

Intangibles between the firm and the system. A Challenge for Policy

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Public Policy and Intangibles: A Conceptualisation and Critical Appraisal

- **Duality** of intangibles
 - quasi-public good characteristics (e.g. explicit knowledge component, skilled employees, software)
 - imperfectly imitable (e.g., organisational processes and business models)
- Distinction
 - intangibles as **appropriable investments** for/in firms
 - **intangibles commons**: the pool of knowledge, skills, and competencies aggregated at a technological, industrial or a geographical level.
- Desirable policy outcomes are often in **conflict**
 - both forms need each other to grow, but contradictory incentives
 - **perception of potential vicious circle**: investing in intangibles focused on appropriation, backfiring through subsequent negative macroeconomic effect



Deliverable 2.6

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Policies to increase the firm controlled intangibles aspire to **greater appropriation** of rents from the innovation processes:
Incentivising future investment in firm specific intangibles (e.g. risky R&D)



Policies to increase the intangibles commons **reduce the appropriation** of returns from the innovation processes:
Incentivising the diffusion of intangibles and their benefits

Possible Tensions in Policy Goals ?

Appropriation...

as R&D Incentive for first movers – ensure taking risks and develop novelties

to protect firms' knowledge and competitive advantage

for firm specific skill development

Intangible Commons...

to uplift competition

to broaden innovation activity, develop innovation ecosystem

to foster system-wide skill development



Possible Tensions in Policy Goals - the use case

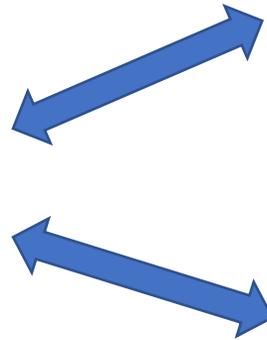
Appropriation...

to inspire investment by **large and established firms** providing the necessary critical mass of intangible assets

Intangible Commons...

to accelerate roll out of and access to technological innovations

to inspire investment by **SME and young firms** sustaining collective provision of intangibles.



Current Role of Policy

- Public policies in terms of intangibles are extensively geared towards **increasing the productivity** of the economy by increasing the innovative output and capabilities **of the firm.**
- **No coherent policy or institutional framework** for the development/ deployment of **intangibles as a category:**
 - **Fragmented** approach
 - Neglects **tensions** inherent in the provision of intangibles
 - Neglects **interdependencies** between types of intangibles and actor groups
 - Limited to **fiscal incentives** for the development and generation of intangibles (e.g., Intangible Assets Scheme of Ireland)

Current Role of Policy

- **Innovation** focused policies:
 - **Largely neglect heterogeneity** (other than firm size and age).
 - Aim to encourage **investments in R&D** by the private sector
 - Support firms' **appropriation** of the returns from their investments in R&D
 - Increasingly recognise the **complementarities** of R&D related intangibles with other components of intangibles such as **organisational capital...**
 - ...But still devote **less attention** to non-R&D components of intangibles, namely the **organisational capital** and the **use of computerised databases**

Recommendations for policy and further analysis

- **New institutions, policy coordination** mechanisms and policy **portfolios** needed to:
 - Better tackle inherent tensions
 - Target the overall investment in intangibles for large and small actors alike
 - Increase the overall societal benefit arising from intangibles.
- Changes required to **accommodate the different characteristics of intangible assets**
 - Institutional framework linking intangibles and the policies for growth
 - Political and administrative organisations for implementing these policies
- Policies tackling intangibles' **inter-operability** and **market creation**
 - Revisit processes underlying standards and norm setting
- Develop **new measurements and knowledge bases** to design, implement and monitor the new policy framework

Many thanks for your attention

Annex: Example of COVID

- The specific global COVID challenge is **one expression of a broader issue** – conceptually complex argument
- **Appropriation:**
 - Incentivises **future investment** in risky private medical R&D,
 - Political practicalities (slow WTO process, translation into national laws) would mean **delays**,
 - Skills/infrastructure as **real bottlenecks**
- **Intangible Commons:**
 - Globally **uneven vaccination roll out**
 - **Breadth and speed:** Globally 424.8 million COVID-19 cases, 5.89 million deaths attributed to COVID-19 (WHO dashboard)
 - **Public investments was critical**
 - The mRNA based vaccines „**rely heavily on two fundamental discoveries that emerged from federally funded research:** the viral protein designed by Graham and his colleagues, and the concept of RNA modification, first developed by Drew Weissman and Katalin Karikó at the University of Pennsylvania”. Source (<https://www.scientificamerican.com/article/for-billion-dollar-covid-vaccines-basic-government-funded-science-laid-the-groundwork/>)
 - „The path to mRNA vaccines drew on the work of hundreds of researchers over more than 30 years” (www.nature.com/articles/d41586-021-02483-w)
 - „A robust body of published research on vaccine technologies was supported by NIH funding totaling \$17.2 billion from 2000–2019.” (Source: Kiszewski et al., 2021: [Vaccine](#). 2021 Apr 22; 39(17): 2458–2466.)