

Strategic Autonomy and the Competitiveness of Europe's Pharmaceutical sector

Oscar Guinea, Economist at ECIPE

Outline

- Europe's pharmaceutical strengths
- Competitiveness: what is it and how the EU measures it
- Competitiveness of Europe's pharmaceutical sector
 - Research and Development
 - Other dimensions related to R&D
- Policy recommendations
- Questions and (hopefully) Answers

Europe's pharmaceutical strengths

EU global leader in trade in pharmaceuticals.

EU RCA 1.9 (US, 1.1; China, 0.38).

China is still below the EU and US but growing strong.

FIGURE 2: EU PHARMACEUTICAL EXPORTS AND IMPORTS IN VALUE AND VOLUME TERMS (2013-2020)



Source: Eurostat, author's calculations.

Competitiveness

Competitiveness (ambiguous concept) is built on two foundations:

Growing productivity in the economy (firms)

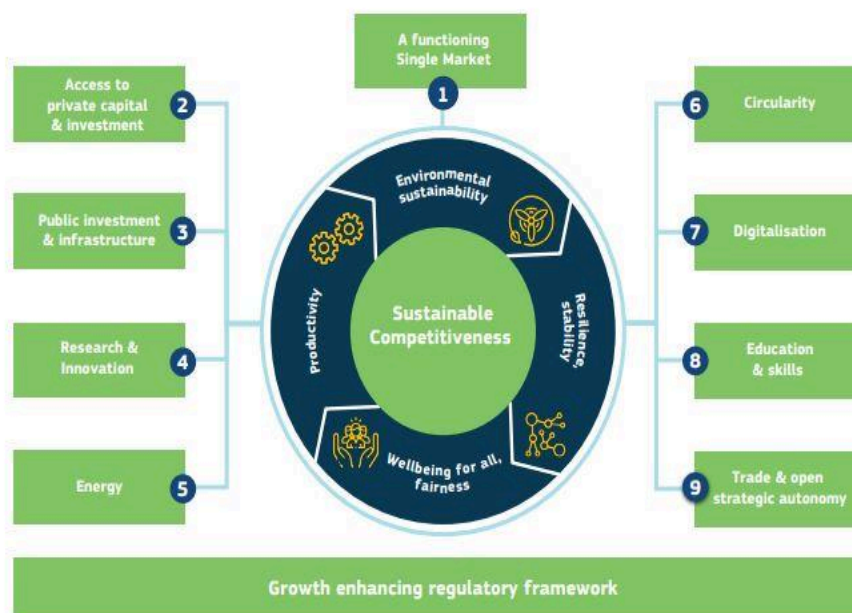
How economies (firms) perform in an international context – or vis-à-vis other economies (firms) in other regions. Usually exports.

Σ firms competitiveness in a country = competitiveness of a country

How the EU Measures its Competitiveness

NINE DRIVERS FOR COMPETITIVENESS

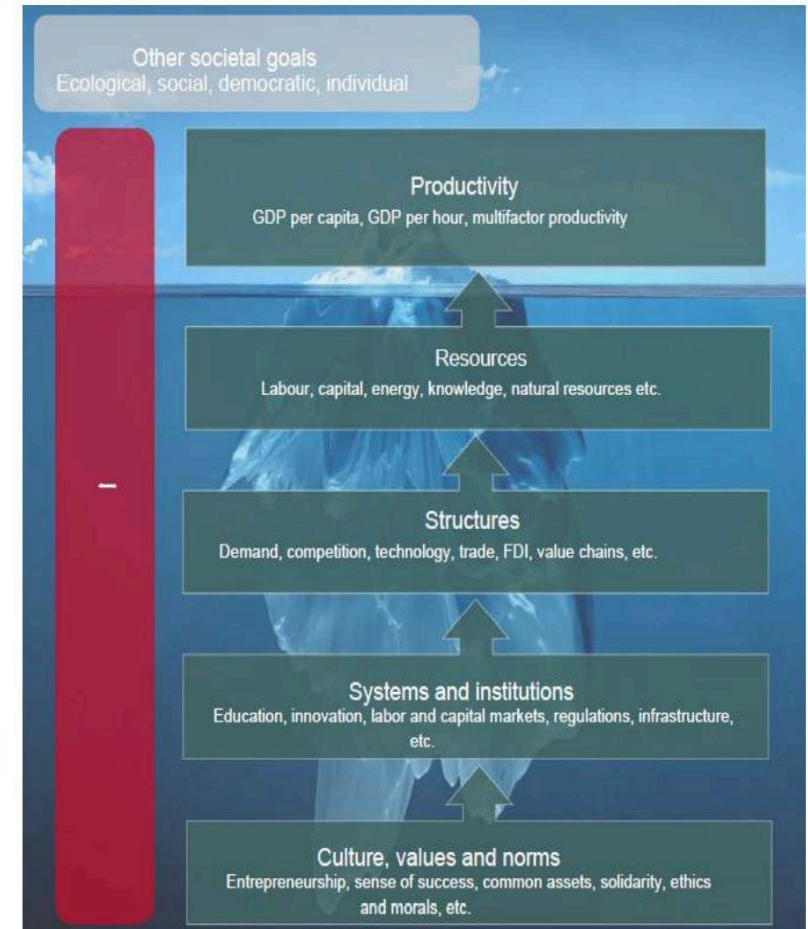
The Commission proposes to work on the EU's long-term competitiveness along nine mutually reinforcing drivers:



Competitiveness of Europe's pharmaceutical sector

- Innovation (R&D) is the most powerful engine for the competitiveness in the pharmaceutical industry
- The EU has considerable advantages (democratic market economy, rule-of-law, protection of IP, science-based education, good universities, strong medicines regulatory agencies)
- But Europe is far from the only region with such characteristics.

FIGURE 2: ICEBERG MODEL OF COMPETITIVENESS

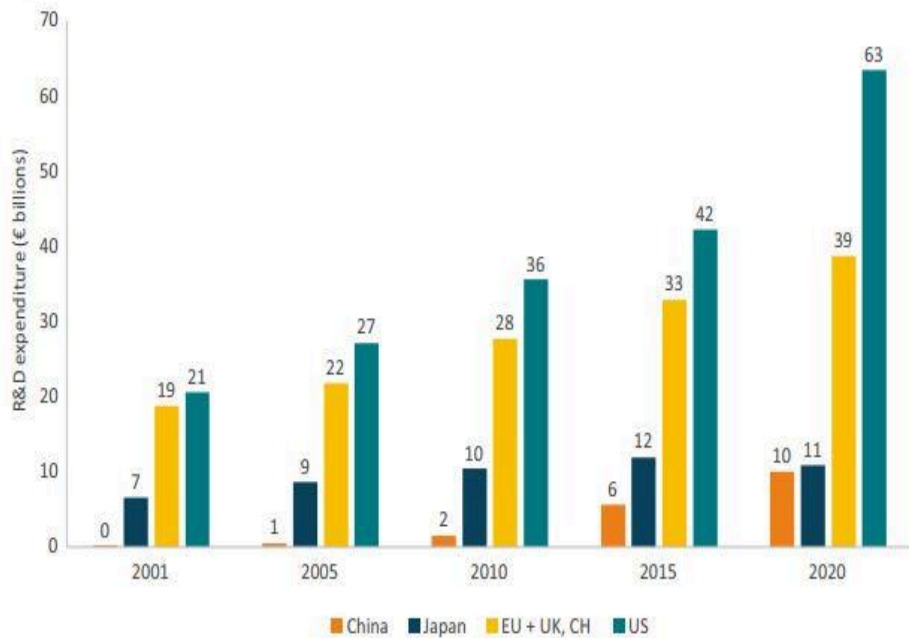


Competitiveness of Europe's pharmaceutical sector

- R&D
- Innovation input
- Innovation output

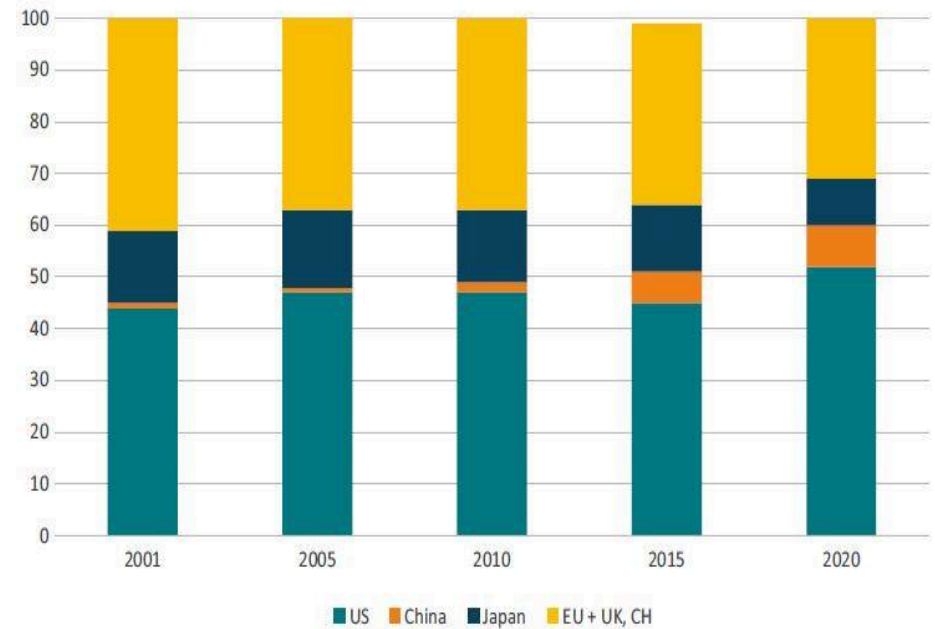
Research & Development

FIGURE 3: PHARMACEUTICAL COMPANIES' R&D EXPENDITURE ACROSS COUNTRIES (2001-2020)



Source: Charles River Associates (2022).

FIGURE 1: MARKET SHARES IN BIOPHARMACEUTICAL R&D INVESTMENTS



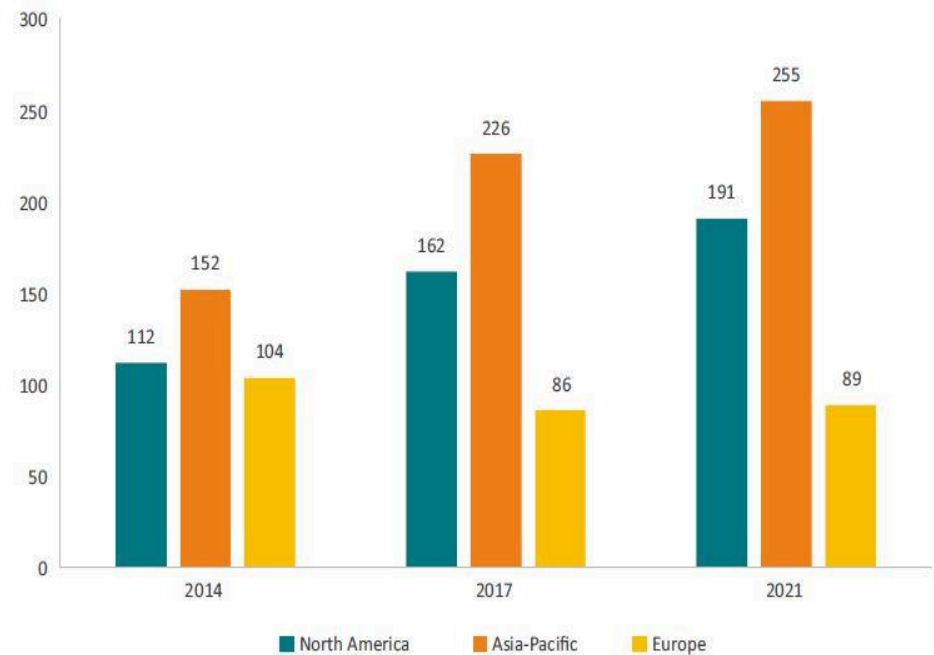
Source: Charles River Associates

Innovation input and output

The share of European-headquartered emerging biopharma companies has been declining over the last ten years, with the US dominating and China growing rapidly.

Weaker performance today will dampen future R&D spending since most companies tend to invest in the regions where they already have R&D or manufacturing sites.

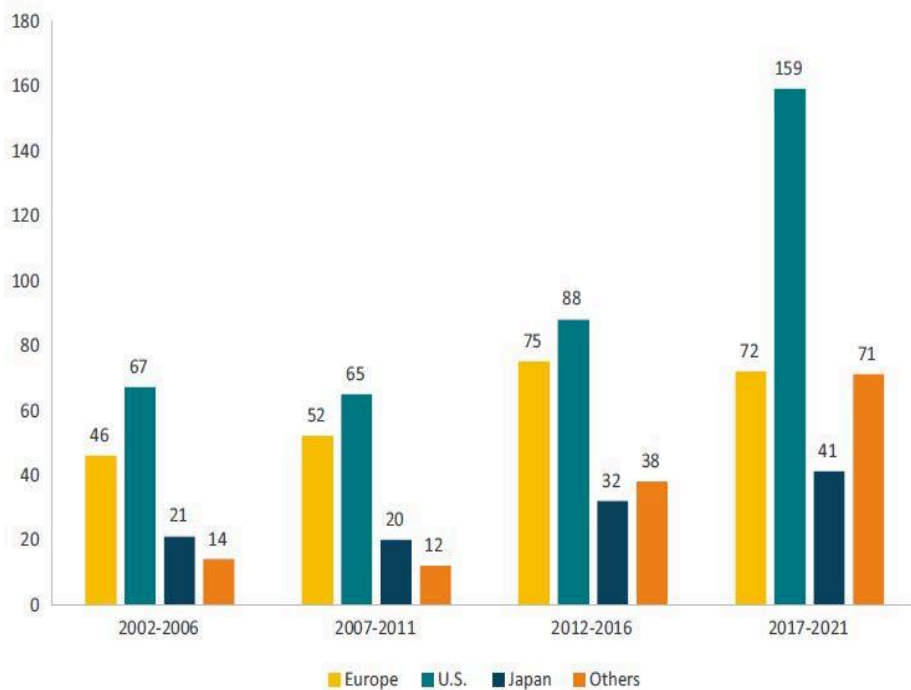
FIGURE 6: LOCATION OF ADVANCED THERAPY MEDICINAL PRODUCTS (ATMP) CLINICAL TRIALS (2014-2021)



Source: Charles River Associates (2022).

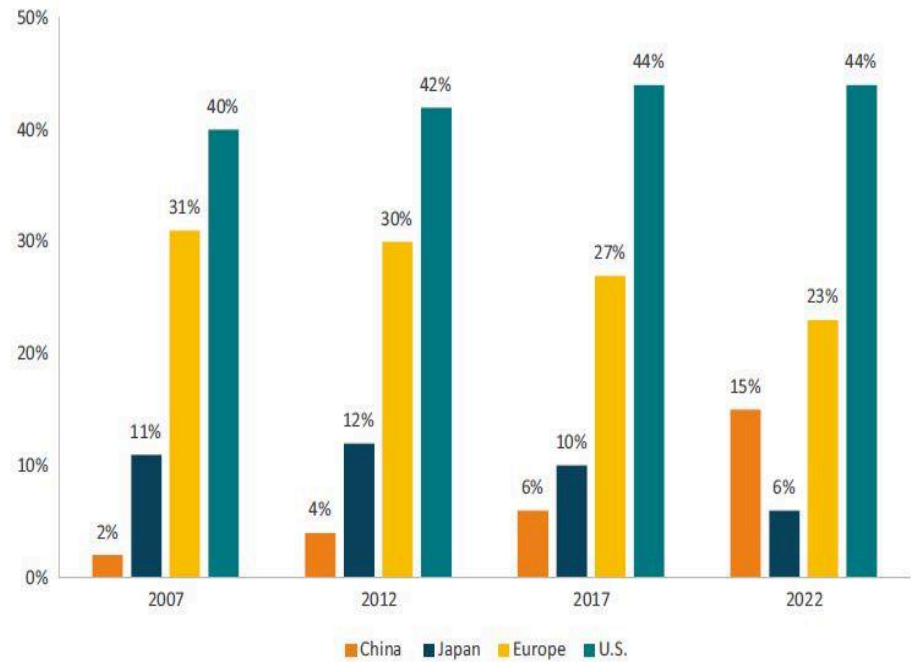
Innovation input and output

FIGURE 4: NUMBER OF NEW CHEMICAL AND BIOLOGICAL ENTITIES (2002-2021)



Source: EFPIA (2022). The Pharmaceutical Industry in Figures.

FIGURE 5: SHARE OF PIPELINE PHASE I TO REGULATORY SUBMISSION BASED ON COMPANY HEADQUARTERS (2007-2022)



Source: IQVIA Pipeline Intelligence (2022).

Policy recommendations

1. Learn from the positive US performance
2. EU Strategic Autonomy too focus on manufacturing
3. Competitiveness and Strategic Autonomy go hand-in-hand
4. More funding and better incentives to increase R&D

Policy recommendations

1. Learn from the positive US performance

- Forces of relative economic decline do not have to lead to falling competitiveness in a prioritised sector.
- US's main advantages:
 - World class innovation hubs
 - World class academic institutions
 - Funding concentrated on leading clusters (Massachusetts, Maryland and the District of Columbia getting the larger amount of funding from the US National Institute of Health)

Policy recommendations

2. EU Strategic Autonomy too focus on manufacturing

- Since COVID-19, EU policymakers pushed to think about manufacturing resilience – not innovation and growth.
- To the extent that there is an industrial policy ambition for the pharmaceutical sector, it seems to build on the idea of growing manufacturing.
- While important, a single-minded focus on the manufacturing of medicines could lead to reallocating resources towards low value-added production.
- Industrial policy is about getting towards a production mix of higher-productivity activities.

Policy recommendations

3. Competitiveness and Strategic Autonomy go hand-in-hand

- Strategic Autonomy («*act autonomously whenever we must*») is about being a leading region in innovation and operating at the frontier of technological change.
- The economic strength of Europe's pharmaceutical sector is about its capacity to develop the medicines and treatments of tomorrow.

Policy recommendations

- ## 4. More funding and better incentives to increase R&D
- ↑ EU public R&D in the pharmaceutical sector
 - ↑ EU private R&D in the pharmaceutical sector
 - Incentives for private R&D investment (duration patent protection; remain attractive for Advanced Therapy Medicinal Products, IP in Free Trade Agreements).

Many thanks for your time and happy to answer your questions now or by email.

oscar.guinea@ecipe.org

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