



# **Career paths in the energy sector in transition**

Some glimpses from my experience



# About myself

## Ambra Sannino



M.Sc. Electrical Engineering, 1997  
Ph.D. Power Systems, 2000



2001-2004: Post-doc > Assistant  
Professor > Associate Professor



2004 – 2018:  
Corporate R&D: Project Manager > Team Manager  
R&D / Technology Manager, for FACTS, Substations,  
Product Manager for Power Quality Solutions



2019 – 2023:  
Business Director, Power System Analysis  
Head of Department Power Systems, Northern Europe

**VATTENFALL**



Since August 2023:  
Vice President,  
Research and Development



IEEE Senior Member  
Member since 1999



Cigré Member



Board member of  
Kraftkvinnorna  
and Power Circle



**POWER CIRCLE**  
*Electricity for sustainable energy*



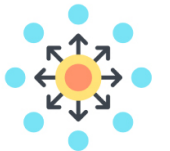
# The energy transition

## The 3 D's

- **Decarbonization** through **Electrification**
  - New generation → renewables
  - New load → electric vehicles, heat pumps, etc
- **Decentralization**
  - Distributed generation (rooftop PV), storage and flexibility
  - From consumer to **prosumer**
- **Digitalization**
  - Higher volatility, higher complexity, “more events with less time to react”\*
  - Decisions to be taken automatically



Decarbonization



Decentralization



Digitization

*\*cit. Sonja Berlijn*

# The energy transition

## ... the 4<sup>th</sup> D is... Diversity



It is a global challenge



Time is running out!



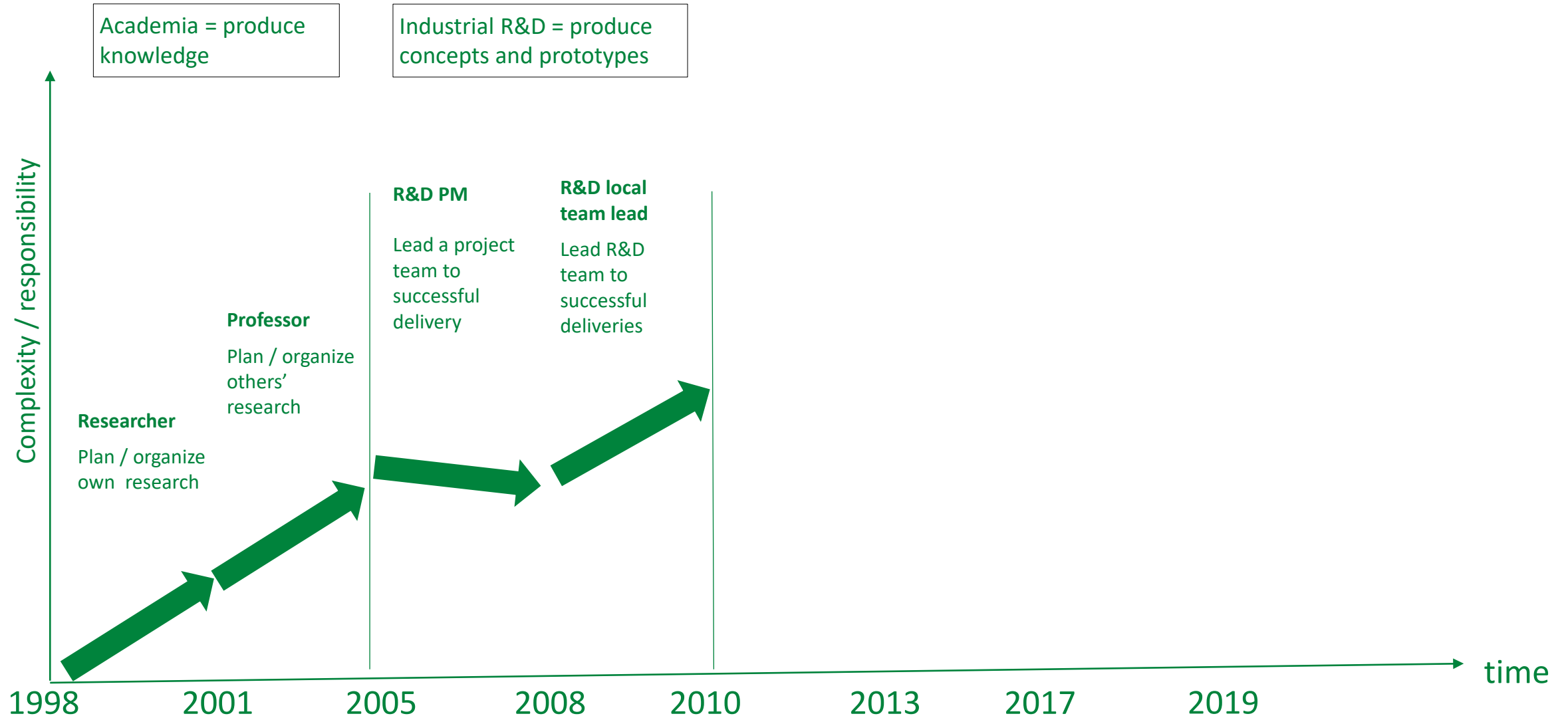
A successful energy transition needs to be:  
**interdisciplinary, global, equal**

#1 reason: You must understand your customer!

#2 reason: We need MANY more engineers!

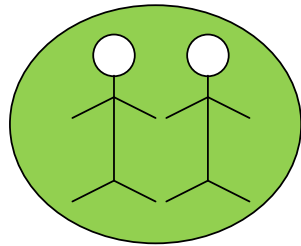


# Evolution



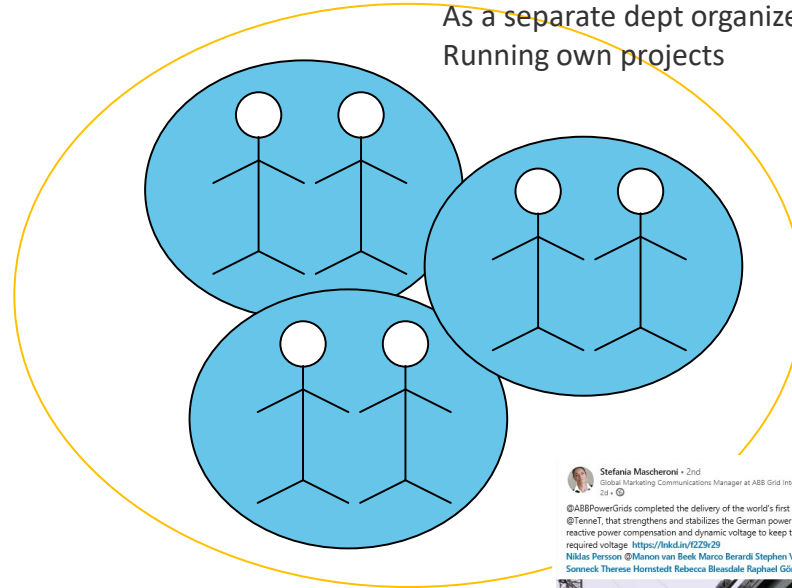
# ABB business units

FACTS R&D team



Small R&D team in SE  
From 5 to 10 people  
Part of Engineering  
Counterpart for CRC and Uni

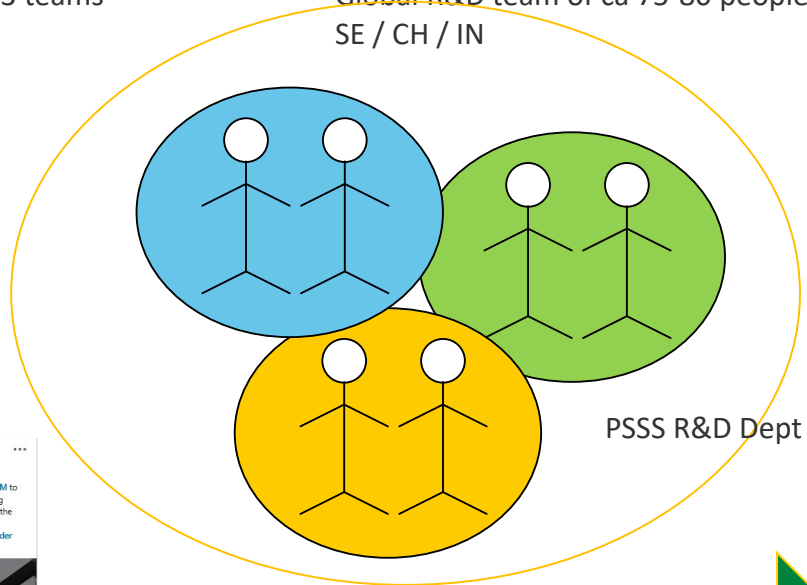
FACTS R&D Dept



Building up R&D dept, 10 >> 30 people in SE  
As a separate dept organized in 3 teams  
Running own projects

Stefania Mascheroni • 2nd  
Global Marketing Communications Manager at ABB Grid Integration  
2d • 0  
@ABBPowerGrids completed the delivery of the world's first hybrid #STATCOM to @TenneT, that strengthens and stabilizes the German power grid by providing reactive power compensation and dynamic voltage to keep the grid stable at the required voltage. <https://lnkd.in/g/Z29v29>  
Niklas Persson @Manon van Beek Marco Berardi Stephen Valentino Alexander Sornieck Therese Hornstedt Rebecca Bleusdale Raphael Glöner

Integrating unit from other division / country  
Global R&D team of ca 75-80 people  
SE / CH / IN



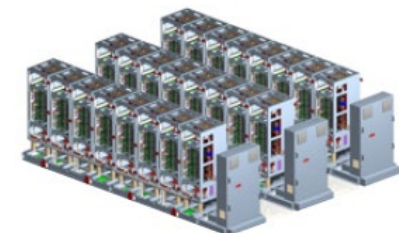
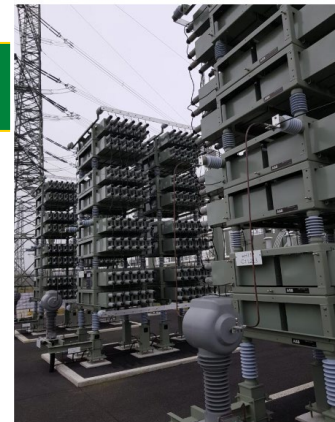
PSSS R&D Dept

2009

2012

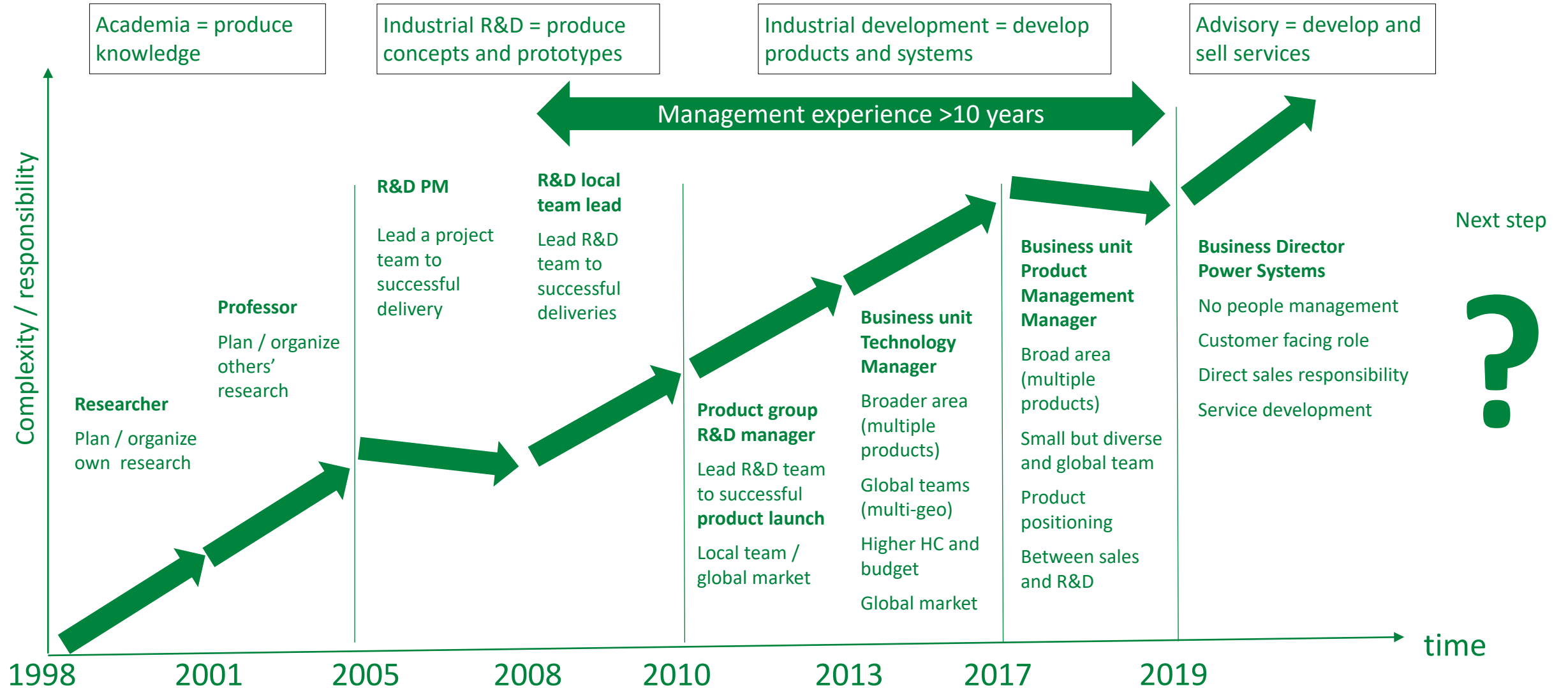
2014

2016





# Evolution



# Reflections & Recommendations

## A highly personal, non-exhaustive list (1)

- Moving around to accumulate experience, get new challenges is easier in big organizations. Lower threshold to test something new.
- Important to have a manager that gives you new challenges...
- Career is not only management!
  - Today there are structured career paths with advancements in project management and specialist tracks too!



# Reflections & Recommendations

## A highly personal, non-exhaustive list (2)

- Is it always bad to be different? “Who remembers Lars?”\*
- Get a mentor – and remember it is a 2-way relationship
- Know your worth
  - Dare to use a negotiation position (still being realistic of course!)
- **APPLY FOR JOBS!** You do not need to fulfil ALL requirements 100%
  - Get experience in writing a CV, doing interviews, ...
  - Show what you go for! In worst case... you raise your hand for the next time

*\*cit. Lars Nordström, KTH*

# AOB

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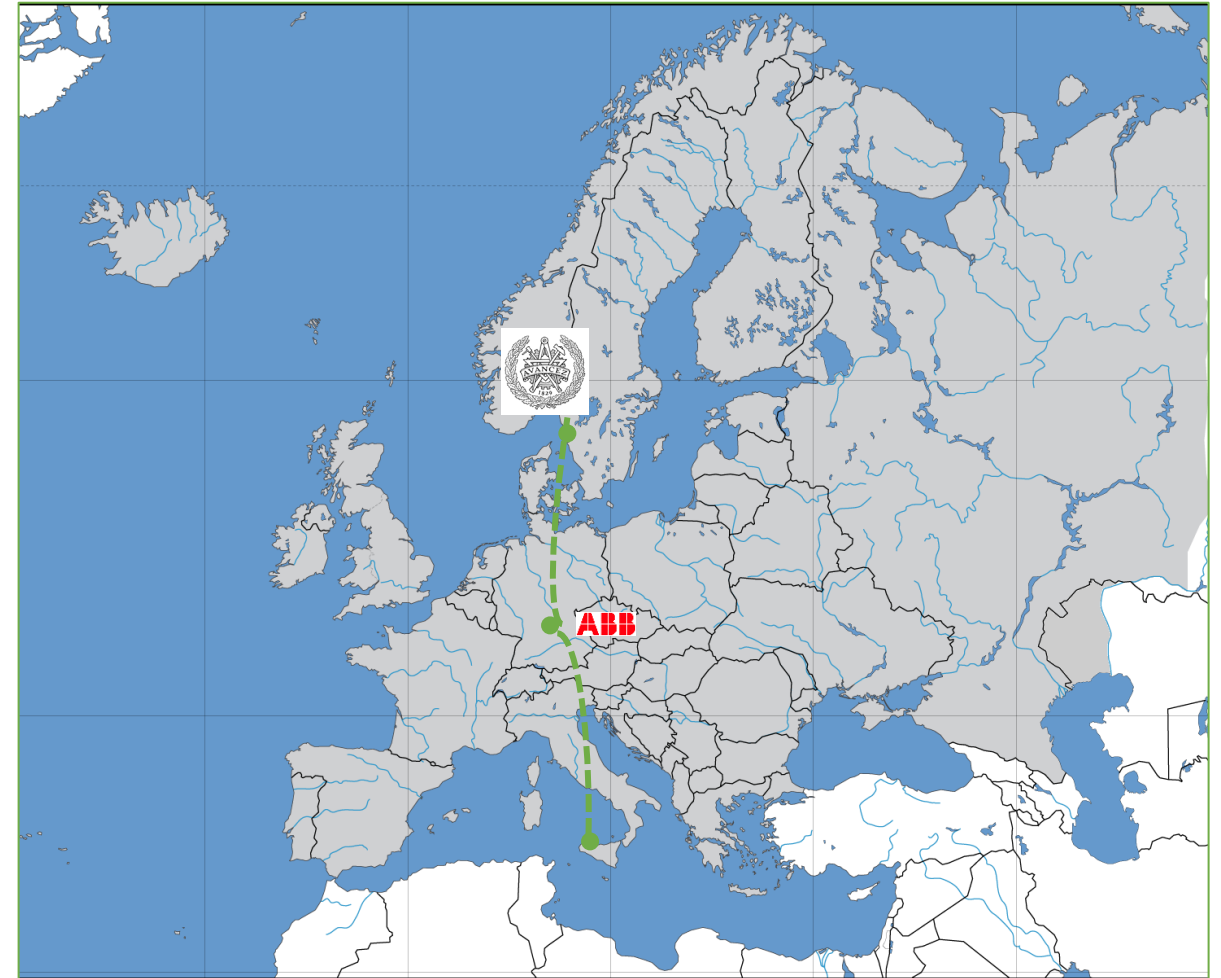
## Any Questions?

# Early days

## My academic experience

- M.Sc. and Ph.D. in Power Engineering to go for academic career
- Intern at ABB Corporate Research (DE)
- Research visit at Chalmers, 10 wks (!)
- Post-doc at Chalmers, 2001-2003
- “Docent” (D.Sc.) in Dec 2003, topic “Sustainable Power Systems”
  - + teaching and exchange with the students
  - - internal politics / “primadonnas”

Academia: “product” is papers/knowledge/students



# Early days

- in between a University and the “real ABB” (Cit.G.Asplund)
- Researcher / Project Manager
- Highlight: Vindforsk project
- From Feb 2008: first manager position for the newly formed Electric Power Systems group
  - Manager of my former colleagues
  - Of course, I was the only woman (...)
- What is special with CRC:
- Working with different Business Units in ABB gives a fantastic overview and contact network
- Developing technology / prototypes that are handed over to BUs to become products / systems

The “product” is prototypes and reports

## Cable system lab for wind park studies

