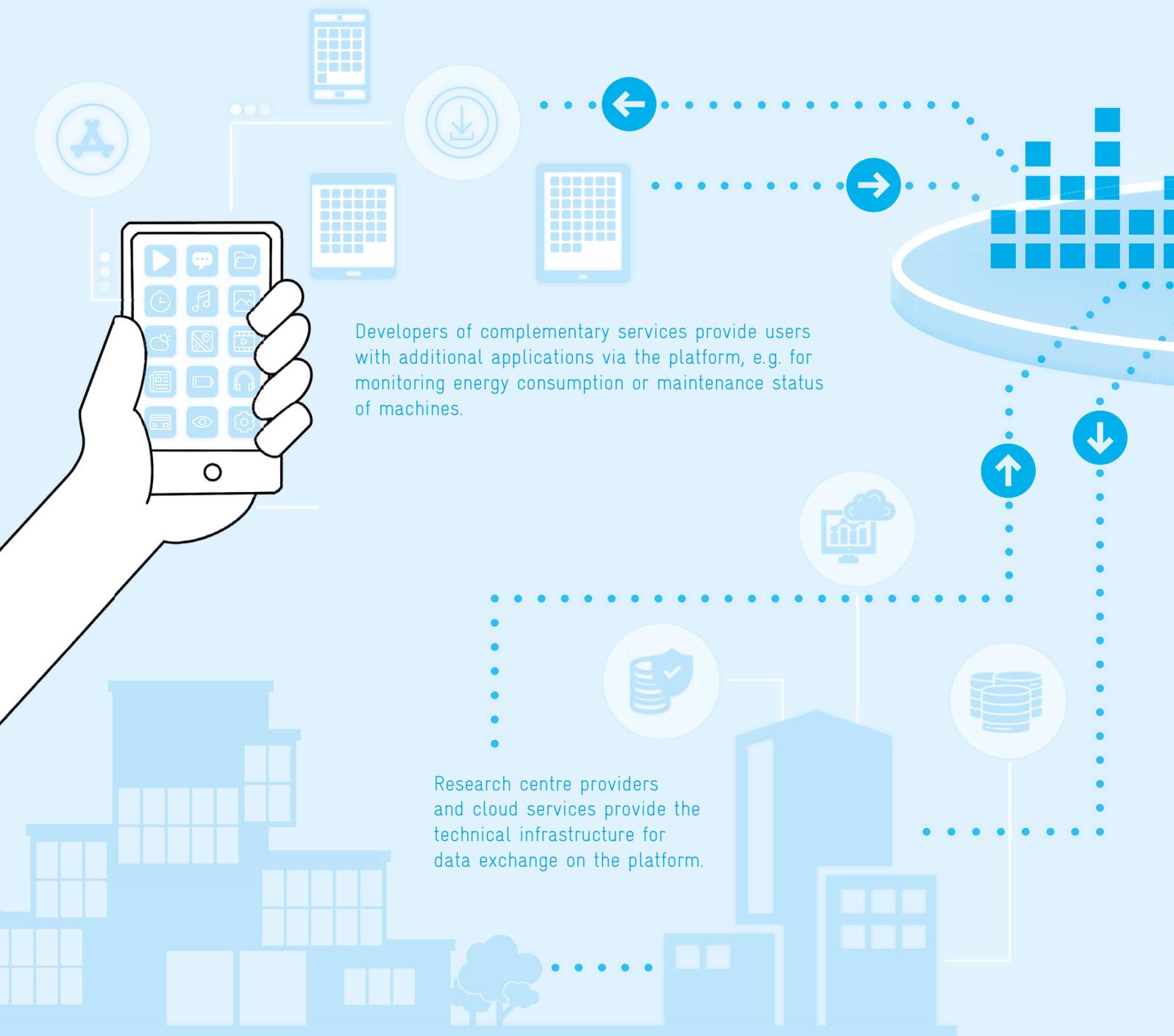
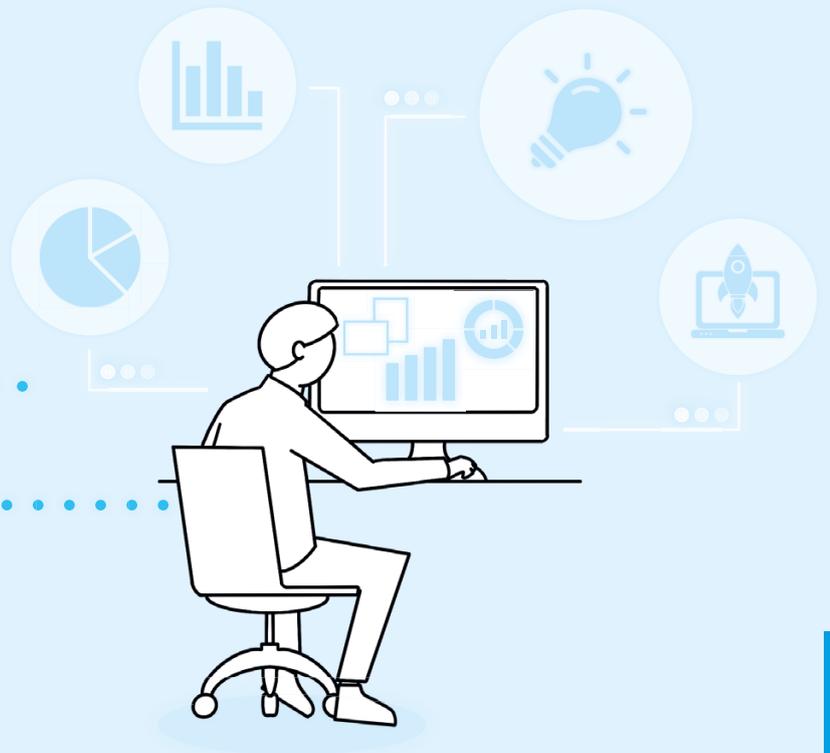


B3 Innovations in the Platform Economy

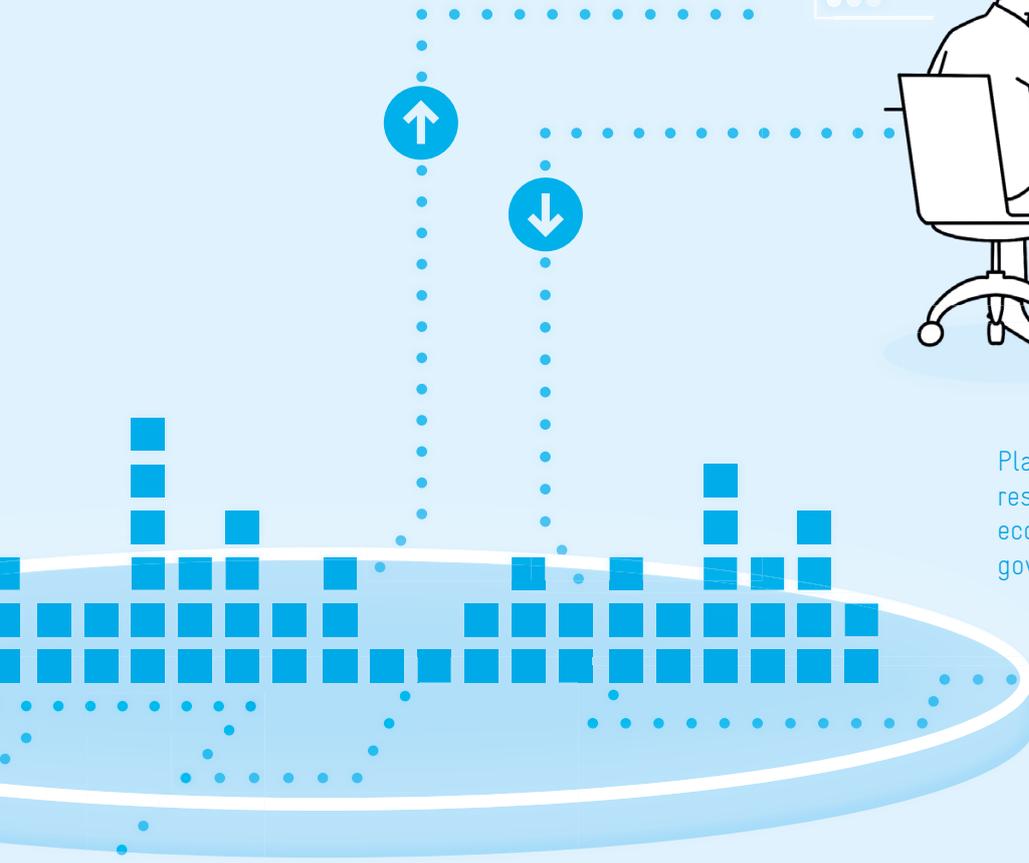
Digital platforms orchestrate the interaction of different stakeholder groups and enable the development of innovative business models as well as new products and services. Data are a key value-creation factor in this context. B2B platforms in particular open up great potential, through the use of which efficiency gains in production can be realized and innovation and value creation processes can be redesigned and further developed.



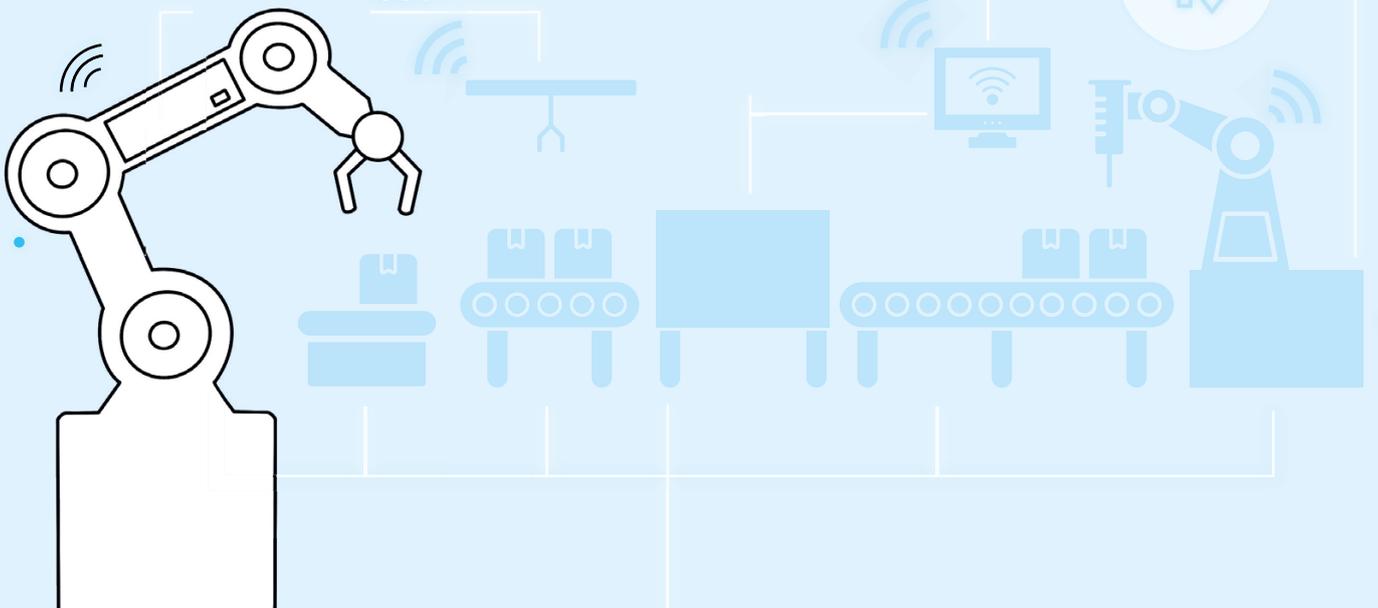
Start-ups and young companies can use the data shared via the platform to train new algorithms or develop new business models.



Platform operators are primarily responsible for orchestrating the platform ecosystem in terms of establishing governance structures.



Machine and plant data such as error codes and temperature are recorded by sensors in machines and plants and shared with other companies via the platform. This is used, for example, to monitor status and predict necessary maintenance work.



B3 Innovations in the Platform Economy

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The major US platform companies Alphabet (Google), Amazon, Apple, Meta (Facebook) and Microsoft are among the most profitable companies in the world in terms of stock market value. They orchestrate the digital interaction of different groups of stakeholders and, largely based on the data generated on their platforms, develop innovative products, services and business models, change value chains, and achieve dominant market positions.

In contrast to these large platform companies, which are particularly active in the business-to-consumer (B2C) sector, pure business-to-business (B2B) platforms are usually focused on specific industries or applications. But they too are changing value chains, creating new business models and generating new products and services. Companies that use digital B2B platforms see many advantages for their own innovation activities, for example, through simplified access to data and the integration of external partners in the innovation process.

However, B2B platform use by businesses faces several barriers. In particular, companies have concerns about data protection and IT security when using B2B platforms and fear the outflow of knowledge relevant to innovation and competition. In addition, in the B2B context there is a lack of mutual trust between the companies networking through the platform as well as the fear of one-sided dependencies. Further obstacles are the lack of standards and interoperability between platforms.

The potential for value creation by means of B2B platforms and especially using data-based platforms in the industrial sector is estimated to be high for the German economy. It is based on the high level of industry-specific knowledge and innovation poten-

tial that results from access to extensive production and machine data of German companies. According to estimates, the contribution of digital B2B platforms to gross value added in manufacturing amounted to 1.5 percent in 2018. If the diffusion of these B2B platforms continues at the expected rate, this contribution could be expected to double to up to 3 percent in 2024.²⁷⁶

The potential associated with B2B platforms must be leveraged and a drain of value creation by German companies to the established B2C platforms from the USA and China, which are increasingly penetrating the B2B sector, must be avoided. In order for the German economy to better leverage innovation and value creation potential in the B2B platform economy, the regulatory framework needs to be adapted and targeted stimuli from the public sector need to be provided.

B3-1 Characteristics, Classification and Distribution of Digital Platforms

A platform²⁷⁷ brings actors together and actively manages the interaction between them.²⁷⁸ The term platform is often used synonymously with the term multi-sided market, where different groups of actors meet. Platforms are characterized by so-called network effects, i.e. the benefit of platform actors depends on the number of actors on the platform.²⁷⁹ With digital platforms, the interaction between actors takes place on an internet and data basis.²⁸⁰ This makes it easier to find suitable interaction partners. In addition, the coordination effort between the individual actors is reduced by standards set by the platform for communication, data exchange and contract execution. The platform economy encom-

passes the totality of all activities and stakeholders around platforms, including all economic processes.

From Digital Platform to Platform Ecosystem

The particular added value of digital platforms is based on network effects, economies of scale and economies of scope. Positive direct network effects arise when the benefit of platform actors increases with the number of actors in the same group of actors.²⁸¹ If the benefit of a group of actors increases due to the increasing number of actors in another group of actors, these are positive indirect network effects. Amazon, for example, is all the more attractive for sellers the more potential buyers use this platform, as this leads to expectations of higher sales. At the same time, the more sellers offer their products or services there and contribute to a greater variety of offers, the more attractive Amazon is for buyers. Economies of scale arise because the development of digital products is associated with high fixed costs but low reproduction costs.²⁸² For example, the development of a search engine is very costly, but a single additional search query can be served at negligible cost. Economies of scope occur when a platform company operating in one market can, for example, also offer new products and services in another market with the help of the data collected there.²⁸³

The interplay of these characteristics leads to the emergence of platform ecosystems. These are composed of the platform as the technical infrastructure (e.g. Android as a software platform), the platform operator (e.g. Alphabet), the various providers (e.g. mobile phone manufacturers), the developers of complementary services (e.g. app developers) and the customers (e.g. app users).²⁸⁴ The platform operators are primarily responsible for orchestrating the platform ecosystem in the sense of establishing governance structures.²⁸⁵ Platform ecosystems are characterized by a modular structure. New providers and developers can expand the ecosystem with new products and services. This leads to an opening up and further development of the innovation and value creation processes.²⁸⁶ An important goal of governance is to ensure the quality of complementary offerings, to regulate who has access to a platform, how providers can present their offerings, and which data and application programming interfaces (API) may be accessed.

Data are an essential resource in the platform ecosystem and for platform-based business models. They are non-rivalrous in their usage, i.e. several actors can use the same data without using it up.²⁸⁷ At the same time, actors can be excluded from data usage, for example, through technical restrictions. Due to these two characteristics, non-rivalry in usage and excludability from usage, data represent a so-called club good. Data can help companies develop new products and services, improve existing products and services, make processes more efficient and make better decisions or predictions.²⁸⁸

B2B platforms cannot always be clearly distinguished from the larger B2C platforms such as Amazon and Alibaba, as B2B platforms sometimes also offer B2C solutions or vice versa. Some structural differences between B2B platforms, especially in the industrial sector, and typical B2C platforms can nevertheless be identified.²⁸⁹ First of all, the importance of a single user in the B2B sector is significantly higher for the platform's revenue and profit. Therefore, B2B platforms often develop individualized offers and contracts for their users. The scaling advantages are therefore comparatively small.²⁹⁰ Due to the transfer and use of sensitive, often competition-relevant corporate data, the requirements for data security are particularly high, which is why trust is even more important when using B2B platforms. Consequently, a large proportion of industry platform users rely on company-owned, closed platforms.²⁹¹ Platforms in the industrial sector in particular often focus on specific fields of application and industries.

B2B Platforms with Diverse Usage Potentials

Platforms can be classified in different ways. In addition to the target group addressed by a platform and the function fulfilled by the platform, the degree of openness of a platform is a possible distinguishing feature.²⁹² If access to a platform is open to all actors without conditions, it is an open platform. For security, data protection or quality reasons, it may make sense for platform operators to grant access to the platform only to certain users. This is called a closed or semi-open platform.

The platforms described below are explicitly aimed at corporate customers (B2B platforms) and can be differentiated according to three main types: transaction platforms, data-based platforms, and innovation platforms. Although all three platform

Box B 3-1 Examples of B2B Platforms

XOM Materials as a Transaction Platform

XOM Materials is an open and industry-specific B2B transaction platform founded by steel trader Klöckner & Co SE, where transactions involving steel and metal products can be initiated and processed.²⁹³ The platform went online in Europe in 2018 and is used for trading between large steel producers, traders, and processors. XOM Materials operates independently of Klöckner to ensure that Klöckner does not have access to sensitive data from competitors. From a customer perspective, the platform offers a comprehensive range of products provided by numerous suppliers. In addition, there is the possibility of concluding customer-specific contractual agreements. This facilitates and optimizes procurement processes. Sellers benefit from a high international reach as well as more efficient sales processes, for example through bundled order management.

Data Intelligence Hub as a Data Marketplace

In 2018, Deutsche Telekom AG launched its B2B platform Data Intelligence Hub (DIH).²⁹⁴ On a secure data infrastructure, non-personal data can be exchanged between different groups of actors across industries. In addition to Deutsche Telekom as the platform operator, the platform ecosystem includes providers of data sets from various sectors such as healthcare, manufacturing,

logistics and tourism. In addition to the datasets made available by the providers, the consumers also use the data workspaces and data analysis services provided in the DIH (e.g. Azure Data-bricks). The DIH is an open B2B platform, as anyone can register and no restrictions are imposed by the platform operator. Due to its open structure, the DIH enables cross-sectoral data exchange, which facilitates innovation and value creation potentials.

MindSphere as an IoT Platform

The B2B platform MindSphere has been maintained by Siemens AG since 2015 as a cross-industry and open platform.²⁹⁵ MindSphere allows IoT data from different machines, plants and systems in a company to be collected and connected with each other.²⁹⁶ The data can then be analyzed with applications offered on the platform to optimize processes and increase efficiency, for example.

The user group in the platform ecosystem consists primarily of manufacturing companies and development service providers that use MindSphere to expand their digital product offering and improve their technical infrastructure.²⁹⁷ Both Siemens AG and various partner companies and developers of complementary services provide users with additional applications, e.g. for monitoring energy consumption and maintenance status.

types enable innovation activities with the aim of developing new products, services and processes, innovation platforms explicitly focus on the joint development of innovations and the improvement of innovation processes.

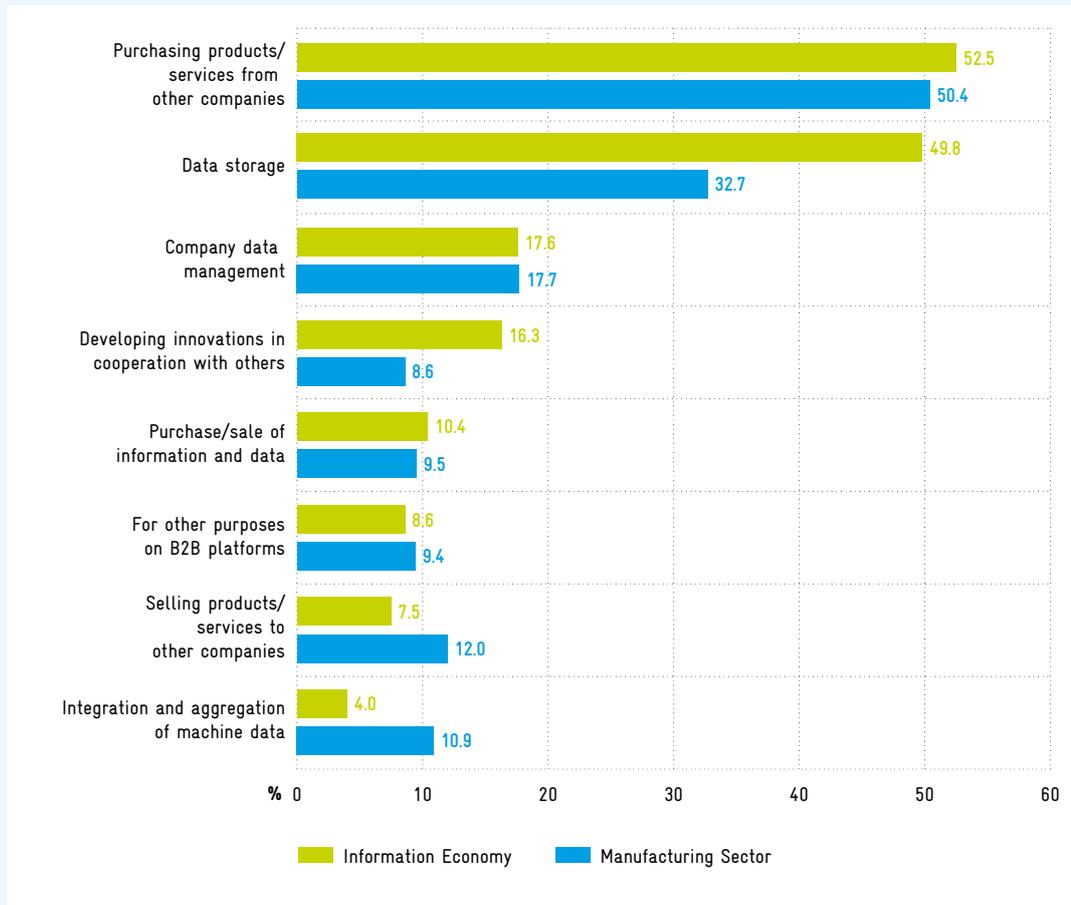
Transaction platforms are digital marketplaces where goods and services are traded. For buyers, transaction platforms offer the opportunity to simplify and standardize purchasing processes and thus reduce their transaction costs. Sellers benefit in particular from tapping into new customer groups active on the platform and thereby increasing their reach (for an example see box B 3-1).²⁹⁸ A representative survey²⁹⁹ conducted on behalf of the Commission of Experts shows that companies in the German economy currently use transaction platforms most frequently for B2B interactions

(see figure B 3-2). 53 percent of companies in the information economy and 50 percent of companies in the manufacturing sector use transaction platforms to purchase products or services. For the sale of products or services, just under 8 percent of companies in the information economy and 12 percent of companies in the manufacturing sector use such platforms.

Several types of data-based platforms can be distinguished. The most important are platforms for cloud services, data marketplaces and platforms in the industrial Internet of Things (IoT), so-called IoT platforms.

Cloud service platforms enable the protected storage of data, which allows both exclusive storage without data access for third parties and the

Fig. B3-2 Purpose of using digital platforms in the B2B sector



Sector-specific extrapolation of the results to the question: 'Does your company use digital 'business-to-business' (B2B) platforms for one or more of the following purposes?' Multiple answers possible. Legend: 50.4 percent of manufacturing companies use digital platforms in the B2B sector to purchase products/services from other companies. Source: ZEW Business Survey in the Information Economy (ZEW Konjunkturumfrage), 3rd quarter 2021. © EFI – Commission of Experts for Research and Innovation 2022.

selective sharing of data. Here, data are stored on external servers meaning that the technical possibilities do not depend on internal equipment and access is usually possible regardless of location. In the above-mentioned survey, 50 percent of companies in the information economy and 33 percent of companies in the manufacturing sector stated that they use B2B platforms to store data. For the data management of their own company, 18 percent of companies in the information economy and in the manufacturing sector each use B2B platforms.

Data marketplaces are used to trade, exchange and share information and data, on the basis of which companies can innovate and generate additional value.³⁰⁰ Data marketplaces are currently still in a very early phase of development. One of the first examples is Deutsche Telekom's cross-sector Data In-

telligence Hub (DIH), which has been on the market since 2018 (see box B 3-1). In the German economy, data marketplaces have so far been used less frequently than platforms for transaction processing or data storage. According to the above-mentioned survey, around one in ten companies in the information economy and manufacturing sector is active on data marketplaces.

Due to the high value-added contribution of the manufacturing sector, great importance is attached to industrial IoT platforms in Germany and Western Europe. For example, IoT platforms enable companies in the machinery and plant engineering and manufacturing industries to share machine and plant data across industries for status monitoring and predicting necessary maintenance and to analyze it using AI-powered algorithms.³⁰¹ Data such

as error codes, movements and temperature are collected by sensors in machines and equipment. Based on the comparison with reference values, the condition of a plant can be continuously monitored and directly readjusted if necessary (see box B 3-1 for an example). Studies estimate the Western European market for IoT platforms in 2019 at around €3 billion and the average annual growth rate up to 2024 at 11 percent.³⁰² According to the companies in the above-mentioned survey, 4 percent of companies in the information economy and 11 percent of companies in the manufacturing sector currently use B2B platforms for the purpose of integrating and aggregating machine data.

German economy also uses innovation platforms. The focus here is on the joint development of innovations and improvement of the innovation process. For example, CrowdWorx GmbH provides an innovation platform where companies can develop products and services collaboratively in an open innovation process.³⁰³ Another international example is the GitHub platform. On this platform, companies can host software projects, share them with others and work together on projects.³⁰⁴ According to the survey conducted on behalf of the Commission of Experts, 16 percent of companies in the information economy and 9 percent of companies in the manufacturing sector use B2B platforms for the joint development of innovations.

B3-2 Competition and Innovation in the Platform Economy

Within a platform ecosystem, different actors contribute to the emergence of innovations. Actors include both the platform operators themselves and other companies that offer complementary services on the platform or use the platform to improve their processes or develop new products and business models.

Network effects and economies of scale can ensure that only a few platform operators compete with each other in a market. In extreme cases, the market tilts, and only one platform operator remains (so-called winner-takes-all effect).³⁰⁵ Platform operators often pursue an aggressive growth strategy to quickly reach a critical mass of users and to bind them to their own platform with standards, among other things (so-called lock-in effects), resulting in market entry barriers. These developments can

have different effects on the innovation activities of platform operators.

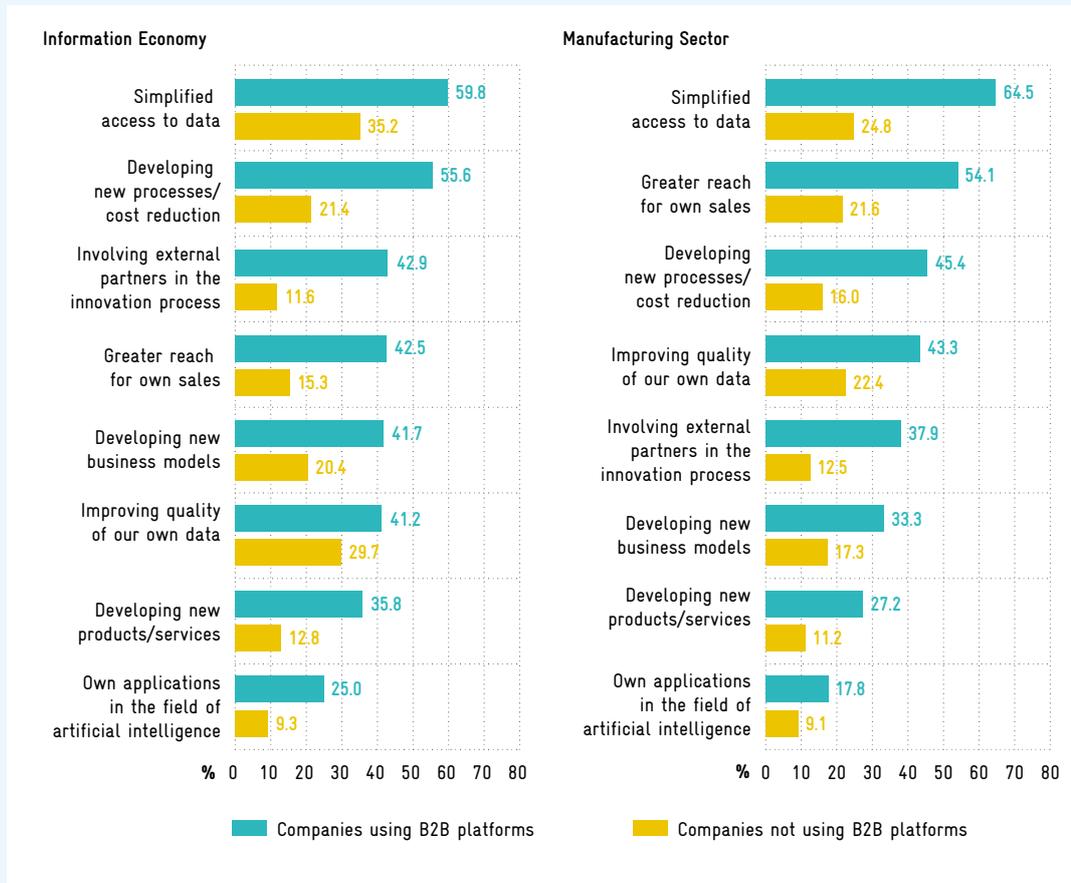
Low competition may mean that dominant platform operators have little incentive to invest in research and innovation and to further improve the quality of their products and services.³⁰⁶ At the same time, fewer innovations are generated by new market entries. This further restricts competition in the market, where mostly incremental innovations take place. Competition between platforms in the market can be favoured by actors using different platforms at the same time (so-called multihoming), thereby mitigating lock-in effects. Multihoming is made possible on the one hand by the interoperability of platforms, which is brought about by means of standardized technical interfaces. On the other hand, so-called data portability facilitates multihoming, i.e. the possibility for actors to transfer their data from one platform to another.³⁰⁷

Innovations can also arise from platform operators entering neighbouring markets with new offers. These innovations are based, for example, on data that the platform operator has collected in the established market. Another way to tap into a new market through innovation is to acquire other companies. However, takeovers can also serve to eliminate potential competitors and prevent innovations from start-ups from gaining acceptance on the market. In this way, the established platform operator can further expand its dominant position. A disruptive innovation can challenge this position. In this case, competition for the market takes place.³⁰⁸

B2B Platforms Advantageous for Innovation Activity

The use of platforms can positively impact the innovation activities of platform users if a platform ecosystem creates conditions conducive to innovation.³⁰⁹ In the survey conducted on behalf of the Commission of Experts, companies were asked about the positive or potentially positive effects of B2B platform use on innovation activities and factors relevant to innovation. Simplified access to data is seen as the most important advantage of platform use both in the information economy and in the manufacturing sector. Companies that use platforms rate the simplified access to data positively much more often than companies that do not use platforms (see figure B 3-3). Among platform-using companies in the information economy, the

Fig. B 3-3 Impact of using digital B2B platforms on companies



Sector-specific extrapolation of the results to the question: 'What impact on your company could the use of digital B2B platforms potentially have/have had so far?' Multiple answers possible. Legend: 64.5 percent of manufacturing companies that already use B2B platforms see a positive impact from simplified access to data in their previous use of digital B2B platforms. Source: ZEW Business Survey in the Information Economy (ZEW Konjunkturumfrage), 3rd quarter 2021. © EFI – Commission of Experts for Research and Innovation 2022.

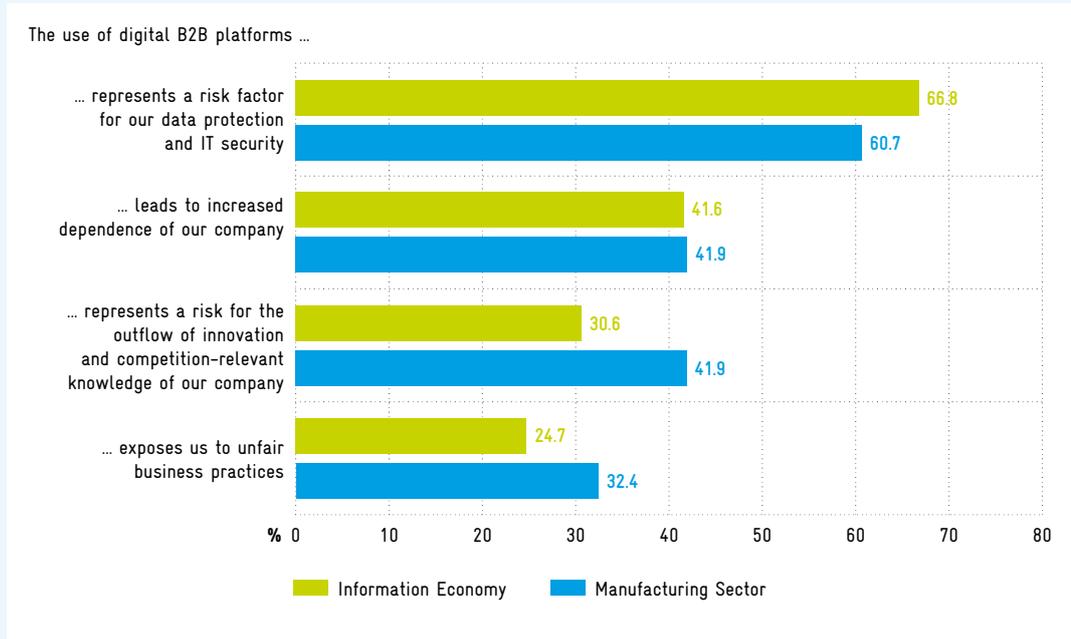
development of new processes or cost reductions and the involvement of external partners in the innovation process follow in second and third place. In the manufacturing sector, the greater reach for own sales and the development of new processes or cost reductions take these positions among the platform-using companies.

A survey of around 1,260 companies in the German manufacturing sector from 2018 and 2019 also indicates a positive correlation between the use of IoT platforms and the turnover generated with product innovations. Manufacturing firms that use IoT platforms have an average of 6 percentage points higher turnover with product innovations than firms without IoT platform use.³¹⁰

High Importance of Data for Platform-based Business Models

Although companies rate simplified access to data as the most important advantage in using B2B platforms, they have reservations about sharing their data with others because they expect it to worsen their competitive situation.³¹¹ However, from an overall economic perspective, sharing data between companies would bring benefits.³¹² Sharing data with other companies that use it to improve their services or processes, or making it available to start-ups that use it to train newly developed algorithms, can positively impact innovation activities.³¹³ Linking different data sets into data pools can also bring benefits, especially if the information in the merged data sets is complementary.³¹⁴ This is the case, for example, when data are merged and analyzed vertically along

Fig. B3-4 Risks for companies using digital B2B platforms



Sector-specific extrapolation of the results to the question: 'What risks for your company do you associate with the potential or actual use of digital B2B platforms? The use ...' Multiple answers possible. Legend: 60.7 percent of manufacturing companies say that the use of B2B digital platforms is a risk factor for their data protection and IT security. Source: ZEW Business Survey in the Information Economy (ZEW Konjunkturumfrage), 3rd quarter 2021. © EFI – Commission of Experts for Research and Innovation 2022.

Box B3-5 GAIA-X and Catena-X

The GAIA-X project, initiated by the then Federal Ministry for Economic Affairs and Energy in October 2019, is a European platform ecosystem consisting of various platforms. GAIA-X ensures uniform technical interfaces and standards for data protection and IT security,³¹⁵ based on which actors can exchange data securely and network internationally.³¹⁶ GAIA-X thus addresses the concerns of many German companies that see the use of a digital platform as a risk to their data protection and IT security (see figure B 3-4).

GAIA-X is not an independent cloud provider. Rather, GAIA-X offers the technical prerequisites to ensure data interoperability and to be a place for networking for companies, research institutions and initiatives. One application example of GAIA-X is the Catena-X Automotive Network (Catena-X).³¹⁷ Catena-X is a network consisting of companies in the automotive industry that work together in cloud-based data spaces. Data spaces are shared and trusted transaction spaces through which data are provided and shared in a decentralized manner, e.g. by companies or public administration. Standards for the technical infra-

structure used for data exchange and collective data usage rules are intended to ensure trust in data spaces.³¹⁸ The aim of the data spaces within the framework of Catena-X is to share data collaboratively and openly along the automotive supply chain in order to develop innovative business processes and service products on this basis.

The initiators of GAIA-X have launched funding projects to establish further specific data spaces, e.g. for the areas of health, mobility and education, based on the GAIA-X infrastructure, and to develop them in the long term.³¹⁹ These data spaces should be designed as openly as possible to also enable data exchange across area boundaries.

Initiatives such as GAIA-X and Catena-X represent possible solutions for reducing companies' security concerns when sharing data and increasing their willingness to share their data with others. In addition, European and German platform solutions are intended to create more independence from existing US or Chinese cloud providers.³²⁰

value chains. This enables efficiency gains through better control of processes or the development of complementary products and services.

B 3-3 Challenges for Companies

For companies, the use of B2B platforms not only has positive effects but is also associated with various risks. In the representative survey conducted for the Commission of Experts, around 67 percent of companies in the information economy and 61 percent of companies in the manufacturing sector refer to risks to data protection and IT security (see figure B 3-4).³²¹ Another concern expressed by 42 percent of companies in the manufacturing sector and 31 percent of companies in the information economy is the outflow of knowledge relevant to innovation and competition. These findings point to the vital importance of mutual trust between platform actors.³²² The joint operation of a B2B platform could solve the trust problem of companies in platform use.³²³ In so-called community platforms, companies are platform operators and users at the same time. The platform members jointly decide on governance structures, the design of algorithms as well as data usage rules and can adapt these to their individual needs. One project that is intended to support platforms in addressing these aspects and could promote the development of community platforms is GAIA-X (see box B 3-5).

According to the assessment of 42 percent of companies each in the information economy and the manufacturing sector, an increased dependence of the company on the platform also poses a risk when using digital B2B platforms. A lack of standards and compatibility as well as a lack of interoperability between platforms encourage such dependency. They are cited in various studies as further barriers to the use of B2B platforms.³²⁴

Small and medium-sized enterprises (SMEs) face particular challenges when using B2B platforms, especially technically complex IoT platforms. This is reflected in a low usage rate. The use of B2B platforms, especially in the industrial sector, requires high investments in building the necessary IT infrastructure. SMEs often do not have the financial resources and digital maturity required for this. In addition, there is a lack of (IT) specialists and know-how as well as awareness of the potential of platform use.³²⁵

Companies rate various possible measures by the Federal Government in relation to B2B platforms as conducive to innovation (see figure B 3-6). More than half of the companies in the information economy and manufacturing sector state that their innovation activities would benefit from clear liability rules in the event of data misuse, the provision of secure cloud infrastructures and the promotion of digital skills for handling data and platforms. Furthermore, a quality-based certification of (secure) platforms and the avoidance of a dominant position of platform operators would benefit the innovation activities of companies. A slightly smaller proportion of companies expect positive effects on their own innovation activities through the development of new concepts for data sharing and the promotion of anonymization procedures for data.

Regarding the measures mentioned, politics has already taken some initiatives. These include, for example, the European Commission's proposal for a law on digital markets, which is intended to ensure more competition among platform operators (cf. B 3-4). The European Data Strategy adopted in early 2020 aims to promote data sharing and make it more secure by creating clear rules for access and use. Ensuring secure data sharing by providing secure cloud infrastructures is the goal of the GAIA-X project launched in 2019 (see box B 3-5). The go-data module, newly launched by the Federal Government as part of the go-digital funding guideline, supports advisory services on data literacy.³²⁶

B 3-4 Regulation of Digital Platforms

Recently, numerous legislative projects and reforms have been passed or launched worldwide to adapt the existing regulatory framework to the challenges of the digital economy and to intensify competition in digital markets.³²⁷ The regulations are geared towards the large platform operators, which have achieved very strong market positions through network effects and economies of scale. They apply in both B2B and B2C contexts. In addition to direct competition law regulations, questions of data access are also addressed.

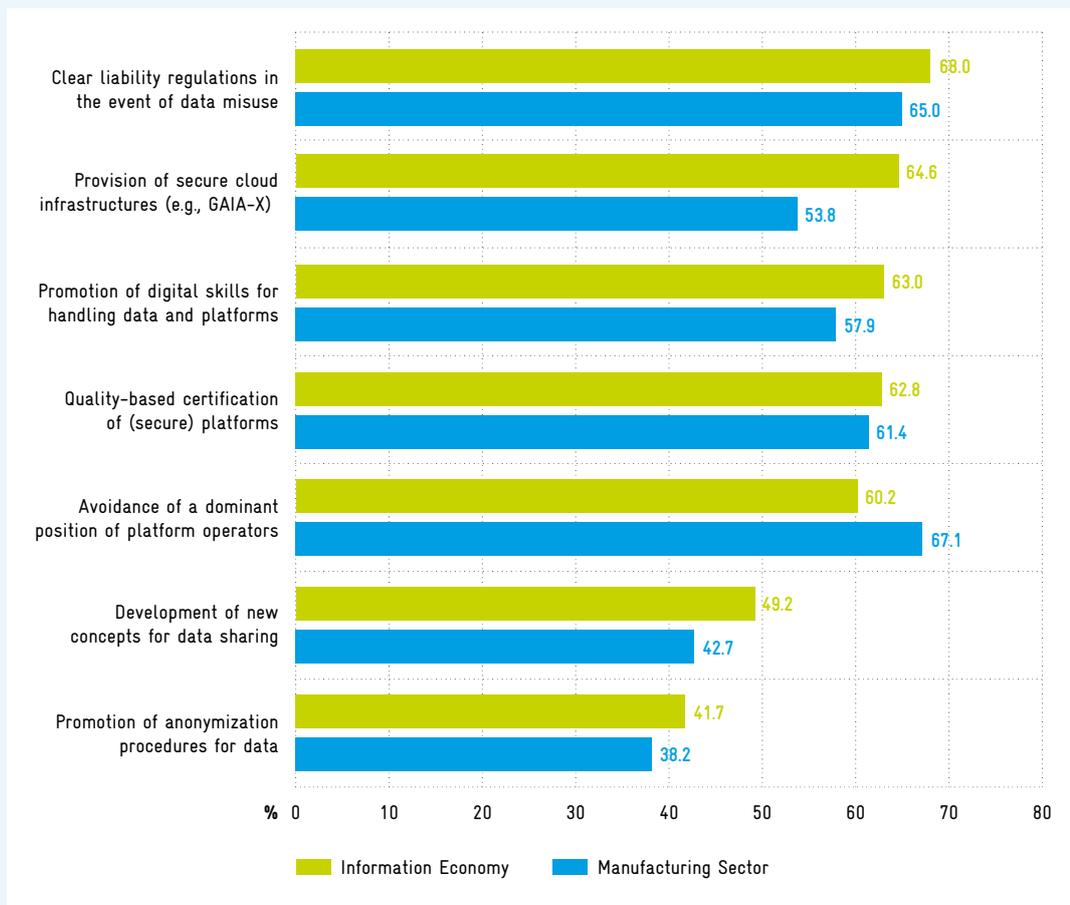
Effects of Competition Law Measures on Innovation Activities Unclear

Germany adopted the tenth amendment to its national Act Against Restraints of Competition (Ge-

setz gegen Wettbewerbsbeschränkungen, GWB) in January 2021, giving the Federal Cartel Office (Bundeskartellamt) broader powers to regulate digital platforms.³²⁸ The main innovation of the so-called GWB Digitalization Act is the introduction of a regulation enabling the Federal Cartel Office to determine that a company which is active to a significant extent on platform markets has a paramount significance across markets with potentially anti-competitive consequences (Section 19a GWB).³²⁹ If this is the case, the Federal Cartel Office can impose ex-ante prohibitions on the company, i. e. without having to prove abuse. For example, the preferential treatment of own services can be prohibited. Likewise, the processing of competition-relevant data collected by the company to

erect or appreciably raise barriers to market entry can be prevented. This also applies to competition-relevant data received from other companies if these are processed for purposes other than those necessary for the provision of the provider's own services to these companies without offering these companies a sufficient choice. Prohibitions can also concern the obstruction of interoperability between products or services and data portability.³³⁰ Certain conducts can be exempted from the prohibition if the company can objectively justify it. In January of this year, the Federal Cartel Office issued the first decision based on Section 19a of the GWB, finding Google to be of paramount significance across markets.³³¹

Fig. B3-6 Possible measures by the Federal Government regarding B2B platforms that would benefit the innovation activity of companies



Sector-specific extrapolation of the results to the question: 'Which of the Federal Government's measures would benefit your company's innovation activities?' Multiple answers possible. Legend: 65.0 percent of manufacturing companies state that their innovation activities would benefit from clear liability rules in the event of data misuse. Source: ZEW Business Survey in the Information Economy (ZEW Konjunkturumfrage), 3rd quarter 2021. © EFI – Commission of Experts for Research and Innovation 2022.

Further amendments to the GWB Digitalization Act concern, among other things, the identification of a market dominating position. Thus, when assessing the market position of a platform, its intermediation power, i. e. the importance of the intermediation services it provides for access to procurement and sales markets, as well as its access to competition-relevant data must be considered.³³² In addition, data access for third parties is simplified in principle by the GWB Digitalization Act. On the one hand, because data are defined as an essential facility. On the other hand, because dependency can arise from the fact that a company is dependent on access to data controlled by another company for its own activities, and this dependency is considered a relevant competitive concern.³³³ The Commission of Experts welcomes this facilitation of access to data, as it can provide positive impulses for innovation.

The proposal for a regulation on contestable and fair markets in the digital sector (Digital Markets Act, DMA)³³⁴ published by the European Commission in December 2020 aims to promote competition between platforms and to ensure fair behaviour by platform operators towards their users.³³⁵ The DMA is intended to impose obligations on large dominant platforms, so-called gatekeepers,³³⁶ which are largely derived from abusive behaviour by platform operators in previous competition cases.³³⁷ Among other things, gatekeepers are prohibited ex-ante from using non-publicly accessible data generated by the activities of commercial users in competition with said commercial users, and from favouring their own products and services on their platform in rankings over those of other providers. In addition, gatekeepers will be required to enable data portability and interoperability.³³⁸ Based on market research, the European Commission may dynamically adjust the list of obligations.³³⁹ If a gatekeeper fails to comply with the obligations, the European Commission may impose a fine of up to 10 percent of its total turnover in the preceding business year.³⁴⁰ In the case of systematic violations, it may also impose behavioural or structural remedies on gatekeepers, up to and including breaking up the corporation.³⁴¹

The draft law is currently in the ordinary legislative procedure of the European Union (EU), in the context of which the European Parliament adopted its position on the DMA on 15 December 2021.³⁴² In the parliamentary draft, among other things, the thresholds for annual turnover and market capitalization above which companies are classified as gate-

keepers were raised,³⁴³ the fines for non-compliance with the rules of conduct were increased, and selected rules of conduct, such as on interoperability or on default settings, were tightened.³⁴⁴

In principle, the Commission of Experts welcomes the fact that the GWB Digitalization Act and the DMA, which is currently being voted on, are intended to intensify competition on digital markets and improve access to data, as this can provide impetus for the innovation activities of companies in the platform economy. Companies that are active as providers on the large platforms could, for example, use the data resulting from the platform activity and made available to them on a mandatory basis to develop products or services that are complementary to platform offerings.³⁴⁵ In addition, barriers to market entry are reduced and competition between platform operators is promoted. Platform operators should consequently have more incentives to invest in research and innovation and to further improve the quality of their products and services. At the same time, market entry for new providers will be facilitated.

However, the prohibitions in the already applicable GWB Digitalization Act and the behavioural requirements for large platform operators provided for in the DMA may also reduce their incentives to innovate. Restrictions on the platform operators' room for manoeuvre, for example in the exploitation of data, could lead to a lack of innovation.³⁴⁶ To maintain incentives for innovation on the part of platform operators, the DMA, like the GWB Digitalization Act, should also provide for exceptions to the rules of conduct in justified individual cases.³⁴⁷ In order not to jeopardize rapid enforcement, the gatekeeper should be bound by the rules of conduct until it has objectively justified the respective conduct.

While the GWB Digitalization Act did not introduce stricter rules for company takeovers by platform operators, gatekeepers are obliged under the planned DMA to inform the European Commission of any takeover attempts in the digital sector.³⁴⁸ In cases of systematic non-compliance with the behavioural requirements, the parliamentary draft even provides for the European Commission to be empowered to prohibit relevant takeovers by gatekeepers for a limited period of time.³⁴⁹ The Commission of Experts considers stricter requirements for company takeovers by platform operators to be sensible,

as overall there is much to suggest that too much market concentration can have an inhibiting effect on innovation.³⁵⁰

The differences between the regulatory frameworks formulated in the GWB Digitalization Act and in the proposed DMA may lead to legal uncertainty for companies and thus hinder the emergence and dissemination of innovative digital business models.³⁵¹ This may counteract the positive impulses that these regulations may have on innovation activities in the platform economy, at least in the initial phase of their implementation.

Promotion of Data Access and Use Initiated

In addition to competition law measures, numerous regulations have also been adopted or launched recently to promote the provision of data and facilitate data sharing by creating clear rules.³⁵² This can help to better exploit the potential of data-driven innovation.

For example, the recast of the European Directive on open data and the re-use of public sector information (Open Data Directive), which came into force in June 2019, aims to increase the availability of public sector data by introducing Europe-wide minimum rules for the re-use of such data.³⁵³ This will improve the conditions for creating data spaces on platforms.

To increase trust in data sharing and reduce transaction costs for companies when sharing data, the Data Governance Act (DGA) presented in November 2020, the first of several announced legislative proposals within the European Data Strategy, aims to create uniform rules for data sharing across Europe. At the end of 2021, the Council of the EU and the European Parliament reached a preliminary agreement on the draft law. In particular, the DGA defines conditions for data intermediaries, i. e. providers of data-sharing services, and thus lays a legal foundation for data trustee models.³⁵⁴ Such services may include, for example, the establishment of platforms (data marketplaces) to enable the exchange or joint exploitation of data and the establishment of the technical infrastructure for the networking of data holders and users. According to the DGA, data intermediaries must, above all, remain neutral with regard to the exchanged data and may not use the data for other purposes.³⁵⁵

Another key legislative project of the European Data Strategy is the Data Act, which builds on the planned Data Governance Act and for which the European Commission published its impact assessment at the end of May 2021.³⁵⁶ The planned introduction of (sector-)specific data access and usage rights is likely to be of particular importance for the B2B sector. Data transmission and sharing between companies as well as between companies and the public sector are also to be simplified and accelerated. To this end, the Data Act provides for the establishment of harmonized contractual standards for data sharing. In addition, the creation of sector-specific European Data Spaces is an important objective of the European Data Strategy.³⁵⁷

Legal Certainty in Horizontal Cooperation Agreements on Data Use Insufficient

The development and growth of B2B platforms are also likely to be influenced by the revision of anti-trust regulations. Horizontal cooperation agreements between companies can serve, among other things, to share risks, save costs, share data, pool know-how and accelerate innovation.³⁵⁸ However, they can also have coordinating effects regarding so-called hardcore restrictions³⁵⁹ such as price fixing and companies can thus violate antitrust law.³⁶⁰

Existing European regulations that are intended to provide legal certainty to companies in their self-assessment regarding antitrust limits of horizontal business cooperation or exempt horizontal business cooperation from the ban on cartels under certain conditions expire at the end of 2022. To decide on further reforms, the European Commission conducted consultations in 2021 to evaluate and revise the regulations. Among other things, it was determined that the Horizontal Guidelines for the self-review of data exchange and data pooling agreements do not provide sufficient legal certainty.³⁶¹ The tenth GWB amendment opens the possibility for companies to have an antitrust assessment of cooperations carried out by the Federal Cartel Office if there is a substantial legal and economic interest in this decision. With a so-called chairman's letter, the Federal Cartel Office can informally allow cooperations.³⁶² It is not yet foreseeable how this new regulation will change horizontal cooperations and innovation activities in the B2B platform economy.

The legal measures for the regulation of digital platforms that have already been passed and those that are still being voted on aim to intensify competition and provide incentives for innovation. However, the multitude and dynamics of legal measures at different levels lead to legal uncertainty for companies and could thus impair innovation activities. Regulations on interoperability and data portability can set both positive and negative incentives for innovation. Therefore, it is crucial to evaluate the impact of new legal measures and regulations on the innovation activities of the actors in the platform ecosystem.

B 3-5 Recommendations for Action

Digital platforms orchestrate the interaction of different stakeholder groups and enable the development of innovative business models as well as new products and services. Data are a key value-creation factor in this context. B2B platforms, especially data-based platforms, open up great potential, as they can be used to achieve efficiency gains in production and enable innovations. It is important to leverage the potential associated with B2B platforms and to avoid a drain of value creation from German companies to the large B2C platforms from the USA and China that are increasingly penetrating the B2B sector. The Commission of Experts therefore recommends:

Promoting Open Data

- The requirements of the Open Data Directive and measures of the Open Data Strategy should be implemented quickly and consistently so that public administrative and research data can also be better used for innovation.

Expediting the Development of European Data Spaces

- Building a high-performance, competitive, secure and trustworthy data infrastructure for Europe is a prerequisite for the successful development of the B2B platform economy. GAIA-X can play an important role in this and should therefore be implemented consistently.
- The success of GAIA-X depends on how well and how quickly it succeeds in establishing eco-

systems for data sharing and developing applications for data use in addition to the planned data spaces. Suitable governance structures must be established for this purpose.

- To contribute to the acceptance and success of the project, the Federal Government should improve the conditions for the public sector to be able to provide its own data and services on the GAIA-X infrastructure as a pioneer.
- The Federal Government is requested to review the progress of GAIA-X in a timely manner and at regular intervals. If it becomes apparent that GAIA-X is falling significantly and permanently short of the targets set, funding should be adjusted accordingly.

Setting Incentives for Data Sharing

- The Commission of Experts welcomes the measures planned in the draft European Data Governance Act, especially the introduction of data intermediaries. However, it recommends designing the framework conditions for data intermediaries in such a way that stakeholders have an incentive to offer such intermediary services and high-quality services are ensured.
- In the reform of the European Horizontal Guidelines and the associated regulations, which exempt horizontal business cooperation from the ban on cartels under certain conditions, care should be taken to reduce as far as possible the uncertainty on the part of companies regarding horizontal cooperations for exchange of data regarding the assessment under cartel law.³⁶³
- To increase trust in B2B platform ecosystems, the creation of B2B platforms that companies operate and design collaboratively should be encouraged.

Supporting SMEs in the Use of B2B Platforms

- Low-threshold information and advisory services are particularly important for SMEs. The existing initiatives to promote the use of digital B2B platforms, such as the services of the Mittelstand 4.0 competence centres, should be continued and expanded.

- Data literacy training should be further reinforced. Against this background, the Commission of Experts welcomes the extension of the go-digital support programme until the end of 2024 and in particular the newly included go-data module, which supports advisory services to improve data literacy in SMEs.

Check Implementation of Data Portability and Interoperability

- Since improved data portability and interoperability of digital platforms facilitate the simultaneous use of several platforms and thus favour competition and innovation, the Commission of Experts supports the regulations provided for in the GWB Digitalization Act and the DMA. However, it urges that suitable criteria must be developed in order to be able to check the implementation of data portability and interoperability.

Expediting EU-wide Uniform Platform Regulation

- The further development of the digital single market through an EU-wide uniform regulatory framework improves the scalability of platform- and data-based B2B business models. Therefore, the Federal Government and the European Commission should advocate for an EU-wide uniform platform regulation.

Evaluating the Innovation Effects of New Competition Law Regulations

- Currently, the effects of regulatory measures such as the tenth GWB amendment and the DMA, currently in the voting process, on innovation activities in platform ecosystems cannot be foreseen. It is therefore necessary to evaluate the measures for their innovation effects after their introduction. The emergence of similarly high market concentrations as in the B2C sector should be prevented.