Internet Governance: Opportunities for SMEs

Workshop
11 September 2019
Federal Ministry for Economic Affairs and Energy, Berlin

Report and Key Points

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Preliminary remarks

The aim of the 'Internet Governance: Opportunities for SMEs' project is to explore how small and medium-sized companies can help shape the policy environment in which the digital transformation is taking place.

The term 'Internet governance' refers to all of the relevant rules for the internet. This includes the principles, standards, decision-making procedures and programmes for the continued development of the internet, irrespective of whether these are established by national governments, intergovernmental agreements, the private sector or actors from civil society or by all of these groups together based on multi-stakeholder processes. To put it simply, internet governance is about the participation of and cooperation between all those affected.

Internet governance understood in this way is relevant not only for large corporations, but also for SMEs. It establishes important conditions and influences the policy environment for innovations at small and medium-sized companies. Despite its importance, the potential of using internet governance to benefit small and medium-sized enterprises has to date barely been looked at and is therefore little used.

As part of the project, a number of scientific studies on the digitalisation of small and medium-sized enterprises and on internet governance were evaluated and 15 guideline interviews were held with persons responsible for this area within companies, associations, Centres of Excellence and the scientific community. The aim was to find out first-hand how digitalisation works in practice, which hurdles have to be overcome, what has been helpful when it comes to the design and implementation of projects and which other forms of support might be useful.

Together with the key points paper, the workshop is an essential means of transferring findings from the studies and interviews. The following report documents both elements.

This report is intended to encourage further discussion and dialogue among stakeholders as well as implementation of the findings. It also offers the opportunity for the Federal Ministry for Economic Affairs and Energy to feed the key issues concerning SMEs into the discussions at the Internet Governance Forum in November 2019.

Outcomes of the workshop on 11 September 2019

In his welcoming remarks, Dr Philipp Birkenmaier, Head of the Task Force for SME Strategy at the Federal Ministry for Economic Affairs and Energy, said that improving business conditions for SMEs was a top priority on the political agenda. This is not least reflected in the cornerstones of the SME Strategy which was presented by Minister Altmaier in August under the title 'Valuing – Strengthening – Easing the Burden'. One of the six strategic issues is supporting SMEs with innovation and digitalisation.

The following report provides a summary of the discussions held at the workshop which show that the key points presented have broad backing among the participants. In addition, the report addresses a number of issues which participants would like to see taken up by policymakers and incorporated into future governance processes.

Companies and digital innovation

1. Reports on the digitalisation of small and medium-sized enterprises often dramatises the real situation and paints it as a crisis. This leads to false expectations, disappointment and even fear for the future among employees and does not take account of the successful work being undertaken by many SMEs to digitally transform their businesses over the long term. It would be helpful to have a new narrative on technological processes that does not focus on the ideas of 'disruption' or 'all or nothing', but describes digitalisation as a continuous task.
2. From the perspective of many participants, existing communication platforms are not used to a great enough extent to draw public attention to the successful digital transformation processes taking place in small and medium-sized companies. The focus is usually placed on large companies.

   This could be handled differently for example at the next Digital Summit.
3. Digitalisation projects are an opportunity to fundamentally scrutinise the way in which a company works and organises its processes, regardless of its business model. As many employees as possible need to be involved and to be prepared for the changes that they will encounter. All of this requires time, which needs to be factored in and allowed for.
4. When implementing digitalisation projects, it is important to take into account the difference between product innovations and service innovations. In the case of products, there is no fault tolerance once these products start to be used in practice at a company; services, however, can still be tried out and readjusted when they are already on the market. There are conflicting goals between speed and precision (Prof. Hölzner: reference to the tradition of the engineering culture in Germany), as well as optimisation and radical modernisation. In areas where conflicting objectives exist, every company has to make its decisions and find its own way forward. When assessing digitalisation projects in small and medium-sized enterprises, it must be borne in mind that the approaches to innovation that come to the fore in the conflicting objectives are, in principle, equally justified.

Digital platforms

5. Many SMEs face difficulties because large internet platforms on which products and services are traded do not make key chunks of the data generated during customer contact available to the providers of the products. As a result, SMEs cannot contact their customers directly, nor can they sufficiently analyse purchasing behaviour, making it impossible for them to adequately tailor their production or sales to customer needs.

   In addition, the big platforms use the knowledge about customers gained from this data to develop their own brands at lower prices in particularly successful product areas. This means that these platforms are also competing with SMEs, which makes it more difficult for the latter to exploit the advantages of online trading.

   Both issues need to be addressed in future discussions on adjustments to competition law.

   When it comes to large international platforms, there are also calls for taxation to be fair.

6. SMEs are not only concerned with how to deal with their difficult relationship to large platforms, but it is also important to them to develop their own alternatives to these platforms which are more suited to use by small and medium-sized enterprises. One approach would be for SMEs to develop 'decentralised' platforms. These could be utilised for different purposes, e.g. to sell products or services and also to implement sharing models (e.g. for software or other applications). This would not least include the development of interfaces allowing SMEs to integrate their own shops into the corresponding platforms.

   The German Confederation of Small and Medium Sized Enterprises (German abbreviation: BVMW) is working to foster the development of large data pools that can be used by SMEs.

   Other funding models could also be helpful in efforts to build up decentralised platforms.

Data and data security

7. An important issue for SMEs is how existing knowledge within the company can be used and how any data obtained through digitalisation or applications developed in the company can be made more widely known and shared. In the future, growth and development can be promoted to a large extent through sharing knowledge and data. It would therefore be valuable for SMEs to be connected in virtual networks so that they can exchange information about successful digitalisation projects and methods and can share specific knowledge, data and/or software. However, companies should be able to keep internal knowledge to themselves; they should retain control over or access to the data/content that they feed in.

   Technological solutions that enable networking and exchange of this kind need be developed. The respective interfaces should be regulated in order to ensure that they conform with legislation. It might therefore be beneficial for relevant technical standards to be developed, too.

   An alternative to having data evaluated by third parties would be for algorithms to be 'purchased'. Regulated interfaces are needed for this scenario as well.

8. Operational data is highly useful for SMEs and is an asset that merits protection. It should also be considered whether this type of data warrants special protection like that given to personal data.

   The review of the General Data Protection Regulation might provide opportunity for this.

9. Many small and medium-sized enterprises have to deal with IT security issues. Although there are many technical solutions available that can help bolster security, these are not sufficiently known right across the SME sector. There is a need to develop forms of communication that can remedy this situation and to make existing security solutions more accessible to SMEs.

   With regard to working conditions for IT specialists, greater legal certainty is needed (e.g. working time models).

Research and funding

10. The participants agree that SMEs would benefit from greater transparency on research projects currently under way and on specialist expertise held by research institutions relevant for the digital transformation of SMEs. The current situation should be improved, if possible by collating information that can provide SMEs with an overview of funding policies and schemes, research cooperation and opportunities for cooperation with start-ups that exist in various areas across the country. There are many examples for good university cooperation, but they often go unnoticed. This should be changed in order to facilitate SMEs' access to higher education institutes.
11. It would seem useful to improve the level of research institutions' own resources so that research results can be made available to all interested SMEs via open source and are not limited to exclusive use, as is usually the case with research funded by third-parties. This aspect could be given even greater consideration in the work of the Federal Ministry of Education and Research. Improving research institutes' own resources would also ensure that research on topics relevant to SMEs takes place on a long-term basis, rather than during the unpredictable periods in which third-party funding is available. In addition, improved funding would enable research institutions to respond more quickly to new challenges and developments; delays caused by tendering processes would in some cases be eliminated.
12. Funding opportunities in Germany are relatively good, but they could be better tailored, easier to apply for, and the funding periods should be geared more to the needs of SMEs.

Key points

I. SMEs, digitalisation and internet governance

The digital transformation is penetrating small and medium-sized enterprises and is changing their set-up. The criticism that SMEs are waiting too long to climb aboard – an assertion which is often made airily – is simply incorrect. SMEs invest in digital projects for different reasons, whether it is to respond to changing customer requirements, to make internal processes more efficient, to increase quality or to expand or even fundamentally change their business model.

The guideline interviews show that virtually all companies use digital applications in their work. While there are instances in which only individual software programmes are used, in the vast majority of cases, companies are using much more complex processes and tools.

This is also confirmed by relevant studies such as the KfW SME Digitalisation Report 2018: "Digitalisation is increasingly making inroads into small and medium-sized enterprises. Between 2015 and 2017, 30% of SMEs completed digitalisation projects successfully – up four percentage points on the previous period. In absolute terms, this means around 1.1 million SMEs have stepped up their digitalisation efforts. What is particularly pleasing is that this development is being driven by businesses of all sizes and in nearly all economic sectors. It is not limited to narrow segments."[1]

Incorporating digital technology into businesses is not always easy, and new processes are not simply developed, implemented and then no longer changed. Rather, the term 'digitalisation' describes a development that is always 'ongoing'.

When we talk about digitalisation in SMEs, we also need to talk about this continuous process – a process which demands a great deal of attention and a constant willingness to deal with new production, working and sales methods. It's about dealing with a phenomenon rather than a specific product, project or work step. Where you currently find yourself and what you want to achieve by taking a digital approach must always be redefined.

Key point 1

Even though there are no general and binding recipes for success for finding "the" one, correct way of using digitalisation in the diverse world of SMEs, small and medium-sized enterprises do face a number of common challenges – opening up scope for comparable approaches to be taken. All companies should have access to support that is both tailored to their needs and based on commonalities.

The German SME sector is characterised by its high level of diversity. It is therefore often not possible to use standardised solutions. However, many tasks are the same and thus the strategies taken are comparable. This is because even though SMEs can be very different to one another, they are all dealing with the same issues when it comes to digitalisation. Ultimately, the key issue is how digital technology can make processes more efficient, improve product quality, be used to win new customers and to develop new business models.

Support services should also encourage people to broaden their perspectives, identify potential and provide input that can inspire ideas for new business models.

[1] KfW SME Digitalisation Report 2018. Digitalisation has reached broad areas of the SME sector – average expenditure on digitalisation remains low.

Key point 2

Small and medium-sized companies are very good at developing and implementing their business models within an existing regulatory framework. However, they have little opportunity to look at the framework itself and thus to spot the opportunities that a change to the framework itself could create.

As a rule, small and medium-sized companies lack the time and personnel resources to participate in governance processes. So far, hardly any SMEs have been actively involved in the discussions on internet governance despite the fact that the results of these processes massively influence the opportunities they have.

Since rules are developed within the framework of internet governance processes that are often of great relevance for SMEs and their development, it is worth considering ways in which the concerns and interests of such companies can be better fed into these processes. This can be done through the work of associations, as well as by political actors who are in regular contact with small and medium-sized enterprises.

II. Topic 1: "From product to service"

When embarking on a digitalisation project, small and medium-sized companies are usually setting out to solve a specific problem. Once the problem has been solved, many companies realise that the new tools can also be used to improve other processes.

Key point 3

Digitalisation projects offer an opportunity for bringing about profound processes of change, including making fundamental changes to existing business models. In industrial SMEs in particular, there is currently a trend away from an approach that has traditionally been highly product-oriented towards one with greater service orientation.

The trend towards greater service orientation means that contact with customers increasingly goes beyond the sale of a product. The integration of smart communication technologies into products often enables direct customer contact over a longer period of time, ideally over the entire lifecycle of the product. The possibility of networking the user with the manufacturer becomes an important component of products, which is also expected by customers in more and more business sectors.

In the case of machines, for example, the software integrated into smart products or linked to them allows information about their operation and use to be made available to customers and manufacturers in real time via cloud-based solutions. In this way, bottlenecks or malfunctions can be identified and remedied more quickly leading to an increase in productivity. This holds opportunities for manufacturers to develop new business models. It may even result, for example, in a mechanical engineering company gradually evolving into an industrial platform provider that increasingly generates its revenues from providing support and consultancy services to its customers rather than from selling machines. Similarly, other business sectors like the retail and logistics sectors are also undergoing processes of radical transformation.

In order to be able to positively shape this development, we need openness, flexibility and resources. Smaller companies in particular, which lack the financial resources to maintain their own strategy or R&D departments, need even more support to be able to make their needs known and to recognise and seize the opportunities offered by this transformation.

Key point 4

The trend from product to service is also changing the value chains in terms of customer contact. New intermediaries such as digital platforms are emerging between manufacturers and customers. Digital policy should take the risks associated with this into account and, if necessary, set out measures to alleviate them. This also applies to the trend towards software-based personalisation of everyday objects.

Digital policy is already placing a strong focus on the role of digital platforms as intermediaries between companies, products and customers or users. In this context, a particular emphasis is placed on social aspects (e.g. the integrity of elections, hate speech, child and youth protection) and consumer protection. By contrast, discussions about the role of digital platforms in the B2B sector have gained much less public attention so far. This is notwithstanding the fact that questions such as who has access to the end customer and who can evaluate and use customer information and in what way (manufacturer or platform?) are of considerable economic importance. In addition, the platform economy raises issues relating to competition and labour law, which are of key importance for small and medium-sized companies. The forthcoming discussions on the further development of the regulatory framework for digital platforms should address the concerns of SMEs.

Data and system security is also of central importance for SMEs. Digital transformation requires secure and trustworthy systems. If one element fails, the entire system may fail. Moreover, networked products are vulnerable to external attacks. Digital transformation processes based on cloud architectures must take the security concerns of SMEs seriously. Small and medium-sized companies need cloud services that are easy-to-understand and comprehensible and which work in reliable manner, even in the event of a crisis. The discussions on internet governance should place increased emphasis on improving the framework conditions relevant to these needs.

III. Topic 2: "Data – a hidden treasure trove in your company?"

Data is an important resource for sustainably improving the efficiency and competitiveness of SMEs. A company possessing meaningful data and in a position to draw the right conclusions from it and to develop suitable measures will be able to position itself successfully in competition. This is true of many areas, not least of customer relations and marketing: the more a company knows about its target group, the more customer-specific it can make the services and products it offers.

The use of data requires specific expertise which SMEs generally find it hard to acquire. Data scientists who can help are difficult to find and expensive.

Key point 5

To make commercially successful use of data, a company needs a clear definition of what precisely should be achieved by using the data that is being collected and evaluated. SMEs need to acquire the basic knowledge needed for this. Not all of them have the necessary resources.

People say that data is the "new gold" – but if a company does not have a clear idea of how data are to be used, and for what purpose, its hard work and investment will be wasted. Not every business model is improved or altered merely as a result of using data. It makes a difference whether (customers') data is used to improve sales and marketing (i.e. to improve existing business models) or whether data is forming the basis for the development of new business models. The source of the data also plays a role: do they come from the company itself, how exclusive are they, what other companies have similar data sets, and what data is freely available?

More work needs to be done to improve the expertise of SMEs on data and how to use it. In-house training courses would be a way forward (What are “meaningful” data? What data contains what information?) or services for more than one company which provide access to and perhaps “translate” the knowledge of data scientists. It is important to develop information models compatible with the structures of SMEs (e.g. “share a scientist”, “scientist in residence”) which would be accessible outside collaborative projects (with centres of excellence, research establishments). The AI instructors who will soon be deployed in the centres of excellence might form the basis for this.

It would be helpful to extend the possibilities for dialogue – which have so far mainly been offered by the centres of excellence – on the potential of and the limitations to data-based business models specifically. Once again, easy accessibility in terms of substance and geographical reach would be useful.

Key point 6

Many SMEs are already facing challenges in the field of “data ownership” and are tackling them on their own and pragmatically. In the short term, templates and the dissemination of good practice can be helpful here; in the medium term, data law extending beyond data protection law could be developed which pays greater attention to the interests of SMEs.

When developing new data-based business models, SMEs need to clarify who the data really “belongs to”. Here’s an example: sensors connected to manufacturing machinery collect large quantities of data from the machinery. This information is of relevance from the commercial perspective, e.g. for ensuring that manufacturing processes are as free from disruption as possible, for optimising the capacity utilisation of the machines, or for undertaking timely maintenance work. But does the data “belong” to the companies which use bought or leased machines to manufacture products? Or do they belong to the companies which designed the machines and equipped them with the appropriate software? Or, at a more fundamental level: should there always been an ownership right for data in every case? And where is the information evaluated, and by whom, and who controls the data?

In terms of internet governance, it is a matter of the applicable legislation and contractual arrangements based on negotiations between the relevant parties. From the point of view of SMEs, the question of the market power held by the various parties can play a role, e.g. if large digital platforms are involved and want their cut of the revenues. The analysis of these complex interrelationships and their effects on SMEs is an important task which creates the conditions under which internet governance can be developed.

IV. Topic 3: “Make good practice even better known”

Despite all the comprehensive and diverse project funding, research cooperation, workshops and other support services offered by the Federal Government, the Länder, regions and municipalities, by associations and chambers of commerce, there is a constant need to ensure that companies have up-to-date information about developments in digitalisation and their options to respond.

Key point 7

Everyone's heard too much about digitalisation, but no-one's heard enough.

Generalised claims ("SMEs too slow to embrace digitalisation") and generalised appeals ("Do more to digitalise") are regularly repeated in the mass media, specialist publications, blogs and other publications. This results in background noise which makes it more difficult to see what is actually happening, and tends to put people off – they've all heard it a thousand times before.

At the same time, it is still difficult for many companies to find helpful answers to their questions about digital tools. The problem may be that they don't know who exactly to ask, or that they find it difficult to find what they need in an information jungle. Getting the right information and attractive services across to the enormous number of SMEs in manufacturing, skilled crafts, trade, those working as service providers and freelance professionals is a complex task.

Key point 8

Even more support is needed to disseminate good practice. In particular, there is a need for access to specific, transferable information. The approaches already being taken should be continued and expanded, and if possible permanently entrenched.

Here, the centres of excellence could be developed even more into knowledge and information centres. Also, thought should be given to more ways to share knowledge. Possibilities might include forums enabling a diversity of dialogue: learning from one another, developing joint measures, promoting cooperation between businesses. Setting up and maintaining such forums is a governance issue. In organisational terms, regional associations might serve as models; the new forums should be open to all sectors.

Thought might also be given to strengthening transfer initiatives. These already exist in some fields, but coordinated implementation by all stakeholders would appear useful. It might also be helpful to make the criteria of what good digitalisation practice actually means more transparent.

Key point 9

Cooperation offers new opportunities for SMEs in the digital sphere. If the distinction between a product and a service becomes blurred, if the manufacturers of machinery know more than the users about the work done with that machinery, if closer contacts exist with overseas customers than with local neighbours: this flexibility should be reflected in greater cooperation.

It is also positive in governance terms that, in many areas, structures have formed and have manifestly stabilised in which various stakeholders cooperate systematically, including the companies willing to share their digitalisation experience with others. This cooperation – a good example is the Mittelstand 4.0 centres of excellence – looks promising and should be given continued support.

Once again, thought should be given to what new, appropriately flexible services could be supported – e.g. access to open source software, development of sharing models between companies, e.g. the sharing of specific expertise – at least where this is possible and on case-by-case basis. The need for greater efforts to foster cooperation between SMEs and start-ups should also be mentioned here.

Perhaps chambers of commerce, industry associations or clusters could initiate and support such cooperation and ensure it complies with the law.

V. Possible conclusions for the Governance debate

To conclude, some proposition-like items of attention from the perspective of SMEs are put up for discussion, which are deliberately formulated in a pointed way.

- In view of the manifold issues that internet governance needs to cover when it comes to digital transformation processes, it is still necessary for the needs of small and medium-sized companies to be compiled in a systematic manner – a task to which the above key points are intended to be a start. This needs to be improved upon and be followed by an organised procedure which gives small and medium-sized companies a voice in the governance process. The Federal Ministry for Economic Affairs and Energy could take on a greater role in internet governance processes by acting as a trustee for SMEs.
- The way in which the internet is set up offers the opportunity in principle for small companies to become globally successful as well. In order to achieve this, at a technical level, these companies need a sufficiently powerful data connection. Any delays in this area hinder SMEs massively and should be remedied as quickly as possible.
- Many SMEs operate on the global market or strive to do so. The trend towards the “re-nationalisation” of the internet, i.e. technical or regulatory efforts to close off the internet, creates considerable risks for these companies, which have to be carefully weighed against the advantages.
- Internet governance developed as part of a global process certainly has the chance to develop minimum standards that apply all over the world. The integration of countries in which there is limited rule of law but high economic potential, such as China and not least India, is of great importance (for example, market foreclosure through the Chinese "Social Credit System").

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