

## B20 Digitalization Taskforce

Digitalization has revolutionized business models, interactions, and our daily lives. Worldwide, it fosters equal opportunities, customer welfare, quality enhancement, and cost reductions. However, a number of barriers persist to exploiting digitalization's full potential. These include legal and constructive impediments, as well as limitations to global interoperability. Not least, public concerns about digitalization's potential drawbacks have to be addressed. Governments and businesses need to tackle these obstacles together with future-oriented actions. Digitalization is inherently of a transfrontier character. Thus, the importance of close international coordination and collective action cannot be overstated.

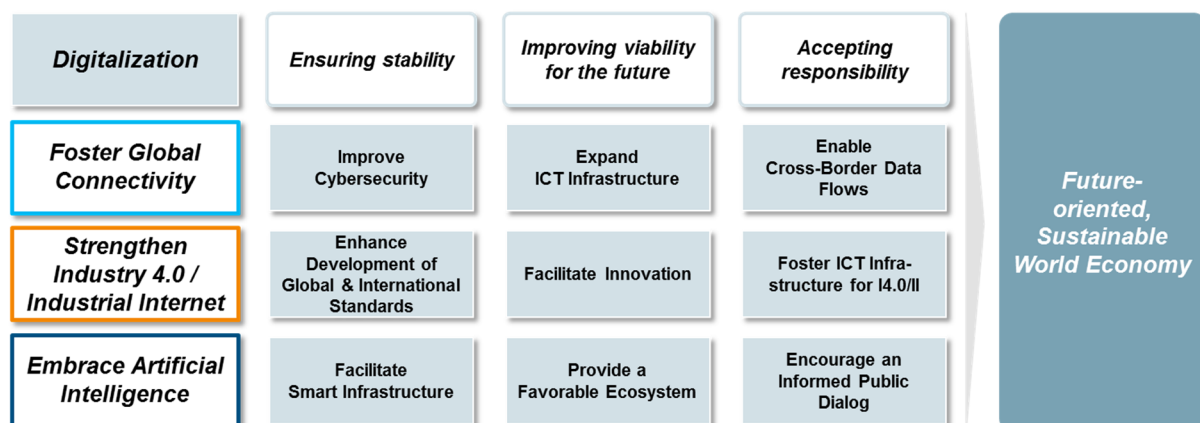
First of all, the fundamentals of global connectivity need to be strengthened. As production, infrastructure, services, public administration, and our homes become increasingly interconnected, it is of the utmost importance to collectively strengthen cybersecurity. Cooperation is important to avoid fragmented regulation or processes and preserve the global and open nature of the Internet. This also concerns the free flow of data, which is becoming the fuel of the global economy. Therefore, G20 members have to stand up against creeping digital protectionism, increase interoperability of legal frameworks, and facilitate the transfer of data in accordance with privacy requirements. To achieve the goal of providing affordable Internet access to everyone, G20 members have to foster the expansion of ICT infrastructure. Today, half of the global population still does not use the Internet. G20 members have to set ambitious national goals for the expansion of broadband coverage and implement investment-conducive frameworks.

Digitalization is transforming production and production-related services along the whole value chain. It is unlocking huge potential for efficiency, productivity, and better utilization of resources. The broadband needed to fully use the potential of Industry 4.0 and the Industrial Internet underlines that expansion of ICT infrastructure is needed in both developing and industrialized countries. To continuously encourage the use and advancement of technological applications for production, G20 members have to foster and protect innovation. Furthermore, the industry-led development of globally coherent standards as well as reference architectures should be strengthened. Standards-based interoperability is at the basis of market efficiencies.

With the exponential development of Artificial Intelligence the next level of economic transformation is right at our doorstep. AI-enabled innovations such as self-driving vehicles, smart infrastructure, or advances in machine learning have tremendous potential to improve people's lives. However, its full implications are not yet fully understood. Spreading knowledge and warranting the right regulatory environment are key issues to be addressed by policy-makers.

The G20 as the central hub for global governance needs to address these barriers to global connectivity, the expansion of Industry 4.0, and the development of AI. If it does, the G20 will go a long way in reaching its goal of increasing inclusiveness, welfare, and growth to the benefit of all.

**Relevance of Taskforce Recommendations for the G20 focusses “Ensuring stability”,  
“Improving viability for the future”, and “Accepting responsibility”**



## Recommendations

### Foster Global Connectivity

**Recommendation 1:** The G20 should foster global connectivity through the definition of a harmonized cybersecurity baseline framework, by supporting norms for responsible state behavior, by enabling free and trustworthy cross-border data flows, and by fostering investment in ICT infrastructure as well as in skill and capacity building.

**Policy Action 1.1: Improve Cybersecurity** – The G20 should improve cyberrisk management by encouraging the development of a harmonized cybersecurity baseline framework as well as of a concept for a global interoperable information-sharing platform under OECD guidance, and support a process leading to norms for responsible state behavior.

- The G20 should make cybersecurity a permanent agenda topic.
- The G20 should encourage the OECD to guide the development of the cybersecurity baseline framework together with international institutions and agencies, international standardization bodies, and private-sector technical experts, while involving non-OECD G20 members.
- The concept for an interoperable information-sharing platform should take into account national needs and ensure the possibility of global exchange between existing national platforms.
- G20 members should foster security-by-design by encouraging the development and adoption of secure software development practices, as well as self-certification practices.
- G20 members should aim to reach a global agreement on norms for responsible state behavior in cyberspace by 2020 – dialogues could be facilitated by the United Nations Group of Governmental Experts (UN GGE), as well as relevant regional organizations with critical input from the private sector and civil society.

**Policy Action 1.2: Enable Cross-Border Data Flows** – G20 members should commit in trade agreements not to prevent the free flow of data across borders – without prejudice to clearly defined exceptions for the protection of privacy and security. Furthermore, G20 members should strengthen efforts for interoperable data protection standards, facilitate the use of the accountability principle, and pursue additional bilateral and plurilateral agreements that enable cross-border data flows consistent with privacy and data protection requirements.

- G20 members should address cross-border data flows in their discussions on digital trade and aim for guarantees for unimpeded transfer, access, and storage of data across borders in their trade agreements. These should include appropriate safeguards for privacy and security.
- The G20 should ask UNCTAD and the OECD to guide a dialogue with all relevant stakeholders – including governments as well as experts from private and public organizations – on interoperable data protection and privacy protection standards. The process should lead to the development of a framework of common guiding policy principles that increase interoperability.
- G20 members should facilitate the use of accountability-based legal instruments and pursue bi- or plurilateral agreements, such as the Privacy Shield to enable cross-border data flows while safeguarding privacy requirements.
- To increase legal certainty related to cross-border data flows, G20 members should review efficiency and cooperation processes within the framework of mutual legal assistance treaties.

**Policy Action 1.3: Expand ICT Infrastructure** – To foster affordable broadband access for all, G20 members should encourage private investments in ICT by considering the established and important principle of technological neutrality, through a simplified, market-oriented, and transparent regulatory environment, and through incentives to invest in less profitable areas, as well as by fostering investments for skill and capacity building.

- G20 members should minimize the regulatory burden for operators and service providers, reduce barriers to foreign direct investment, ensure fluid venture capital markets, and complement private investments with public funds in less profitable deployments and remote areas.
- To consider the established and important principle of technological neutrality and ensure that regulations are simple, market-oriented, and transparent, G20 members should implement three policy principles: 1) simplified and streamlined access regulation, 2) forward-looking spectrum policy to cover accelerated demand, and 3) competition policy with more emphasis on dynamic efficiencies.
- To support the demand side of ubiquitous connectivity, G20 members should foster public-private partnership initiatives for skill and capability building – especially in developing countries.

## Strengthen Industry 4.0 and the Industrial Internet

**Recommendation 2: The G20 should support the dissemination of Industry 4.0 and the Industrial Internet (I4.0&II) by fostering innovation, ICT infrastructure deployment, and the development and use of global standards.**

**Policy Action 2.1: Facilitate Innovation** – G20 members should facilitate the use and dissemination of technology solutions for I4.0&II by increasing awareness of use cases and opportunities through the initiation of an international knowledge exchange platform of practice at the OECD and World Bank Group, and by supporting demonstration systems of private organizations and academia.

- The G20 should mandate the OECD, UNCTAD, and UNIDO to compile and provide respective use cases on I4.0&II for the platform in cooperation with businesses.
- G20 members should financially incentivize the setup of demonstration systems/plants of state-of-the-art I4.0&II implementations through tax deductions or research and development funding, which should also target the cooperation between academia and business.

**Policy Action 2.2: Foster ICT Infrastructure for I4.0&II** – The G20 should encourage public-private cooperation for setting specific I4.0&II ICT infrastructure goals that serve business needs, implement forward-looking ICT infrastructure policies, and facilitate new business models as well as the use of new technologies by avoiding burdensome, needlessly constraining regulations.

- The definition of specific national I4.0&II ICT infrastructure goals should pursue the implementation of chapter 4.5 (New Industrial Infrastructure) of the G20 New Industrial Revolution Action Plan and involve industry representatives to ensure the integration of business needs.
- To implement the defined I4.0&II goals, G20 members should define national ICT infrastructure plans that reflect specific business requirements, such as broadband communication capacities and national infrastructure needs.
- To implement forward-looking ICT infrastructure policies, G20 members should: 1) allocate more spectrum without discriminating against private or foreign providers, 2) facilitate new business models such as value-based pricing, and 3) facilitate development and use of new technologies such as software-defined and virtual networks by replacing outdated policies with flexible regulations.

**Policy Action 2.3: Encourage Development of Global and International Standards** – G20 members should foster the development and use of globally interoperable standards and specifications by supporting industry-led multistakeholder cooperation and market-driven standardization initiatives, as well as referring to consensus-based globally relevant standards and specifications in public procurement.

- G20 members should help realize cooperation of formal standardization bodies with open, voluntary, consensus-based standardization bodies and industry fora of market-driven initiatives, like the Reference Architecture Model Industrie 4.0 (RAMI4.0) within Plattform Industrie 4.0 or the Industrial Internet Consortium.
- The G20 should draft and maintain an exemplary list of globally relevant informal standardization bodies, to inform relevant stakeholders and foster potential cooperation.

## Embrace Artificial Intelligence

**Recommendation 3: The G20 should support the evolution of human-centric artificial intelligence (AI) and related technologies by ensuring informed public dialogues on opportunities and challenges, supporting development and deployment of innovation, and accelerating the rollout of smart infrastructure.**

**Policy Action 3.1: Encourage an Informed Public Dialogue** – The G20 should encourage the OECD to set up a multistakeholder initiative to analyze potential applications, benefits, and challenges of AI and provide guidance for governments on an informed public dialogue on AI.

- The G20 should acknowledge the importance of international cooperation to exploit the potential of AI and make it a G20 agenda item.
- The G20 should ask the OECD to organize an international forum comprising representatives from business, governments, academia, and societal institutions and guide the preparation of a report on opportunities, risks, and challenges related to AI. Non-OECD G20 members have to be fully involved in this project.
- The report should provide guidance on how governments can foster an informed public dialogue on AI.

**Policy Action 3.2: Provide a Favorable Ecosystem** – G20 members should develop forward-looking policies that support the rollout of AI by adjusting regulations to facilitate the use of emerging technologies, such as big data, and foster related investment and innovation.

- G20 members should review as well as adjust existing regulations and avoid the introduction of new policies that impede the use of emerging technologies including big data and advanced data analytics.
- G20 members should increase funding of AI research projects in academia and incentivize AI research and pilot projects in business, for instance through taxation.
- G20 members should make appropriate public-sector data available for analytics and research projects to harness the related innovation potential.

**Policy Action 3.3: Support Smart Infrastructure** – The G20 and its members should support the implementation of smart infrastructure by mandating the Global Infrastructure Hub (GIH) to make available – jointly with the private sector – use and business cases to illustrate potential benefits, reducing barriers to foreign direct investments in ICT and smart infrastructure, and complement private investments in less profitable deployments.

- The G20 should mandate the GIH to draft a report on the potential of smart infrastructure including use and business cases as illustration and proof of value.
- The GIH should catalog best practices that emerge from lighthouse projects to accelerate smart infrastructure implementation.
- Utilizing the GIH best practices catalog, G20 members should further support the implementation of smart infrastructure by informing standardization of interfaces between different smart infrastructure solutions and technologies.

## Business 20

The Business 20 (B20) is the official G20 dialogue with the global business community. On September 4, 2016, the leading German business associations BDI, BDA, and DIHK, mandated by the German Chancellery, assumed the B20 presidency. Chair of B20 Germany is Dr. Jürgen Heraeus.

Since September 2016, more than 700 representatives from companies and business association developed recommendations for the G20 on a consensual basis. B20 Germany is organized in seven working groups: Trade and Investment, Energy, Climate & Resource Efficiency, Financing Growth & Infrastructure, Digitalization and Employment & Education, Responsible Business Conduct & Anti-Corruption and SMEs. In February, the B20 Health Initiative was launched. Each group is headed by a chair and several co-chairs. The approximately 100 members of each group represent all G20 countries and sectors of the economy.

## B20 Digitalization Taskforce

### Chair

Klaus Helmrich, Member of the Managing Board, Siemens

### Co-Chairs

Sabine Bendiek, CEO, Microsoft Germany  
Hans-Paul Bürkner, Chairman, The Boston Consulting Group  
Timotheus Höttges, CEO, Deutsche Telekom  
Pierre Nanterme, CEO & President, Accenture  
Klaus Rosenfeld, CEO, Schaeffler  
Rajeev Suri, CEO & President, Nokia

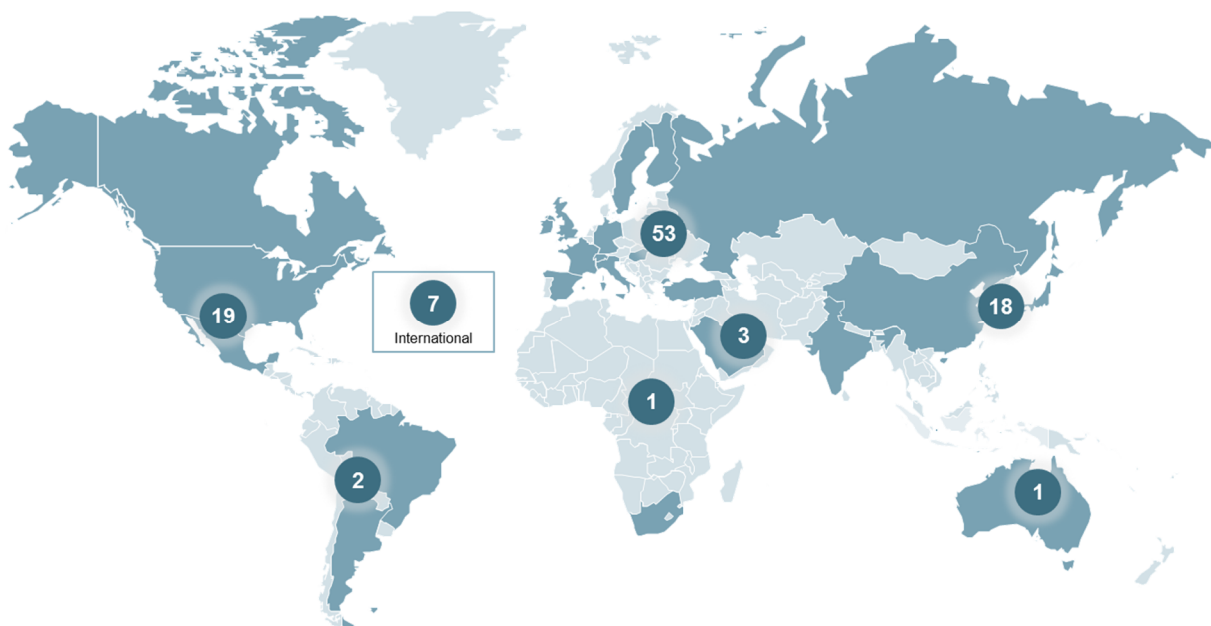
### Knowledge Partner

The Boston Consulting Group

### Network Partners

Global Business Coalition  
Business at OECD  
International Chamber of Commerce  
World Economic Forum

**The taskforce consists of 104 members from more than 27 countries**



**B20 Germany**

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