# Strategic Foresight to Bolster Agile Rule Making

Dauphine Club of Regulators and
OECD Network of Economic Regulators

## Conference Report

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**This document offers a synthesis of all interventions of the conference**

# Summary

# Strategic Foresight to Bolster Agile Rule Making

## Introduction

### Éric Brousseau | Scientific Director, Dauphine Governance and Regulation Chair & Club of Regulators

One of the implicit duties of any regulatory agency, namely to understand the broader context within which it operates, is even greater in today's world of rapid technological and economic transformation, driven by the digital revolution on the one hand, and the imperative to transform large infrastructure and service provision mechanisms in response to climate change and the need for sustainable development.

The OECD has emphasised, against this backdrop, the importance of implementing more agile regulatory governance. It is essential to streamline or accelerate the policy cycle by developing more effective and rapid means of assessing the quality of regulations, understanding the failures of markets, industries and regulations, and analysing how regulatory objectives should be revised or reached, thanks to an overhaul of the tools used to implement them.

Strategic foresight will make it possible to anticipate next steps in this new landscape.

Thanks to their in-depth understanding of industries' and operators' strategies and their ties with the various stakeholders, regulators are in an excellent position to be involved in strategic foresight. Though they hold no mandate for policy-making, their remit does require that they be effective and efficient in economic and social policy implementation. Strategic foresight is thus one of the tools thanks to which they can provide industry players with focal points, at least for discussion amongst themselves in the midst of major change, and potentially with a view to contract action.

# INTERNATIONAL APPROACH

## Miguel Amaral| Senior Policy Analyst, Regulatory Policy Division, Public Governance Directorate, OECD

The Recommendation for Agile Regulatory Governance to Harness Innovation was adopted by the OECD Council at Ministerial Level on 6 October 2021 to help policy-makers re-think policy-making and regulation in the face of the regulatory challenges raised by innovation.

It is structured around four main pillars.

1. Adjusting regulatory management practices (e.g. regulatory impact assessments, stakeholder engagement and ex post evaluation), by working notably along two main lines:

   - developing more adaptive, iterative and flexible assessment cycles;

   - re-thinking stakeholder engagement as an ongoing process throughout the policy cycle, in order to foster transparency, build trust and capitalise on various sources of expertise.

2. The need for close cooperation between government agencies, including across jurisdictions and sectors, so as to:

   - foster mutual learning;

   - improve the coherence between the different regulatory approaches;

   - and adopt, where relevant, shared regulatory approaches.

3. The need to develop more "agile" regulatory approaches to innovation:

   - by creating more space for experimentation, notably to foster policy learning on the risks and opportunities of specific technological developments;

   - by anticipating and monitoring the regulatory implications of innovations, using systematic and coordinated horizon scanning and scenario planning;

   - by harnessing the opportunities provided by non-legally binding approaches to regulation (e.g., voluntary standards, co-regulation);

   - by developing, where relevant, more outcome-focused regulatory approaches.

4. The need to adapt regulatory enforcement to the "new normal":

   - by taking a more risk-based approach to enforcement, adapting the strategy to the risks raised;

   - by using the opportunities provide by digital technologies to improve enforcement activities.

A couple of comments bear mention:

- some agile approaches might involve potential underperformance and downside risks that should be properly considered and addressed by governments;

- regulatory approaches need to be applied taking a dynamic perspective rather than static approach;

- capacity and skills are key enabling factors for agile regulatory approaches to innovation. Developing appropriate institutional arrangements is also a important precondition to help steer innovation in the desirable trajectory.

### Eric Brousseau

International cooperation is indeed an essential component of strategic foresight, as multiple perspectives contribute to greater accuracy in the visions developed. Self-regulation and ethical principles also have a prominent part to play, given the difficulty in setting out a new framework when technologies and business practices are changing so quickly.

# PORTUGAL

## Sandro Mendonça| Member of the Board of Directors, ANACOM (Autoridade Nacional de Communicacões)

The title of this event gives pride of place to two contrasting yet compatible approaches to regulatory work.

- At the core of strategic foresight lies *anticipation*: regulators nurture and invest not only in forward-looking capabilities but also in analytical tools, recognising that it is just as important to understand the future as it is the present – "forecasting", yes, but also "now-casting".

- *Agility*, meanwhile, can be described as free adaptation aimed at providing the optimally adaptive responses to unpredictable challenges faced in real time, whereby minimal structures are needed for the best evolution. It is a form of "strategic improvisation", i.e., responding organically to the stimuli of a situation using the tools available.

Both these approaches are relevant today, in an environment punctuated by events that have reshaped the world: the pandemic in 2020; the grounding of the Evergreen ship in the Suez Canal that disrupted global supply chains in 2021; and the conflict situation in Europe today. Guided by historian Eric Hobsbawm, who defined the 20th century as beginning with World War I and ending with the disintegration of the Soviet Union, we can affirm that the 21st century really could have begun in 2020. After Hobsbawm's "century of extremes", I believe that the "century of volatility" has begun.

In this context, in which sectors can collide (e.g., digital and electronics) just as much as they can fragment (e.g., infrastructure and telecommunications), while business models are rapidly transforming, regulators must be capable of foresight (futures literacy). Yet with the pieces of the puzzle themselves changing shape and the very pattern formed by the pictures evolving, the difficulties are considerable.

In this context, a platform such as the OECD is helpful as it unites the need for regulation and agility. The work which we can accomplish together will in some cases compensate for our foresight failures and effectively build the capabilities needed.

By way of illustration in Portugal, the communications regulator (ANACOM) has tried to travel new pathways:

- During the design phase of 5G auction, the regulator fought hard to keep the window open for changes in the market structure to prevent lock-in;

- It works closely with the organisers of mega-events to understand the multiple issues they must manage concurrently (an example being Formula 1);

- It now increasing works with start-ups, transferring its knowledge of spectrum regulations, and gaining from the opportunity to observe their creativity in the deployment of new services.

Foresight, the ability to deal with uncertainty, is a necessary perspective for regulators. It is a qualitative exercise and, as surprising as it may seem, compatible with data-driven initiatives.

### Eric Brousseau

How do the Portuguese authorities and in particular ANACOM draw on data analytics to identify weak signals or new emerging trends?

### Sandro Mendonça

While I cherish and value the data-driven mind-set, my argument here is that it is important to contrast it with the qualitative approach and recognise the limitations of our knowledge base. Innovation players are aware that foresight is a means of wiring-up the stakeholder community, as it coordinates the minds present and compensates for individual shortcomings.

In the economics and policy of technological change, it is important to be very humble regarding the nature of the change. Drones, for instance, are both tools for spectrum management, but also heavy users of spectrum themselves. They have furthermore brought to the fore acute questions relating to intellectual property, design, and technical development. In Portugal there has been some pioneering experiences in exploring these issues in a controlled environment (I refer here specifically to a large NATO exercise in September 2021)

### *Dominique Jamme*

While the need for improvisation might seem to be cancelled out by good foresight, it nonetheless remains entirely valid when we recall that unforeseeable events can arise at any time: in the Covid crisis, market policies collapsed along with demand, after which strong economic growth returned. We were able to navigate through this period thanks to a sense for improvisation, and thus regained stability.

Today's situation is shaped by ever-more intensive war crimes and the resulting rise in energy prices, given Russia's position as key supplier. In the future he technological solutions will be largely the same as today, consisting in solar, wind and batteries. We might also see a major shift away from gas, perhaps to zero.

# FRANCE

## Maya Bacache |Member of the College, Electronic Communications Regulatory Authority/ARCEP

### Introduction: Why and how?

With innovation written into ARCEP's mandate as a purpose, the body has a clear pro-innovation prism. It also strives to take a forward-looking approach. While it does not engage in prospective analysis per se, it holds conferences and discussions with the ecosystem (operators, researchers, etc.), addressing such areas as IA, platforms and agriculture. It was, in particular, one of the first authorities of its kind to incorporate the environment into its approach. It also holds consultations and developed a regulatory sandbox.

A further distinctive feature is its application of the data-driven approach. This approach enables consumers to choose the best-suited operators to them, but in so doing, also fosters improvements in the operators themselves, who are able to see in which areas progress is expected. Furthermore, data contains the early warning signs of major problems, on which ARCEP can thus take advance action.

### Example of agile regulation: 5G adapting to industrial needs

ARCEP is the authority responsible for allocating frequencies on the major telecommunications sector innovation, 5G: for this purpose, it considers market demand and players' potential for efficient operation.

Whereas in 2017, the first consultation for assessment purposes ended in the conclusion that no industrial demand existed, it initiated experimentation in 2019. The first attribution of 3.5GHz to telecom operators was carried out through an auction process, with successful players also expected to fulfil obligations. Demand grew gradually in France as well as around the world, culminating most recently, in March 2022, in an experimental portal at 3.8 to 4.2 GHz, with a new 26 GHz portal to open soon. All along this development pathway, ARCEP combined foresight, anticipation and adaptability with the appropriate technological tools.

### Example of challenges: DTT

Yet foresight does not necessarily guarantee success. To wit, ARCEP's initial studies on Digital Terrestrial Television (DTT) in 2018 led it to predict that the share of DTT amongst all viewing methods would steadily decrease until a point of collapse. Furthermore, it saw competition as dynamic enough between the various broadcasting systems and expected an increase in alternatives to TV broadcasting by broadband. In 2019, it accordingly extended regulation of the wholesale terrestrial broadcasting market for a further two years, to accompany the process, at cost-oriented prices.

In reality, consumers continued to use DTT, appreciating: its attractive cost structure; convenience especially for certain age groups; and place in the home as one of two or three different ways of receiving TV services.

The expected collapse not having taken place, a new consultation was held in 2021. The sector's players signalled that they were still in need of regulation. ARCEP renewed the latter, adjusting it to include commitments from TDF submitted to the authority. Adaptability in the face of an incorrect forecast was decisive here.

## Conclusion: Challenges in the near future

Regulation today is adapting from an asymmetric to a symmetric stance.

Agility is without a doubt a necessity for authorities regulating such innovative sectors, but cannot become the rule at the expense of stability.

As the move from copper to fibre becomes reality, will authorities be able to act agilely yet also cautiously? In the move to change the very approach to regulation, how should previous decisions be handled?

### *Dominique Jamme*

The suggestion that we can be both stable and agile is very astute in the energy sector. On the one hand, the 20 to 50-year life span of the infrastructures requires stability by definition. On the other hand, the energy sector is changing very fast, because of energy transition and multiple crisis. For instance, in the face of the gas crisis, Belgium has announced that it will postpone its exit from nuclear power for ten years. What will become of the gas power plants being built to replace nuclear energy?

# FINLAND

## Susanna Metsälampi |Leading Legal Adviser, Transport Systems Services, Transport and Communications Agency/Traficom

Traficom is a multi-sector agency, in charge of all transport (road, rail, sea and air) sectors as well as the telecommunications and postal sectors. It furthermore hosts the cybersecurity centre in Finland. This presentation is based on my many years of experience as civil servant.

While the rulemaker does not and should not play a leading role in the industry it regulates, it most definitely plays a supportive one, allowing for innovations but protecting the interests of consumers. The rulemaker "reacts" to problems and challenges, but also to trends, political agendas and most recently even the weakest signals.

Though agile regulation is a definite need, the traditional responsibility for responding to challenges and disruptions cannot be forgotten. Fundamentally, the rulemaker responds to constantly shifting expectations for:

- a level playing field,
- safety and security,
- climate change,
- consumer protection,
- data protection,
- all the while leaving the way open for innovation, digitalisation, automation, etc.

Examples of weak signals for which regulators must look to work effectively with industry can be found in:

- the management and quality systems that already for some time have been in use in various sectors, to enable a more organised way of assessing the sustainability and resilience of activities, recognising risks (of disruption, disaster, strike, etc.), identifying alternatives, and taking appropriate action;

- the more recent "occurrence" (or incident) reporting systems and whistle-blowing rules de facto provide information showing where weaknesses and systemic issues, for instance, about the level of training, or quality of management, are hidden;

- neighbouring sectors (benchmarking).

Agile rulemaking will be facilitated by certain tools:

- a focus on measurable performance, output and objectives, to allow for innovation and progress in the provision of goods and services, in detail (e.g., "goal-based standards");

- building from existing standards, where available, while safeguarding technology-neutrality nonetheless (e.g., Accessibility Directive 2019/882, Directive on Intelligent Transport Systems 2010/40/EU);

- allowing for alternative ways, exemptions in order to test new ideas, including safeguards to protect safety, consumer interests, etc.

*Eric Brousseau*

Strategic foresight indeed comes in the everyday operation of regulatory authorities. The dialogue that arises between the latter and operators takes on a new meaning in this context.

*Assunta Luisa Perrotti* (from Italy Transportation Regulation Authority)

There is tension between the engagement of regulators with operators, incumbent players and independent bodies.

*Susanna Metsälampi*

Yes, it is important that the regulator is open to discussion with all (as opposed to listening only to major or more established operators).

*Maya Bacache*

While I do concur, it can be difficult to guarantee a fair balance on the ground. Telephone operators have specific units in charge of interacting with regulators, while consumer associations, for instance, have less time and do not have the specialised communication capabilities. It is important that the regulator not be made captive by the ecosystem, specifically, that its minds not be trained in a specific direction.

*Eric Brousseau*

The relationship with the academic community, too, needs to be both nurtured and considered for its distinctive characteristics.

*Dominique Jamme*

I too have experienced how smooth the engagement with industry and difficult that with customer associations can be – due to structural factors rather than a lack of willingness on the latter's part. Yet, as a regulator, we have the duty to talk to everyone, industry and customers associations.

# FRANCE

## Dominique Jamme | Managing Director, French Energy Regulatory Commission/CRE

The Energy Regulatory Commission, as per its remit, contributes to the proper functioning of the electricity and natural gas markets for the benefit of end-consumers and in line with the energy policy objectives, by: seeing to the proper performance of infrastructure operators; regulating markets to enable the development of competition and innovation for the benefit of consumers; supporting the energy transition.

As the energy sector, characterised by long-term investments, is in the throes of profound and rapid transformation with the energy transition and digitalisation, the CRE must anticipate the major trends in the sector. Its work complements the scenarios on the development of the energy mix carried out by other players (e.g., TE's Energy Futures, Energy Transition Agency, etc.)

In 2017, sensing that the continuity long experienced in its sector was soon to be shaken, the CRE initiated a broad international consultation to identify the main trends that would shape the future. Twelve scenarios were submitted to an international panel of 80 international energy experts (20 French, 20 European and 40 from the rest of the world) on the evolution of energy demand in Europe, the development of flexibilities, the adaptation of electricity and gas networks and systems, the future of hydrogen, etc.

The prospect that low-carbon power systems would be competitive against fossil fuel systems in both interconnected and non-interconnected areas was seen as realistic by 56% of experts by 2030. That percentage jumped to 85% when the horizon was set at 2050.

There was less certainty about the role of hydrogen, in contrast. When asked about the possibility that "a hydrogen economy would emerge in developed countries, providing a relevant answer to needs specific to some parts of the transportation sector, but mostly to the decarbonisation of gas and electricity markets", only 12% of respondents saw this as likely by 2030 and 27% by 2050.

As the study had brought out the need to speed up innovation and create an appropriate regulatory framework, in particular by setting up a regulatory sandbox for experimentation, measures towards this end were taken under the law. In this regard, caution is recommended, to ensure that the sandbox does not become a means of delaying action endlessly.

In the 12 months following the report, the CRE issued three major reports:

- on self-consumption, whose advantages were underlined, but also the need to preserve the financing of the networks that ensure national solidarity; on electricity storage, with a roadmap for action, beginning with the creation of working groups at CRE (access to markets, efficient storage, etc.);

- and electric mobility and power networks.

A report will soon follow about energy and mobility, studying the implications of today's work on the energy system.

The CRE's Foresight Committee, tasked with providing guidance to the regulator and energy stakeholders, is now in its fourth season. It works to identify the main issues and trends in the medium and long term, in a dispassionate, collaborative manner. The working groups bring together some 50 players from the world of energy and regulation, including operators, academics, consumer associations, etc.

Its current focuses are:

- the energy mix, dealing with "biomass and carbon neutrality";

- energy systems, on "the electrification of uses";

- and consumers and society, to explore the topic of "consumers and new energy services".

In this context, we must keep on looking at the future because our sector is transforming very fast. The present crisis is heralding a major move backwards, perhaps for several decades, to very high coal use, a question with crucial implications for regulators now.

### Annegret Groebel *(from Council of European Energy Regulators)*

Seeing how interrelated the energy transition and the digital transition are, it is vital that the silos between these two sectors be taken down. At the same time, however, it is important to remain faithful to fundamental regulatory principles, so as to maintain stability and predictability.

In this light, I would recommend a principles-based approach combined with prompt analysis of data and scenarios, so that the regulatory response is quick and agile, yet also based on fundamental tenets. We will be able to respond more quickly if we have assessed various responses in advance, matching each risk identified with a possible regulatory response, and linking the implementation of these responses to specific criteria and triggers.

This is essential in the face of today's uncertainties.

To further improve our ability to remain on top of a situation, we must continually improve our forecasting and foresight by adding new data on technology but also on behavioural changes, assessing regularly whether our original assumptions are still valid.

If all the assumptions still hold, the principles will be useable in an adaptive spirit, suited to a new situation, without changing the fundamentals. However, should the majority of them no longer be relevant in the face of a disruptive situation, the model can be questioned. While we have not reached that point, recent crises have only confirmed the need to be better prepared and more resilient. This would improve regulatory quality overall, shorten reaction time, as well as be more agile and supportive of innovation.

# UNITED KINGDOM

## Samuel Omolade |Head of Regulatory Horizons Council Team, Better Regulation Executive/UK Regulatory Horizons Council

The Regulatory Horizons Council is an independent expert committee made up of representatives from business, academia and industry, in charge of providing recommendations to the UK Government on the regulatory reform needed to extract best value from new and emerging technologies.

The central question around which its work is structured reads as follows: "how should the regulatory environment change if the UK is to get best value from technological innovation?" In tackling this, it:

- Considers regulatory change in the broadest sense, from standards, laws, rules and guidelines, to broader understandings of substance, process and perception;

- Sees change as an opportunity to provoke, challenge and disrupt the status quo,

- Defines best value as the better outcome for the UK, including competitiveness, productivity, cleaner environment, sustainability, citizenship, social inclusion, etc.,

- As concerns technological innovation, takes a holistic, "future-back" approach designed to maximise the capabilities of regulators by definition required to dedicate the bulk of their time and resources to settling emergencies and unpredicted events.

Its priority focuses include four topics in response to questions raised by the Government:

- genetic technologies,

- fusion energy,

- drones,

- and medical devices.

Its priority prospective work deals with vertical topics:

- AI as a medical device,

- hydrogen in maritime,

- neurotechnology and,

- in its first cross-sectoral undertaking, principles for pro-innovation regulation.

Regulation faces two intrinsic challenges:

- Pacing, specifically the fact that the rate of innovation is exceeding the rate at which regulation can adapt;

- convergence, i.e., the nature of innovation is transcending existing regulatory boundaries).

To best address them, true to its "Futures" approach, aimed at identifying long-term issues and challenges shaping the policy area's future development, the RHC engages in:

- horizon scanning, or the examination of information to detect early signs of potential threats, risks, emerging issues and opportunities

- 7 question interviews, a technique for gathering the strategic insights of a range of internal and external stakeholders using questions geared towards the future.

The areas of AI as a Medical Device and Neurotechnology will soon be the focus of a hackathon structured around multiple scenarios, and organised in conjunction with complementary bodies. Using the resulting picture of a desirable future, it will carry out a backcasting exercise, working backwards to identify the regulatory roadmap needed.

Strategic foresight is afflicted by four main obstacles:

- bias towards the present;

- inequality of resources amongst regulators;

- regulatory silos;

- and behavioural challenges.

To minimise them, successful responses include:

- Horizon scanning, to broaden one's field of vision beyond the purely sectoral,

- Scan of scans, to ultimately amalgamate one's own perspective with other enriching views,

- Pooling resources, as exemplified by the Digital Cooperation Regulation Forum, which brings together the Competition and Markets Authority, the Financial Conduct Authority, the information Commissioners' Office and OFCOM).

The choice of the appropriate tool can be hindered by a variety of challenges, above all, the "Goldilocks Problem", or how to strike the right balance when timing regulation so that innovation can be developed to its full potential, without allowing harmful practices to settle in.

In this regard, the merits of soft law should be recalled – as should those of doing nothing at all, a cautious stance that prevents detrimental effects, and is best implemented alongside communication to ensure that public understanding that the problems do lurk and that observation is underway.

### Eric Brousseau

Should patent technology be taken into consideration when engaging in strategic foresight in preparation for regulation?

### Samuel Omolade

Patents can indeed be one of many indicators to understand what's coming down the line in terms of new and emerging technologies.

### Sandro Mendonça

The horizon scanning implemented in the UK is one way of connecting fragmented information of relevance for the regulator. This has been the case with the food industry. It is a very interesting methodology for picking up weak and strong signals, while establishing a shared conversation.

# CONCLUSION

## Martha Baxter | OECD, Policy Analyst, Regulatory Policy Division, Directorate for Public Governance, OECD

"There are no facts about the future" – facts are by definition of the past, whereas the future cannot be empirically explained. The goal of foresight is not to predict, but to cultivate a mind-set that is open, curious and agile, and thus be better prepared for the future.

A number of common elements emerged across the presentations today:

- Foresight needs to be a sustained practice, rather than a one-off exercise. It should be reassessed and embedded into decision-making processes.

- It is essential to actively engage with stakeholders from an early stage. Strategic foresight works best when it can tap into the perspectives of multiple stakeholders. Industry and consumers, in this regard, have different capacities.

- There exists a need for coordination among regulators, other public authorities and wider stakeholders, which requires clarity in the allocation of responsibilities.

- Strategic foresight is a different but complementary tool alongside data-driven approaches.

- Strategic foresight can be very difficult, hence the need to consciously devote resources to it and create what is an essential capacity.

### Eric Brousseau

We look forward to further events during which we will become ready for flexibility, developing the adaptive mind-set that enables collective thinking and preparedness.