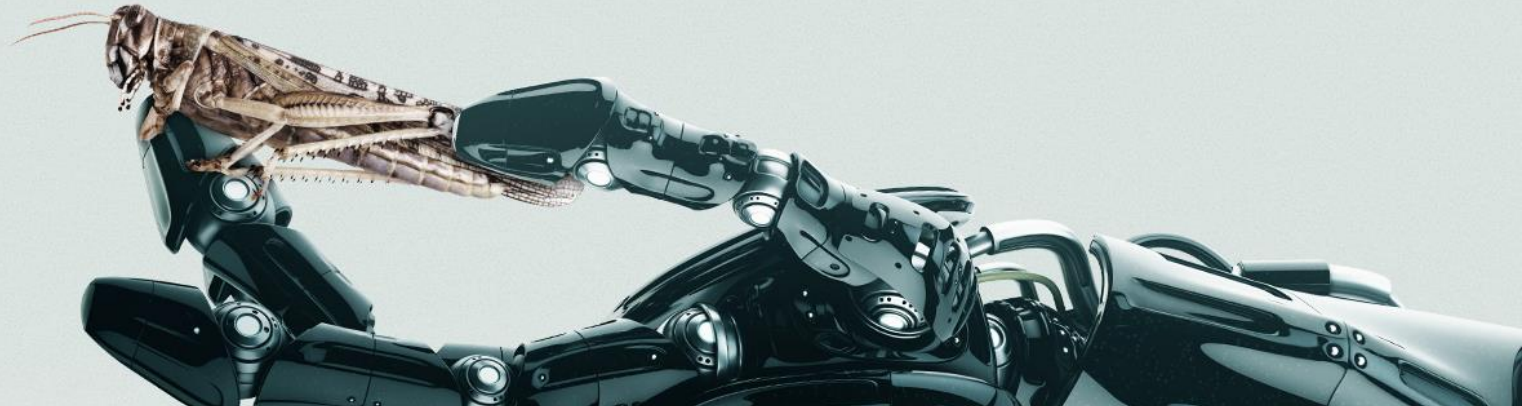




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it's all about innovation





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# Hvordan skaber vi et attraktivt, digitalt vækstmiljø?

Anne-Lise Høg Lejre, direktør, Produktion

# Digitalt Vækstpanels vision og målsætninger

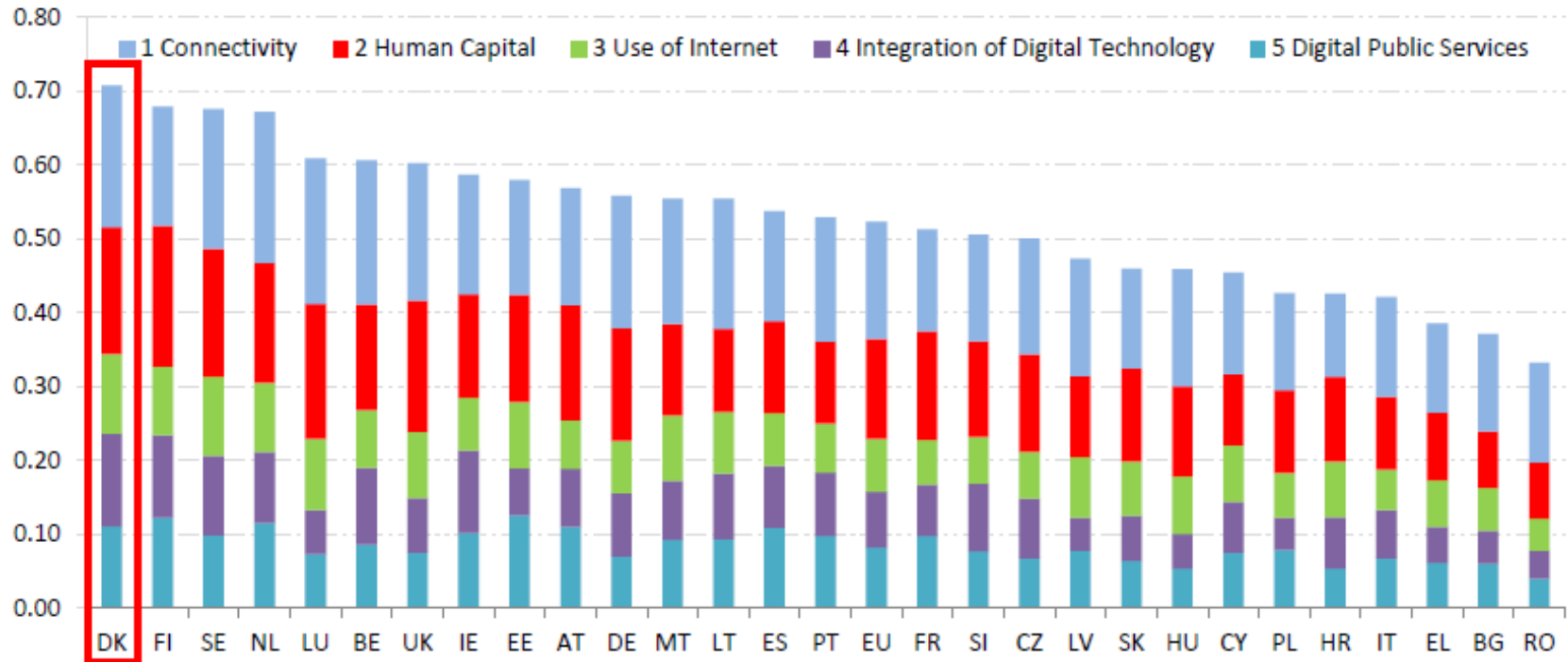


## Indsatser

- Digitale kompetencer til alle
- Attraktivt digitalt vækstmiljø
- Proaktive rammer for digitalisering
- Digital ansvarlighed og begejstring

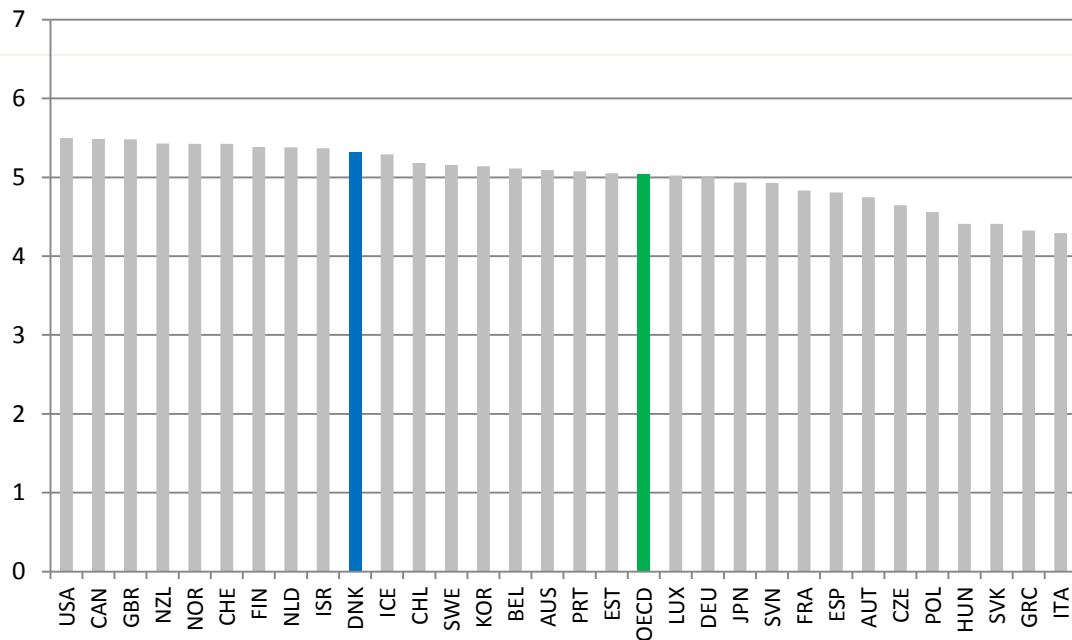
# Danmarks digitaliseringsindeks

Digital Economy and Society Index (DESI) 2017 ranking



# Danmark er nr. 16 på WEF Networked Readiness Index omkring innovation

Danmarks placering på WEF Networked Readiness Index for Business and innovation environment, 2016



**Kilde:** WEF, Networked Readiness Index (2016)

Note: Business and innovation environment indekset er en sum af en række spørgsmål til virksomhedsledere (Index 1-7) af følgende: Availability of latest technologies, Venture capital availability, Gov't procurement of advanced tech, Total tax rate, number of days to start a business, number of procedures to start a business, intensity of local competition, tertiary education gross enrollment rate % and quality of management schools .

DK halter bagefter på flere WEF indeks for Business og Innovationsmiljø.

Danmark er et stykke fra toppen på særligt adgang til den nyeste teknologi, venturekapital og offentlige indkøb af avancerede teknologiske produkter.

Danmark er faldet fra en 7. i 2012 til en 16. plads i 2016. Sverige er faldet tilsvarende, hvorimod Nederlandene, Norge og Finland nogenlunde har bevaret deres placeringer.

# Danmark kan miste sin digitale førerposition



- Danmarks udgangspunkt for den digitale omstilling er godt. Danmark er et af de mest digitale samfund i EU.
- Hvis man kigger frem mod 2025, er der indikationer på, at særligt de asiatiske lande vil overhale Danmarks nuværende førerposition.



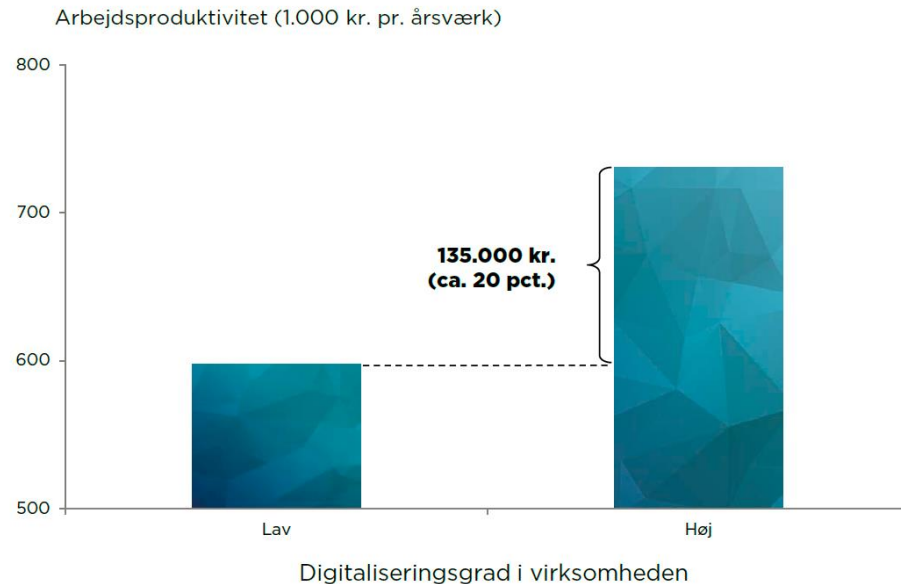
Kilde: BCG E-intensity Index (2016) og egen tilvirkning.

# De mest digitale virksomheder er også de mest produktive



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- De mest digitale virksomheder har i gennemsnit godt 20 pct. højere arbejdsproduktivitet end de mindst digitale virksomheder
- Digitaliseringsgraden måles på tværs af seks forretningsprocesser (produktion, administration og drift, analyse, markedsføring, salg og forsyningskæde).



## Attraktiv digital vækstmiljø er forudsætning for Danmarks digitale omstilling

- International førende digital hub samt viden og testmiljøer
- Attraktivt land for internationale og digitale talenter
- Godt klima for digitale investeringer og adgang til kapital



# Digital Innovation Hub

## The Digital Innovation Hub Model

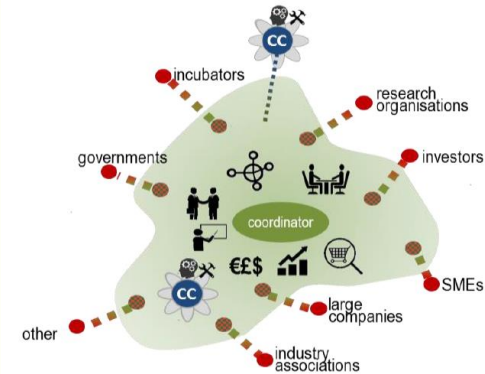


## Competence Centres are the core of Digital Innovation Hubs

### Digital Innovation Hub

#### Organised to provide services to industry

- Access to competence centres
- Development of innovation ecosystem
- Brokerage
- Access to finance
- Market intelligence
- Training and education
- Incubator/mentoring services



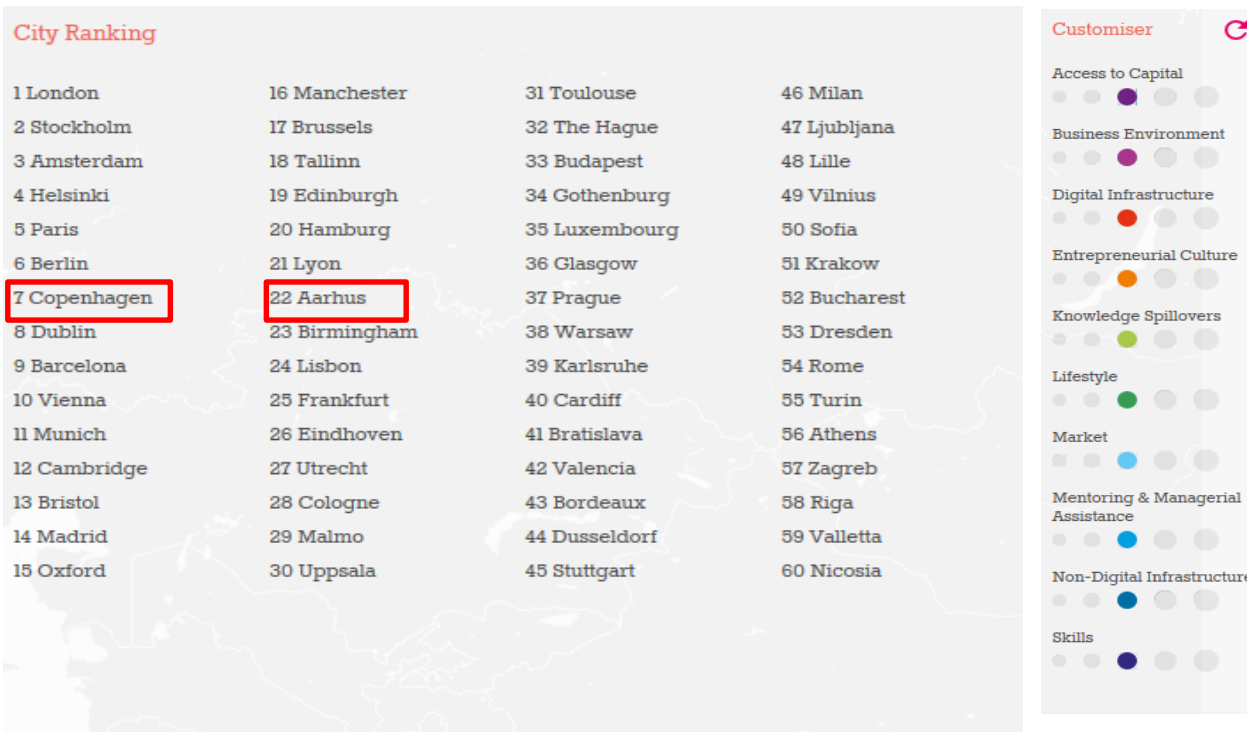
### Competence Centre

#### Competencies in digital technologies

- Provide access to infrastructure and technology platforms
- Provide digitisation and application expertise
- Support experimentation in real-life environments
- Support fabrication of new products
- Demonstrate best practices
- Showcase technologies in pilot factories, fab-labs

# Europæiske byers digitale parathed for start-up virksomheder

European Digital City Index (EDCI) om byers digitale parathed for start-up virksomheder



På en rangordning udført af EDCI om byers digitale parathed for start-up virksomheder er København på 7. plads og Aarhus nr. 22.

København er dog placeret lidt efter bl.a. Stockholm og Helsinki.

København halter særligt efter på a) access to capital, b) mentoring and managerial assistance og c) non-digital infrastructure

Kilde: EDCI (2016)

Note: EDCI indekset er en sammenvægtning af 10 underindeks på baggrund af i alt 40 variable.



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COMPANIES

A grid of 100+ company logos representing various stakeholders in the Danish robotic and automation industry. The logos are arranged in approximately 10 rows and 10 columns. Notable companies include ABB, KUKA, FANUC, GATEC, GEMO, and many others.

CLUSTERS AND PARTNERS

A collection of logos for clusters and partners, including CareNet, Dansk Metal, DIRA, Odense Health, RoboCluster, and others.

PUBLIC SECTOR AND  
BUSINESS SUPPORT PROVIDERS

A collection of logos for public sector and business support providers, including Assens Kommune, Nyborg, Svendborg, and others.

ODEENSE | ROBOTICS  
FRONTIER FOR ROBOTIC TECHNOLOGIES  
POWERED BY DEVELOPING FYN

ODENSE  
SEED AND VENTURE

Public Funding	Private Equity	Venture Funding
Crowd Investors	Business Angels (75+)	Loan and Bank Financing

100+ mill. Euros invested in 2016

EDUCATION

**SDU** UNIVERSITY OF SOUTHERN DENMARK  
 BEng  
 • Electrical Power Engineering  
 • Electronics and Computer Engineering  
 • Global Manufacturing and Manufacturing  
 • Integrated Design  
 • Manufacturing Engineering and Management  
 • Mechanical Engineering  
 • Mechatronics  
 • Robotics Technology  
 • Software Technology  
 MSc  
 • Applied mathematics  
 • Computer science  
 • Electronics  
 • Energy Technology  
 • Engineering Robot Systems (Advanced Robotics Technology and Smart Technology)  
 • Information Technology  
 • Product Design  
 • Learning and Experience Technology  
 • Mathematics  
 • Mechanical  
 • Mechatronics  
 • Operations Management  
 • Physics and Technology  
 • Product Development and Innovation  
 • Software Engineering  
 • Welfare Technology  
**LILLEBAELT ACADEMY** UNIVERSITY OF SOUTHERN DENMARK  
 Academy Profession AP  
 • Automation Technology  
 • Computer Science  
 • IT Technology  
 • Maintenance Design and Communication  
 • Production Engineering  
 Bachelor BA  
 • E-Concept Development  
 • FMS Software Development  
 • Product Development and Technology Integration  
 • Web Development  
 Continuing Education  
 • Academic Education  
 • Diploma  
**SYDDANSK ERHVERVS-SKOLE**  
 Electricity Automation and IT  
 • Automatic Electrician  
 • Data Technician (EJ0)  
 • Electrician (EJ0)  
 Metal, Industry and Technology  
 • Automation Technician (EJ0)  
 • Industrial Operator  
 • Industrial Technician (EJ0)  
 • Sheet Metal Worker (EJ0)  
 • Technical Designer  
**SIMAC**  
 Bachelor  
 • Marine Engineer  
 OTHERS  
**LILLEBAELT** UNIVERSITY OF SOUTHERN DENMARK  
**ODENSE FRANSISKE GYMNASIUM**

**DANISH TECHNOLOGICAL INSTITUTE**  
 Disciplines  
 • Advanced robotics  
 • Co-working robots  
 • Sensors and robots  
 • Mobile robots  
 • Drones (BAAS)  
 • Personal care robots  
 • Industry 4.0 and data  
 • Virtual reality  
 • Safety  
 Activities  
 • Implementation of solutions  
 • Dissemination, training and education  
 • Analysis and consultancy  
**SDU** UNIVERSITY OF SOUTHERN DENMARK  
 Faculty of Engineering  
 TEK Innovation  
 The Mark Clausen Institute  
 • SDU Mechatronics  
 • SDU Innovation and Design Engineering  
 The Hanssk McKinley Møller Institute  
 • SDU Robotics  
 • SDU UAS Centre  
 • SDU Software Engineering  
 • SDU Embedded Systems for Robotics and Learning  
 • SDU Health Informatics and Technology  
 • SDU Energy Informatics  
 Department of Technology and Innovation  
 • SDU Mechanical Engineering  
 • SDU Engineering Operations Management  
 Faculty of Science  
 • Department of Mathematics and Computer Science (MADA)  
 Faculty of Health Sciences  
 • Department of Sports Science and Clinical Biomechanics  
 • Department of Clinical Research  
 • Department of Public Health  
 SDU Research and Innovation Office (RIO)  
**LILLEBAELT ACADEMY** UNIVERSITY OF SOUTHERN DENMARK  
 Cluster for Technical Innovation and Welfare  
 Innovation Process  
**OUH** Odense University Hospital  
**OUH**



COMPANIES ARE SELECTED BASED ON AN ASSESSMENT OF THE FOLLOWING PARAMETERS:

- Share of turnover in the robotic and automation industry
- Strategic focus
- Activity in cluster cooperation
- Dedicated technology

Updated: 10.05.2017

# STARTUP HUB

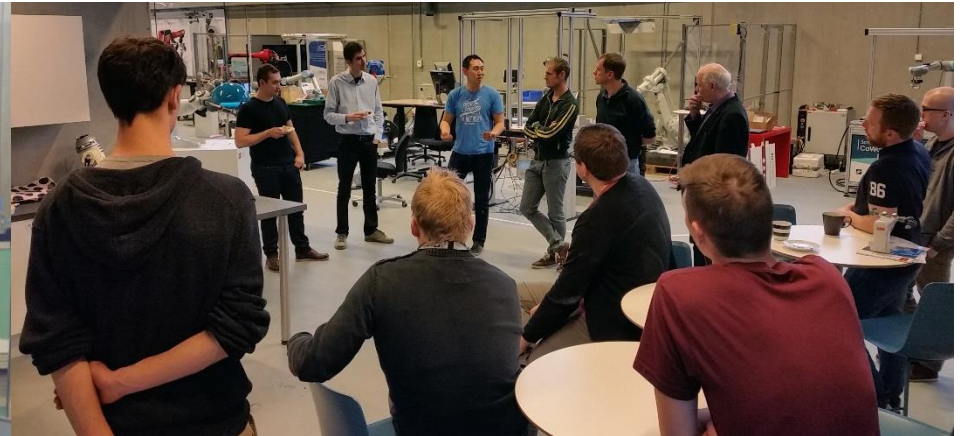
- Free office and lab facilities in an inspiring environment
- Access to expert advice from the Danish Technological Institute
- Access to testing facilities
- Handpicked Advisory Board with the best people from the industry
- Advice on your business plan and strategy
- Access to Odense Robotics network of companies and potential partners
- Access to investor capital



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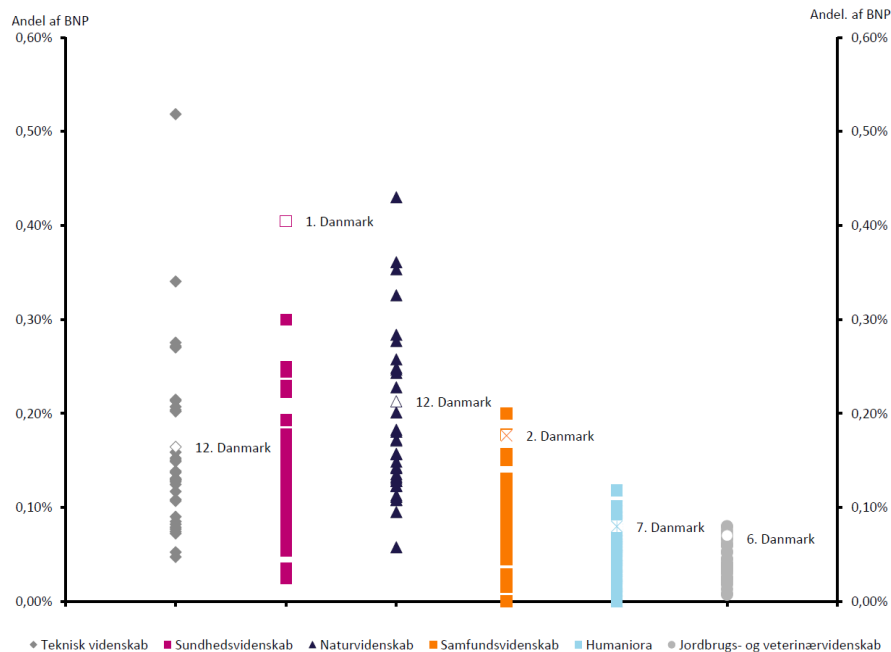


POWERED BY DEVELOPING FYN



# Danmark er på en 12. plads inden for offentlige investeringer i teknisk forskning

Offentlige FoU-investeringer fordelt på hovedområder som andel af BNP i pct.



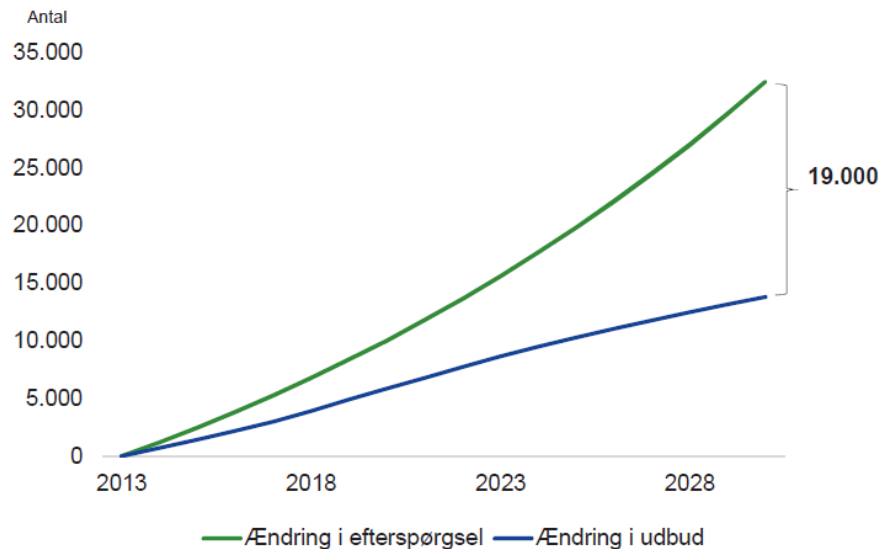
# Forventet mangel på 19.000 It-specialister i 2030



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## Fremskrivning af ændring i udbud og efterspørgsel af IT-specialister



27 pct. af de virksomheder, som i 2015 har forsøgt at rekruttere en IT-specialist, siger at forsøget var forgæves.

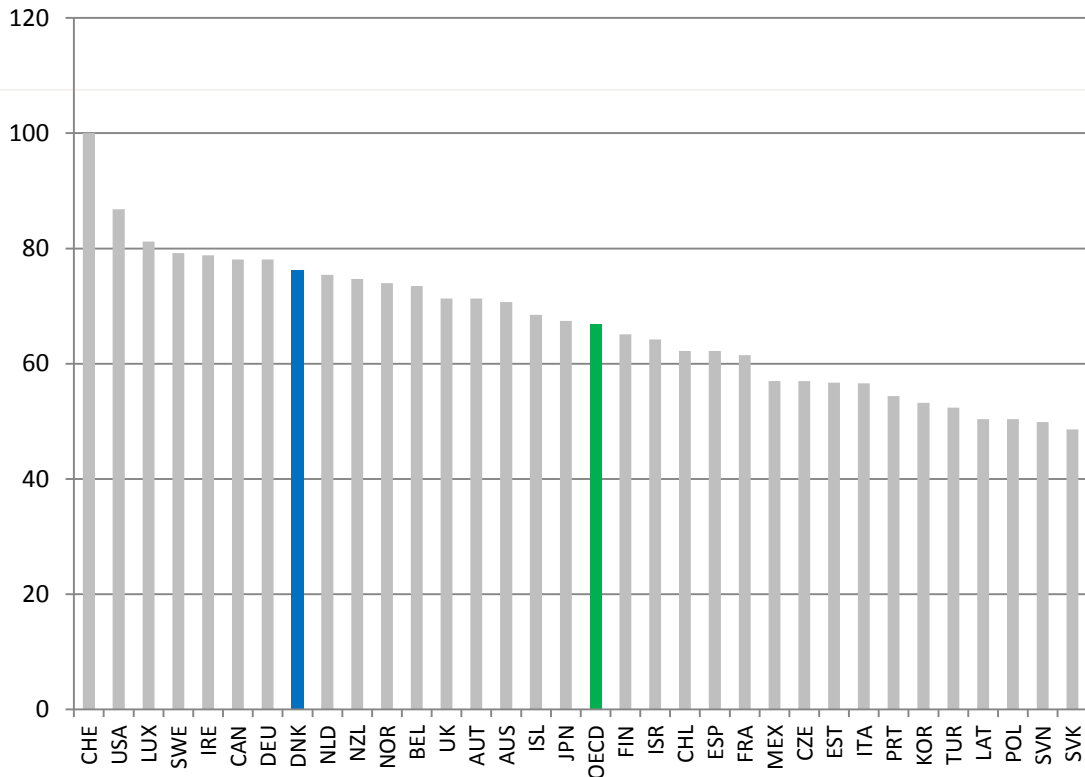
Dette mismatch mellem udbud og efterspørgsel forventes at stige, så der i 2030 vil være en mangel på 19.000 yderligere IT-specialister.

**Anm.:** I fremskrivningen er antaget, at den fremtidige efterspørgsel følger udviklingen i beskæftigelsen for IT-specialister i 2011-2013 (grundscenariet). Den gennemsnitlige årlige vækst i scenariet er 2,2 pct. Fremskrivningen viser også, at den udækkede efterspørgsel i grundscenariet stort set kan dækkes, hvis alle IT-uddannede fremadrettet får et IT-specialistjob, eller hvis samme andel af IT-specialistjobbene som i dag fremadrettet kan besættes af personer uden en IT-uddannelse. Det er usikkert, om disse udviklinger kan realiseres. For flere scenarieudregninger henvises til Højbjerg Brauer Schultz for Erhvervsstyrelsen mfl. (2016).

Kilde: Højbjerg Brauer Schultz (2016)

# Andre lande appellere mere til udenlandske talenter

Danmarks placering på IMD World Talent Ranking, 'Appeal' indekset, 2016



Danmark halter lidt efter de bedste lande, når det handler om at appellere til udenlandske talenter. Vi er dog næsten på niveau med de andre nordiske lande.

Danmark er dog samlet nr. 2 på IMD's World Talent Ranking 2016. Det skyldes, at Danmark udmærker sig særligt ved at et højt offentligt forbrug på uddannelse, og at vi er relativt gode til at dyrke vores egne talenter

**Kilde:** IMD World Talent Ranking

Note: The IMD World Talent Ranking 2016, Appeal index, shows the overall ranking for OECD economies. (0-100 index) The economies are ranked from the most to the least competitive. The scores are the sum of ten factors: 1) Cost-of-living, 2) Attracting and retaining talents is a priority in companies, 3) Worker motivation, 4) Does Brain Drain have an impact in the country, 5) Quality of life, 6) Are foreign high-skilled people attracted to countries business environment, 7) Gross-annual income, 8) Total salary including bonuses and long term incentives, 9) Effective personal income tax rate, 10) Personal security and private property rights

# Behov for digital talent vs. organisationens evne til at tiltrække talent

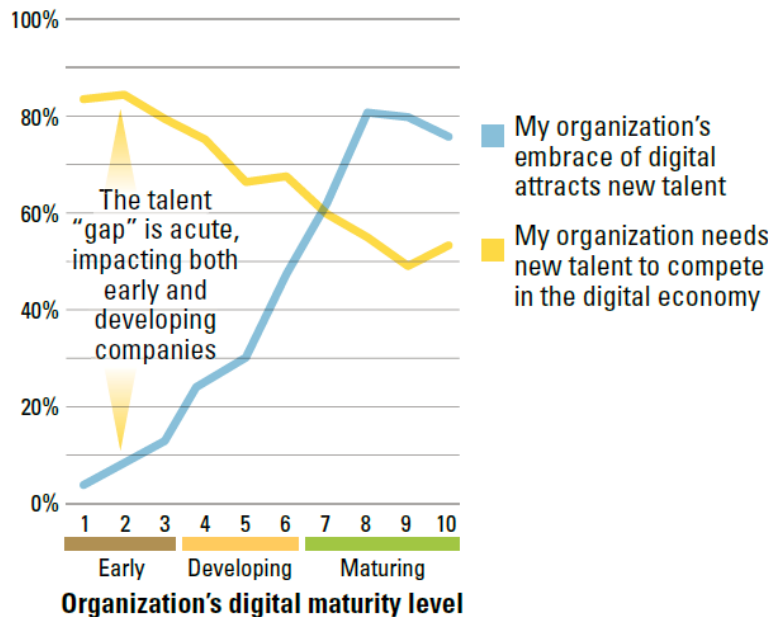


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## Talent Needs vs. Ability to Attract

MIT SLOAN MANAGEMENT REVIEW

Percentage of respondents

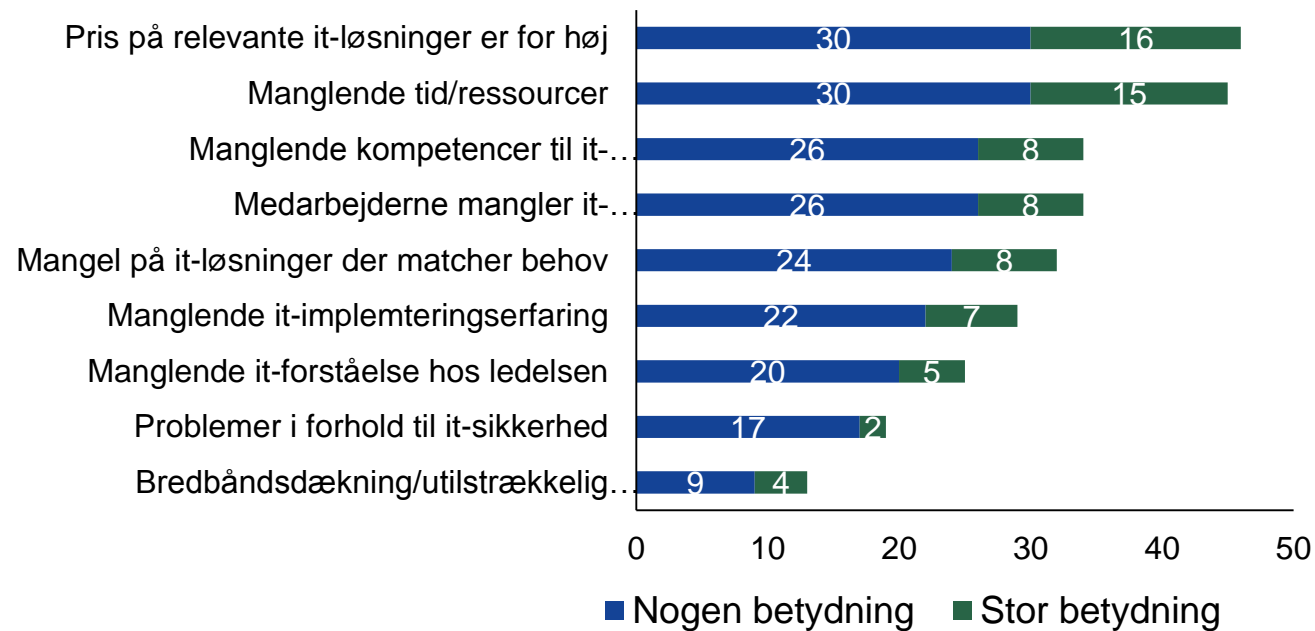


G. C. Kane, D. Palmer, A. N. Phillips, D. Kiron and N. Buckley, "Aligning the Organization for its Digital Future" *MIT Sloan Management Review* and Deloitte University Press, July 2016.



# Barrierer for IT-investeringer

Barrierer for investeringer i IT, 2015



Kilde: Danmarks Statistik (2015)

# Tak, spørsmål?



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