Bertelsmann Stiftung (ed.)

Smart Country – Connected. Intelligent. Digital.

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Reinhard Mohn Prize 2017

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Foreword

The opportunities and risks inherent to digital transformation wield particular influence in ensuring social inclusion and equal opportunity regardless of age, socioeconomic status or geographic location. Defining global standards in ethical, humanitarian, legal and politically normative frameworks will prove decisive in stewarding increasingly digitally oriented societies toward full social inclusion. We ourselves define our future.

The forward march of information and communication technologies (ICT), increasingly digitized production processes, and the growing number of new social and economic services are part of the inexorable process of change that will have an impact on people in several areas of life. These developments are bound to increase the demands placed on societies and their leaders.

Historically, we stand at the beginning of one of the most significant transformations of society and personal life. Yet many of these changes are already underway. Indeed, we have been able to discern clear shifts in recent decades in how we organize our leisure activity, work, and education and health systems.

New forms of cooperation are emerging in business and civil society as dynamic networks in the world of work are fostering innovative solutions in a variety of sectors and aspects of daily life. Personalized learning in education and customized health solutions are creating new opportunities for the participatory use of public services that are tailored to individual needs. In Germany, some 65 percent of the public considers apps designed to record and communicate medical data to physicians to be useful. And some 28 percent of Germans aged 60 to 69 use websites in their interactions with the German health system.

Digital technologies are met with approval in the education sector, as well. A majority of European students (77%) state that ICT contributes to an improved understanding of materials taught in class. According to most educators (91%), ICT use also improves motivation levels in the classroom. We also see digital change underway in government and public administration, as citizens are being more thoroughly incorporated into the policymaking process.

In addition to such benefits, digitization also presents several challenges. National strategies and competition between analogue and digital offerings in business, science and education will soon go global. Current approaches to data sovereignty and security, as well as social

security systems, must be developed for European and international frameworks with cross-border activity in mind.

The pressure weighing upon political and business leaders is growing. We need to acknowledge the importance of planning for tomorrow today – that is, of creating political and social systems able to ensure understanding, peace and value-driven interaction between heterogeneous societies. Doing so is essential if we wish to provide future generations with a foundation that is secure, people-focused and geared toward citizens' participation. These aims inform the focus of this year's Reinhard Mohn Prize, "Smart Country – Connected. Intelligent. Digital."

Each year, the Bertelsmann Stiftung awards this prize to a distinguished individual who has played a significant role in advancing a social cause. We are pleased to present this year's award to Toomas Hendrik Ilves, the former president of Estonia, for his achievements as a champion of digitization in government, public administration and education.

"We must learn from the world, because to learn from the world means we learn more quickly." Drawing on this principle advanced by our founder, Reinhard Mohn, this year's prize is based on good practice research. The examples of Estonia, Sweden, Isreal and Austria featured here represent four visionary states with regard to digitization.

Estonia stands out in terms of digitization thanks to its digital "X-Road" platform, which facilitates the secure exchange of information between public agencies and private stakeholders (e.g., health databases, banks and citizens). The platform is the backbone of Estonia's digital strategy.

Sweden is notable because it began establishing full-territory broadband coverage early on. The country's ability to pragmatically integrate a variety of stakeholders into the process has proven crucial here.

Israel is well-known as a startup nation boasting a dynamic, networked innovation landscape that helps young entrepreneurs and their business models grow beyond the country's borders. Israel thus stands as a global model for societies aiming to promote technological and scientific innovation.

Austria is a pioneer in projects implementing digital technologies in specific areas, such as the digital city and assisted living for the aged, which have paved the way for new opportunities in managing the effects of demographic change.

The key findings of our global on-site research point to four essential drivers of success:

- All stakeholders must show a clear political will to undergo digital transformation and demonstrate a fundamental openness to change.
- There must be a government-led digital strategy defining overall objectives for state and society alike.
- The public must be involved in the series of changes that take place as the world becomes more digitally oriented. The government must act to secure public trust – and mitigate fears and uncertainty – regarding digital technologies by providing reliable protections for society and individuals.
- Key framework conditions (e.g., a regulatory infrastructure, full-territory internet access or an e-ID system) must be in place in order to effectively guide digital transformation.

These goals can be reached only if stakeholders across the public, private and social sectors work together. Developing and implementing state-defined standards are key to the creation of decentralized innovative solutions. We firmly believe that these aims are achievable not only abroad, but also here in Germany!

We wish all of our readers an exciting journey abroad and a forward-thinking return to Germany!

Dr. Brigitte Mohn
Member of the Executive Board,
Bertelsmann Stiftung

Dr. Kirsten Witte
Director, Communities for Better Living Program
Bertelsmann Stiftung

Background and Approach of International Research

Digitization is one of the major trends that will have a significant impact on Germany's future. This is not only because of the immense potential for technological innovation, but also due to the possibilities it will open up with respect to social development. New forms of education and employment opportunities bringing about lower social inequality, stimulus for economic growth, improved access to health and care services, and increased public participation through digital forms of communication – these opportunities will only be realized if digital transformation is proactively shaped and its positive aspects are harnessed.

The foundations of this include comprehensive technical access to high-performance internet, in both urban and rural areas, as well as broad digital competency in society, independent of age or social background. Only in this way can digital innovation improve the quality of work and life of all citizens. We need to prevent a digital divide from taking hold in society and, in doing so, ward off a growing social divide. Finally, the digital revolution underway is interacting with globalization and demographic change – a dynamic that will only intensify in the future. In actively shaping this transformation, the public, private and social sectors have to play their parts in equal measure.

In awarding the Reinhard Mohn Prize 2017 to "Smart Country – Connected. Intelligent. Digital.," the Bertelsmann Stiftung wants to show how digitization can be taken as a chance to establish better participatory opportunities for everyone, as well as a chance to complement or sustain the existing networks and structures that ensure social inclusion. The Smart Country concept targets the broad access to social and political participation for everyone. This involves establishing the technical and social infrastructures needed to ensure comparable living conditions across all regions and for all segments of the population, regardless of individual spatial and social environments.

The term Smart Country comprises three dimensions: a technical one, a spatial one and another related to content. The technical dimension describes the application of modern information and communications technology (ICT), as well as the requisite infrastructure. Internet access is a fundamental prerequisite in this respect. Technologies building on this will have an enduring impact on our society. Examples of this include end-user devices, cloud applications, the internet of things, and real-time big data analyses. The spatial dimension of Smart

Country is closely connected to the technical foundations: Digitization allows spatial distances in many areas of life to be more easily overcome, or even rendered inconsequential.

The distinguishing feature of Smart Country is, however, the content dimension. This denotes an "enlightened digital attitude," whereby technology is not only used for its own sake, but also intelligently combined and applied in ways designed to address social problems and improve social inclusion. This content dimension takes seriously the considerations related to the risks associated with digitization and the data collection that often accompanies it. However, above all, it emphasizes the opportunities for society and puts forth an optimistic, visionary view of digital coexistence.

International good practice research

How can digitization be applied so that all of society benefits from it? Reinhard Mohn once said, "We can best discover innovation, learn and make a difference by looking beyond our own borders." In keeping with this belief, the Reinhard Mohn Prize 2017 is accompanied by international good practice research by the Bertelsmann Stiftung and Prognos AG. The research focused on digital strategies and approaches across the world that illustrate the opportunities that digitization presents, ground the concept of Smart Country in practice, and offer a range of answers to the question of how digitization can support social inclusion.

The three Smart Country dimensions define and delimit the focus of good practice research on an international scale. The extent to which these practices are deemed "smart" is a function of their capacity to:

- use digital technologies, rather than present significant barriers to use, and be as comprehensive and scalable as possible;
- be transferable to Germany and function independently of population density;
- improve participation opportunities, complement or replace social and public networks/ infrastructure, and communicate the opportunities of digitization.

In a first phase, using internet and social media research as well as discussions with experts, a search was conducted for digital strategies, initiatives and projects that purposefully drive social progress forward. Discussions with the parties responsible for the identified initiatives permitted a fundamental validation of good practice examples as well as detailed insight into implementation and operation. Around 100 good practice examples from 30 countries were identified and assessed.

In the summer of 2016, the results were presented to a commission of experts appointed by the Bertelsmann Stiftung. One central result of this session was that, in order to take advantage of digitization's potential, countries have to develop a comprehensive national digitization strategy and also actively exploit the decentralized innovation potential of the economy and civil society.

In a second phase of research, the digitization strategies of four selected countries – Estonia, Sweden, Israel and Austria – were examined during on-site visits. Discussions with digi-

tization strategy stakeholders and individuals from the fields of politics, economics, academia and civil society permitted a comprehensive understanding of local activities or, as it were, a 360-degree perspective.

The results of the research are presented in the following chapters. After a description of the current situation in Germany, various key spheres of life are examined and the spectrum of opportunities offered by digital innovation are shown via examples. The subsequent chapter takes a country-based perspective, and describes the digitization strategies of the four countries examined. The final chapter summarizes the findings of the international research.

RMP Team and Authors

Carsten Große Starmann

Carsten Große Starmann is a Senior Project Manager for the "Livable Communities" program of the Bertelsmann Stiftung, and directs its "Communities Shaping Demographic Change" project. His areas of expertise include demographic change, digitization, and urban and regional development. For this year's Reinhard Mohn Prize, he oversaw the development and communication of the prize's content and individual studies. Starmann is a specialist in public administration, and studied law in Osnabrück.

Petra Klug

Petra Klug is a Senior Project Manager for the "Livable Communities" program of the Bertelsmann Stiftung, where she focuses on issues of urban development and demographic change within the "Communities Shaping Demographic Change" project. She oversaw the international research conducted for the Reinhard Mohn Prize 2017 and, in addition to leading the development of this year's RMP concept, managed the implementation of several studies. Klug studied information science, German literature, sociology and sustainable development cooperation in Cologne and Duisburg.

Claudia Münch

Claudia Münch is a Project Director in the "Economy, Society and State" division at Prognos AG. She directed the international research for the Reinhard Mohn Prize 2017, and has extensive experience in the planning and implementation of international comparative studies as well as in the organization of on-site analysis abroad. Münch studied economics at universities in Freiburg and Lund. She holds a master's degree in International Economics from the University of Amsterdam.

Kim Bastian Warmbrunn

Kim Bastian Warmbrunn is a consultant in the "Economy, Society and State" division at Prognos AG. He helped conduct the international research and interviews for the Reinhard Mohn Prize 2017, and formulated the country profiles, for which his expertise in the digital transformation processes in business and administration was especially valuable. Warmbrunn studied political science, economics and philosophy in Hamburg and London.

David Wilkskamp

David Wilkskamp was formerly a consultant in the "Economy, Society and State" division at Prognos AG. His expertise in the digitization of government and administration practices as well as in broad-scale digital strategies was valuable in the planning and implementation of the research for the Reinhard Mohn Prize 2017. He was a principal contact for the comparison of national digitization strategies. Wilkskamp studied public management and governance at Zeppelin University in Friedrichshafen. He currently works as an e-government consultant in the public sector.