ELISE action
Webinar Series

Exploring Digital Government Transformation in the EU

Understanding public sector innovation in a data-driven society

Gianluca MISURACA, European Commission JRC

25/08/2020 at 15:00 CEST (UTC+2)

European Location Interoperability Solutions for e-Government

Enabling Digital Government through Geospatial and Location Intelligence

ISA²

European Commission

ELISE action
Webinar Series

Welcome & Introduction

Francesco PIGNATELLI,
ELISE Action Leader
European Commission JRC, Ispra

European Location Interoperability Solutions for e-Government

Enabling Digital Government through Geospatial and Location Intelligence

European Commission

Exploring Digital Government Transformation in the EU

Understanding public sector innovation in a data-driven society

Gianluca Misuraca, Senior Scientist

European Commission, JRC Seville

Final DigiGov Webinar, 25 August 2020

Outline

1. Envisioning Digital Europe 2030: *10 years later*…
2. DigiGov: background, objectives and results
3. Back to the future: Shaping Digital Europe 2040
4. Policy implications and future research

European Commission

Envisioning Digital Europe 2030:
10 years later

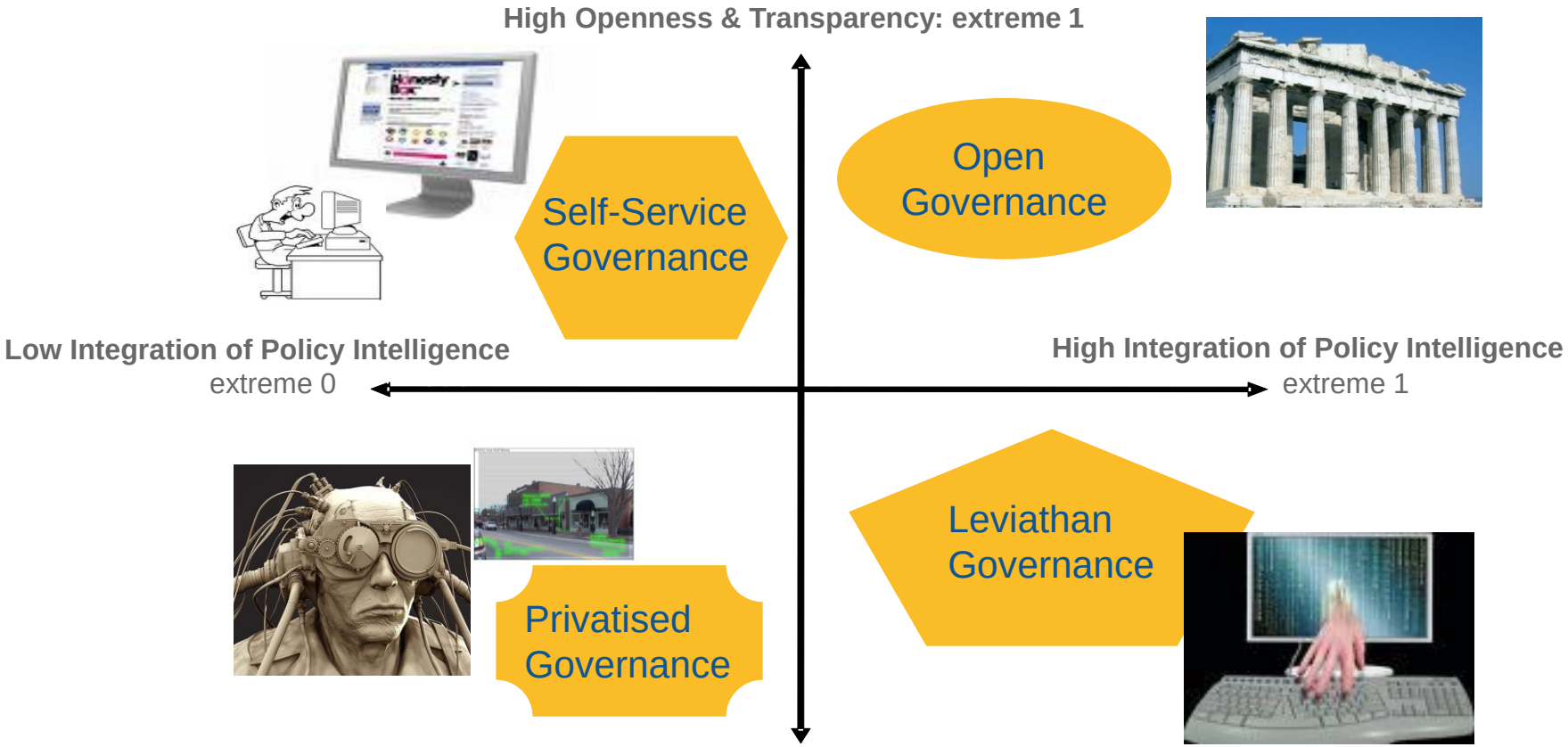
European Commission

The “new” role of JRC in the new Commission
Navigating through Innovation & Foresight

European Commission

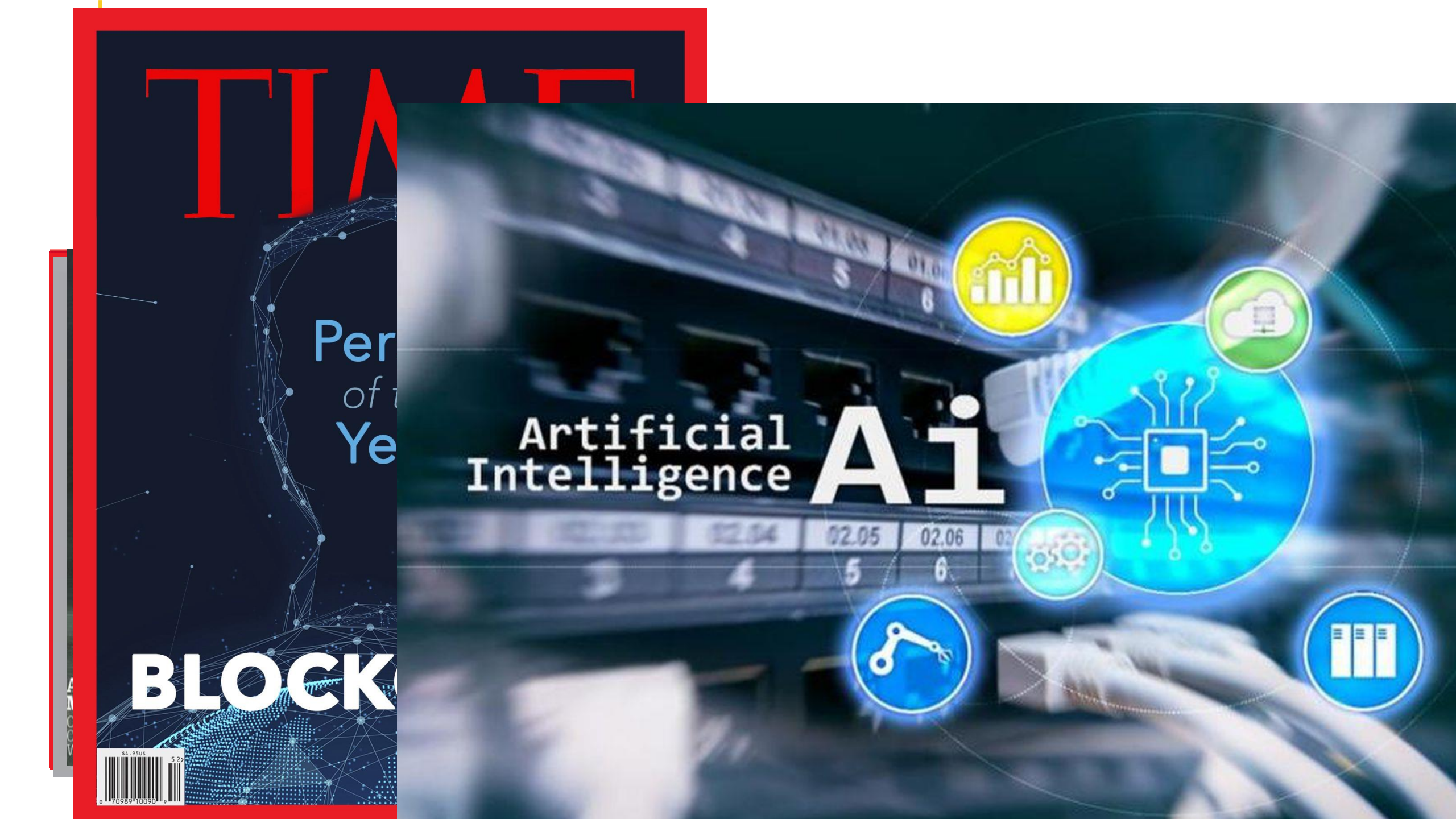
Envisioning Digital Europe 2030 (*in 2010*)

CROSSROAD
A Participative Roadmap for ICT Research in Electronic Governance and Policy Modelling



Source: Misuraca et al., 2010
European Commission's JRC-IPTS

European Commission

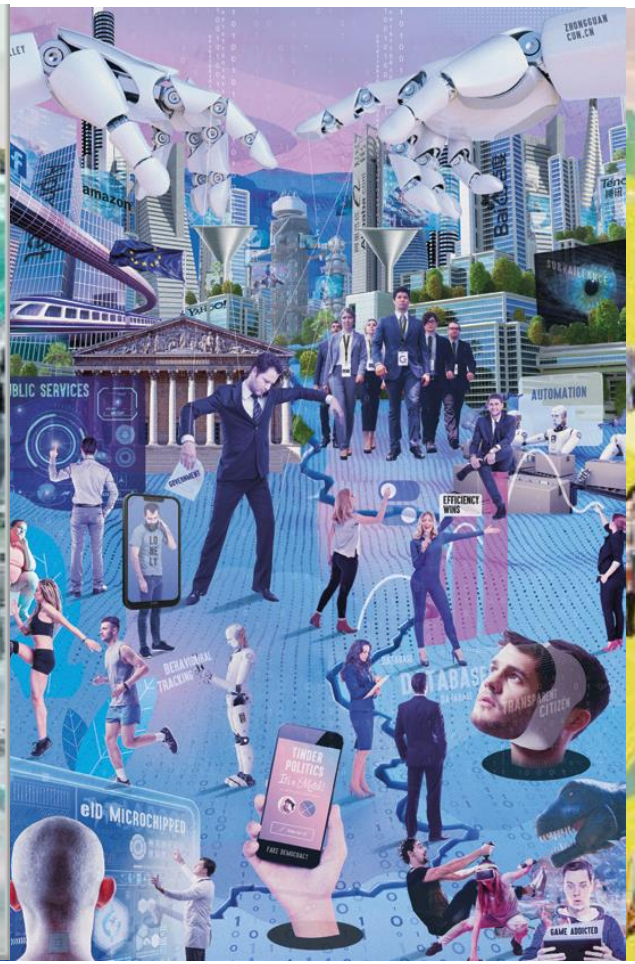

TIME
Artificial Intelligence Ai

Future of Government 2030+

A Citizen Centric Perspective on New Government Models

DIY Democracy

Private Algocracy



Super Collaborative Gov

Over-regulatocracy

Source: Vesnic-Alujevic, L., et al., 2019

European Commission

But the question remains open on how ICT-enabled innovation can transform governance and policy-making?

"Prediction is very difficult, especially if it is about the future"

(Niels Bohr, 1885-1962)

European Commission

DigiGov:
Background, objectives & results

European Commission

Background: 10 (more) years of eGov in (declar)ation

- eGovernment Action Plan 2020: a decade of work on Open & Trusted Government since Malmoe 2009
- 2017 Tallinn Declaration on user-centric eGovernment
- 2018 Vienna Conference on Digital & eGovernment
- 2019 Helsinki Conference on Human-centric Digital Government
- The 2020 Digital Strategy for Europe, with a crucial role for AI adoption in government & the public sector
- The forthcoming Digital Europe Programme… in the emerging “Pandemic society”…

Objectives

Goal

- To explore in-depth the interplay between digital technology and other factors transforming government operations and policy-making in a data driven society

Outcome

- Gain a better understanding of how innovation in the public sector, enabled by ICTs, can transform governance systems, in terms of new approaches to use data for policy design & service delivery, to better address systemic problems
- Develop a set of actionable research and policy recommendations to design and implement Digital Government Transformation in the EU beyond 2030

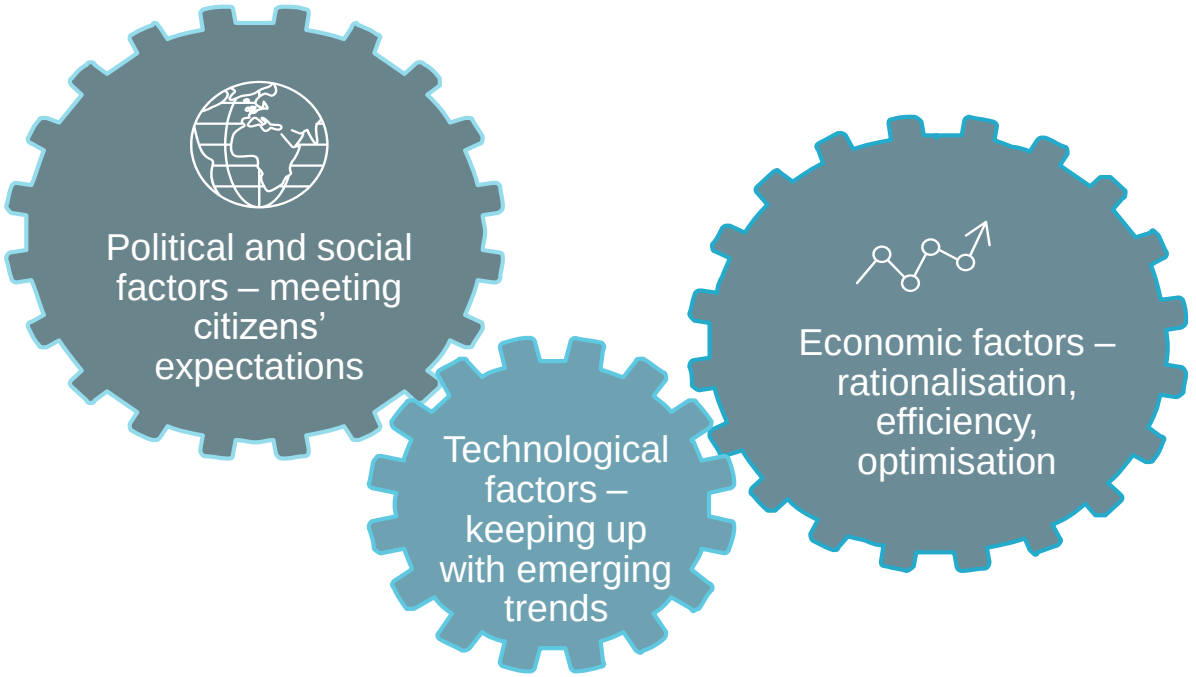
Methodology*

***The DigiGov research has been conducted by the JRC Digital Economy Unit in Seville with scientific and technical support of the Consortium composed by PPMI, Open Evidence, Politecnico di Milano, RAND Europe and Martel Innovate**

European Commission

In search of innovation between evidence and hope

- **Limited robust empirical evidence** on the effects of digital government transformation, especially on less measurable impacts such as inclusion, legitimacy and participation



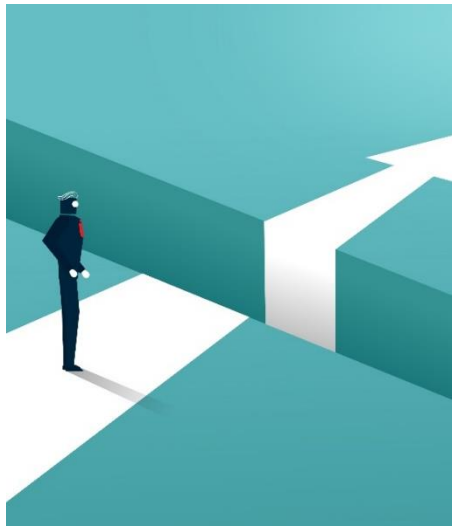
https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/exploring-digital-government-transformation-eu

European Commission

Unveiling the path to Digital Government

Evolution or revolution?

- From ‘simple’ to ‘complex’ forms of governing
- Different stages of readiness / levels of maturity
- Focus on service delivery & risk of 'mirroring effect'
- Techno-optimism & the trough of disillusionment



Re-imagining government

Governance & Service Transformation

- Digitization is only a part of it (often just the starting point)
- Permeating all aspects of governing and service delivering
- Complexity and multi-linearity of change
- Utopia & dystopia of digital innovation

Assessing Digital Government transformation

- A conceptual framework for understanding how ICT-enabled innovation can transform government
- Empirical case studies & experiments to illustrate possible impacts of the digital transformation in different contexts and phases of the policy-cycle

https://ec.europa.eu/jrc/en/publication/assessing-impacts-digital-government-transformation-eu

European Commission

Conceptualising Digital Government Transformation & public sector innovation

The DigiGov Framework

Contribute to systematise and reconceptualise Digital Government Transformation within the scope of Public Sector Innovation in order to:

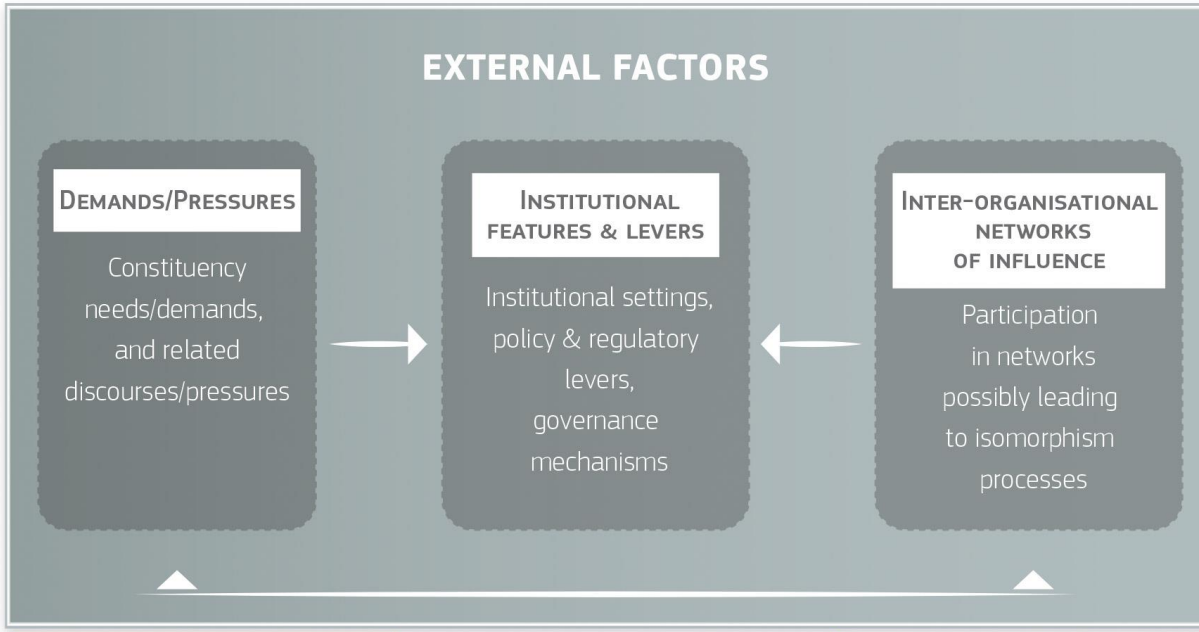
1) understand how ICT-enabled innovation can transform governance processes and policy-making mechanisms;

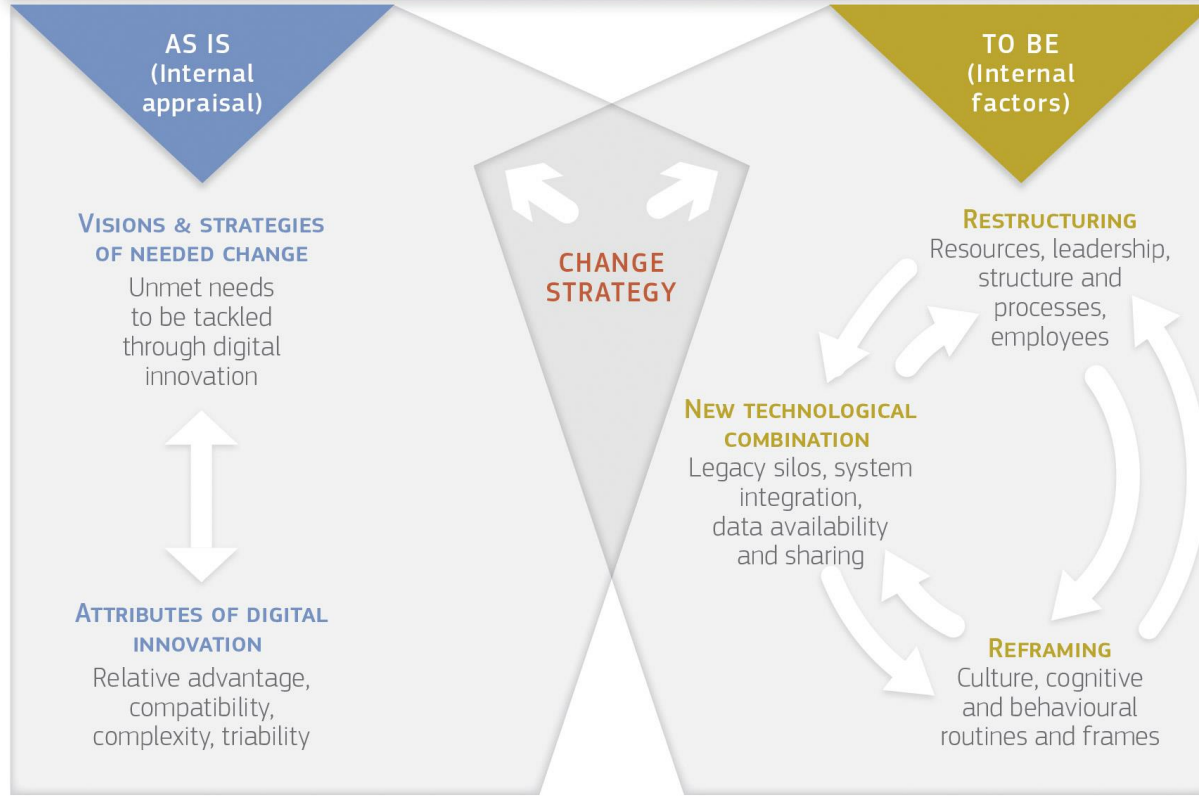
2) pave a way for a more in depth assessment of the effects of digital transformation; and

3) help generate hypotheses about implications that could be further explored empirically in future policy oriented research

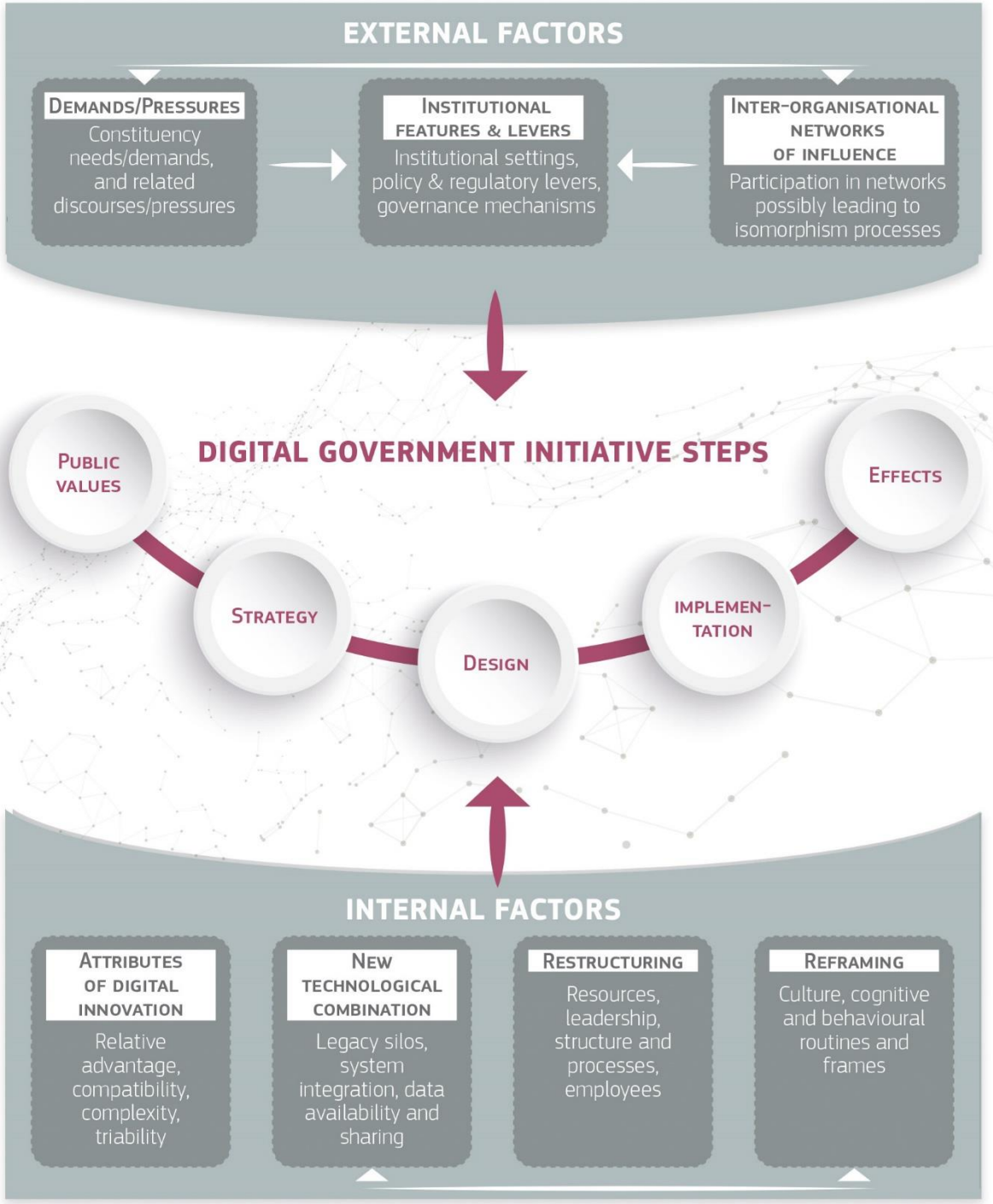
Innovation antecedents & change strategies

- The need to reframe public sector innovation to achieve Digital Government Transformation

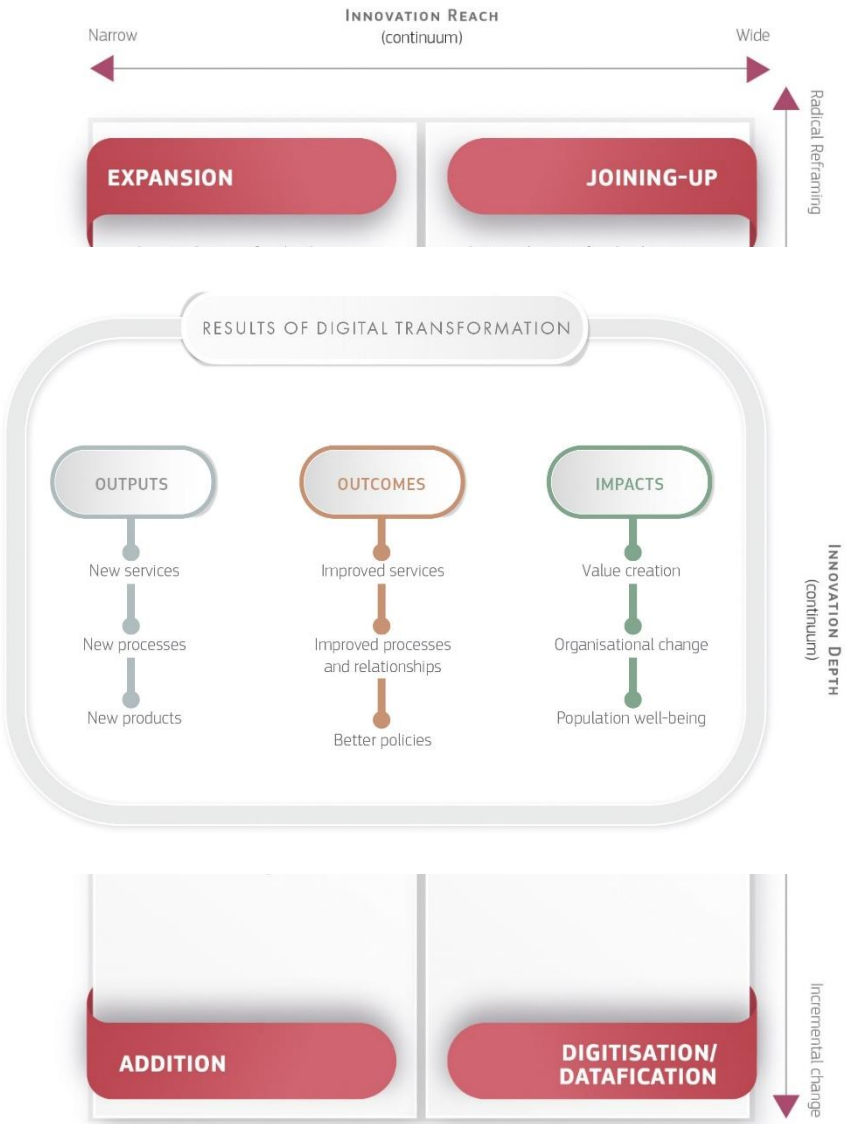


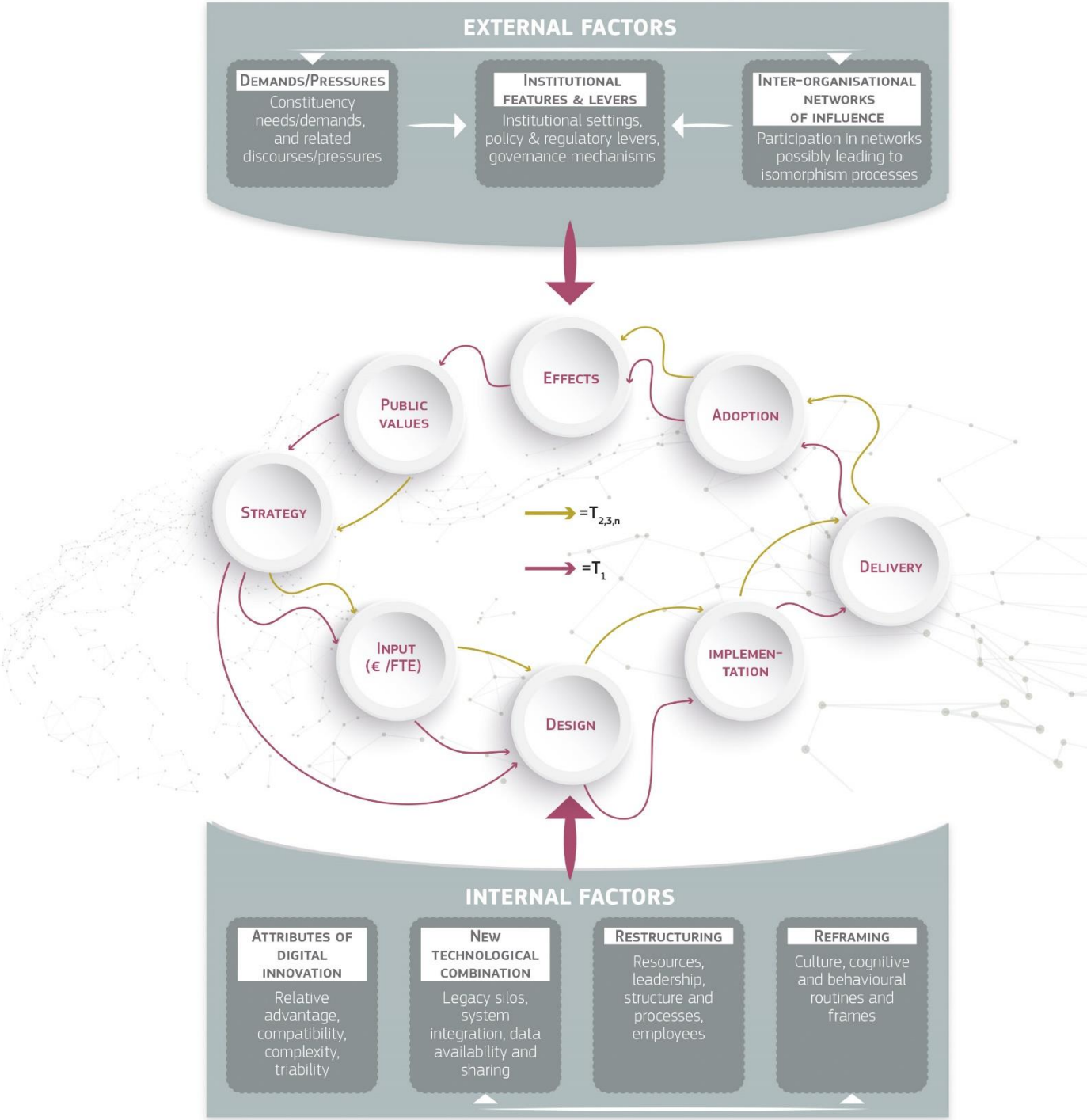


DigiGov F1.0


EXTERNAL FACTORS
DEMANDS/PRESSURES
Constituency needs/demands, and related discourses/pressures
INSTITUTIONAL FEATURES & LEVERS
Institutional settings, policy & regulatory levers, governance mechanisms
INTER-ORGANISATIONAL NETWORKS OF INFLUENCE
Participation in networks possibly leading to isomorphism processes
DIGITAL GOVERNMENT INITIATIVE STEPS
PUBLIC VALUES
STRATEGY
DESIGN
IMPLEMEN-TATION
EFFECTS
INTERNAL FACTORS
ATTRIBUTES OF DIGITAL INNOVATION
Relative advantage, compatibility, complexity, triability
NEW TECHNOLOGICAL COMBINATION
Legacy silos, system integration, data availability and sharing
RESTRUCTURING
Resources, leadership, structure and processes, employees
REFRAMING
Culture, cognitive and behavioural routines and frames

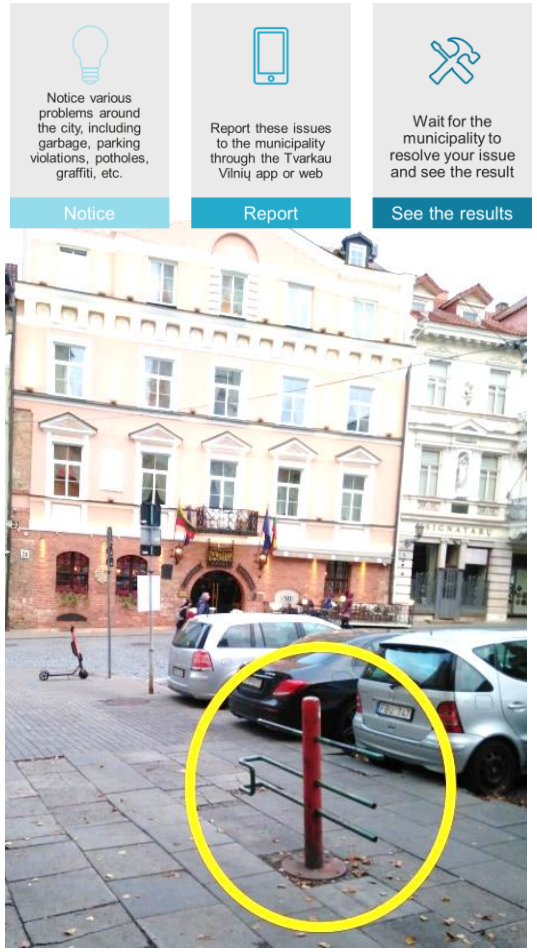
DigiGov F2.0


INNOVATION REACH
(continuum)
Narrow
Wide
EXPANSION
JOINING-UP
Radical Reframing
RESULTS OF DIGITAL TRANSFORMATION
OUTPUTS
OUTCOMES
IMPACTS
New services
New processes
New products
Improved services
Improved processes and relationships
Better policies
Value creation
Organisational change
Population well-being
INNOVATION DEPTH
(continuum)
ADDITION
DIGITISATION/ DATAFICATION
Incremental change


EXTERNAL FACTORS
DEMANDS/PRESSURES
Constituency needs/demands, and related discourses/pressures
INSTITUTIONAL FEATURES & LEVERS
Institutional settings, policy & regulatory levers, governance mechanisms
INTER-ORGANISATIONAL NETWORKS OF INFLUENCE
Participation in networks possibly leading to isomorphism processes
EFFECTS
PUBLIC VALUES
ADOPTION
STRATEGY
=T2,3,n
=T1
DELIVERY
INPUT (€ /FTE)
IMPLEMEN-TATION
DESIGN
INTERNAL FACTORS
ATTRIBUTES OF DIGITAL INNOVATION
Relative advantage, compatibility, complexity, triability
NEW TECHNOLOGICAL COMBINATION
Legacy silos, system integration, data availability and sharing
RESTRUCTURING
Resources, leadership, structure and processes, employees
REFRAMING
Culture, cognitive and behavioural routines and frames

Building evidence through experimental case studies

- Tvarkau Vilnių, LT
Citizens engagement



- Body Worn cameras for policing in UK, NL & FI

- Sustainable behaviour & literacy in the city of Trento & Ferrara, IT

KIDS GO GREEN

- Privacy & trust in digital public services (DE & ES)

Spain

Level of trust:
- 19% in national government
- 36% in regional/local authorities
- 37% in public administration

Germany

Level of trust:
- 54% in national government
- 78% in regional/local authorities
- 71% in public administration

Engaging with experts and stakeholders

- Scientific validation of findings through stakeholder engagement, expert consultation and peer review at international level

https://publications.jrc.ec.europa.eu/repository/handle/JRC121494

European Commission

Lessons learned: defining the framework conditions for innovating governance models and policy design

Enable the technological conditions for data openness and sharing, anticipating risks and possible negative consequences

Manage the governance "with & of" ICTs to unleash institutional re-design through social innovation and citizens engagement

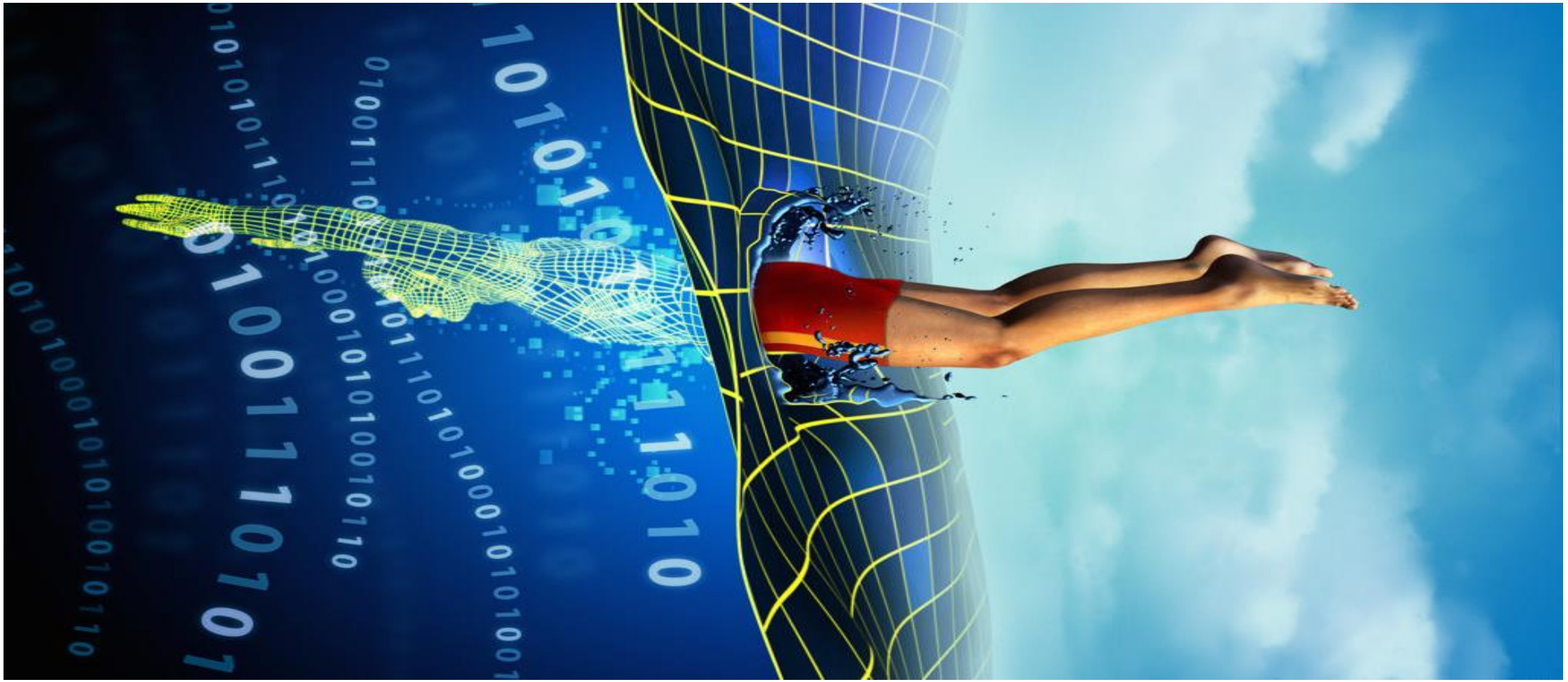
Harness data-powered intelligence for evidence-based policy-making and better understanding the impact of ICTs on society…

European Commission

Back to the future:
Shaping Digital Europe 2040

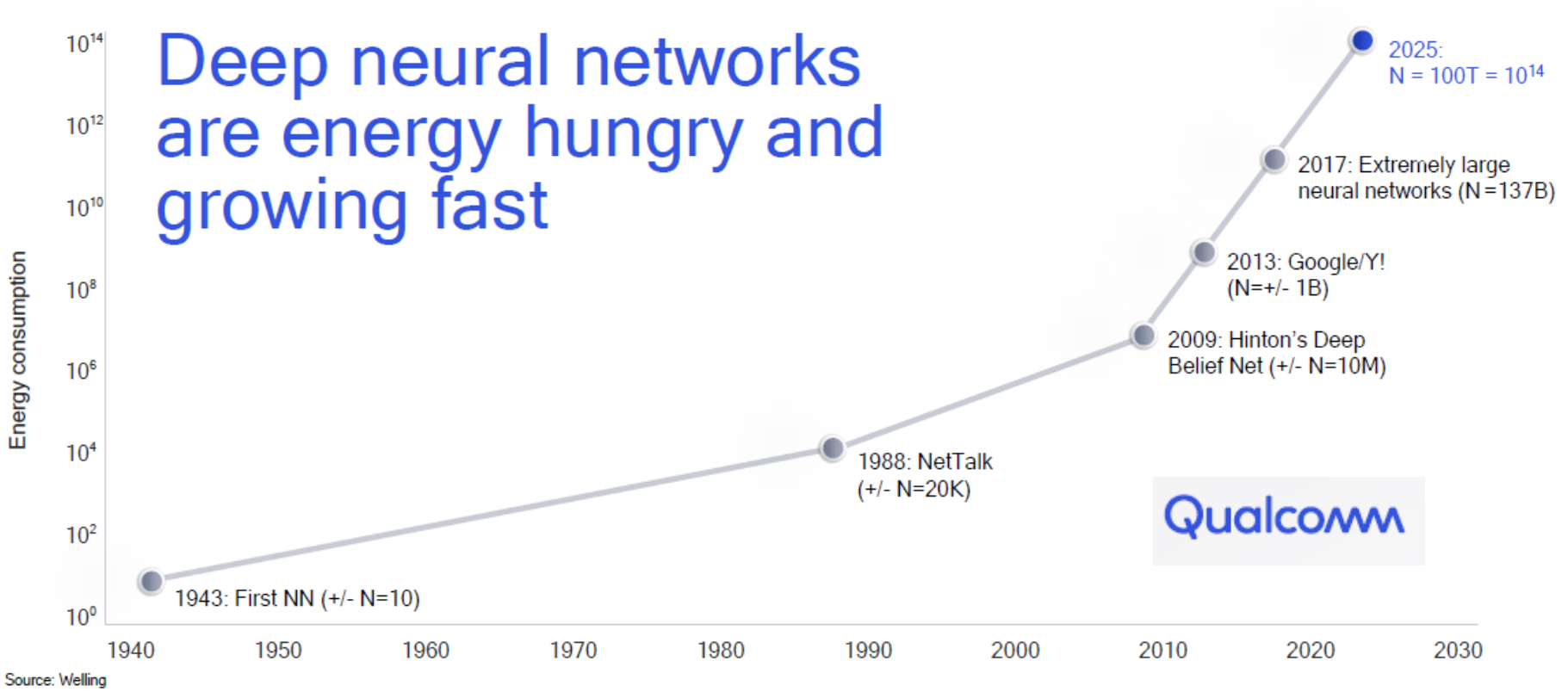
European Commission

Back to the future... *again*



European Commission

“Super AI” will realise the singularity dream?



2025 | Will we have reached the capacity of the human brain?
Energy efficiency of a brain is 100,000x better than current hardware

European Commission

Are expectations coupled with socio-political trends?

- Increasing policy debate on the impact of technology on our societies
  - Rising power of tech giants
  - Regulation of the digital sphere
  - Algorithmic governance in a global landscape

- Two main dimensions of concern emerge:

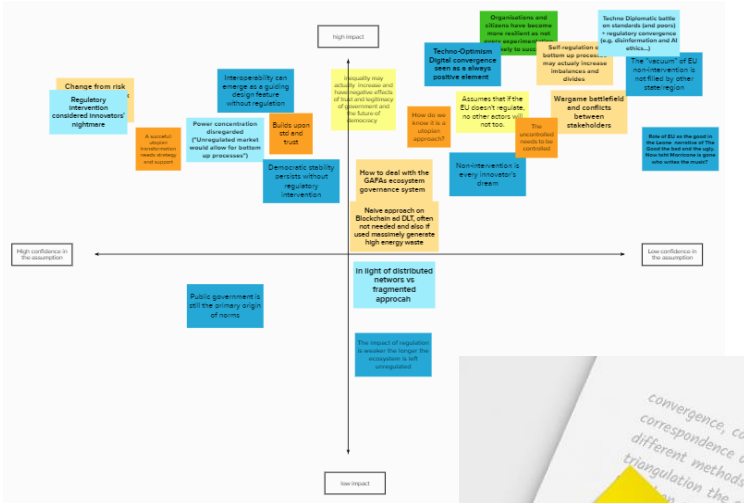
The role of the state vis á vis the market: who will govern?

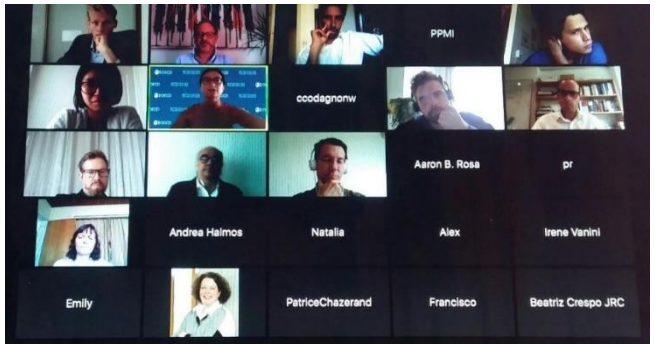
The level of individual data protection

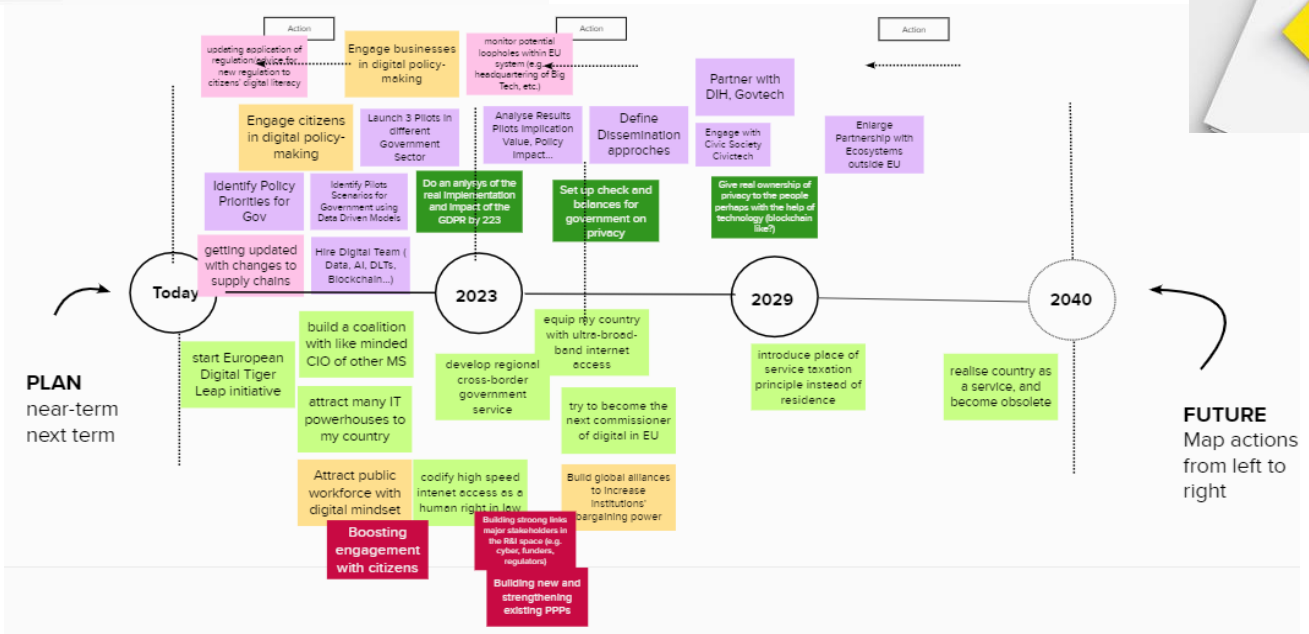
European Commission

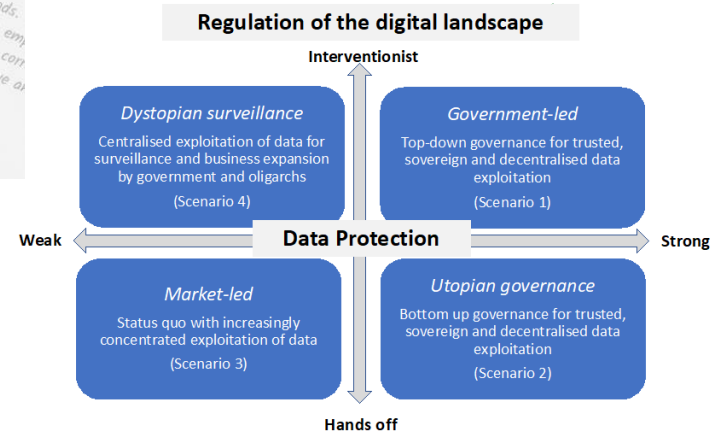
Shaping Digital Government Transformation 2040

Online Foresight Workshop









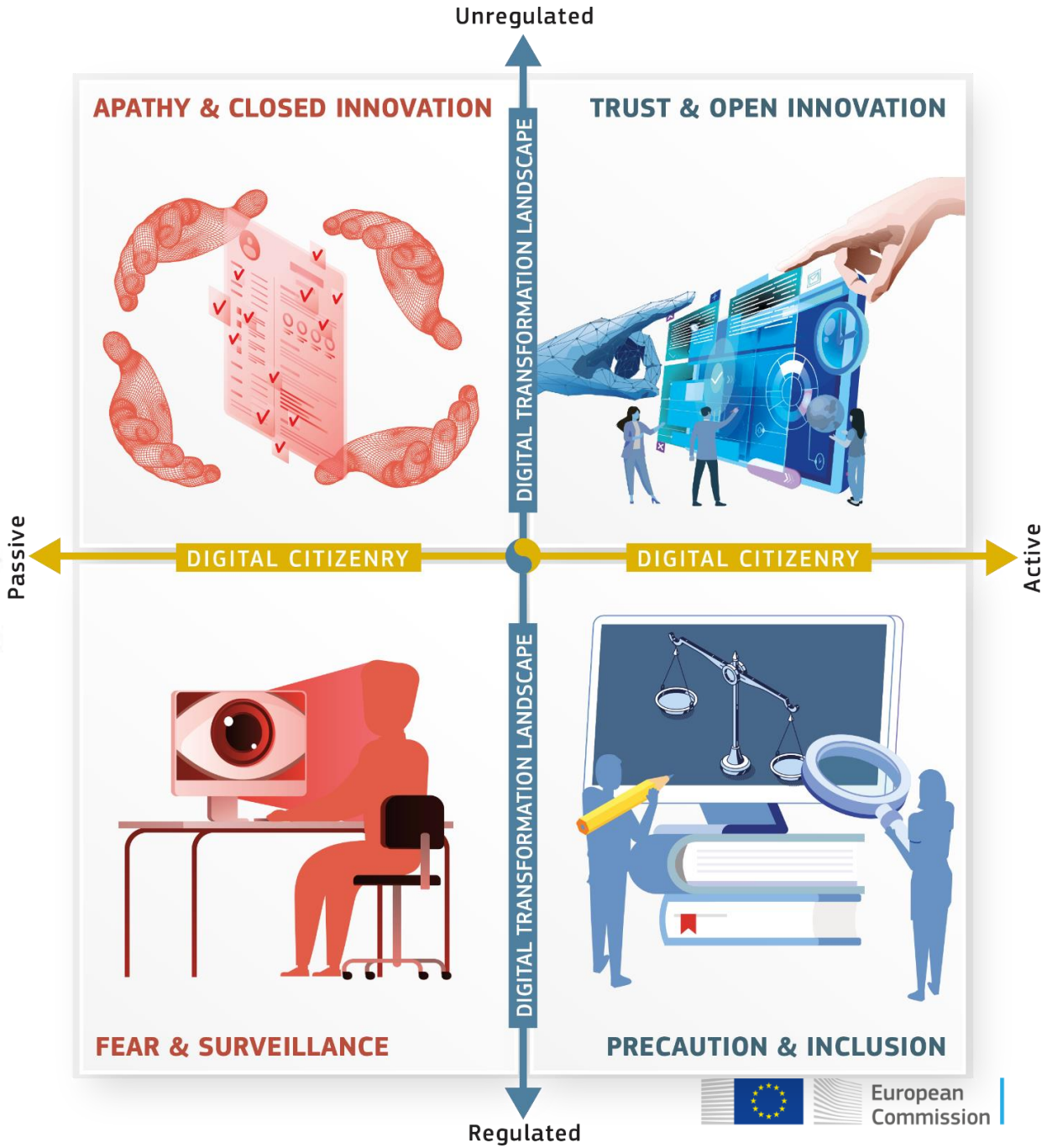
European Commission

Scenarios for Digital Government Transformation 2040

Dimensions of Impact

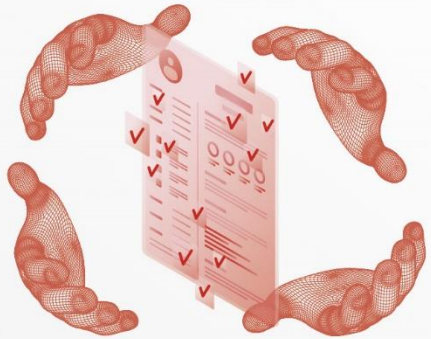
Y. Digital Transformation landscape: Ranging from “regulated/interventionist” to “unregulated/hands off”

X. Digital Citizenry: Ranging from “passive” (no control to data subjects), to “active” (data ownership & digital sovereignty)



APATHY & CLOSED INNOVATION

A **passive and complacent digital citizenry** exchanges their rights as data subjects for the *status quo* access to free services, while a lack of regulation enables **quasi-monopolistic innovation** by incumbents, with an **increased digital divide**



TRUST & OPEN INNOVATION

An **active digital citizenry**, with functioning infrastructures and empowered data subjects, **joins with innovators to build bottom-up governance** for trusted, sovereign, decentralised data exploitation **and human-centric digital services**

DIGITAL TRANSFORMATION LANDSCAPE

Passive

DIGITAL CITIZENRY

DIGITAL CITIZENRY

Active

FEAR & SURVEILLANCE

A **passive and fearful digital citizenry exchanges security for surveillance** and strict regulation, with **weak protection of data**, which are exploited by government and big business, producing **digital exclusion**

PRECAUTION & INCLUSION

Firm regulation, balanced by an **active digital citizenry**, results in a **less innovative but more inclusive digital transformation** with sovereign and decentralised data exploitation

DIGITAL TRANSFORMATION LANDSCAPE

European Commission

A Scenario is a possible world…
a world that does not have to be, but may yet come to pass…

European Commission

Policy implications & future research

European Commission

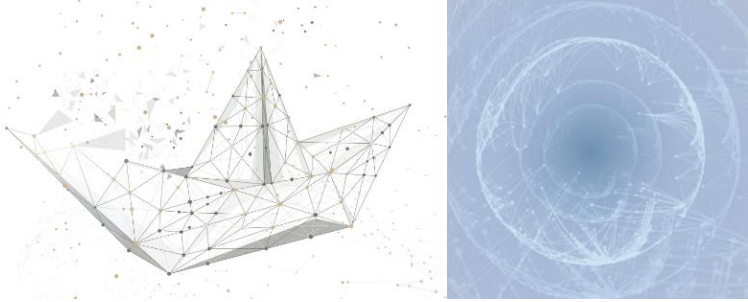
Main findings

1. There are limits of automation and of immediate productivity
2. Importance of investments to keep service up and running
3. Reframing of organisational processes crucial to move beyond pilots
4. Strategic importance and twofold nature of legitimacy and trust
5. Greater focus is needed on adoption, considering the digital divide
6. Realism about engagement, open governance and co-production
7. Importance of non-monetary effects and embracing complexity

Policy implications

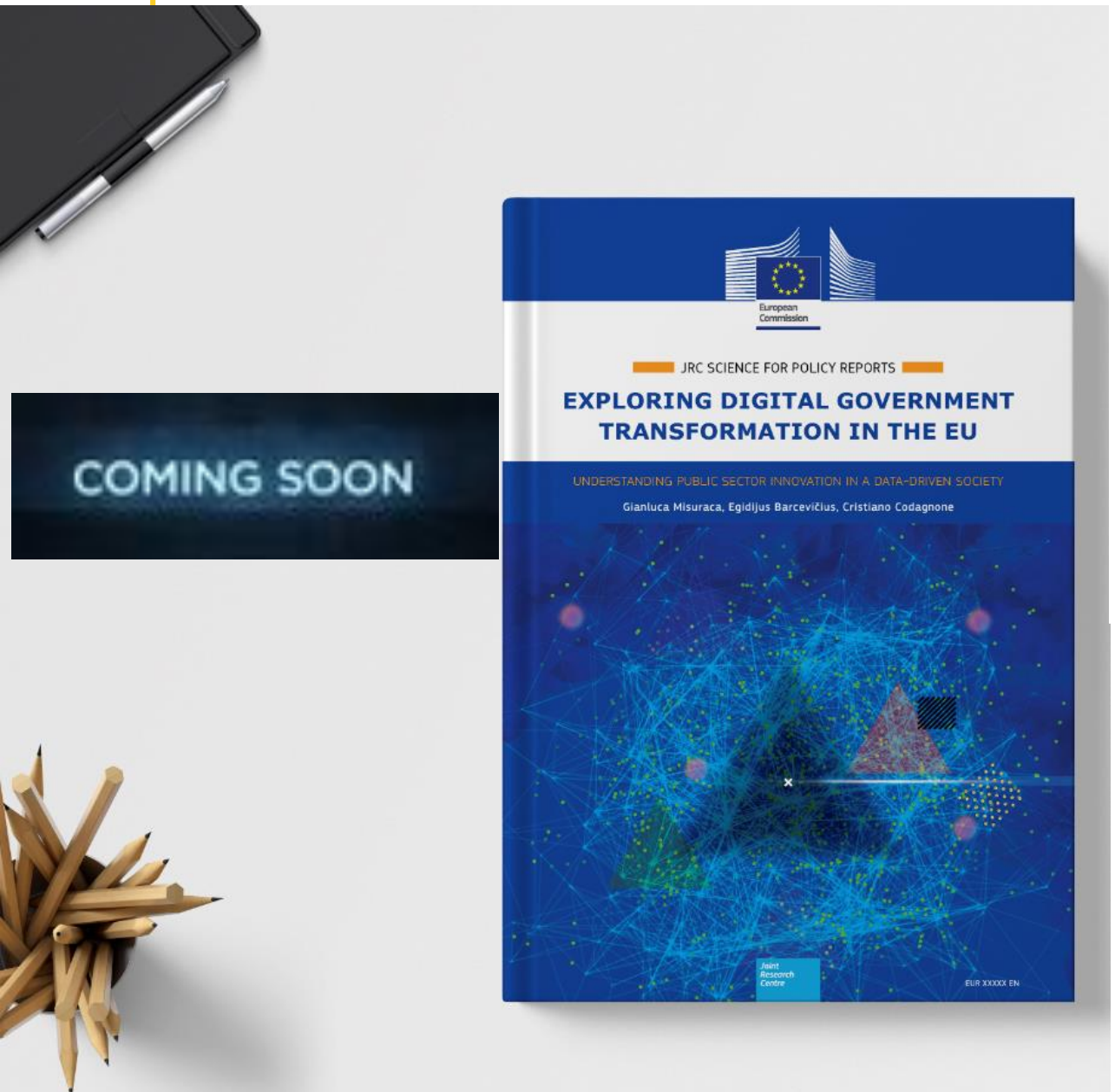
1. Governing the tension between platformisation and distributed networks
2. Enforcing new ‘modes of regulation’ for enabling ‘e-Government 4.0’
3. Developing ethical framework to minimise the risks of new technologies
4. Opening access to data, while protecting privacy and promoting interoperability
5. Building capacities to exploit predictive analytics and cognitive technologies
6. Creating a digital transformation culture within the public administration
7. Prioritising public value and aligning governance systems with SDGs

Future research



- Further empirical application of the conceptual framework for in-depth analysis of public sector innovation practices to promote their “scaling-deep/up and out”
- Exploratory analysis of the potential of Data spaces, Innovative Public Procurement and GovTech to stimulate adoption of innovation in public services and policy-design
- Studying the collateral positive effects of COVID-19 and their potential to speed up the needed “reframing” for digital government transformation
- Exploring the potential for public value creation at local and regional level through a systematic review of innovative public services and their digital local ecosystems
- Assessing the impact of specific technologies (e.g. AI, Big Data, IoT) gathering evidence to support existing efforts, such as the AI Watch and IPSO, or new ones like the Platform for regions, to increase policy coherence in the EU Digital Governance

What’s next ?



Shaping Digital Government transformation 2040

Headlines

- About 360 million European adults (82%) consider that their governments should take measures to reduce income inequality.
- Public demand for government action is proportionate to the actual level of income equality in a country.
- The greater the income gap between the middle class and the rich, the more support there is for redistributive policies.
- Individuals who believe that society is basically meritocratic and that everyone enjoys equal opportunities are less likely to support redistributive policies.

Policy context

There is growing consensus that, beyond a certain level, income inequality can have both economic and social costs. It can hamper economic growth and undermine social cohesion. The European Union, through the European Pillar of Social Rights, h put equality and fairness at the heart of its pol objectives.

Data show that **the majority of Europea would favour a more equitable distributi of income**. However, the nature of the link betwe income inequality and support for redistribution unclear. Theoretical reasoning would suggest th when income inequality is high, the majority v support state intervention in favour of redistributi However, empirical analysis usually does n corroborate this theory, for various possil reasons. First, people's conceptions and therefo (mis)perceptions of inequality vary; second, attituc towards income redistribution may also refl subjective views about what fairness in soci means; and third, socio-demographic characterist

play an important role.

Using new data on income inequality and the special Eurobarometer on 'Fairness, inequality and intergenerational mobility', research at the JRC is helping to shed light on the drivers of support for income redistribution.

Digital Government scenarios

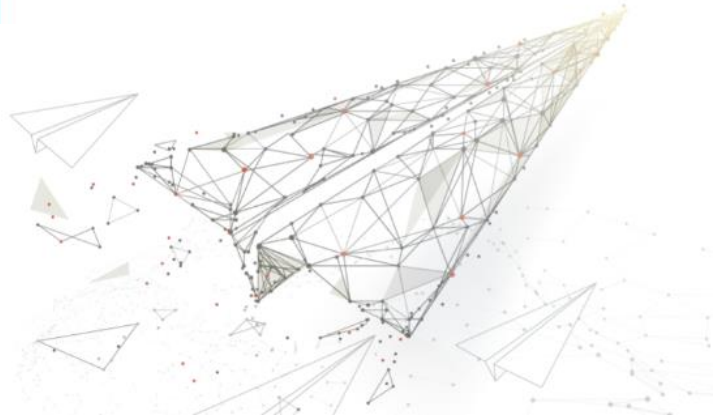
For the purposes of this brief, support for redistribution is expressed through the rate of agreement with the statement 'The government should take measures to reduce differences in income'.

Figure 1 shows that redistribution received a high degree of support (82% on average) across the European Union: 39% agreed, and 43% even strongly agreed, that government should intervene to reduce income inequality. There are, however, disparities across regions and countries.

Figure 1. Support for redistribution

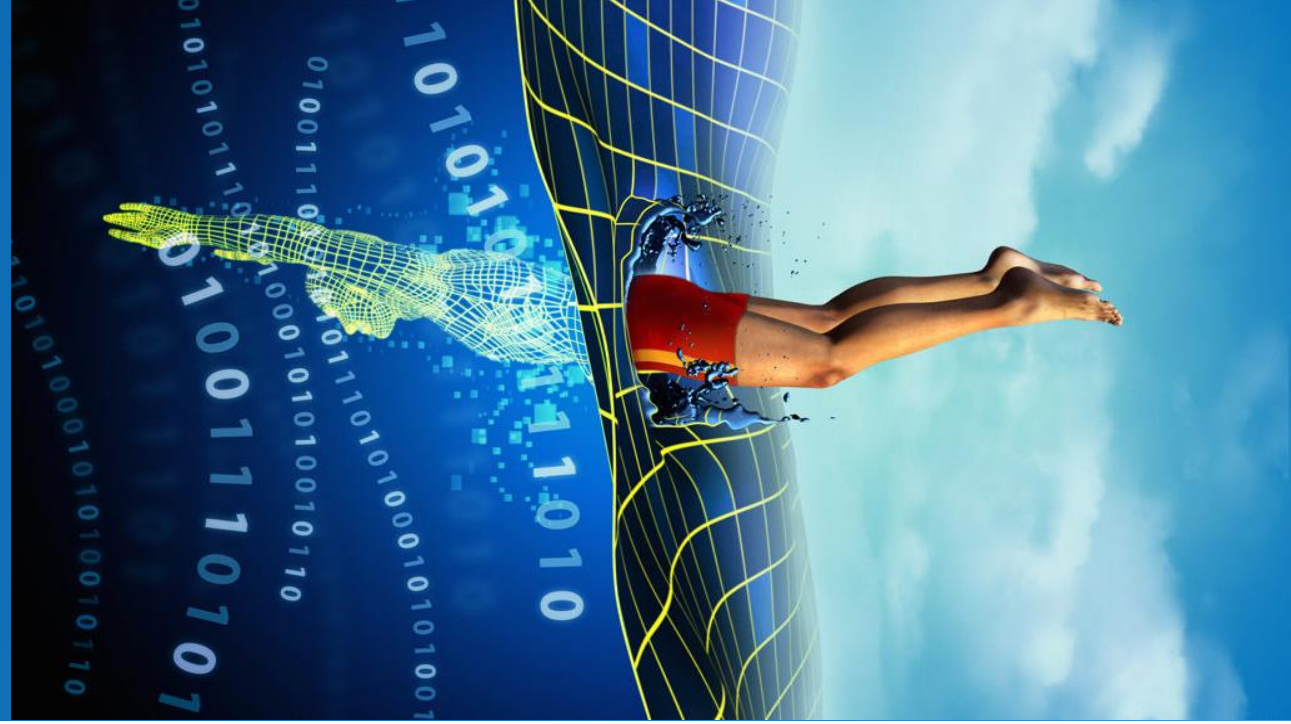
*This brief is based on the JRC report *The Median Voter Takes it All: Preferences for Redistribution and Income Inequality in the EU-20*, Marco Colagrossi, Stylianos Karagiannis and Roman Raab, JRC Working Papers in Economics and Finance, forthcoming.

Joint Research Centre



European Commission

Thank you



© European Union 2020

Unless otherwise noted the reuse of this presentation is authorised under the CC BY 4.0 license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.

European Commission

Stay tuned

Join the *ELISE* community in JoinUp

@eu_location

eulocation@ec.europa.eu

ELISE playlist