International Conference
ITU-EKIP Regional Regulatory Forum for Europe
30 September - 1 October 2019

Collaborative regulation in the digital economy

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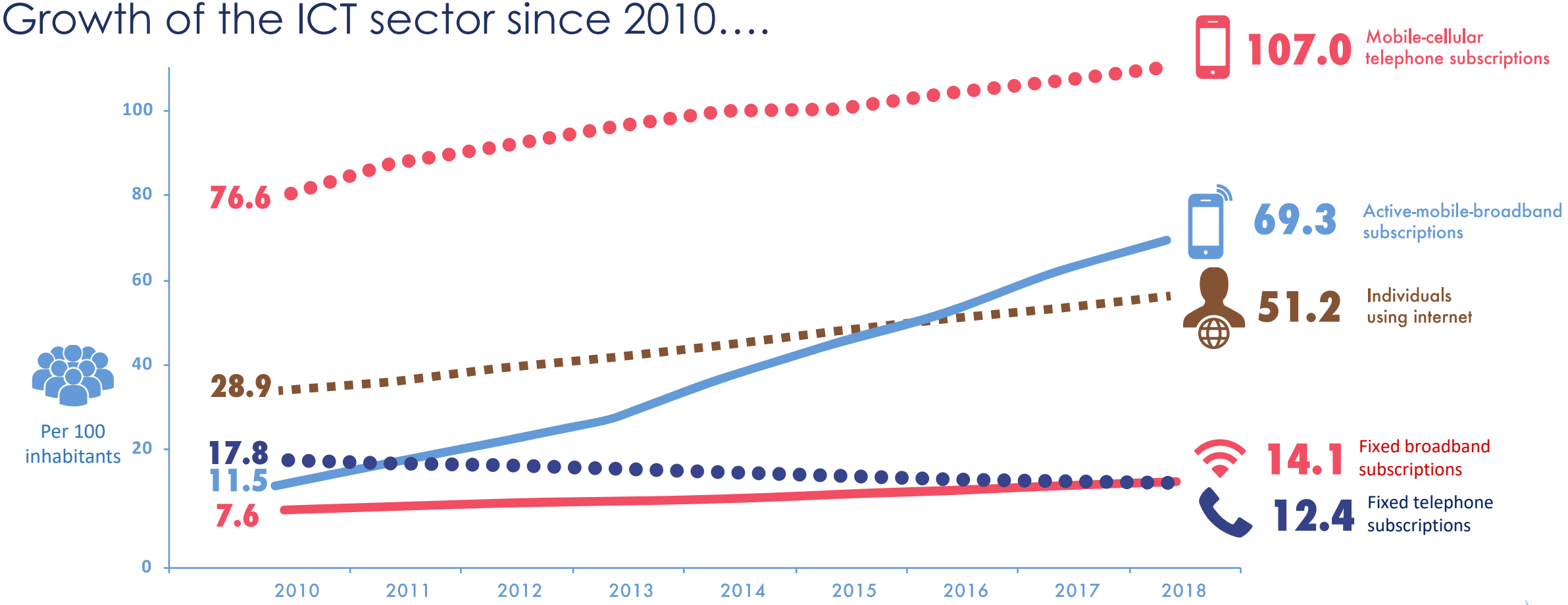
Global participation in the digital economy over time....

Growth of the ICT sector since 2010....



Note: * Estimate.
Source: ITU.

European participation in the digital economy in 2018

Mobile-cellular telephone subscriptions	120
Active-mobile-broadband subscriptions	93.6
Individuals using internet	79.6
Fixed broadband subscriptions	31.3
Fixed telephone subscriptions	35

Per 100 inhabitants

Note: * Estimate.
Source: ITU.

Regulators involved in the digital ecosystem

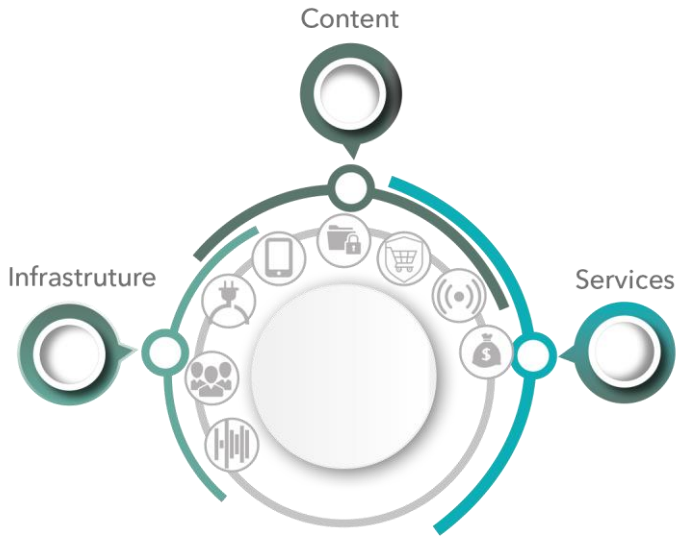
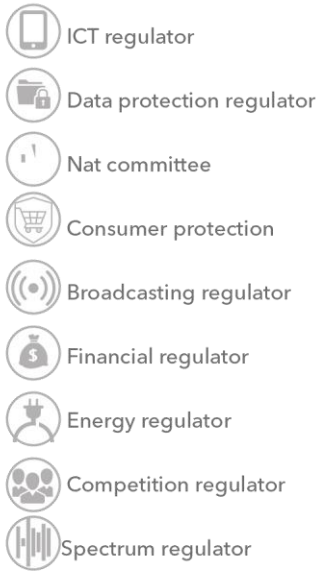
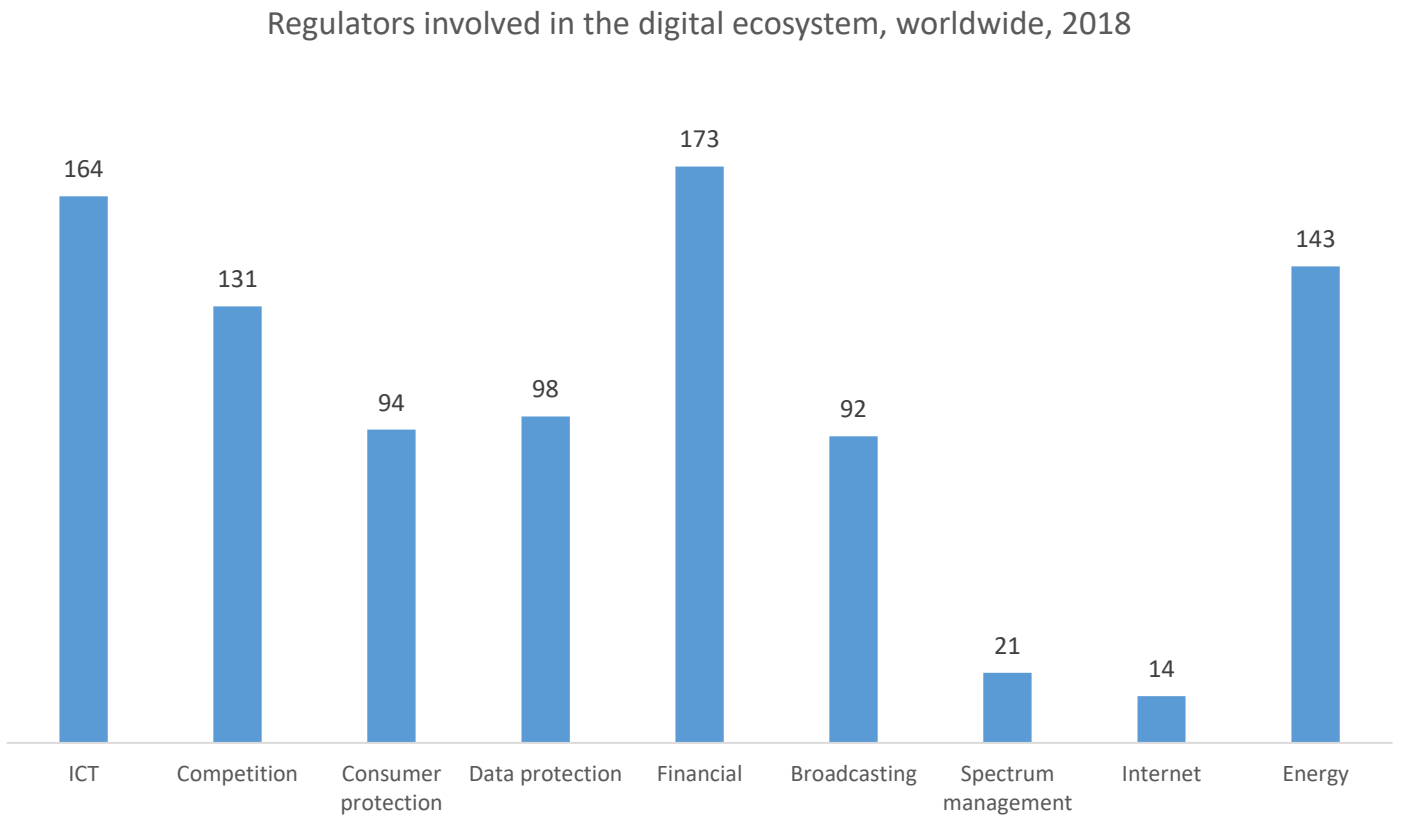


Figure1. Regulatory ecosystem for digital/3.0





Source: ITU

Generations of Regulation - definition

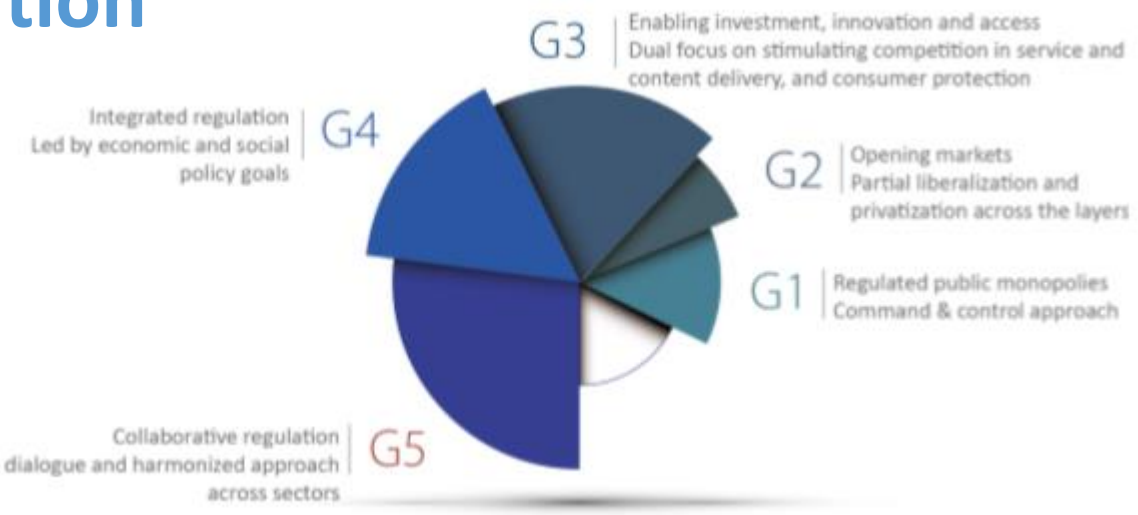


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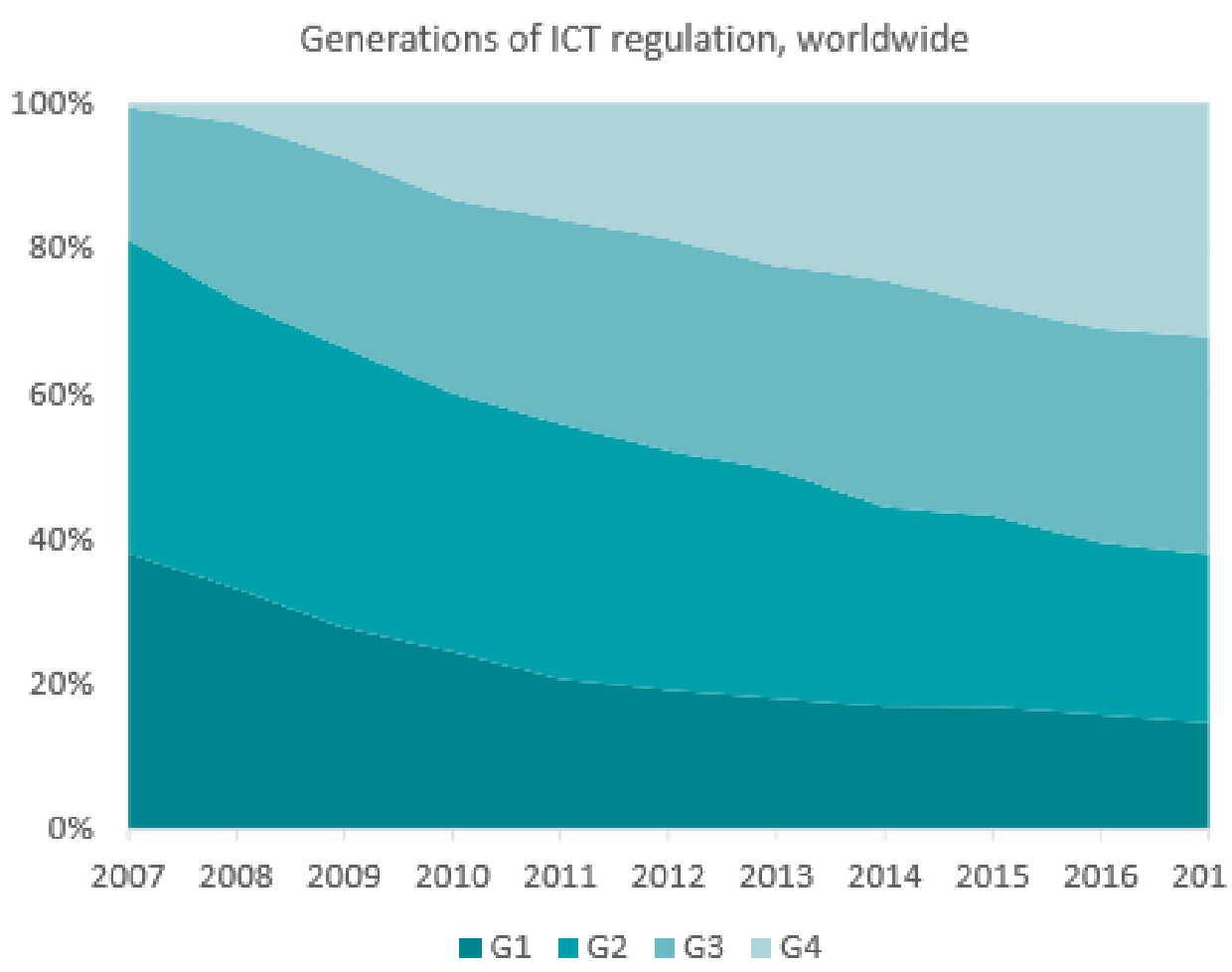
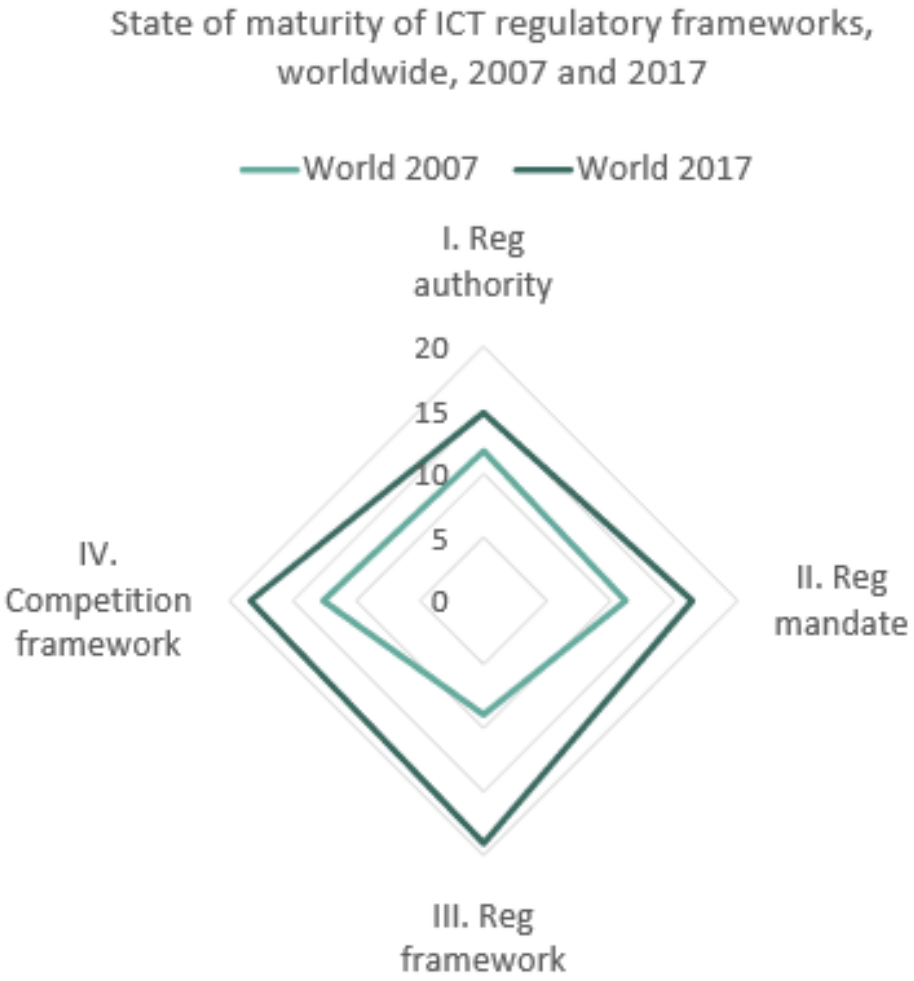
Table 5:
RATIONALE FOR GENERATIONS OF REGULATION

Source: ITU.

	1. Regulatory authority	2. Regulatory mandate	3. Regulatory regime	4. Competition framework
G1	• Consolidated with policy-maker and/or industry	• Business as usual	• Doing as we have always done	• State-owned monopoly
G2	• Separate agency	• First wave of regulatory reform	• Doing more	• Liberalization
G3	• Separate agency, autonomous in decision-making	• Advanced liberalization of ICT sector	• Doing the right things	• Partial competition
G4	• Separate agency with enforcement power	• Adjacent issues become core mandate	• Doing the things right	• Full competition
G5	• Separate agency as part of a network of partner regulators	• **Active collaboration across the board**	• Doing things together	• Intra-modal competition

Generations of Regulation





Source: ITU

Generations of Regulation

Tracker by Country | Country Card | Tracker by Region | Comparison | **Map** | Generations of Regulation | About the Tracker

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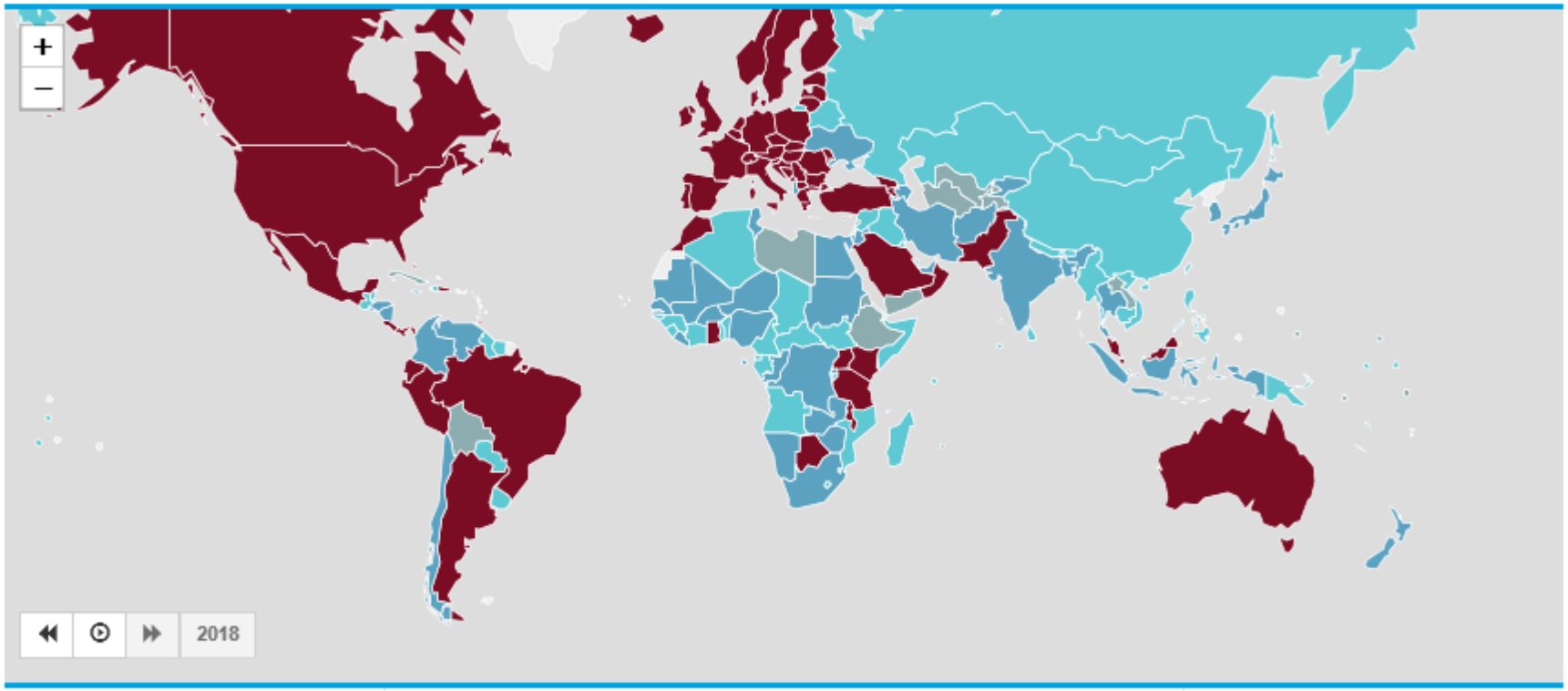


Generations of ICT Regulation

- 1st generation: Tracker score 0 - 40
- 2nd generation: 40 - 70
- 3rd generation: 70 - 85
- 4th generation: 85 - 100

UNCS Disclaimer:

The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Final status of the Abyei area is not yet determined. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

See also:

ITU Transmission Map

ICT regulatory tracker

Europe in 2018

Nb of countries in G4 in 2018

37 out of 45 (or 82%)

First country to reach G4

Belgium, 2007

Gap between the highest and lowest scoring country

Lowest:

Andorra, San Marino, 22

Highest:

Italy, 97.3

Regional averages per pillar/area

Regulatory authority: 17/20

Regulatory mandates: 18/22

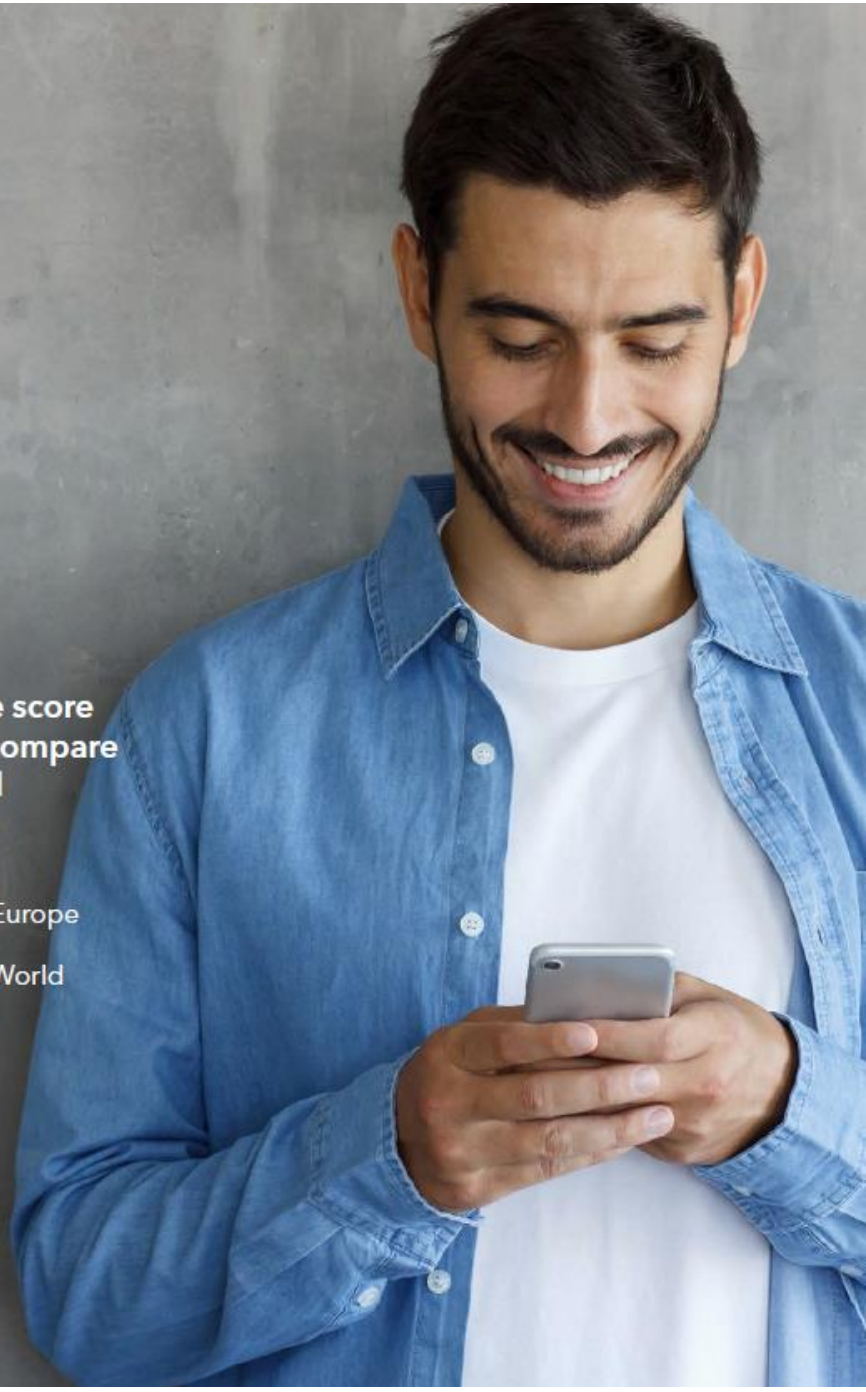
Regulatory regime: 26/30

Competition framework: 25/28

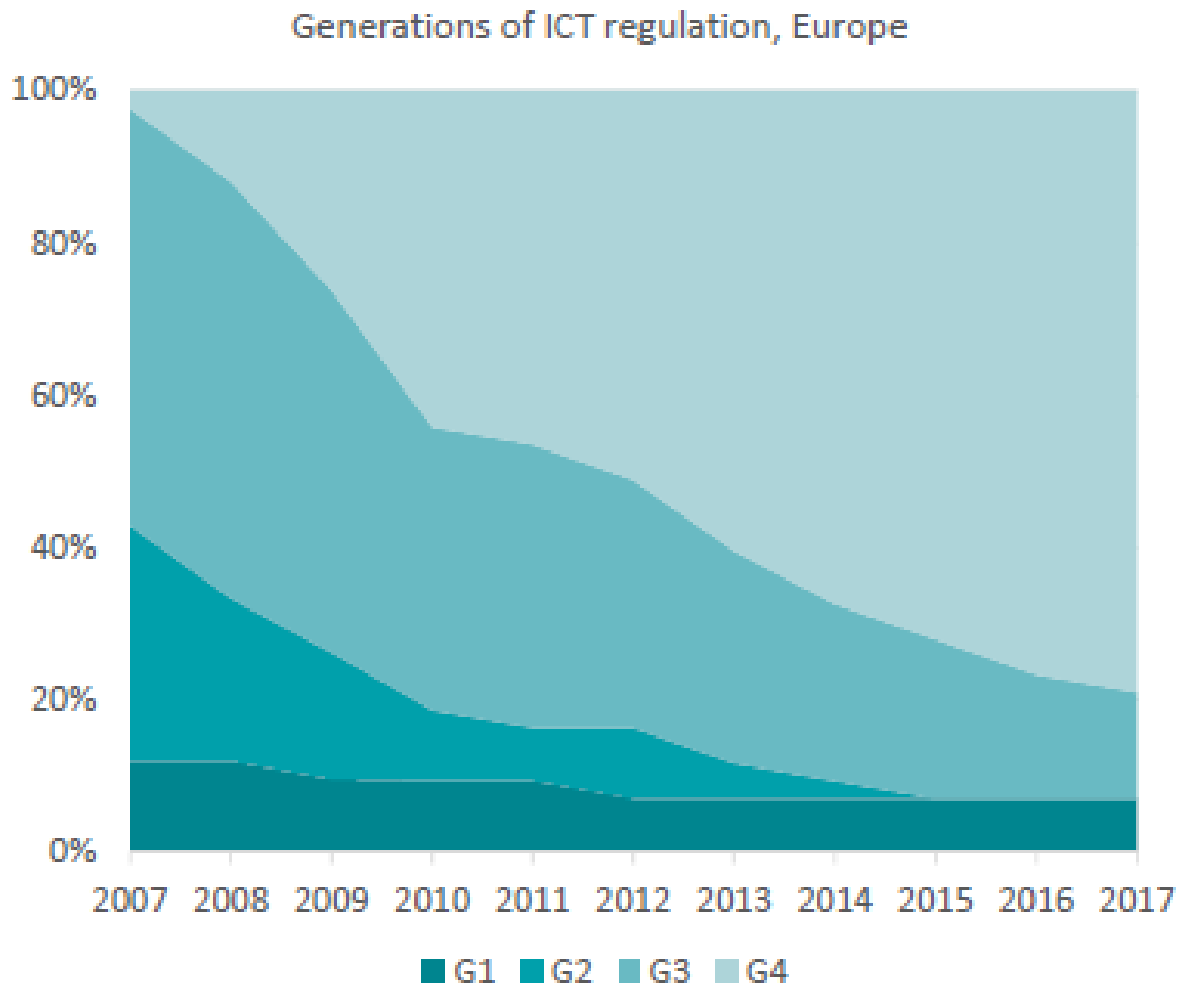
Average score region compare to world average

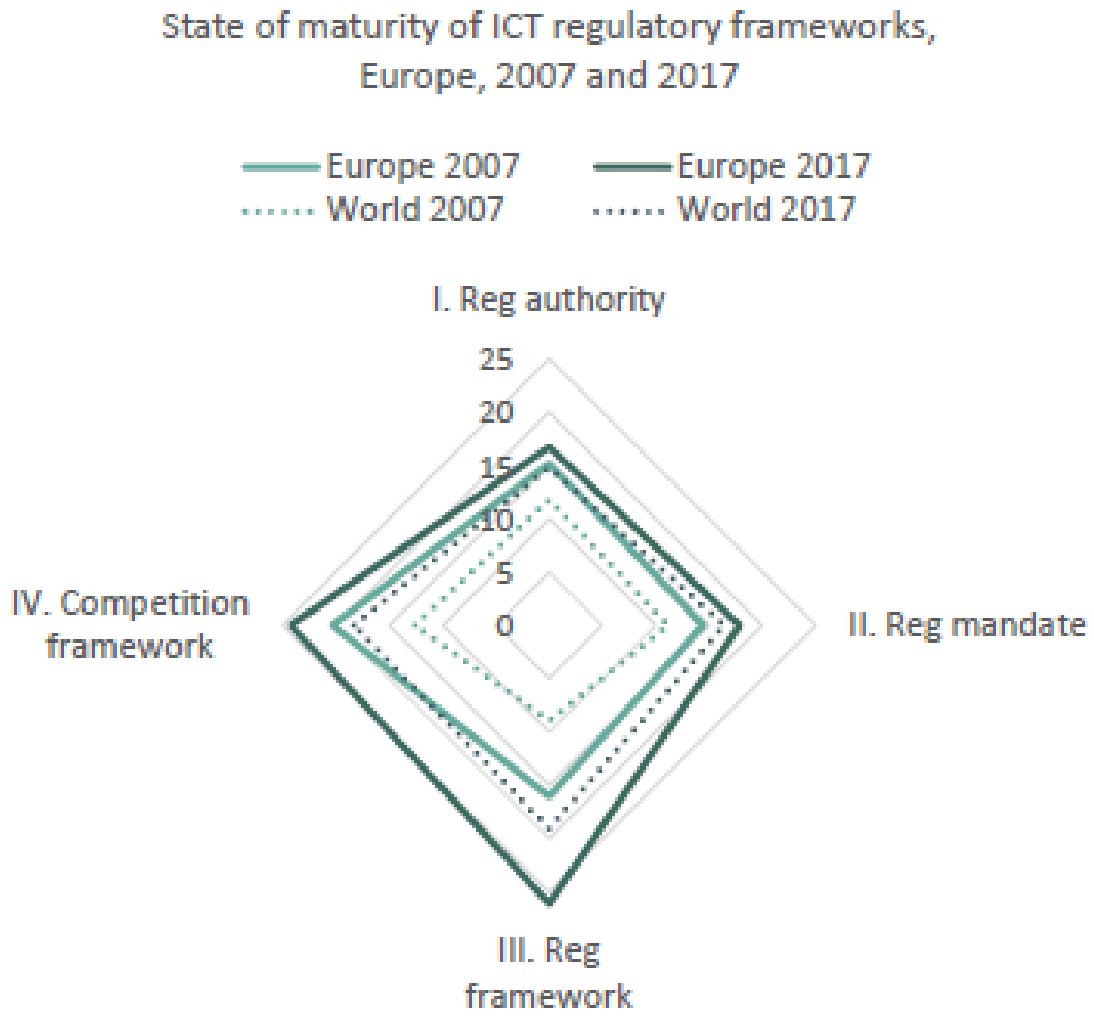
86 for Europe

71 for World



Evolution of the regulatory framework in Europe





Note: The right chart shows the evolution of the average scores of the ICT Regulatory Tracker, per pillar (in points).
Source: ICT Regulatory Tracker, itu.int/go/tracker

ICT Regulatory Tracker 2018

#ITUdata

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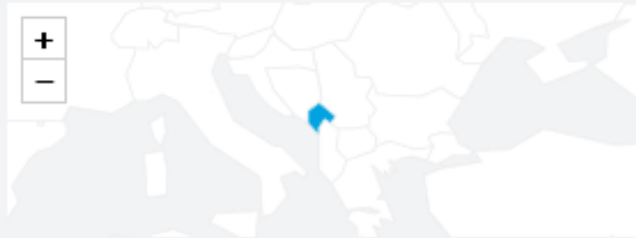
Montenegro

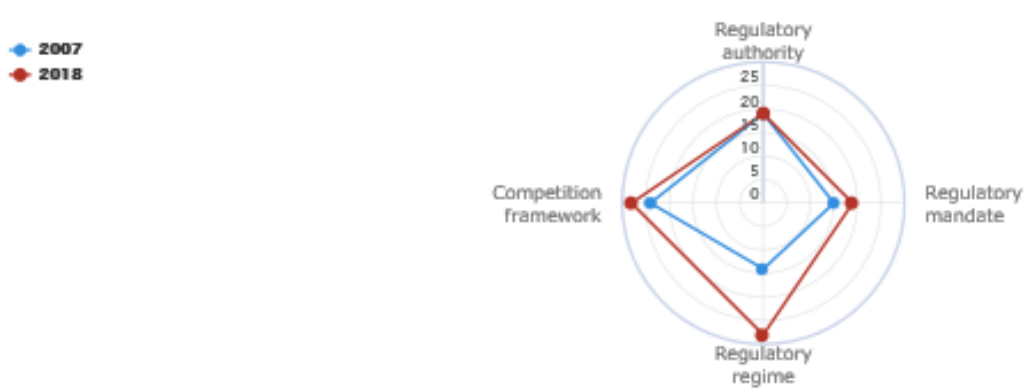
Mobile-cellular telephone subscriptions per 100 inhabitants, 2017 : **166.1**

Fixed broadband subscriptions per 100 inhabitants, 2017 : **21.85**

GNI per capita (in USD), 2017: **7400**

Region : **Europe**





Cluster 1: REGULATORY AUTHORITY	Cluster 2: REGULATORY MANDATE	Cluster 3: REGULATORY REGIME	Cluster 4: COMPETITION FRAMEWORK
Max Category Score: **20**	Max Category Score: **22**	Max Category Score: **30**	Max Category Score: **28**
Country score 2018: **19**	Country score 2018: **19**	Country score 2018: **28**	Country score 2018: **28**

ICT Regulatory Tracker 2018

ITUdata

Select an option

ICT Regulatory Tracker 2018: Europe

Cluster	C1: Regulatory Authority	C2. Regulatory Mandate	C3. Regulatory Regime	C4. Competition Framework	Overall Score
Max Score:	20	22	30	28	100
Country					
Albania	18	16	25	24	83.00
Andorra	6	8	8	0	22.00
Austria	18	16.5	28	27	89.50
Belgium	18	19	30	27	94.00
Bosnia and Herzegovina	19	21	27	26	93.00
Bulgaria	19	16.5	28	28	91.50

Global ICT Outlook Report and Tracker

Tracking market, regulatory and policy trends in the ICT sector and their implications across the sectors and the economy

www.itu.int/go/outlook18

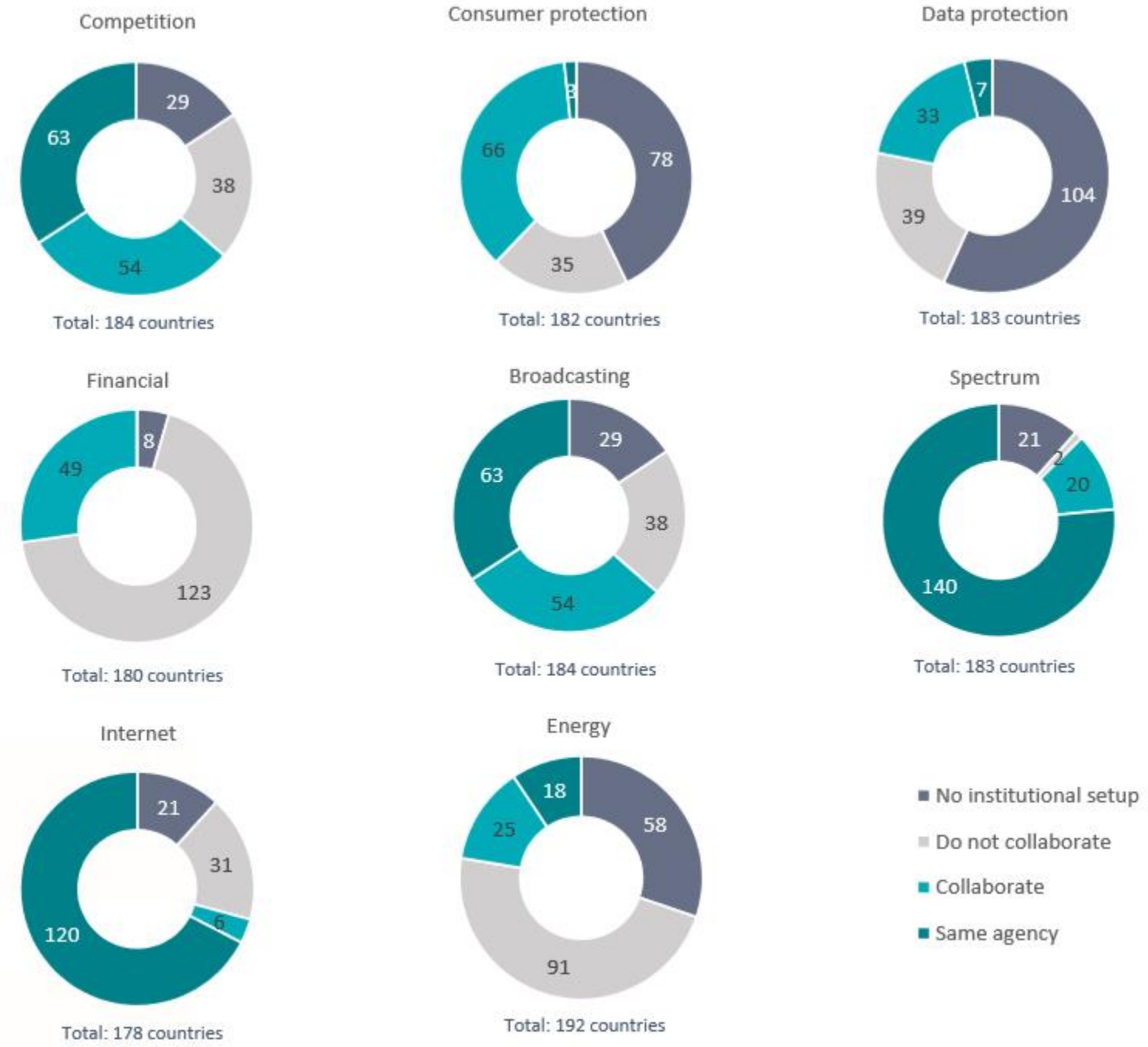
A unique tool covering 185+ countries for the period 2007-2018, showcasing regulatory progress within the same country, amongst regions and worldwide

www.itu.int/go/tracker

Collaboration between ICT Regulators and other Regulatory Authorities

Degree of collaboration between the ICT regulator and:

- Competition authority
- Consumer protection commission
- Data protection commission
- Spectrum agency
- Broadcasting regulator
- Financial regulator
- Energy regulator
- Internet agency



Source: ITU

Collaborative regulation

The most important steps towards collaborative regulation

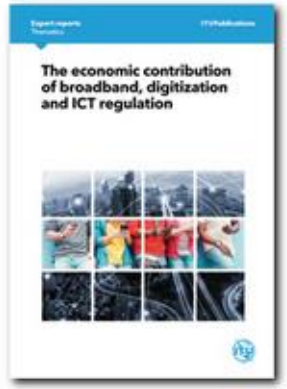
Benefits

- Strengthened institutional capacity, legal mandate of the regulator, sound regulatory regimes and enhanced competition
- Hands-on, inclusive regulation and decision-making featuring tools and processes
- Teaming with other sector regulators to address multi-sector issues – shared sector-specific expertise and responsibility for decision-making
- Focus on how to collaborate and with whom
- Not a silver bullet

Challenges

- Slow pace or difficulties to carry out a policy review/ development
- Develop new strategic thinking about regulatory priorities and challenges
- Comply with government procedures & rules, jurisdiction issues
- Capacity of the ICT regulator to handle new issues (expertise & staff development, motivation)
- Get the evidence to support decision-making
- The more important the matter, the more complex the collaboration
- Institutions working in silos, turf wars

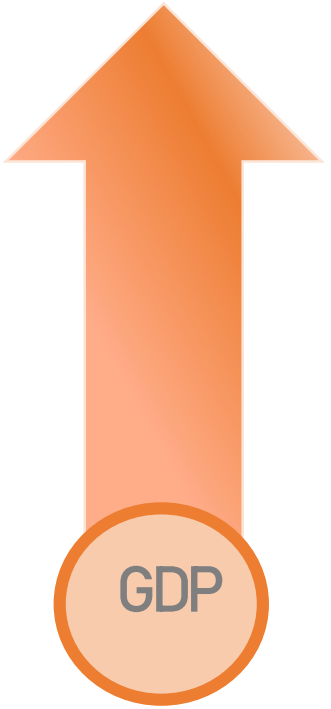
The economic contribution of broadband, digitization and ICT regulation



Econometric study on the impact of broadband, digital transformation, and the interplay of ICT regulation on the economy

Impact of fixed broadband

- 2010-2017: significant economic impact
- Investment and labour force critically affect economic growth
- Prices for services are the key enablers for adoption
- Income levels affect the revenues and investments of operators
- Critical mass effect: the impact of fixed broadband appears at higher levels of economic development
- Return to scale effect: fixed broadband economic impact tends to increase with economic development
- Fixed to mobile substitution going on



At global level

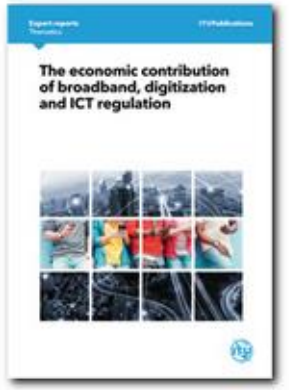
10%

increase in **fixed broadband penetration** yielded

0.8%

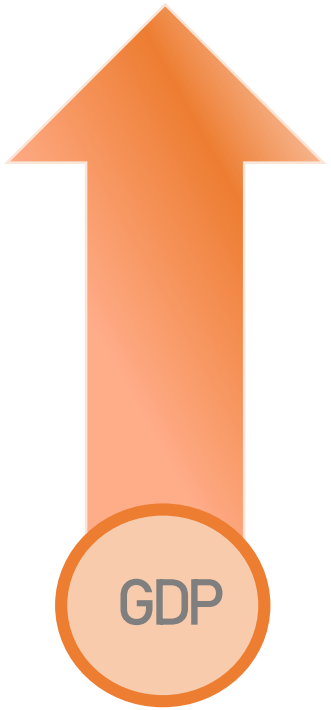
increase in GDP

The economic contribution of broadband, digitization and ICT regulation



Impact of mobile broadband

- Higher average impact on economic growth than fixed broadband across all income groups
- Higher importance of investment than for fixed broadband
- Affordability is less of a barrier for mobile than for fixed broadband
- Mobile broadband contribution is higher in less developed countries than in more developed
- The lower the income level, the higher the economic impact of mobile broadband



At global level

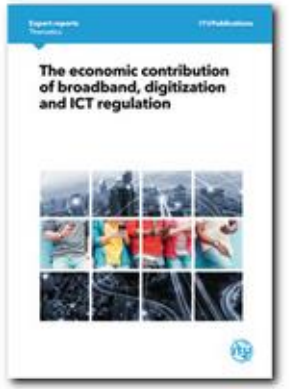
10%

increase in **mobile broadband penetration** yielded

1.5%

increase in GDP

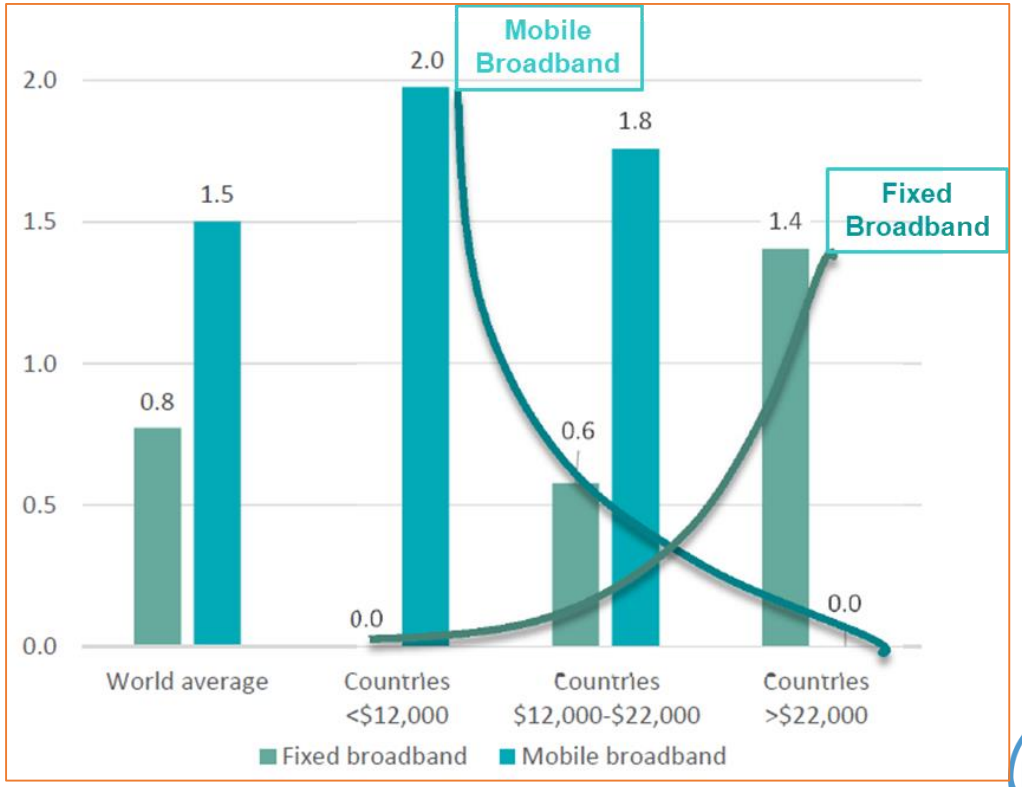
The economic contribution of broadband, digitization and ICT regulation



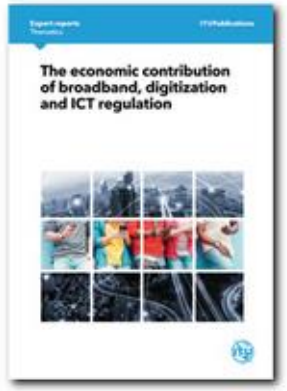
Impact of broadband

In summary, the broadband economic impact models confirm that:

- At the aggregate level, mobile broadband appears to have a higher economic impact than fixed broadband;
- The economic impact of fixed broadband is higher in more developed countries than in less developed;
- On the opposite, the economic impact of mobile broadband is higher in less developed countries than in more developed.



Impact of regulation



- Regulatory and institutional frameworks are essential in driving digital ecosystem growth and the effect builds up over time
- The connectivity of digital services is significantly correlated with the level of advancement of ICT policies and regulations, and the competition and market power regulatory set-up in particular
- Investment in the digital ecosystem is directly and positively influenced by the maturity of ICT regulatory frameworks and by ICT competition frameworks in particular
- ICT regulatory frameworks important for the development of infrastructure for digital services

- Digital players not influenced by the level of openness and competition of the traditional ICT sector, having a competitive advantage
- Level playing field in the digital marketplace hard to achieve
- New policies and regulations need to be built in and onto existing ones in order to increase their relevance and impact on the development of the digital ecosystem.

GSR-19 Best Practice Guidelines

Fast Forward Digital Connectivity for All

Core design principles for collaborative regulation

Regulators identified seven design principles for policy and regulation:

- holistic
- consultation and collaboration based
- evidence-based
- outcome-based
- incentive-based
- adaptive, balanced and fit for purpose
- focus on building trust and engagement

GSR-19 Best Practice Guidelines

Benchmarks for regulatory excellence and market performance

Regulators recommend five main clusters of benchmarks for regulators:

- Connectivity mapping
- Metrics for market performance
- Measuring regulatory maturity and levels of collaborative regulation
- Impact assessment
- Regulatory roadmaps

GSR-19 Best practice guidelines


ITUGSR
PORT VILA 2019

Global Symposium for Regulators (GSR) 2019
Best Practice Guidelines
fast forward digital connectivity for all

Looking back over nearly 20 years of GSR, the role of the ICT regulator has never been more important. ICTs are at the heart of efforts to attain the 17 UN Sustainable Development Goals, and accessible, affordable ICT infrastructure is the pre-condition of every nation's ongoing socio-economic development. Based on the contributions of regulators from all regions and adopted by consensus, the new guidelines will lit the way towards achieving inclusive digital connectivity globally.

Mrs Doreen Bogdan-Martin,
Director, Telecommunication Development Bureau (BDT), International Telecommunication Union

The regulatory landscape of digital markets is fast-moving and extremely complex. There is still much work to be done and regulators across all sectors must rise to the challenge of connecting the other half of world's population. The GSR-19 Best Practice Guidelines we adopted are an invaluable tool that enables regulators to address the challenges ahead and navigate through rapidly evolving technologies, business models and market structures that are affecting economies, society and people around the world.

Mr Brian Winji,
Regulator, Office of the Telecommunication, Radiocommunications and Broadcasting Regulator (TRBR) of Vanuatu and GSR-19 Chair

What regulatory tools and approaches are at hand for enabling a sustainable digital transformation?

Pro-competition frameworks for the digital transformation

should consider longer value chains, more diverse market players, services and devices, stakeholder partnerships and digital infrastructure layers, and ultimately, their impact on markets and consumers

Regulatory incentives and Stakeholder engagement

Incentives can create a positive market dynamic and improve market outcomes with less regulatory effort. Stakeholders engagement such as public hearings and expert workshops and roundtables can allow pooling resources and expertise to inform major regulatory decisions

Robust and enforceable mechanisms for consumer protection

including a set of rules on data protection, privacy and data portability

Market-based and dynamic mechanisms for spectrum management

can allow for flexible, simplified and transparent use of scarce radio frequencies, also promoting technology neutrality

Regulatory Impact Assessment (RIA) and dynamic collaboration among regulatory authorities

RIA should be introduced as a regular practice before major regulatory decisions are made as well as throughout the lifecycle of regulation. Effective collaboration channels with other regulatory authorities are necessary to ensure coherent and reasonable regulations across economic sectors

Regional and international cooperation in defining regulatory rules on cross-border issues
can ensure consistency, predictability and fluidity of digital markets

Regulatory expertise needs to be developed continuously
to integrate new technologies, competencies and skills and allow for data and evidence-based decision-making.