

First Stakeholder Forum
of the Africa-EU Energy Partnership (AEEP),
9/10 May 2012, Cape Town, South Africa

*Employment from Renewable Energy – who
benefits?*

Dr. Ulrike Lehr



Institute of Economic Structures Research
Heinrichstr. 30 ° D – 49080 Osnabrück, Germany
Tel.: + 49 (541) 40933-280 ° Fax: + 49 (541) 40933-110
Email: lehr@gws-os.com ° Internet: www.gws-os.com



How many jobs?

Introduction

- ◆ **Renewable energy investment and installations have risen worldwide in 2011**
 - ◆ **Investment climbed to 260 billion**
 - ◆ **Half of the newly added electric capacity worldwide uses renewable sources**
 - ◆ **Until 2008 Europe invested the most in RE, now China and the US spend more than Europe**
- ◆ **Who benefits from this development?**
 - ⇒ The environment from less emissions
 - ⇒ The RE-users from less dependence and higher energy security
 - ⇒ The RE-planners and builders from jobs
 - ⇒ The RE-technologies producers from jobs

Main question:

How can African countries become a RE-user, RE-planner and RE-technology producer to benefit from all aspects

and how can Europe assist this process?

Learn from positive examples (and avoid other countries' mistakes)

Jobs in the renewable energy industries

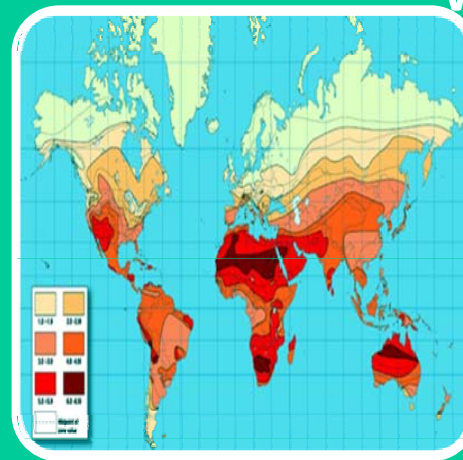
- ◇ Canada:
20.000 jobs
- ◇ US:
200 -300.000 in renewable energy,
800.000 „green jobs“ total
- ◇ EU 27:
900.000 jobs in renewable energy,
450.000 in biomass
- ◇ China:
More than 1 million jobs in renewable energy

Germany (own studies)



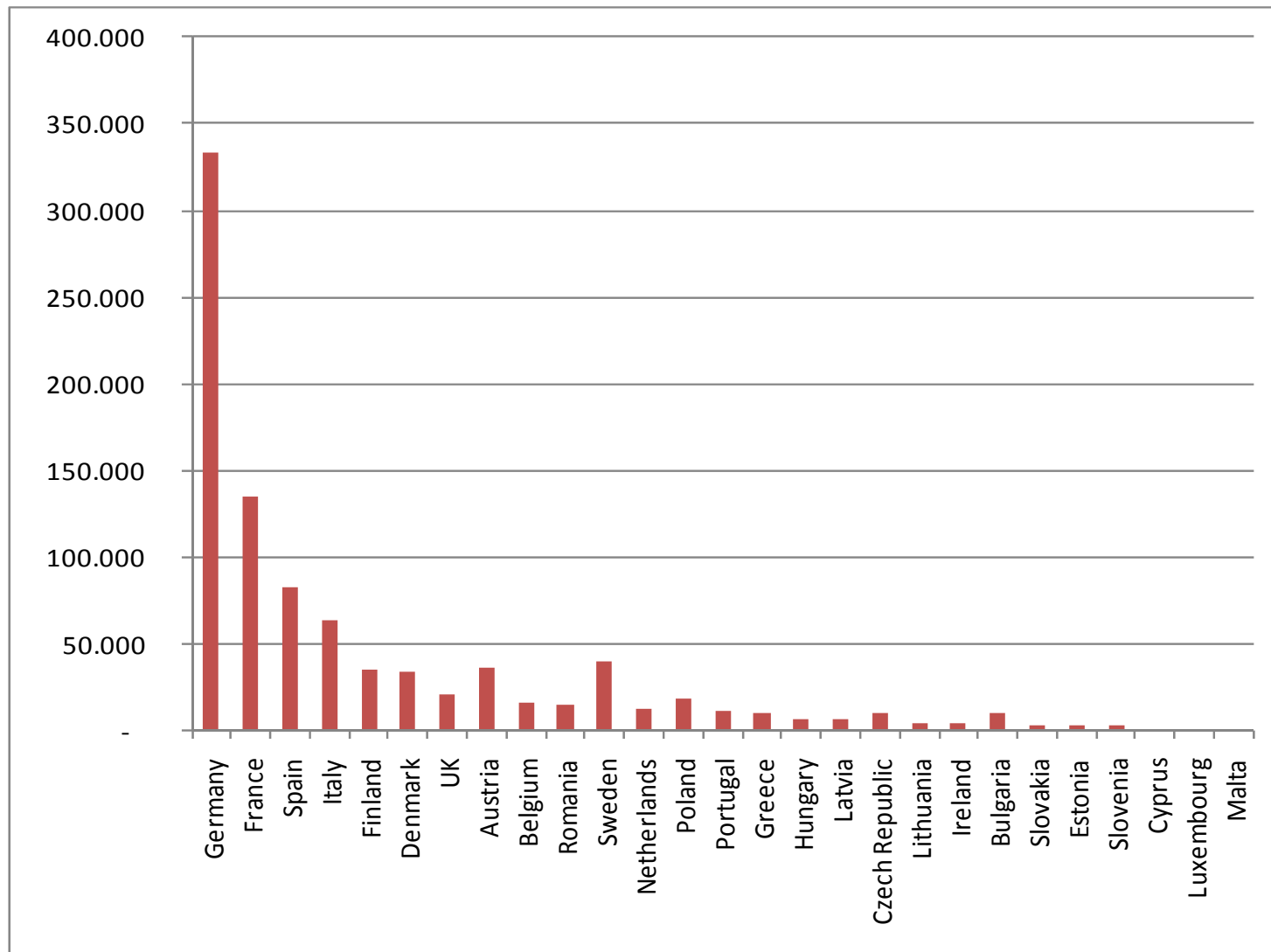
- 382.000 jobs in renewable energy
- 500.000 in efficiency

World (REN 21)



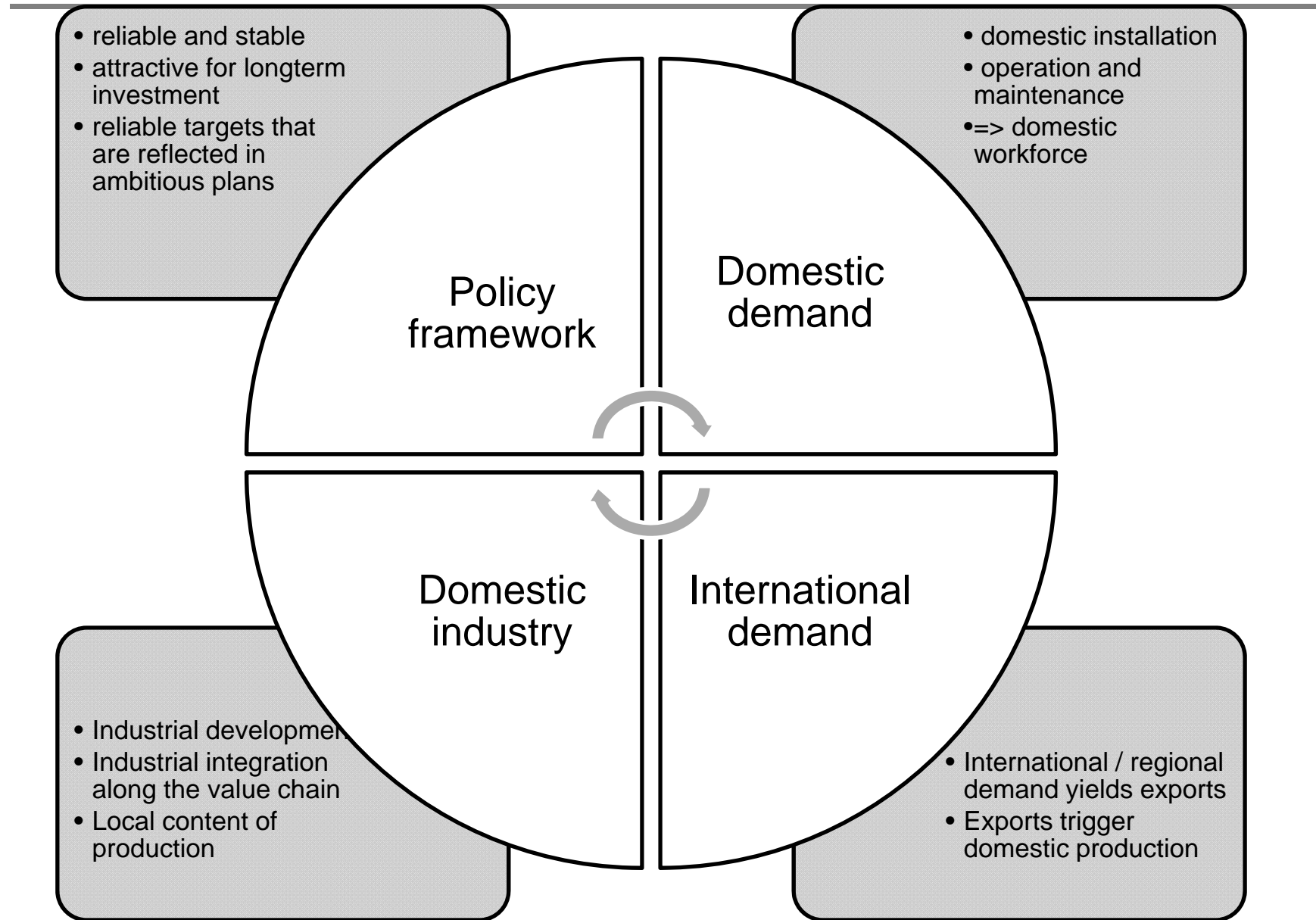
- 3.5 million jobs in RES

Employment from RE in Europe

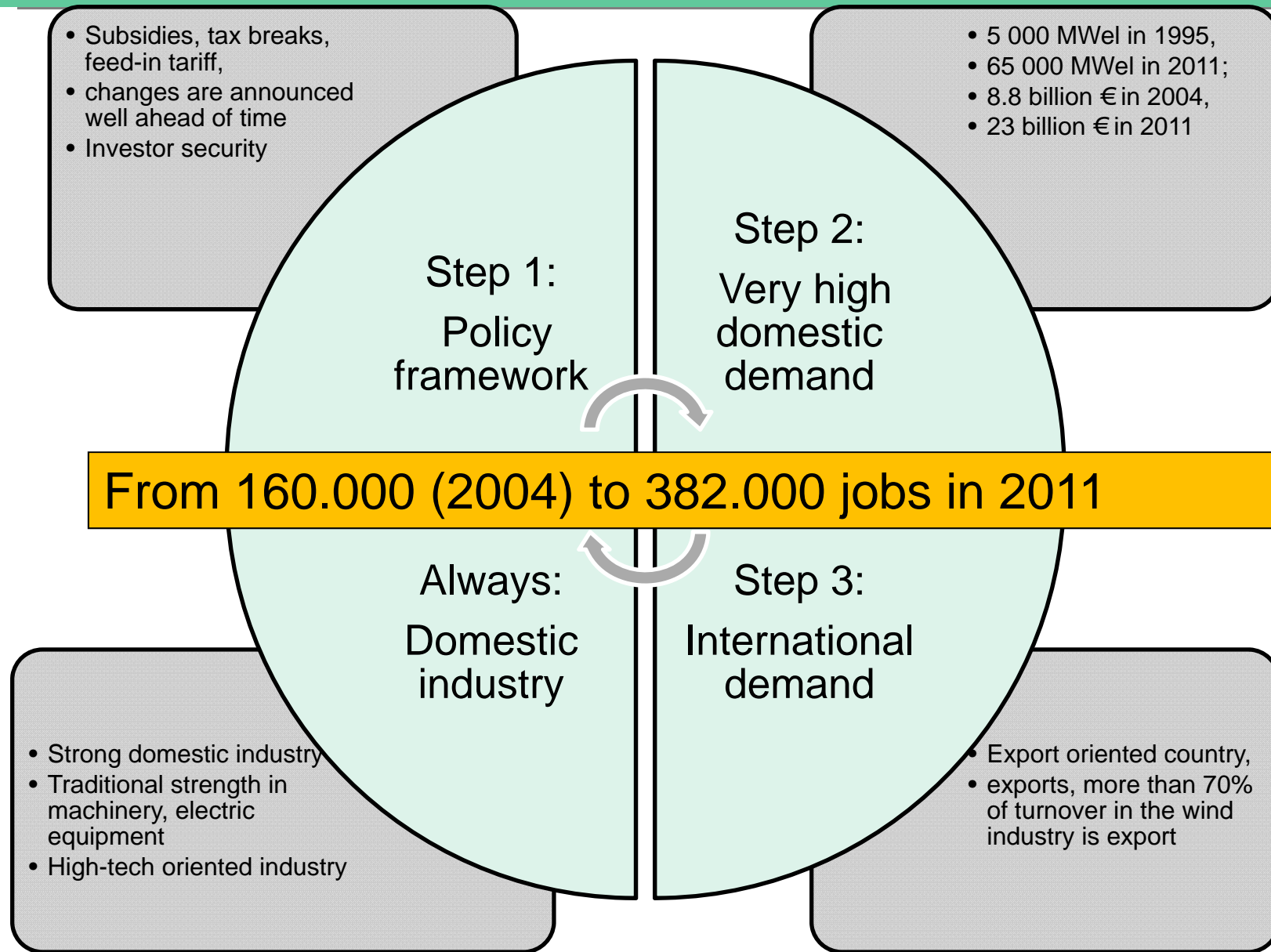


Source: EuroObserv'ER 2011

WHAT HAS DRIVEN THESE NUMBERS?



Success factors: Germany



SUCCESS FACTORS FOR DEVELOPING COUNTRIES

Domestic production along the value chain => “Local content”

Important fields for capacity building are found along the whole value chain



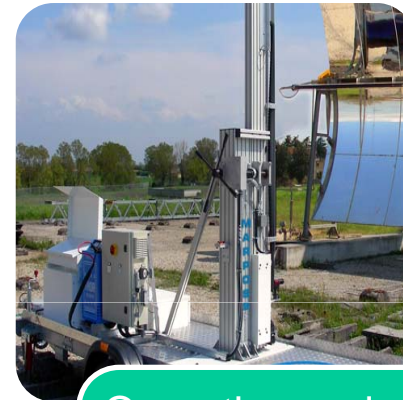
Intermediary goods;inputs

- How much can be produced domestically?
- Services, planning domestic?
- How much has to be imported?



Production of RET

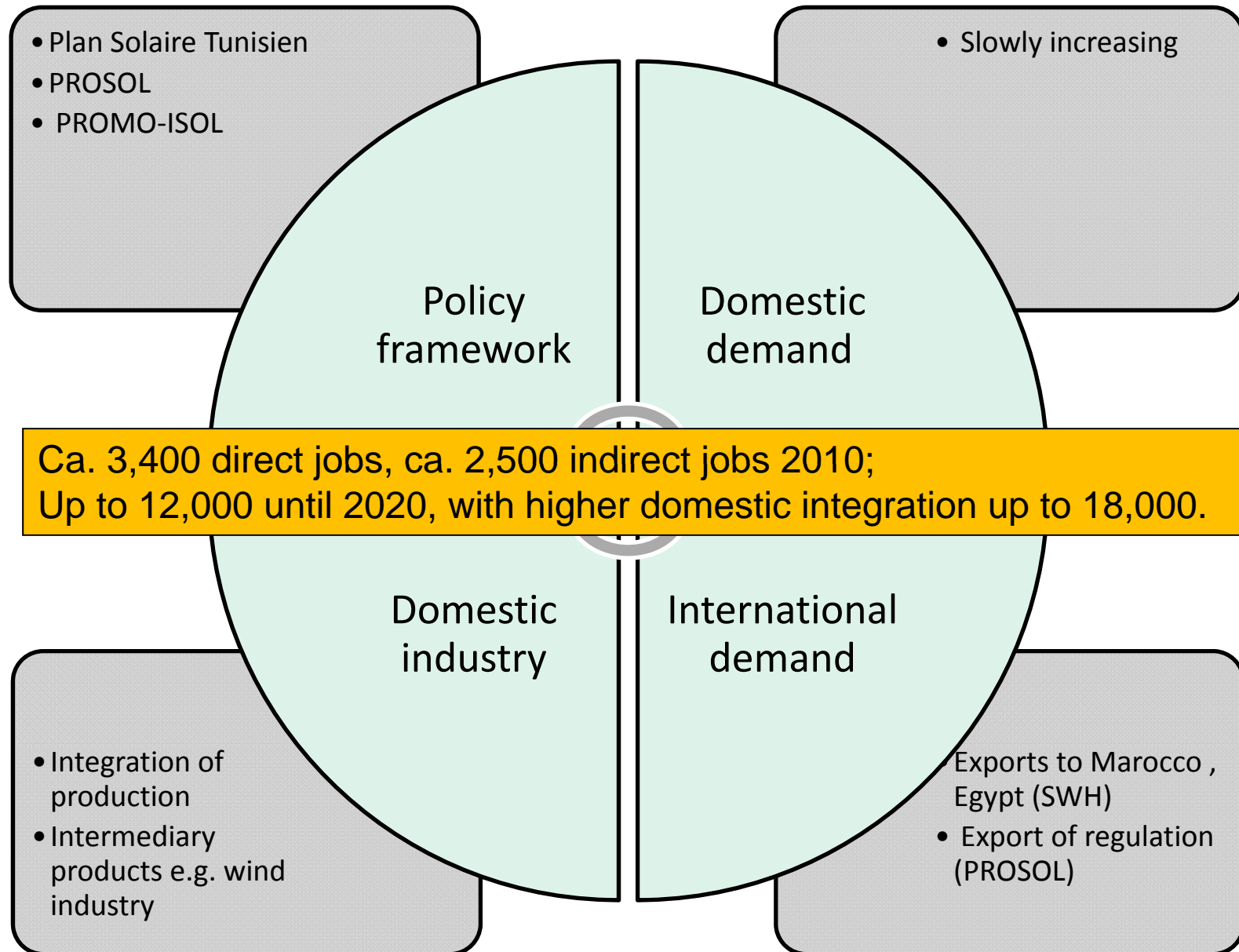
- Can the technology be domestically produced?
- Can components be produced?



Operation and Maintenance

- Local maintenance?
- Who operates large facilities?

MENA: the example of Tunisia



Case study Tunisia

◆ Wind energy

- ◆ domestically produced components and services between 30% and 40%.
- ◆ complete systems will be imported
- ◆ but components (turbines, electronics) will be produced to 32% in the country
- ◆ Construction works (including towers) provided domestically to 80%
- ◆ Planning with 50% within Tunisia

◆ CSP

- ◆ Domestically produced components and services vary between 85% and 30%
- ◆ Glass products and electric components will increasingly (90% by 2030) be produced in the country.
- ◆ Construction works will be provided domestically up to 90%, planning will be done with 50% within Tunisia

◆ PV

- ◆ all complete systems will be imported
- ◆ glass products and electric components will increasingly (90% by 2030) be domestically produced
- ◆ Construction works will be provided domestically up to 90%,
- ◆ Planning with 50% within Tunisia

◆ Solar Hot Water

- ◆ Assembled in Tunisia to a large extent
- ◆ By 2010: 7 companies in production
- ◆ 1100 microenterprises: installation and O&M
- ◆ domestically produced components and services between 85% and 50%
- ◆ Construction 90%, planning 90% within Tunisia

Results

Policy

- ◆ **Set credible and stringent energy efficiency and RE targets**
- ◆ **Combine foreign investment and local content**

Qualification

- ◆ **Adjust qualification to energy efficiency and RE targets**
- ◆ **Co-operate with international firms for training**
- ◆ **Train the trainers**

Thank you for your attention!

