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A Policy Governance Framework for SEP Licensing: Assessing private versus public market interventions

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Assessing private versus public market interventions

Bowman Heiden and Justus Baron

This paper has sought to provide a balanced, evidence-driven policy governance framework for SEP licensing by highlighting both the theoretical and historical use of private and public ordering mechanisms in the mobile economy. Included is a broad investigation of (1) the EC's impact assessment methodology, previous research and guidance, and current SEP policy focus areas; (2) the specific context of SEP licensing in standards-enabled markets and the current evidence of market success; (3) a theoretical framing connecting high-quality research on specific SEP policy issues with seminal economics contributions to the understanding of public and private ordering and experimental governance; (4) a review of existing public and private ordering approaches for the current SEP policy focus areas; (5) an adjusted analytical framework and impact assessment for the governance of SEP licensing; (6) a discussion on policymaking under uncertainty, and experimental governance. Below is a short summary of the investigations undertaken and key findings and insights:

1. Markets consist of a combination of private and public ordering mechanisms, but there is a fundamental difference between public ordering on the foundational layer of the market (i.e. enforcement of the rule of law) versus the transactional layer of the market (i.e. regulation by the administrative state). An SEP policy governance framework can benefit from a clearer understanding of private and public ordering and their market implications.
2. Both private and public ordering takes place across a spectrum. Private ordering can range from independent to collective action by market actors, and public ordering can range from guidance to regulation by government actors. The assessment and implementation of SEP policy measures can greatly benefit from a clearer understanding of the broad spectrum of private and public tools, the different implications of their use, and the empirical impact of the tools that have historically been employed in the market.
3. The same governance policies implemented through private and public ordering can produce very different results. For example, patent pools, which are seen as pro-competitive when arranged voluntarily by market actors, can clearly devolve into mechanisms for price regulation when involuntarily implemented by the state.
4. The SEP licensing context is largely a story of collective, private ordering through the creation of open, consensus-based SDOs, FRAND-based IPR policies, and patent pools. These developments can be an explanation for why theories of market failure in SEP-enabled markets have not been shown empirically to occur in the mobile economy. A review of the private ordering mechanisms and economic implications across the issues of transparency of SEP exposure, licensing in the value chain, FRAND licensing terms and conditions, and patent pools were conducted and compared to received theories of market failure to provide potential explanations for the market success of the mobile economy.

5. In market contexts characterized by open, collective innovation and a strong private ordering regime, governments should resist the unproven counterfactual belief that public ordering can produce solutions that will obviously improve the situation for all actors (i.e. Pareto efficiency). Because of the market complexity, the fragile balance of incentives, and potential strategic market responses to changes in SEP licensing policy, government intervention is more likely to generate tradeoffs that redistribute value and costs (i.e. Kaldor-Hicks efficiency) or unintentionally generate a systemic change that lowers social welfare (i.e. government failure). Here, policymakers could benefit from experimental governance mechanisms designed to manage market contexts of high uncertainty, such as the emerging IoT market development that will impact many industries but likely in different and uncertain ways, which are currently unknown.
6. The influence of private and public actors on the market can be both direct and indirect, where indirect efforts may be the dominant factor through capture mechanisms. In particular, indirect public ordering can strongly influence private ordering decisions made in the shadow of regulation, which the authors label as *market capture*. This shadow is apparent in the IPR policy developments at both the IEEE-SA and ETSI. Market contexts experiencing high levels of capture activities are particularly vulnerable to Nirvana Fallacies and thus require an extra focus on evidence-based policy assessment.
7. As stipulated in the EC Impact Assessment Guidelines, problems cited as the reason for government policy intervention need to be studied in-depth and measured holistically. This problem determination assessment needs to start from the beginning of any governmental market investigation, not wait to be done as the last step before policy approval. This lack of thorough investigation into the theoretical problems associated with SEP licensing has led to *institutional capture*, whereby theories of market failure have grown to become facts in the absence of empirical evidence.

The authors strongly believe that it is important that the public debate (to which this paper is meant to contribute) achieve a shared understanding of the relevant problems and policy objectives in order to make a significant step forward on the issue of SEPs and standards-enabled markets. In the absence of such a common understanding, implied assessments of existing problems and desirable goals for policy action have the potential to skew the political debate. In the author's view, working towards a consolidated assessment of the existing system and its strengths and weaknesses is at least as urgent a task as formulating proposed improvements on how to reform it. In order to properly frame the necessary debate going forward, we would like to conclude by underlining a number of important principles.

1. The primary objective of a policy framework for SEP licensing and of ICT standardization more generally is to support technological innovation and the further growth of wealth and welfare in society. Innovation by the active contributors to ICT standards development and by the producers of novel standard implementations has produced trillions of Euros in consumer surplus and many high-paid jobs in Europe and elsewhere. It is easy to take the success story of ICT standardization for granted. Nevertheless, this success story hinges on a supportive regulatory environment.

Here, it is easy to miss the forest for the trees. Patent protection of standardized technologies and the necessity to negotiate SEP licenses produce transaction costs.

While these transaction costs may be large in absolute terms, they pale by comparison to the benefits of innovation linked to ICT standards. We should keep in mind that the institution of patent protection itself rests on the idea that society incurs a static cost in exchange for the much greater dynamic benefits of technological innovation. While it is worthwhile exploring opportunities to increase efficiencies in the system, tinkering with the SEP licensing system that produces significant benefits to society should not be undertaken lightly. Any adverse effects on innovation incentives, should they occur, are bound to outweigh potential transaction cost savings. It is thus imperative that innovation incentives occupy a central place in the future debate on SEP policy reform.

2. The regulatory framework in which SEP licensing takes place has evolved over many decades. It has proven flexible and resilient throughout multiple periods of significant technological change and profound transformations in industry structure. Central to the strength of the framework is its governance. ICT standardization takes place in an astonishing diversity of organizations. Each of these organizations has its own specific circumstances, and there is no one-size-fits-all that could be applicable in each of these. This being said, experimentation with an innovative approach in a circumscribed setting may improve a policy's viability.

For many decades, the European Commission has participated in the evolution of this framework. It has contributed in a wide variety of different roles, as a facilitator of discussions among stakeholders, as a guardian against abuses by individual actors or colluding groups, and as a source of non-binding guidance on the implementation and interpretation of existing policies. Only exceptionally has the Commission advocated for specific policy changes within SDOs, and there is even less precedent for the Commission to act as the originator of experimental and controversial SDO policy innovations. We are hoping that the EC will pursue its long tradition of stakeholder-driven governance.

3. Looking to the future of ICT, there is broad agreement that the IoT and other significant technological evolutions will continue to impact the way in which SEP licensing takes place. Nevertheless, the nature of the anticipated effects is subject to an open debate. All expert assessments are limited in their ability to forecast the future. While a useful debate on possible solutions to potential problems is encouraged, more direct calls for regulatory interventions would need to be based on evidence of the actual occurrence and magnitude of such problems. Conjectures about the future are malleable and prone to being used by any interest group to its advantage. Instead of anticipatory regulation of future evolutions, we believe that a more prudent approach is to monitor the most relevant trends and to intervene in a tailored manner when observed problems in the system are causing social welfare loss.

In the author's view, the SEP policy debate will struggle to progress productively if there continues to be a lack of empirical evidence regarding some of the most fundamental and important issues. Thus, while this paper presents a logical governance framework and updated impact assessment methodology, it does not supplant the important and arduous task of collecting empirical observations, debating the relevance of observable data, and taking stock of the state of the evidence. The EC has greatly contributed historically to support this task, and further efforts in that direction are encouraged.