Anticipatory organisations and future-oriented regulation: Stylised positions in long term-oriented industries like marine logistics

Toni Ahlqvist[1] (toni.ahlqvist@utu.fi)

Mikkel Knudsen[2], Ville Lauttamäki[3], Tero Villman[4]

[1,2,3,4] Finland Futures Research Centre, University of Turku

Abstract

Different industries have different anticipatory positions towards future regulations and regulators in the domain. In this paper, we theorise these positions by using the concepts of "anticipatory organisations" (actors, both public and private, engaged in various future-oriented actions and agency to affect policy setting) and "future-oriented regulation" (anticipatory policy setting for enabling and inhibiting particular practices).

In the empirical part, we discuss stylised examples from the industrial domains of marine logistics (ML) and pharmaceutical manufacturing (PM). We compare anticipatory features of organisations and regulations in these domains, e.g., in the contexts of alternative fuels (ML), digitalisation (ML & PM), and regulation experiments (ML & PM). Both industrial domains are reflected by longer-than-usual (by industry standards) timelines in which system incumbents, for varying reasons, have in-built moats limiting and protecting system changes. Combined with strict regulatory requirements, it juxtaposes the fast clockspeed of emerging technologies with the slowness of change, providing an interesting setting for thinking about 'innovation', 'anticipatory organizations' and 'future-oriented regulation'.

We base our analysis on our observation of the two sectors through two ongoing large-scale research projects, in which we have also collected extensive material from Finnish stakeholders via workshop and interview settings.

Existing literature on future-oriented regulation often emphasizes its role as a catalyst of innovation enabling environments. However, based on our empirical data, surveyed industrial actors rarely perceive regulation as stimulating innovation, nor do regulative actors perceive their role as builders of such environments as among their core tasks (such as ensuring risk mitigation and safety). This suggests that there is a significant gap between ideal conceptions of "future-proof regulation for innovation" and what is seen in practice. If this is the case, it likely has important implications for the possibilities of inducing changes, for example bringing about green transition in marine logistics.

Implications for sustainable maritime operation

Decarbonizing maritime operations is a major challenge for which success likely necessitates both the use of regulatory instruments and significant technological innovations. The interplay between regulation and innovation in the sector is therefore important for future sustainable maritime operations. Similarly, understanding how sectoral stakeholders perceive themselves vis-à-vis the future, regulation, and innovation can help understand possible pressure points for stimulating positive changes to the system.