



GYROSCOPE

Anticipatory Organisations and Future-Oriented Regulation: Stylised positions in long-term oriented industries like marine logistics

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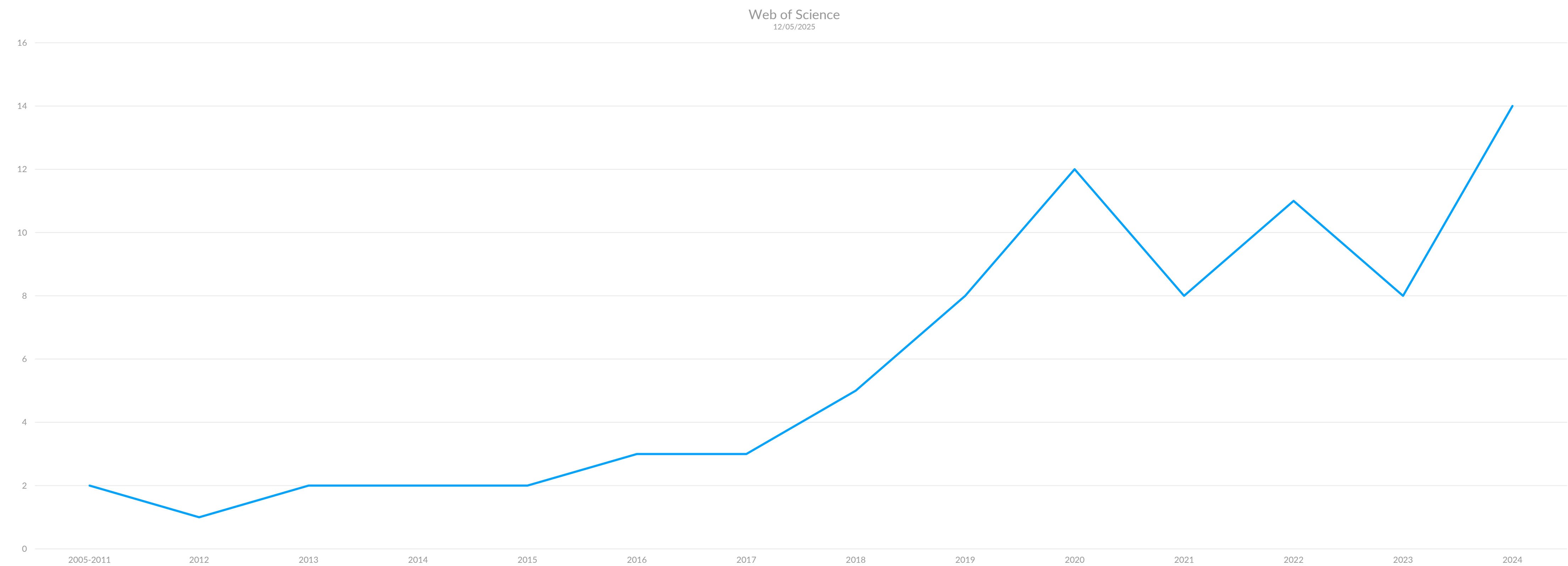
Starting points

- Different industries and industrial actors have **different anticipatory positions towards future regulations and regulators**
- Our aim is to theorise these positions by using the concepts of
 - **Anticipatory organisations**, e.g., actors engaged in future-oriented agency and actions to affect policy settings, and
 - **Future-oriented regulation**, e.g., anticipatory policy setting for enabling and inhibiting particular industrial practices
- Connected to two on-going research projects
 - Gyroscope (Research Council of Finland, 353056)
 - LifeFactFuture (Business Finland, 6819/31/2023)

Research problem(s)

- What is future-oriented regulation?
- How do future-oriented organizations pursue future-oriented regulation?
Anticipatory practices of corporations.
- How do regulators and policymakers pursue future-oriented regulation?
Anticipatory practices of authorities.
- How can foresight and cooperation – **collective intelligence** – help advance future-oriented regulation.

Future-proofing regulation



What is future-proof regulation?

Iterative, dynamic

*“Just as good software development is based on the **principle of iteration, i.e. repeated cycles of testing, failing, correcting, and repeating**, EU digital policy should refine its regulatory approaches by testing the costs and benefits of certain types of digital regulation and their optimal form of implementation.”*

Küsters, A. (2025) **Future-proofing the EU**: ordoliberal governance and algorithmic regulation. Constitutional Political Economy.



Resilient against change

“(...) how well the Framework has stood the test of time, that is, to what extent it has proved to be genuinely future-proof.”

Colomo, P.I. (2022). **Future-Proof Regulation against the Test of Time**: The Evolution of European Telecommunications Regulation. *Oxford Journal of Legal Studies* 42(4) 1170-1194.

We propose:
From future-proofing to future-making?

Anticipatory organisations and regulation: a relational perspective

- Adaptation of relational perspective by Ahlqvist & Uotila (2020)
 - Emphasis on actors, objects, contextual perspectives and related localised, bounded knowledge(s)
- Three spheres
 1. Sphere of present system configuration
 - Industrial contexts, actors (companies, regulators), linkages between actors
 2. Sphere of potential regulation
 - Regulators engage regulations, other actors catalyse & inhibit
 3. Sphere of alternative system configurations
 - Projected and imagined through anticipatory linkages



Contextualising weak signals: Towards a relational theory of futures knowledge

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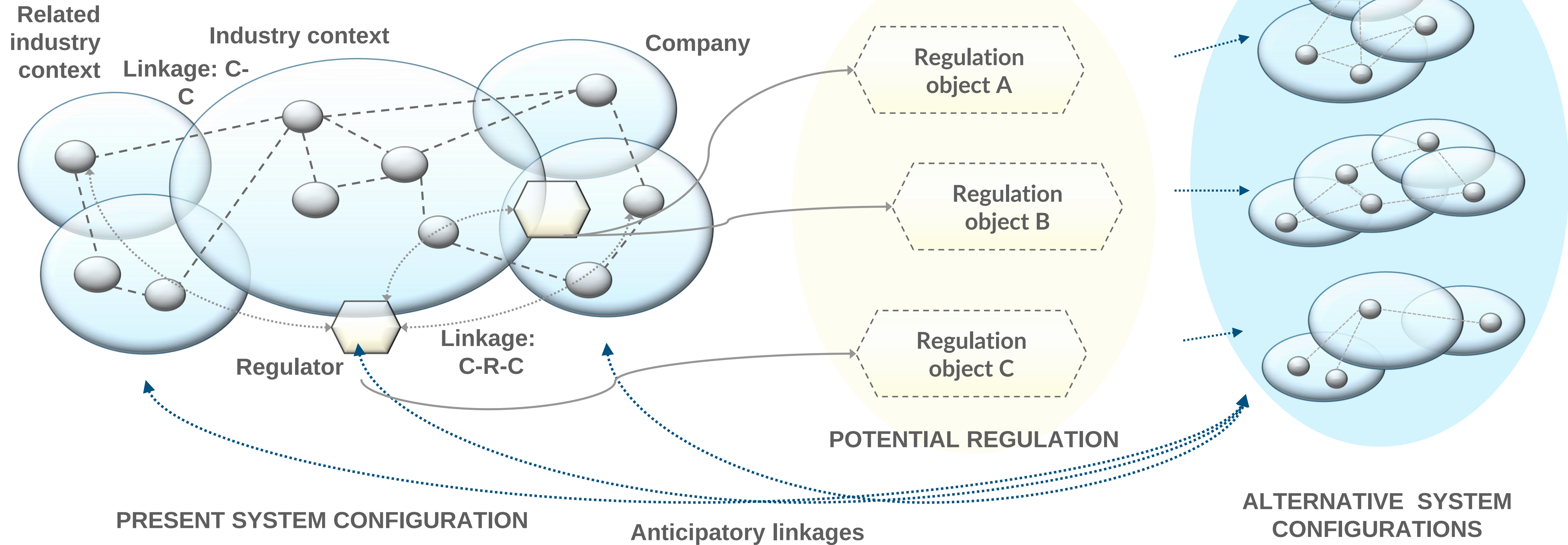
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Anticipatory organisations and regulation: a relational perspective



“The Future” helps discipline organizations

- Anticipatory governance as *“a knowledge-based, performative phenomenon that addresses potential and desirable futures and operates as a mode of shaping, controlling and orchestrating organizations”* (Flyverbom & Garsten, 2021).

Organizations help discipline “The Future”

- *“The key point of anticipatory institutionalism is the feedback loop from the anticipated future to actions in the present that, in turn, influence the future”.* (Minkinen, 2019)

Case: Marine logistics



Decarbonizing marine logistics

Step 1: Set ambitious targets

Step 2: ???

Step 3: Green shipping

The plan:

IMO targets: 70-80% reduction of GHG emissions in 2040 compared to 2008.

The reality:

Emissions are higher today than in 2008.

93,5% of ships are running on conventional fossil fuels (2023)

90% of new ship orders on fossil fuels (2023)

Marine logistics: Some observations

**1) The present is
untenable**

No centralised
control

No end-user market
pull

Catch-22 market
situation

Regulatory roles outsourced to
third-parties

**2) The future depicted is
shallow**

**3) There is no one
future**

Marine logistics: Future-oriented regulation

- A mesh of regulation in the domain of alternative fuels
- New technologies, digital solutions and autonomous ships
- Regulating systemic risks and human-technology interactions
- If the present is untenable, can regulation help induce change?

Pharmaceutical manufacturing: Future-oriented regulation

- Enabling new practices and the conditions for their use
- Phasing out previous practices
- If change is seen as desirable, can regulation induce change?

Medical devices: Future-oriented regulation

- Balance between control and innovation, allowing for fast-paced technological change
- Regulating systemic risks and human-technology interactions
- Change is rapid, how can regulation keep up-to-date?

Conclusions

- There is room – and need – theoretically and empirically to address the co-creation of future-oriented regulation.
- From ‘simple’ questions – what is it, how does it manifest itself, what kind of practices, etc – to the more normative attempts of improving it.
- We believe that foresight and co-creation are valuable tools.
- Next steps: Theoretical refinements and from stylised reflections to systematic data analysis



THANK YOU!



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