

Siemens samarbejde med universiteter

SIEMENS

Christiansborg

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John Finnich Pedersen



Sectors and Divisions as of October 1, 2011

Energy

Divisions

- Fossil Power Generation
- Wind Power
- Solar & Hydro
- Oil & Gas
- Energy Service
- Power Transmission



Healthcare

Divisions

- Imaging & Therapy Systems
- Clinical Products
- Diagnostics
- Customer Solutions



Industry

Divisions

- Industry Automation
- Drive Technologies
- Customer Services



Infrastructure & Cities

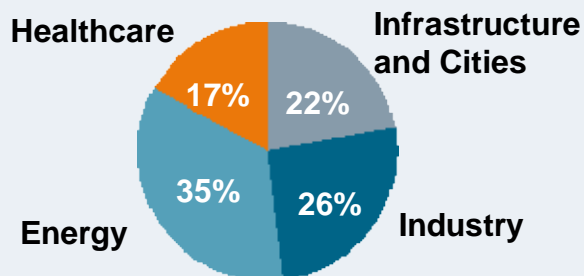
Divisions

- Rail Systems
- Mobility and Logistics
- Low and Medium Voltage
- Smart Grid
- Building Technologies
- OSRAM¹⁾

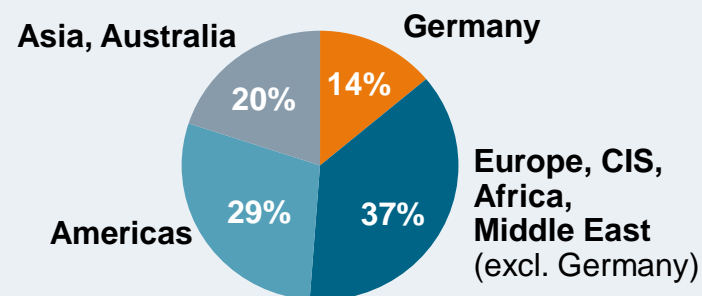


1) In fiscal 2011, Siemens announced its intention to publicly list OSRAM and, as an anchor shareholder, to hold a minority stake in OSRAM AG over the long term

Revenue by Sector

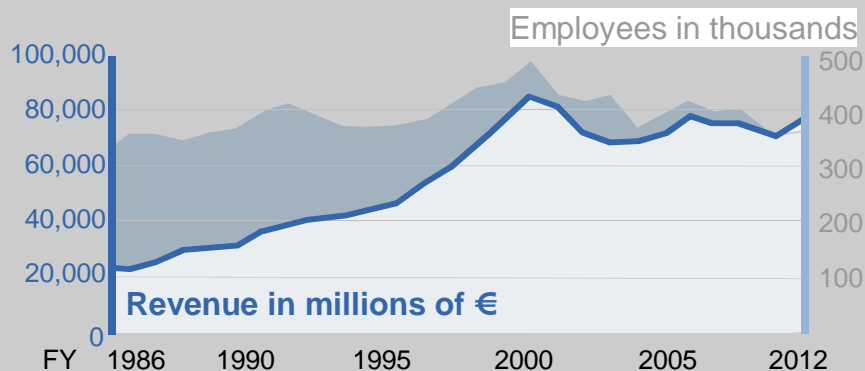


Revenue by Region



Based on customer location

Revenue and employees



As reported in annual reports

Continuing operations – comparison with previous year

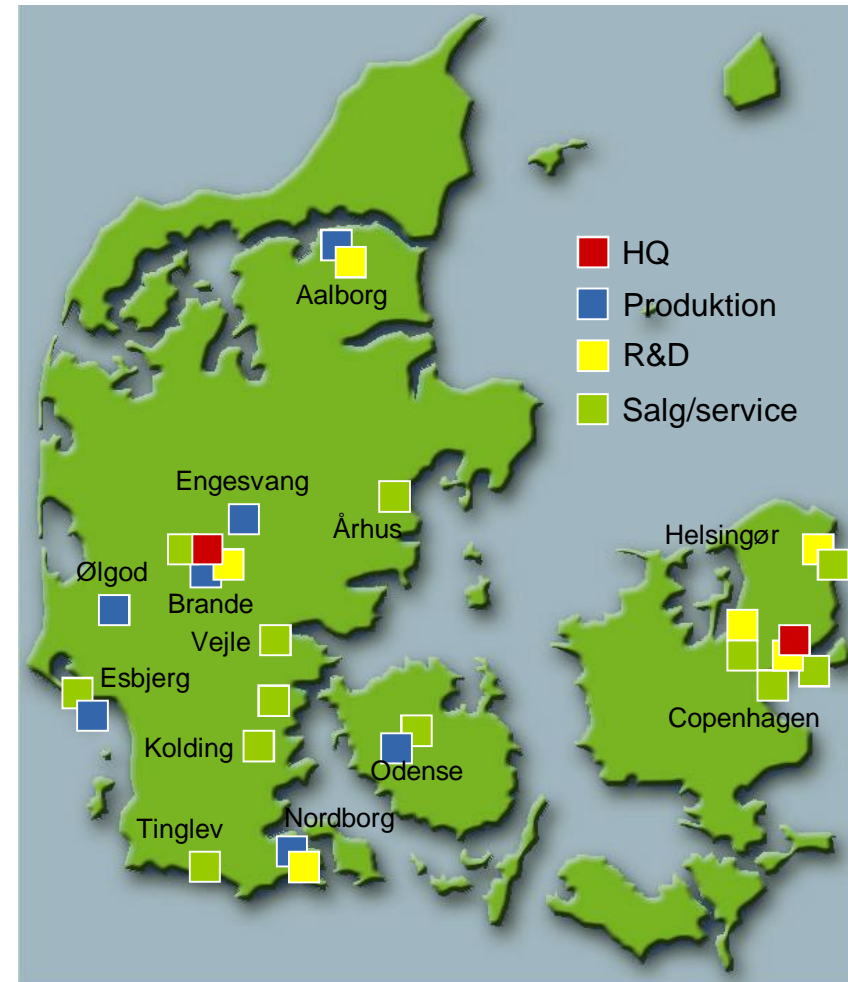
in millions of €	FY 2011	FY 2012
New orders	85,166	76,913
Revenue	73,275	78,296
Income	7,376	5,184
Free cash flow	5,918	4,790
Employees	359,000	370,000

Siemens i Danmark

En del af det danske samfund siden 1893

SIEMENS

- **Etableret** i 1893
- **Ansatte:** ca. 6.800
 - Heraf 1.200 ingeniører i R&D
- **Omsætning i 2012:** DKK 24,8 mia.
- **Eksport:** DKK 19,2 mia.
- **Investeringer:** > DKK 6,5 mia. siden 2003
- **Indkøb i 2012:** DKK 12,9 mia. fra danske underleverandører
- Siemens har både **R&D og produktion** i Danmark (Wind Power, Flow Instruments, Høreapparater)
- Strategisk samarbejde med **universiteter og forskningsmiljøer** i Danmark

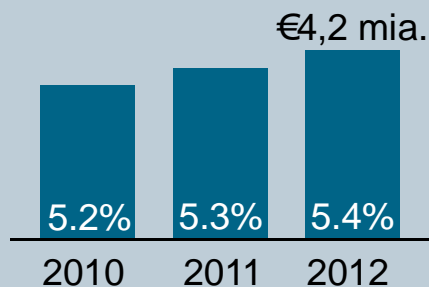


Svaret på fremtiden: Innovation skabt af dygtige medarbejdere

Ansatte i R&D:

- 29.500 på verdensplan
- Ca. 17.500 software ingeniører
- Omkring 190 R&D lokationer i 30 lande

R&D udgifter i % af omsætningen



Inventors of the year 2012



Vores patent position (2012)

Tyskland:	Nr. 3
Europa:	Nr. 1
USA:	Nr. 10

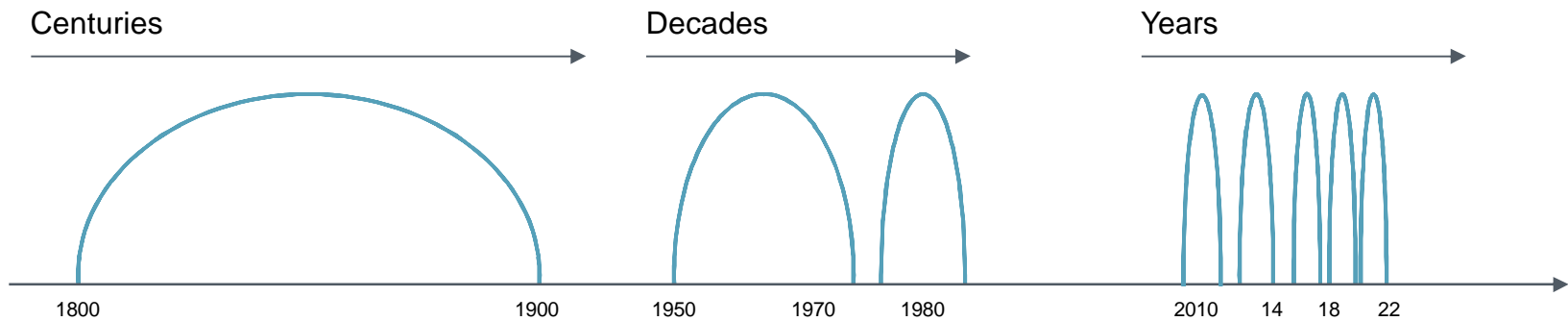
- 57.300 patenter
- Heraf 20.200 "grønne patenter" til at sikre vores miljøportefølje
- 9.000 opfindelser i FY 2012

Partnerskaber:

- Mere end 1.000 nye partnerskaber med universiteter og forskningsinstitutioner per år

Data og viden eksploderer

Doubling of knowledge in shorter cycles

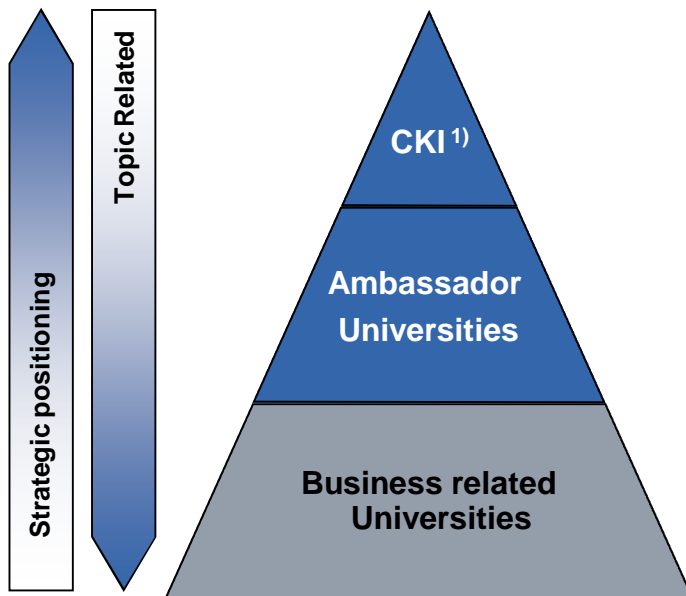


Virtual global Networks & Communities



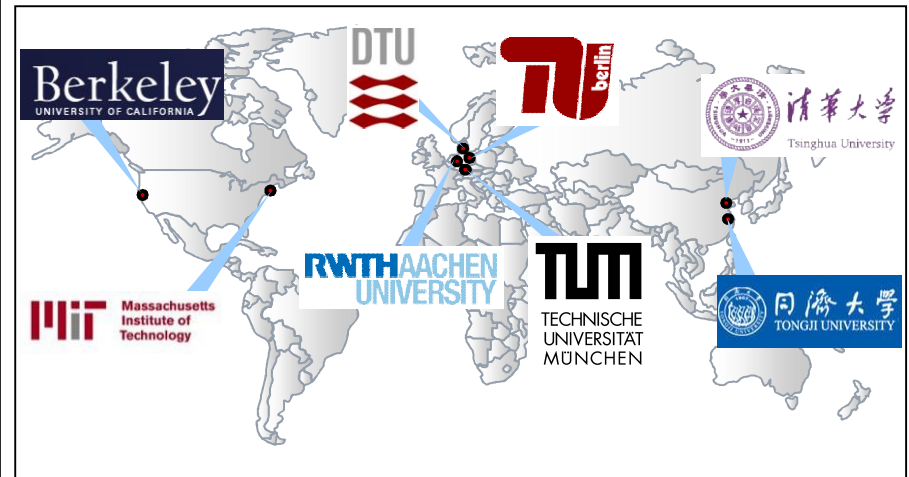
Siemens Strategic University Programs

University cooperation: tiered approach



¹⁾ CKI: Center of Knowledge Interchange

Siemens' strategic universities: partners and mission



- **Research:** Siemens as global benchmark in technology transfer from academia
- **Recruiting:** Siemens becoming the employer of choice with a strong employer branding

CKI collaboration: a long-term commitment and partnership



CKI

Center
of Knowledge
Interchange

- **Scope**
 - Long-term institutional partnership for **strategic research and recruiting**
- **Criteria**
 - **Leadership** in at least 2 **research areas** relevant for Siemens
 - Broad and **excellent infrastructure and professors**
 - Top university for **talent acquisition**
 - **International research reputation**
 - High status in international rankings
 - Proximity to relevant markets for Siemens
 - Access to regional / national funding programs
 - Strong political and academic network
- **Governance**
 - **Senior Siemens Executive** as liaison champion
 - **Joint CKI Steering Committee** to oversee the collaboration, select projects, guide and monitor project progress
 - Dedicated **CKI Manager** as Siemens account manager on campus
- **Collaboration management**
 - Partnership based on a **CKI framework contract**
 - **Steering Committee** meets regularly
 - **Workshops** and **conferences** with faculty and Siemens researchers
- **Funding**
 - **CKI office** funded by Siemens (CT TIM EC UR)
 - Projects funded by Siemens Divisions or CT RTC

CKI collaboration: Offerings for Siemens R&D departments



Customized support for university collaboration and technology scouting at CKI universities via dedicated CKI Manager:

- CKI managers are the main contact for Siemens' research and recruiting requests
- Rapid inquiries on current research activities given a research topic / question
- Customized events
 - CKI conferences on a research topic
 - Arranged competence tours at universities
 - Technical expert workshops, with the possibility of involving several CKI universities
 - Involvement in technical conferences
- *Efficient contract negotiation due to existing master research agreements*

CKI Center of Knowledge Interchange	Siemens Cooperation with  TECHNISCHE UNIVERSITÄT MÜNCHEN
CKI Center of Knowledge Interchange	Siemens Cooperation with  RWTH AACHEN UNIVERSITY
CKI Center of Knowledge Interchange	Siemens Cooperation with  TU Berlin
CKI Center of Knowledge Interchange	Siemens Cooperation with  DTU Technical University of Denmark
CKI Center of Knowledge Interchange	Siemens Cooperation with  Tsinghua University
CKI Center of Knowledge Interchange	Siemens Cooperation with  MIT
CKI Center of Knowledge Interchange	Siemens Cooperation with  Massachusetts Institute of Technology
CKI Center of Knowledge Interchange	Siemens Cooperation with  Berkeley

Megatrends shape our future

Urbanization



- In 2009, for the first time in history, more people lived in cities than in rural areas
- Today 320 million people live in megacities (cities with populations greater than 10 million)
- In 2050, 70 % of the world's population will live in cities
- Urban agglomerations contribute a disproportionately high share of economic output: Tokyo generates 40% of Japan's GDP, Paris accounts for 30% of France's

Demographic change

- Average life expectancy continues to rise worldwide: from 48 years (1950), it has increased to 69 years (today)
- Every 2 seconds, the world population grows by one person. 7 billion people inhabited Earth in 2011 – by 2050, it will be 9.3 billion.
- The population of the least developed countries is expected to more than double, from 800 million today to 1.7 billion in 2050
- The 65+ generation will nearly triple from 550 million today to 1.5 billion in 2050



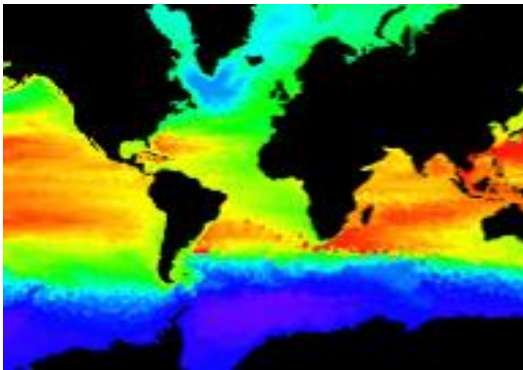
Hovedpunkter

- Højteknologifonden er den bedste katalysator for universitet – industri samarbejde/forskning
 - Ubureaukratisk
 - Spredning af viden
 - Kort tid til marked

- Vi må blive bedre til det juridiske! – husk at virksomhederne også bringer viden til universiteterne

Megatrends shape our future

Climate change



- Since the 19th century, the average global surface temperature has increased by 0.76°C
- The years from 2001 to 2010 are the warmest decade on record
- Greenhouse gas emissions have increased dramatically since the beginning of industrialization. Today we face the highest CO₂ concentration in the atmosphere in 350,000 years

Globalization

- Between 1990 and 2009, global trade volume more than doubled
- The number of multinational companies skyrocketed from about 10,000 in 1969 to 82,100 in 2008
- If present trends continue, the emerging markets will account for two thirds of the world's economic output in 2030
- While the volume of trade with natural resources has remained nearly constant over the last decade, prices of natural resources have increased an average of 20% annually

