Energo Banking
Central & Eastern Europe

Challenges in RE Financing and Risk Management

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Botond Weöres, EnergoBanking Kft

RE-Shaping
Shaping an effective and efficient European renewable energy market

Supported by INTELLIGENT ENERGY EUROPE

Objective: More RE at lower costs

- Stabilize revenues (FIT)
- Reach stabile regulatory environment (no retroactive changes)

RE revenues	-	**Costs**

Cost of capital

- Reach critical mass
- Exploit economies of scales (Cap-Ex and O&M)
- Limit policy-related costs (e.g. admin & permitting)

- Decrease risks (RE policy, project)
- Pooling project portfolios
- Increase liquidity of investments (exit thru an EU market)

→ Lower cost of capital → Lower levelised cost of electricity
→ Low financial support needed from governments/consumers
→ More RE projects economically viable and bankable

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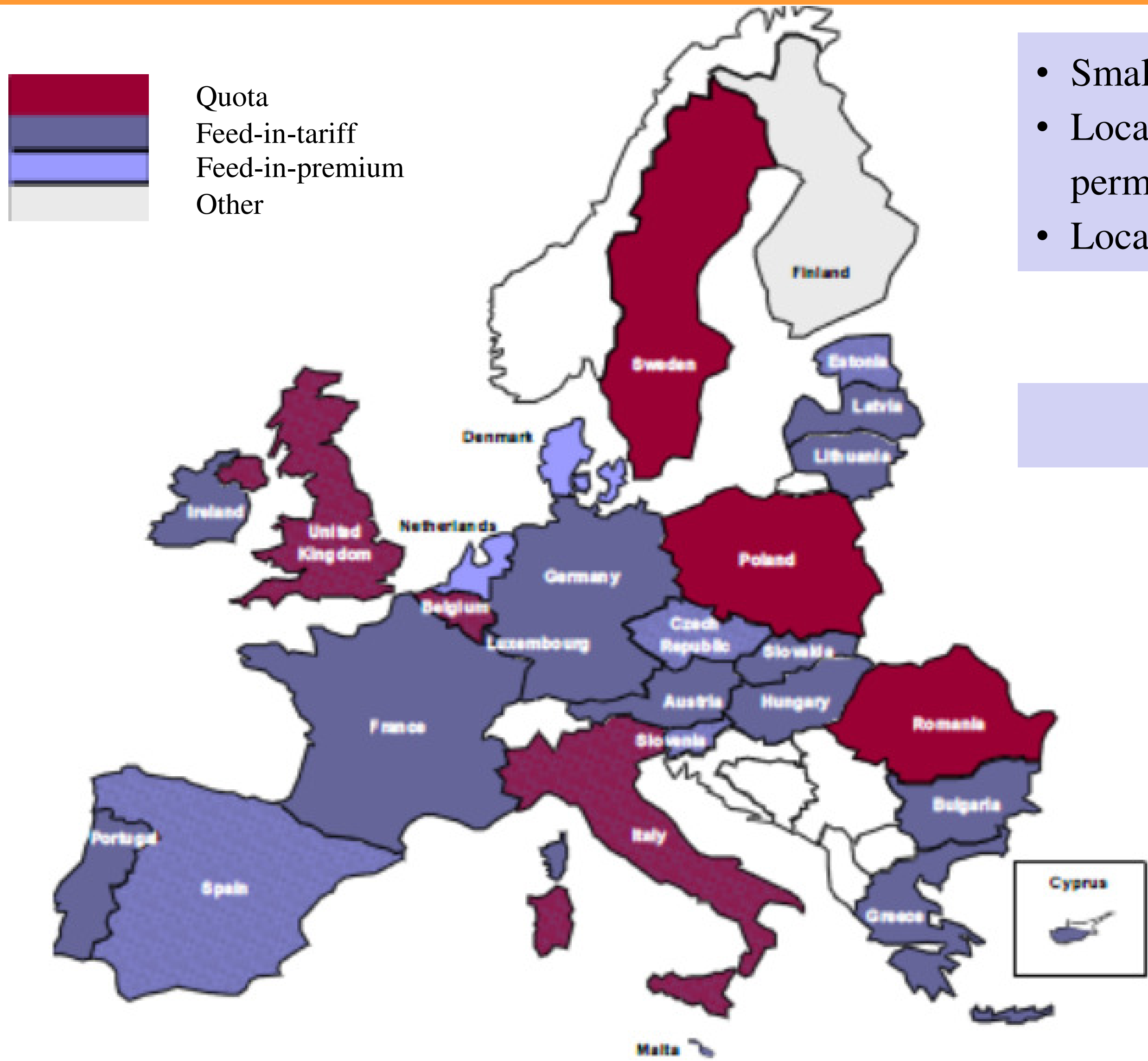
Cash flow
Policy Side

RES-E support instruments in EU-27



- Smaller economies of scales
- Local administrative and permitting issues
- Local financing

⇩

Harmonization ?

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Alternatives for policy improvements

		Cost saving potential
Policy stability	⇨ ⇨No retro-active policy changes for existing projects	> 20%
	⇨ ⇨ Simple & transparent permitting/grid procedures	> 10%
	⇨ ⇨ No abrupt policy changes for upcoming projects ⇨ ⇨ FIT/FIP: No budget or capacity caps ⇨ ⇨ FIT/FIP: Support financed via consumer surcharge (off budget)	> 10% Plus 10% Plus 3%
Revenue risks	Certificate/Quota revenue risks ⇨ ⇨ Risk reduction: Long time horizon and serious penalties ⇨ ⇨ Risk reduction: Price floor applied ⇨ ⇨ Risk removal: FIP instead of quota system	 14% Plus 7% Or >10%
	Power revenue risks and balancing cost/risk ⇨ ⇨ Risk removal: FIT instead of FIP	 8%
	⇨ ⇨ Priority in case of grid congestion ⇨ ⇨ Compensation for forced curtailment (grid congestion)	10% Plus 4%
	⇨ ⇨ Compensate annual variability wind/solar Comparable: Wind/solar derivatives	2%

Source: Ecofys

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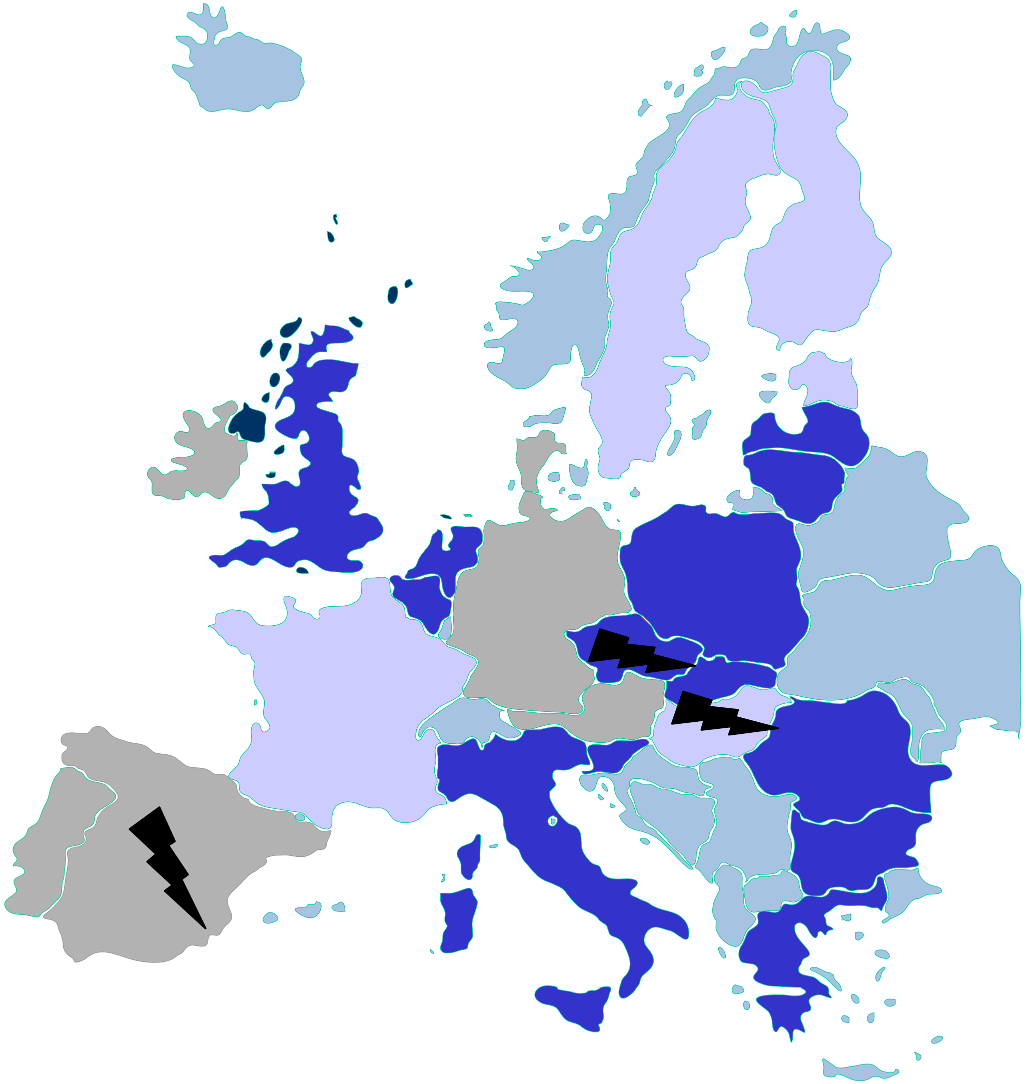
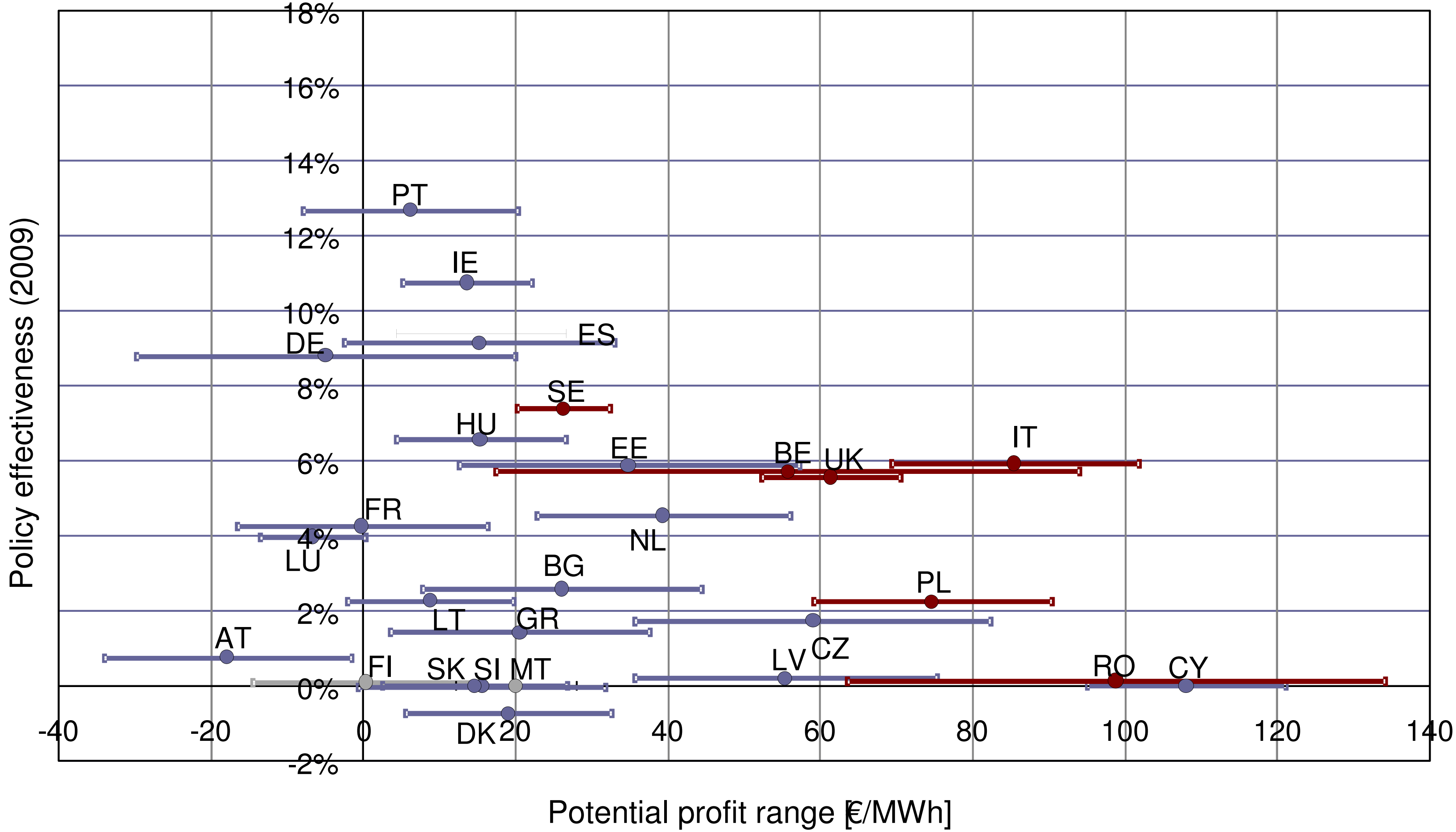
Country-specific cost saving potential

Saving potential	
	Large
	Medium
	Small



Policy effectiveness versus Policy cost efficiency



Cost of Capital Side

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Differences in EU member states

Credit default swaps (CDS) as of Dec 31, 2010

	bp		bp
Greece	1019,5	Poland	197,7
Ireland	602,9	Czech Republic	149,1
Portugal	496,6	Slovakia	139,4
Romania	406,0	Slovenia	135,2
Latvia	382,0	Belgium	129,5
Hungary	380,0	France	107,0
Spain	348,4	Austria	100,3
Bulgaria	331,0	United Kingdom	86,8
Lithuania	299,0	Netherlands	62,1
Italy	237,9	Germany	57,0

Problem:
Large and increasing gap in CDS between countries

Local financing issues

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Financial issues after the crises

	Before crisis	After crisis
Equity participation	10-20+% equity	30+% equity
Interest premiums	Old EU: 100-150 bp New EU: 100-200 bp	Old EU: 250-300 bp New EU: 400-700 bp
Construction period	Financeable	Lack of financing
Recourse	Nonrecourse SPV based project financing	Recourse required to Stakeholders
Exchange rate risk	Considered as limited	Significant non EURO countries
Order of loan withdrawal	Proportional with Equity	Equity first followed by loan
Residual financing	Some bullets or balloons at term end	No bullets or balloons
Risk of default	Not considered significant	Significant based on actual cases

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Alternatives for lowering cost of capital

Public sector level initatives	Private sector level initiatives
•Greater involvement of European Invesment Bank in refinancing with unified cost of capital	•Multinational market players raising capital / issue corporate bonds at HQ level centrally
•State backed guarantee programs (especially construction period)	•Developing an EU wide RE bond market
•Encourage pension funds	•Attract more pension fund investments
•Favorable Taxation	•Develop an RE insurance market