Collaborative regulation for an inclusive digital future for all

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400 million

2 billion

775 million

3.9 billion

Digital transformation

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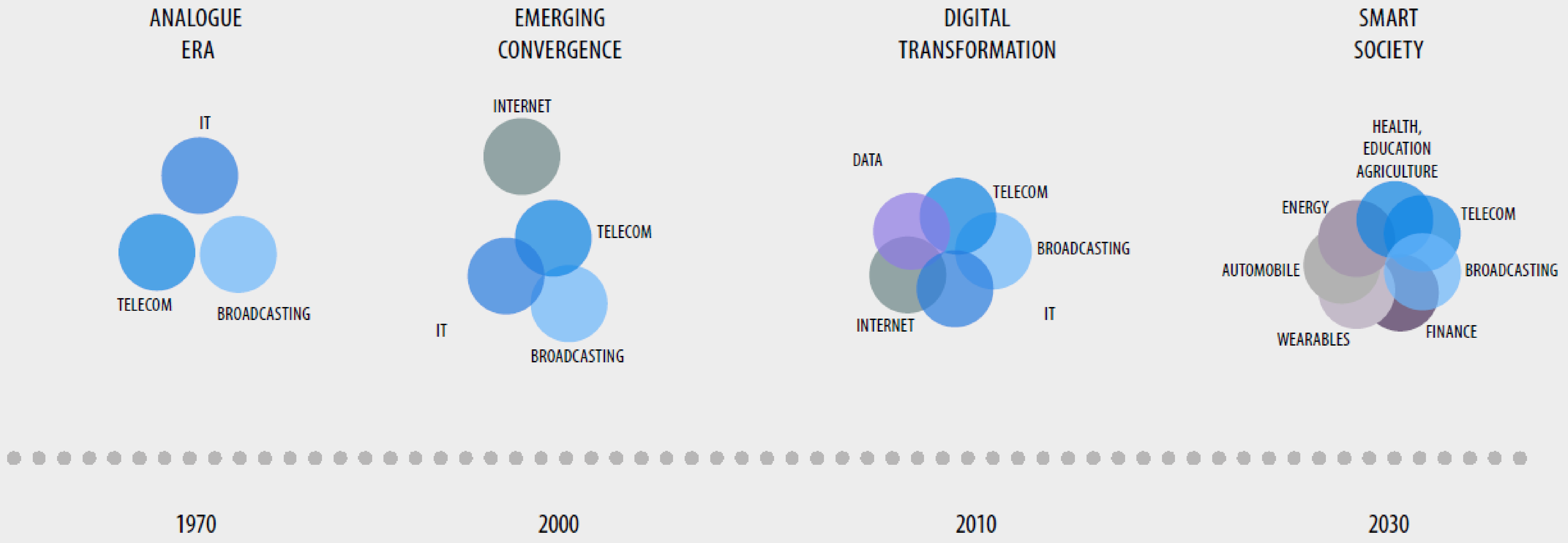

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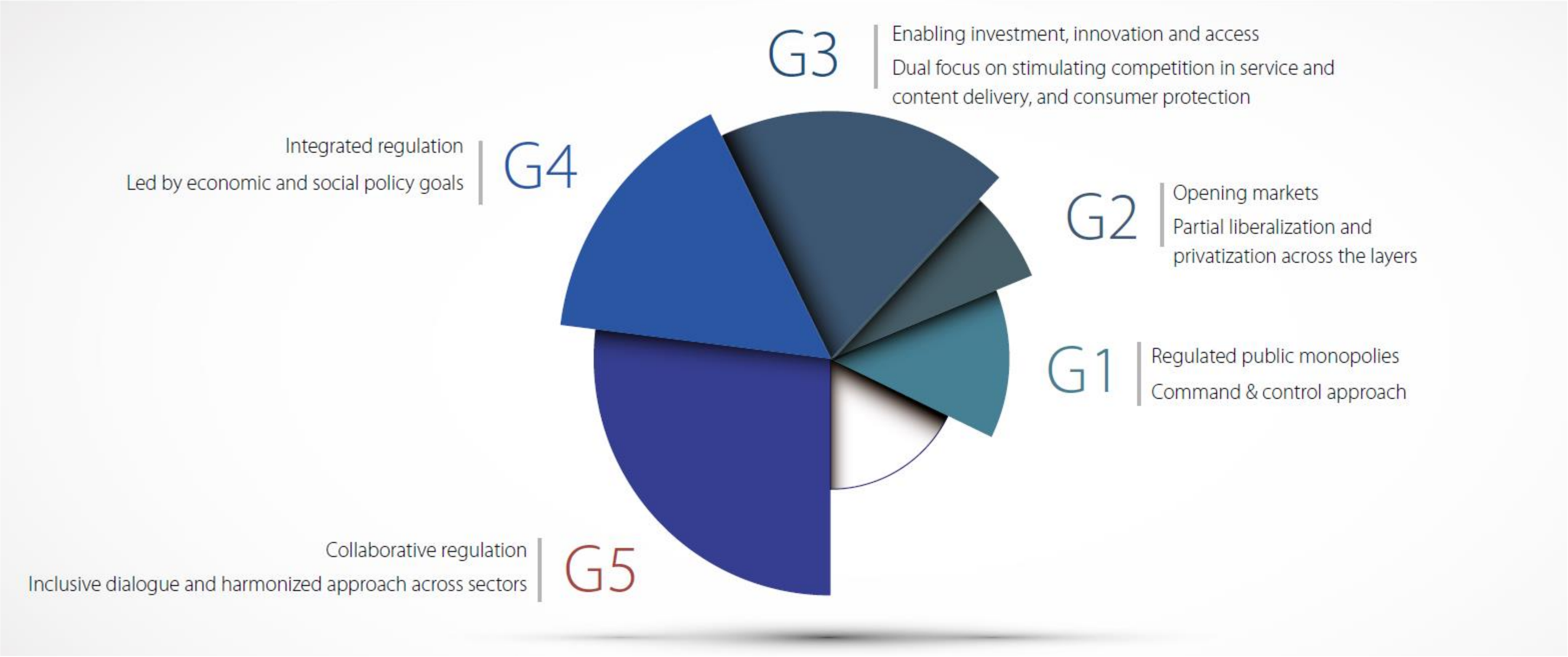
Generations of regulation



Generations of regulators and regulation

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- **G1 regulators** – no risk but no benefit either
- **G2 regulators** – wait and see
- **G3 regulators** – running against the clock to keep pace with growth and disruption
- **G4 regulators** – front runners are tuning regulatory regimes towards faster technological change

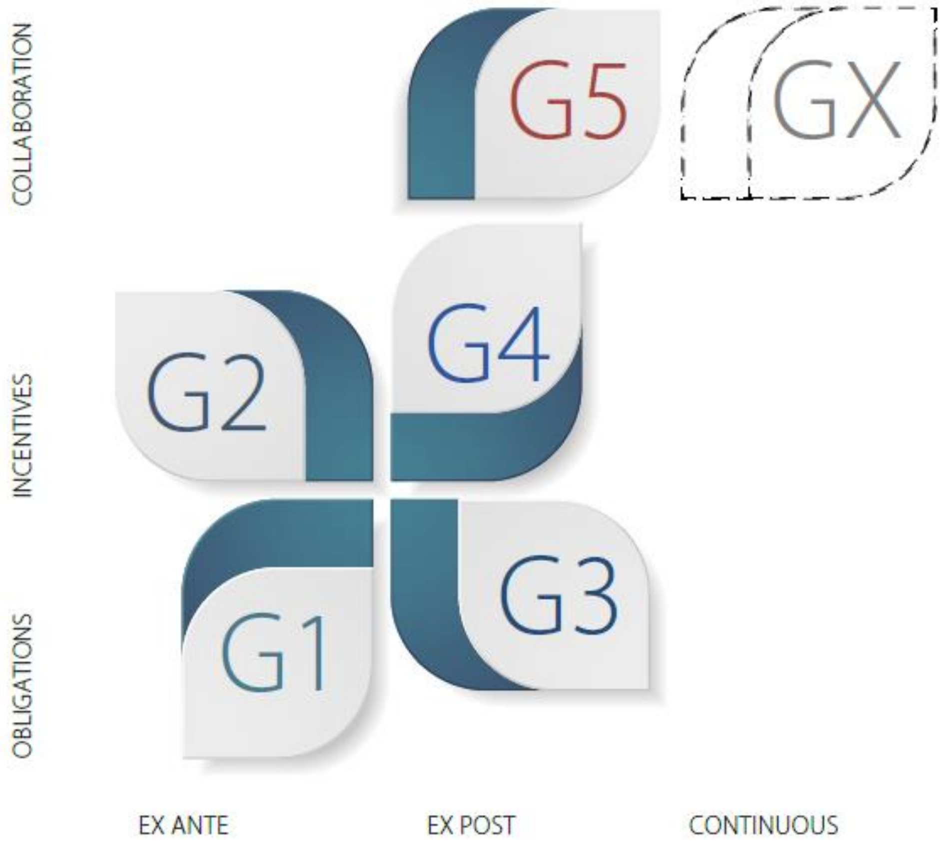
- Up the hill: G5 regulation rewrites the rules
- Cross-sectoral, collaborative and holistic …
- Driven by consumer interest and private-sector initiative

How regulatory authority is changing

Stick or carrot? Moving towards incentive and collaboration

G4 and G5 regulators are using some light-touch, incentive regulations with much in their favour:

- ✓ They are win-win, play key role in collaborative regulation and increase industry engagement
- ✓ They encourage opportunistic behaviours of businesses to promote their own objectives while effectively working towards achieving those of the regulator
- ✓ They help build more balanced, less hierarchical and trusting relationships between market players and the ICT regulator
- ✓ They foster learning and provide anecdotal evidence of model behaviours by market players
- ✓ They can improve market outcomes with less regulatory effort
- ✓ They motivate higher levels of performance and create a positive market dynamic



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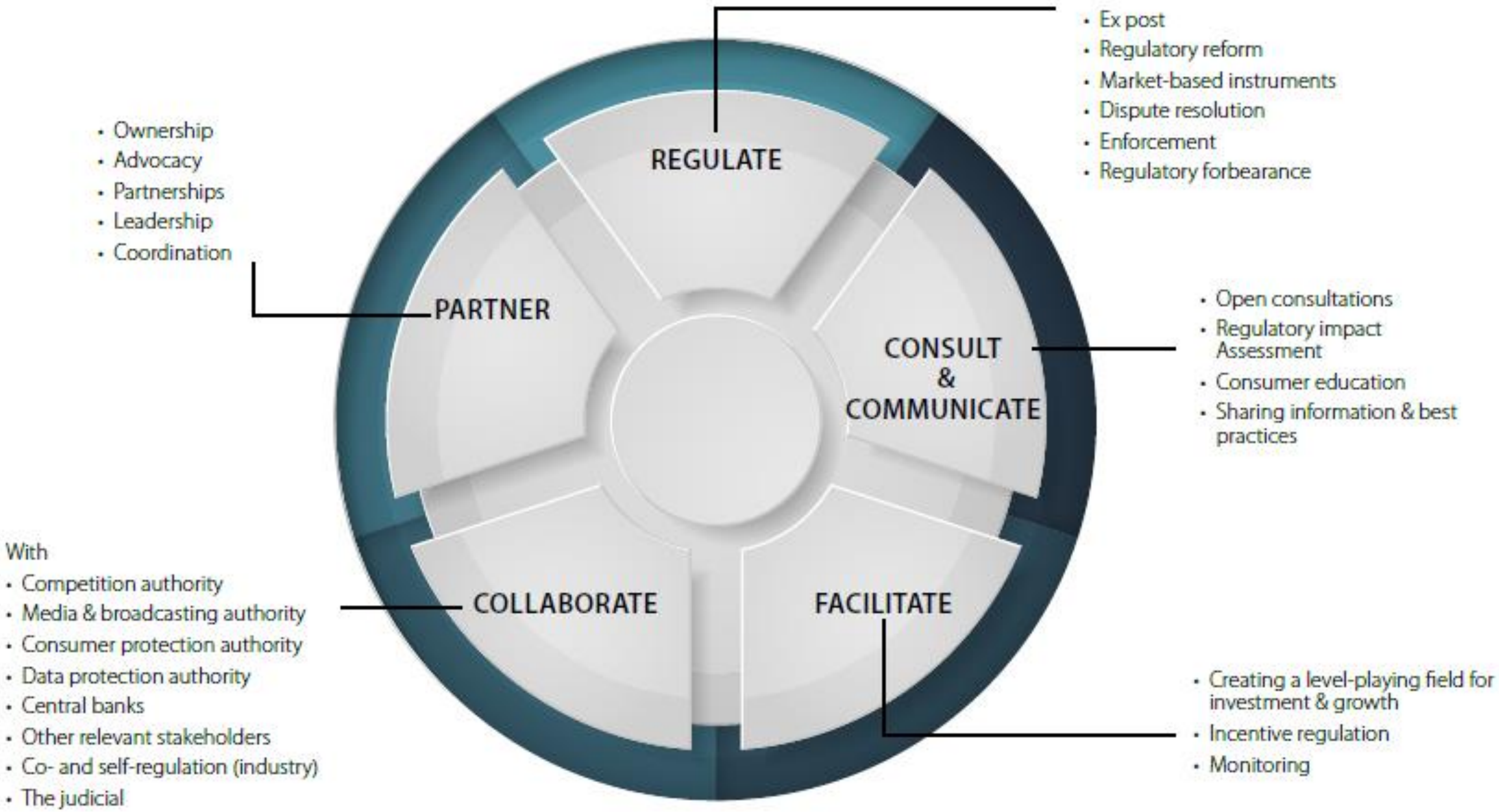
G5 Regulation: the regulatory wheel of fire



Harnessing the potential of ICTs – through collaborative regulation

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- What G5 will deliver for people:
  - ✓ Open, incentive-based collaborative regulation will empower citizens to benefit from smart, connected digital societies
  - ✓ More relaxed, incentive-based regulation is paving the way for new services for previously unconnected
  - ✓ Cornerstone for attaining goals of 2030 Agenda for Sustainable Development

- What G5 will deliver for markets:
  - ✓ Will enable growth for markets worldwide through new platforms, models, products and services
  - ✓ Will deliver on the next wave of ICTs – connected devices, connected car, intelligent transport systems, augmented reality, holography, wearable devices etc
  - ✓ Opportunity estimated at USD300 billion in 2020

ICT regulators have a leadership role to play:

- Orchestrate multi-sector collaboration to deliver on the digital promise – integrating efforts across health, finance, education, energy and ICTs
- Next step: defining approaches for effective coordination, cooperation and accountability across the sectors involving government, regulators, private sector and civil society

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Some Forecasts in the Regulatory Landscape [1]

Forecast 1 – Partnerships and Collaboration will increase
Sharing expertise across sectors to better address common challenges and determine shared objectives rather than struggling on as stand-alone authorities.

Forecast 2 – Regulation will drive Innovation
Volatility sparked by market convergence and disruption.
Regulation that aids innovation will help developing countries to power ahead
Sandboxes – fintech

Some Forecasts in the Regulatory Landscape [2]

Forecast 3 – The ICT regulator meets the Financial regulator

E-commerce , Mobile Money, ..

recognize common interests and the potential of cooperation

no agreed model for collaboration as yet

Forecast 4 – Regulation will drive innovation

Volatility sparked by market convergence and disruption.

Regulation that aids innovation will help developing countries to power ahead

Sandboxes – fintech

Collaborative Regulation

An Example …..

……ICT and Energy

Role of ICT in the Energy Value Chain and Its Link to SDG 7 Targets

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ICT enables decentralized energy generation integrating renewable energy sources

ICT helps to operate and maintain modern power grids

ICT helps to identify and rectify technical and non-technical revenue losses

ICT enables new decentralized trading e.g. via blockchain

ICT enables new payment models for mini-, micro-, off-grid solutions

Smart meters and adjoining services require ICT to function

Generation → **Operation** → **Trading** → **Retail**

ICT helps to make power grids more reliable and resilient

ICT is essential to integrate renewables, new stoarge, demand management, eMobility, etc. into the grid

ICT provides consumers with tailored information to improve their consumption and save energy

Target 7.1
Target 7.2
Target 7.3

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ENERGISE – A Horizon 2020 project

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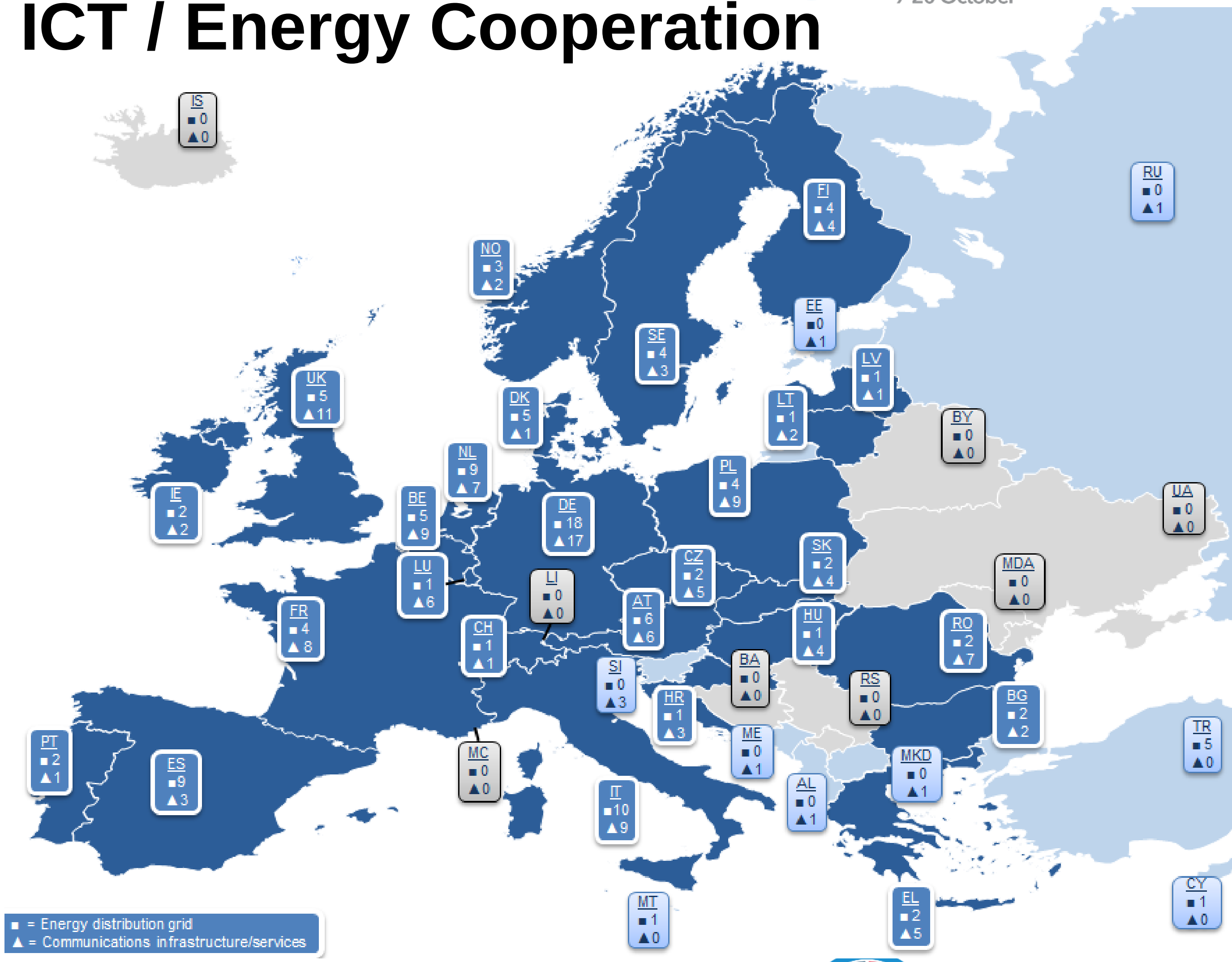
The European Experience on ICT / Energy Cooperation

- Key learnings:
  - Main barriers to collaboration:
    - Unclear regulatory frameworks
    - Lack of trust and mutual understanding
  - Five types of cooperation:
    - Network operation
    - Smart meter roll-out
    - Infrastructure sharing
    - Joint deployment
    - New products and services



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Regulators in ICT & Energy to consider ..

Type of cooperation	Corresponding strategic goals in…	
	developed countries	developing countries
Smart metering	Achieve significant take-up of smart meters by private households and businesses alike	Use smart metering technology to promote mini-, micro- and off-grid solutions
Network operation	Set appropriate frameworks that allow data collection and analysis to improve network performance and facilitate predictive maintenance of network infrastructure	Leverage ICT to monitor network performance and identify technical and non-technical losses
Infrastructure sharing	Implement policy measures that facilitate infrastructure sharing to reduce costs and increase speed of deployment e.g. infrastructure mapping, cost reduction directives	Implement policy measures and set standards for infrastructure sharing where this is appropriate
Joint deployment	Implement policy measures that foster the deployment of empty ducts with every other utility	Build common frameworks, coordination capacity and knowledge exchange to foster integrated deployment of ICT and energy infrastructure
Development of new products and services	Support innovation strategies by local enterprises	Build fora to disseminate and exchange knowledge about the advantages of integrated ICT and energy solutions to offer new forms of payments or ownership

WHAT REGULATION IS AND ISN'T

GOOD REGULATION IS	REGULATION IS NOT
Positive goodwill	A Goal or A Must
Leadership	A Setback
Ahead of the curve	Backwards-looking
Open	Self-sufficient, a silo
Adaptive	Set in stone
Agile	There forever
Evidence-based	One-size-fit-all

ICT Regulatory Tracker

- ✓ pinpoints the changes taking place in the ICT regulatory environment;
- ✓ facilitates benchmarking and the identification of trends in ICT legal and regulatory frameworks;
- ✓ helps identify gaps in existing regulatory frameworks, making the case for further regulatory reform towards achieving a vibrant and inclusive ICT sector;
- ✓ enables users/countries to track progress and identify the major regulatory trends driving the ICT sector since 2007;
- ✓ It has also led to the definition of five 'generations of ICT regulation'.

The Tracker does not measure the quality or the performance of regulatory frameworks in place; it factually records their existence and features.

The data behind the Outlook 2017 was captured through the ***ICT Regulatory Tracker****, an evidence-based tool which covers 186 countries and economies over the period 2007 – 2015.*

Leveraging a large amount of historic regulatory data, the tool is devised to help decision-makers and regulators more fully understand the ever-changing terrain of ICT regulation.

ICT REGULATORY TRACKER

TOP 25 2015

	Country	Cluster 1. Regulatory authority	Cluster 2. Regulatory mandate	Cluster 3. Regulatory regime	Cluster 4. Competition framework	Overall Score 2015	Rank 2015	Rank 2007	Change in rank
1	Ireland	20	19	30	28	97.0	1	19	18
2	Slovenia	19	19	30	27	95.0	2	8	6
3	Brazil	19	20.5	27	28	94.5	3	81	78
4	Italy	19	19	28	27.3	93.3	4	36	32
5	Mexico	19	20	26	28	93.0	5	109	104
6	Croatia	19	19	28	27	93.0	5	29	24
7	Poland	19	18	28	28	93.0	5	5	0
8	Portugal	19	19	28	27	93.0	5	3	-2
9	Turkey	19	19.5	30	24.3	92.8	9	25	16
10	Australia	18	19.5	28	27	92.5	10	5	-5
11	Hungary	18	21.5	26	27	92.5	10	2	-8
12	Montenegro	19	20	26	27	92.0	12	32	20
13	Dominican Rep.	19	19	26	28	92.0	12	26	14
14	Norway	18	17	30	27	92.0	12	16	4
15	Lithuania	19	18	28	27	92.0	12	15	3
16	Finland	18	18	28	27	91.0	16	28	12
17	France	18	19.5	30	23	90.5	17	11	-6
18	Greece	20	17	28	25.3	90.3	18	10	-8
19	Iceland	18	18	26	28	90.0	19	36	17
20	Switzerland	17	18	28	27	90.0	19	19	0
21	Malta	18	16	28	28	90.0	19	11	-8
22	Austria	18	16.5	28	27	89.5	22	7	-15
23	Oman	17	19	28	25.3	89.3	23	88	65
24	Saudi Arabia	20	20	23	26.3	89.3	23	66	43
25	Malaysia	19	22	26	22	89.0	25	74	49
26	Singapore	17	19	26	27	89.0	25	46	21
27	Argentina	18	20	23	28	89.0	25	29	4
28	Belgium	16	18	28	27	89.0	25	1	-24

Source: ITU

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GLOBAL ICT REGULATORY
OUTLOOK
2017

ICT Regulatory Tracker 2015

 # ITUdata

Tracker by Country | Country Card | Tracker by Region | Comparison | Map | Generations of Regulation | Abo

Select an option

ICT Regulatory Tracker 2015

Cluster	C1: Regulatory Authority	C2. Regulatory Mandate	C3. Regulatory Regime	C4. Competition Framework	Overall Score
Max Score:	20	22	30	28	100
Country					
Afghanistan	13.00	20.00	22.00	16.67	71.67
Albania	18.00	17.00	26.00	21.00	82.00
Algeria	18.00	17.00	18.00	11.00	64.00
Andorra	4.00	9.00	10.00	0.00	23.00
Angola	17.00	20.00	18.00	10.67	65.67
Antigua & Barbuda	8.00	11.50	10.00	15.33	44.83
Argentina	18.00	20.00	23.00	28.00	89.00
Armenia	19.00	16.50	15.00	28.00	78.50
Australia	18.00	19.50	28.00	27.00	92.50
Austria	18.00	16.50	28.00	27.00	89.50

itu.int/go/outlook17

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