



Speeding Up Innovation in pharmaceutical industry

*What do we have to do to keep
innovations in the country?*

2023 Global Trade and Innovation Policy Alliance Summit

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14.09.2023

The industrial health economy's value creation potential for Germany

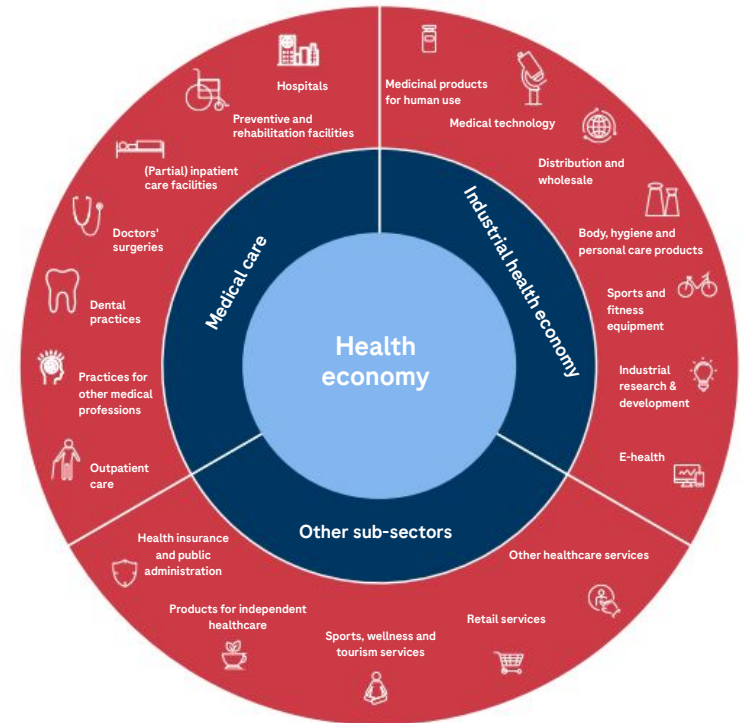
Germany becoming a "home" for innovative companies in the industrial health economy (iHE) is also a stabilising factor for social security systems

The iHE as an economic factor & driver of innovation:

- €192 billion GVA (2022, with indirect and induced effects on the economy as a whole), exceeds pre-crisis levels: +17.8% vs 2019
- €172 billion in export volumes (2022): +44.3% vs 2019

The iHE for greater social security:

- 1.1 million workers (= largest employer in Germany)
- 73% of the increase in life expectancy*** is due to pharmaceutical innovations.



Sources: GGR presentation Ostwald, October 2022

**Graphic: Based on: Bundesministerium für Wirtschaft und Energie (Federal Ministry for Economic Affairs and Energy – BMWi) (2018): Gesundheitswirtschaft – Fakten & Zahlen (The Health Economy – Facts & Figures). Handbuch zur Gesundheitswirtschaftlichen Gesamtrechnung mit Erläuterungen und Lesehilfen (Industrial Health Economy Accounting Handbook with Explanations and Reading Aids)

*** Average age of death increased by 1.23 years in the period 2006–2016 due to pharmaceutical innovations

What are the factors that influence location decisions?

High labour costs, social and environmental standards, inflation etc. make production more difficult in Germany

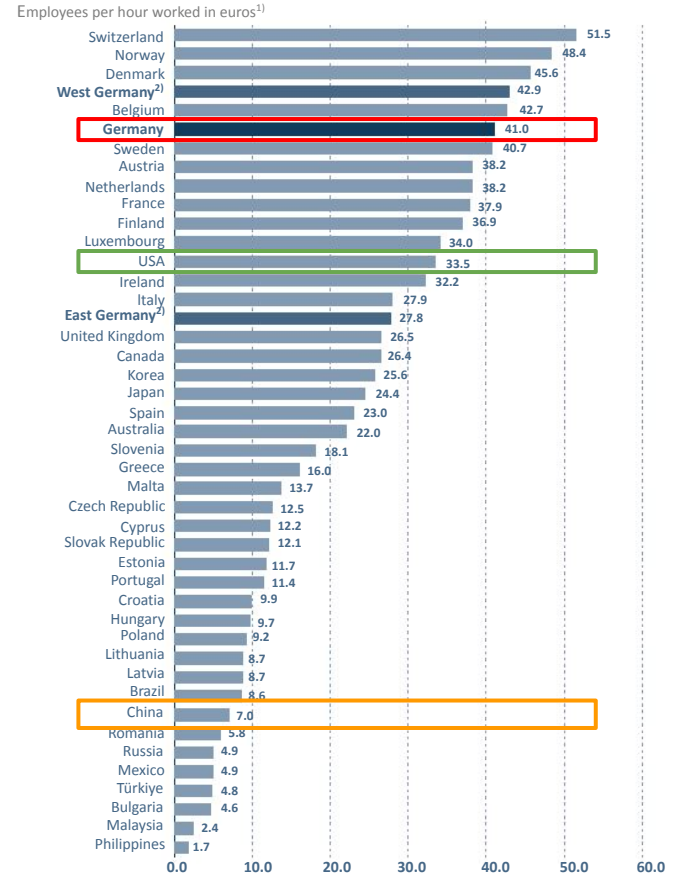
Example:

Germany ranks fifth for labour costs in the manufacturing sector, which is far higher than in the USA and China.

- Germany
- USA
- China

Labour costs in the manufacturing sector in 2018

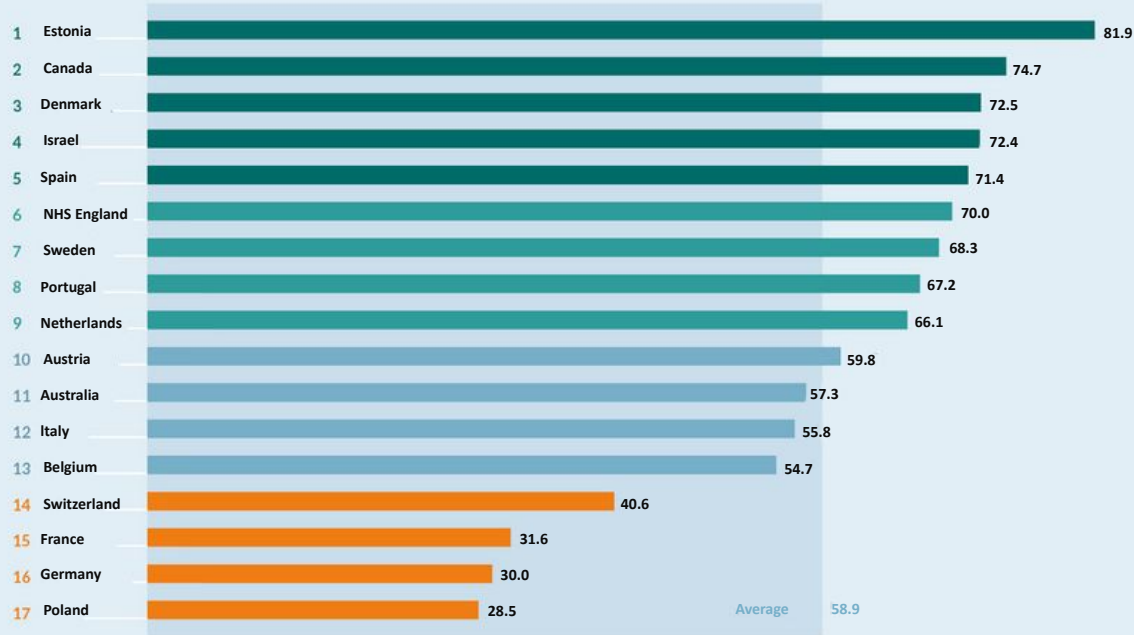
Figure 1



Penultimate place for digitisation in healthcare

No access to health data for research

#SmartHealthSystems: Digital Health Index

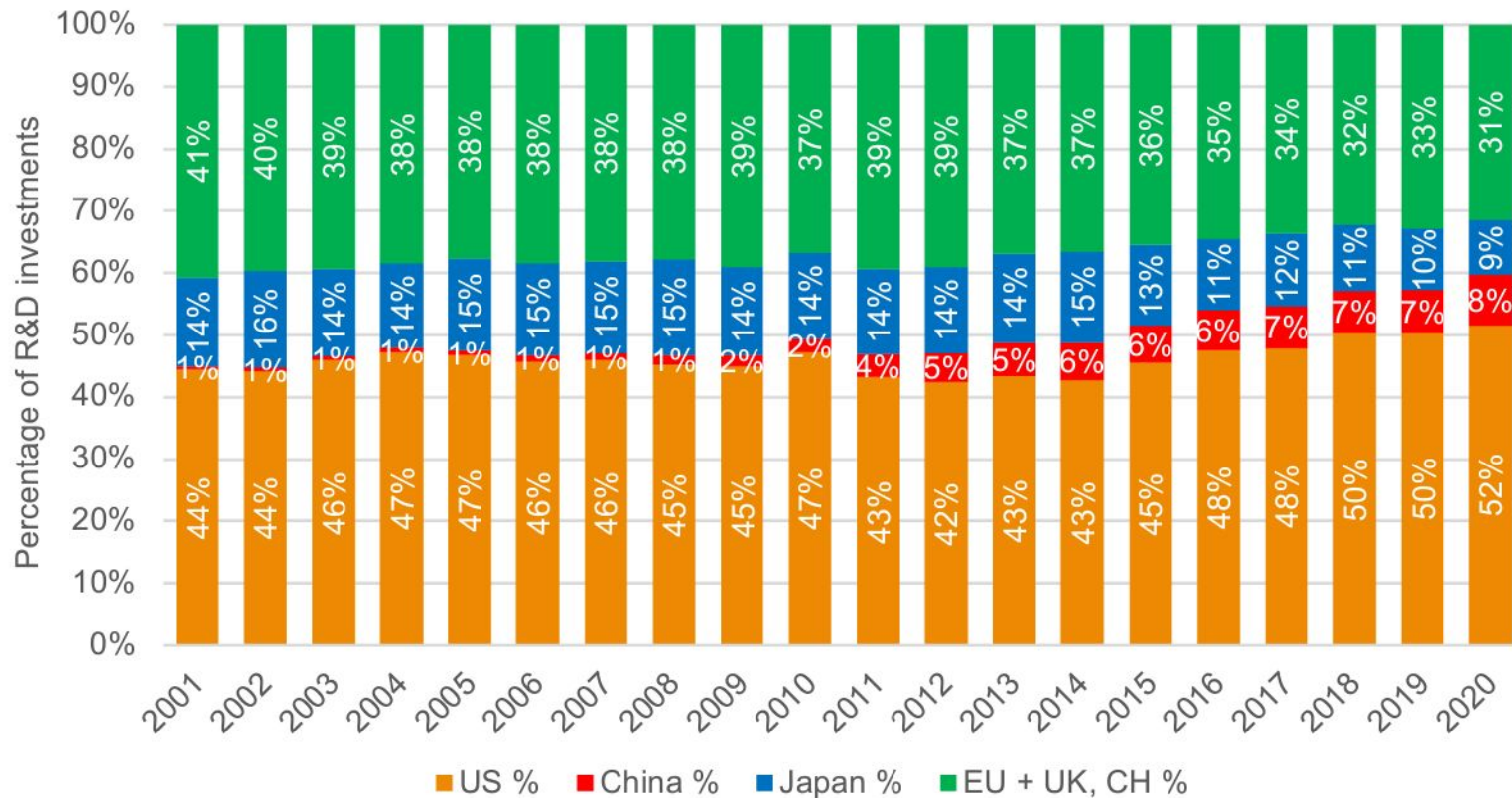


14 EU Member States and 3 OECD countries. Index (maximum 100)

■ top group ■ pursuer ■ laggards ■ tail lights

Source: own presentation

The US and China represent a growing share of biopharmaceutical R&D investments



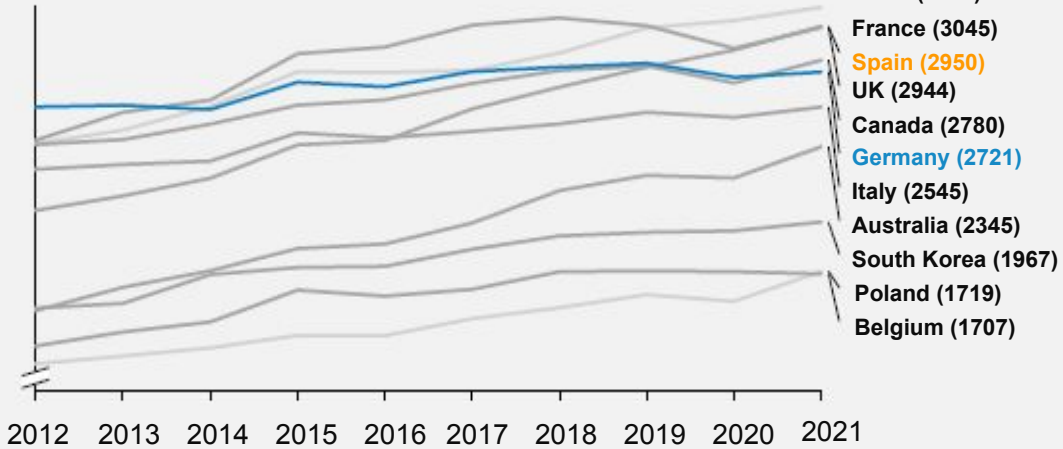
R&D: USA & China lead in clinical trials

Excessive bureaucratisation & high costs are restricting Germany's innovative power

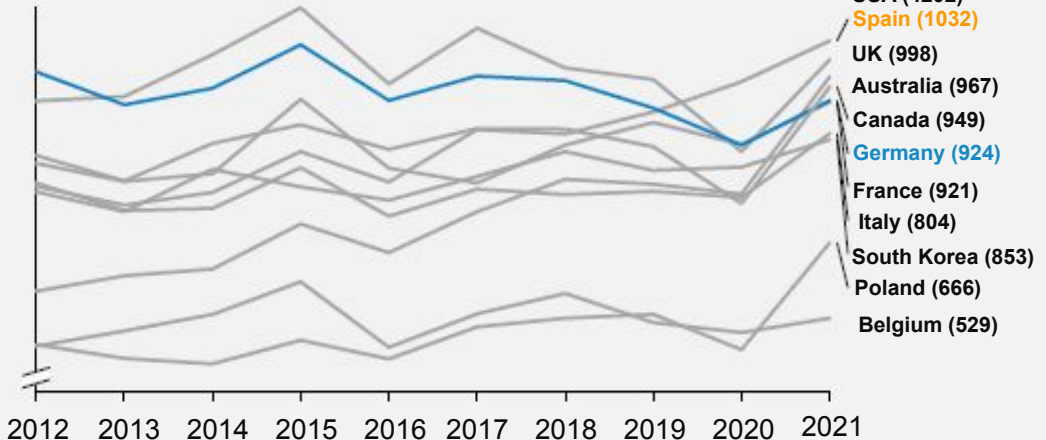
In clinical trials of **cell and gene therapies**, Germany and Europe have **completely lost connection** (<4% of all trials)

Spain has demonstrated that a **good research infrastructure**, appropriate regulatory framework conditions and acceptable cost structures are possible in Europe too

Number of ongoing clinical trials p. a. (all sponsors)

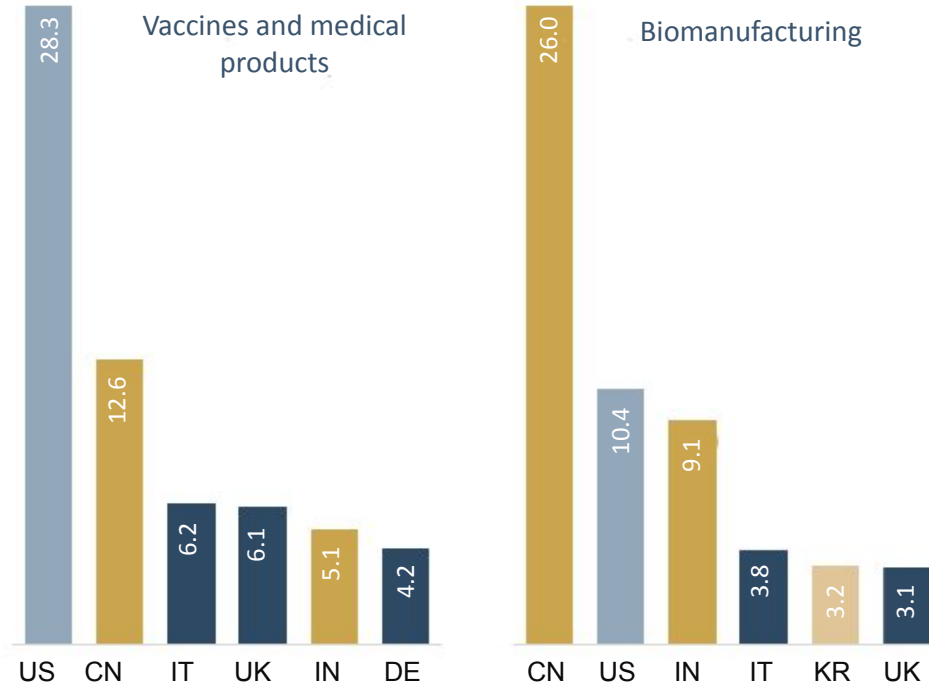


Number of new clinical trials p. a. (all sponsors)



Germany continues to fall behind in scientific publications

Using national research productivity to measure a location's development potential



The data pool is derived from the Critical Technology Tracker of the Australian Strategic Policy Institute. Research productivity is measured as a proportion of the top 10% most highly cited articles in the period 2018 to 2022

How attractive is Germany as a research location?

Positive

- Interaction between science, industry and supply → high-quality research
- In the past: reimbursement system open to innovation
- The sector reinvests more than 15% of its turnover into research and development

Negative

- General framework conditions in the areas of regulation & bureaucracy, tax burden and infrastructure (especially energy & digitisation)
- Special framework conditions for iHE: patent protection, access to data for the research industry, bureaucracy in the sense of simplifying investment and approval procedures
- Tense economic situation (unstable supply chains, inflation, energy prices etc.)
- Threat to IP posed by EU pharmaceutical legislation & TRIPS waiver

Conclusion: As a research location, Germany is falling behind in the international rankings (ZEW, BDI innovation indicator)

What needs to happen?

Political demands to **strengthen the pharmaceutical industry**

1. **The problem:** Research & development being relocated abroad
The goal: To improve the framework conditions for the research industry in Germany
The plan: Reduce bureaucracy, allow access to data for research, open discussion of AMNOG → attractive industrial policy to increase the return on research
2. **The problem:** Loss of new technologies, e.g. cell and gene therapies
The goal: To attract future value creation to Germany
The plan: Multi-stakeholder approach within the federal government to supply, science and industry, e.g. as part of a national strategy (process currently only runs under Federal Ministry of Education and Research)
3. **The problem:** Threat to IP posed by EU pharmaceutical legislation & TRIPS waiver
The goal: To preserve patent and document protection
The plan: Advocacy by the federal government within EU and international organisations

Creating an attractive environment for research and development so that pharmaceutical innovations are increasingly being made in Germany and Europe, thus ensuring the best-possible healthcare and economic prosperity for our citizens

Doing now what patients need next