

Large Solar Thermal Systems!

Spain: Development of large solar thermal systems in an obliged market

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Econcern



Q7, Netherlands

120 MW offshore wind farm



Spain



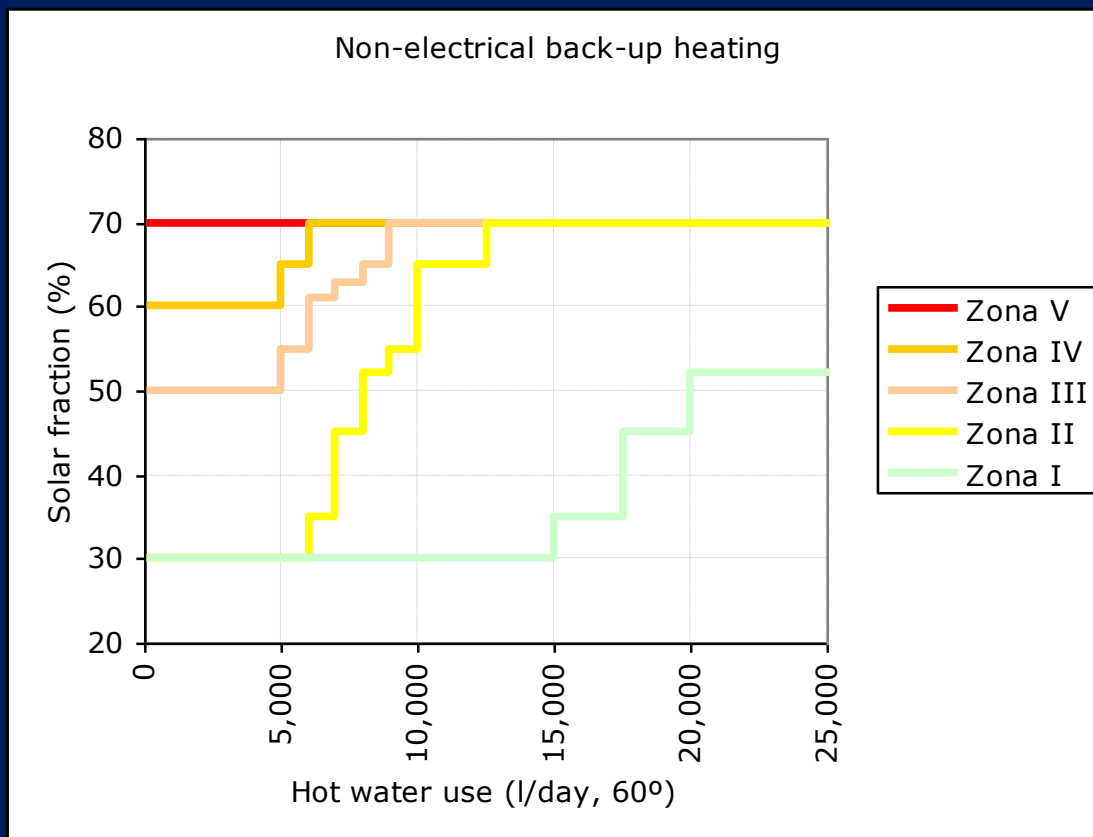
**Solior: Integrated
collector storage**

Econcern Offices

- 32 offices in 16 countries
- ~800 employees

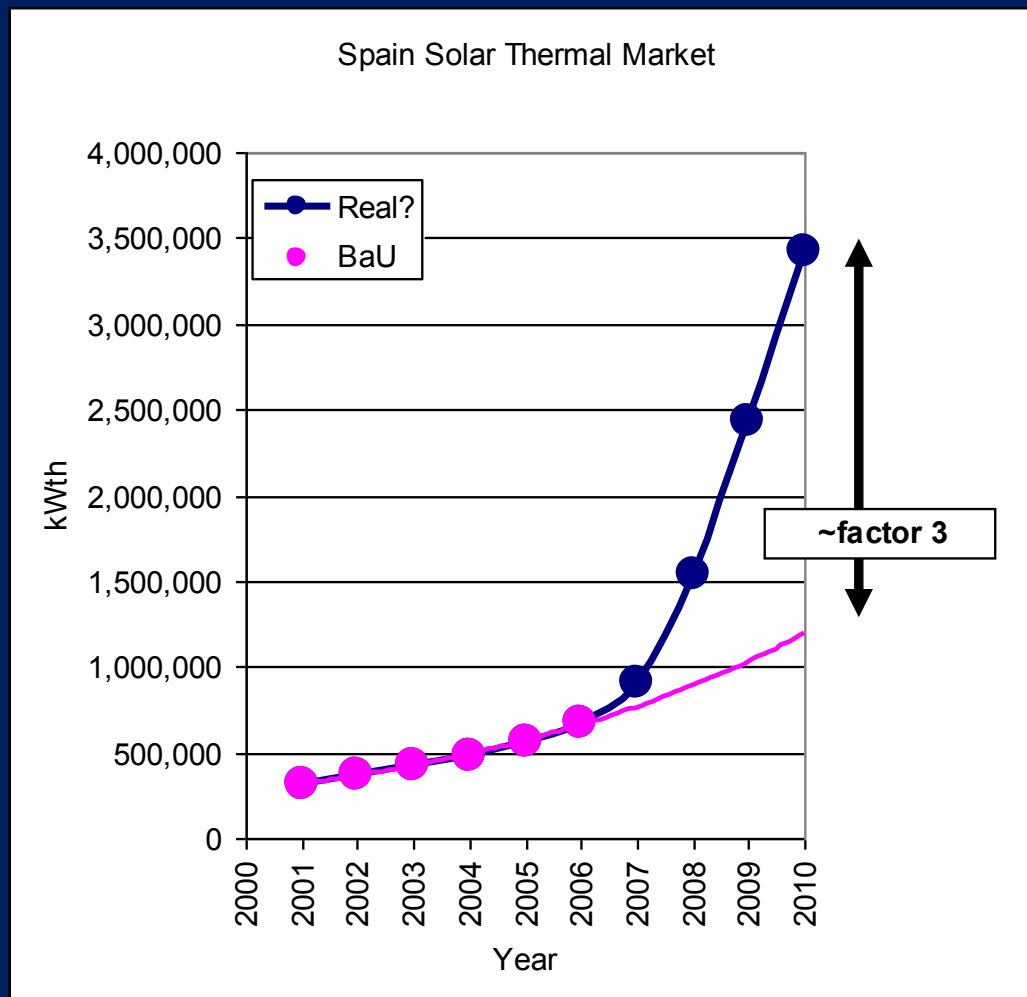
CTE HE-4: Minimum solar contribution hot water preparation

- 5 climate zones
- If hot water consumption > 50l/day



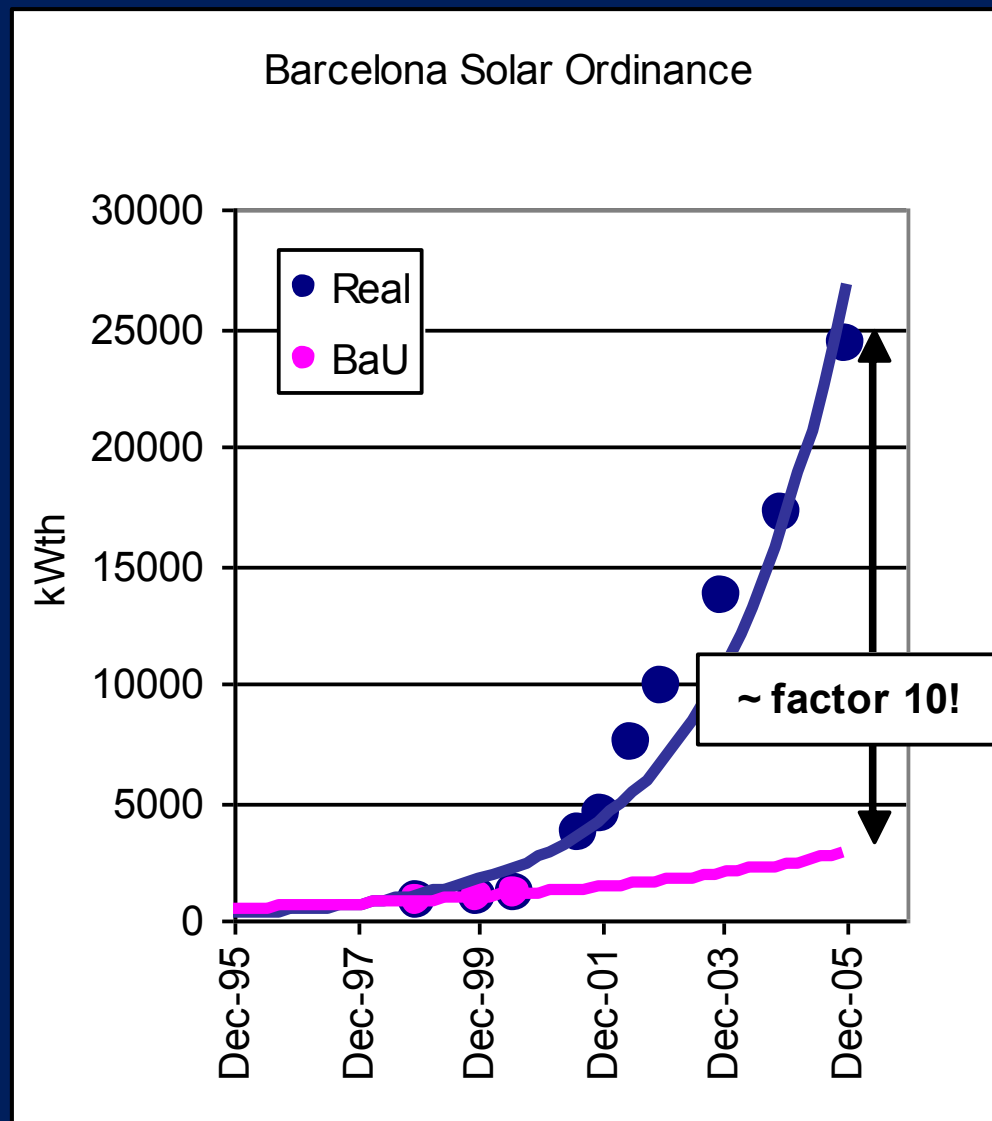
Solar Thermal Market Spain

- Can we make it?

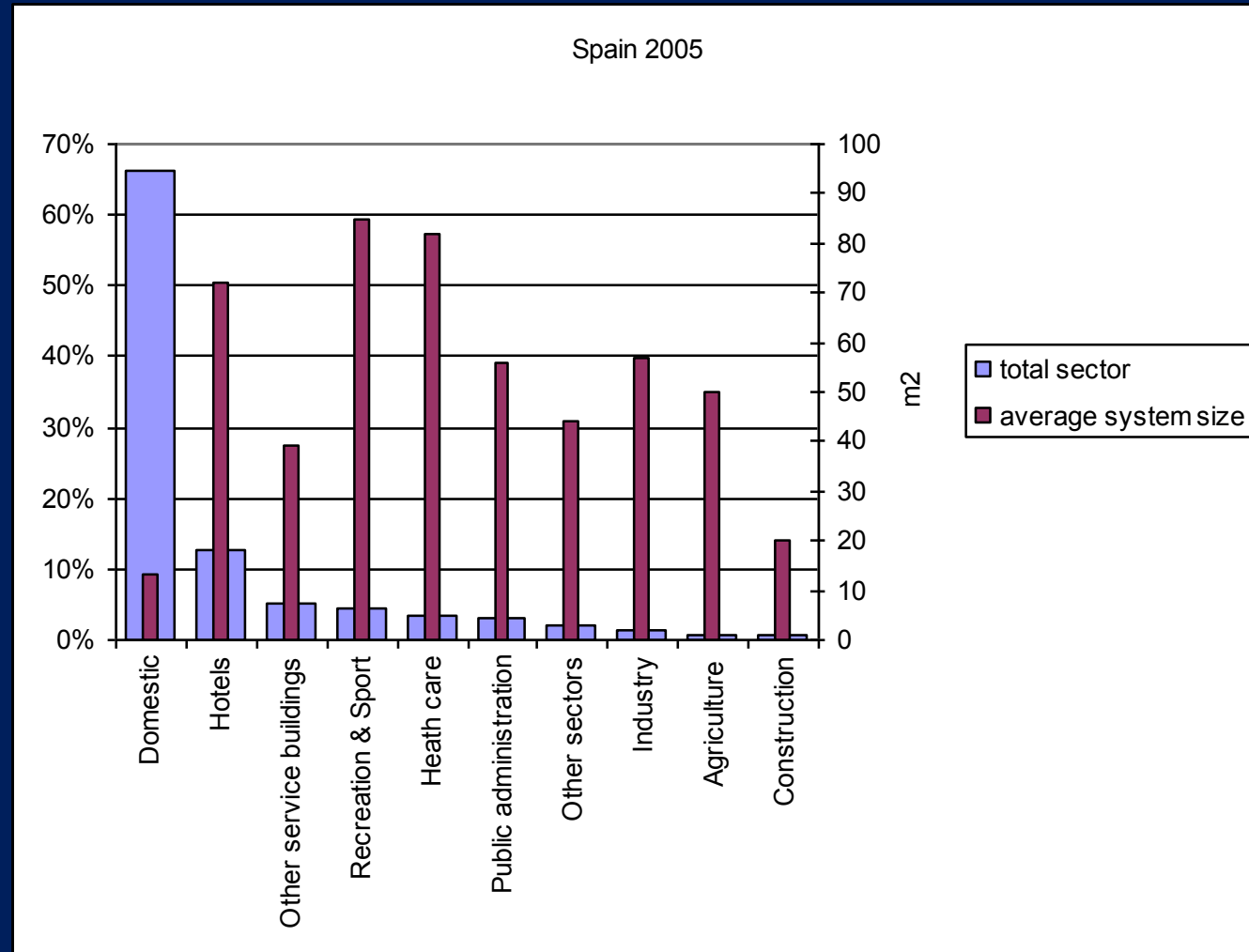


The power of a solar obligation

- Barcelona factor 10!

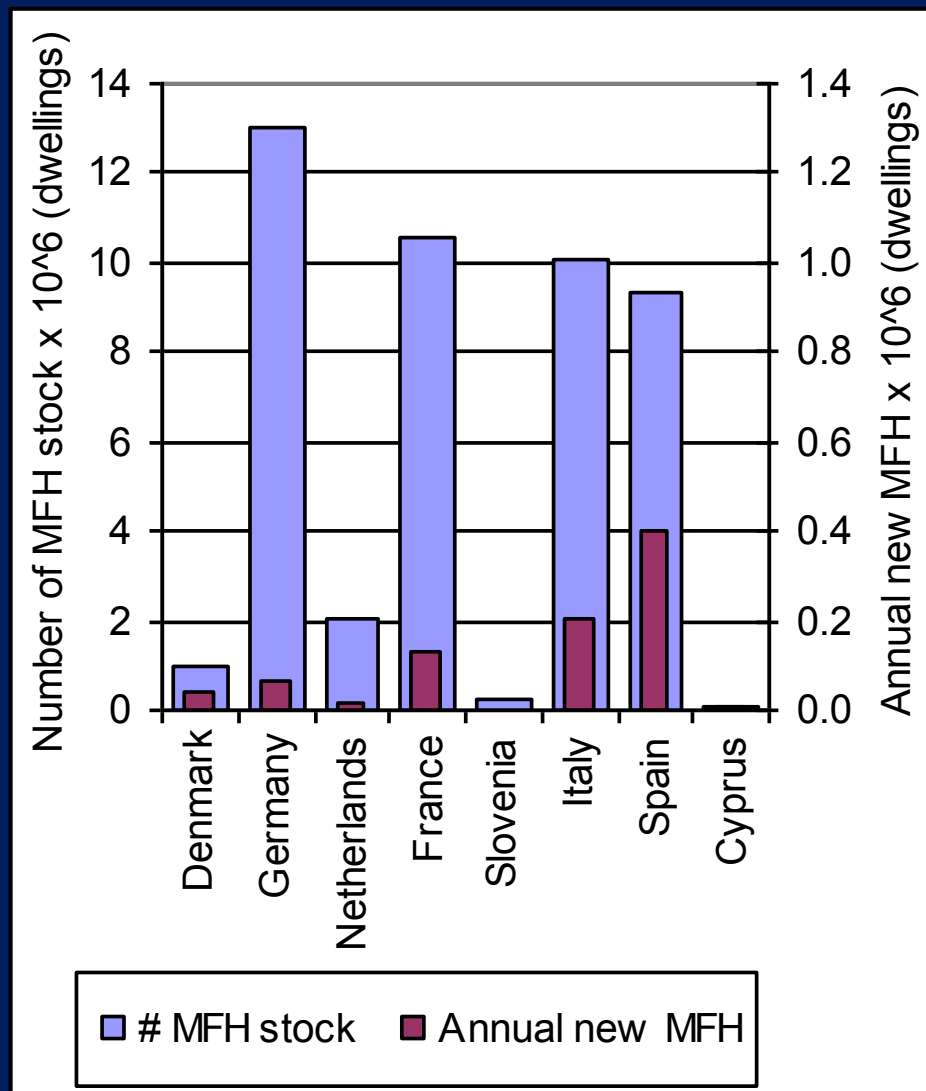


Market breakdown



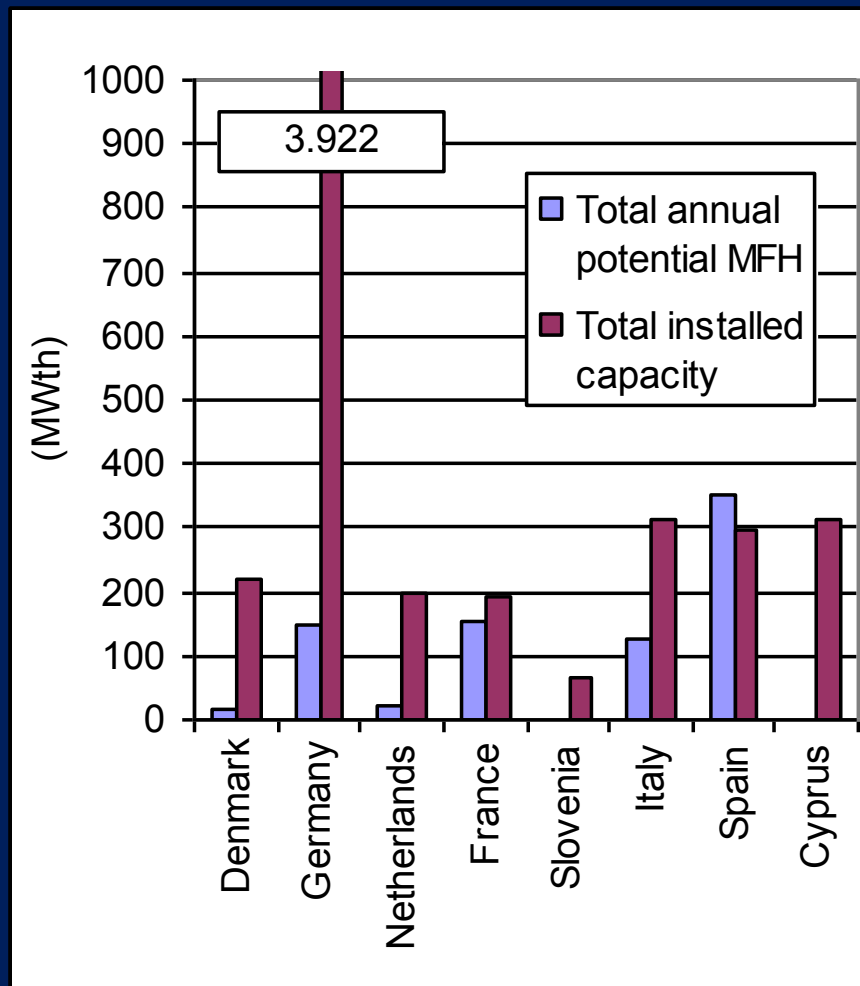
MFH Market

- Total market 46 mlj. dwellings
- 43% of the total dwellings
- New production
 - Spain 400.000
 - Italy 200.000
 - France 130.000



MFH Solar thermal Market

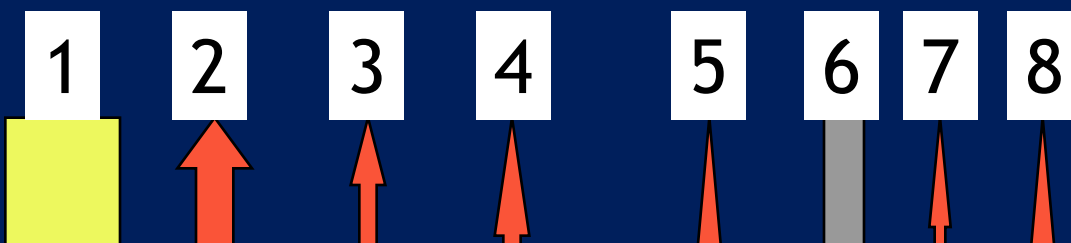
- 820 MWth total annual market
 - 15% total installed
 - 475 GWh
 - 210 Mton CO₂
- 350 MWth Spain
- 150 MWth France and Germany



Qualified market development

- Main goal: to develop the solar thermal market in a sound and efficient way to get **satisfied end users** and **avoid a negative image**
- Quality is not only applicable to technical issues and is important in the whole chain: from production to information and marketing campaigns
 - Supply side
 - Demand side

Solar powered hot water system



End consumer wants an energy service not a system!

The service: Comfortable and secure hot water supply with an considerable solar fraction

9

Supply side

• Suppliers/engineers

- Quality for hardware
- Prefabricated systems, Standardized components
- Fool proof systems
- Certification (e.g. Solar keymark)
- Simple hydraulic layouts, with a minimum of valves, control, pumps, etc.
- Clear installation instructions, clear user instructions
- Technical support, after sales service

• Installers

- Training
- Capacity building
- Certification of installers
- Good maintenance service

Demand side

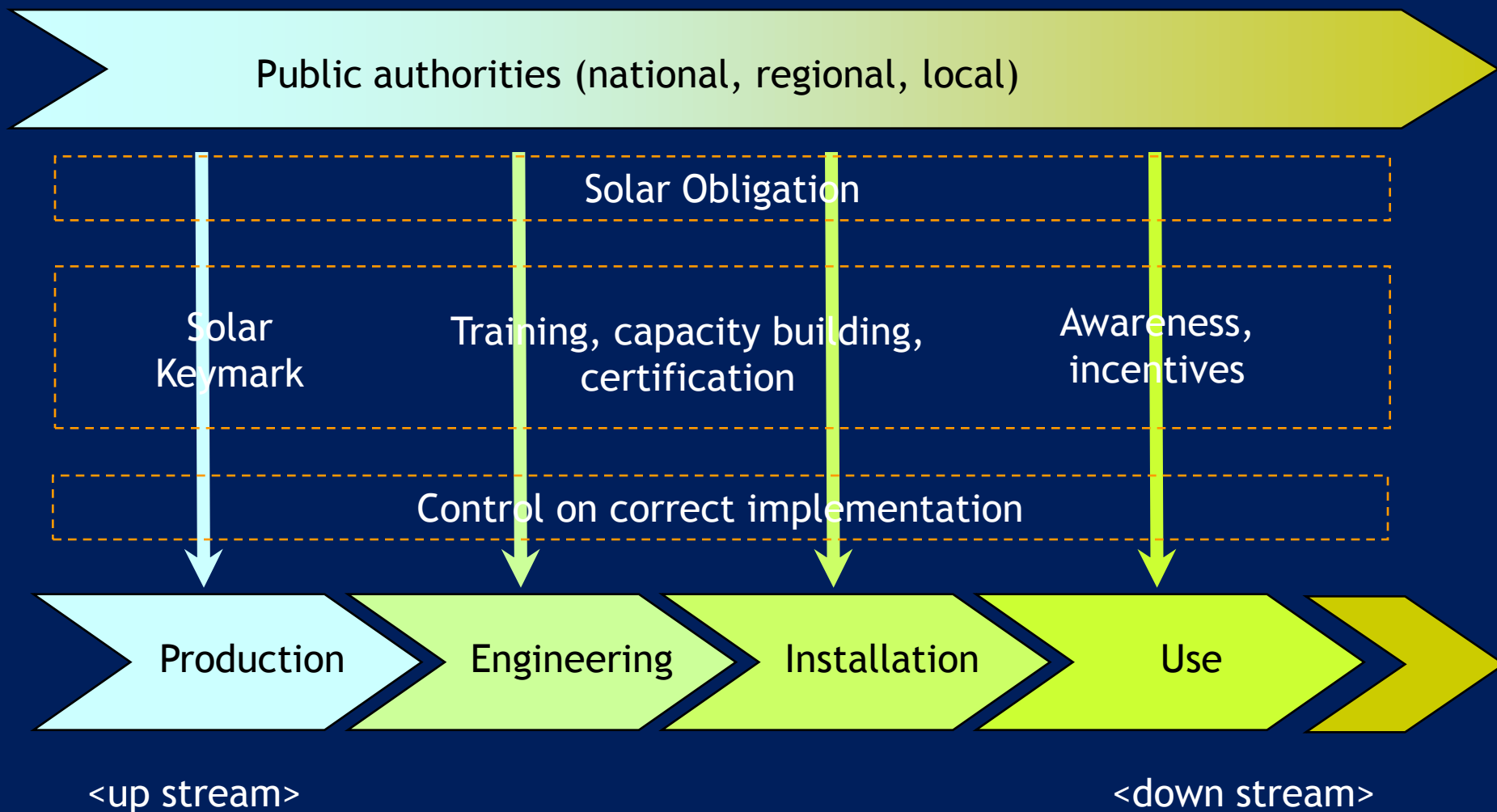
• Intermediates

- Correct, clear and understandable information
- Incentives, remove possible barriers
- Control on implementation

• End users

- What does quality mean for the end user? >> No hassle!
 - Good working system with a considerable solar fraction and a minimum of maintenance
 - No manual adjustments for control units, overheating and freezing protection
 - No hassle with separate invoicing, etc
- Clear user instruction

Roll of authorities in value change



National position paper Spain

- Regulatory framework
 - Simplify
 - Harmonize
 - Flanking measures (tools etc.) proSTO (EU)
 - Renovation market <1000m²
- Control / monitoring implementation
 - Training and tools
 - Capacity building
- Capacity building supply side
 - Enlarge technical knowledge
 - Enlarge installation capacity
 - Qualification scheme
- Awareness raising
 - Existing dwellings
 - Renovation market <1000m²
 - Accompanied by sound incentive scheme

Conclusion

- Solar obligation is an effective measure to develop the market, if:
 - Right flanking measures are available for all market actors
 - Effective control / monitoring process is in place

To conclude

- Lets develop the solar thermal market in a qualified way!...and remember

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See also:

www.solarge.org

www.ecostream.com

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Energía solar es la energía del futuro
entonces

¡España es el país del futuro!