

STATE OF MEDICON VALLEY

An analysis of life science in Greater Copenhagen

State of Medicon Valley 2018 is a collaboration between Medicon Valley Alliance and Øresundsinstittuttet

The aim of is to highlight central trends, challenges and potentials in order provide us with a common point of departure for a discussion of the future of Medicon Valley



LIFE SCIENCE IN SWEDEN AND DENMARK

There have been changes on a national level in both Sweden and Denmark regarding efforts to strengthen both nations' respective life science environments.

- The establishment of a Danish Growth Team and a Swedish life science expert team in 2016-2017
- Recommendations and life science strategies to strengthen Danish and Swedish life science
- National life science offices are now being established in Denmark and Sweden
- Resources and mandates are being redistributed in order to clarify the division of roles in the future



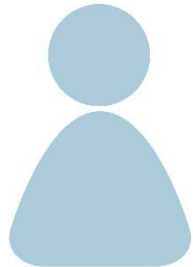
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LIFE SCIENCE IN SWEDEN AND DENMARK

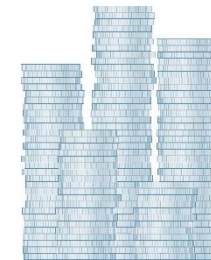
Both the Danish and the Swedish life science sector shows **positive employment growth**



The hourly productivity in the pharmaceutical industry in Denmark and Sweden is almost **three times higher** than the general economic productivity



The **tax contribution** from employees' income tax and corporation tax **increases** in both countries

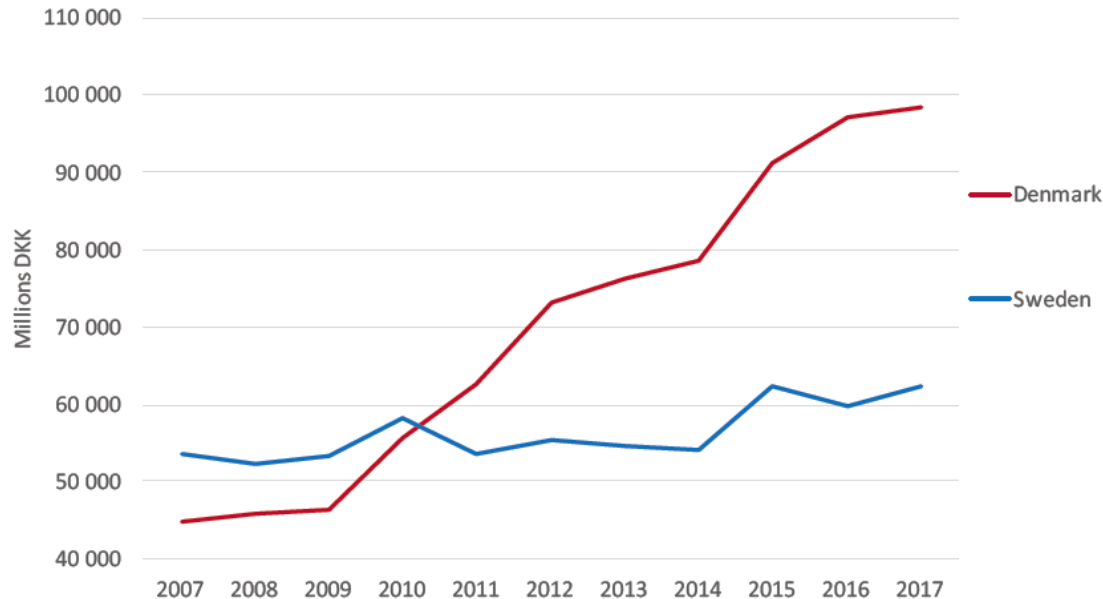


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VALUE OF EXPORTS IN 2017



+1.25%

The strong growth path for Danish life science export in 2016 was replaced with a more modest increase in 2017

+6.1%

Swedish life science companies gathered new strength in 2017, increasing life science exports 6.1%

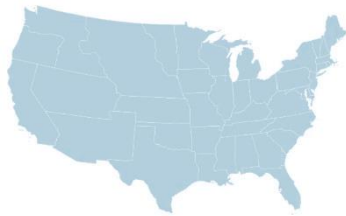
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VALUE OF EXPORTS IN 2017

Danish life science exports to the **USA**, **decreased in 2017 with 13%** and Swedish life science export to the USA decreased with 4%



Both countries **increased** their holdings in the second largest global market, **China** - **Sweden by 45%** and **Denmark by 16%**



Denmark is the **fourth** largest exporter of life science products per capita, while **Sweden** is the **eleventh** largest



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LIFE SCIENCE EMPLOYMENT

Medicon Valley is home to the largest pool of life science talents in Scandinavia

58%

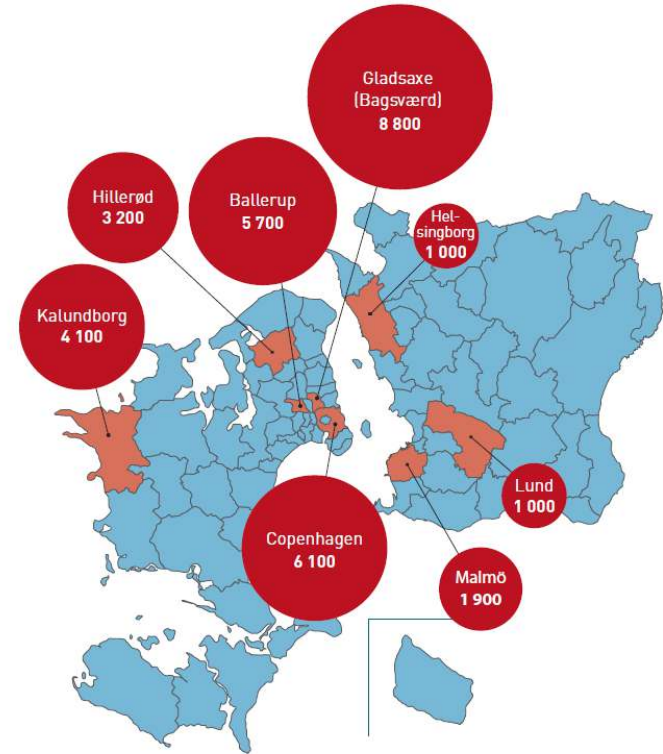
of the total number of employees in the life science industry in Denmark and Sweden are based in Medicon Valley

42 583

was the number of employees at life science companies in Medicon Valley in 2016

+3%

was the increase in number of employees at life science companies in Medicon Valley in 2016



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LIFE SCIENCE EMPLOYMENT

35%

employed at life science companies in Medicon Valley have a higher education or research training



82% 

positions **created** in the Danish life science sector from 2008–2016 were for a high level of education

92% 

positions that **disappeared** from the life science sector from 2008–2016 are for lower level of education

CLIMATE FOR INNOVATION IN SWE & DK

In 2018 Sweden and Denmark is the EU innovation leaders and Medicon Valley is ranked among the most innovative regions in the EU

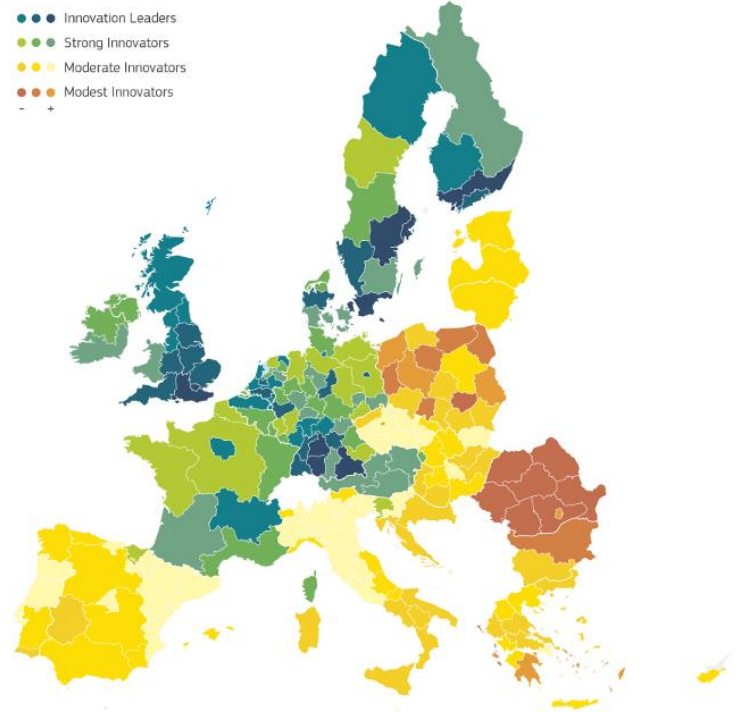
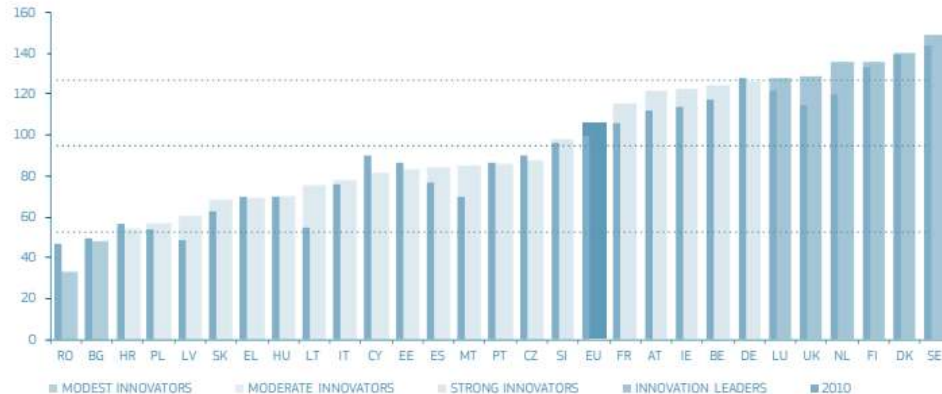
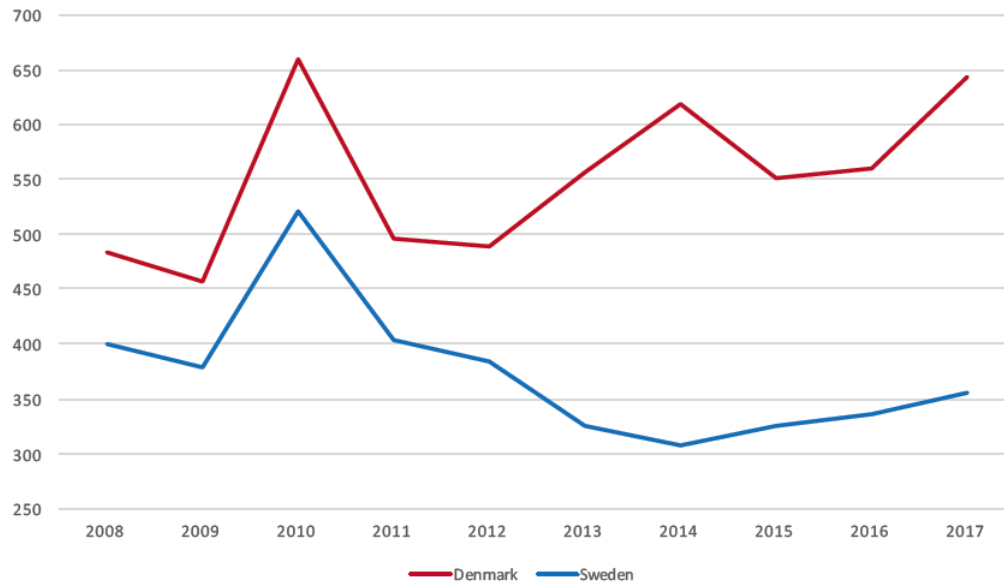


Figure 2: Performance of EU Member States' innovation systems



CLIMATE FOR INNOVATION IN SWE & DK

Patent applications to EPO from Sweden and Denmark



+15%

Increase in the number of Danish patent applications to the EPO between 2016 and 2017

+6%

Increase in the number of patent applications in Sweden between 2016 and 2017

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MEDICON VALLEY INNOVATION SYSTEM

5

Science parks with a major life science focus in Medicon Valley

1500

Number of companies based at the science parks in Medicon Valley

9

Incubators or accelerators at the science parks in Medicon Valley

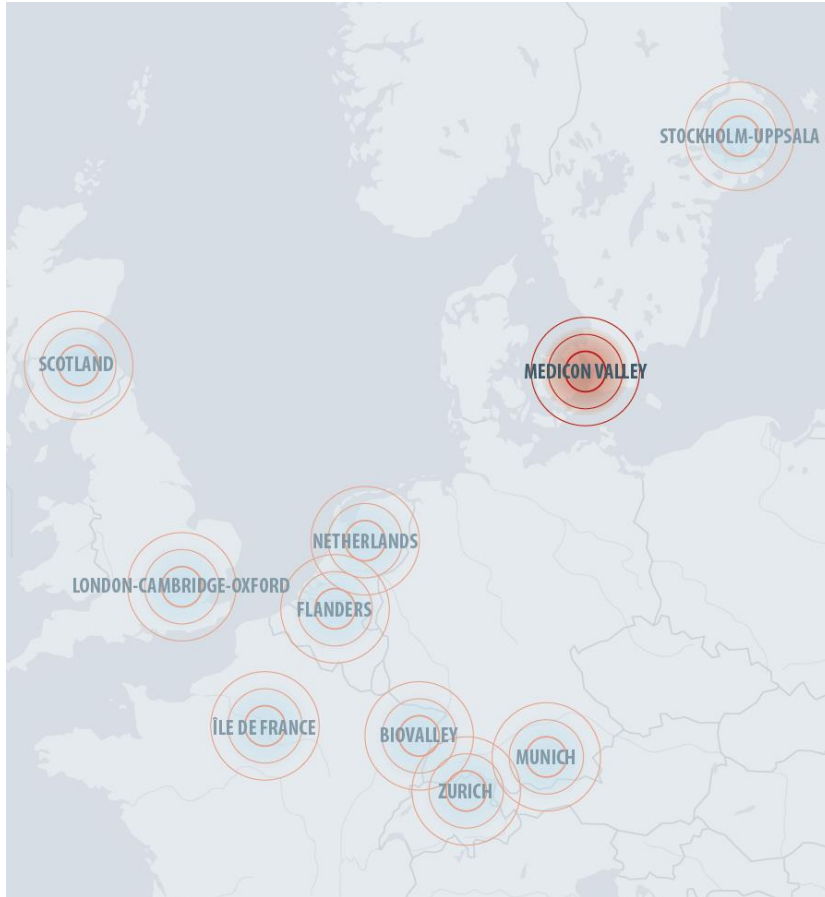
17000

Number of employees at the science parks in Medicon Valley whose focus is fully or partly on the life sciences

INCUBATORS AND ACCELERATORS AT THE SCIENCE PARKS

- **IDEON OPEN/BEYOND**
– a collaborative business accelerator run by Ideon Open
- **THE BIOINNOVATION INSTITUTE**
– discovery, accelerator and incubator with financial support located at COBIS
- **DANISH TECH CHALLENGE**
– accelerator at DTU Science Park
- **FUTUREBOX**
– incubator at DTU Science Park
- **HEALTH2B**
– accelerator at Medicon Village in Lund
- **IDEON INNOVATION**
– runs incubator activities at Ideon
- **KRINOVA INCUBATOR**
– incubator activities are an integrated part of the science park Krinova
- **MEDEON**
– an incubator that shares a name with the science park
- **SMILE**
– bio-incubator at Medicon Village in Lund

MEDICON VALLEY RANKING



The CWTS Leiden Ranking is an annual global university ranking based exclusively on **bibliometric indicators**

9 universities in Medicon Valley perform life science research

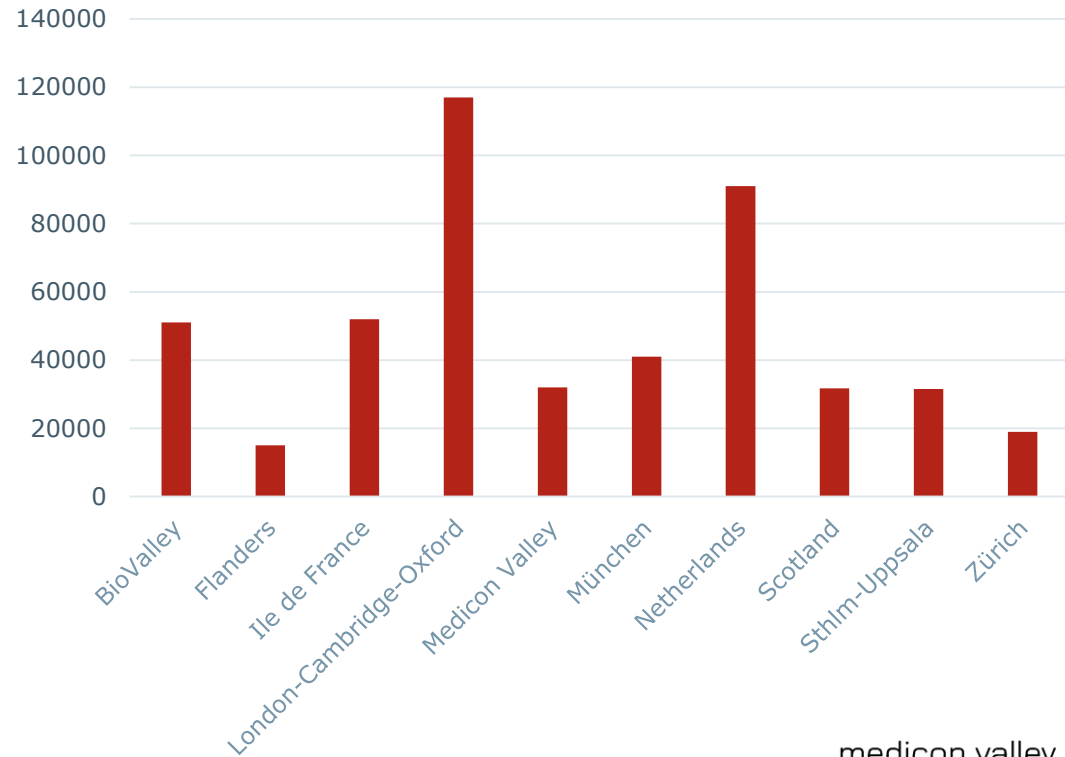
MEDICON VALLEY RANKING

London-Cambridge-Oxford is at the top, Medicon Valley is placed in the middle

Co-publication with researchers from other countries results in more frequent citations

In Medicon Valley national cooperation is far more common than cooperation between Denmark and Sweden

Number of publications per cluster 2006–2016



MEDICON VALLEY RANKING

Three suggestions for action to increase academic cross-border collaboration in Medicon Valley:

- Joint educational training programs for students in Medicon Valley
- Research funds allocated specifically for Øresund collaborations
- More transdisciplinary meeting places and conferences to increase possibilities for interaction between Medicon Valley based researchers

“It’s important to strengthen the cooperation between Lund, Malmö and Copenhagen. There is unexploited potential, and international collaborations improve research quality.”

Bo Ahrén
Pro Vice-Chancellor of Lund University

MAIN CONCLUSIONS

- Life science at the top of the political agenda in Sweden and Denmark and the life science industry contributes significantly to the two countries national economies
- The growth rate is slowing down in Danish life science, but picking up again in Swedish life science
- Medicon Valley still holds its position as Scandinavia's leading life science region
- The Medicon Valley innovation system is thriving with expanding science parks and new investments are being made to support commercialization
- Medicon Valley is positioned as one of Europe's ten largest life science research clusters according to CWTS Leiden Ranking



“Coming together is a **beginning**;
keeping together is **progress**;
working together is **success**”

Henry Ford