Federal Ministry
for Economic Affairs
and Energy

Shaping Digitalization:
Germany's Digital Policy

Dr. Rudolf Gridl

Head of Internet Governance and International
Digital Dialogue

»Digitisation offers great opportunities. Our mission is to create the appropriate framework conditions.«

2018 Coalition Agreement (CDU, CSU, SPD)

Federal Ministry
for Economic Affairs
and Energy

Digital Implementation Strategy

»We want to develop Germany into a strong digital country on all levels.«

Skills and competency

Infra-structure

Innovation

Digital Society

E-Govern-ment

Federal Ministry
for Economic Affairs
and Energy

Artificial Intelligence Strategy

Strategie Künstliche Intelligenz
der Bundesregierung

Stand: November 2018

www.ki-strategie-deutschland.de

Objectives:

- Make Germany a world leader in artificial intelligence
- Responsible development and use of AI
- Develop an ethical, legal, cultural and institutional framework for AI

Funding:

- additional 500m euros in 2019
- a total of 3bn euros by 2025
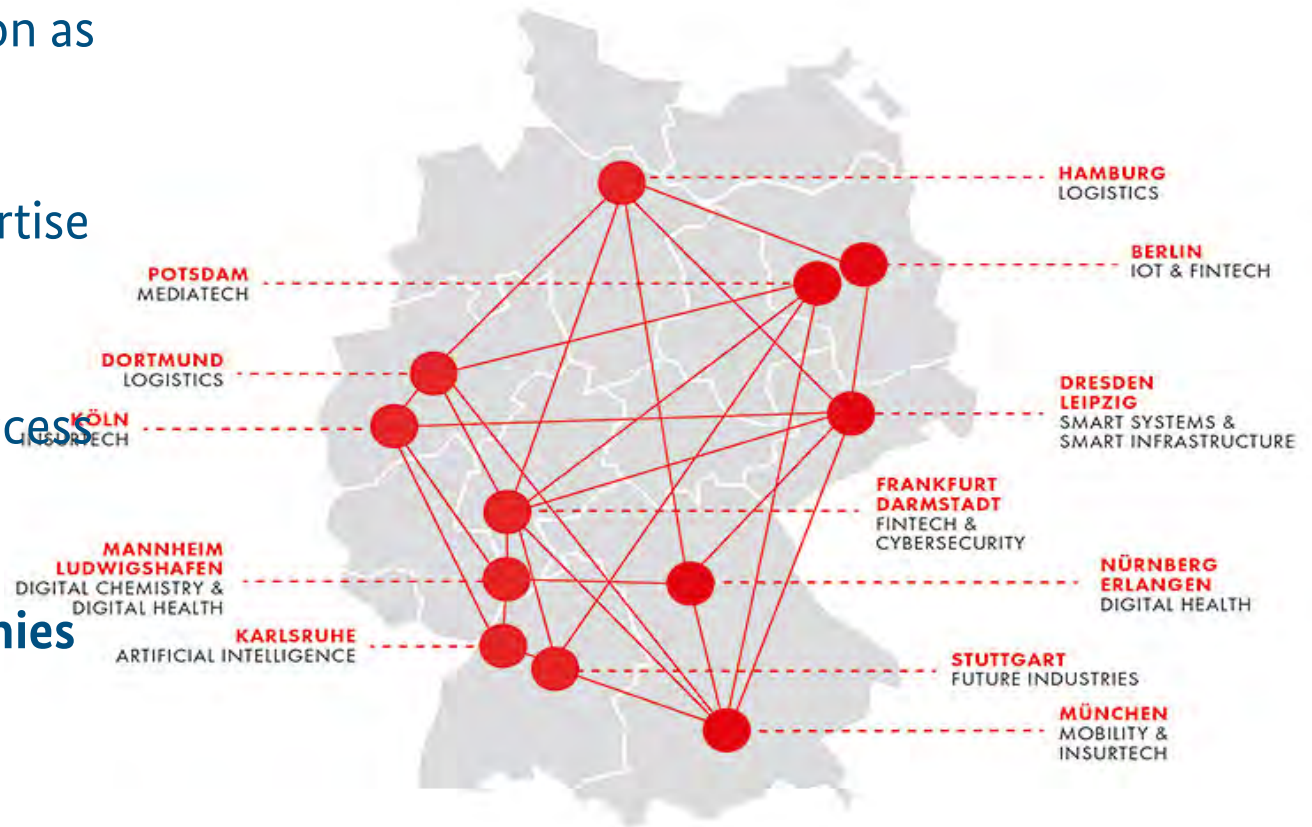
Digital Hub Initiative

Mission:
Strengthening Germany's position as a leading digital economy by enabling the exchange of technological and business expertise

Benefits for Startups:
Co-working spaces, regional resources, business networks, access to the global network of GTAI

Benefits for established companies & investors:
Access to startups and talents, competence for the digital transformation, investment possibilities

HAMBURG
LOGISTICS

BERLIN
IOT & FINTECH

POTSDAM
MEDIATECH

DORTMUND
LOGISTICS

DRESDEN
LEIPZIG
SMART SYSTEMS &
SMART INFRASTRUCTURE

KÖLN
INSURTECH

FRANKFURT
DARMSTADT
FINTECH &
CYBERSECURITY

MANNHEIM
LUDWIGSHAFEN
DIGITAL CHEMISTRY &
DIGITAL HEALTH

NÜRNBERG
ERLANGEN
DIGITAL HEALTH

KARLSRUHE
ARTIFICIAL INTELLIGENCE

STUTTGART
FUTURE INDUSTRIES

MÜNCHEN
MOBILITY &
INSURTECH

GTAI GERMANY
TRADE & INVEST

de:hub
digital ecosystems

Hightech Strategy 2025

Core objectives

- *make knowledge work*
- create cutting-edge innovations
- more effective innovations
- increase prosperity, growth and quality of life
- meet the challenges of the future

Funding

Since 2006, investments in R&D have *increased by more than 30 billion euros.*

By 2025, we intend to increase spending on R&D *to 3.5 % of the GDP*

Hightech Strategy 2025

Societal challenges as "Missions":

- Health and care
  (*eHealth solutions for fighting cancer*)

- Sustainability, climate protection, energy
  (*industry emissions*)

- Mobility and transport
  (*battery cell production*)

- Cities and rural areas
  (*smart rural mobility solutions*)

- Security
  (*Cybersecurity*)

- Economy and Labour 4.0
  (*human-machine interfaces*)

»Industrie 4.0«

I4.0 means that people, machines and industrial processes are intelligently networked.

INDUSTRY4.0

AUTOMATION   CONNECTION   CLOUD COMPUTING   IOT   BIG DATA   SYSTEM INTEGRATION

Figures on Industrie 4.0 for Germany

40
billion euros
Planned annual investment by German industry in Industrie 4.0 applications by 2020

20
percent
Share of automotive companies that use self-controlled systems today
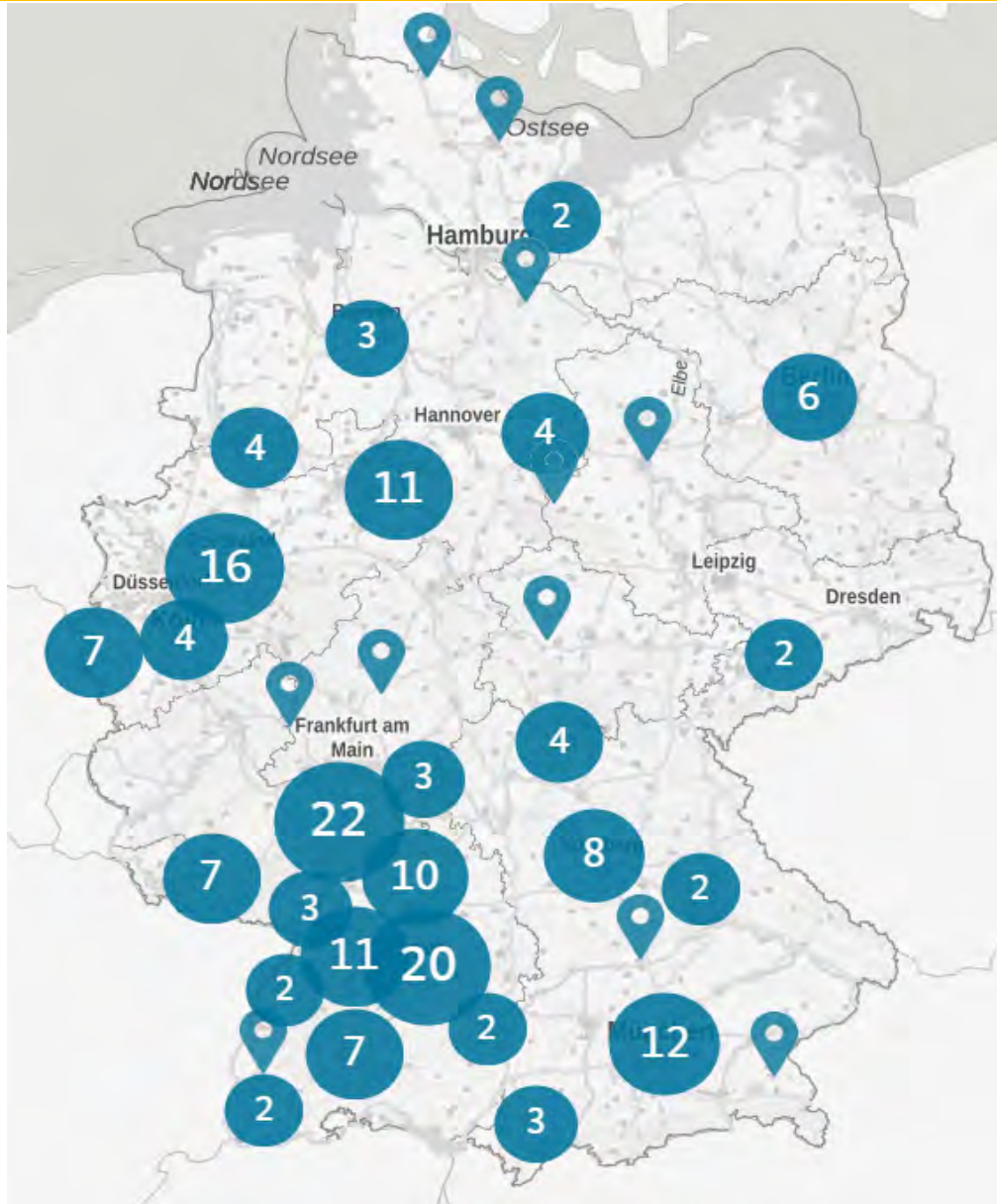
153
billion euros
Additional growth that will be created through Industrie 4.0 by 2020

83
percent
Share of companies that believe that their value chains will be marked by a high level of digitalisation by 2020
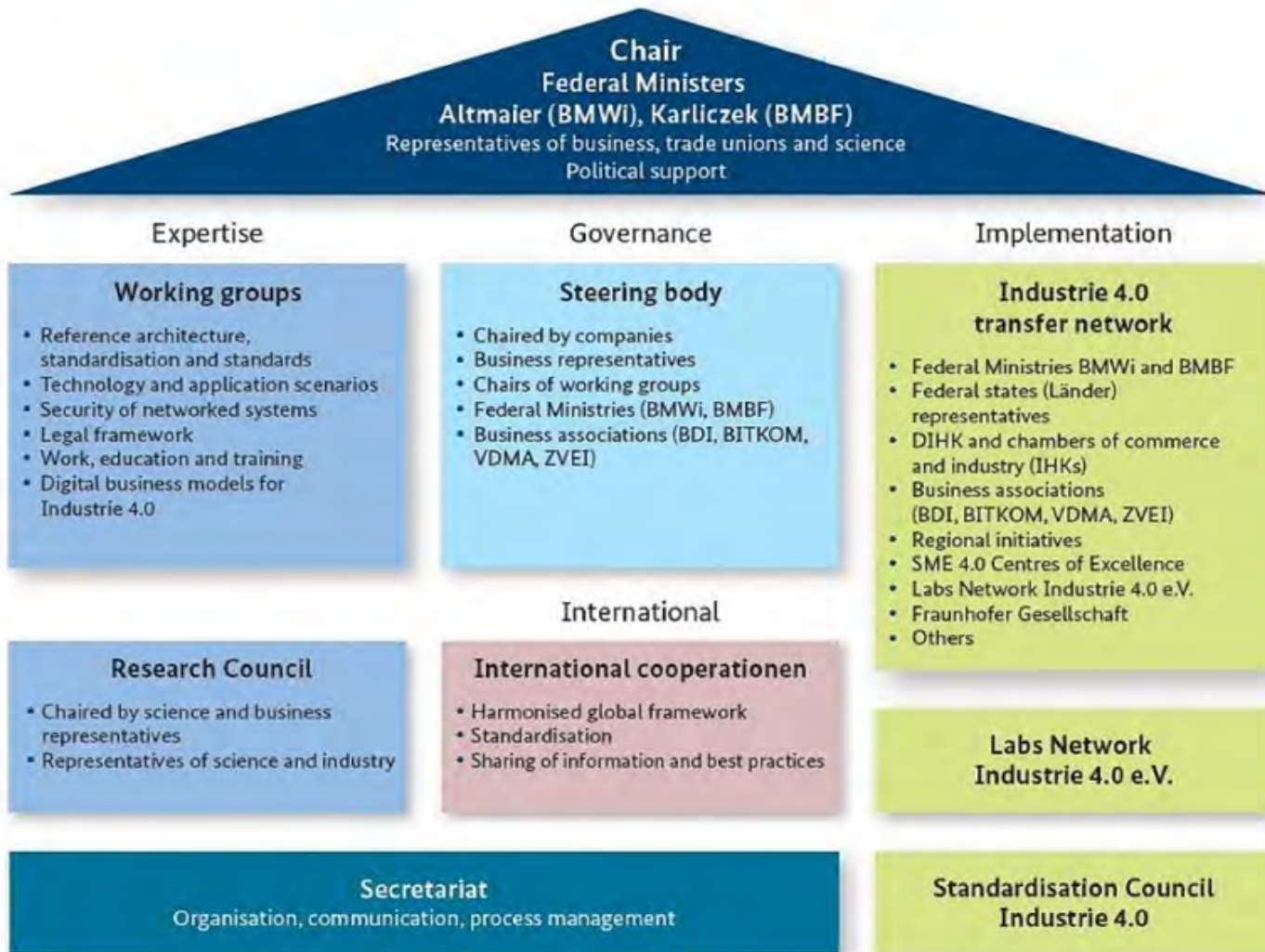
Industrie 4.0: Use cases in Germany

People, machines, and products are directly connected with each other.
Data is collected and used intelligently.

- new production methods
- new business models
- new products
- flexible production
- convertible factory
- customer-oriented solutions
- optimised logistics
- automated analysis processes

More than 300 practical examples in Germany, connected and supported by the Plattform Industrie 4.0

Plattform Industrie 4.0

Chair
Federal Ministers
Altmaier (BMWi), Karliczek (BMBF)
Representatives of business, trade unions and science
Political support

Expertise

Working groups

- Reference architecture, standardisation and standards
- Technology and application scenarios
- Security of networked systems
- Legal framework
- Work, education and training
- Digital business models for Industrie 4.0

Research Council

- Chaired by science and business representatives
- Representatives of science and industry

Governance

Steering body

- Chaired by companies
- Business representatives
- Chairs of working groups
- Federal Ministries (BMWi, BMBF)
- Business associations (BDI, BITKOM, VDMA, ZVEI)

International

International cooperationen

- Harmonised global framework
- Standardisation
- Sharing of information and best practices

Implementation

Industrie 4.0 transfer network

- Federal Ministries BMWi and BMBF
- Federal states (Länder) representatives
- DIHK and chambers of commerce and industry (IHKs)
- Business associations (BDI, BITKOM, VDMA, ZVEI)
- Regional initiatives
- SME 4.0 Centres of Excellence
- Labs Network Industrie 4.0 e.V.
- Fraunhofer Gesellschaft
- Others

Labs Network Industrie 4.0 e.V.

Standardisation Council Industrie 4.0

Secretariat
Organisation, communication, process management

- recommendations for all stakeholders
- initiation of standards
- coherent research agenda based on the needs of operators
- identification of compelling practical examples

Key Success Factors

- **Funding** programmes
  ('*Autonomics for Industrie 4.0*' and '*Smart Service World*'):
  close to 100 million euros for research and innovation

- **Involvement** of all relevant stakeholders
  (government, business, trade unions, academia)

- Suitable **regulatory framework**

- **Transparency** throughout transformation process and sharing of
  best practices

- **SME support** with focus on challenges and opportunities

Federal Ministry
for Economic Affairs
and Energy

International Digital Policy

Industrie 4.0 and the digital economy are issues that cannot be addressed by one single country.

It is necessary to share knowledge, adopt unified standards and harmonise regulatory frameworks so that companies around the world can remain competitive and work together.

Federal Ministry
for Economic Affairs
and Energy

International Digital Policy

G20 Digital Ministers' process
key areas:
- *links between digitalisation, economic growth and employment;*
- *trust, confidence and transparency in the digital economy;*
- *Industrie 4.0*

European Digital Single Market
over-arching objectives:
- *give companies and consumers better online access to goods and services all across Europe;*
- *put in place the right framework and a level playing field for flourishing digital networks and innovative services;*
- *fully harness the potential for growth in the digital economy*

European General Data Protection Regulation (GDPR)

Internet Governance

Internet Governance Forum

The first IGF was convened by UN Secretary General in July 2006

Secretariat based in the United Nations office in Geneva

Vilnius, 2010

Istanbul, 2014

Geneva, 2017

Baku, 2012

Athens, 2006

Sharm El Sheikh, 2009

Guadalajara, 2016

Hyderabad, 2008

Nairobi, 2011

Bali, 2013

João Pessoa, 2015

Rio de Janeiro, 2007

Internet Governance Forum

The IGF is designed according to the **multi-stakeholder model**, meaning that all the relevant societal groups are involved on an equal footing in preparation and implementation (as opposed to a merely intergovernmental approach)

Governments

Academia

Business

Internet Users

Technical

Civil Society

Int'l Organizations
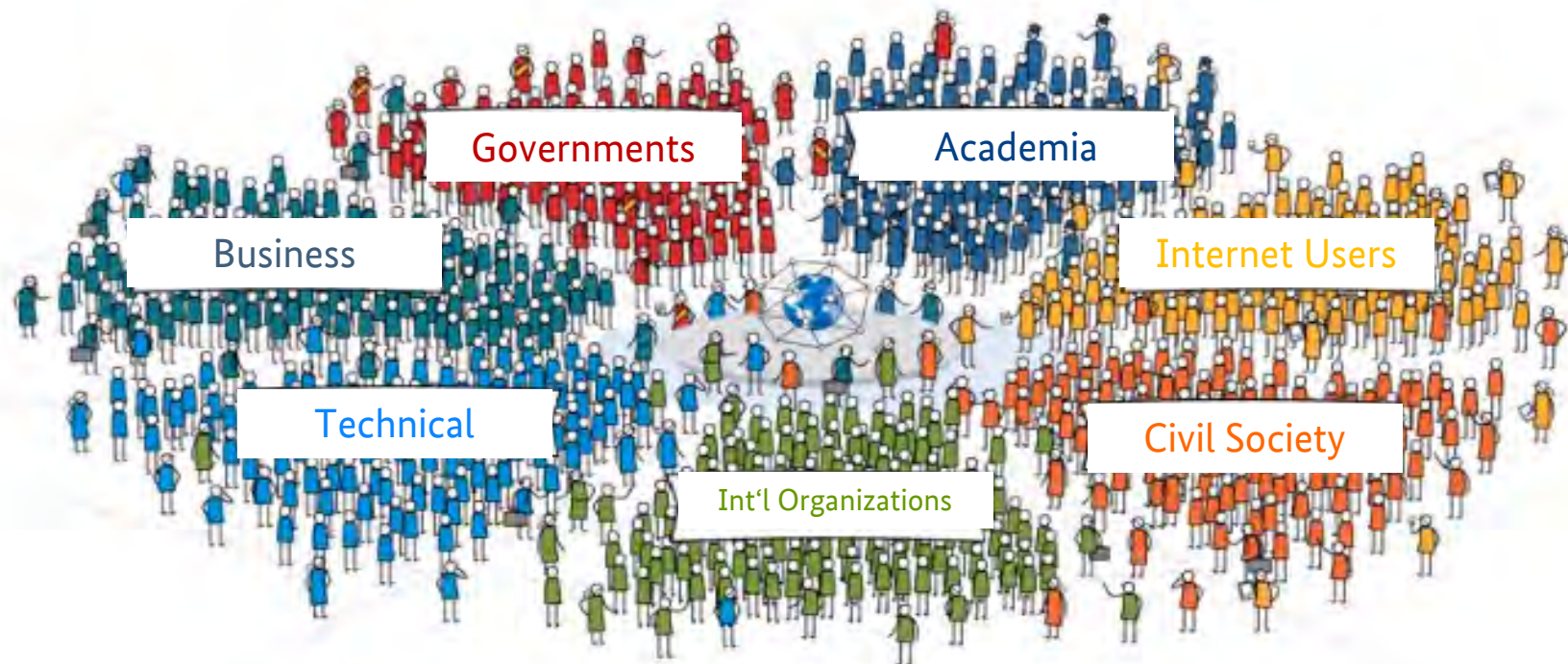
open discussion platform

no binding decisions

advisory capacity

What are our aims?

- an open, secure, reliable, interoperable and truly global internet

    → innovation and social development

- an internet free of censorship, discrimination and propaganda

- strengthen the multi-stakeholder approach

- support the participation of the **Global South**

- outreach to new stakeholder groups

Main topics of the 2019 IGF

Digital Inclusion	Data Governance	Security, Safety, Stability & Resilience
Associated Tags/Issues		
Access, Accessibility	Accountability	Cyber Security
Affordability	Algorithms, AI	Child Online Safety
Infrastructure	Big Data	Domain Name System
Digital Literacy	Cross-border Data	Internet Protocols
Digital Divide	Data Fairness	Trust and Accountability
Outreach	Data-driven Economy	Internet Resources
Poverty Eradication	Privacy & Data Protection	Encryption
Economic Development	Digital Identity	Freedom of Expression Fake
Emerging Technologies	Human Rights	News
Social Inclusion	Internet Ethics	Deep Fake Videos
Multilingualism		Hate Speech

xyz

Key Dates

- **4 March – 12 April 2019** Call for Workshop Proposals

- **4 March – 10 May 2019:** Call for Village Exhibition Booths

- **8 – 12 April 2019:** 2nd Open Consultation & MAG Meeting (Geneva)

- **5 – 7 June 2019:** 3rd Open Consultation & MAG Meeting (Berlin)

- **August – November 2019:** Participants' Registration for the IGF 2019

- **25 November 2019:** Day Zero of the IGF 2019

- **26 – 29 November 2019:** Regular Conference Program of the IGF 2019

xyz

Find out more
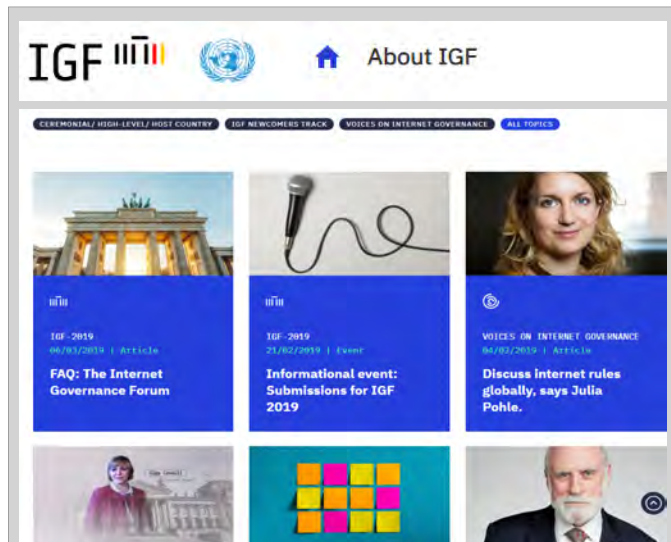
Host Country Website:

igf2019.berlin

IGF 2019 Berlin

@2019IGF

Global IGF Website:

intgovforum.org

THANK
YOU