

MED-EMIP

Euro – Mediterranean Energy Market Integration Project

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Budget Allocation Charts

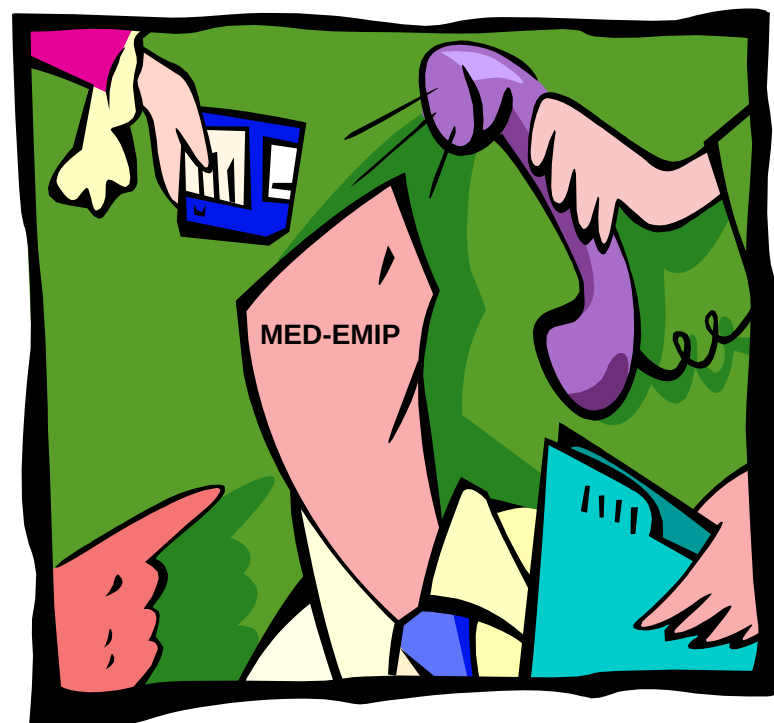
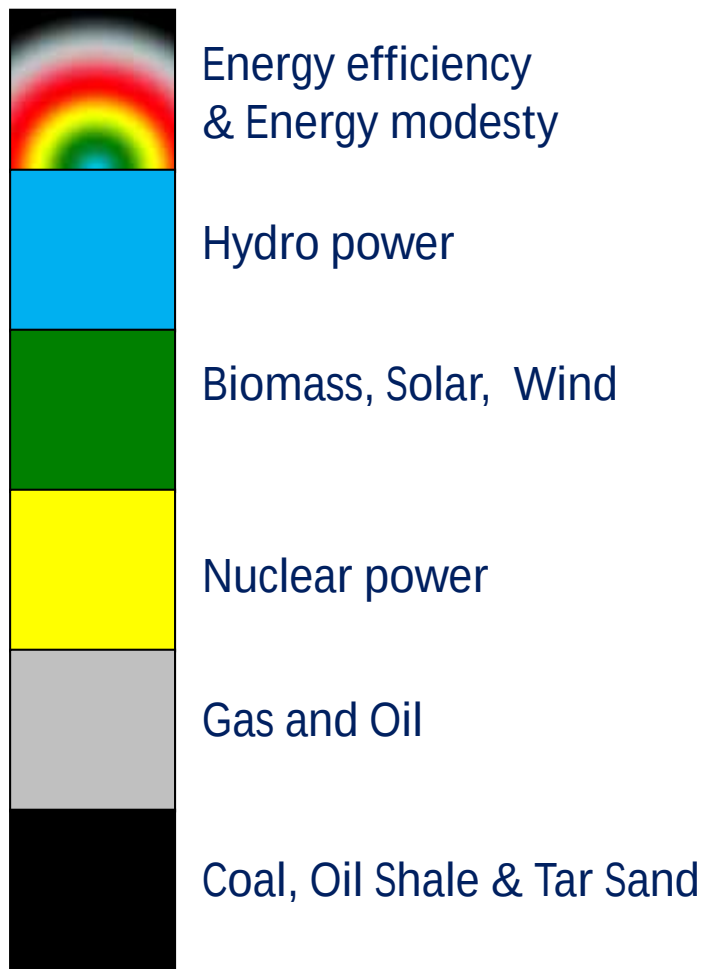
“ENERGY EFFICIENCY: A STRATEGIC AGENDA FOR GOVERNMENT AND INDUSTRY”

Grand Hyatt Amman, Monday, 9 November 2009

Amman, Jordan

“The contents of this publication are the sole responsibility of the author and can in no way be taken to reflect the views of the European Union”.

MEDEMIP Color Coding for Energy Resources





- 1: DSM and Energy Efficiency**
- 2: CSP and PV**
- 3: Oil Shale**
- 4: The Mediterranean Solar Plan (MSP)**
- 5: Budget Allocation Charts (BAC)**

Meeting Demand

SSM (Easiest , Most Expensive)

DSM &EE in Power Sector

- As a rule of thumb DSM can offer solutions to short-medium term demand changes for costs that are between 1/2 to 1/10 of the costs of counterpart SSM solutions
- Compared with SSM, DSM has smaller lead time for implementation

End Use Efficiency improvement

- Energy Efficiency improvement are cheaper than investment in additional conventional energy supply.
- Saving potential of EE-measures at 30-50% resulting in increase of competitiveness
- The total cost of producing a kWh is twice the cost of saving it.
- Energy end use efficiency investment create 3-4 times the number of jobs created by comparable energy supply investment



But it can be the most difficult

End use efficiency takes a set of consistent, persistent well integrated country specific tools for each technology or measure covering:

- Regulations
- Incentives,
- Financing,
- Training,
- Labeling certification & standards
- R&D,
- Demonstration Projects
- Awareness Raising



MED-EMIP Pillars

1: DSM and Energy Efficiency

- Since energy efficiency and demand side management is the cleanest, most readily available and most sustainable **source of energy** of this world
- MED-EMIP is supporting energy efficiency and energy conservation in the power sector at all levels of supply and demand of generation, transmission, distribution and end use by consumers. **(G+T+D+User)**



Pillar-1: DSM & EE Action Plan 2009/2010

AUPTDE and LAS

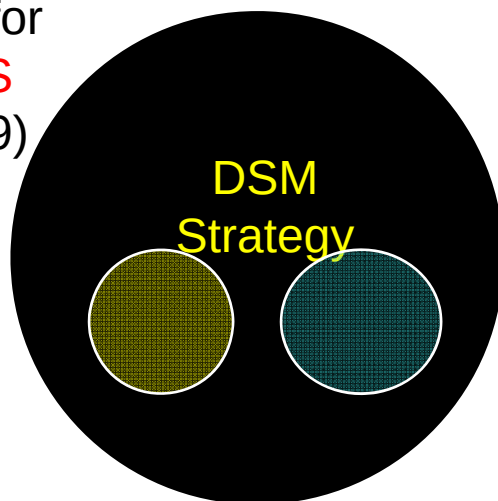
DSM and EE Programme **WS**

Tripoli, Libya (2/2009)

LAS consideration for EC End
USE EE Directive & NEAPPs

AUPTDE and LAS CDM for
the Power Sector **WS**
Bloudan, Syria (8/2009)

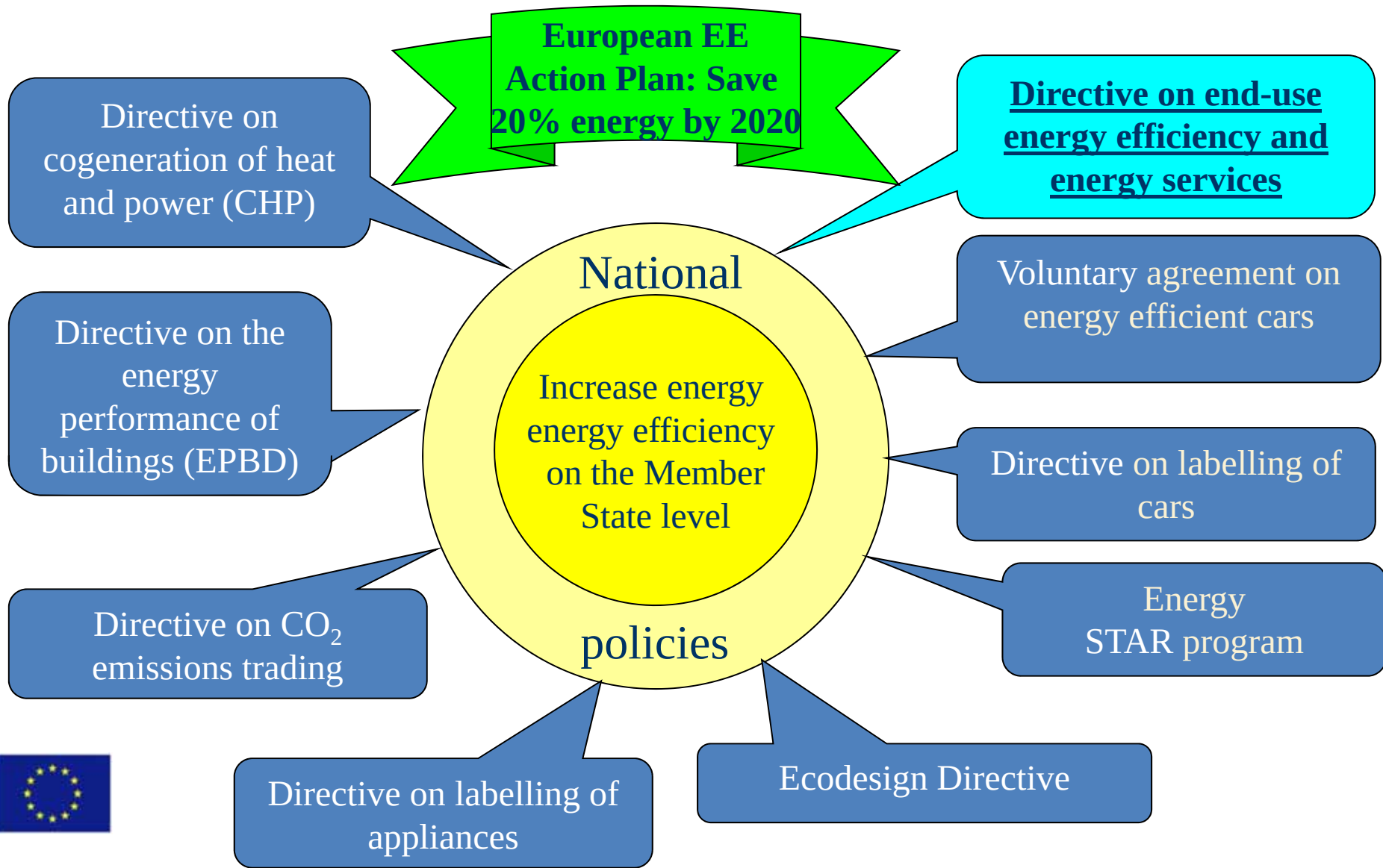
AUPTDE and LAS Power
Plant Mapping **WS &
Exercise?**



WS and individual
consultations on NEEAPS
and Directive (2009/2010)

Impact hoped for: 2% more efficient use of energy per year

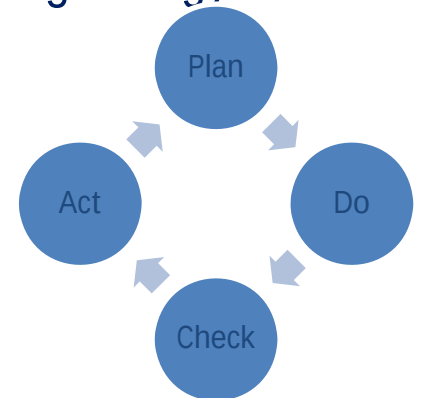
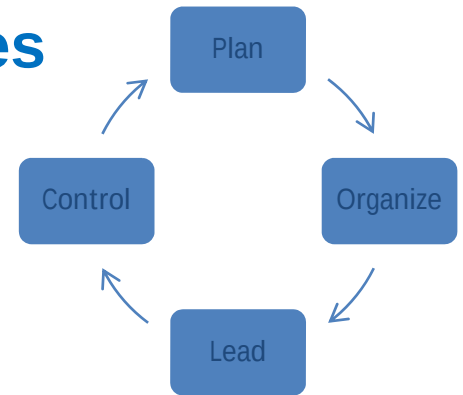
The European policy framework for energy efficiency



Directive 2006/32/EC on energy end-use efficiency and energy services

Each Member State has to

- Specify a national indicative energy savings target
- Draw up programs and measures to improve energy efficiency and submit to the EC (NEEAP)
- Assign to one or more new or existing authorities or agencies (e.g. the national energy agency) the overall control and responsibility for monitoring the framework set up to meet the target
- Ensure that the public sector fulfils an exemplary role
- Ensure that energy distributors are involved in promoting energy services to customers.
- Remove existing market barriers



5: Budget Allocation Charts (BAC)

To develop and disseminate the national “budget allocation charts” for interested countries.

This exercise is designed to basically answer the following simple question:

- Given a limited budget, which RE/EE technology/measure is the most cost effective and have large potential



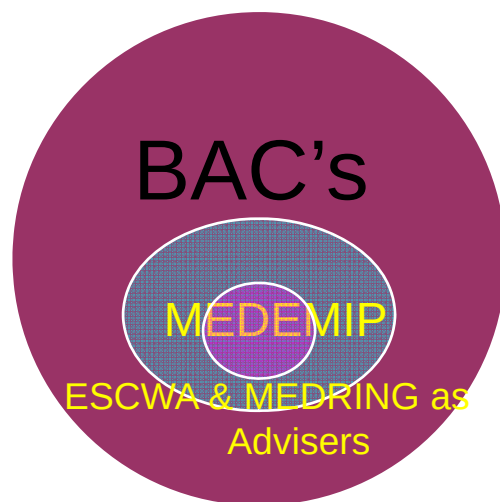
5: Budget Allocation Charts (BAC)

Preparation of BACs by
Members of MEDENER
End of 2009

2nd BAC workshop to
present and discuss charts
with ESCWA and MEDREG
1/2010

1st BAC workshop
with L.C.E.C in
Lebanon 3/2009

“MED-EMIP Power
Breakfast” in Istanbul
on 25 November, 2008



Marketing campaign with
Ministries (finance, energy)
and Utilities 4-8 /2010

Final conference with
Ministries, ESCWA
and MEDREG 12/2010

Impact : Reduced overall subsidies for the electricity sector

5: Budget Allocation Charts (BAC)

The Issue

The Issue

THE JORDAN TIMES

Wednesday, April 23rd, 2008 Page 3

1. Green building to help Kingdom save energy

By Hana Namrouqa

AMMAN - Local and international engineers on Tuesday discussed means to encourage real estate investors to apply energy-saving and environment-friendly practices. During the "Think Green in Real Estate Development" conference held yesterday, participants highlighted the importance of using environmentally responsible designs and construction methods and educating real estate developers on the subject of green building. Green building is the practice of building that maximises resources, such as energy, water and materials, while reducing the impact on health and the environment through better setting, design, construction, operation and maintenance, according to Wikipedia. Applying the practice will help turn investments into efficient, cost-effective and sustainable projects that reduce the use of nonrenewable resources and minimise environmental impact. Managing Director of Events Unlimited Samar Shawareb Ashgar said yesterday. Energy conservation will be a major concern for the Kingdom in the coming years; therefore, it is important for engineers and public officials alike to examine modern energy-saving techniques, she added. Meanwhile, Minister of Public Works and Housing Sahl Majali said yesterday that the ministry is benefiting from local and international expertise in applying environment-friendly construction methods and material, adding that the Kingdom seeks to be among the pioneering countries in green building.

In its efforts to rationalize energy consumption, Majali noted that the ministry is studying utilizing solar energy to light the Kingdom's streets at night.

Early last month, the ministry announced plans to start using solar energy to power streetlights in a step towards utilizing alternative energy sources. The step seeks to cut down on state expenditures, as lighting the country's streets currently costs around JD8 million annually.

Meanwhile Jordanian National Construction Council Secretary Khaldoun Qtaishat said the council has prepared several building codes including one on energy saving. "Under this code buildings which use environment-friendly or recycled construction material grey water and depend on lighting solar energy during the day are labelled energy-saving buildings," Qtaishat told The Jordan Times. He added that applying the code will add minor construction expenditure however real estate developers will save in the long-run on energy consumed for lighting heating and cooling. Saba Naeirat an architect at the Greater Amman Municipality's (GAM) department of research and design told The Jordan Times that certain factors should be present at a facility before labelling it as a green building. These include features that save water and energy use recycled and environment-friendly construction material and reduce pollution and waste while maximising cost and economic efficiency. Naeirat said. The GAM engineer said that green building should be taken into consideration by both the government and the private sector in order to reduce the country's energy consumption.

2. Cabinet adds new energy-saving items to tax exemption decision

AMMAN (JT) - The Cabinet recently added new items to the list of energy-conserving devices which will be exempt from customs duties and sales tax. The exempted devices include solar water heaters energy-saving lamps energy-conserving air conditioning and heating systems wind systems solar cells and hybrid cars. The move is meant to reduce the prices of the items to encourage citizens to conserve energy the Jordan News Agency Petra reported.

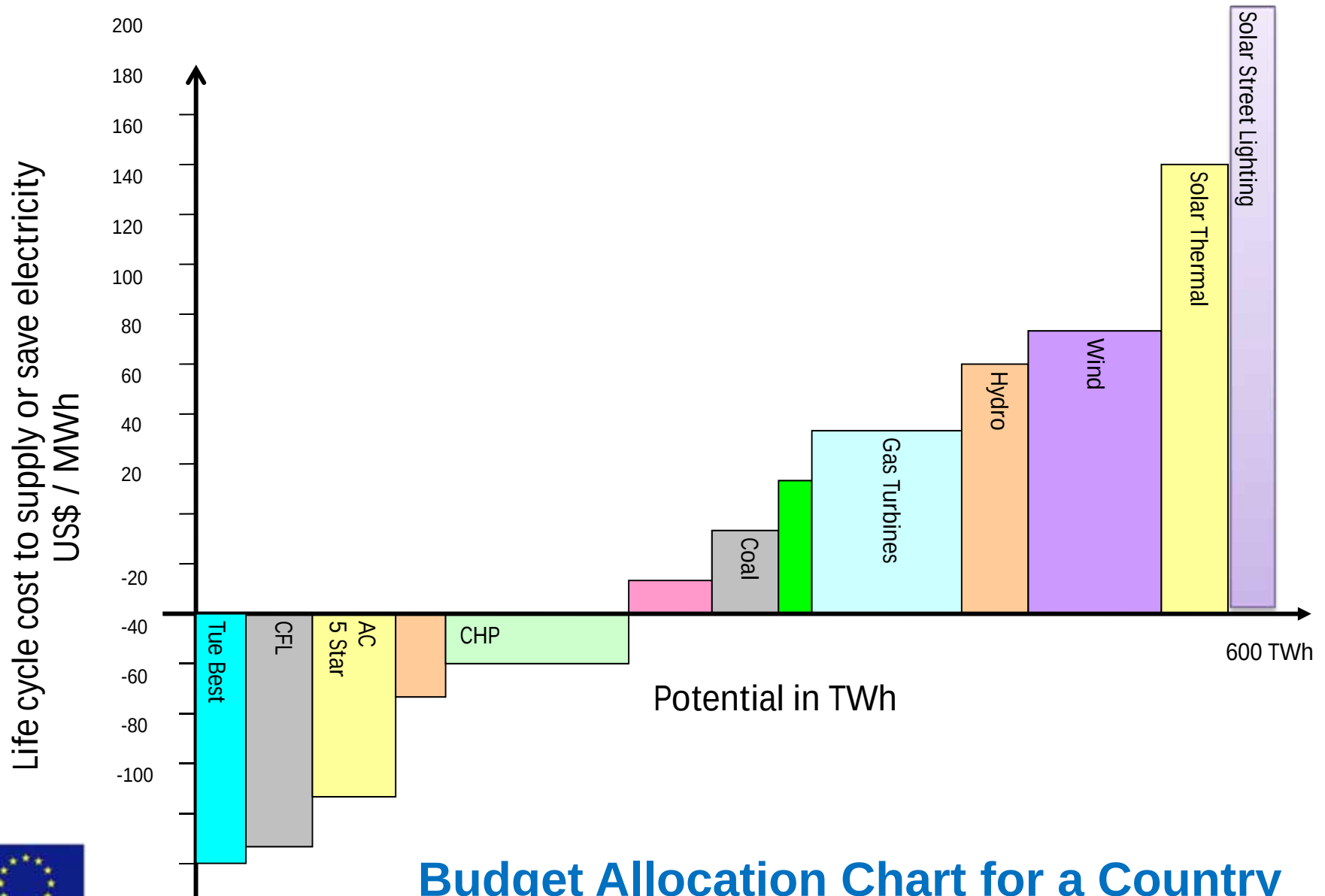


5: Budget Allocation Charts (BAC) The Issue

- We all know that this is not rational to start with PV night street lighting since with the same money we can do much more.
- To argue and submit studies and reports that no body reads is a waste of time.
- **Can we have it all cleared in one chart to show how to allocate scarce budget efficiently.**



5: Budget Allocation Charts (BAC)



5: Budget Allocation Charts (BAC) Overall methodology



2 Regional Experts



National Expert

National Expert

National Expert

National Expert

National Expert

National Energy Agency

National Energy Agency

National Energy Agency

National Energy Agency

National Energy Agency



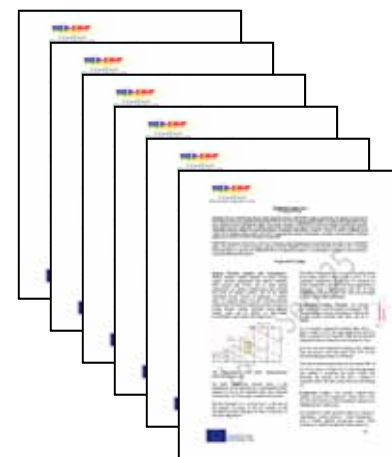
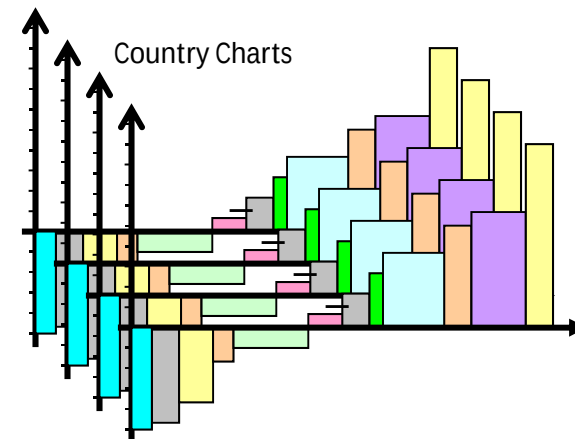
National & Regional Dissemination



5: Budget Allocation Charts (BAC)

Products & Tools

- Country Charts
- 30 Technology papers
- National Events
- Regional Events
- Networking & cooperation

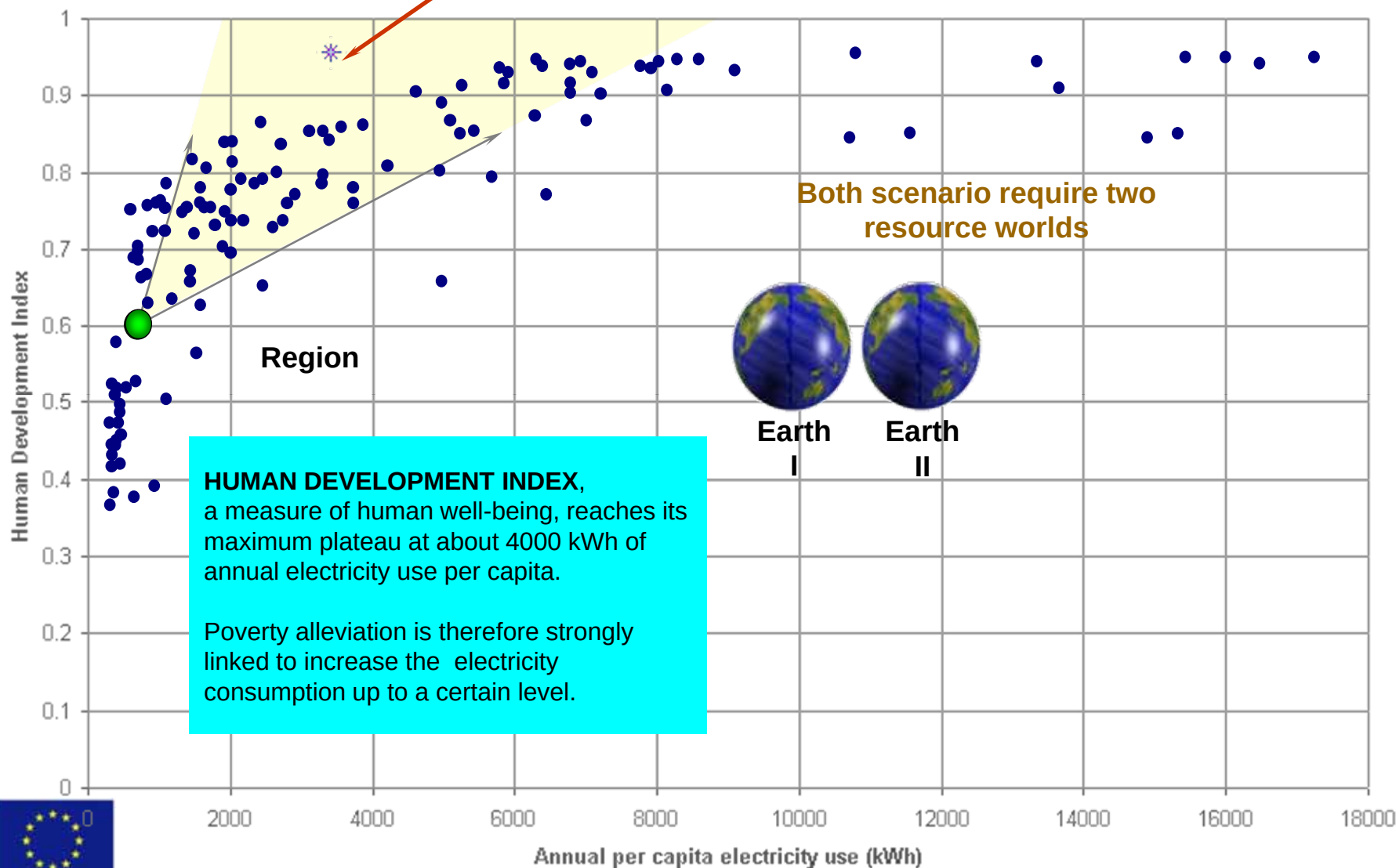


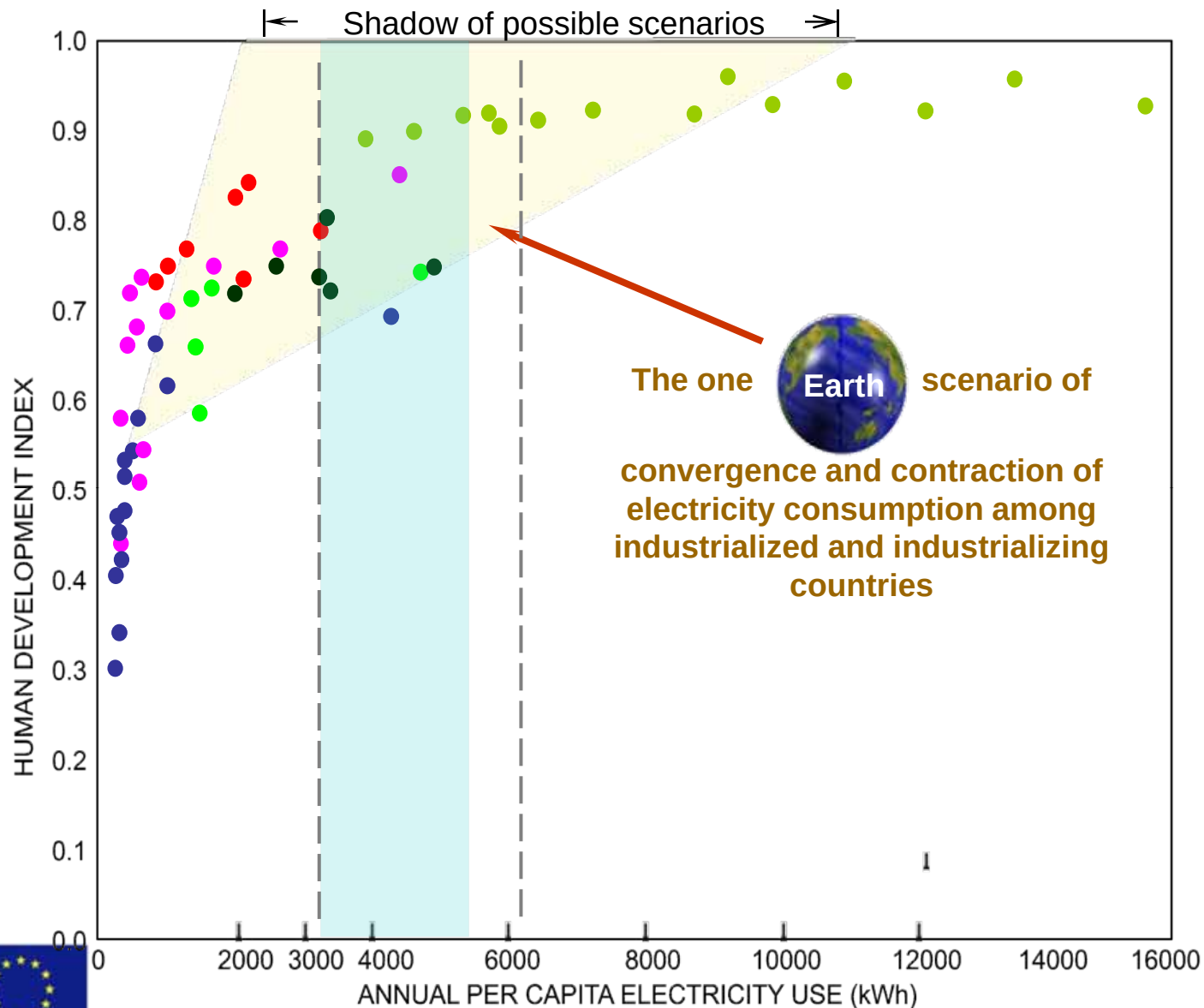
Overcoming barriers to end-use energy efficiency

- split incentives between investors and users or between technology/building providers and buyers
 - sometimes lack of funds
- => more information, practical guidance, regulation, and financing support needed („the sticks, the carrots, and the tambourines“) **EE directive**
- Energy efficiency is usually not ‚visible‘ but embedded in appliances, buildings, equipment, ...
 - Energy efficiency = many small to medium technical improvements
 - lack of oversight (where to start?),
 - lack of information (both consumers and technology providers!),
 - sometimes small financial gains from an improvement
 - => lack of priority **BAC**



Best case future scenario
Region 2050





Thanks for your attention

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