

# PROFILES 1<sup>st</sup> International Conference on Stakeholders Views - Monday

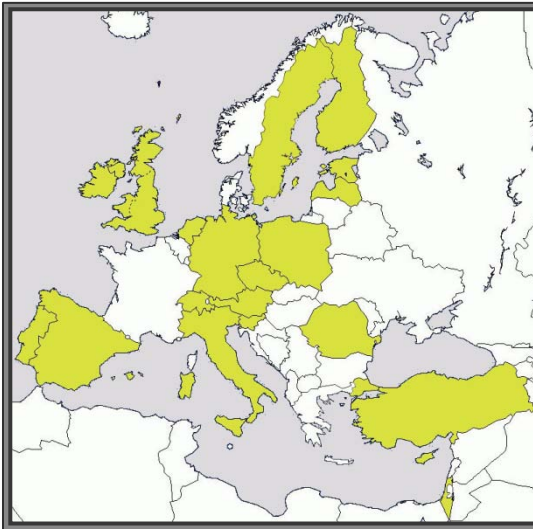


Peter Gray – Norwegian University of Science & Technology Trondheim  
Inquiry Based Science Education in Europe: Setting the Horizon 2020  
Agenda for Educational Research?

Ilmārs Rikmanis (Latvia)

A Teacher's views on Inquiry Based Science Education

## 1<sup>st</sup> PROFILES International Conference on Stakeholders Views



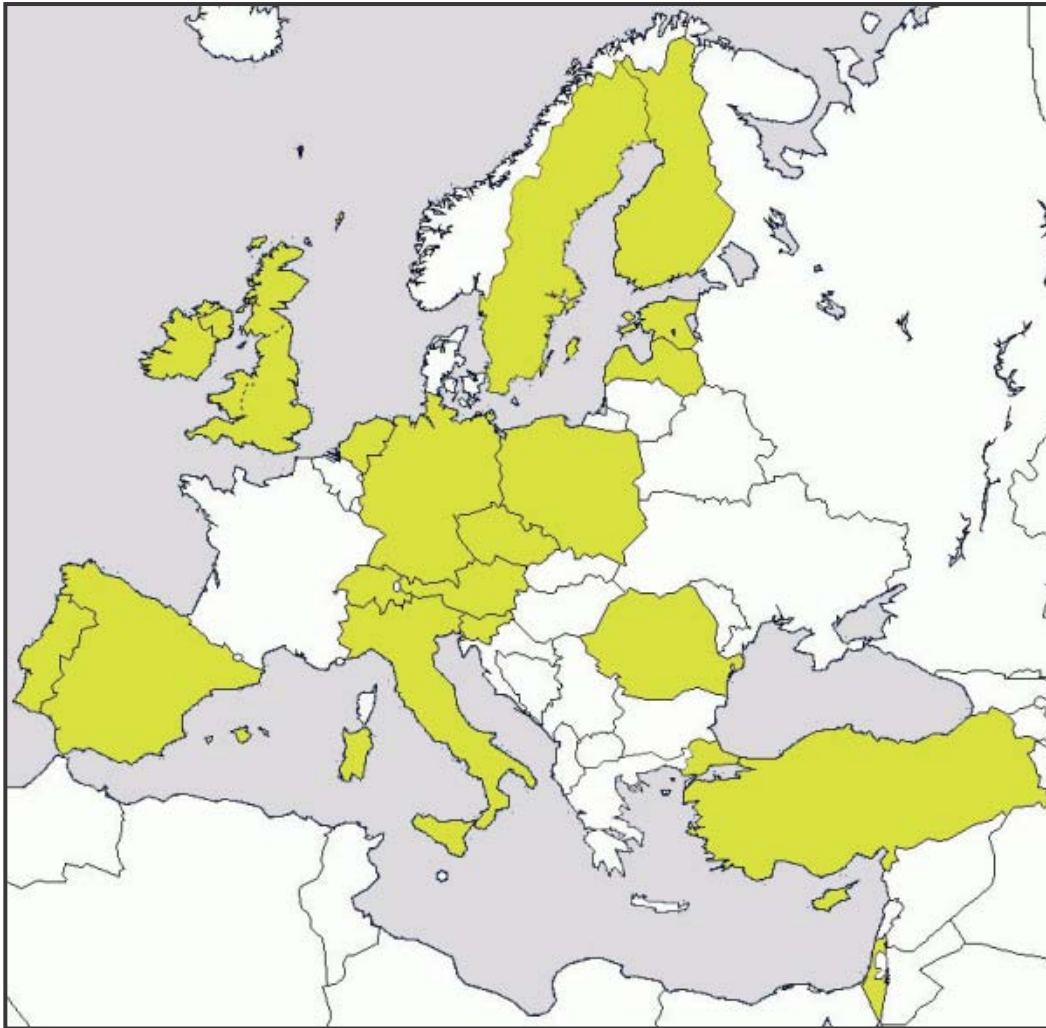
# PROFILES and the Philosophy of the Project

Claus Bolte and Jack Holbrook

Berlin (Germany), 24<sup>th</sup> to 26<sup>th</sup> September 2012

# What is PROFILES?

# PROFILES



PROFILES is

- ... an European FP7-funded project, and
- ... a co-operation in science education between 19 institutions from 19 different countries

# Who belongs to PROFILES?

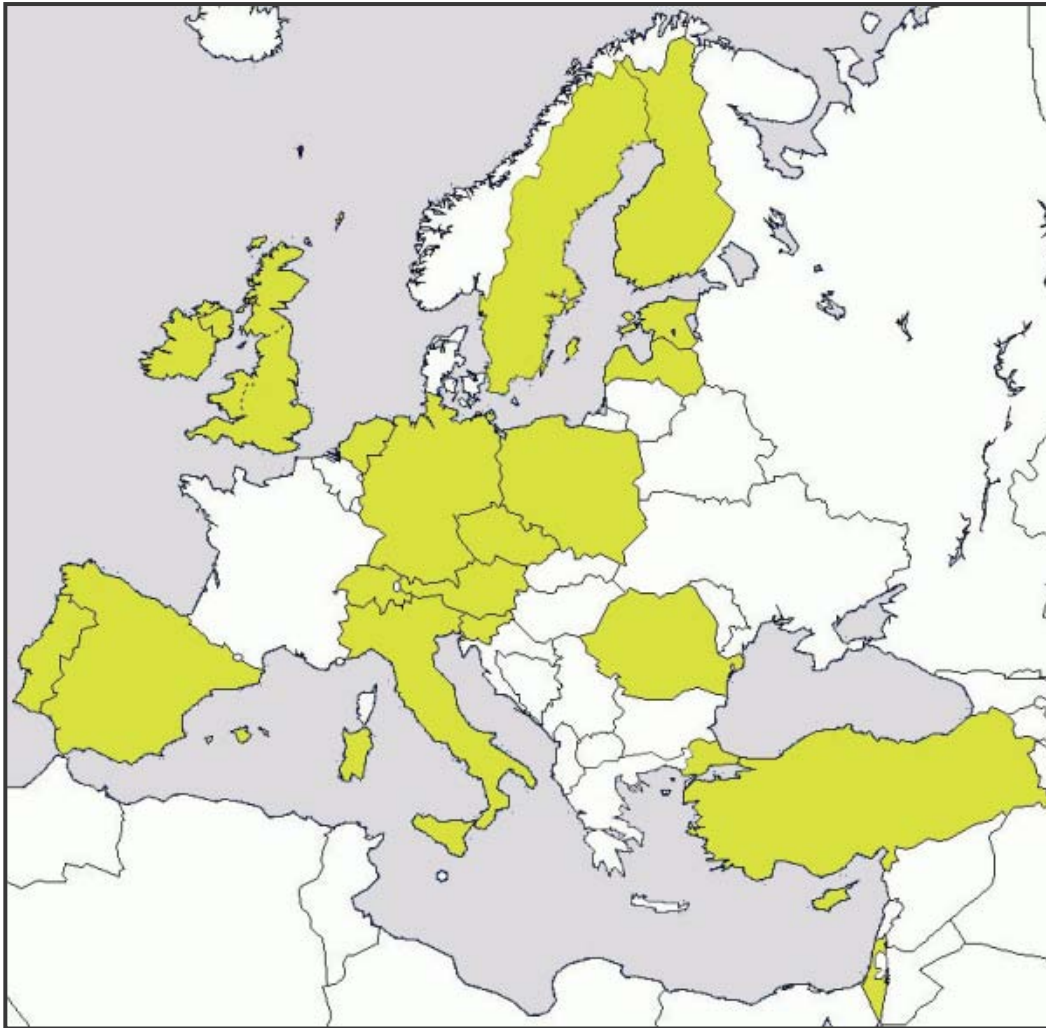
# PROFILES



**The PROFILES Consortium consists of** Freie Universität Berlin (Coordinator, Germany); University of Tartu (Estonia); Weizmann Institute of Science (Israel); Universität Klagenfurt (Austria); Cyprus University of Technology (Cyprus); Masaryk University Brno (Czech Republic); University of Eastern Finland (Finland); University College Cork (Ireland); Università Politecnica delle Marche (Italy); University of Latvia (Latvia); Utrecht University (The Netherlands); University of Maria Curie-Skłodowska (Poland); University of Porto (Portugal); Valahia University Targoviste (Romania); University of Ljubljana (Slovenia); University of Valladolid (Spain); University of Applied Sciences Northwestern Switzerland (Switzerland); Dokuz Eylül University (Turkey); Universität Bremen (Germany); International Council of Associations for Science Education (ICASE, UK).

# What is PROFILES?

# PROFILES



- ... is an European FP7-funded project, and
- ... is a co-operation in science education between 19 institutions from 19 different countries
- ... is the acronym for:

**P**rofessional  
**R**eflection-**O**riented **F**ocus  
on  
**I**nquiry-based **L**earning  
and  
**E**ducation through **S**cience

**P**rofessional **R**eflection-**O**riented **F**ocus on  
**I**nquiry-based **L**earning and **E**ducation through **S**cience

**P:** **P**rofessional  
providing effective continuous professional  
development – CPD based on teacher needs.

**ROF:** **R**eflection-**O**riented **F**ocus  
giving emphasis not only to science teachers  
implementing PROFILES, but also reflecting on  
their practices collaboratively

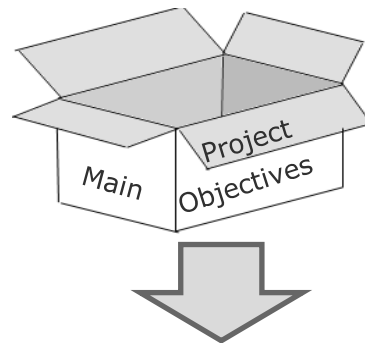
**P**rofessional **R**eflection-**O**riented **F**ocus on  
**I**nquiry-based **L**earning and **E**ducation through **S**cience

**IL:** Inquiry-based Learning

IBSE initiated from a science question and enacted as structured, guided or open inquiry learning

**ES:** Education through Science

recognises the need for student to develop in cognitive, practice, person and social aspects (science education is more than science content).



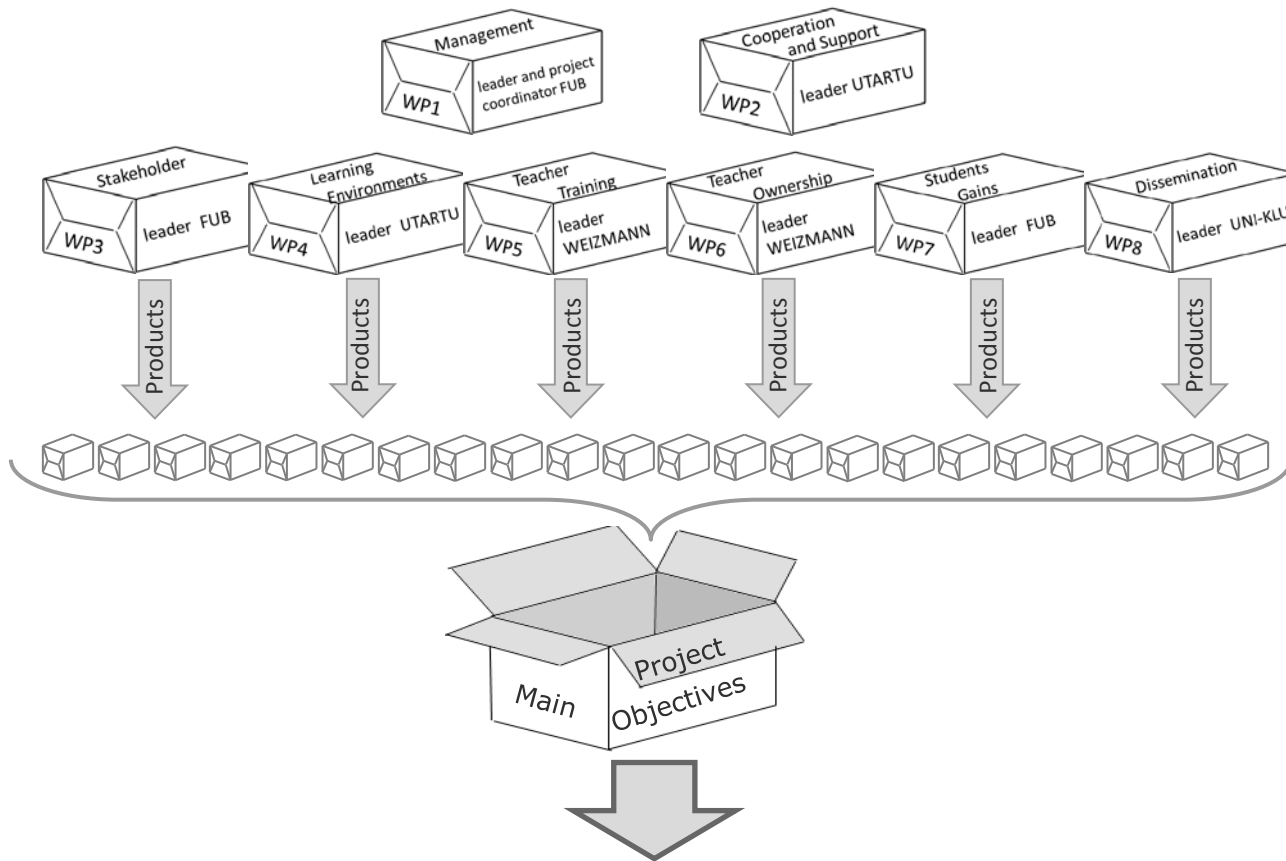
**Dissemination of IBSE** through innovative **Learning Environments** and (long-term) **Teacher Training** courses to raise self efficacy of science **Teachers** to take **Ownership** of more effective ways of science teaching to enhance **Students Gains** – supported by **Stakeholders**.

Fig.:  
Design of PROFILES  
PROFILES DoW (2010, 26)



# How does PROFILES try to reach its aims?

# PROFILES

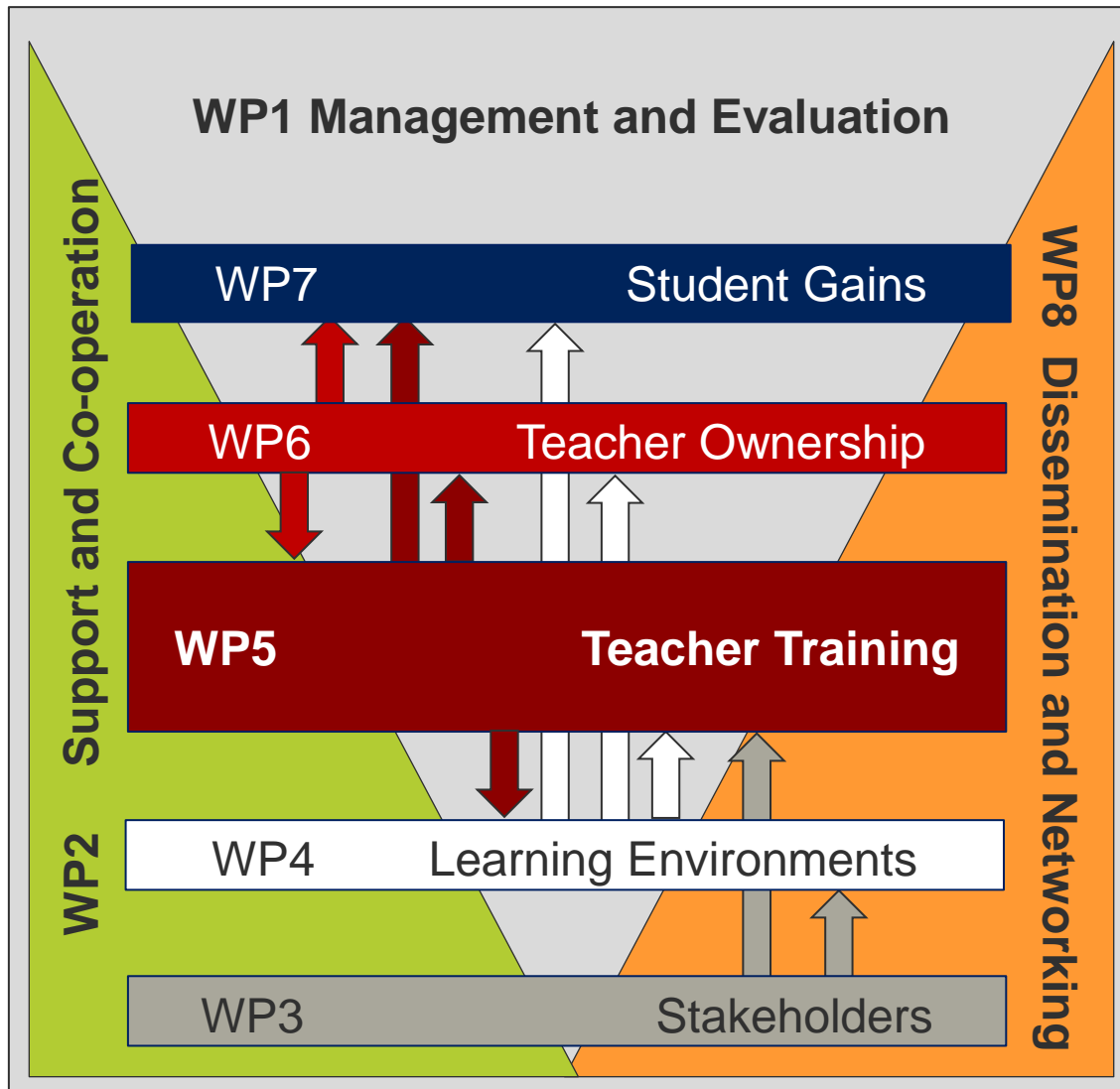


**Dissemination of IBSE through innovative Learning Environments and (long-term) Teacher Training courses to raise self efficacy of science Teachers to take Ownership of more effective ways of science teaching to enhance Students Gains – supported by Stakeholders.**

- dissemination of
- Inquiry Based Science Education (IBSE)
- learning environments and
- (long-term) teacher training courses
- raising self efficacy of science teachers to take ownership of more effective ways of teaching
- enhancing students gains
- supported by stakeholders.

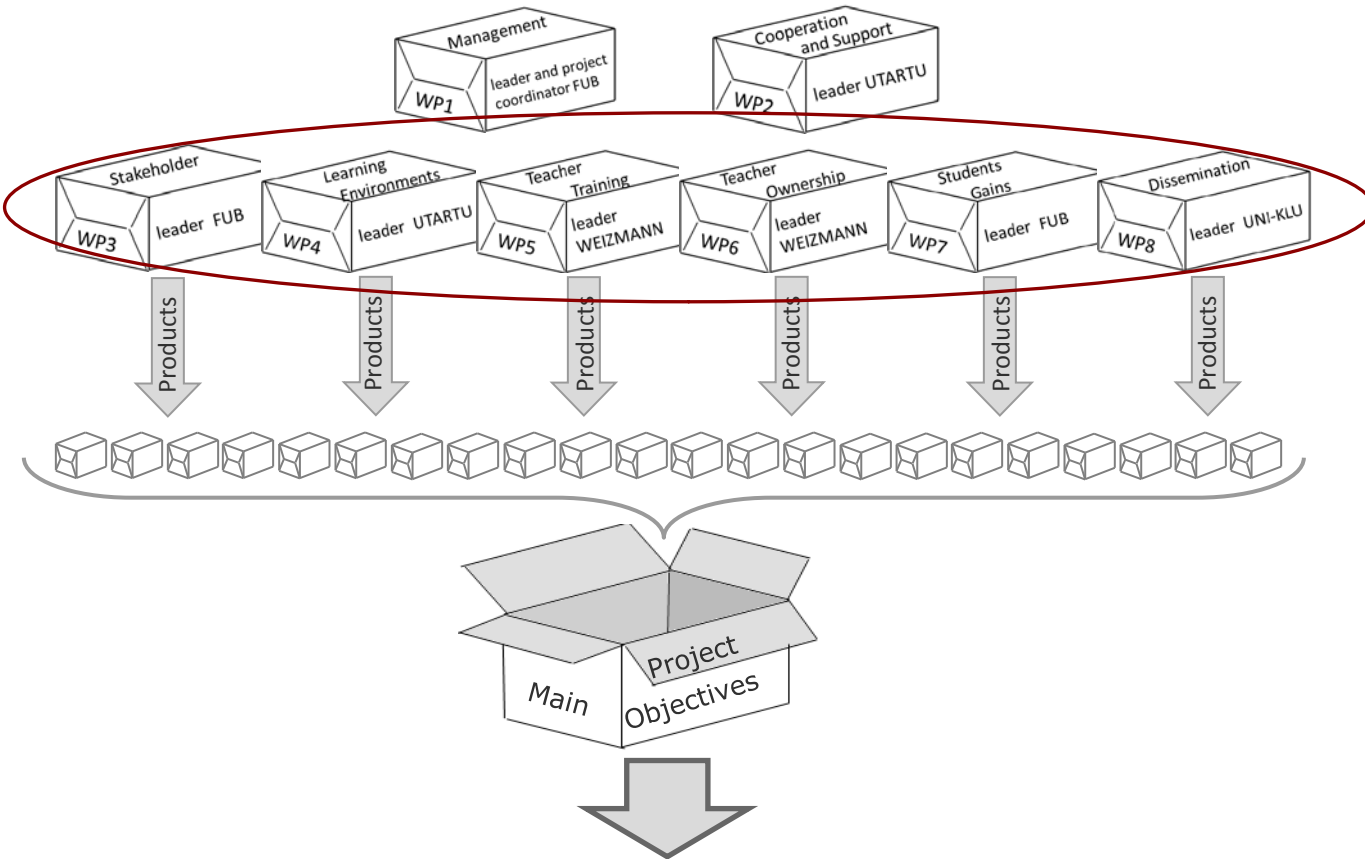
Fig.:  
Design of PROFILES  
PROFILES DoW (2010, 26)

# How does PROFILES try to reach its aims?



- dissemination of
- Inquiry Based Science Education (IBSE)
- learning environments and
- (long-term) teacher training courses
- raising self efficacy of science teachers to take ownership of more effective ways of teaching
- enhancing students gains
- supported by stakeholders.

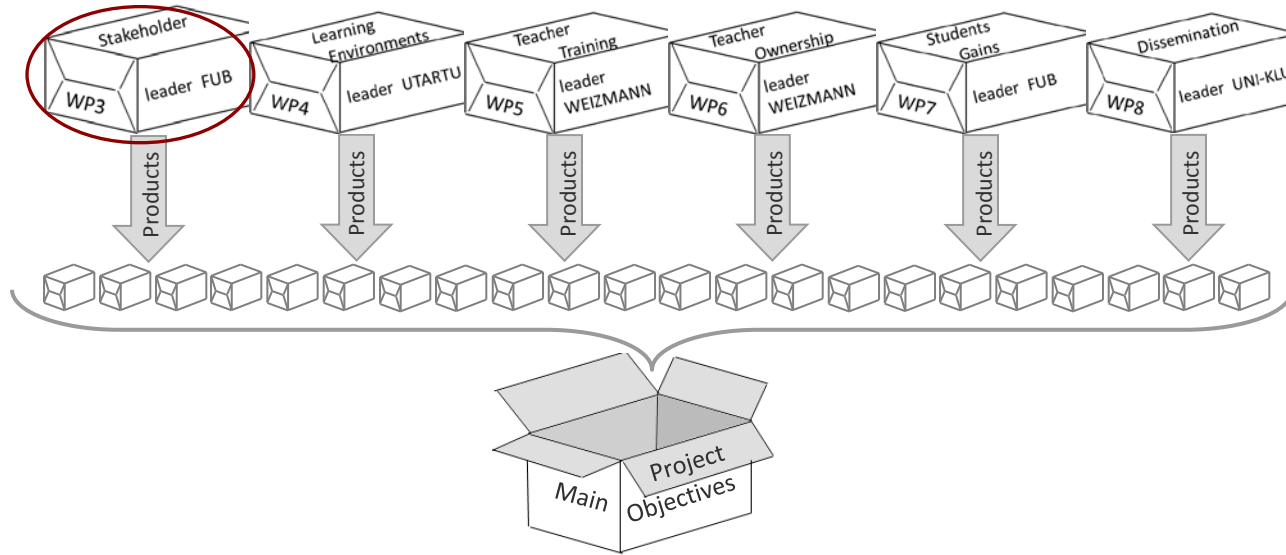
Fig.:  
Design of PROFILES  
PROFILES DoW (2010, 26)



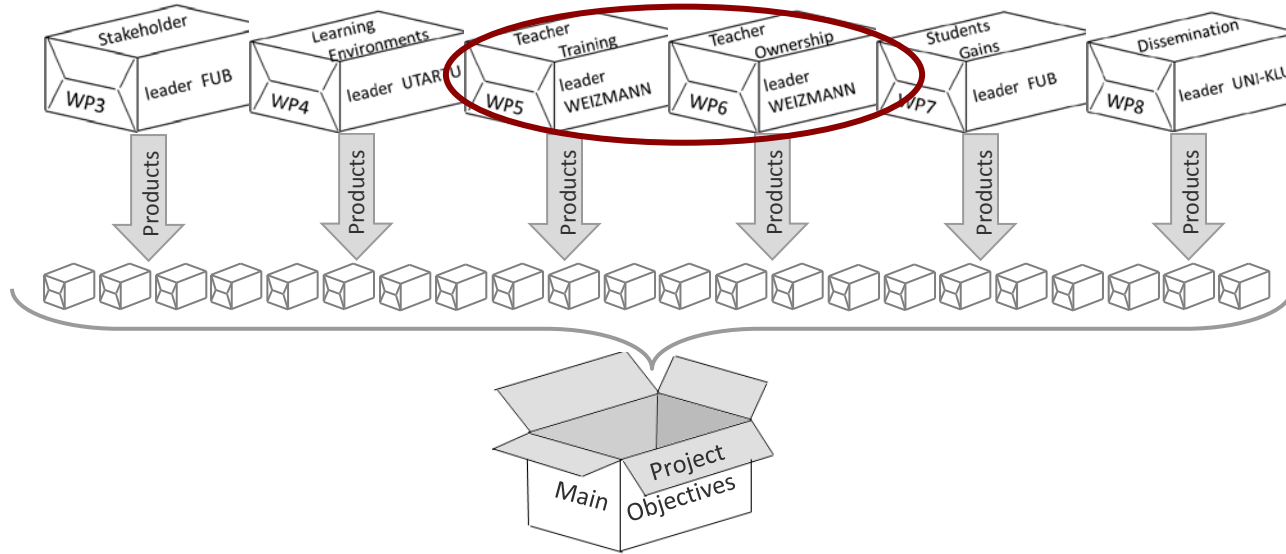
- dissemination of
- Inquiry Based Science Education (IBSE)
- learning environments and
- (long-term) teacher training courses
- raising self efficacy of science teachers to take ownership of more effective ways of teaching
- enhancing students gains
- supported by stakeholders.

**Dissemination of IBSE through innovative Learning Environments and (long-term) Teacher Training courses to raise self efficacy of science Teachers to take Ownership of more effective ways of science teaching to enhance Students Gains – supported by Stakeholders.**

Fig.:  
Design of PROFILES  
PROFILES DoW (2010, 26)



Theresa Schulte and Claus Bolte  
European Stakeholders and Other Experts Views on IBSE

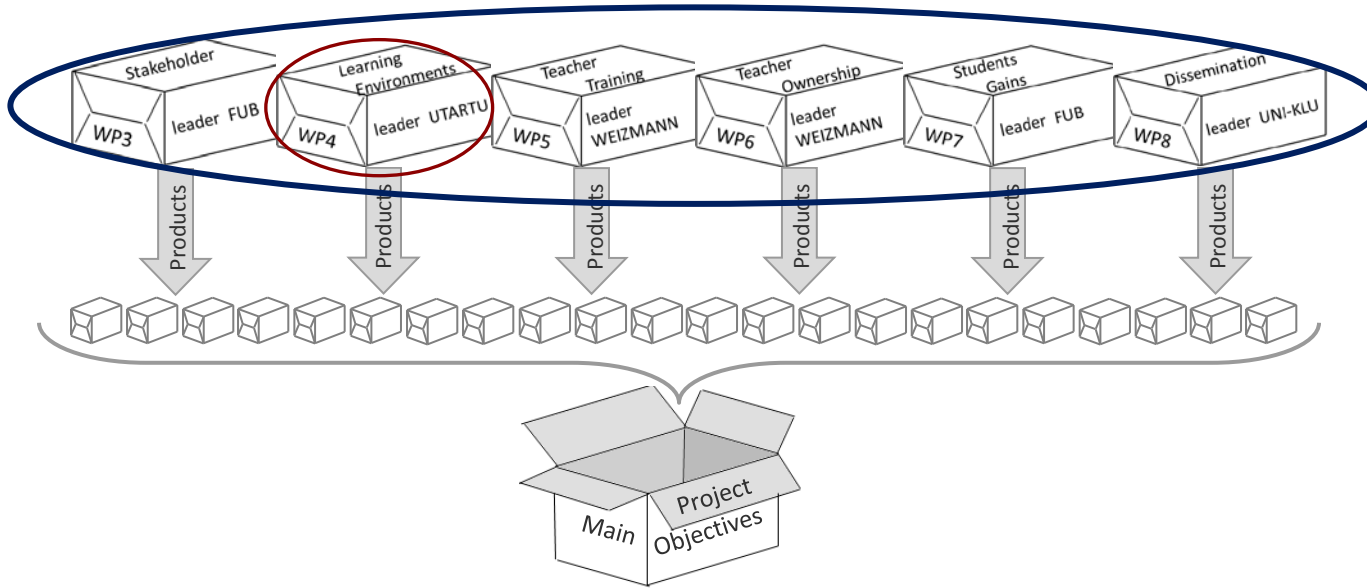


Shirley Simon – Institute of Education, University of London (UK)

*Effective Continuous Professional Development in Science Education*

Funda Tunaboynu and Simge Akpullukcu (Turkey)

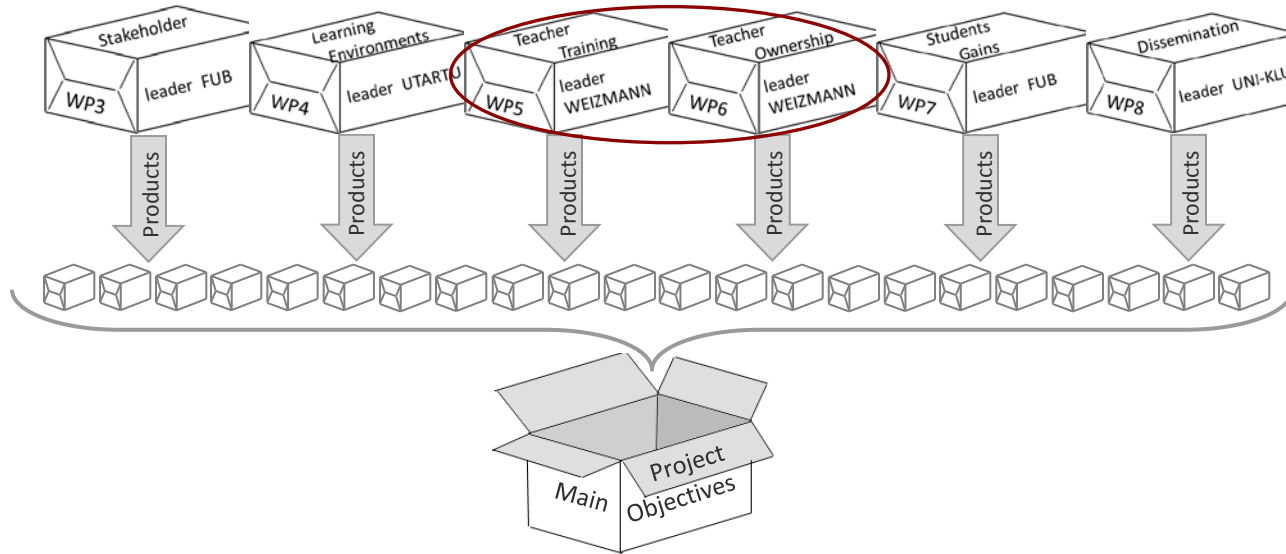
*Being a PROFILES Teacher: A Teacher's view on Teacher Training and Continuous Professional Development*



Miia Rannikmae and Jack Holbrook

Innovative Inquiry-based Science Learning Environments in the  
Framework of PROFILES

Friends of PROFILES – 45 Posters reflecting  
Inquiry-based Science Education in Europe

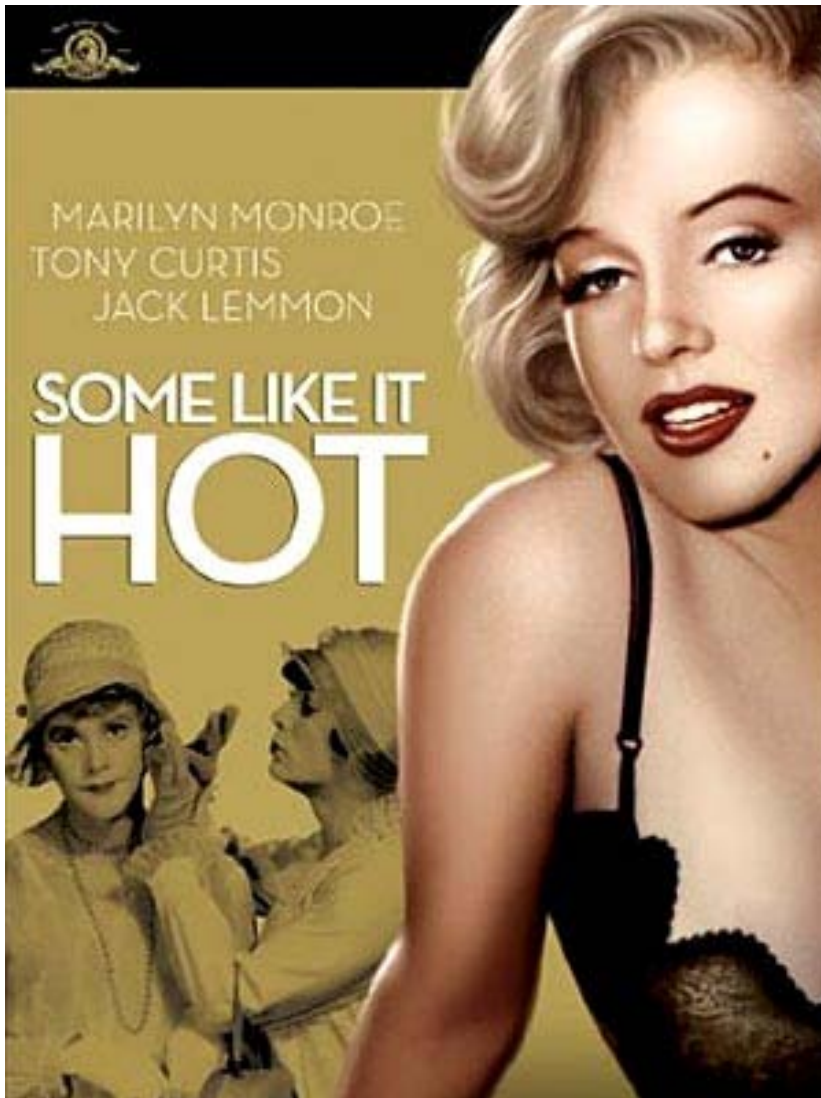


Avi Hofstein and Rachel Mamlok

Teachers' Ownership: What is it and how is it Developed?

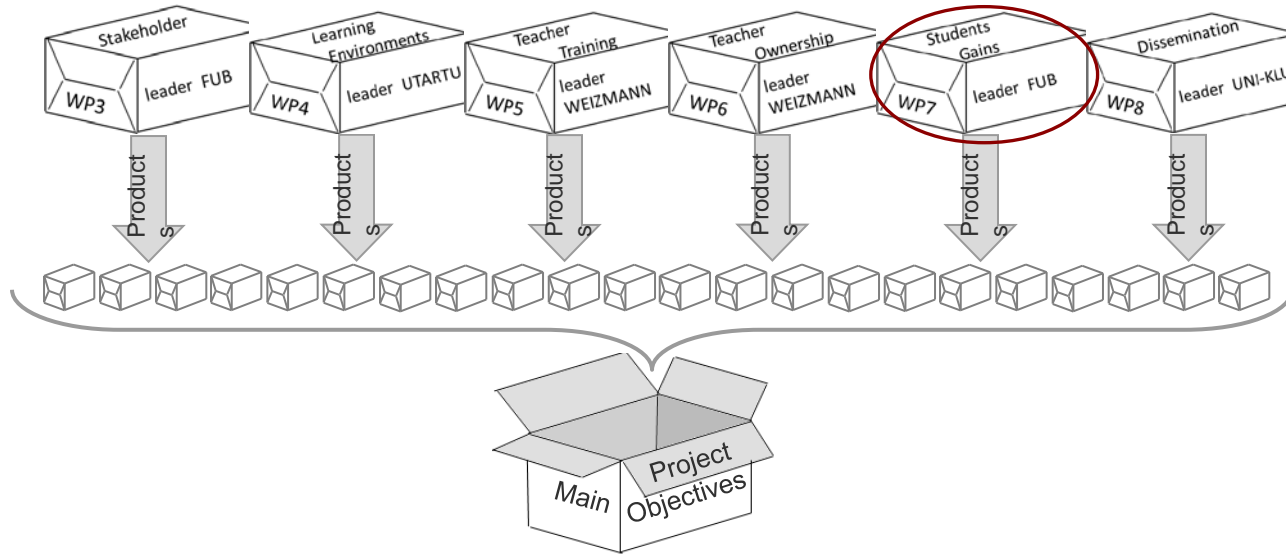
Friends of PROFILES – 10 Workshops recommending  
how to develop teacher ownership in line with PROFILES

# PROFILES 1<sup>st</sup> International Conference on Stakeholders Views - Tuesday



Prof. Klaus Roth  
– Freie Universität Berlin – Germany



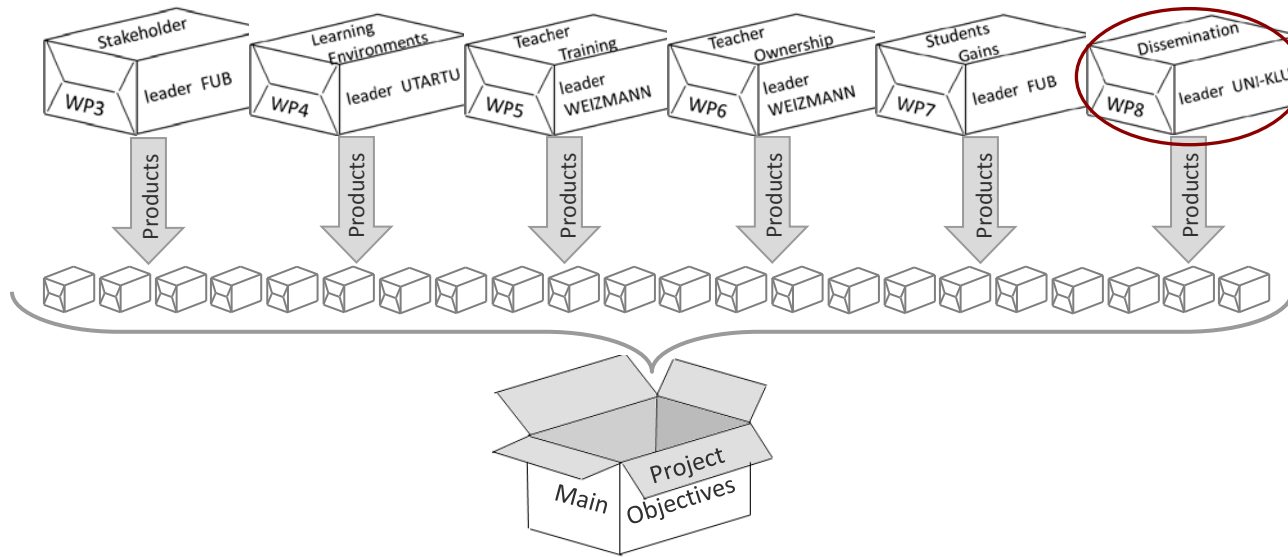


Olaf Köller – Institut für die Pädagogik der Naturwissenschaften Kiel

*Towards Relevance, Students (Intrinsic) Motivation, Learning Outcomes and Student Gains*

Chrystalla Lymbouridou (Cyprus)

*Students (intrinsic) Motivation, Learning Outcomes and Gains*



Franz Rauch, Jack Holbrook, Claus Bolte  
How to Involve Stakeholders in IBSE Networks and Networking within  
PROFILES

## PROFILES

Professional Reflection Oriented  
Focus on Inquiry-based Learning  
and Education through Science

1<sup>st</sup> International  
**PROFILES - Conference**  
24 – 26 September 2012  
in Berlin/Germany



Location:  
Institute of Chemistry and Biochemistry  
Monday and Wednesday, September 24<sup>th</sup> and 26<sup>th</sup>  
Inorganic Chemistry – Fabeckstr. 34-36  
Tuesday, September 25<sup>th</sup>  
Organic Chemistry – Takustr.3

### TOPICS:

- What is PROFILES?
- IBSE in Europe
- Teachers Continuous Development
- Evaluation of Student Gains
- Innovative IBSE Learning Environments
- Different Workshops on IBSE Teaching and Learning

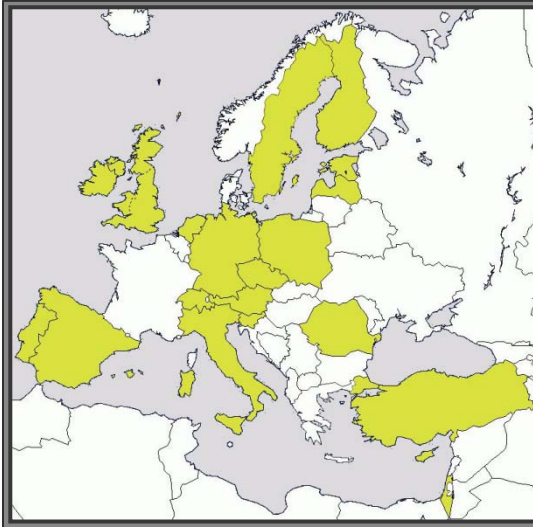
For more information  
please visit the PROFILES  
website:  
[www.profiles-project.eu](http://www.profiles-project.eu)



Wolfgang Gräber  
– Institut für die Pädagogik der  
Naturwissenschaften Kiel – Germany  
*PROFILES: Some Ideas and  
Comments*

Peter Childs  
– University of Limerick – Ireland  
*Reflections on Advancement and  
Problems to Realize IBSE on a Large  
Scale*

Claus Bolte and Jack Holbrook



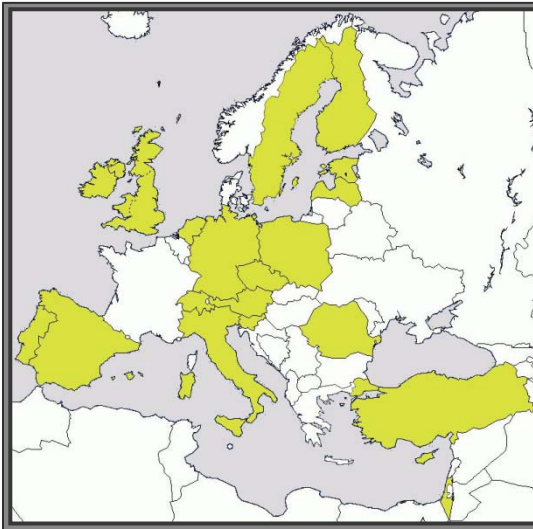
## PROFILES and the Philosophy of the Project

Enjoy the PROFILES Conference

1<sup>st</sup> PROFILES International Conference on Stakeholders Views  
Berlin (Germany), September 2012



Coming next:  
Theresa Schulte and Claus Bolte



## European Stakeholders and other Experts Views on IBSE



1<sup>st</sup> PROFILES International Conference on Stakeholders Views  
Berlin (Germany), September 2012

# What is PROFILES?

PROFILES  
■ ■ ■ ■ ■ ■ ■ ■

**P**rofessional **R**eflection-**O**riented **F**ocus on  
**I**nquiry-based **L**earning and **E**ducation through **S**cience

**P:** Professional

**ROF:** Reflection-**O**riented **F**ocus on

**IL:** Inquiry-based **L**earning and

**ES:** Education through **S**cience