SOLID-DER Co-ordination Action to consolidate RTD activities for large-scale integration of DER into the European electricity market

Subsidy schemes in EU countries: Motivations and impacts

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Motivations for choice of scheme

- Market based ideal – least cost solution
- Financing renewables directly without public funding – fiscal burden
- Support of specific technology development
- Simplicity and investment risk reduction

General trend of support schemes

- FIT are dominating with a gradual move towards FI premiums

- TGC are used in some markets and considered in more for future use

- Combinations of support instruments are used in markets to drive specific developments

- EU wide harmonisation and future trading (Guaranties of Origin) is broadly discussed

Why the move to Feed In premiums?

- FI premiums encourages market behaviour of generators that rely partly on income from varying market prices
- As RES and especially intermittent generation increase the flexible generation becomes more important and sometimes scarce – CHP and other DG must behave flexible
- Variations in market prices will also affect the composition of supported generation
- Feed in premiums are sometimes also combined with TGC – where the support of specific technologies are in focus

Main support characteristics in new MS

	Support category	Additional support or taxes
Bulgaria	FIT	-
Czech Republic	FIT (fixed tariff or premium)	Investment subsidies
Estonia	FIT	-
Hungary	FIT (feed-in premium)	Investment subsidies
Latvia	FIT (combined with quota obligation)	-
Lithuania	FIT	Soft loans, exemptions from pollution tax
Poland	TGC	RES exempted from excise tax
Romania	TGC	-
Slovakia	FIT	Investment subsidies
Slovenia	FIT	CO2 taxation non RES

Certificates advantages

• Broad competition between technologies – efficient implementation of targets

• Specific targets met – by allowing the market to adjust the necessary subsidy

• Politically and administratively easier to adjust the renewable shares gradually

• Transfer of subsidy via market – no fiscal burden

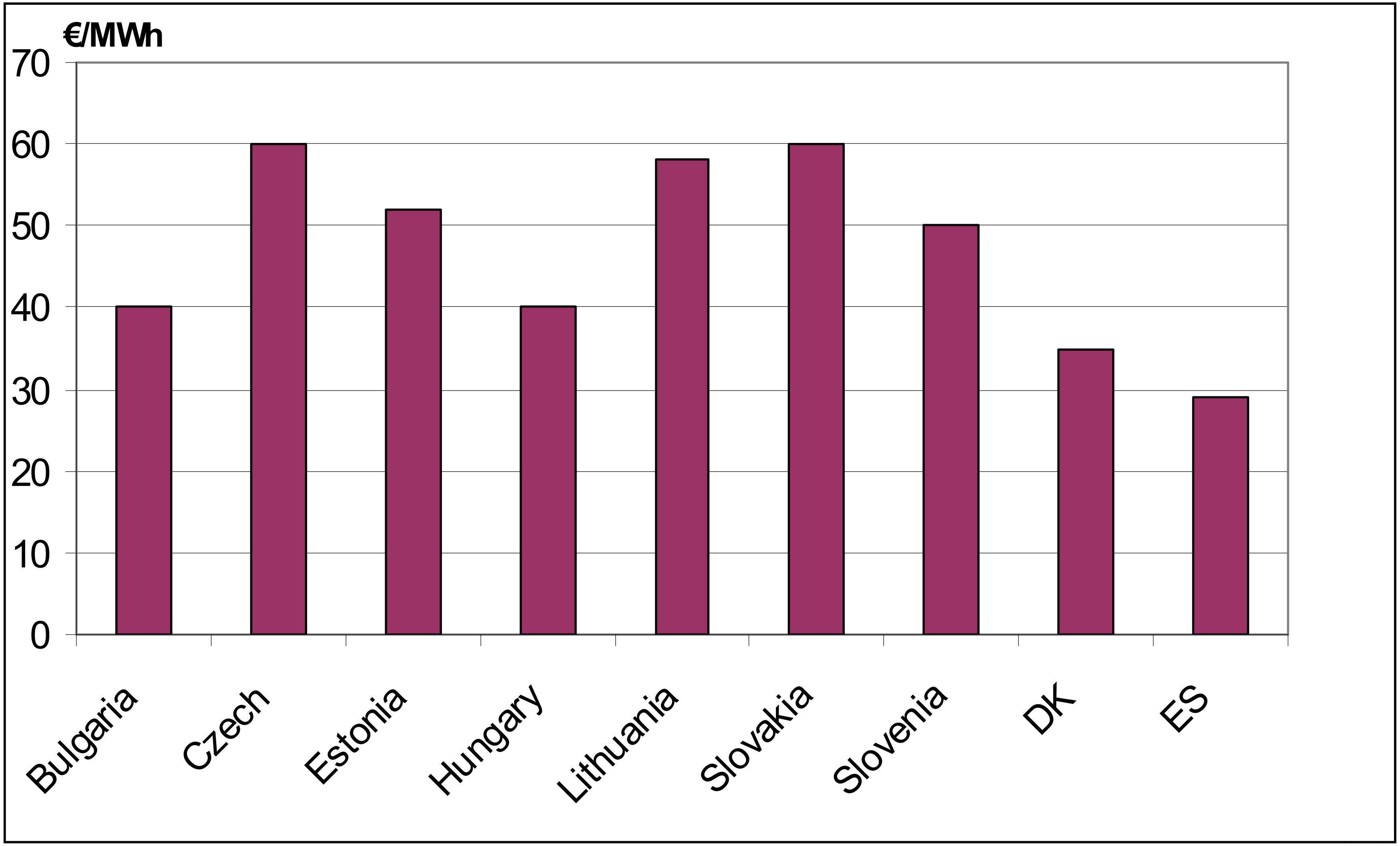
Certificates disadvantages

- Liquidity in TGC market can be difficult to obtain

- Long term contract bias – bilateral trade - reduce liquidity

- Volatile prices – implicit high risk premiums
  - needs banking
  - + adequate penalties as caps
  - efficient transfer from end-user to supplier

Subsidy levels: comparison of FIT (lower) and feed in premiums (2007)



Competition for investments

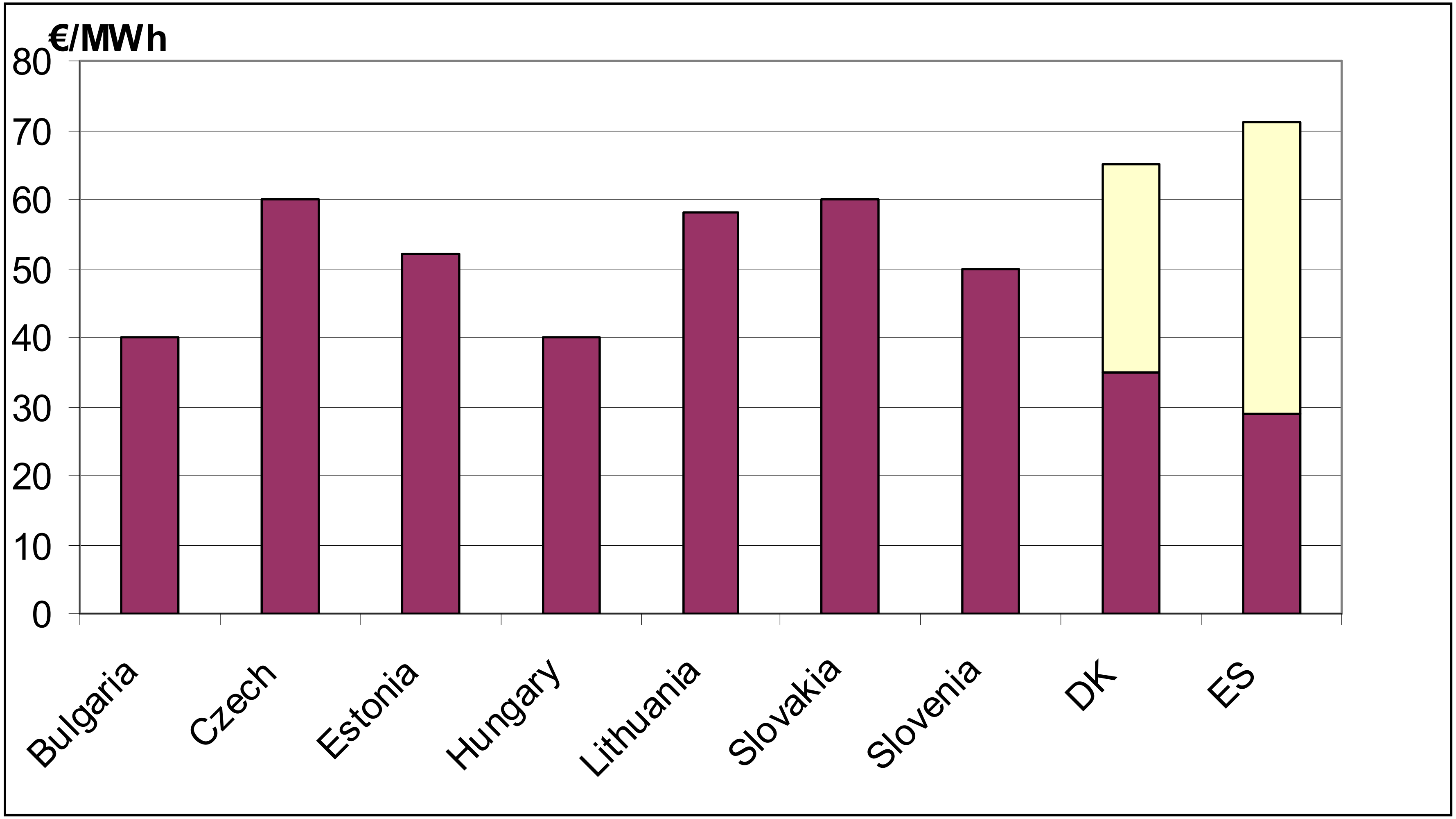
Investment in RES/DER is not always small business

On a European scale there is widespread competition for investments in renewables

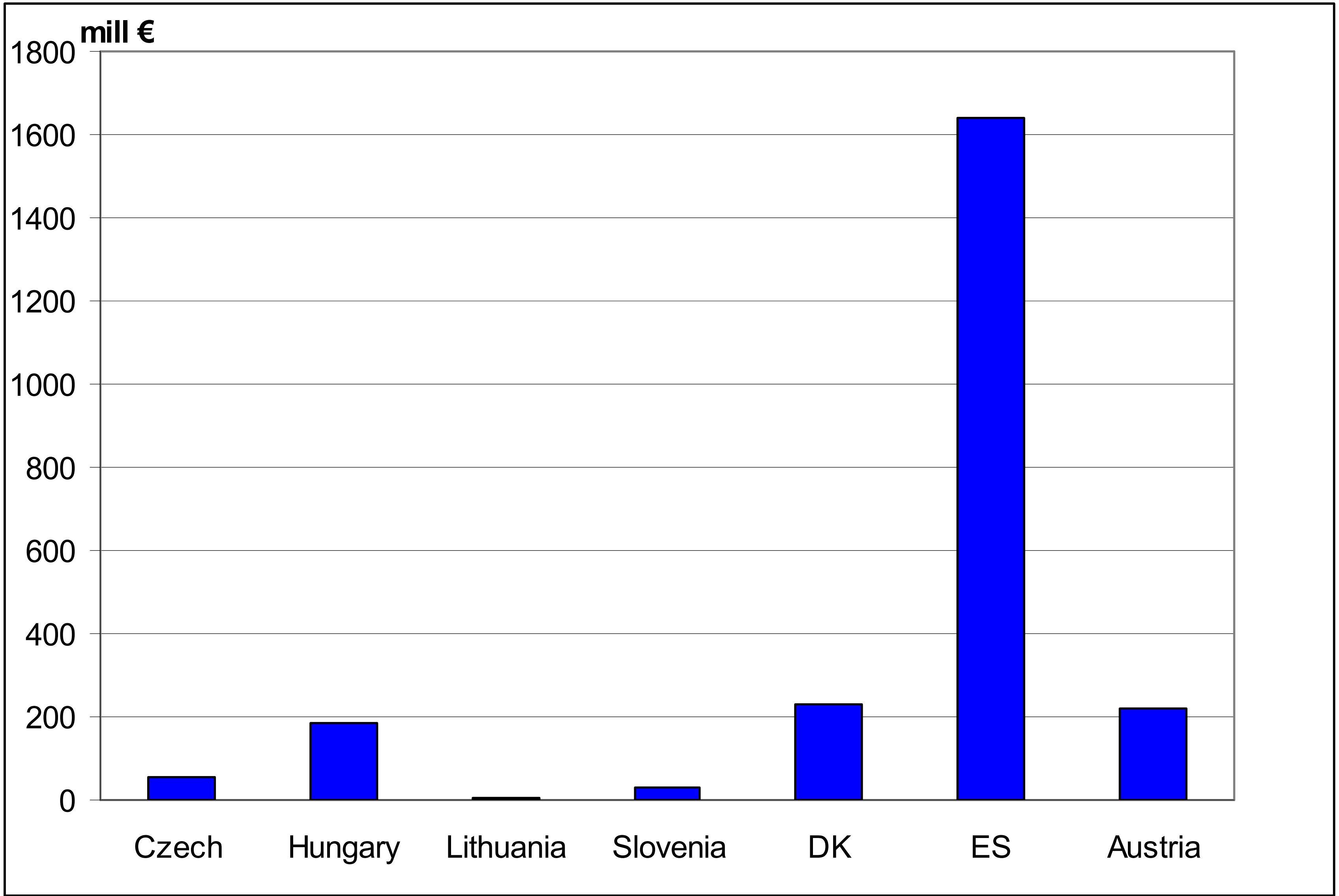
The level of support of FI tariffs and market prices together with generation (wind) conditions will determine were the fastest development takes place

There is limited resources in the short hand for development projects

Subsidy levels: comparison of FIT (lower) and feed in premiums+market

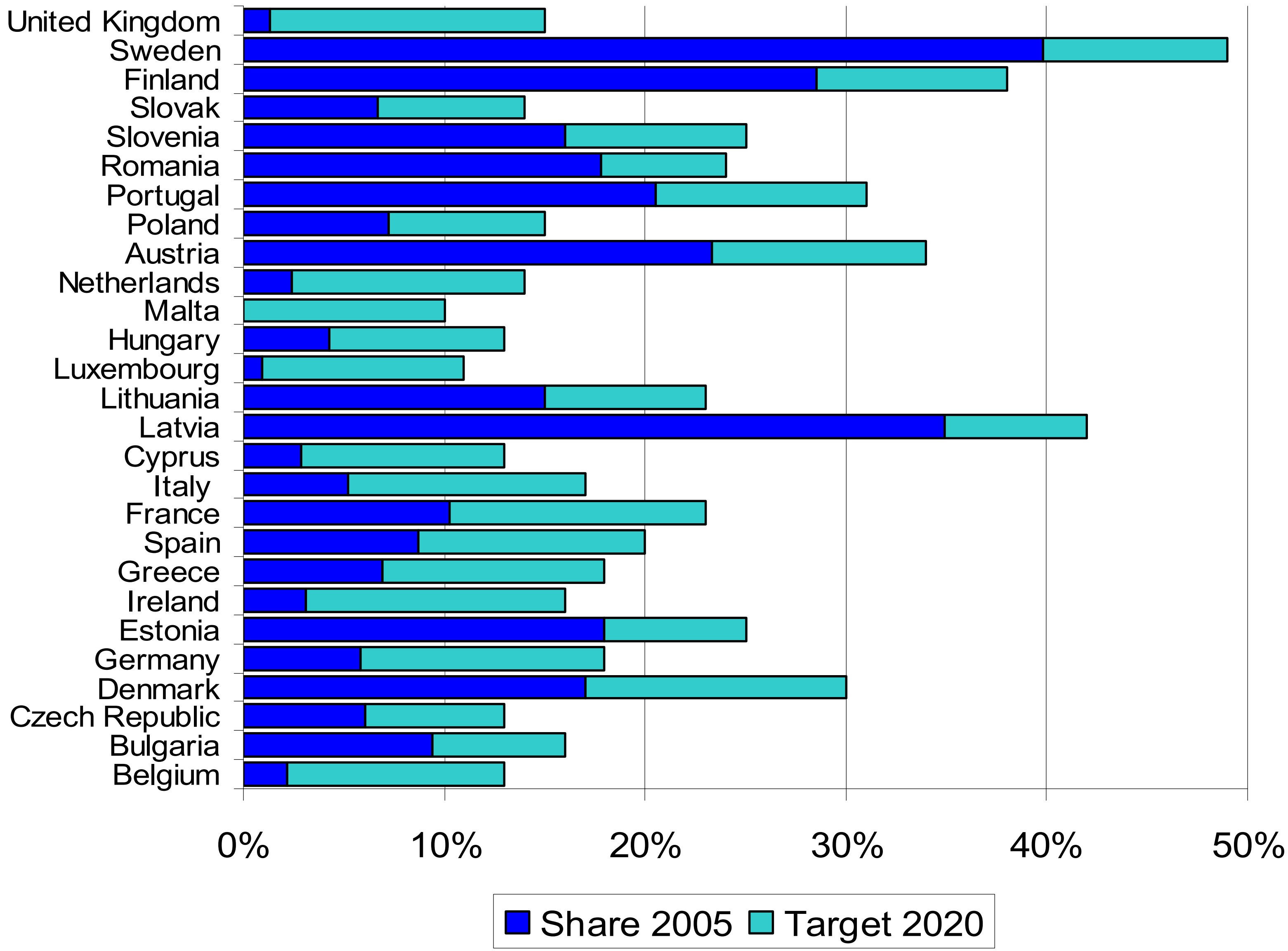


Support for RES/DER in EU countries in 2006



Suggested targets by EU 2008

National RE Targets



EU Guaranties of origin and future trade

Potentially widespread use and increase of efficiency of support schemes compared to individual country support schemes

Reduce the negative impacts of varying costs of RES implementation

Certificates can only be sold if intermediate targets are fulfilled or (targets are documented to be fulfilled?)

With high targets only limited scope for overfullfilment and therefore limited supply of these certificates

But certificates from outside regions are allowed Norway?

Is it a problem that large countries can choose not to participate (Germany, others?)

Concluding remarks

• Different support schemes and mix of instruments in use among EU countries

• The move from FIT to FI premiums becomes more important as RES/DG shares increase

• Fast development of RES/DER intensifies competition for investments in different countries

• Support for RES is of considerable size per produced unit in some countries and in others the support in financial terms is very large due to the high penetration

•The new ambitious RES targets suggested by EU will require continued support and it becomes increasingly important that the support is efficient in both achieving targets and minimising the costs of this