airbnb, a platform for renting overnight accommodation in private homes, was founded in 2008. The guests and private landlords each pay a commission to the platform. Sales have been estimated most recently at almost US$ 1 billion and its corporate value amounted to US$ 24 billion.[10]

In 2015, global sales volume of search-engine advertising amounted to an estimated EUR 65 billion, EUR 18 billion of which with mobile phones, and total turnover for 2020 is forecast at about EUR 85 billion.

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[4] Bughin, J., Corb, L., Manyika, J., Nottebohm, O., Chui, M., de Muller Barbat, B., Said, R.: The impact of Internet technologies: Search. Study by McKinsey. 2011, p.38.

[5] This McKinsey study did not attempt to ascertain how turnover is distributed over Internet search engines. It is only a conservative estimate of the contributions to national product, such as raised awareness, price transparency, time saved, problem solving, long-tail offerings and relevance to needs, better matching, better people matching, new business models and entertainment.

[6] Arnold, R.C.G., Schiffer, M.: Faktor Google – Wie deutsche Unternehmen Google einsetzen. Köln 2011: Institut der deutschen Wirtschaft Köln Consult GmbH.

[7] Baums, A., Schössler, M., Scott, B. (Ed.): Kompendium Industrie 4.0 – Wie digitale Plattformen die Wirtschaft verändern – und wie die Politik gestalten kann. Berlin 2015.

[8] eMarketer, 2014. Retail Sales Worldwide Will Top $22 Trillion This Year. 23.12.2014, http://www.emarketer.com/Article/Retail-Sales-Worldwide-Will-Top-22-Trillion-This-Year/1011765

[9] http://www.reuters.com/article/us-uber-tech-fundraising-idUSKCN0QQ0G320150821

[10] http://beta.fortune.com/2015/06/17/airbnb-valuation-revenue/

Internet platforms are also major employers. At the end of 2015, for example, Google employed a workforce of some 60,000, Apple, 110,000, Facebook, about 13,000 and Amazon, 222,400.[11] There are also many small platform operators. The membership details of the eco association provide an indication: With some three million employees, they earn a turnover of about EUR 800 billion in Germany.

In addition to these direct employment effects, a substantial number of indirect jobs are also ascribed to platforms. For example, in a study for 2015,[12] "The global economic impact of Facebook", Deloitte found that the use of the Facebook platform by businesses created 4.5 million jobs (approximately 84,000 in Germany).

It is not yet clear what employment impact digitalisation will have. On the one hand, new businesses or business fields create jobs. On the other, automation causes redundancies, especially among mid-level qualification occupations that entail routine activities in large part. Labour-market researchers are discussing a digitalisation-driven trend towards a polarisation in employment between low-skilled and higher-skilled activities, which could exacerbate instead of alleviate the shortage of qualified labour.[13] One-man business and clickworker freelancers also raise social security issues.[14]

[11] Statista.
[12] http://www.deloitte.co.uk/fbeconomicimpact
[13] Zur Beschäftigungsbilanz BMAS, Grünbuch Arbeiten 4.0, 2016, p.16, and Albrecht/Ammermüller, in: BMAS, Werkheft 01 – Digitalisierung der Arbeitswelt, 2016, p.40 (43).
[14] BMAS, Grünbuch Arbeiten 4.0, 2016, p.57.

2.

Special features of digital platforms

2. Special features of digital platforms

There are still no generally accepted definitions for the many, in part highly diverse online or digital platforms. The German Monopolies Commission has described a platform as 'an intermediary that brings together various user groups for economic or social interaction'.[15] In a questionnaire for public consultation,[16] the European Commission posited the following definition:

> 'Online platform' refers to an undertaking operating in two(or multi)-sided markets, which uses the Internet to enable interactions between two or more distinct but interdependent groups of users so as to generate value for at least one of the groups. Certain platforms also qualify as intermediary service providers.

To enable a broad discussion, for the purposes of this Green Paper we understand the term 'digital platform' as having a broad meaning. Digital platforms are Internet-based forums for digital interaction and transaction. They are therefore also designated as intermediaries. Digitised information on networked devices simplifies search operations and reduces comparison costs; information is always accessible everywhere.

The world of digital platforms is highly diverse and in a state of rapid flux. Digital platforms include search engines, comparison and review portals, marketplaces/trading platforms, media and content services, online games, social networks and communications services.

[15] Special Report No. 68: Competition policy: The challenge of digital markets, 2015, No. 33 (http://www.monopolkommission.de/images/PDF/SG/SG68/S68_volltext.pdf); Monopolies Commission. XXth Biennial Report: A competition system for the financial markets, 2014, No. 14 (http://www.monopolkommission.de/images/PDF/HG/HG20/HG__gesamt.pdf).

[16] https://ec.europa.eu/digital-single-market/news/public-consultation-regulatory-environment-platforms-online-intermediaries-data-andcloud

Technically, some platforms are also designated as over-the-top players (OTT). These are services that are rendered regardless of a specific telecommunications infrastructure based on the Internet protocol for telecommunications networks. Body of European Regulators for Electronic Communications as specified under the European Electronic Communications Framework Directive which consist of signal transmission against payment (such as voice telephony); OTT-1 are communications services that compete with traditional services (e.g. messaging services) and OTT-2 are other services, such as content services or online trading. In general usage, OTT-2 are designated primarily as digital platforms.

To deliver their services, OTT players therefore need a telecommunications infrastructure, but unlike conventional telecommunications services they are not tied to any specific one. Not only can OTT services be provided via any infrastructure, but OTT platform operators can also render them without having to maintain their own telecommunications infrastructure. This infrastructure independence and their potential availability to users from any Internet connection are major reasons why digital platforms can harness the benefits of direct and indirect network effects.

Over-the-top (OTT)

Unlike conventional telephone companies, Internet platforms can provide their services and contents without the need for their own connections to customers. Nor do they require specific access. Voice-over IP telephony or video streaming are possible via any Internet connection with the necessary bandwidth. This is denoted by the technical term, over-the-top.

[17] BEREC: Report on OTT services, BoR (15) 142, p.15 – 3.3.2.; p.20 – 4.2.1.

Platforms benefit from network effects:

- **Direct beneficial network effects come about through the direct networking of a large number of users, that is, the size of the network. The benefit increases in direct proportion to the number of other participants.** Rising demand therefore directly results in improved service, which attracts additional customers. This is the basis for the success of digital platforms such as Google and Facebook. These direct beneficial network effects can be so pronounced that they lead to market concentration: Competition sets a pull effect into motion towards the largest platform.

- **Indirect beneficial network effects arise if two or more user groups interact on one platform, generating feedback among different platform sides.** The more users are present on one platform side, the more this enhances the attractiveness of another. An example of this are labour-market portals, which are more attractive for jobseekers, the more employers are registered on the platform and vice versa.

One reason for the special role of platforms on the Internet is new means they afford for the systematic collection and evaluation of data. Many of them collect, aggregate and organise information and provide this to users, acting as information intermediaries. At the same time, the data is also frequently used and marketed by platform operators in other ways, for targeted advertising, for instance. The value and 'costs' of data supply are, however, often difficult to estimate for the consumer (see Chapter 6).

Targeted advertising

Targeted advertising is a special form of advertising used on the Internet that offers advertisers the opportunity to direct their advertisements at relevant target groups. Adverts are only displayed to prospective customers, which can reduce scattering losses. Users' habits and online behaviour provide information on their interests and help define target groups.

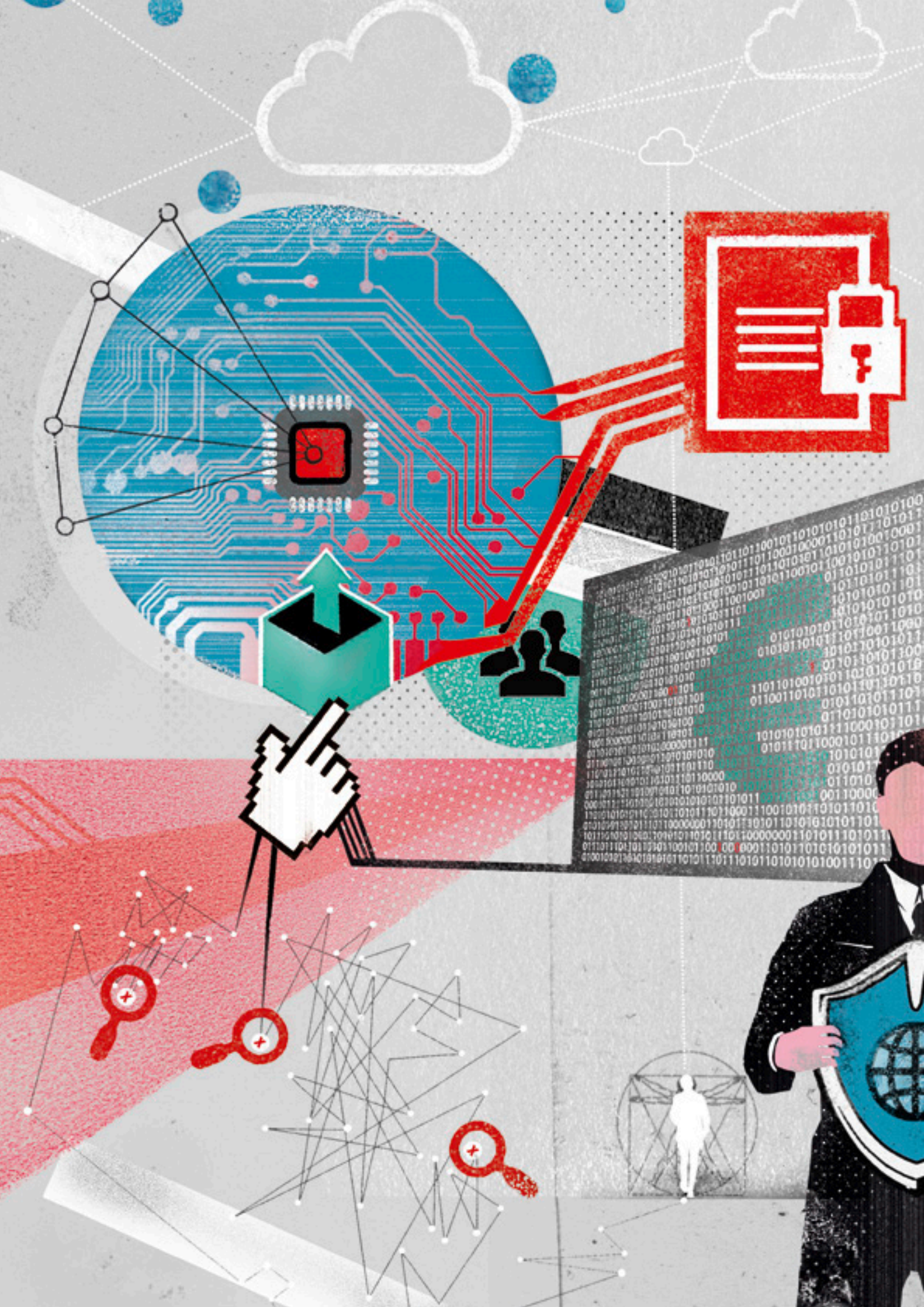
[18] The essential research work on this is by Rochet and Tirole (2003, Journal of the European Economic Association) and Armstrong (2006, The Rand Journal of Economics).

This lucrative market is still only accessible to businesses that themselves have a comparatively large amount of data at their disposal, which poses a possible risk to competition. At the same time, platforms often develop rapidly. They create innovative services that partly replace those available offline, but in part also facilitate completely new forms of interaction. Platforms with large market penetration are therefore also at risk of being superseded by competitors. In many cases, successful newcomers have, however, been bought up by market-dominant enterprises (e.g. the takeover of WhatsApp and Instagram by Facebook or YouTube, Android and DoubleClick by Google), so that platforms pose new challenges for competition law (see Chapter 5).

In view of the diversity of platforms, uniform regulation would not appear to be an expedient option. Whereas the Federal Telemedia Act (TMG) currently sets the main regulatory framework for media services, the Telecommunications Act (TKG) regulates telecommunications services. With media convergence, it is worth considering how far this kind of separation will be appropriate in future. It is, however, important that uniform rules also apply for businesses actively engaged on the same market (level playing field), regardless of whether they are analogue or digital.

Level playing field

The level playing field is about fairness for companies actively engaged on the same market. Fair competition can only be ensured if equal rules and competition conditions apply for businesses on the same 'playing field'.



3.

Challenges of a data-driven economy

3. Challenges of a data-driven economy

High-performance broadband networks are the basis and the drivers of digitalisation. As a major foundation for new innovative platforms, they are indispensable for the future viability of the digital economy in Germany. That is why we must create a digital infrastructure for the future that meets the triple demands of high capacity, broad availability and low latency.[19]

Many business models on the Internet are based on making commercial use of data. These can be personally identifiable data to offer individual services or place advertising, but also anonymised data, for example, to enable providers to draw inferences from general user behaviour in a certain region. Internet users frequently 'pay' for a service by providing information about themselves and their behaviour. Data therefore have commercial value and already function in part as a new 'currency' on the Internet. The value of data can, however, differ greatly, depending on their quality and compilation.

It is still largely unclear who 'owns' data, to what extent and what respective value can be attached to them.[20] A distinction has, for example, to be made between the customer who provides data and is therefore protected by data protection law (as the right to protection) and the company that is authorised to dispose of the data it has stored. In self-driving vehicles, for example, who has the right of disposal over data generated by the driver and the vehicle, the driver alone or the vehicle manufacturer or a third service provider? From an economic standpoint, at least a proportionate right to the value of data is also ascribable to the entity that compiles it and makes it available for commercial use.

[19] See BMWi (Ed.): Digital Strategy 2025, p.13 f.
[20] Cf. WAR BNetzA (2016), OTT Paper, p.8.

3.1 Gigabit networks as the high-performance basis for the digital economy

To ensure reliable real-time-capable transmission and facilitate high-quality Internet services, we need broadband connections that provide speeds in the range of several gigabits per second symmetrically both downstream and upstream. Largely aimed at providing asymmetrical connections for households, i.e. private customers, the Federal Government's current Broadband Strategy must therefore be immediately supplemented with optical fibre technology beyond 2018.

Developing an area-wide optical fibre grid, Fibre to the Home (FttH), in Germany will require investments of up to EUR 100 billion. About three-quarters of the German population live in conurbations, where broadband market competition is keen and we can expect a market-driven expansion of gigabit networks, but there are also quite promising market activities in rural areas that make systematic use of cost-saving potential and multi-sectoral synergies. Networks are not being expanded in some areas, however, because it is not commercially viable.

To build up a high-performance and competitive digital infrastructure, we therefore need to carry out a package of measures that includes setting up an investment fund for future gigabit networks in rural areas, harmonising funding programmes or establishing a 'Gigabit Network Round Table'.

Of particular importance in this connection is framing legislation and regulatory practice to make it more conducive to innovation and investment. Regulation must be based more on a vision of competition that is geared to investment, innovation and growth. Companies must be incentivised to take investment risks. We need to develop and carry out new initiatives in access and price regulation. As part of our expert dialogue on the regulatory framework for the digital economy, we shall devise viable solutions and channel these into the European debate.

We also need to amend the European Commission's broadband guidelines. Current regulations hamper the promotion of gigabit networks. A particular concern will be with setting specific incentives for first movers in less lucrative regions.

3.2 Challenges of big data

Big data methods have enlarged the scope for data processing to a huge extent. Advantages, on the one hand, include improving traffic flows and preventing jams or diagnosing and treating illnesses. On the other, big data capacity can result in a concentration of competition and the attendant economic power (see Chapter 5).

Big data operations are a promising source of innovation and value added.[21] Data are often described as the most important raw material of the digital economy. The technology behind their new economic role is that they surmount capacity limits: Large data-transmission capacities and new technologies are available for the collection, storage and intelligent processing of data. Data are key for developing new and upgrading existing customised services and targeted advertising. Internet service providers, including online platforms, collect large amounts of data on socio-demographics, user preferences, response patterns, surfing profiles, IP addresses, destination sites and movement profiles (geotracking). Large amounts of data sets are combined and then screened with the help of data analytics and powerful computers for typical patterns or reliable correlations. The correlations ascertained this way then enable companies to predict the interests, preferences and behaviour patterns of specific user groups.

Big data

There has been a rapid growth in the global volume of digital data, due both to the increasing use of smartphones and social networks and the enormous data growth in business and industry and science, and on financial markets. Together, these data make up big data: a large volume of data. This enables physicians, for example, to tailor cancer treatment better to patient needs (see data analytics).

Data analytics

With the help of data analytics, precise information needed for improving products or services can be filtered out from the immense pool of big data. Using thousands of computer processors, data is screened to find typical patterns that in part also allow conclusions about the interests and behaviour of users.

[21] See also EU Commission: Digital Single Market Strategy, COM(2015)192 of 6 May 2015, Point 4.2.

Digital platforms are frequently based on data-driven business models. To be successful, these need to provide an attractive service to users. The platforms collect user data on a differing but often large scale. Some of the information is needed directly for the provision of the service offered by the platform – such as when a communication platform requests contact data or a social network stores user profiles. Some of the information, however, enables the platform to upgrade and expand its services and gear these to specific individual user interests. This enables them to develop new customised business models. Data can therefore provide digital platforms with a major instrument for customer retention. When data is collected beyond this on user interests and behaviour – also across platforms[22] in the case of Google and Facebook – the main practical reason for this is currently marketing targeted advertising.[23]

Many platforms have placed marketing targeted advertising at the core of their business models. The attractiveness of the service for advertisers increases with the quantity and quality of the available user data and the ability to elicit valuable new information from these using effective analytical techniques. This is why digital platforms that finance themselves through advertising, or intend to in future, attach great value to data capture, which has come to be an important competition parameter on the advertising market. To be able to generate useful data, a platform must reach the largest possible number of prospective users. Platforms compete for user attention. These network effects based on data are the driver for the offensive expansion strategies frequently adopted by digital platforms. They trade off years of losses against the chance of establishing themselves as market leaders and profiting from the collected user data.

[22] Examples include the integration of Facebook's Like button in other websites that transfer information back to Facebook or the amalgamation of data from the Google search engine with Android and Gmail data.
[23] The largest source of income for Google is advertising revenue – see: http://de.statista.com/statistik/daten/studie/223277/umfrage/umsaetze-von-facebook-nach-segment- quartalszahlen/. At Google, advertising sales accounted in 2014 for 89 per cent of income amounting to US$ 67 billion – see: http://de.statista.com/statistik/daten/studie/76453/umfrage/umsatzanteile-von-google-seit-2001-nacheinnahmequelle/ and http://de.statista.com/statistik/daten/studie/75188/umfrage/werbeumsatz-von-google-seit-2001/.

These developments afford chances and pose risks for users.[24] On the one hand, they can find customised services and products on platforms tailored to their interests and preferences. They are also offered many digital services free of charge that they would have to pay for if their data was not used for advertising purposes. On the other, there is growing concern about the extent of knowledge that companies acquire on users based on big data.[25] They can draw on detailed profiles of users and can precisely forecast their interests, preferences and response patterns. Users in contrast often lack any exact knowledge of the business models of their contractual partners and the role data play in this.

3.3 Problems of informational power in digital platforms

Informed consent
Before Internet users consent to a company processing their personal data, they must be informed about what will be done with it. Only then they are sufficiently informed under the European General Data Protection Regulation to be able to take decisions of their own free choice.

Data protection law does not fully regulate the limits of permissible data processing in the digital domain. The guiding principle of 'individual data sovereignty' (see Chapter 6) and informed consent by a knowledgeable and emancipated consumer still does not answer questions of a possible information asymmetry between consumers and businesses. Rather, it presupposes the existence of precautions and rules that make the necessary information available and usable for practical everyday needs. Nor does data protection legislation address the issue of how to deal with the concentration of data power in the hands of a few enterprises. Both aspects of possible information asymmetry need, however, to be explored to develop a regulatory framework on information for digital platforms.

[24] An introduction to the economic analysis of the advantages and disadvantages of the commercial use of personally identifiable user data is provided by Peitz and Purtova (2016), "Consumer privacy in network industries", A CERRE Policy Report, 25 January 2016. A detailed description of the economic literature on the topic can be found in Acquisti, Taylor and Wagman (in press, Journal of Economic Literature).
[25] Advisory Council for Consumer Affairs: Verbraucher in der Digitalen Welt. Verbraucherpolitische Empfehlungen, No. 3 and p.13.

Over time, intensive data collection by digital platforms can culminate in a pronounced information asymmetry between consumers and businesses. The General Data Protection Regulation now places special requirements on so-called profiling, but a precise distinction among various user groups is also essential for using data, for the purposes of targeted advertising, for example.

Profiling can work to the advantage or disadvantage of users. Targeted services or products can be perceived as a benefit, for example, but there is no way of ruling out that a company with large amounts of data at its disposal will not exploit its knowledge about the behaviour and response patterns of a customer to his specific detriment (individual price discrimination). Information asymmetry in each negotiating situation with consumers can put the company at a considerable advantage.

Information asymmetries are nothing new as such. They often arise on markets, used cars, for example. Heavy data concentration in a firm can, however, result in marked information asymmetries.

Profiling

Large volumes of diverse data are exchanged on digital platforms (e.g. on search behaviour, locations, etc.). Even if a person has not set up his own profile, detailed profiles of individual users can be gleaned from data using automatic analytical methods.

4.

Challenges for telecommunications law

4. Challenges for telecommunications law

Sector-specific telecommunications regulation

As general competition law was not suitable for the transition from state Monopolies to competition, the Telecommunications Act (TKG) set sector-specific rules. The special regulation addresses dominant providers on markets where competition conditions are inadequate. They are bound by restrictions and obligations that do not apply for other providers.

Due to the use of telecommunications infrastructure, especially telecommunications networks, there are substantial technical and economic interdependencies between digital platforms and telecommunications providers. Digital platforms are technically inconceivable without telecommunications networks. In economic terms, platform providers and telecommunications network operators provide different services along the same digital value chain,[26] but only telecommunications network operators are subject to specific regulation. On the one hand, this sector-specific telecommunications regulation is concerned primarily with competition aspects as part of market regulation, but on the other, specific regulations are set for telecommunications network operators that have no principal bearing on competition, such as in consumer protection, data protection, telecommunications privacy and public safety. Digital platform providers in contrast are subject to general codes of conduct and market rules. Whether and to what extent sectoral regulation also applies for some platforms has not yet been conclusively settled. This takes on particular relevance, however, where digital platforms compete with conventional telecommunications services delivered via telecommunications networks and falling under sectoral regulation. Examples of this are messaging services such as WhatsApp that enter into competition with traditional SMS texting and VoIP services such as Skype that compete with conventional voice telephony services.

Where there are no objective grounds, legal regulations must never be allowed to distort competition among market actors.

[26] Cf. Peitz and Valletti (Telecommunications Policy 2015).

4.1 Digital platforms as [redacted] for, or complementaries to, conventional telecommunications providers

OTT services that substitute telecommunications services are relevant for telecommunications markets. According to the BEREC classification, OTT-0 services are already subject to sectoral telecommunications regulation today. OTT-1 services in contrast cannot qualify beyond all doubt as electronic communications services under European law, so that it is a matter of controversy whether they fall under sectoral telecommunications regulation. Examples of OTT-0 services are Viber Out and Skype in the pay version, which also enable connections to conventional telecommunications services. Examples of OTT-1 services are WhatsApp messaging or WhatsApp voice that only allow service internal communication. Common to OTT-0 and OTT-1 services is the fact that they could certainly enter into competition with telecommunication services under sectoral regulation, that is, they could at least potentially substitute conventional telecommunications services for their users. A very close examination needs to be made of the form these kinds of substitutive relationships take. Where a digital platform has a horizontal competitive relationship with a conventional telecommunications service, an appraisal must be made of whether they are subject to different regulations and whether this could result in distortions of competition.

Other digital platforms are no substitute for conventional telecommunications services. Although they need telecommunications services to operate, they themselves do not constitute an independent, additional service. Examples of this are video-streaming portals, social networks and job placement platforms. In the BEREC classification, these are so-called OTT-2 services.[27] There are also technical and commercial interdependencies between OTT-2 platforms and telecommunications networks and services, but they stand in a vertical relationship to each other. For users, OTT-2 platforms are therefore no substitute for conventional telecommunications services; they provide a complementary service. Consequently, the question of whether they cause distortions of competition under telecommunications law does not normally arise.

Substitutes

For users/consumers, substitutes are interchangeable goods or services, e.g. Skype instead of telephone, WhatsApp instead of SMS. These new facilities replace (substitute) the ones previously used.

Complementary services

If a consumer makes use of a service in addition to another, these services are called complementaries. They require conventional telecommunications services for data transmission and complement these. Substitutes are the opposite of this.

[27] BEREC, Report on OTT services, BoR (15) 142, p.27 – 5.

4.2 Challenges for a competitively neutral regulatory framework

Different regulatory frameworks for mutually substitutive services constitute a distortion of competition that must be remedied. For digital platforms that can substitute telecommunications services, we need to ascertain where different legal treatment can give rise to relevant distortions of competition. This can be the case, for example, where telecommunications service providers are subject to restrictions that do not apply for digital platforms, in data protection legislation, for example: Telecommunications service providers may only use locational data in keeping with the requirements of Section 98 TKG, whereas digital platform providers are not subject to these restrictions and can use these data for targeted advertising, for instance. Distortions of competition can also arise when telecommunications service providers must meet additional costly obligations that digital platforms need not, in public safety, for example, where authorities are allowed access to communication data.

The precept of a competitively neutral regulatory framework for telecommunications, on the one hand, and OTT digital platforms, on the other, simply sets the goal; it does not specify how to achieve it. A level playing field that ensures fair competition could be achieved either by including OTT platforms in sectoral regulation or revoking such regulation. Laying out a level playing field must begin with the basic question of whether the growing role of digital platforms can allow us to roll back existing sectoral regulation in favour of general competition, consumer protection and data protection regulations. Only if the answer to this question is no, should we consider extending existing specific regulation to include platforms that have not been subject to this so far. This would contribute to curbing regulatory costs and bureaucracy and greater freedom for market actors, and it would promote investments and innovations.

In answer to the question of where existing regulations can be rolled back, a distinction has to be made between market regulation by an agency, on the one hand, and other forms of regulation (i.e. a regulatory framework encompassing consumer protection, data protection, telecommunications

confidentiality, etc.), on the other. Market regulation must take account of the ability of digital platforms to strengthen competition on retail markets, while the foremost concern of sectoral telecommunications regulation is with wholesale markets. The intention of wholesale regulation is, however, also to promote competition on retail markets. To step up competition through OTT platforms, it may therefore be necessary to make an appraisal of the need for regulation on wholesale markets.

For the sectoral regulatory framework, there is a need to assess which specific regulations will also remain necessary in future, in consumer and data protection, for example, and whether these must then also be applied to digital platforms. Each individual regulation needs reappraisal: Every existing obligation must be scrutinised to ascertain whether its rationale and purpose are still valid and whether it should then also be applied to OTT platforms. Only if both questions are answered in the affirmative must the following two options be considered:

1. OTT services can be usefully included under the scope of application of the respective telecommunications regulation by clarifying the term 'telecommunications service' and/or 'electronic communications service'. The advantage of this procedure would be a coherent regulatory framework for telecommunications services and the digital platforms competing with them while retaining distinct regulations for digital substitute OTT platforms, on the one hand, and complementary OTT platforms, on the other.

2. A new, appropriate substantive regulation must be enacted for OTT platforms, under a digital legal code, for instance.[28] This approach would run the risk of rendering the various regulatory regimes for telecommunications services and OTT platforms incoherent, but would be amenable to a streamlined regulatory framework for all digital platforms, on interoperability and data portability, for instance.

A very careful assessment would have to be made of the advantages and drawbacks of the two regulatory approaches.

Interoperability
This means the ability of online platforms, such as social networks or online shops, to exchange and process information on users. There is as yet no uniform regulation on the permissible extent of interoperability among platforms.

[28] BMWi, Digital Strategy 2025, 2016, p.25.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5.
Competition law 4.0

5. Competition law 4.0

The tasks and objectives of general competition law are still equally important for the digital economy as well. To guarantee open markets, innovation, quality and efficiency, and with that, freedom of choice for consumers, efficient competition needs to be safeguarded against restraints. The instruments for the protection of competition are:

- Prohibition of anti-competitive agreements
- Prohibition of abuse of market dominance
- Merger control to prevent market dominance and significant impediments to effective competition

At national level, these are contained in the Act against Restraints of Competition (GWB) and in European competition law for the European Economic Area.[29]

The growing success of some large digital platforms, their access to large amounts of data and changes in value chains have prompted intensive discussion on whether the legal regulatory framework on competition can cope with the challenges of the digital economy. At an early stage, the German Federal Ministry of Economic Affairs and Energy commissioned scientific experts[30] to monitor and assess the ongoing technical discussion to obtain sound information and necessary findings on how internet-based platforms function and operate. This was also conducted in close exchange with antitrust authorities. The research found the following:

- **Digital platforms and their business models differ in specific ways from traditional markets (e.g. free products and services, network effects and trends towards concentration, lock-in effects, big data, rapid technological developments, innovation potential).** These pose quite large challenges for the application of antitrust law, when

Lock-in effect
If switching to another provider or platform is not worthwhile for the customer, this is called the lock-in or tie-in effect. Reasons for reluctance to switch can, for example, be the costs or penalties for early contract termination or losses incurred because other providers offer fewer social contacts or products/services.

[29] Discrimination prohibitions provide special protection against abuse by monopolists on permanently and structurally uncompetitive markets for grid-based energy supply and in the telecommunications sector, as well special regulatory oversight under so-called sectoral competition law or regulatory law. This aims at promoting competition on adjacent markets.
[30] Including proposing the preparation of a special report by the Monopolies Commission on the challenges of digital markets; setting up the expert dialogue on a regulatory framework for the digital economy.

it comes to demarcating the markets concerned and ascertaining market power. This affects abuse control of market-dominant enterprises/platforms, but also merger control.

- **As they stand, certain economic concepts of competition are no longer suitable for the digital economy.** For example, the customary (so-called SSNIP) test to determine possible competing services/products that draws on responses to price increases as a yardstick for substitutability can obviously not be applied when a multi-sided Internet-based platform does not demand monetary payments. Pricing scope need not be a sole measure of market power. This can be based on (exclusive) data access, if barriers to market access arise as a result. Technologically complex and rapidly changing business models and the availability of a broad portfolio of services can make it difficult to qualify behaviour as the obstruction of competitors, exploitation or unjustified unequal treatment.

- **There is, however, no need to alter the essential principles of competition law to be able to respond adequately to possible competition problems in the digital economy, especially in connection with digital platforms.** No expert has called for this so far. Nor has the Intermediaries Working Group of the Bund-Länder Commission on Media Convergence identified any need for any change to competition law.

- **The open criteria for what constitutes an infringement in GWB generally permit the adaptation to, and consideration of, changing factual situations.** This, for example, also allows for ascertaining whether restricting the interoperability of data in the individual case could constitute an abuse of market power. The initiation of proceedings against operators of digital business models by antitrust authorities substantiates the relevance of antitrust law.

- **Competition authorities must be able to intervene swiftly to keep pace with rapid developments on digital markets.**

Multi-sided platforms

A multi-sided business model aims at two or several user groups in one system, (product) providers, buyers/users, but also application providers, for example. The platform operator must meet the needs of all groups. Many successful business models on the Internet are now based on multi-sided platforms.

On 2 February 2016, the Federal Cartel Office brought proceedings against Facebook. There are initial grounds for suspicion that the scope of Facebook's general terms and conditions on the collection and use of user data is intransparent for users and therefore in breach of legal data protection provisions. The Federal Cartel Office will seek to determine whether there is a connection between Facebook's dominant position on the social network market and the application of these terms and conditions, which could constitute an abuse. It has announced its intention to conduct the proceedings in close conferral with the responsible data protection commissioners, consumer protection associations and the EU Commission and competition authorities in other member states.[31] In its special report entitled, Competition Policy: The challenge of digital markets, the Monopolies Commission has also proposed defining the collection of excessive amounts of user data by digital platforms or the restriction of users when limiting such collection as exploitative abuse.[32] Crucial here is not determining an infringement of data protection law. Rather, exploitative abuse lies in the imbalance between a service and the consideration provided in return.

To be able to apply antitrust law more efficiently to digital platforms, we shall amend GWB in only a few – but key – individual points. The **9th amendment of GWB** envisages alterations in four areas:

1. **We shall clarify that a market also exists even where no monetary payment is required for a service**, as is common on many so-called two-sided platform markets. This will make it easier in future to consider the role of the provider on this kind of a market when examining all the markets concerned under antitrust law.

2. **We shall supplement the criteria for assessing the market position of a company** with factors of particular relevance for analysing the business models of digital platforms. These include network effects due especially to the attendant concentration trends, the significance of data, advantages of scale, user behaviour, switching options and innovation potential.

[31] Federal Cartel Office, press release of 2 March 2016-
[32] Monopolies Commission, Special Report No. 68: Competition policy: The challenge of digital markets, 2015, Nos. 326, 329.

3. **In data relevance, we shall facilitate cooperation between competition authorities and data protection commissioners in procedural law.**

4. **We shall close a gap in merger control.** The assessment criteria, so far been premised on a certain sales revenue, will be supplemented subsidiarily with a subsidiary high transaction value (about EUR 350 million). This will in future also allow for an assessment in cases where a high-turnover company takes over another firm that is exempt from oversight due to insufficient sales under current law but where the high purchase price indicates the antitrust relevance of the acquisition (see Facebook/WhatsApp). With this, we wish to send a signal to Brussels. There is also deficient oversight in this respect in the European Merger Regulation.

The 9th GWB amendment will enter into force by the end of 2016. An evaluation of the planned new provisions is scheduled after three years. Consultations will take place on the proposed regulations as part of legislative procedure.

Apart from these amendments, questions remain, also beyond the confines of general competition law, as to whether and what measures are required in other areas, such as consumer or copyright protection. These kinds of measures can have both beneficial and adverse effects on forces of competition in the digital economy and on innovations. These interdependencies need to be taken into account, especially where they affect enterprises regardless of their **market power**.

Market power

The term market power is used when businesses have no, or no significant, market competition or occupy a paramount or superior companies to impose their own interests, also to the detriment of others (buyers, suppliers, competitors) or consumers.

6.

Principle of ‘data sovereignty’ – proposals for enabling digital private autonomy

6. Principle of 'data sovereignty' – proposals for enabling private digital autonomy

As already shown in Chapter 3, the data collected and processed by digital platforms can engender pronounced information asymmetries. To be able to take rational decisions, consumers and businesses must have adequate information at their disposal. This gives rise, on the one hand, to questions about the need for transparency regulations for digital platforms, and about data protection and consumer protection, on the other.

Private autonomy
As embodied in law, private autonomy gives each consumer the right to decide himself on his legal relations, with a company, for example.

A regulatory framework that strengthens private autonomy must accord consumers and enterprises enforceable rights. These rights must be asserted primarily by rights holders themselves, in extrajudicial proceedings to settle disputes or in ordinary courts of law. Class action litigation can also be an effective way of enforcement.

6.1 Transparency and information obligations

6.1.1 Scope and analysis of current legal framework

The prime regulatory instrument for protecting competitors and consumers against misleading information or its non-disclosure for unfair advantage in the course of business transactions is the Act against Unfair Competition (UWG). Its explicit purpose is to protect competitors, consumers and other market participants from unfair commercial practices. It also safeguards public interest in undistorted competition. In addition to UWG, there are the provisions of the Price Indication Regulation[33] that are aimed at ensuring that prices accurately reflect costs for the benefit of consumers and enable them to compare prices. Also important for Internet services are the rules set out in the Federal Telemedia Act (TMG) that transposes the provisions of the Electronic Commerce Directive.[34]

[33] It primarily implements the provisions of the directive on consumer protection in the indication of the prices of products offered to consumers 98/6, OJ 1998 No. L 80/27, but also provisions from other EU directives, such as Article 5(2) of the E-Commerce Directive 2000/31/EC of 8 June 2000, OJ 2000 No. L 178/1.
[34] Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, OJ 2000 No. L 178/1.

Many major obligations to disclose information to consumers ensue from these provisions. A commission-based insurance portal, for example, must disclose that it provides no information on direct insurers. A portal that offers product suppliers a top ranking against payment must indicate this as advertising. The prohibition of misleading statements in UWG also requires the disclosure of the criteria for a comparison or ranking.

Irrespective of their multi-sided business models, information portals that finance themselves through advertising are not regularly subject to the information disclosure obligations under TMG in their informational operations. The obligation to disclose commercial information under Section 6 TMG bears on 'commercial communication' and hence 'commercial practices'. The prime consideration in an objective assessment of a commercial practice is whether it aims at influencing the business decisions of consumers for the purpose of sales promotion. This is not the case where a statement serves primarily to inform the consumer or the public.

6.1.2 Need for action? – Challenges of digital platforms

In two-sided or multi-sided platforms, it is hardly possible in practice to determine with any precision whether the prime intention is to provide information or promote sales. They are interlinked. When stipulating legal obligations for information intermediaries, however, account must be taken of the protection of freedom of opinion and information.

Certain obligations to specifically ensure the reliable provision of information should also apply for comparison platforms to guarantee approximate information symmetry. In platforms that purport to make impartial comparisons and are not affiliated with individual suppliers, the basic right of freedom of opinion must be accounted for in the selection and weighting of comparison and review criteria and the specific methods applied. Unlike conventional editorial articles, the rating criteria based on the algorithm used in comparison and review portals can be regularly specified without undue effort and disclosed, at least in a general way. The algorithm itself enjoys special protection as a trade secret.

Where platforms set personalised prices, this practice and the pricing criteria must be disclosed. Thanks to data on users and their surfing or search behaviour, providers can set individual prices. Buyers or recipients therefore pay different prices for the same product or service as they supply indicators for their willingness to pay in their search behaviour. This price discrimination can produce efficient market results, but a pricing mechanism of this kind can also work to the sole disadvantage of users. To ensure approximate information symmetry, the personalised pricing itself and the related criteria must be transparent.

6.2 User control over personally identifiable information: individual data sovereignty

6.2.1 Current legal framework

Purpose limitation principle
The regulation in the Federal Data Protection Act and the General Data Protection Regulation stipulates that personally identifiable data may only be collected for prespecified, clearly defined and legitimate purposes. Data processing for a different purpose than that originally intended for collection is possible in certain cases, for example, contractual data can also be used under certain conditions for advertising purposes.

Data minimisation
The principle of data minimisation or avoidance has been embodied in the Federal Data Protection Act and the General Data Protection Regulation and applies for authorities and enterprises. As demanded by data protectionists, data minimisation also denotes restraint on the part of consumers to disclose personal data beyond necessary information, on the Internet or in lotteries, for example.

Data protection law pertains solely to personally identifiable data, that is, to 'any information concerning an identified or identifiable person.'[35] It is currently codified in the Federal Data Protection Act (BDSG). Non-personally identifiable data are not covered in German or European data protection law. BDSG implements the European Data Protection Directive 95/46/EC.[36] The sectoral rules are laid down in TKG and TMG. The normative foundation for data protection legislation is set out at European level in Articles 7 and 8 of the Charter of Fundamental Rights and in Article 16 TFEU. As understood in Germany, data protection legislation is an expression of the right to informational self-determination.

Without authorisation, the collection and processing of personally identifiable data is prohibited. Data processing without explicit consent is only permitted by legal provision, in the performance of a contract, for example. Consent must pertain to a specific, expressly designated and legitimate intended purpose[37] and given explicitly[38] and freely by the informed subject. Data may only be processed for the purpose for which they are collected or in a manner compatible with such purpose (purpose limitation principle).[40] In keeping with the principle of data minimisation,[41] data collection and processing must also be confined to the extent necessary for the purpose. Consent can be revoked at any time with future effect. The data must then always be deleted.

[35] Article 2(a) of Directive 95/46/EC; Article 4(1) of the General Data Protection Regulation. See also Article 29 Data Protection Working Party, Opinion No. 4/2007 on the concept of personal data, WP 136, 20 June 2007, pp.18–21.
[36] Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, OJ 1995 No. L 281/31.
[37] See Article 6(1b) of the Data Protection Directive. For German law, see Section 4(a) BDSG.
[38] Consent due to a setting in a digital service does not therefore suffice.
[39] Article 2(h) of the Data Protection Directive.
[40] In this connection, see European Data Protection Supervisor, "The interplay between data protection, competition law and consumer protection in the Digital Economy", p.14 No. 23, p.14: Under certain circumstances, the compatibility requirement could be construed in light of the interchangeability criterion under competition law.
[41] Section 3(a) BDSG.

These principles are also at the heart of the EU General Data Protection Regulation,[42] which entered into force on 25 May 2016 and is scheduled to apply as of mid-2018. It will strengthen the rights of consumers in the use of their data.

In future, the so-called marketplace principle will apply. The General Data Protection Regulation will therefore not only apply when a company collects or makes use of data inside the EU, but also when it processes data for 'offering goods or services [...] to data subjects in the Union' (Article 3(2a) of the General Data Protection Regulation). This will largely eliminate the present scope for exploiting differences in data protection standards among member states or for completely evading the jurisdiction of European data protection law for certain segments of data-processing operations.

[42] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) OJ 2016 No. L 119/1.

6.2.2 Challenges of operationalising a regulatory framework for data collection and processing by digital platforms

To create a more level playing field under the General Data Protection Regulation, some questions still need settling in the national and European context. As with current law, the General Data Protection Regulation also contains many terms and requirements for balancing interests that need closer definition. This holds, among other things, for the application of the purpose limitation principle in data processing and data minimisation in the digital environment of big-data applications, where data avoidance would appear not to be up-to-date as an objective anymore. Instead, data protection must be directed more towards effective individual data sovereignty and protection against tangible risks of abuse.

6.2.2.1 Scope and limits of big data under the General Data Protection Regulation

In their intent, the established principles of data protection law run counter to the new methods and possibilities of data analytics, whose benefit and significance increase with the size of data sets. The scale of the personally identifiable data collected in digital platforms can come into conflict with the purpose limitation (Article 5(1b) of the General Data Protection Regulation) and data minimisation principles (Article 5(1c) of the General Data Protection Regulation). Personally identifiable data may only be collected for a clearly specified purpose and only processed in a compatible way. The amount of processed data must be confined to what is necessary for the purpose.

Avoiding data collection and acquisition can no longer serve as a guideline in the context of the digital economy.[43] Big data and the purpose limitation principle are compatible in as much as the yardstick for the permissibility of data processing is always the purpose communicated by the company to which the user gives his consent. The acquisition of data for advertising purposes will therefore also justify the application of data analytics methods.

Article 22 of the General Data Protection Regulation defines how far profiling[44] is permissible. In addition to the consent of the data subject, the data controller must take suitable measures 'to safeguard the data subject's rights and freedoms and legitimate interests'. Under certain circumstances, he can expect a pseudonymisation[45] or anonymisation of the data, if this is possible at reasonable cost and without detriment to the business purpose.

We must aim for a rapid and adequately differentiated clarification of the open legal questions, taking account of the various legitimate commercial interests of businesses, the innovation potential afforded by data processing and the need to protect the interests of users. Another consideration is that in case of doubt the existing market power of high-volume digital platforms can only be contested on the basis of smaller competitors with their own relatively extensive data processing practices.[46]

6.2.2.2 Data 'commercialisation'

The permissibility of data 'commercialisation' is a controversial issue. Operators of digital platforms often see processing of personal data as a consideration by the users in return for their provision of services. The European Commission's proposal of 9 December 2015 for a directive on certain aspects concerning contracts for the supply of digital content[47] is a step towards the legal recognition of this kind of contractual exchange relationship.

Data commercialisation
This means the evaluation and commercial use by businesses of their users' data to be able to offer them customised advertising or products. Data acquire value like a currency.

[43] BMWi, Digital Strategy 2025.
[44] 'Profiling' is defined in Article 4(3aa) of the General Data Protection Regulation as 'any form of automated processing of personal data evaluating the personal aspects relating to a natural person, in particular to analyse or predict aspects concerning the data subject's performance at work, economic situation, health, personal preferences or interests, reliability or behaviour, location or movements'.
[45] For a definition, see Article 4(5) of the General Data Protection Regulation: pseudonymised information is personally identifiable data that are processed 'in such a manner that the personal data can no longer be attributed to a specific data subject without the use of additional information, provided that such additional information is kept separately and is subject to technical and organisational measures to ensure that the personal data are not attributed to an identified or identifiable natural person'.
[46] On this, see also: Kai von Lewinski, Die Matrix des Datenschutzes, 2014, p.58.
[47] COM (2015) 634 final. The proposal was submitted by the European Commission as part of its Digital Single Market Strategy and is currently under deliberation by the member states in the Council.

As envisaged by the draft directive, a contractual relationship can also be concluded where a consumer actively provides personal or other data in return for a service (Article 3(1) of the draft) instead of making a monetary payment. **It still needs to be clarified whether the active provision of data by the consumer is a viable defining criterion for the conclusion of a contract.** As an example of delimitation, the draft directive cites in Recital 14 the individual registration by the consumer, where he actively supplies data such as name, email address or photos. It does not deem a contract to have been concluded when providers automatically collect personally identifiable data such as IP addresses or have these collected in the background using cookies. The acceptance of cookies by the consumer shall not in turn be construed as the active provision of information. Not included in the draft directive are also cases where the supplier requests the consumer to provide personal data 'the processing of which is strictly necessary for the performance of the contract or for meeting legal requirements and the supplier does not further process them in a way incompatible with this purpose' (Article 3(4) of the draft directive). In this case, there is no need for consent to data processing (Article 6(1a) of the General Data Protection Regulation), so that there is also no active provision of data that could be considered as counter-performance. If a contract falls in the scope of the draft directive, the draft also sets up rules on the termination of a contract and its reversal as well as the liability of the supplier. **This also means that under the law of obligations the user cannot prevent the collection and processing of his personal data as provided in the contract as long as the contract has not been terminated.**

The relationship between the European Commission's proposal for a directive and certain aspects concerning contracts for the supply of digital content to the General Data Protection Regulation still needs further discussion. In Article 3(8), the draft directive makes the general stipulation that it is without prejudice to the protection of individuals in the processing of personally identifiable data. The General Data Protection Regulation provides for the withdrawal of consent to data processing at any time (Article 7(3)). Consent is also only effective if it is 'freely given'. When assessing whether this is the case, under Article 7(4) of the General Data Protection Regulation 'utmost account shall be taken of whether, inter alia, the performance of a contract, including the provision of a service, is conditional on consent to the processing of personal data that is not necessary for the performance of that contract'. According to Recital 42: 'Consent should not be regarded as freely given if the data subject has no genuine or

free choice or is unable to refuse or withdraw consent without detriment'. On first impression, this wording indicates a much stricter interpretation of the present prohibition of coupling under Section 28(3) BDSG. However, the need for data processing is just one of several possible justifications for meeting the requirements of a contract. Another is the consent to data processing for a specifically defined purpose (Article 6(1a) of the General Data Protection Regulation). The proposed directive on digital contents also addresses, in particular, cases where data is provided that are in any case not 'strictly necessary' for the performance of the contract. In addition, the 'soft' wording of Article 7(4) of the General Data Protection Regulation indicates that **the necessity of data is only one of several material aspects for the performance of a contract. Also relevant, for example, could be the ability of users to choose between a service/product that is free of charge but may entail extensive data collection and one that is against payment but 'data-free'. There are calls for imposing a legal obligation on companies to give consumers this kind of right to choose.** This raises a number of subsequent issues, in price regulation, for example. It is questionable whether and to what extent Article 7(4) provides for an assessment of the adequacy of an exchange relationship.

6.2.2.3 Strengthening consumers' control over their data – challenges for 'individual data sovereignty'

Initiatives towards data commercialisation should also seek to strengthen consumers' control over their data. In the digital world, there is a discrepancy between data protection rights and the realistic scope of action available to users. This is due partly to the high transaction costs for users if they wish to inform themselves about the practice of data collection and processing. Another reason is their lack of practical interest, which frequently stands in contrast to the abstract data protection preferences voiced (so-called privacy paradox). Giving users more practicable control over their own data could enhance the effectiveness of individual rights protection and competition, if they were to make more conscious decisions on corporate privacy policies in future.

We must therefore devise new forms of consent that impress on users the sensitivity of requested data and the tangible risks entailed. To strengthen individual control over personally identifiable data it is not enough to assess the requirements for transparency, comprehensibility, rationality and clarity in the pre-formulated declaration of consent. Users have to bear high transaction costs not only due to intransparency, but above all to the frequency of requests for consent, without being able to discern the degree of the risk of abuse. Standardised statements of consent for certain business models, traffic-light systems or privately organised certifications could be useful under certain circumstances.

Privacy by design/default

Through technical means (by design) and basic privacy-enhancing settings (by default), Internet platforms can be organised to standardise the best possible protection of their users' personalised data. Any disclosure beyond this then requires explicit consent.

Companies should make greater use of privacy by design or default. Privacy by design approaches aim to secure data protection standards by technical means (see the related obligations in Article 25 of the General Data Protection Regulation). Privacy by default is based on privacy-enhancing settings (see also Article 25(2) of the General Data Protection Regulation).

Another way is by means of differentiated identity management. While most people make clear distinctions among different spheres when disclosing information offline (e.g. intimate sphere, family and friends, extended social life, public domain), all the information about a person regularly converges on the Internet and can afford broad insights into his personality, which would not be acceptable offline. One way of strengthening data protection is enabling Internet users to employ different identities with different data-protection settings to technically rule out the amalgamation of separately generated data traces, so that demarcations can be drawn among different social spheres online as well. Whereas data protection law only distinguishes initially between personalised and non-personalised data, users could then technically differentiate their protection by social sphere. Users could decide themselves both on the specific subdivision of spheres and the assignment of personalised information to the various ones. Users would be in a position to completely rule out any consent to processing data they consider to be particularly sensitive.

Self-regulation or co-regulation approaches are preferable in the transition phase. Further discussion is needed on which instruments can protect and guarantee 'individual data sovereignty', so that consumers can benefit from the data economy. Where the effective, individual exercise of the right to informational self-determination is unrealistic, consideration must be given to the fiduciary exercise of 'data rights' by trusted third parties that can specify the preferences set by the individual in more detail.

Access by third parties to personally identifiable data should be ruled out completely in certain circumstances. For example, the constitutionally guaranteed privacy of correspondence and telecommunications (Article 10 of the Basic Law) must apply for all private forms of interpersonal electronic communications (especially email, VoIP, short messaging, etc.).

Facilitating data portability: Platform switching promotes competition. In a 'datafied economy', the shape that individual data sovereignty takes will also have an influence on competition. This holds, in particular, for the question of whether the users can take data they have generated on one platform with them to another or make them available to an external provider of additional services. This kind of 'data portability right' is specified in general terms in Article 20 of the General Data Protection Regulation. It goes well beyond the current right to information under data protection law and will countervail the data-induced lock-in effect. Facilitating platform switching will promote both innovation and price and conditions competition: In future, users will be able to respond more easily to a subsequent deterioration in corporate 'data policy' by switching.

Data portability

To be able to make practical and full use of some platforms, such as social networks, clients must enter or generate a multitude of data. Easy portability of this data to other providers promotes competition and freedom of choice.

6.3 Special regulatory needs for search engines?

Search engines are among the major information intermediaries on the Internet. Without their use, it would be practically impossible to benefit from the immense amount of information on the web. They are often where users start on the Internet. Conversely, new and less well-known Internet providers can only be found with the help of search services. Search engines therefore play a major role for competition on the Internet.

Ninety per cent of general search requests in Germany go through one provider: Google. It retains many of its users. The parallel use of various search engines (so-called multi-homing) is generally easy for users, but network effects can nevertheless erect substantial market access barriers. Google's data pool on the search behaviour of users affords it considerable advantages of scale for improving search results thanks to the learning curve. The special importance of search engines and the pronounced concentration of search requests on Google have given grounds to take a closer look at its market position and behaviour.

Competition law can provide basic answers to the questions raised, because powerful market players are subject to special oversight that also takes account of network effects (on this, see Chapter 5).

Multi-homing

Before making larger purchases, many Internet users inform themselves on several competing comparison portals, and when planning their holidays they visit various booking portals to find a cheap flight or hotel. This 'multi-homing' is not always so simple, however: Some portals require an extensive registration procedure and search engines deliver better results the more often they are used thanks to learning effects.

Network effects

The essential function of Internet platforms is to connect people. As a rule, the more participants they have the more popular and successful they are. The more suppliers and prospective buyers an online auctioneer can reach, for example, the better the chances are for the users of finding something suitable or attracting prospective buyers for their own articles.

6.4 Legal system 4.0

The best of rules are no use if they cannot be enforced. Simple, rapid procedures are of major importance. Fair trade, consumer and data protection law are key pillars for private autonomy in both the analogue and digital world. Competition is no more a natural state in the digital economy than in any other; it is based on the 'visible hand of the law'. The structure of private and public enforcement, which currently takes very different forms from one branch of law to another, requires careful evaluation.

The regime for enforcing consumer and fair trade law presently relies primarily on private instruments. Occasional doubts have been voiced about the effectiveness of private enforcement in this area.[48]

Effective enforcement is based on precise market knowledge. On the initiative of consumer advice centres and sponsored by the Federal Ministry of Justice and Consumer Protection, a 'Digital Market Watchdog' is currently being set up in addition to a financial market supervisory authority. The aim is to have more systematic market surveillance based on consumer complaints and empirical studies and establish an early warning system.

If systemic deficits in law enforcement are identified, possible reform options must be considered. Possibilities include the increased application of self-regulatory (e.g. codes of conduct) or co-regulatory instruments, strengthening private or collective instruments of enforcement[49] or public enforcement.

Suitable rules and robust institutions for public enforcement are in place under competition law. A prime concern here will be to invest in building a high level of expertise in digital developments, while merging economic, technical and legal competencies and paying due attention to the interconnections among fair trade, consumer, data protection and competition law (see also Chapter 7).

[48] Scherer/Feiler/Heinickel/Lutz, Digitaler Kodex, 22.4.2015, p.53 especially with a view to the wording of Section 10 UWG, which specifies that profits recovered by associations and chambers must always be remitted to the federal budget, while the plaintiff associations or chambers must bear the costs of litigation.

[49] For an argument in favour of this, see the Advisory Council for Consumer Affairs, Verbraucher in der Digitalen Welt, Verbraucherpolitische Empfehlungen, 2016, par. 4.

7.

Proposals for an institutional framework

7. Proposals for an institutional framework

To also set up the necessary institutional capacities for coping with the rapid development and broad impacts of digitalisation, we need modern strategies for policymaking and policy implementation. Specific competition, market, consumer, data economy and security issues must be dealt with by competent public institutions with the requisite resources.

As a highly capable and internationally networked federal centre of competence, a digital agency could perform these tasks. It could provide support to other specialist authorities (such as the Federal Cartel Office or consumer protection agencies) in the digitalisation process and also identify and reduce impediments to implementing policy strategies. Similar to the Federal Environment Agency or the Federal Office for Migration and Refugees, a new digital agency could help master one of the central challenges facing our society.

The digital agency is also about building up a sustainable pool of economic, legal and technical competencies in digitalisation. It could conduct scientific studies and ongoing monitoring (technology impact assessment) to keep pace with the rapid developments in the partly evolutionary, partly revolutionary impacts of digitalisation and networking. Being able to draw on this knowledge and empirical findings for the transition to a digital economy, the agency would be ideally suited to provide policy advice to the Federal Government on digitalisation as an economically impartial think tank.

8.
Outlook

8. Outlook

With the publication of the Green Paper on 30 May 2016, the German Federal Ministry of Economic Affairs and Energy opened a public consultation procedure. Interested parties and experts from business and industry, the scientific community, society and politics can submit their comments by 30 September 2016 on our homepage http://de.digital/gruenbuch or send them to the following email address: **gruenbuch-digitale-plattformen@bmwi.bund.de.** For easier publication, comments should be submitted as a PDF file. With the permission of the sender, comments be published on the website of the German Federal Ministry of Economic Affairs and Energy.

The German Federal Ministry of Economic Affairs and Energy will discuss the Green Paper and the outcomes of the consultation procedure in parliamentary debate and with the European Commission.

Taking account of the consultation contributions and further discussion on the Green Paper, the above-mentioned deliberations and the outcomes of its expert dialogue on a regulatory framework for the digital economy, the German Federal Ministry of Economic Affairs and Energy will submit a White Paper with specific regulatory proposals at the beginning of 2017.

Expert dialogue on a regulatory framework

In response to rapid developments, digitalisation is in need of a clear regulatory framework to help guide business and industry on innovation, investment and competition issues. A meta study commissioned by the to analyse the current status of the digitalisation debate formed the basis for the launch meeting in February 2016.

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