



Taormina/Messina conference

Working Group 1: Global Digital Platforms as the Raison-d'être of 21st century

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Summary of the meeting

Digital platforms create value by connecting two or more group of consumers and/or businesses. Few dispute that organizations have more data than ever at their disposal. Data can be categorised in three broad categories: personal, financial and technological data, becoming a new form of power for companies. In particular, platforms offer for free services that are valued by consumers, and in exchange obtain data from which they can infer either purchase intent or insights into consumers' tastes, purchasing habits, political preferences, and so on. Micro-targeting based on this rich data trove is the foundation of the modern digital advertising industry. Firms implement software features to reduce costs (e.g., by partial automation of content moderation) and look for new data as a source of revenue. Potential benefits for consumers lie in better tailored-product and services, whereas risks are mostly in the form of information asymmetries, and data misuse and security. In the EU, the importance of data privacy was recognised as part of the EU GDPR (a first global effort), allowing citizens – among other rights - the right to oblivion.

The tech ecosystem is a global ecosystem. While the last 20 years of globalization have seen unprecedented numbers of people worldwide raise their standards of living, in Western countries the gap between rich and poor has widened and social mobility, according to most measures, seems to have decreased, partly due to unbalanced globalisation. Today, even if knowledge and education are more widely available than ever, inequality in technology also

means a technology literacy gap, and in the Western world fears are rising of the “squeezing the middle class”. Considering their scale and scope, tech giants such as Google, Facebook and Amazon can be considered as “gatekeepers”, having erected *de facto* barriers for new entrants in their markets. Problems regarding digital platforms have been highlighted in several areas: market power, taxation, content regulation, labour practices, data regulation, and regulation of the use of AI against bias and other negative consequences.

Global digital platforms are the 21st century version of the infrastructures – railways, airports, harbours and highways - through which goods, services and ideas used to be exchanged: further development and regulation of those strategic infrastructures, so that access to all could be granted to everybody, was crucial to allow previous industrial revolutions to fully unfold their potential through specialization. We believe that one of the core missions of the European Commission of the future would be to first conceive and then implement a strategy so that the digital infrastructures become democratically accountable, quasi utility platforms where firms and citizens are equipped – both technologically and in terms of awareness/ skills – to share in the value currently generated by their data for the gatekeepers.

How can governments address innovation and market failures? We assessed comparatively how USA, China and Europe address innovation. According to OECD, in 2018 the USA invested well over 2.82% of GDP in research and development, China 2.15% (increasing their 0,8% in 2000), the EU28 2% (from 1,6%). For the US this represents an absolute value of \$533bn, well above Europe \$374bn and China \$296bn. Much of this is privately funded research at rather different degrees: in the EU government was funding 30%, in the USA it was 22% and surprisingly the percentage was even lower in China at 20%.

More interestingly, in the disbursement of public funding, USA, China and Europe apply three different models of innovation: Europe applies a science-based and values-based model of innovation, the USA applies a technology-based model, and China applies a customer-driven, efficiency-driven model. Furthermore, the fragmentation of the European market (languages, habits) and the insufficient collaboration among national authorities cause further loss of opportunity (a simple example: the European Union could and should have responded to the Covid-19 pandemic with one European contact tracing app. Instead, due to the EU’s lack of health competence, we have many national apps, making travel less safe than it could have been with a unified approach to data collection and data governance).

The importance of innovation in the EU is widely recognised, but it remains an unfulfilled opportunity for governments and the EU itself to support economic growth and new job creation. In the research (“upstream”) area, the European Research Council is a public body for funding of scientific and technological research conducted within the European Union with a budget of 13 billion euro. The forthcoming European Innovation

Council (EIC) – currently in its pilot phase - is a practical example of EU innovation policy being introduced by the European Commission to support the commercialization of high-risk, high-impact technologies in the EU. The European Innovation Council will be fully implemented from 2021 under Horizon Europe. The future model for innovation in the view of the European Commission will be based on the collaboration between government, the private sector, the non-profit sector, supranational organization and fundamental science.

In this context, the EIC framework envisaged an EU innovation hub where companies can experiment with new products and services based on “challenges”, adapting the model successfully pioneered by DARPA and other US institutions decades ago. The importance of the selection of this challenges cannot be overstated: in accordance with the values-based approach, the challenges should put at their centre the wellbeing and health of the European people and the whole planet, in accordance with the UN’s Sustainable Development Goals. Challenges should be forward-looking (e.g., not aim to replicate today’s gatekeeper platforms with “bad copies” from European players) and aim to fill gaps where Europe’s scientific superiority can result in actual leadership (e.g., in the area of quantum computing, it will have to be evaluated whether the gap with US and Chinese companies and institutions can be bridged and ultimately overcome, or if Europe should rather focus on other challenges). Support from authorities to innovators should imply that regulators help entrepreneurs build compliance into the business models of firms (“compliance by design”), using regulatory tools (sandboxes, exemptions, sunset clauses...) that do not unnecessarily obstruct innovation but, on the contrary, nurture and sustain it. In this way, government can also monitor the business models of small and big firms with new ways of enforcement, especially in the area of Sup-Tech and Reg-tech.

Governments should ensure that citizens are educated in the responsible use of technologies. In this context, EU innovation policy should place education at its heart, fostering – as technologies keep evolving - continuous learning among both teachers and students. Furthermore, the “challenge” approach can only be fruitful if a rich entrepreneurial environment generates innovation ideas and innovative companies: therefore, a further focus of education must be an entrepreneurial mindset, where creativity is prized above mere learning, interdisciplinarity is foundational, risk-taking is appreciated, failures are accepted, and one can learn from mistakes in order to be successful in the future. Education especially in technology needs to be interdisciplinary and be equal and accessible in order to address social inequality (as in the Finnish experience).

To conclude, we live in data-driven world, where governments need to develop an innovative ecosystem that supports the supply and demand of innovation, firms and individuals should be able to experiment with new products and services in hubs, EU institutions such as the EIC need to choose right “challenges” linked to concrete societal

problems and missions, and finally schools and universities need to develop educational and research programs that promote a science-based, technological and entrepreneurial culture.