

**Amsterdam
Life Sciences
Café**



Amsterdam Life Sciences Café

amsterdam economic **board**
in cooperation with **EY** Building a better working world

Amsterdam Life Sciences Café



Jeroen Maas
Amsterdam Economic Board

Marc ter Haar
EY

What are we working on



- 2) LSH Ecosystem
- Capabilities
 - Players
 - Integration

- 1) Infrastructure:
- (Hardware)
 - Collaboration
 - Governance
 - FAIR data

- 3) Data Analytics & Services
- Connected value chain
 - Across health continuum
 - Across disciplines and sectors

Board members

Chair



Femke Halsema

Burgermeester van Amsterdam en voorzitter van de Amsterdam Economic Board en Amsterdam Network Council

Knowledge institutions



Jacqueline Cramer

Regisseur Circulaire Economie



Geert ten Dam

Voorzitter College van Bestuur
Universiteit van Amsterdam



Huib de Jong

Voorzitter College van Bestuur
Hogeschool van Amsterdam



Mirjam van Praag

Voorzitter College van Bestuur Vrije
Universiteit



Hans Snijders

Voorzitter College van Bestuur Nova
College

Companies



Hans Bakker

Voorzitter VNO-NCW
Metropoolregio Amsterdam



Barbara Baarsma

Directievoorzitter Rabobank
Amsterdam



Jeroen Tas

Chief Innovation & Strategy Officer
Philips



Marcel van Loo

Managing Partner EMEA Financial
Services
EY Netherlands



Ingrid Thijssen

CEO Alliander



Syro Ronda

Senior Business Analyst Siemens
Young on Board



Roulerend lid

Young on Board



André van den Berg

Chief Commercial Officer Schiphol
Group



Henk Markerink

CEO Amsterdam ArenA



Joris Schoonis

AVP Marketing Cloud Europe &
Israel Salesforce



Erik Henstra

Managing Director LeasePlan NL



Yuri Sebregts

Vice President Innovation and R&D
and CTO Shell

Governments



Jaap Bond

Gedeputeerde Provincie Noord
Holland



Wimar Jaeger

Wethouder Gemeente
Hilversum



Udo Kock

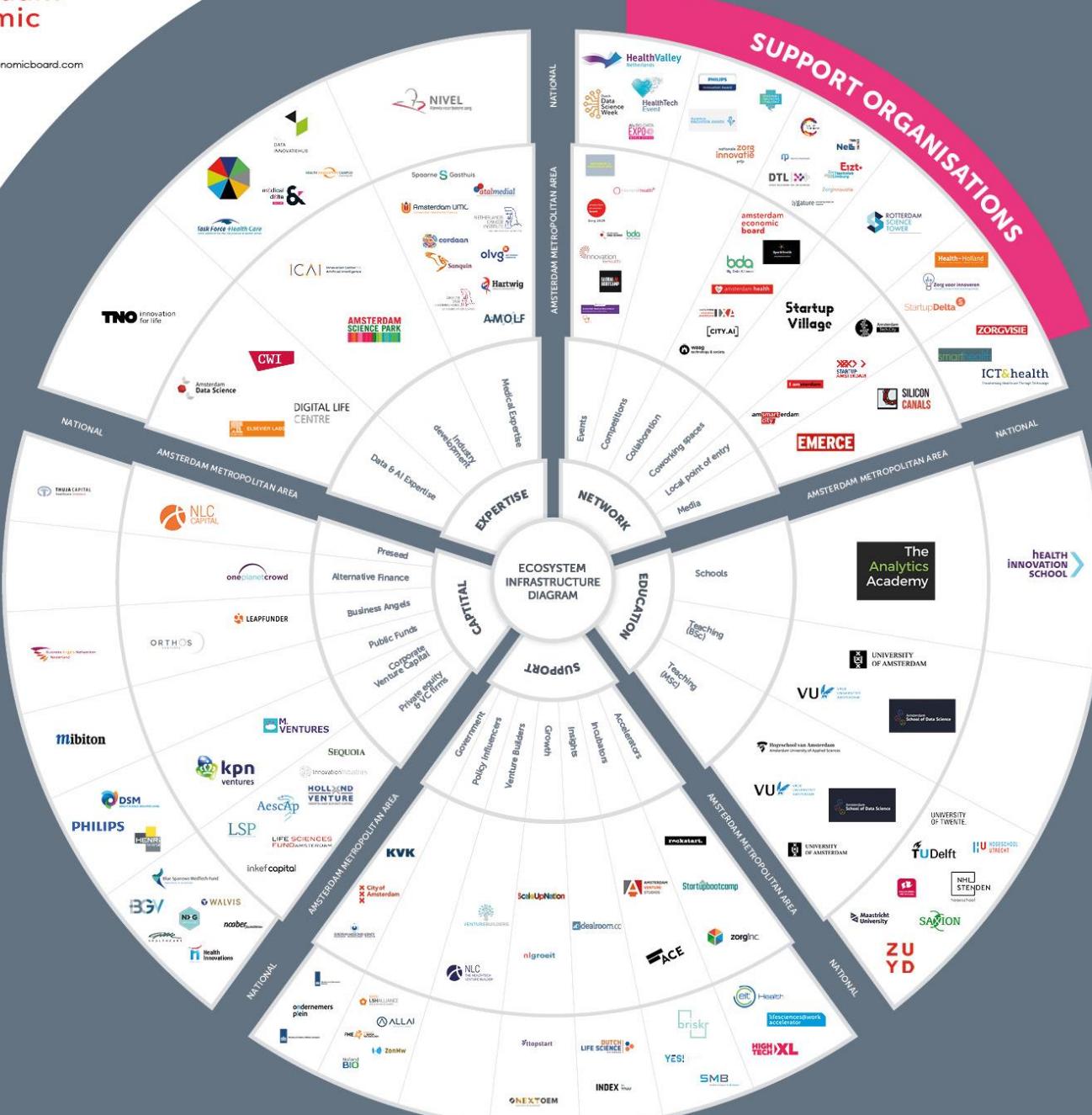
Wethouder Gemeente
Amsterdam



Franc Weerwind

Burgemeester Gemeente
Almere

AMSTERDAM DATA SCIENCES & ARTIFICIAL INTELLIGENCE IN HEALTH



STARTUP



SME



CORPORATE



The European Biotechnology Start-up Landscape

Rogier Rooswinkel

Overview Forbion.



Based in the
Netherlands
and Germany



12 years
history
of success



Over €1B under
management in
4 Investment Funds
3 Co-Investment-Funds
3 Seed funds (BGV)



70 investments
in EU and US



9 product launches
Millions of people
benefit from
improvements made

- **Fully life science focused**
- **Team with complementing background: PhD's, MD's and investment bankers**
- **Staying close to science and bioentrepreneurs**

Forbion “bioentrepreneur” business research publication series in Nature Biotechnology

BUILDING A BUSINESS

bioentrepreneur

Venturing across the Atlantic

Rogier W Rooswinkel, Daan S W Berbers, Eric H J H M Claassen & Sander van Deventer

Is it worth your time to seek overseas investors?



FEATURE

Community crystal gazing

A selection of individuals from the biotech ecosystem give their views on the challenges facing the sector over the coming years.

BUILDING A BUSINESS

bioentrepreneur

Acquiring orphans

Rogier Rooswinkel, Geert-Jan Mulder & Sander van Deventer

Will your orphan drug startup draw acquisition interest?

BUILDING A BUSINESS

bioentrepreneur

Building for big pharma

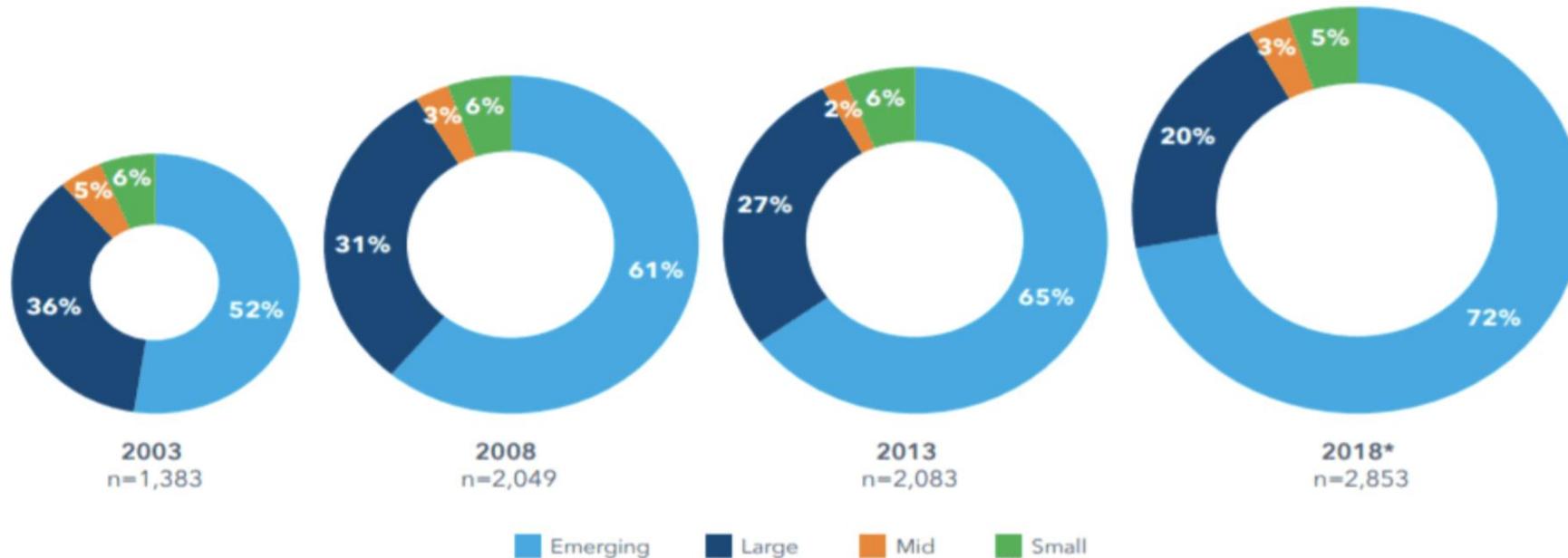
Asiya Giniatullina, Marco Boorsma, Geert-Jan Mulder & Sander van Deventer

With acquisition the most likely exit for today's biotech investors, it pays to keep current with the tastes of pharmaceutical firms when launching a venture.

Emerging biomedical companies drive drug development and innovation

- *Emerging companies now control 72% of 2,853 late-stage drugs*
- Big Pharma's share of the late-stage pipeline has plunged 20%

Exhibit 9: Percent of Late-Stage Pipeline by Company Segment



IQVIA Pipeline Intelligence April 2018, IQVIA Institute May 2019

**So, what about the NL
Biotech landscape?**

BUILDING A BUSINESS

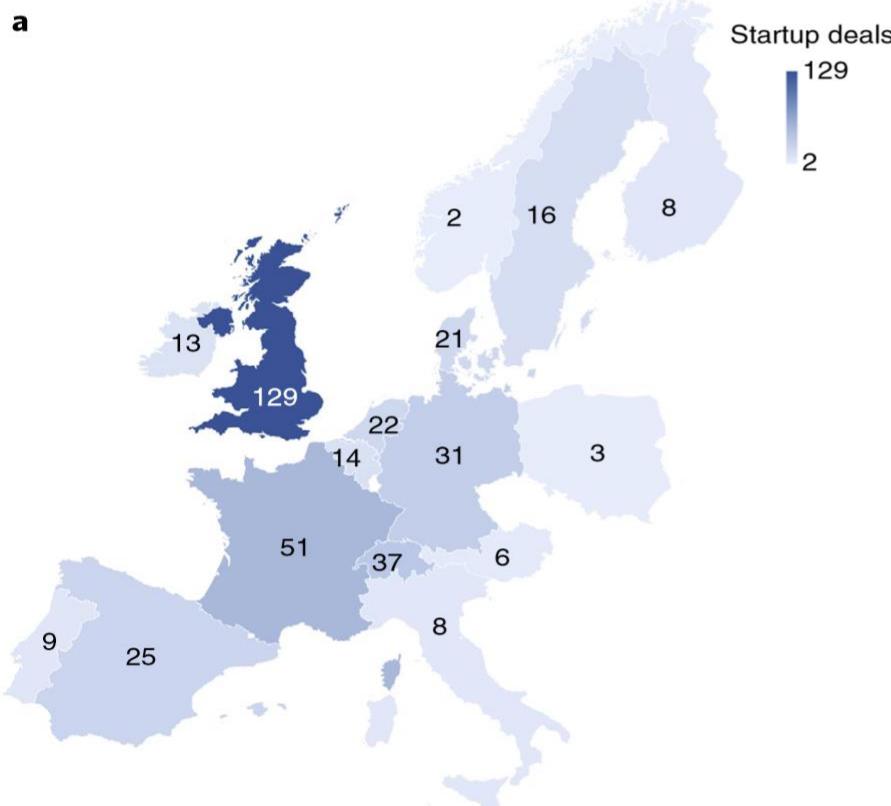
Mapping the European startup landscape

A deep dive into the influence of research output, patenting, venture capital and human capital on startup financing activity in Europe reveals not all countries are equal.

Bonnie van Wilgenburg, Kim van Wilgenburg, Kathryn Paisner, Sander van Deventer and Rogier Rooswinkel.
Nature Biotechnology April 2019

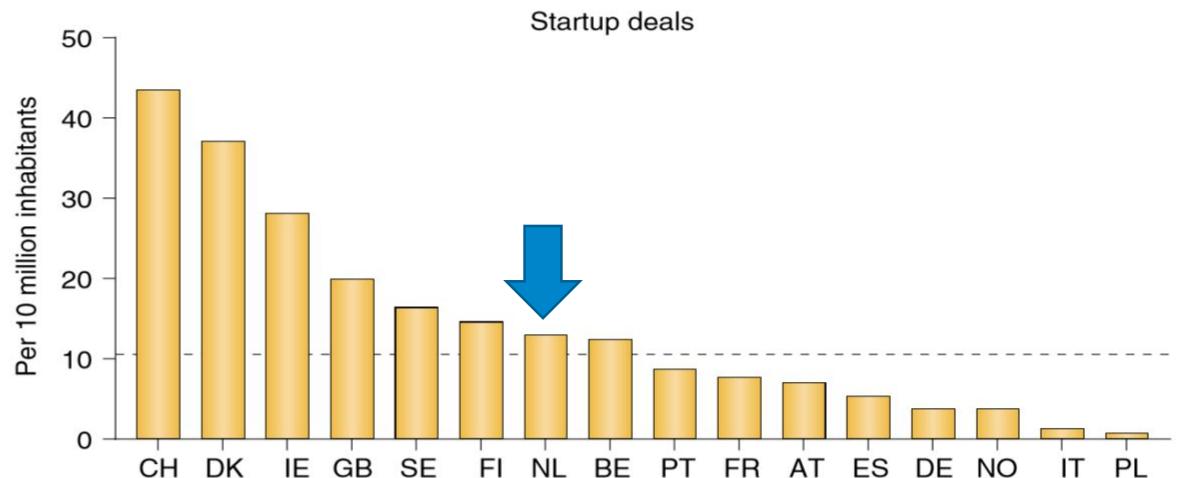
- Period 2013-2017 (5 years)
- Analysis restricted to countries with more than 1 million inhabitants and at least two start-ups within the study period
- Considered Science, Patenting, VC presence and proxies to human capital

The European Biotechnology Start-up Landscape



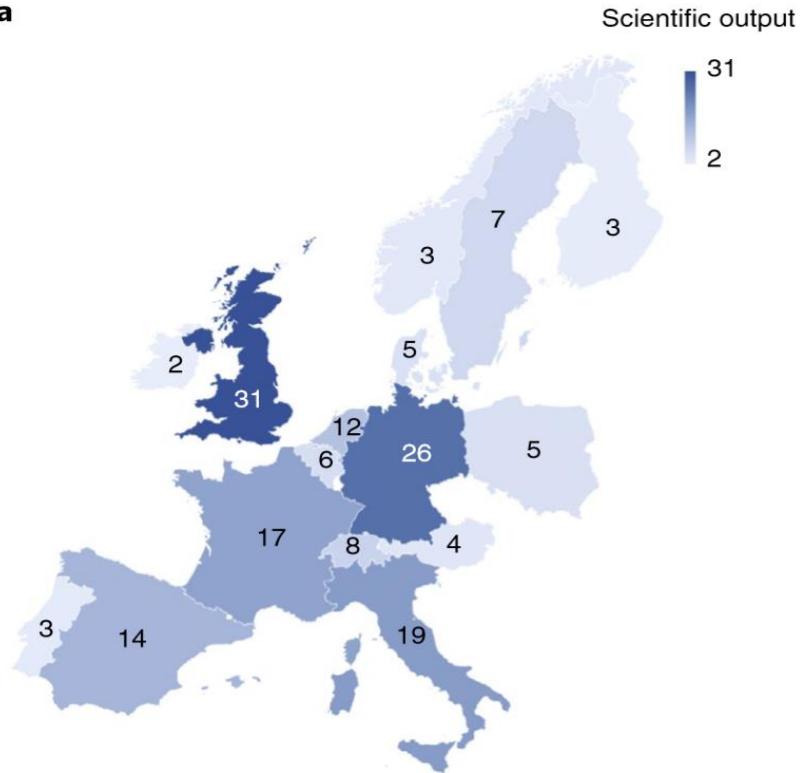
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Start-up defined as first time a company raises seed- or start-up capital (source: GlobalData Pharmaceutical database)



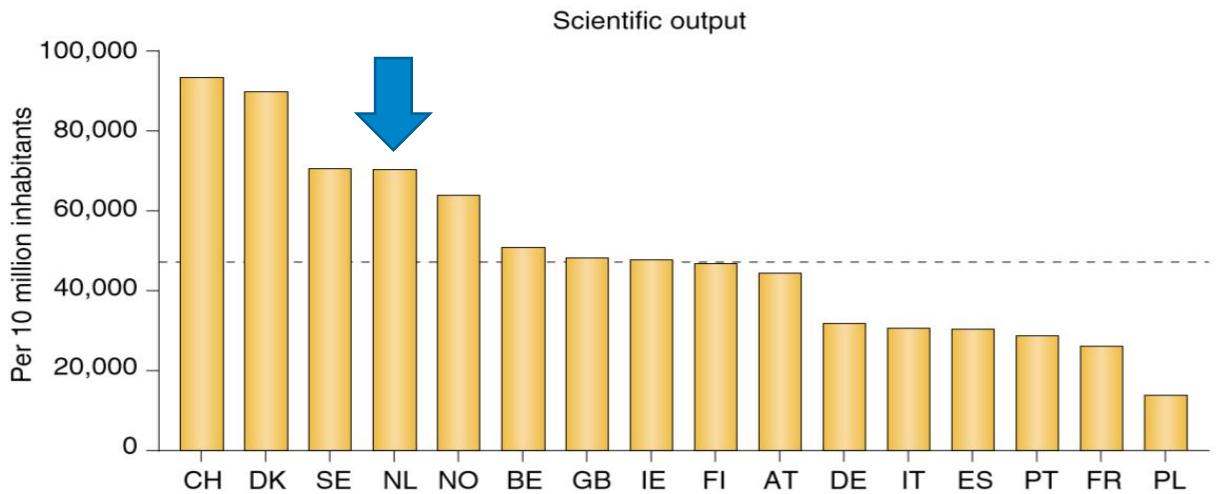
European Biomedical Scientific Output

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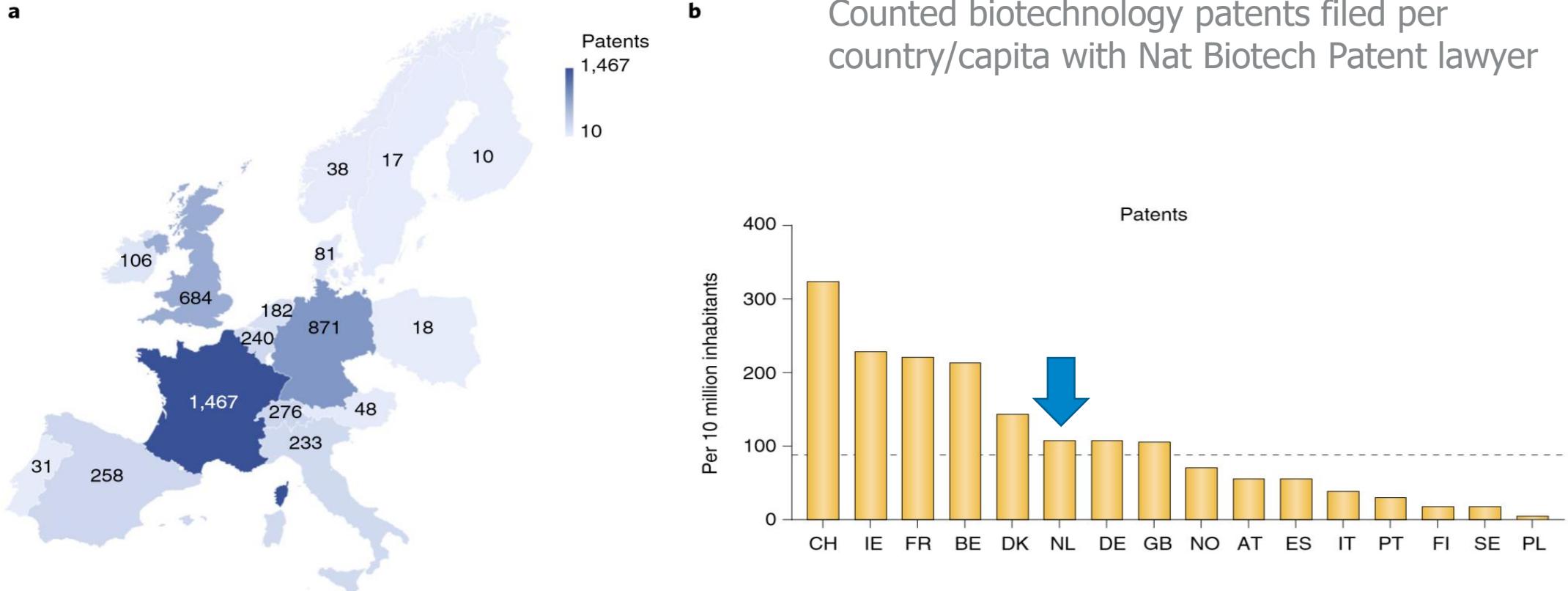


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As a proxy for research productivity, we used the total number of citable and non-citable documents published in the field of medicine in 2013–2017 obtained from Scimago

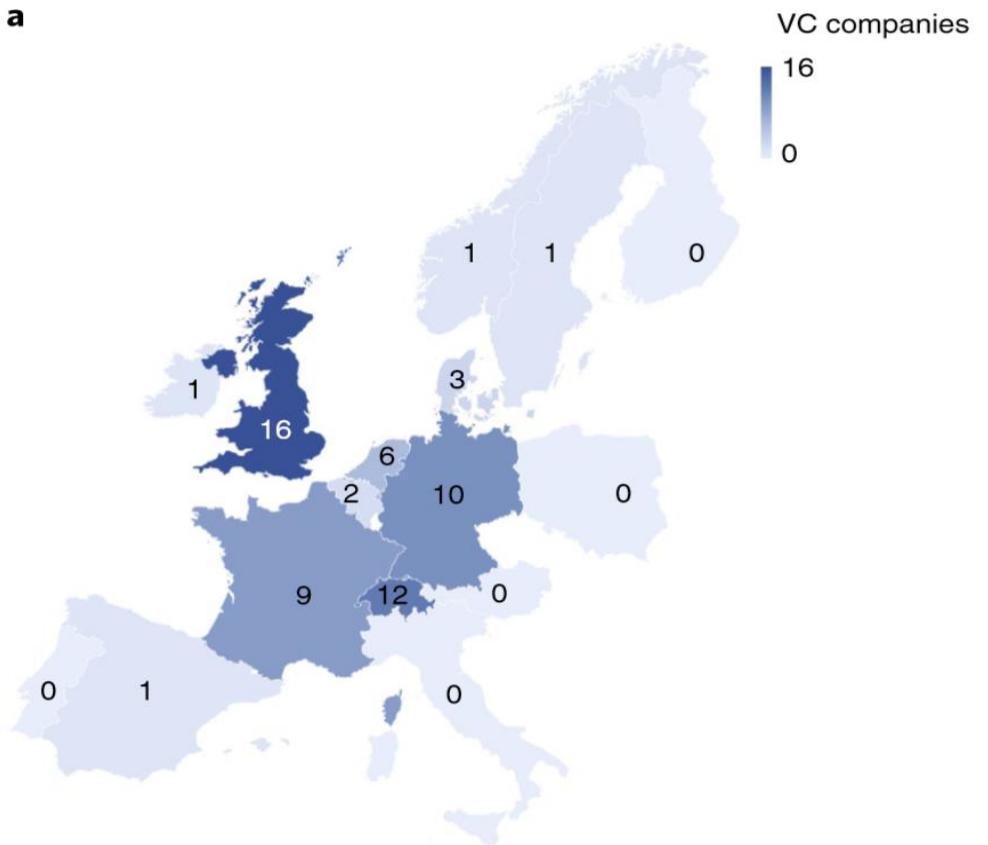


European Biomedical Patenting



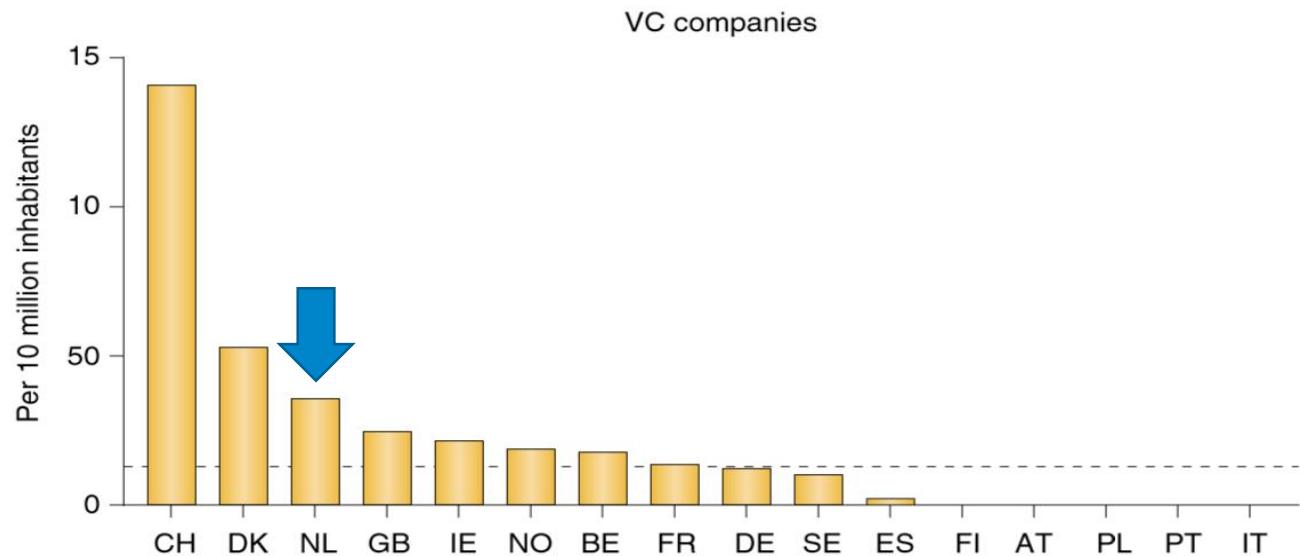
European Life Science VC's

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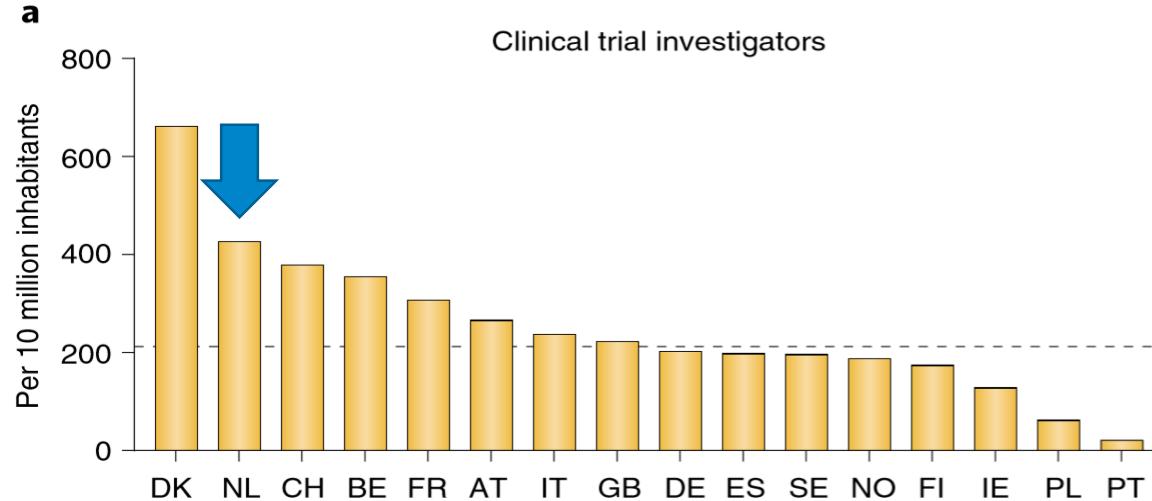
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Selected VC firms that had done at least 5 new investments over the last 5 yrs (investments coming from Biocentury db)

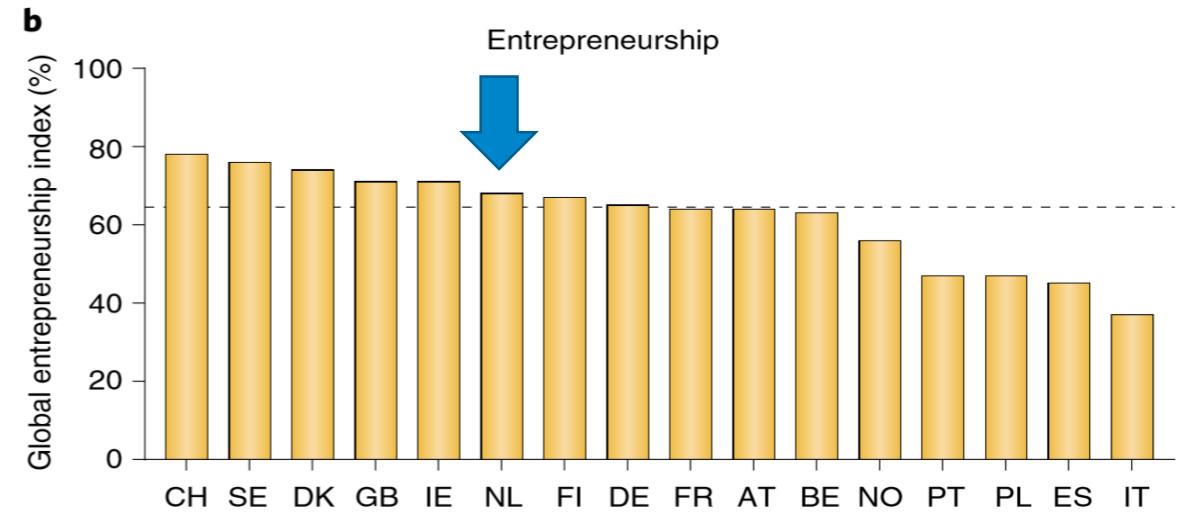


Life Science Human Capital

Number of Principal investigators that started at least one clinical trial per year in the past 5 years (globaldata) "KOL's "



We mapped nations on the basis of the 2017 Global Entrepreneurship Index, GGDI



What drives Biotech Start-up initiation in Europe?

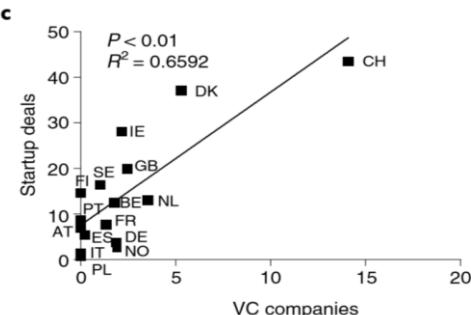
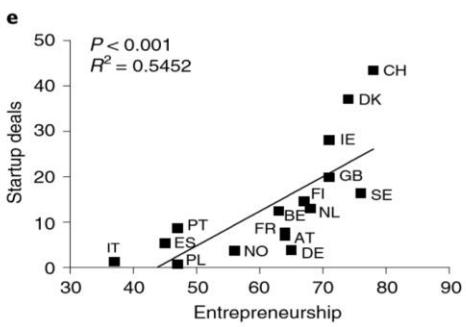
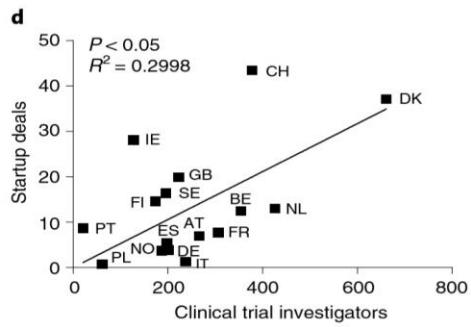
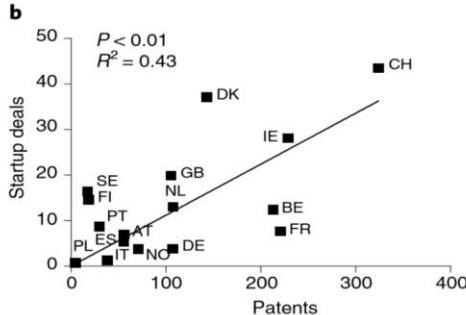
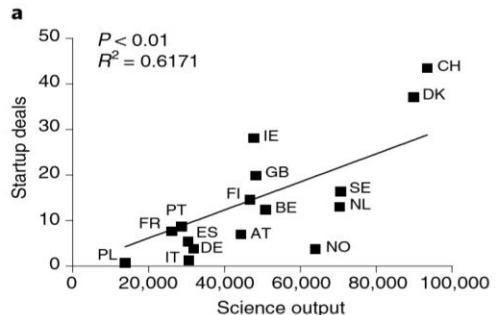


Table 1 | Multivariate linear regression for the five factors mentioned in this study

Dependent variable (number of startup financings per capita)	MVA β coefficient	Robust standard error of the β coefficient
Scientific output (per 10,000) per capita	4.649*	2.441
Patents per capita	0.055	0.053
VC companies per capita	0.380	1.357
Clinical investigators per capita	-0.019	0.024
Global Entrepreneurship Index	0.227	0.157
Real GDP per capita ($\times 1,000$)	-0.360*	0.188
Constant	-11.705*	6.170

16 observations, $R^2 = 0.838$. * $P < 0.1$. P -values are based on a two-sided t -test.

All factors combined explain 83% of the startup variation

What can we do/should we not do in the Netherlands?

- Invest in Science and education
- Protect and respect intellectual property; professionalize tech transfer offices
- Recognize the importance of Key Opinion Leaders/principle investigators ("large pharma prostitutes")
- Recognize the dramatic improvements in therapeutic efficacy and pay for innovative drugs
- Facilitate, rather than block, innovative clinical development

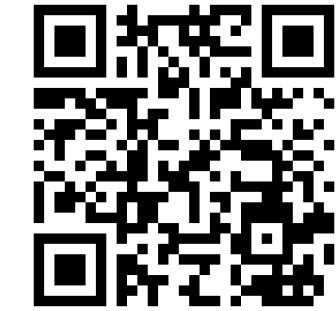
Amsterdam Life Sciences Café



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Join other Amsterdam health
innovators on our [Linkedin group](#)
[Amsterdam Health](#)



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