

# **Doctorats Internacionals Conjunts**

## **Oportunitats i bones pràctiques en el context actual**

**Noves oportunitats en el nou Horitzo**

# **Doctorats Internacionals Conjunts**

## **Perspectiva Europea**

Dr.-Ing.Martin Morgeneyer

# Martin Morgeneuer



- '07 Université de Technologie de Compiègne
  - ECIU committee 'education'
  - Lectures and research in process engineering
  - VP international



- '00 Technische Universität Braunschweig
  - Managing director of the Engineering Faculty
  - Erasmus local coordinator and Doctorate



- '99 Unilever Warrington
  - Trainee



- '98 Universidad de Zaragoza
  - Diploma thesis



- '97 Université de Technologie de Compiègne
  - Erasmus



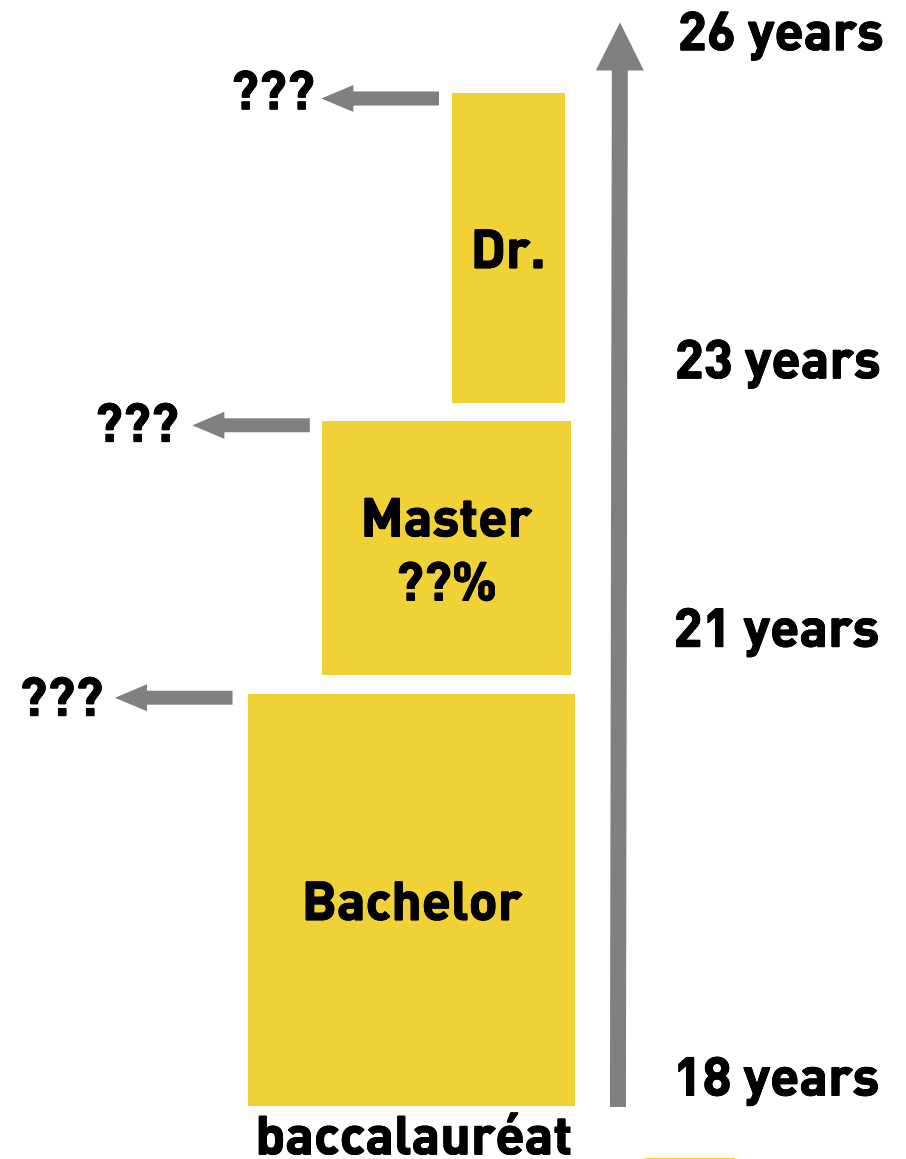
- '94 Technische Universität Braunschweig
  - Theoretical Mechanics (Engineering)

# Doctorats Internacionals Conjunts

## les perspectives alemanya i francesa

## French perspective

The year 2013 AD. Europe is entirely applying the so-called Bologna model in higher education. Well not entirely. One small group, the Gaul engineers, are still applying the traditional 2+3 model of engineering education. And life is not easy for those who want to internationalize the curriculum or to valorize the PhD, be them from Lutetia, Bruxellis,...



## French perspective

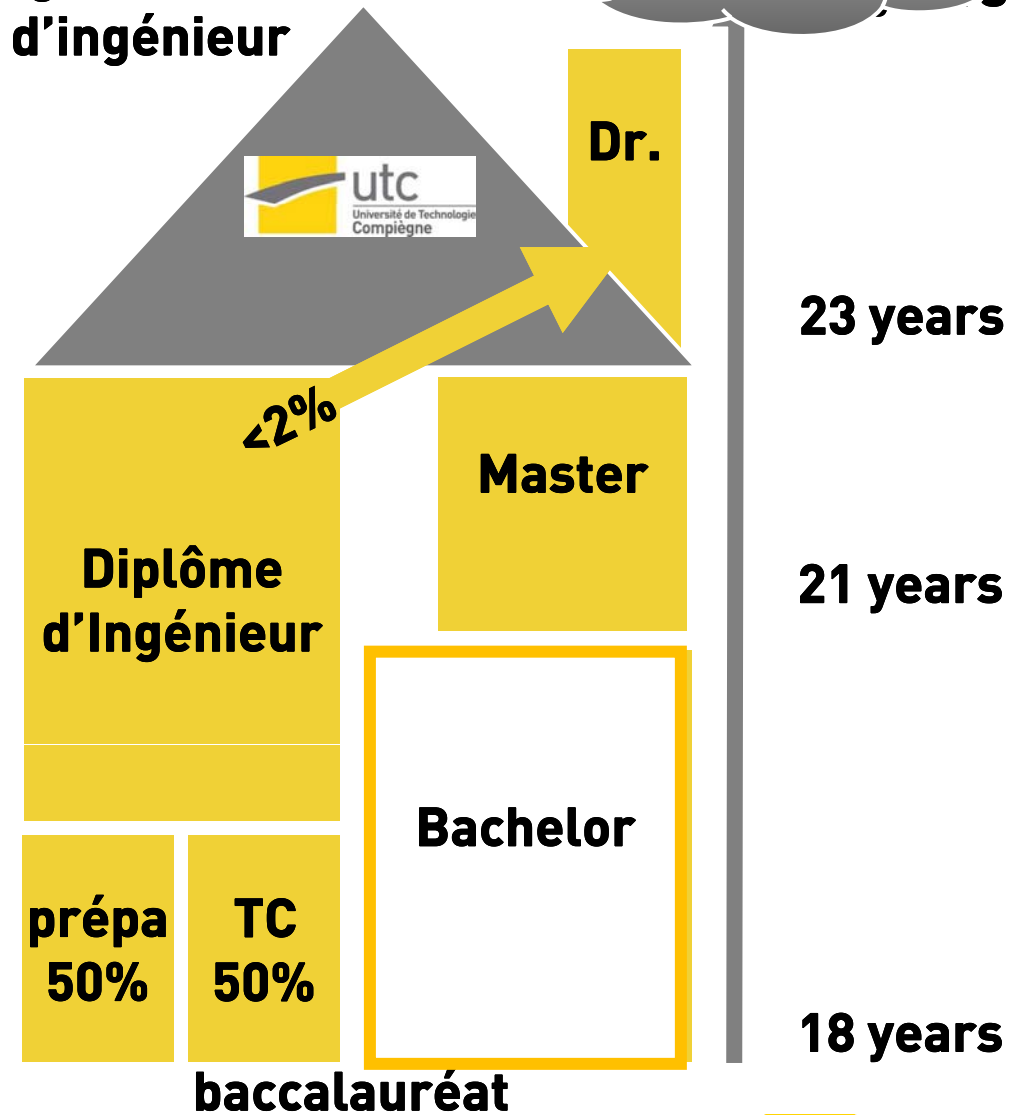
How to valorize the doctorate for engineers?

- “High prestige of ‘Diplôme d’Ingénieur’ cannot be bettered.”
  - “Doctorate leads to ivory towers – i.e. universities and public research.”
  - Recognized also as professional experience by law (22/07/13)
  - Curricula ‘competences for the enterprise’ by Cdefi (6/11/13) or ‘valorization of doctoral experience in the enterprise (EDEN) by ABG.
- Industry pathways
- Internationalization

(grande) école  
d’ingénieur

univ

~1/2 in public functions



ECIU

ECIU local coordinator  
Martin Morgeneyer

25/11/13

Université de Technologie Compiègne

utc  
International

**Noves oportunitats en el nou Horitzo**

# **Doctorats Internacionals Conjunts**

## **les perspectives alemanya i francesa**

# Why a doctorate in Germany?

- to get married
- to rent a flat
- to earn more
- for the career
- a matter of honor?

Vermietung Wohnungen » Ver

## Promovierter Betriebs Schwabing von Privat

Schwabing, Maxvorstadt, Vorzugsweise höhere Eta Betriebswirt in gt. Stellung Maxvorstadt oder angren Kind). Ideal wäre bspw. € wäre ein Keller sehr schön kosten. Interessierte Veri Kontaktdaten erreichen.

Preis: Verhandlung

## promovierter Mann sucht intelligente Sie

Vertrauen und Ehrlichkeit sind die Basis einer gt. Beziehung, genauso das Verhältnis. Ich m 38 / schlank / 180 cm will Dich!

Preis: FP

Standort: D-04277 Leipzig

# Erfolgsgrad – „Doktor“ Lohn

Zunächst die Fakten: Die Deutschen pl Studie liegt der Doktor-Anteil bei den ü Prozent, der Durchschnitt beträgt 1,0 F deutschen Top-Manager führen ein „Dr Kienbaum fanden heraus, dass Promo verdienen als Manager ohne Doktorwür Titel mit hohem Prestige verbunden. In Versicherungen, in der Unternehmenst Automobilbranche kann er die Karriere eine Promotion.

## Bauingenieur sucht eine Garconniere f

Art: Suche | Typ: Private Kleinanzeige

Inserat-ID: 8048 | bea

Ich, promovierter Bauingenieur, suche für meine 21jährige Tochter, die ab dem Wintersemester (1. Oktober 2009) an der Uni Wien studieren wird, sehr dringend eine Garconniere in Wien. Die Kleinwohnung sollte in den Bezirken 1-9 liegen und bis 500 € Gesamtmiete monatlich kosten.

### Ähnliche Ins

- ▶ Suche dring
- ▶ Singlewohnt
- ▶ Gesamtmiet
- ▶ schöne Garc
- ▶ Gepflegte 4k



Dr. Jürgen Hambrecht

Vorsitzender des Vorstands  
Legal, Taxes & Insurance; Strategic  
Planning & Controlling;  
Communications & Government  
Relations BASF Group; Global HR -  
Executive Management &  
Development; Investor Relations;  
Chief Compliance Officer  
» Mehr...



Dr. Kurt Bock

Finanzvorstand  
Catalysts; Market & Business  
Development North America;  
Regional Functions North America;  
Finance; Information Services;  
Corporate Controlling; Corporate  
Audit  
» Mehr...



Dr. Martin Bruder Müller

Performance Polymers;  
Polyurethanes; Styrenics; Market &  
Business Development Asia Pacific;  
Regional Functions & Country  
Management Asia Pacific  
» Mehr...



Dr. Hans-Ulrich Engel

Oil and Gas; Region Europe; Global  
Procurement & Logistics  
» Mehr...



Dr. John Feldmann

Construction Chemicals; Dispersions  
& Pigments; Care Chemicals; Paper  
Chemicals; Performance Chemicals;  
Polymer Research  
» Mehr...



Dr. Andreas Kreimeyer

Research Executive Director  
Inorganics; Petrochemicals;  
Intermediates; Chemicals Research &  
Engineering; BASF Future Business  
» Mehr...



Dr. Stefan Marciniowski

Crop Protection; Coatings; Special  
Chemicals Research; BASF Plant  
Science; Region South America  
» Mehr...

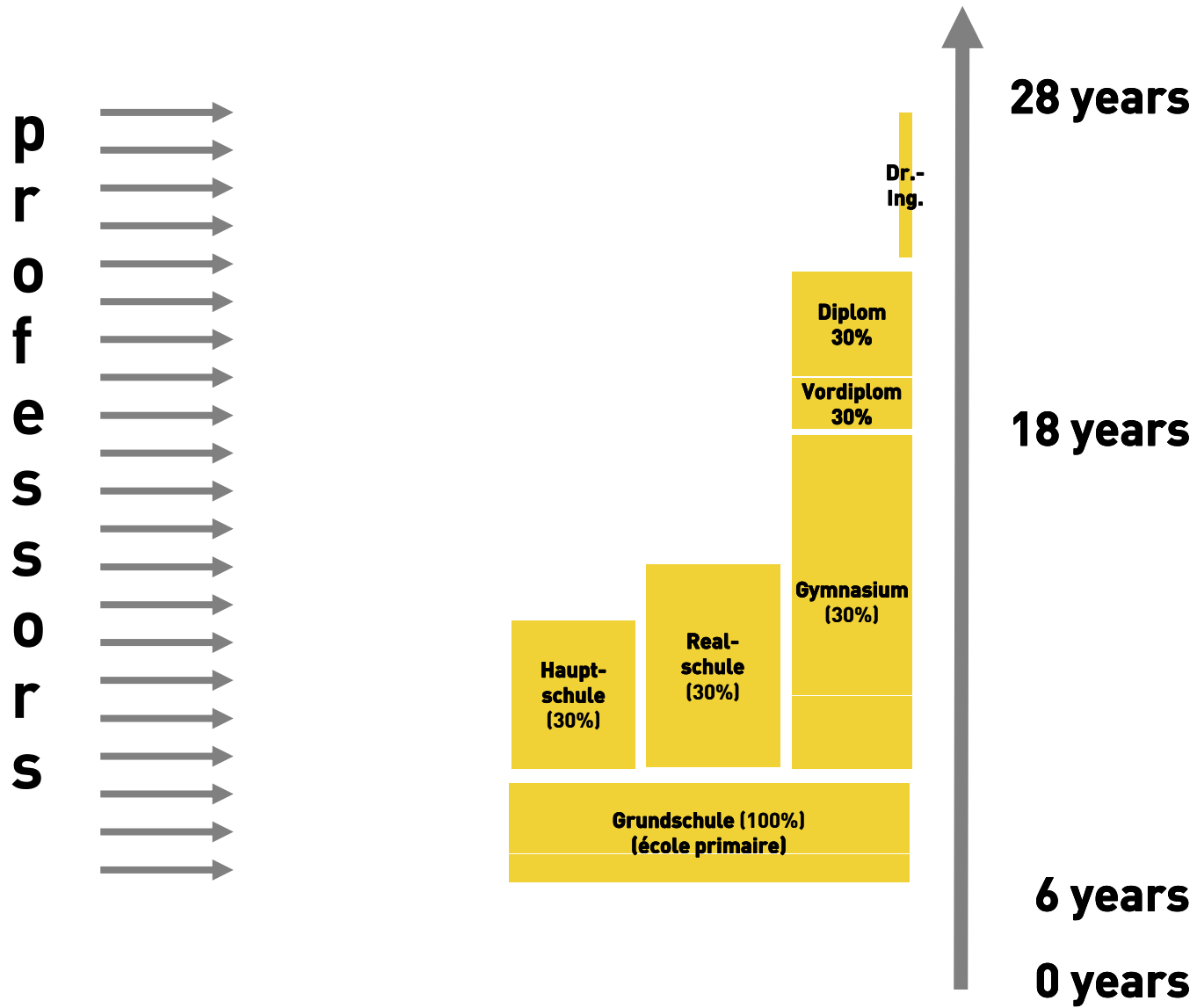
Das Bundeskabinett

**Angela Merkel (CDU)**  
Bundeskanzlerin

Angela Merkel ist seit dem 22. November 2005 Bundeskanzlerin der Bundesrepublik Deutschland. Zuvor war sie Vorsitzende der CDU/CSU-Fraktion im Deutschen Bundestag. Angela Merkel, 1954 geboren, ist promovierte Physikerin.



# The years to become Dr.-Ing.



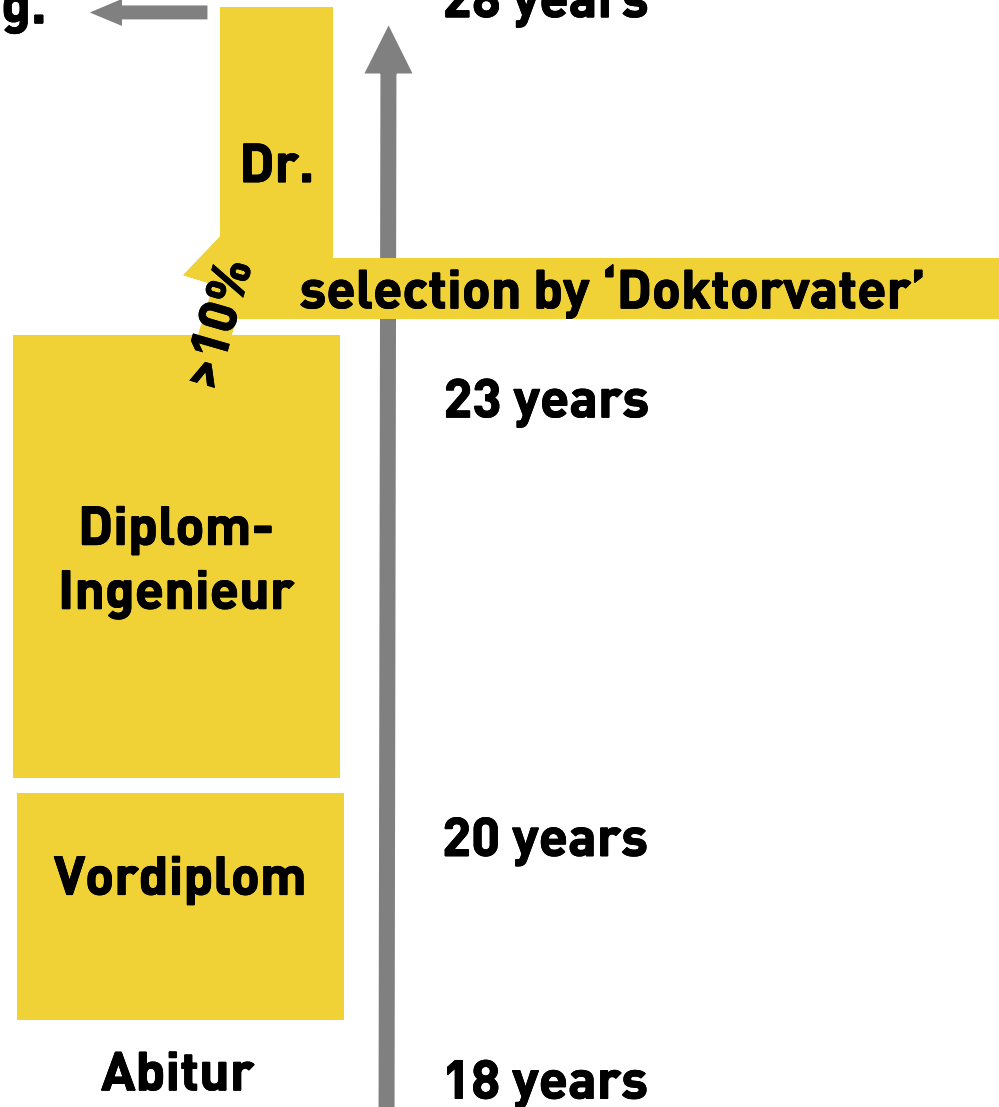
## >10% of engineers become Doktor-Ingenieur

'scientific co-worker'

- work tasks (amongst others) :
  - co-operation on various research projects
  - identification of a scientific topic
  - independent work on research project
  - teaching, supervision, ...
  - fundraising
  - tasks in research/institute administration
  - papers, conferences and thesis
- payment approx. 40.000 €/year (university/research institution)
- Dr.-Ing. degree after approx. 5 years

0,4% Dr.-Ing.

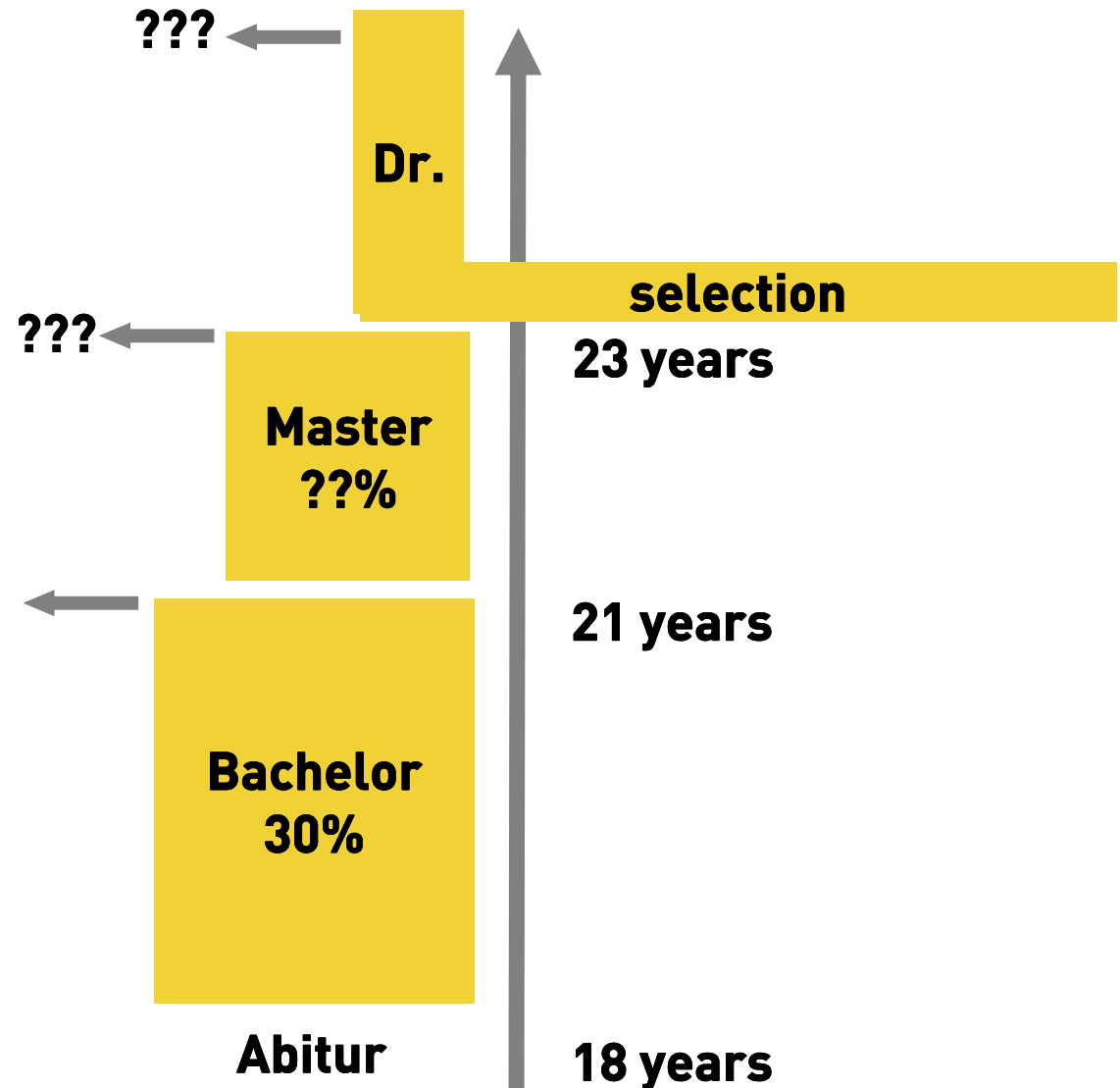
28 years



## Challenges to the 'traditional' Doktor-Ingenieur

### Challenges to the 'traditional' doctorate

- Length of doctoral education (up to five years in engineering)
- Dependence on professor/doctoral thesis supervisor (doctor-father)
- Problems filling open positions/lack of doctoral researchers
- Shortage of social skills among PhDs, as criticized by industry
- Legal requirements



## New for Germany: Graduate Schools

### Aims

- Shorter doctoral education
- Advanced support for outstanding PhD students
- Promotion of additional interdisciplinary knowledge and competencies

### Structure

- Often organized as interdisciplinary unit
- Special and specified PhD curriculum
- Mandatory attendance for PhD students

***Critics: A form of school and the end of independent and free research***

## Combination of well established doctorate in engineering and specific measures of personnel management

### Aims

- Combination of both systems (traditional & Graduate School-approach)
- Inclusion of innovative aspects of academic personnel development
- Offer of a compensation to the necessity of matriculation

### Structure

- Doctoral education in Braunschweig = independent scientific work and tasks at an institute (research/teaching/administration)
- +
- Further qualification and training of doctoral researchers to become managers, in demand from both industry and science

## Strukturiertes Doktorat: Key elements

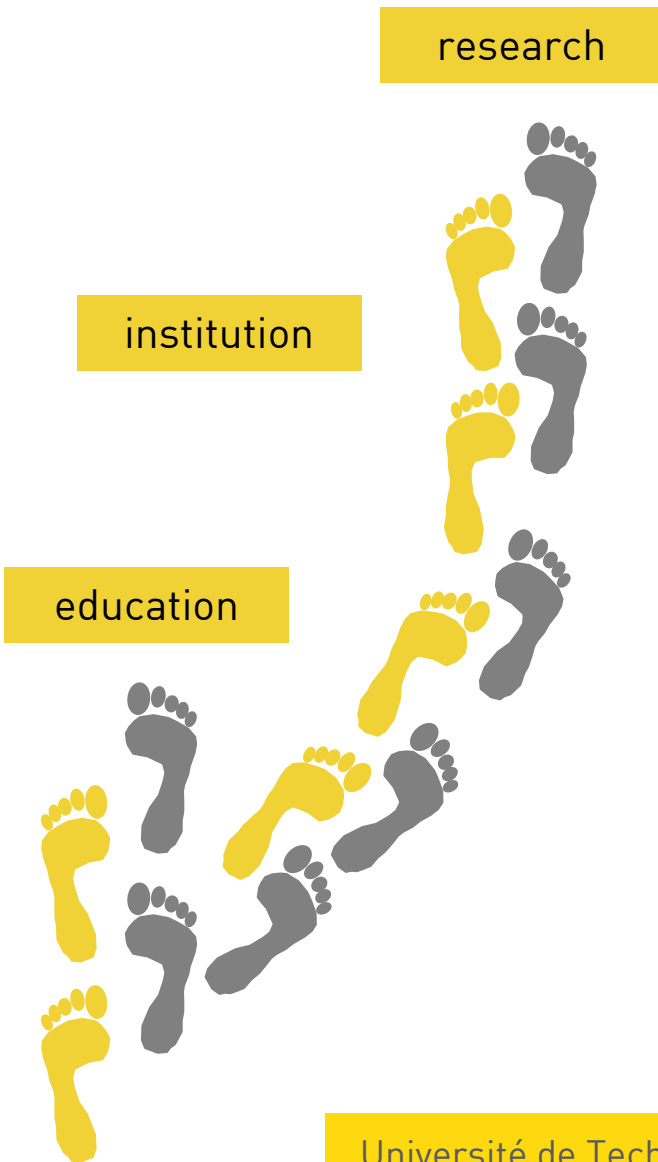
1. Written consent of supervision
2. Braunschweiger Betreuungskodex (Braunschweig Code of Supervision)
3. Additional Qualifications (2y training and coaching)
4. Track (catalogue) of activities
5. Annual personnel talk/appraisal
6. Senior Board
7. **Internationalisation: Institutional ingredients**
  - Excellent, open minded students
  - Excellent, available researchers
  - Efficient, problem solving administration
  - Attractive geographic environment
  - International, interpersonal relationships
  - High motivation, initiative, availability and loyalty of individual university members

## Internationalization of the Doctorate



### Internationalisation: Institutional ingredients

- Excellent, open minded students
- Excellent, available researchers
- Efficient, problem solving administration
- Attractive geographic environment
- International, interpersonal relationships
- High motivation, initiative, availability and loyalty of individual university members
- International vision, strategy and their long-term implementation
- ... and a department for international relations



- Often, internationalization of education and research happen independently.

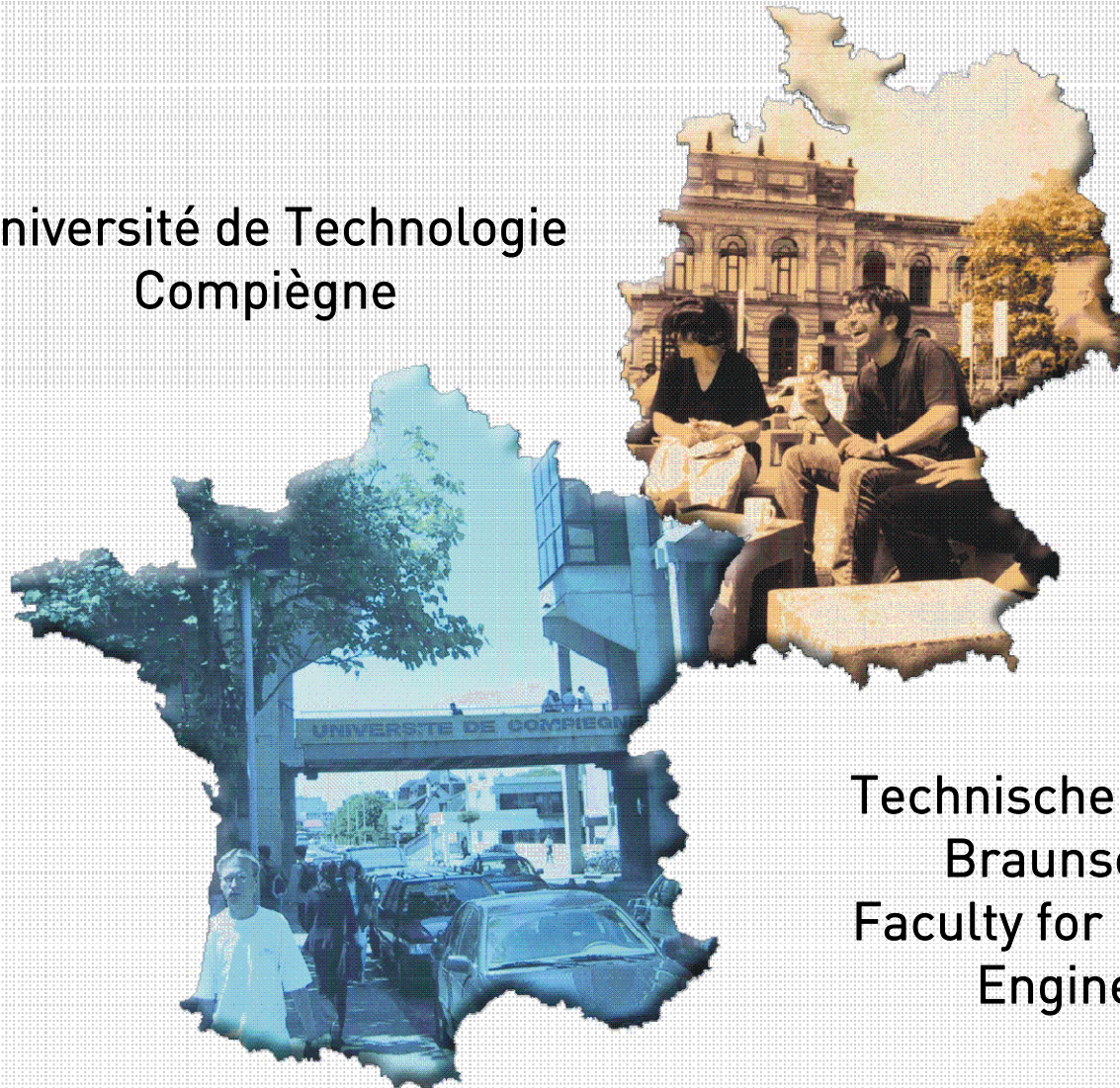
EDUCATION	RESEARCH
<ul style="list-style-type: none"><li>Centralized</li><li>Strategy</li><li>Institutional wish</li><li>Strong argument</li><li>“Top down”</li></ul>	<ul style="list-style-type: none"><li>Researcher</li><li>Opportunity</li><li>Individual wish</li><li>Still less selling</li><li>“Middle out”</li></ul>

- Doctorates are an internationalization opportunity in between research and education
- Approaches might need different tools, but may be done the same way:

by small steps



Université de Technologie  
Compiègne



Technische Universität  
Braunschweig,  
Faculty for Mechanical  
Engineering



# TIU BRAUNSCHWEIG

Fakultät für Maschinenbau



Erasmus Mundus in Mechatronics (project)

RESEARCH



German-Franco Doctoral School



Procopé-Program

3./4. International Summer School

(2. International Summer School)

1. International Summer School



(Triple Degree Program)



(Triple Degree Program)

(Binational Master in Mechatronics)



Dual Degree Program



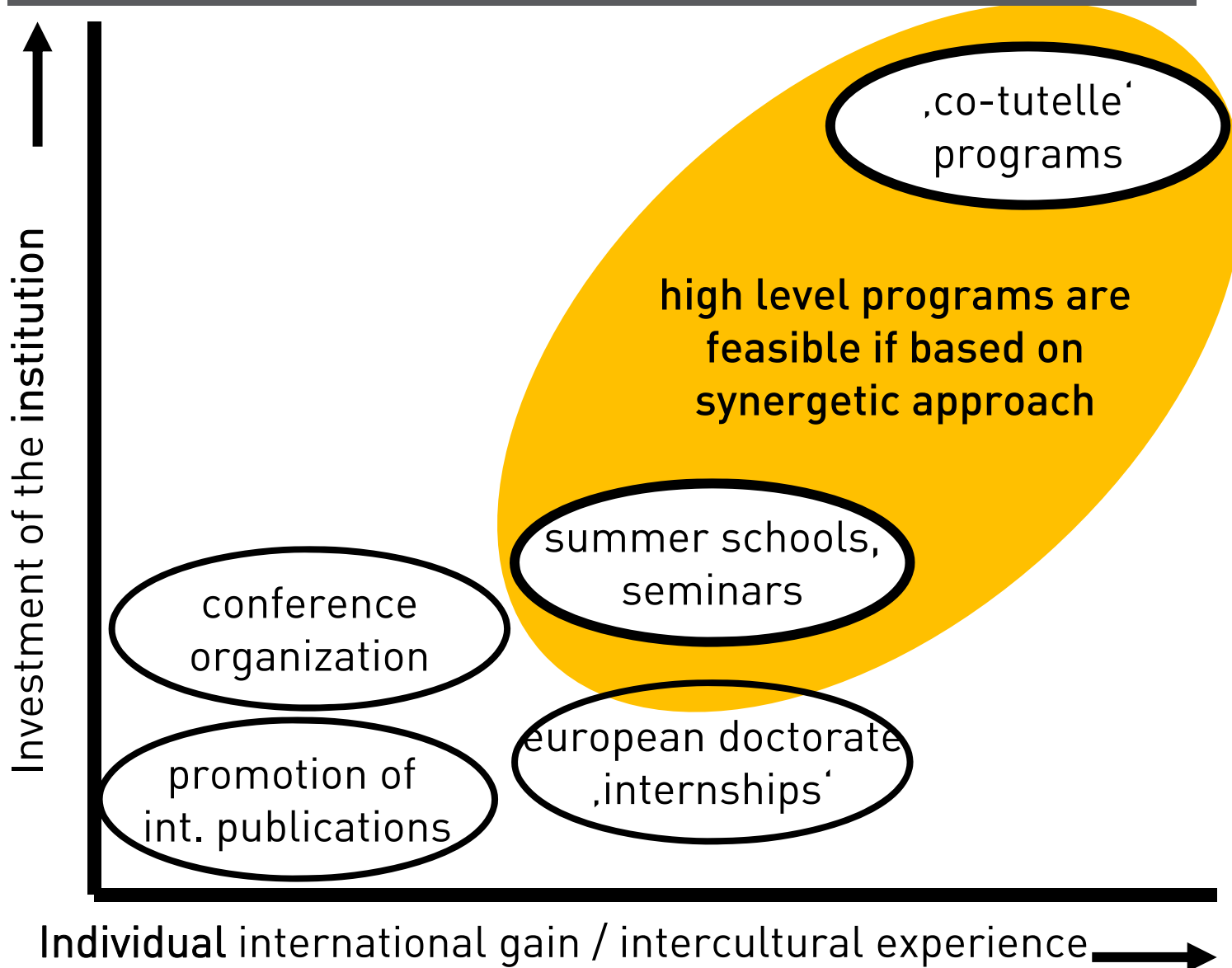
EDUCATION

1989

Socrates-Erasmus Pilot Project Partner



Université franco-allemande  
Deutsch-Französische Hochschule



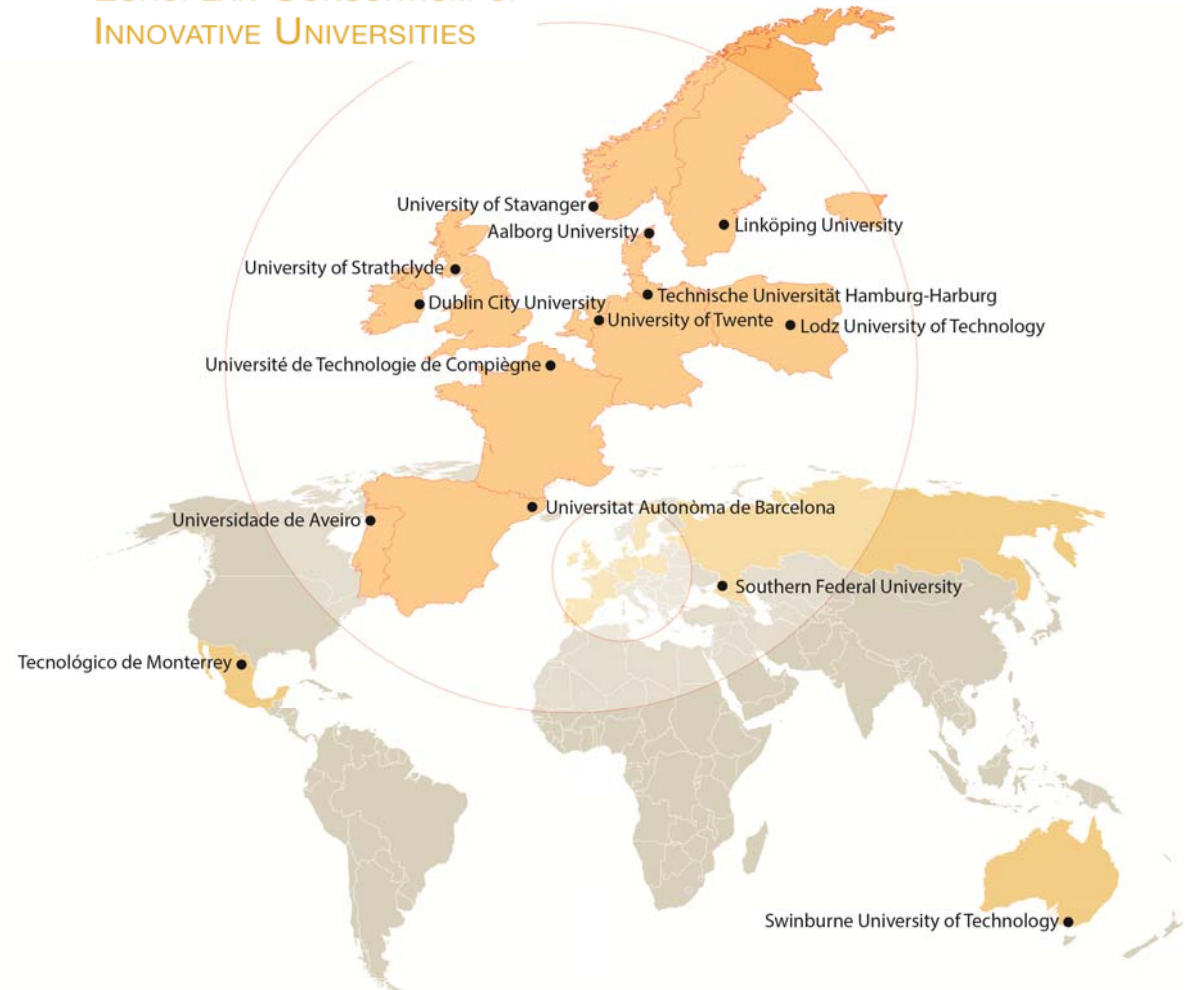
## CASE STUDY 2: European Consortium of Innovative Univs.

- Foundation in 1997
- 11 European Universities
- 3 non-EU associate Partners
- Committees
  - Education
  - Human Resource Development
  - Knowledge Triangle
  - EU Policy
- Working groups
  - Heads of Doctoral Schools
  - Network for HR managers
- Graduate School @UAB



# ECIU

EUROPEAN CONSORTIUM OF  
INNOVATIVE UNIVERSITIES



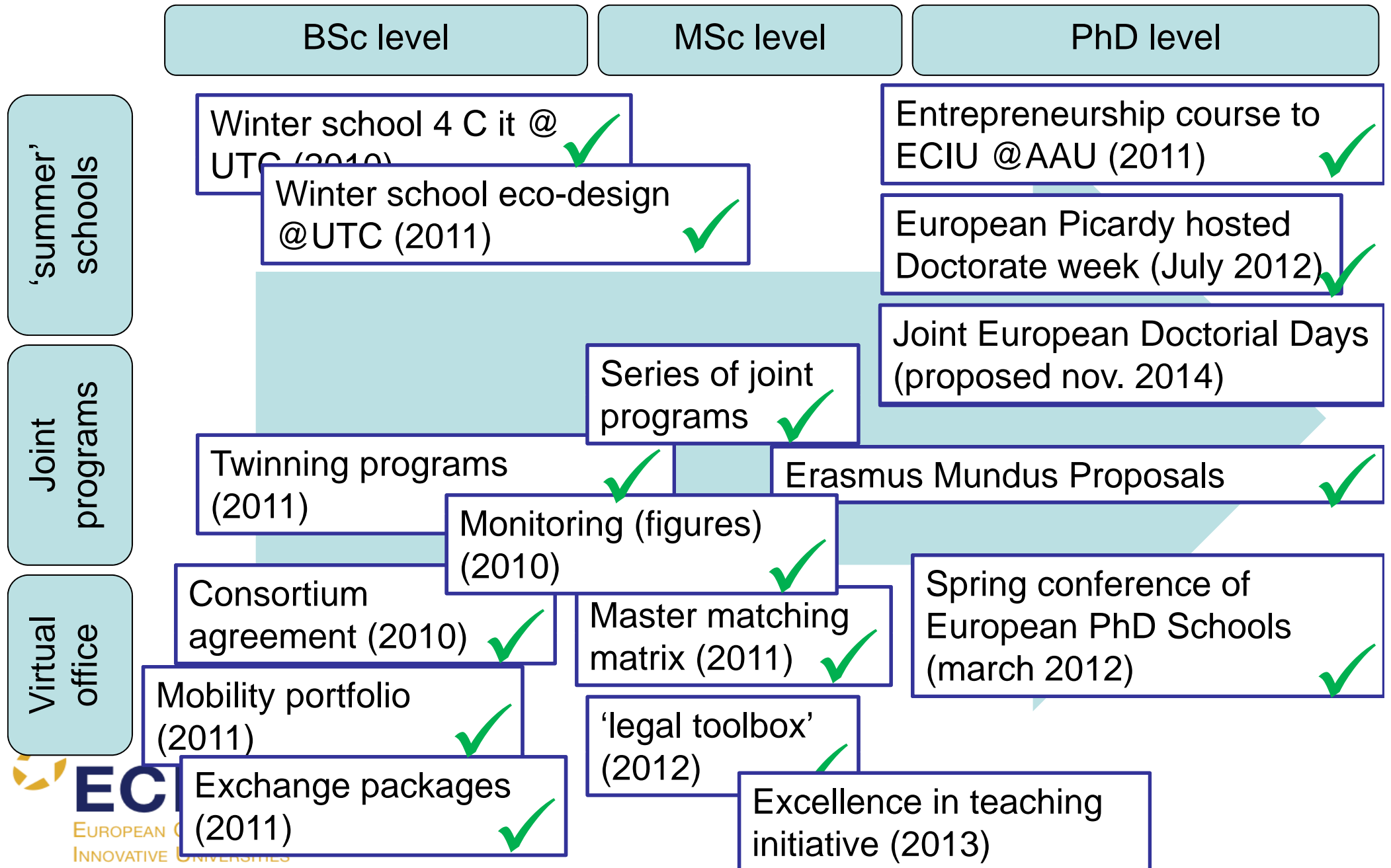
Université de Technologie de Compiègne



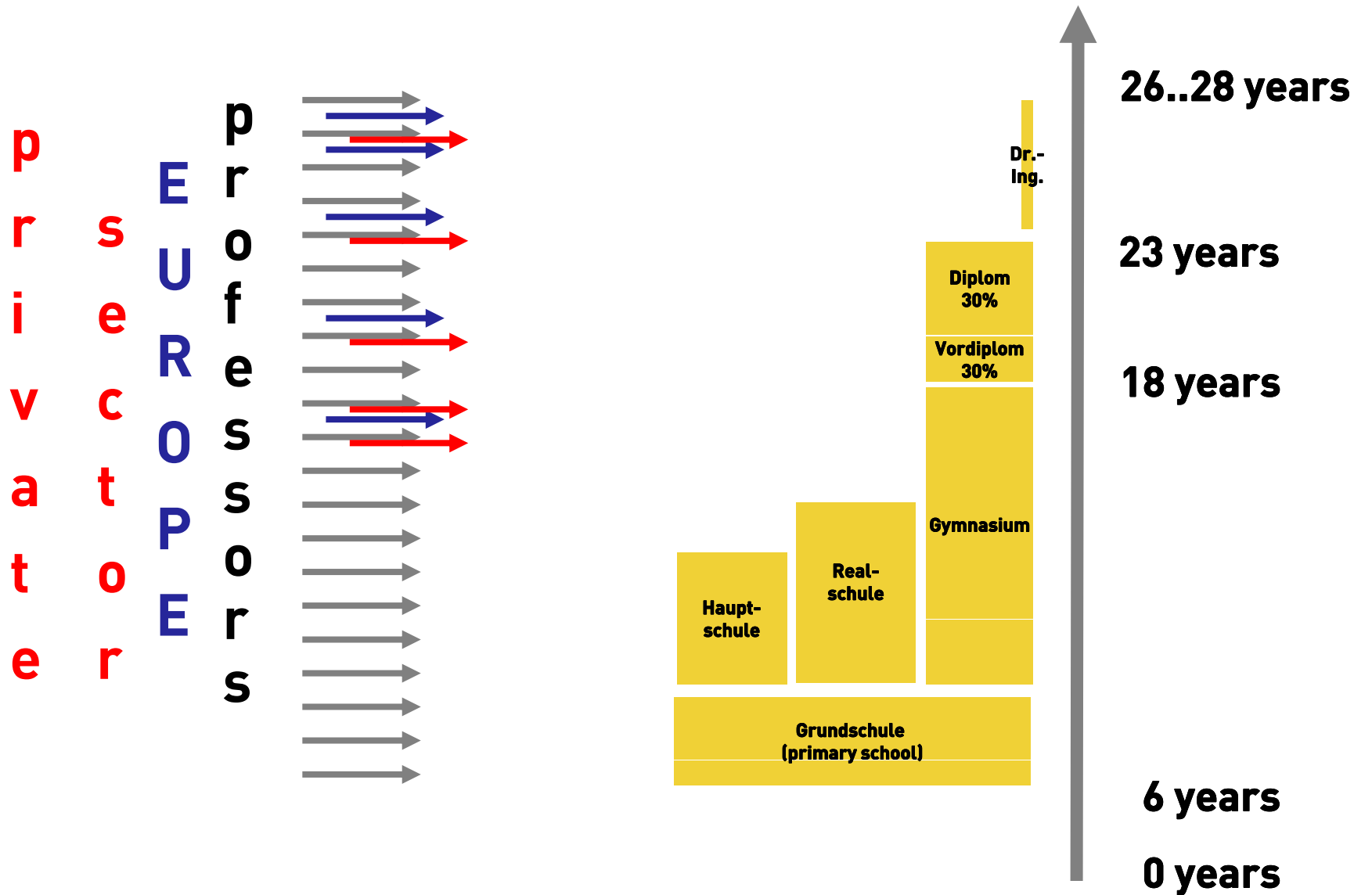
# Joint European Doctorial Days

- ★ Erasmus proposal on organizing training seminars for ECIU's PhD students  
(coordinated by Jaume Farres, UAB)
- ★ ECIU acts as a whole: all members are partners
- ★ Private and semi-private partners
- ★ regional and private funds will finance 2014 edition

# Product portfolio for ECIU mobility



# Conclusion (I)



### Summary

- Try to create **trails** for yourself and others, not only contacts. **Networks** such as ECIU may play a major role.
- Identify small steps, but make them

### Challenges

- International links are often **interpersonal** – continuously prepare the handover
- Create **strong links** to international partners without the possibility of monogamy
- Train co-operative attitude and **communication** at any level
- **Encourage** activities, never restrict
- Positive **quality** assurance of international activities
- **Honor** (e.g. ideally) the idealism of your staff members
- Set up a professional and **reactive administration**.

*(Vision without implementation is hallucination.)*



- Dr. Stefanie Demming
- Aglaja Popoff
- Maria Pardo