



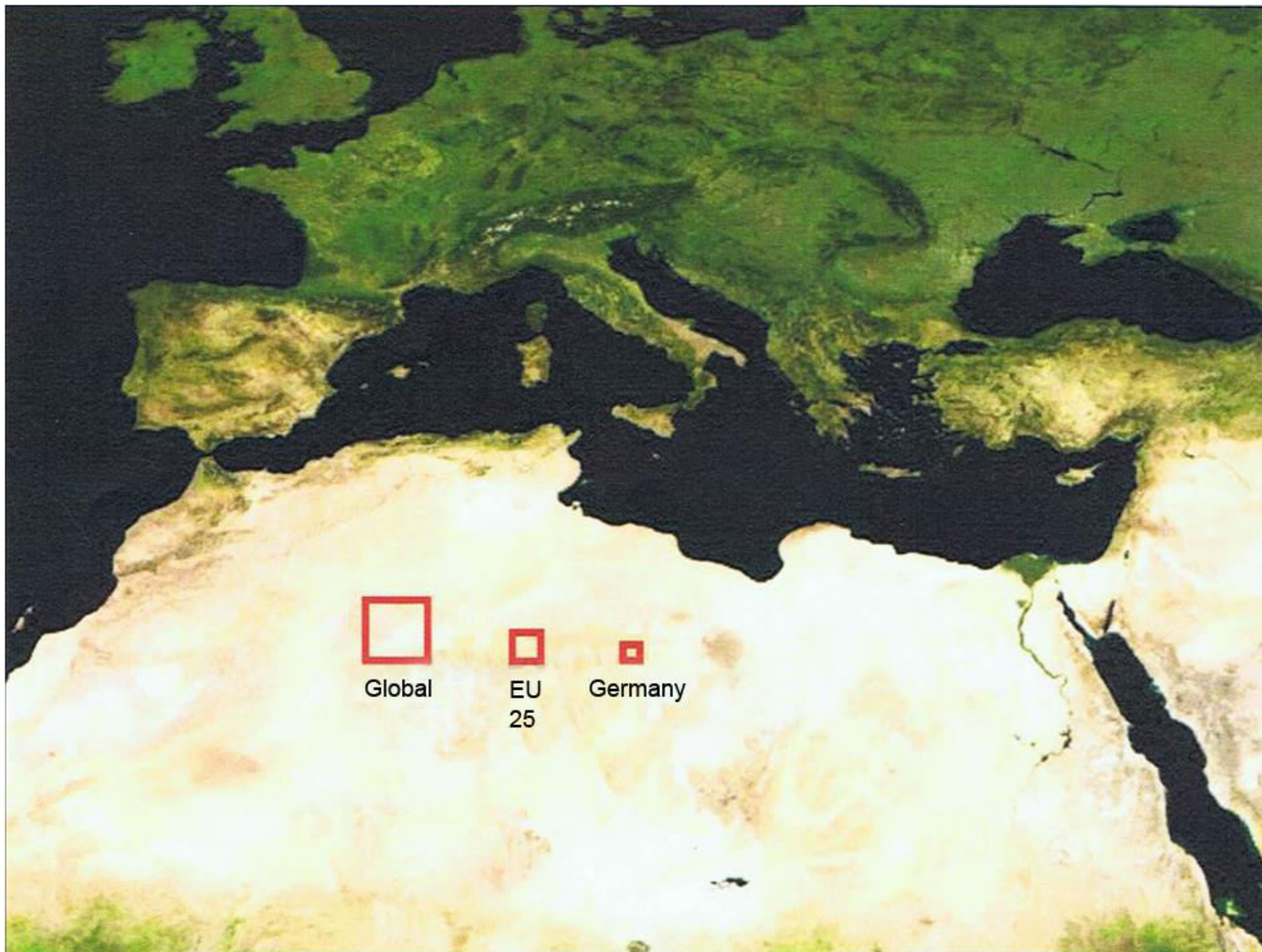
SEPA and the Master in *“International Renewable Energy Management”*

Center for international Development and Environmental Research (ZEU)

JUSTUS-LIEBIG-UNIVERSITY GIESSEN

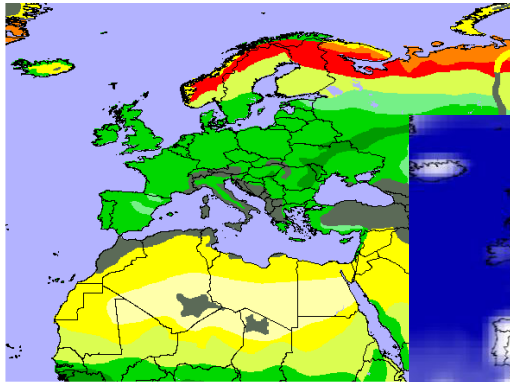
SEPA -

Solar Energy Partnership for Africa -
an Interdisciplinary Approach

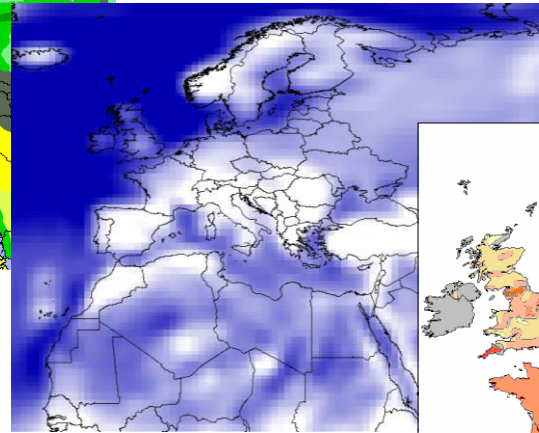


Source: DLR

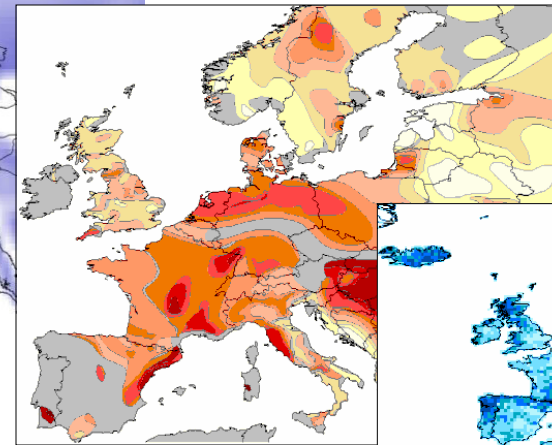
Biomass



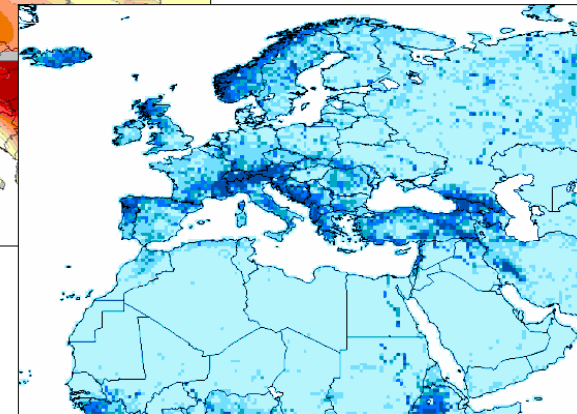
Wind Energy



Geothermal Energy

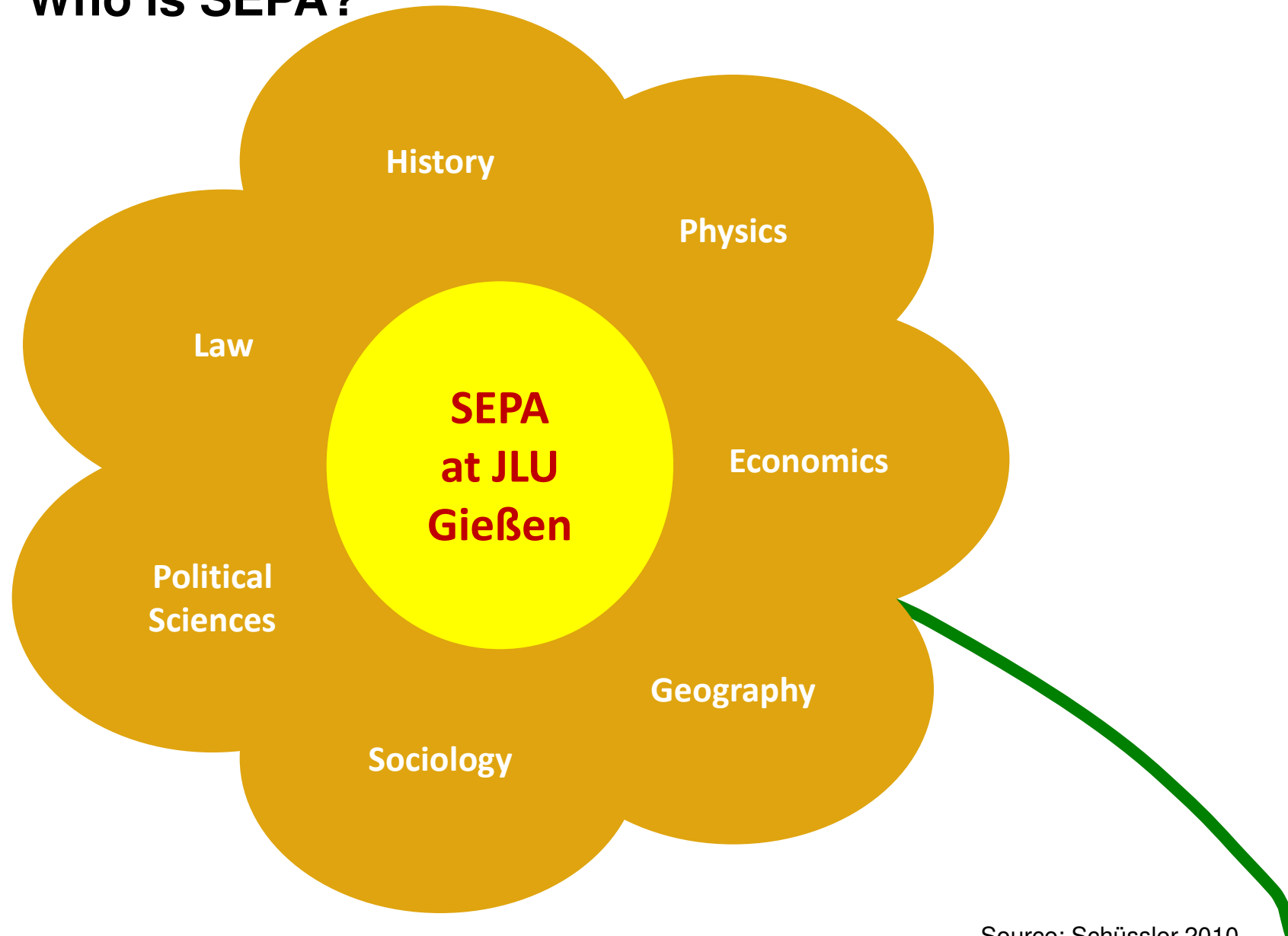


Hydropower



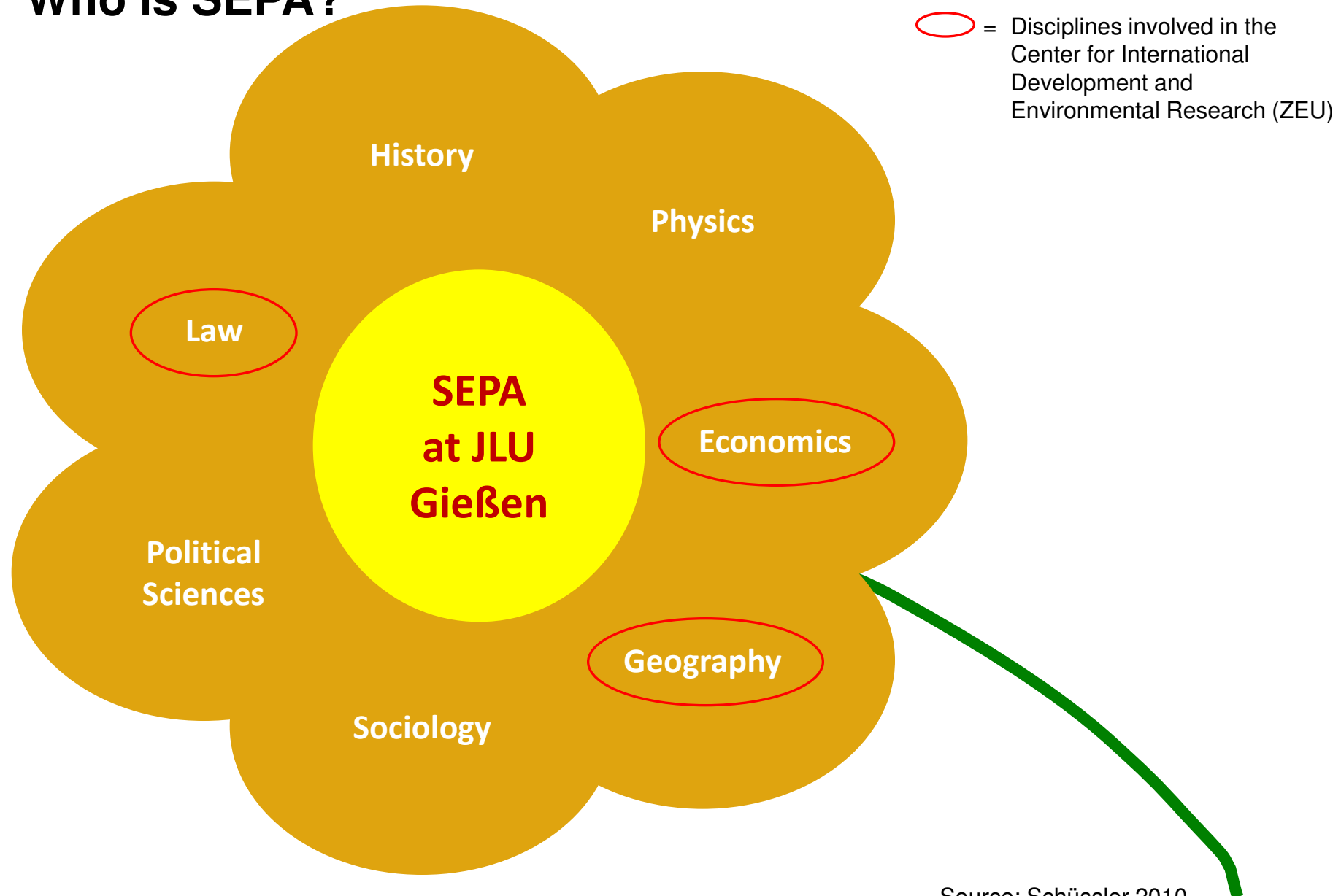
source: MED-CSP (DLR)

Who is SEPA?



Source: Schüssler 2010

Who is SEPA?



Source: Schüssler 2010

What is the specific
„Giessen Spirit of SEPA“
?

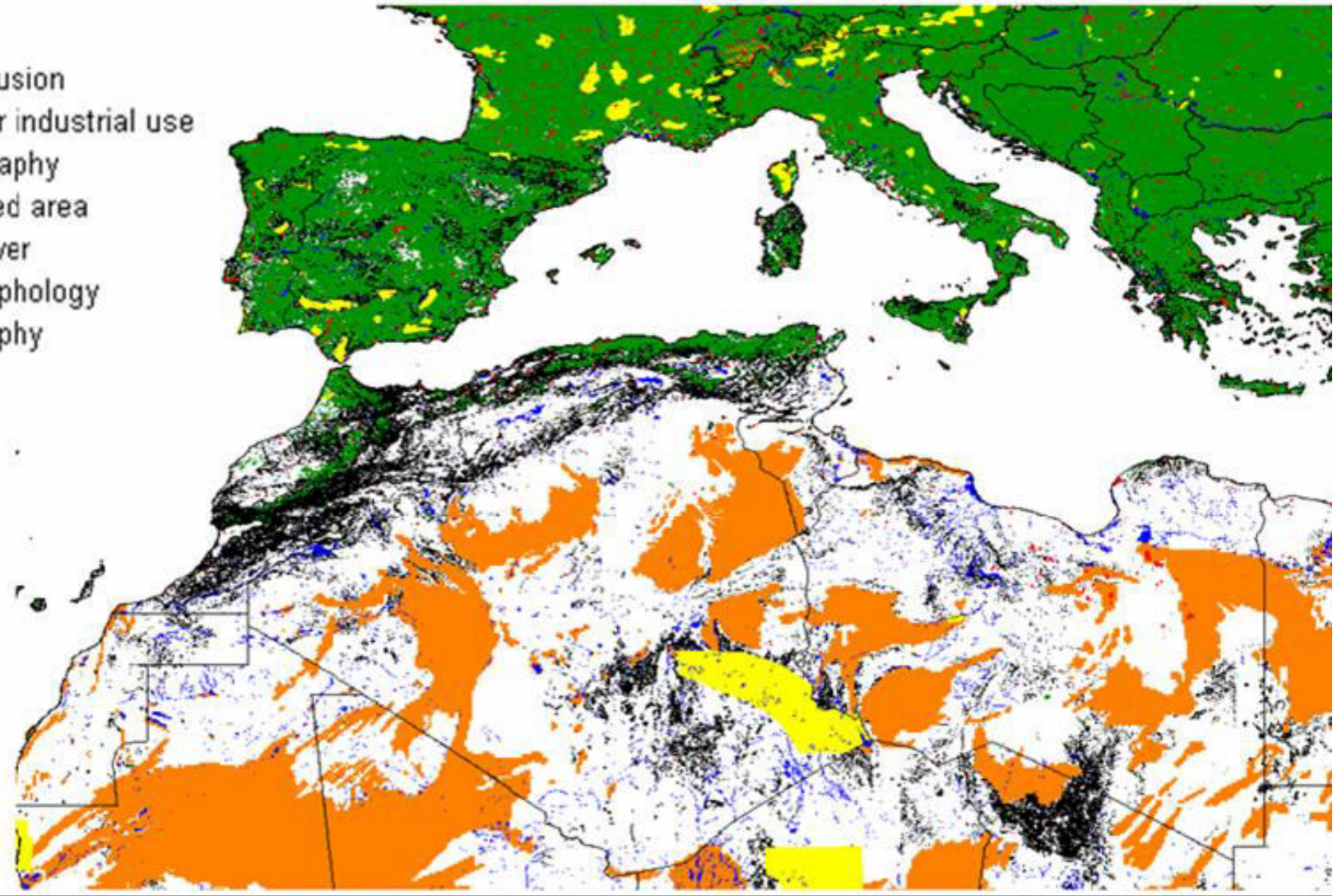
In our main research focus is not:

- Is it necessary?
- Is it technically possible?
- What would be the technical challenges?



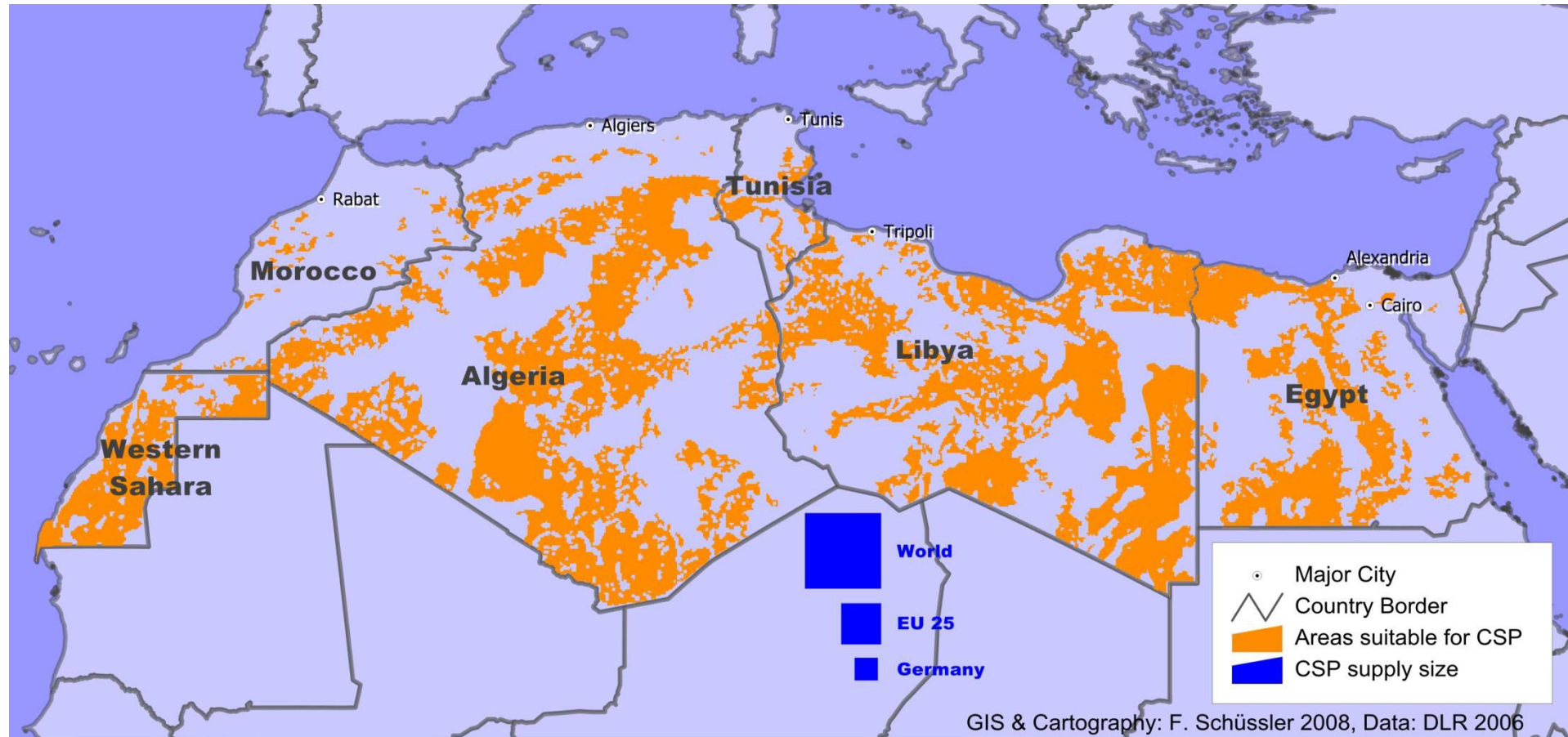
Photos: Schüssler

- no exclusion
- urban or industrial use
- hydrography
- protected area
- land cover
- geomorphology
- topography





Concentrated Solar Power (CSP)



Giessen Spirit SEPA research questions are:

- What are the socio-political consequences of using desert solar power?
- What do desert energy plans mean for the regions and societies where solar power comes from?
- Who are the involved partners?
- What is the political setting for decision making processes?

- Who will be effected but not involved?
- What are the consequences for security patterns?
- Who will be first and second choice partners?
- Is it just a circum-mediterranean story (Europe - North Africa)?
- What is the benefit for the effected regions? (... if any)
- Is it „neo-colonialism“?
- Which areas provide suitable conditions for desert solar power?
- What is about Subsaharan Africa?

SEPA approach

Teaching

SEPA

Networking

Research



IREM

- International Renewable Energy
Management -

**M.Sc.
„International Renewable Energy
Management“ - IREM**

4th Semester	46 CP
3rd Semester	30 CP
2nd Semester	30 CP
1st Semester	30 CP
In total	136 CP

M.Sc. „International Renewable Energy Management“ - IREM

4th Semester	Master Thesis (36 CP)	First Presentation of the Master Thesis (4 CP)	Colloquium (2 CP)	Second (final) Presentation of Master Thesis (4 CP)	46 CP
3rd Semester	Specialization in the topic of the master thesis (8 CP)	Internship in an organization , a laboratory or at a company (8 CP)	Colloquium (2 CP)	Selection of optional subjects (in total 4 CP) Exam in a personal elective course (8 CP)	30 CP
2nd Semester	Sustainable Energy Supply (8 CP)	Specialization in the topic of the master thesis (8 CP)	Colloquium (2 CP)	Selection of optional subjects (in total 12 CP)	30 CP
1st Semester	Introduction course of the Mathematical and Physical principles of the Energy Supply (8 CP)	Sociopolitical and Economic principals of the power industry. Introduction course in the topics Geography, Law, Economics and Politics (8 CP)	Colloquium (2 CP)	Selection of optional subjects (in total 12 CP)	30 CP
In total					136 CP

iREM –
International Renewable Energy
Management
Master of Science



Thank you for your attention!



iREM: Master of Science "International Renewable Energy Management"

-- Draft 2015-11-07 --

How

Semester						CP
1	General 1: Introductory Seminar (Sem, 3 CP)	Core 1: Mathem. and Physics Fundamentals of Energy Technology (Lec 4, Exe 2, 9 CP)	Core 2: Governance for Renewable Energies (Sem, 6 CP)	Core 3: Development and Resource Management (Sem, 6 CP)	Focus 1: courses in the subject of specialization (6 CP)	30
2	General 2: Inter- discipl. Colloquium (6 CP)	Core 4: Renewable Energies and System Engineering (Lec 4, Exe 2, 9 CP)	Core 5: Economics and Management for RE (Lec 2, Tut, 6 CP)	Focus 2: Courses in field of specialization (12 CP)		30
3		Core 6: International Business Law (Lec 2, Tut, 6 CP)	General 3: Internship (9-14 CP)	Focus 3: Courses in the field of specialization (7-12 CP)		30
4	General 4: Concluding Seminar (Sem, 3 CP)	Master Thesis (27 CP)				30

Total:

120

Admission: Bachelor degree in a field which is directly or indirectly relevant for energy management

General interdisciplinary learning: 21-26 CP

Core modules: 42 CP Engineering, physics/mathematics, economics, law, political science, geog

Focus area: 25-30 CP Specialisation in the field of the student's bachelor, using non-iREM cours

Thesis: 27 CP Thesis in the field of specialization

Abbreviations: **Lecture, Exercises, Excursion, Seminar, Tutorial, 2,4,6 h/week, 3,6,9,12 Credit Points**

What

Broad understanding of

Energy fundamentals and technologies

Related ecological, economic, political, cultural factors

→ **High interdisciplinarity**

Why

Emerging international energy market

Stakeholders from most different fields

→ **Mediators for a sustainable, international energy management**

Who

Students:

international
local

with a bachelor in:

incl. energy engineering, mechanical engineering, physics, materials science

geography, economics, law, social, political science

Providers:

Justus-Liebig-University	Giessen
University of Applied Sciences	Giessen
International partners	