# Mobilizing the Öresund Region for Innovation: The Case of Life Sciences

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# From Academic Excellence to Economic Success: The Massachusetts Life Sciences Initiative

75,000 Employees (+20,000 in 10y)

$12bn total payroll

Top pharma firms present

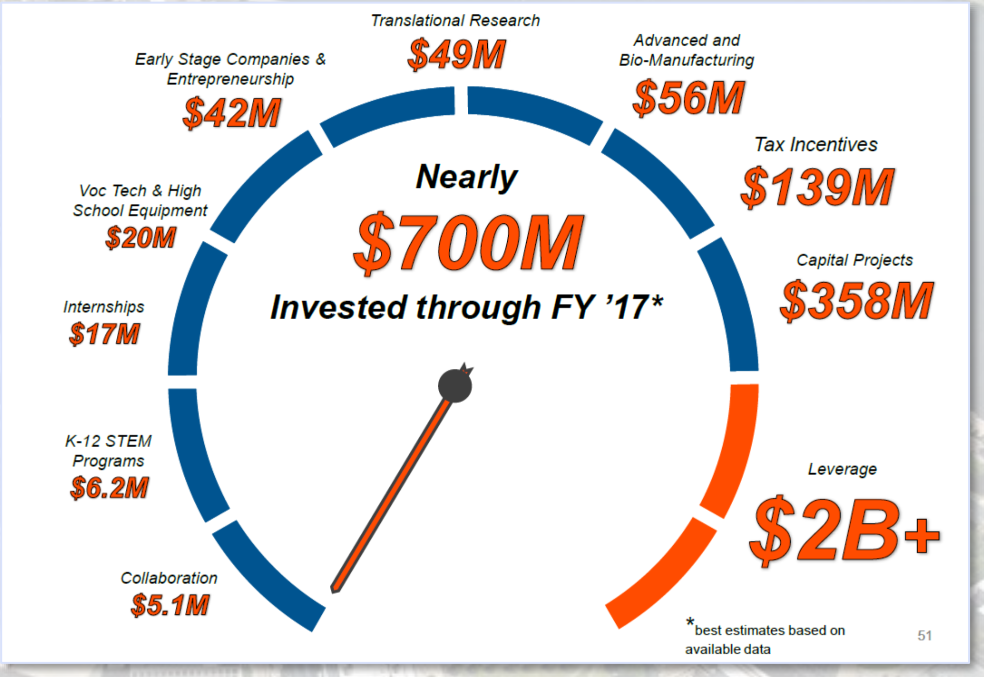
VC investment up 8x since 2010

18 IPOs in 2018, 31% of US total

*Assets* *Action* *Impact*

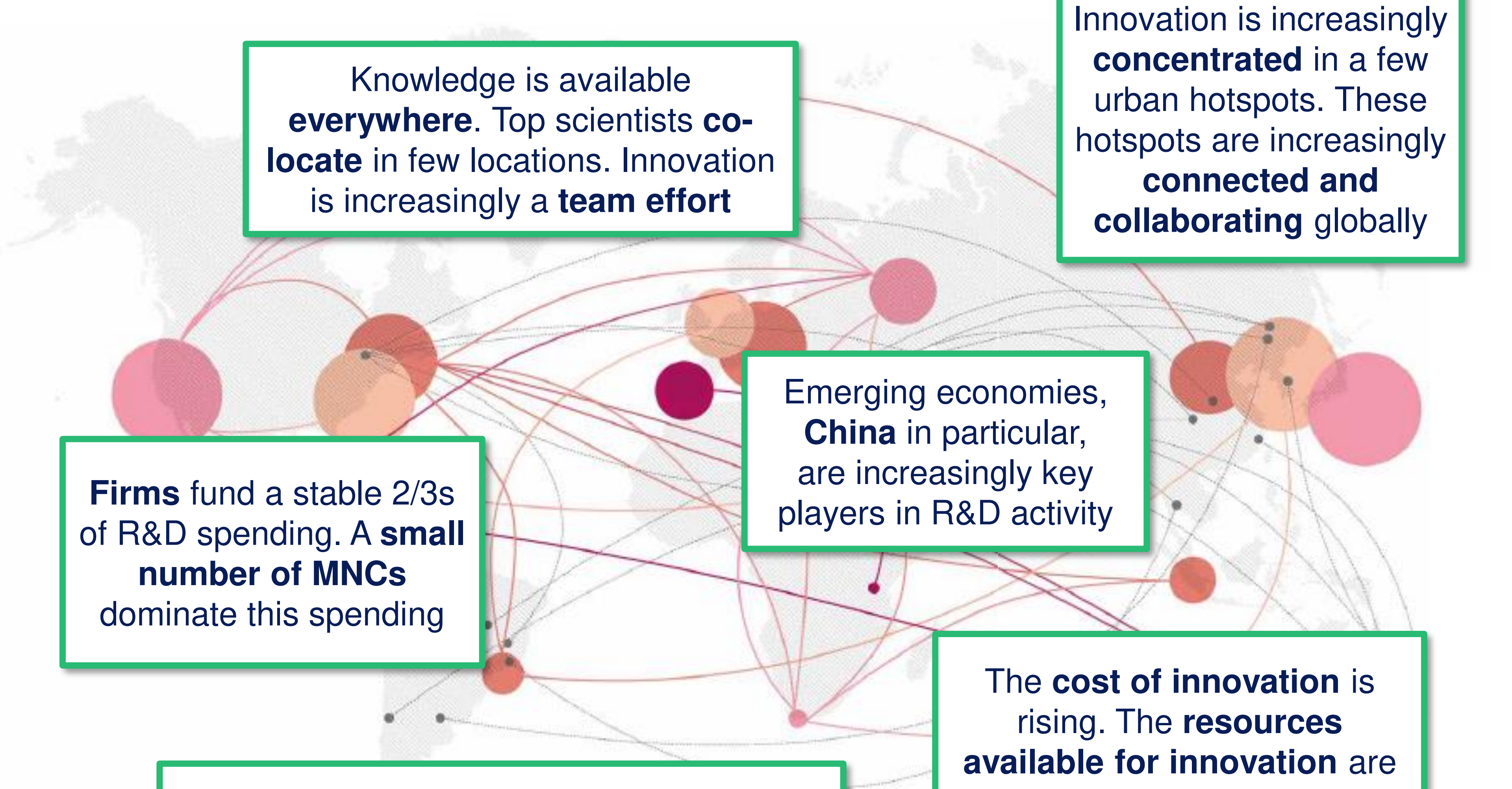
# From Academic Excellence to Economic Success: Not Rocket Science, But Hard to Get Right

- Diagnostics
- Strategic choice
- Integrated action plan
- Governance




Source: Susan Windham-Bannister

# Shifting Context of Global Innovation



Knowledge is available **everywhere**. Top scientists **co-locate** in few locations. Innovation is increasingly a **team effort**

Innovation is increasingly **concentrated** in a few urban hotspots. These hotspots are increasingly **connected and collaborating** globally

**Firms** fund a stable 2/3s of R&D spending. A **small number of MNCs** dominate this spending

Emerging economies, **China** in particular, are increasingly key players in R&D activity

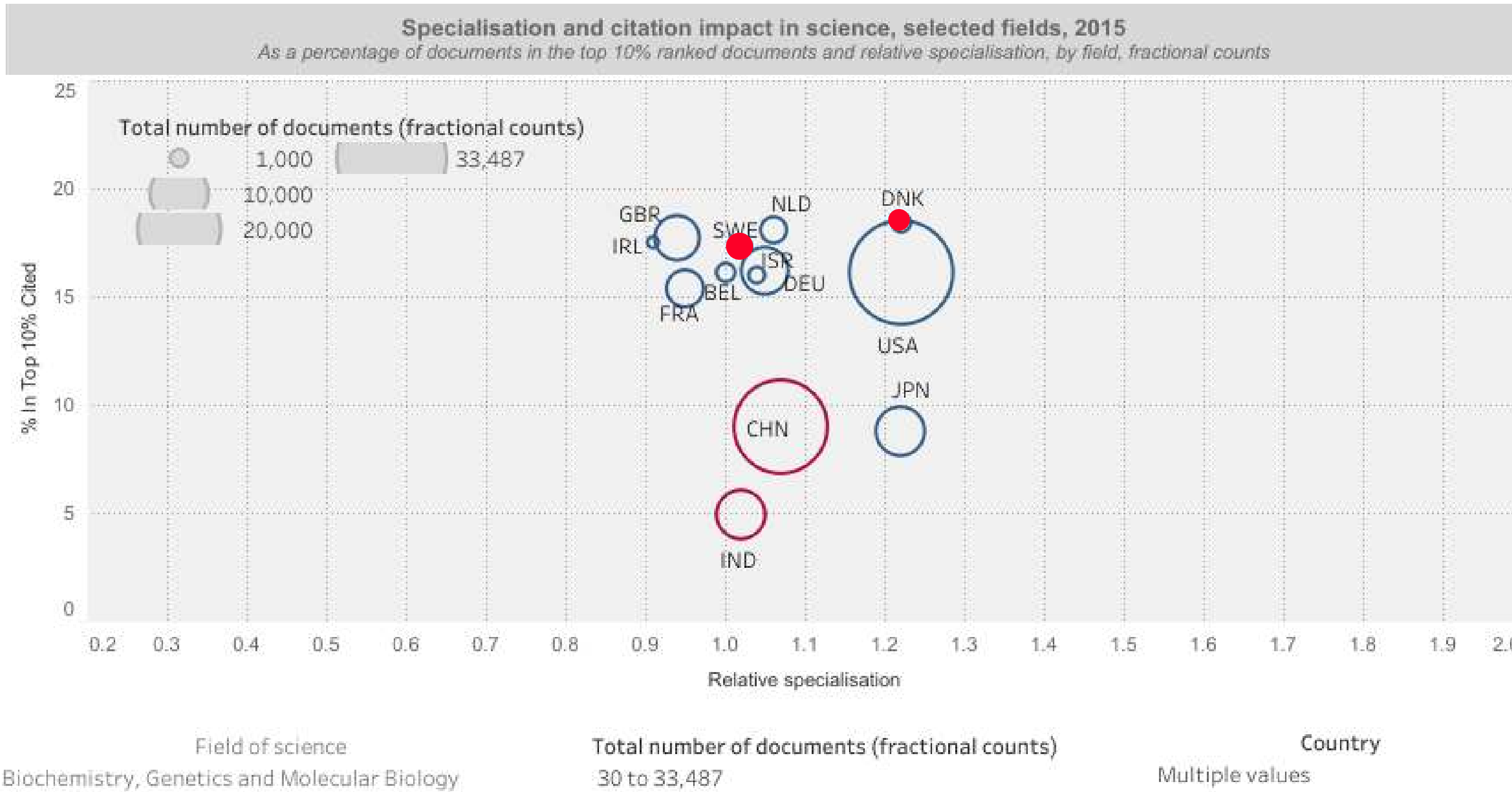
The **cost of innovation** is rising. The **resources available for innovation** are growing but are pro-cyclical

**Innovation paths** are becoming more heterogeneous, generally less linear, and cross institutional boundaries more often

# Leading Science & Technology Regions


Source: Global Innovation Index (2020)

# A Nordic Biopharma Research Powerhouse




*Source*: OECD calculations based on Scopus Custom Data, Elsevier, Version 4.2017; and 2015 Scimago Journal Rank from the Scopus journal title list (accessed June 2017), July 2017. Data and notes are available here: http://dx.doi.org/10.1787/888933618764

# The Region's Innovative Capacity

- Danish & Swedish R&D spending as % of GDP above OECD average
- Slight erosion in rank over time; Austria, Germany, and Taiwan surpassing, catching up


- Sweden ranked $8^{th}$ overall, 5th on innovation capacity
- Denmark $10^{th}$ overall, $11^{th}$ on innovation capacity


- Sweden ranked $2^{nd}$ and Denmark $4^{th}$ overall
- Lowest on innovators; highest on innovation-friendly environment
- Öresund ranked $8^{th}$ among all European regions

**Denmark and Sweden are innovation leaders; Öresund among top innovation regions in Europe/globally**

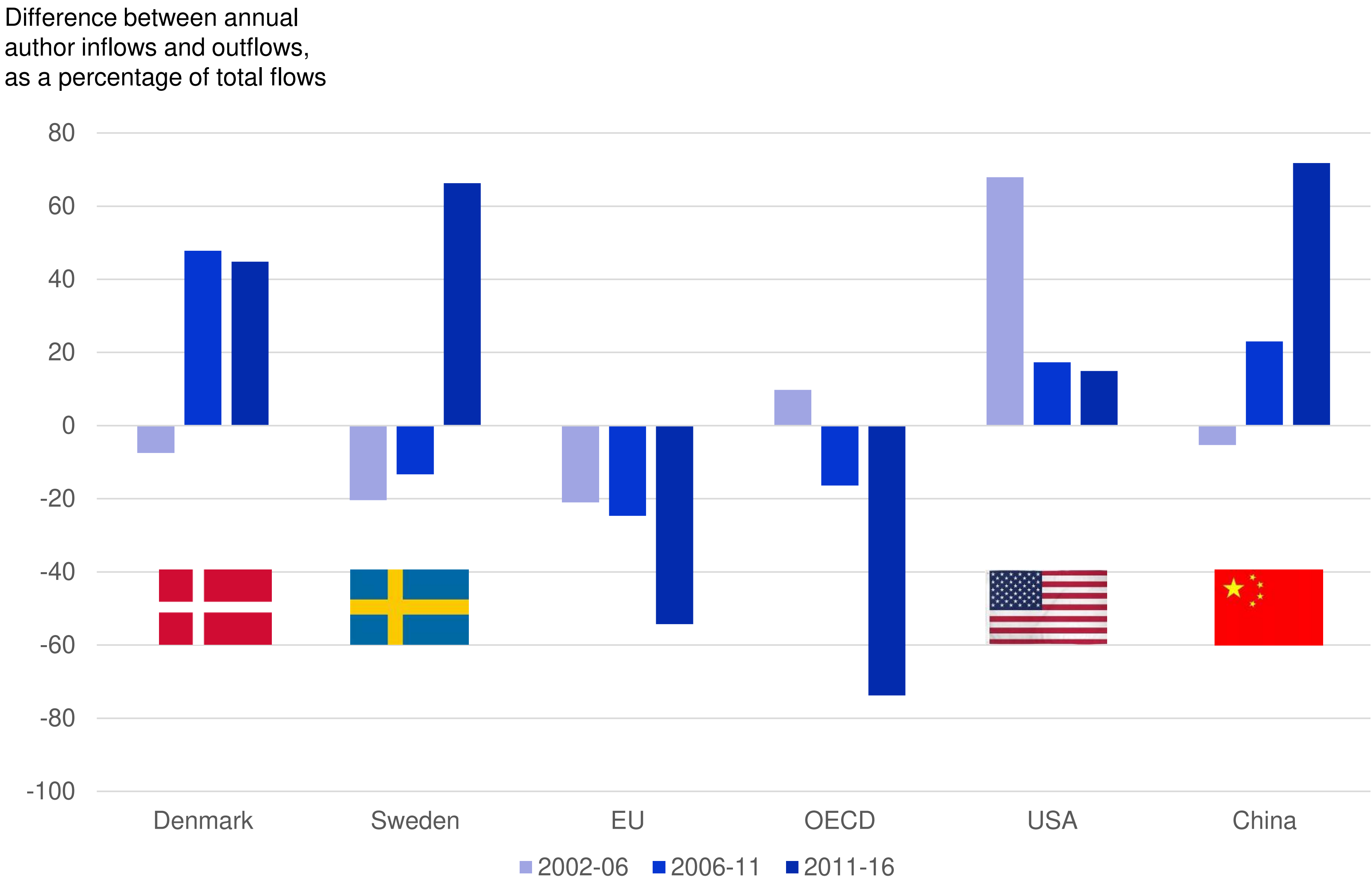
## GLOBAL INNOVATION INDEX 2020

- Sweden ranked $2^{nd}$, Denmark $6^{th}$ globally
- Oresund region top 25 on overall science output intensity

- Denmark ranked $2^{nd}$ overall, up 6 ranks from 2019
- Sweden ranked $6^{th}$ overall, up 3 ranks

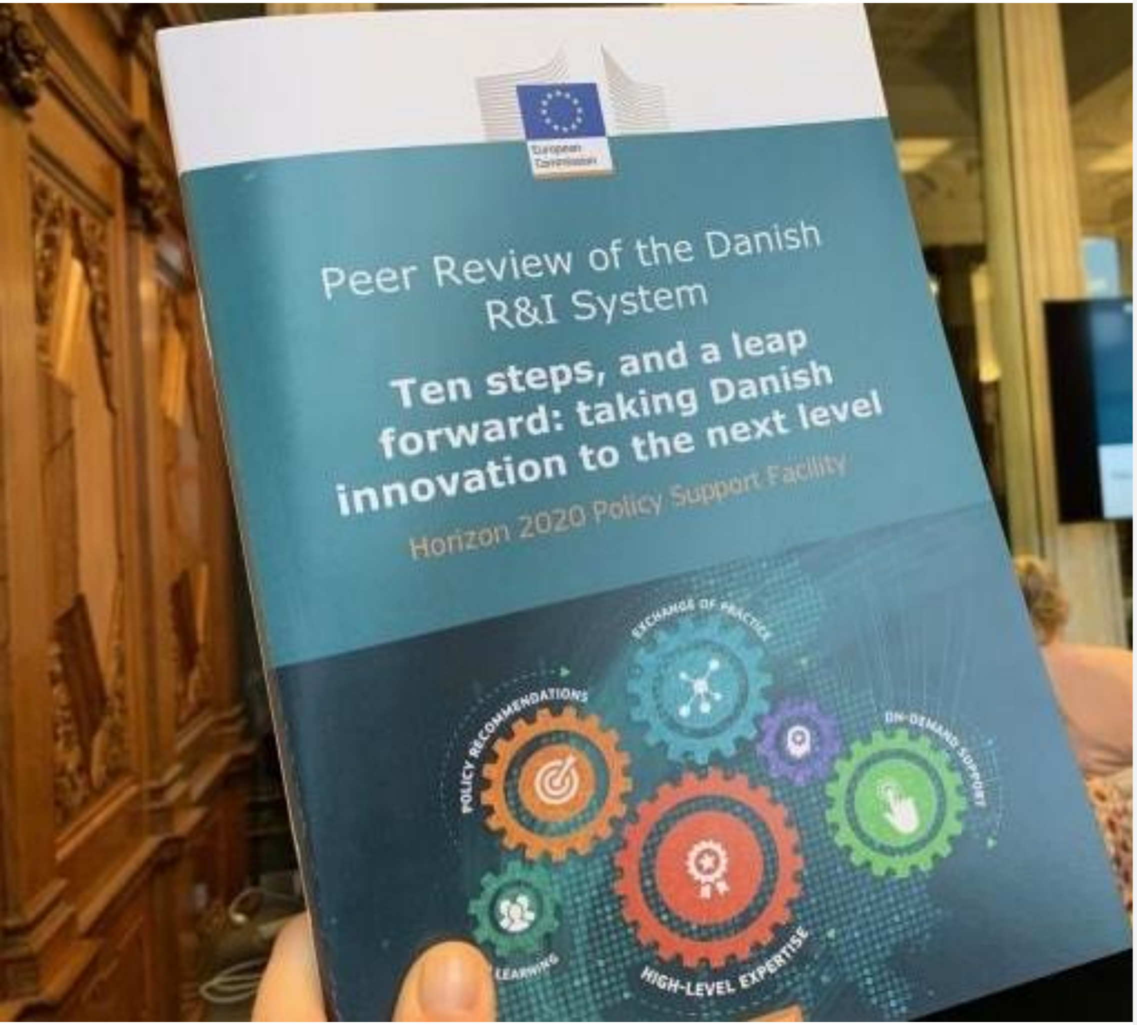
# International Net Flows of Scientific Authors

## Selected Economies, 2002-16




Source: OECD (2017)

# The Reality of the Danish Innovation System




- Many strengths, including strong skill base and deep research system
- No sufficiently clear strategic direction domestically and positioning globally
- Fragmentation across the system, with efforts to reduce the need for coordination, rather than enabling it
- Many reforms, but focus on efficiency of individual parts, not systemic effectiveness
- Innovation actors globally well connected, but policy system **highly inward looking**

# From Good to Great

**!**

- Research capacity and infrastructure, skills
- Presence of global pharma MNCs
- Financial commitment to science and research
- International linkages

**?**

- Well developed health care systems but advanced demand driving innovation?
- Biotech vs Big Pharma?
- Availability of growth capital vs leading peer regions?
- Policy instruments supporting internationalization?

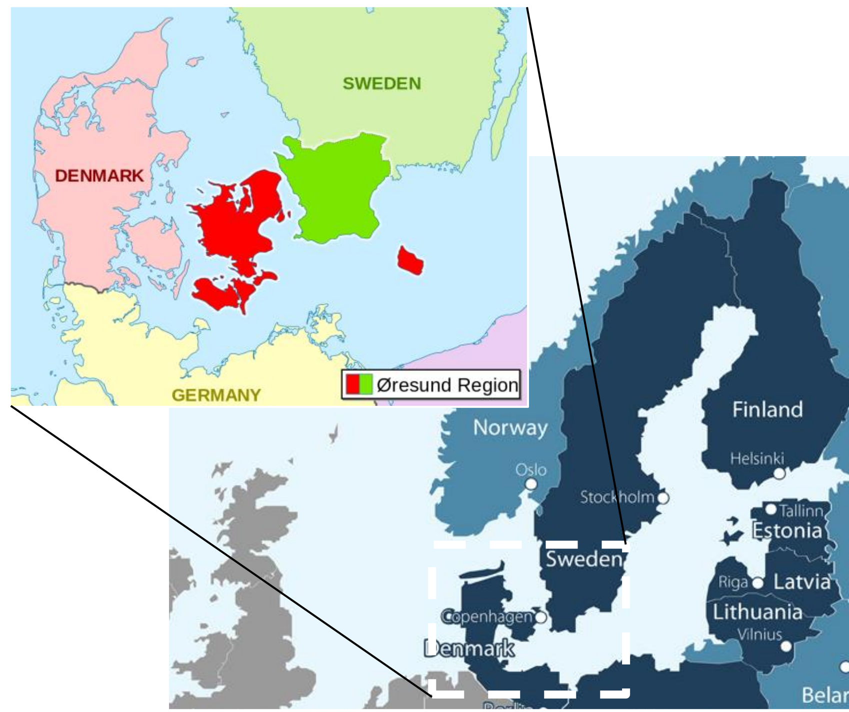
- Clarity on **global positioning** and **strategic direction**?

# The Realities of Regional Collaboration: Medicon Valley Alliance the ”last one standing”?

- Proximity, deep historical ties, complementary strengths
- New enthusiasm since the changes of 1990s, a bridge in 2000, and new structures in the EU context since 2009

**BUT**

- Activites moved almost entirely to bottom-up initiatives and excuting public agencies
- DK-SE policy disagreements during the migrant crisis, COVID crisis





*”The Öresund ... is in need for a new chapter of its collaboration.”*

# Shaping Medicon Valley Alliance's Future Impact

## Context

- Is there a willingness to (again) use the cross-border region as a key platform for policy dialogue and action?


## Ambition

- Is MVA to be focused on linkages and lobbying, or a key tool and channel for collective action and policy delivery?


## Execution

- Is MVA equipped with the kind of resources and capabilities to deliver on its mission?

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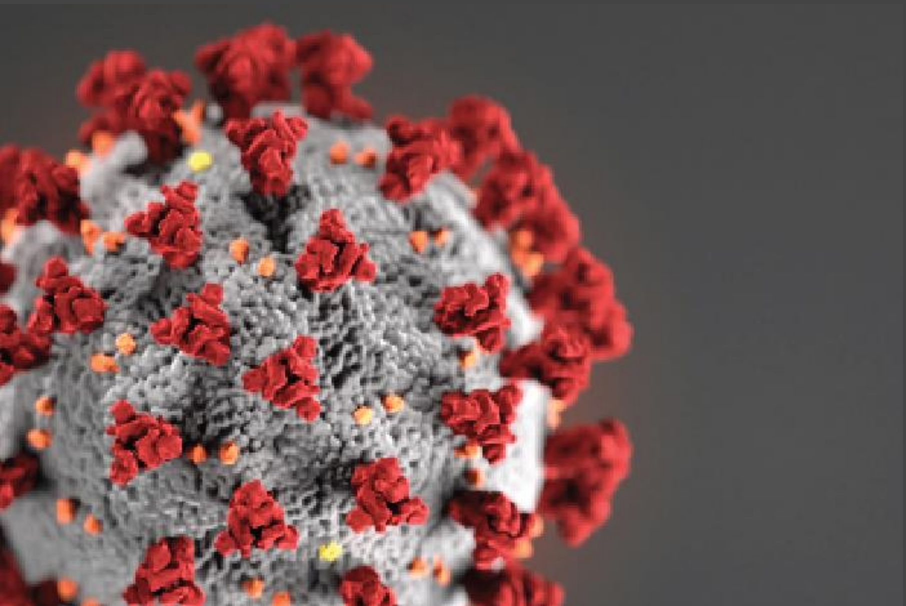
# Brace for Impact: COVID-19 and the Longer-Term

**Accelerated Digitalization**

**Changes in Geopolitics and the Global Economy**

**Innovation Spending Up or Down?**



**More Demand for Health Care, but less Public Money?**

***Crisis as an Opportunity?***