

# Regulatory Approaches in Times of Technological Change

*General Principles and Specific Policy Suggestions*

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## Context

The digital transformation offers unprecedented opportunities for enhanced social and economic welfare. Digital innovations are raising productivity, they enable creativity and innovation, and consumer benefit. When having identified that regulation is the best solution the design and implementation of policy frameworks and regulation is critically important to realize these benefits. Policies must reflect the realities of new technologies and business models, advancing with unprecedented speed, scope, and scale of change.

The current digital transformation is estimated to be happening at 10 times the pace and at 300 times the scale of the first industrial revolution. Between 2005 and 2014, the amount of cross-border bandwidth has grown by 45 times.<sup>1</sup> The transformation is being further accelerated by the Covid-19 crisis.

Digital globalization (defined largely by flows of data and information) has brought further complexity to policy making. Value chains are shifting in terms of services and operations and economic activity in general is being transformed<sup>2</sup> calling for countries to promote investments in digital infrastructure and appropriately adapt policy environments for business.. Technological developments blur the lines between industries, enable the creation of new business models and impact society on a larger scale.<sup>3</sup>

The process for developing efficient and effective policy and regulation needs to adapt to evolving conditions of the digital transformation. Political feedback processes must adapt to rapidly changing technology and increasing complexity to preclude being outdated or redundant by the time a rule is meant to be implemented. Any regulatory approach should be non-discriminatory and should seek to foster innovation, investment, and competition in the marketplace. Additionally, streamlined regulatory approaches that support innovation should not undercut efforts to protect individuals' human rights and social efforts to ensure ethical use of data. In this current context, designing effective regulatory approaches today should consider a number of issues:

- i) The increasing need for investment in secure, high capacity networks able to sustain the development of digital technologies;
- ii) The need for agile policy approaches in light of the fast pace and evolution of technologies;
- iii) The global and cross-boundary nature of many digital services;
- iv) The need to accelerate regulatory development process while continuing to elicit and incorporate robust feedback and participation from all stakeholders;

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<sup>1</sup> McKinsey Global Institute (2016): "Digital Globalization: The New Era of Global Flows"

<sup>2</sup> Ibid.

<sup>3</sup> World Economic Forum (2018), "Agile Governance, Reimagining Policy-making in the Fourth Industrial Revolution", White Paper.

- v) The importance of regulatory design based on technological neutrality that allows for technological transitions delivering innovative and higher quality services;
- vi) The potential for being overly risk-averse and inhibiting innovation;
- vii) The need to digitalize regulatory structures and processes;
- viii) Empowering users and putting them at the center of global cross-sectorial data sharing;
- ix) Public authorities should have sufficient capacity, including knowledge and resources to implement effective regulatory approaches for the digital transformation.

Effective regulation in the digital era will require narrowing the gap between technological developments and policy frameworks. Building evidence-based policy consensus, with inputs from all stakeholders, is critical for governments to understand and address the key regulatory challenges, generate confidence and promote the adoption of new technologies and innovation.

## Guiding principles

**In this context, *Business at OECD* members suggest that future OECD work is guided by the following principles for adopting efficient and effective approaches to regulation in times of digital transformation. We suggest that these principles should be considered in context of a whole of government approach, inclusive multi-stakeholder engagement, and adequate space for innovation to take place.**

- **Prioritize digital transformation and the development of digital infrastructure**

The Covid-19 pandemic has shown the potential of digital transformation to sustain economic and social activity, thus reinforcing the urgent need to advance further and faster in this process. Importantly, regulatory frameworks should prioritize digitalization and the development of digital infrastructures as its foundational prerequisite. Regulators should remain independent from the market in order to avoid distortions in competition, while consulting with the commercial sector to ensure that the private sector continues to lead in deployment and development of sustainable digital infrastructure

- **Adopt a principles-based, technology neutral approach, giving companies the space to innovate**

Governments and civil society rely on companies to build and operate complex digital infrastructure. Governments play a critical role in regulating the delivery of digital services and protecting the interests of consumers. Regulators should adopt a principles-based, technology-neutral approach, benefiting both industry and consumers. The goal should be to design regulatory approaches that allows for technological innovation and prevents technologies from becoming stuck in inapt regulatory processes and from being subject to regulatory based competitive disadvantage.<sup>4</sup> Such principles should incorporate data ethics considerations by agencies with appropriate authority and expertise. For example, the OECD Artificial Intelligence (AI) principles for human-centric and trustworthy AI have become a reference point for both business and governments in developing their AI policies and national strategies. The OECD Privacy Framework, and guidance for Digital Security Risk are further examples.

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<sup>4</sup> Fenwick, Mark D.; Kaal, Wulf A. Ph.D.; and Vermeulen, Erik P.M. (2017), "Regulation Tomorrow: What Happens When Technology Is Faster than the Law?" *American University Business Law Review*, Vol. 6, No.3

- Develop agile approaches to regulatory policy frameworks**

Forward-looking and flexible/agile approaches, as illustrated by OECD analysis<sup>5</sup>, can mitigate potential public backlash against technology before regulation and allow for the assessment of intended and unintended economic and societal effects. For example, review mechanisms should be considered/guaranteed early on and throughout the legislative process, allowing regulators to understand the nuances of the technology and thus the effectiveness of legislative outcomes, while also increasing transparency and accountability. Policy tools, such as codes of conduct, regulatory test beds and sandboxes as well as real-time technology assessments can be useful in shaping technological designs and trajectories, without disproportionately constraining innovators.
- Review existing regulatory frameworks**

The fast pace of digitalization is changing market structures, leaving many regulatory frameworks outdated.<sup>6</sup> Legacy regulations and their enforcement mechanisms should be subject of appropriate multi-stakeholder review processes to ensure that they remain fit for purpose. The outcome could be either to derogate frameworks if no longer needed or to adapt existing rules to new technologies and market characteristics, ensuring that innovation is facilitated while regulatory frameworks remain coherent and consistent.
- Integrate digitalization effectively into government regulatory processes and other services**

Technology, when utilized in a constructive manner can also support regulatory processes and increase efficiency. For example, Deloitte analysis estimates that automation could save 96.7 million hours annually with a potential savings of \$3.3 billion in the US Federal Government alone.<sup>7</sup> Digitalization opens up opportunities to simplify administrative procedures, improve public service quality and outreach, and reduce administrative burdens, through ‘one-stop shops’ and other e-services.<sup>8</sup> Policymakers should therefore make better use of digitalization and innovation to foster evidence-based policymaking and innovative developments of public services through open access to and sharing of public and private data, taking into account appropriate safeguards. In addition, the use of AI and Blockchain may help with continuous ex-post evaluation<sup>9</sup> in regulatory lifecycles, ensuring that regulatory approaches remain relevant in rapidly changing digital environment.
- Promote regulatory coherence and interoperability**

As digital technologies cross national boundaries, regulatory principles and interoperable standards driven by the market must reflect the global nature of some of the key challenges affecting innovation. Cross-border business should be fostered through regulatory coherence and global interoperability regarding policies to ensure the free flow of data and data protection, oriented towards supporting digital and technological development. For this goal we encourage governments to adopt OECD standards for privacy, security, and AI referenced

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<sup>5</sup> OECD (2018), OECD Science, Technology and Innovation Outlook 2018, OECD Publishing, Paris

<sup>6</sup> World Economic Forum (2019), “Competition Policy in a Globalized, Digitalized Economy”

<sup>7</sup> By breaking jobs into individual activities and analyzing how susceptible each is to automation, we can project the number of labor hours that could be freed up or eliminated by automating tasks that computers already routinely do. W.D. Eggers, D. Schatsky, P. Viechnicki (2019), AI-Augmented Government, Deloitte Insights

<sup>8</sup> OECD (2019), OECD SME and Entrepreneurship Outlook 2019, OECD Publishing, Paris

<sup>9</sup> “Smart regulation is not about more or less legislation, it is about delivering results in the least burdensome way” - European Commission (2010): *Stakeholder Consultation on Smart Regulation*

elsewhere in this paper. In the context of institutional and trans-boundary challenges posed by new technology, promoting international regulatory co-operation (IRC) to facilitate efficient and effective regulation of new technologies is key not only for OECD member countries but for any global/regional institution.

- **Leverage existing OECD tools and guidance**

In today's dynamic globalized economy, countries must often act quickly to implement reforms that support the long-term success of our economies.<sup>10</sup> The OECD is the 'go-to' source of policy advice for governments on getting the most from digital. The OECD's cross-cutting evidence-based approach, the OECD Going Digital Project including emerging issues such as AI and Blockchain provides needed evidence for regulatory coherence and cooperation on digital. OECD guidance such as the OECD *Going Digital Integrated Policy Framework* and the supporting *Going Digital Toolkit*, *OECD Principles on Artificial Intelligence*, the *OECD Competition Assessment Toolkit*, the *Privacy Guidelines and Recommendation for Digital Security Risk Management* provide key reference for good governance in the digital transformation, for OECD and beyond.

Business looks to the OECD to continue its work drawing on case studies and best practices regarding how to best regulate in the digital transformation – how to implement good governance in light of emerging technologies as well as how to use digital technologies for better regulation. The role of OECD as a standard setter and its impact of different approaches on cross-cutting issues across disciplines is key in shaping our future regulatory frameworks. They should aim to foster digital innovation, diffusion of its benefits and enhance trust through better policies and multi-stakeholder approach.



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<sup>10</sup> OECD (September, 2018) Interim Economic Outlook, OECD Publishing, Paris