

Defining coordination and harmonisation of European RES-E support mechanisms

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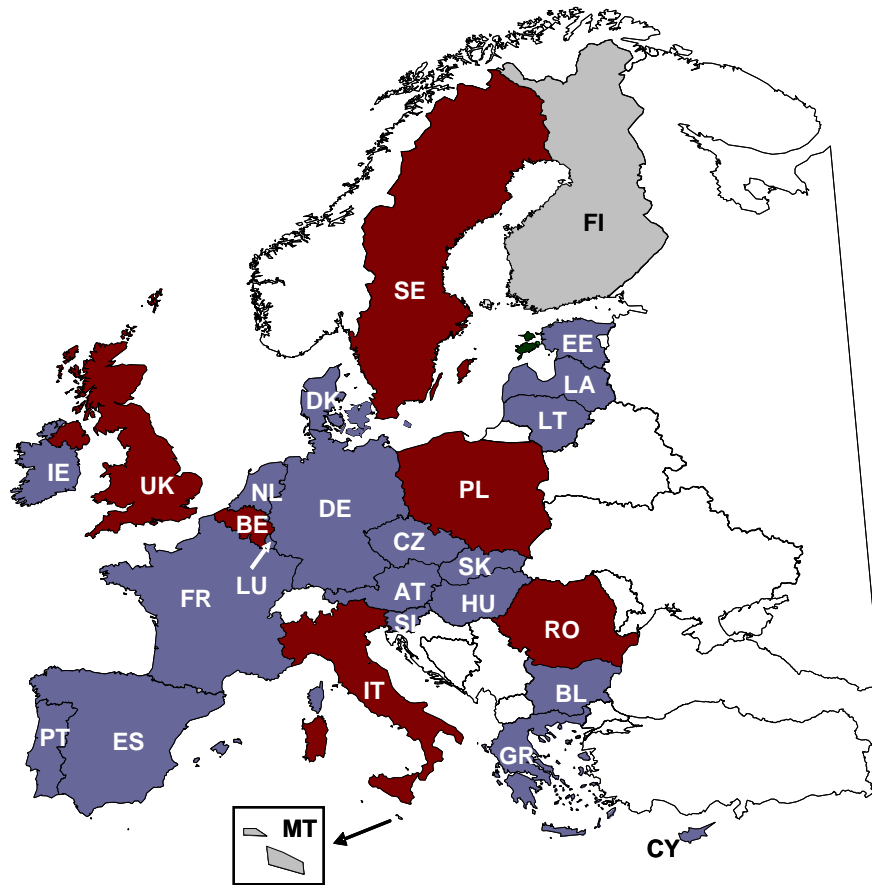


Outline

1. Policy background
2. Definition of harmonisation and general questions
3. Types and degrees of harmonisation
4. A possible way towards EU-wide harmonisation



Dominating support schemes for RES-E in the EU



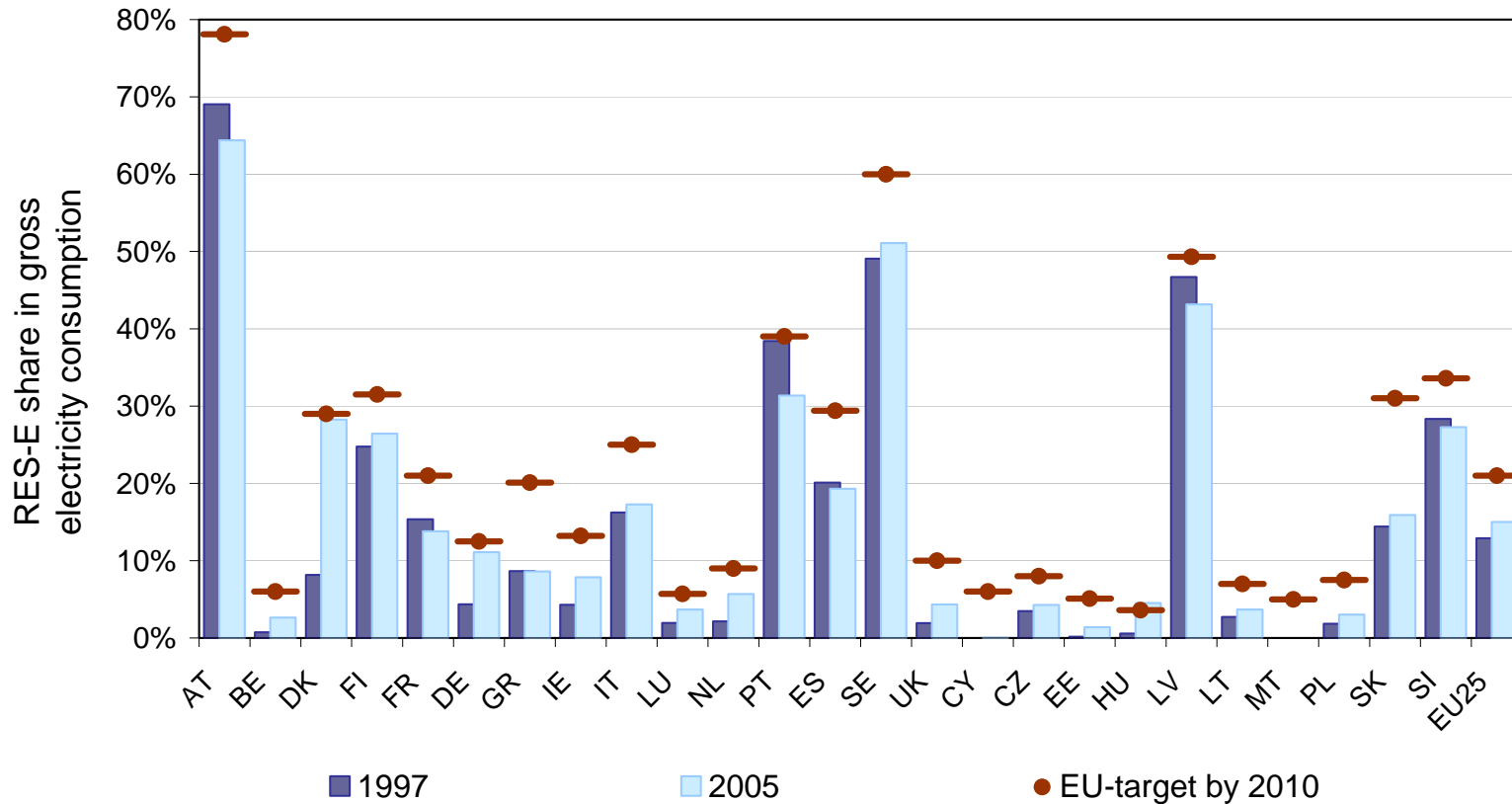
- Feed-in tariff system
- Quota obligation with Tradable Green Certificates (TGC)
- Tax incentives / Investment grants

19 EU countries use feed-in tariffs as main instrument

5 countries have implemented a quota obligation with TGCs



Progress towards the RES-E targets for the EU-25



Based on normalised electricity generation figures / "Smoothing" of wind and hydro power volatility



Measuring the effectiveness of RES-E support

1. **Relative or absolute growth rates** are typically used to demonstrate the achievements of countries, however both measures are biased
2. Better measure to judge the performance is the **absolute growth as ratio of the additional potential**

$$E_n^i = \frac{G_n^i - G_{n-1}^i}{POT_n^i}$$

E_n^i

Effectiveness indicator for RES technology i for the year n

G_n^i

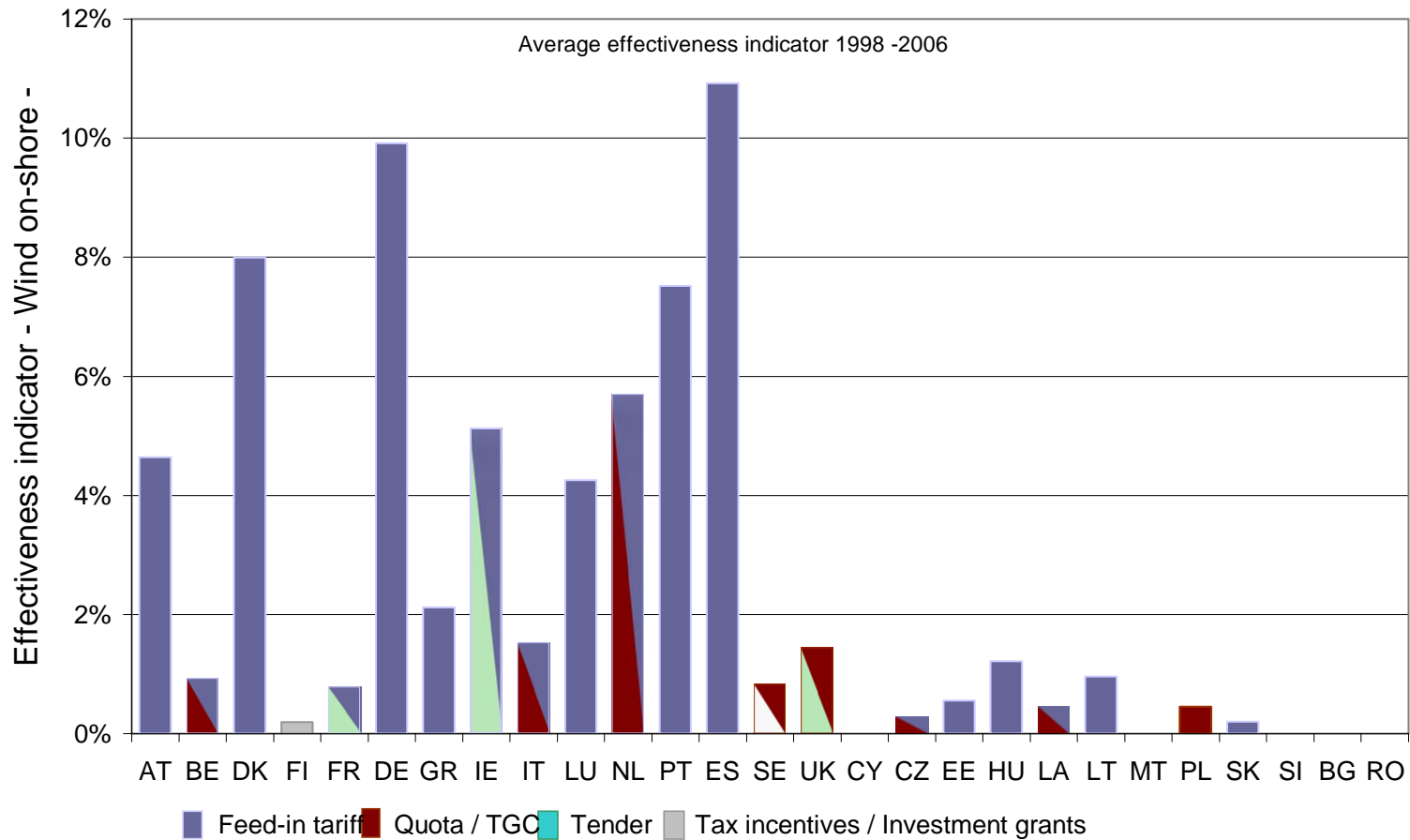
Existing electricity generation potential by RES technology i in year n

POT_n^i

Additional generation potential of RES technology i in year n until 2020



Effectiveness for wind on-shore in EU-27 (1998-2006)



Challenges with respect to support schemes

Policy makers are looking for the right balance between a harmonisation of support and the continuation of national instruments in order to:

- (1) **not disrupt currently successful instruments** by superimposing a harmonised system that may or may not be optimally designed
- (2) **increase the overall effectiveness and efficiency** on a European scale
- (3) **improve the compatibility** of RES support with other community policies such as creating a **single European electricity market** and establishing an **effective CO2 abatement framework** and
- (4) **allow Member States to reach their national targets** if efficient and effective national instruments are implemented



What is meant by “harmonisation”?

→ Top-down implementation of standardised, binding provisions concerning the support instruments of RES-E throughout the EU

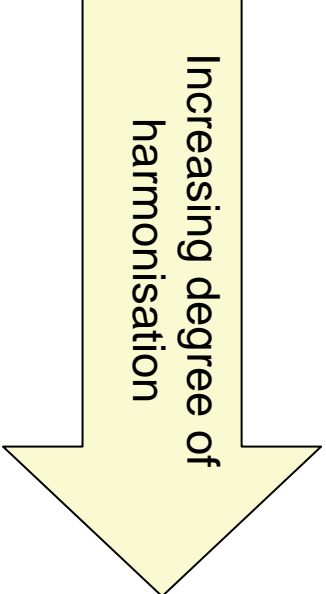
Aims:

- Making support systems compatible with each other and with the internal electricity market
- Reducing distortions, especially in cross-border trade
- Increasing efficiency of support
- Achievement of targets (concerning the share of RES-E in total electricity consumption)

"Harmonisation is a tool but not an aim in itself!"



Classification of harmonisation according to types and degrees

type of scheme applied degree of harmonisation	TGC Tradeable Green Certificates	FIT Fixed Feed-in Tariff	FIP Premium Feed-in Tariff	Tender	technology- specific harmonisation
	"Central co-ordination" (harmonised, binding framework conditions, minimum design criteria → independent of the type of support)				1 technology
	TGC	FIT	FIP	Tender	
	"Convergence" (one support system, national design)				
	TGC	FIT	FIP	Tender	. .
	"Full harmonisation" (one support system, same design in all MS)				all technologies

- Establishment of a unique support mechanism in all Member States possibly including a component to consider national circumstances
- Equalisation of costs of the promotion system between EU Member States



What's **NOT** meant by “harmonisation”?

- Bilateral or multilateral cooperation aiming at a mutual improvement of policies, e.g. Feed-In Cooperation, Nordic TGC market
- Convergence of different policy schemes due to policy learning
Different policies become increasingly similar to each other through an evolving design (implementation of best practice) without central coordination

Examples:

- Quota system with technology-specific quotas (UK)
- Cap and floor limit total support in premium systems (ES, NL)
- Premium feed-in tariffs (ES, NL)
- Incentives in feed-in system for demand orientation (SLO)

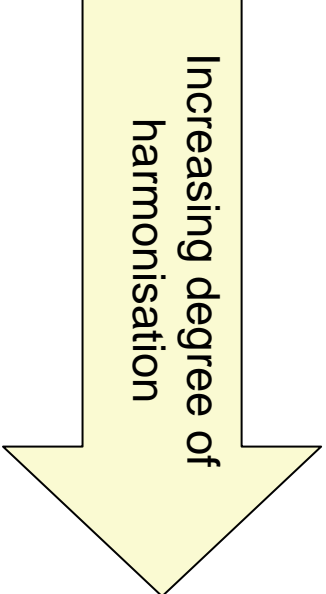


General questions on a full harmonisation

- Is any kind of **full** harmonisation beneficial for the European Energy market compared to an optimisation of national instruments?
- It has been shown that 2/3 of the potential efficiency improvements can be reached through an optimisation of national support schemes.
- Which preconditions at the conventional power market need to be fulfilled?
- Full unbundling & liberalisation, creation of a truly internal electricity market, better interconnections
- What is the relation between harmonisation and national interests of Member States with respect to sharing costs and benefits (Norwegian - Swedish example)?
- Will the introduction of a fully harmonised support system survive negotiations on EU level?



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Degree "Central co-ordination"

Generic framework conditions of partially harmonised instruments as well as detailed design options of fully harmonised instruments should be based on presently implemented best practices



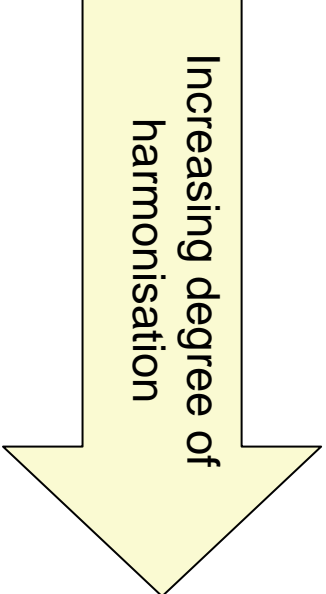
General design criteria for a central co-ordination

→ *Ensure effectiveness, reduce risks to investors, minimize cost for consumers*

- **Set long term, sufficiently ambitious** but realistic and binding national targets
 - In particular in quota systems since certificate price drops to zero after fulfilment of short term quota
- **Policy stability**, no stop and go policy!
- Clear separation of **existing** and **new capacities**
- **Duration of support** for new capacities should be restricted
- Similar conditions for **grid access & planning**
- **Technology-specific support** in order to reach long term targets at reasonable costs



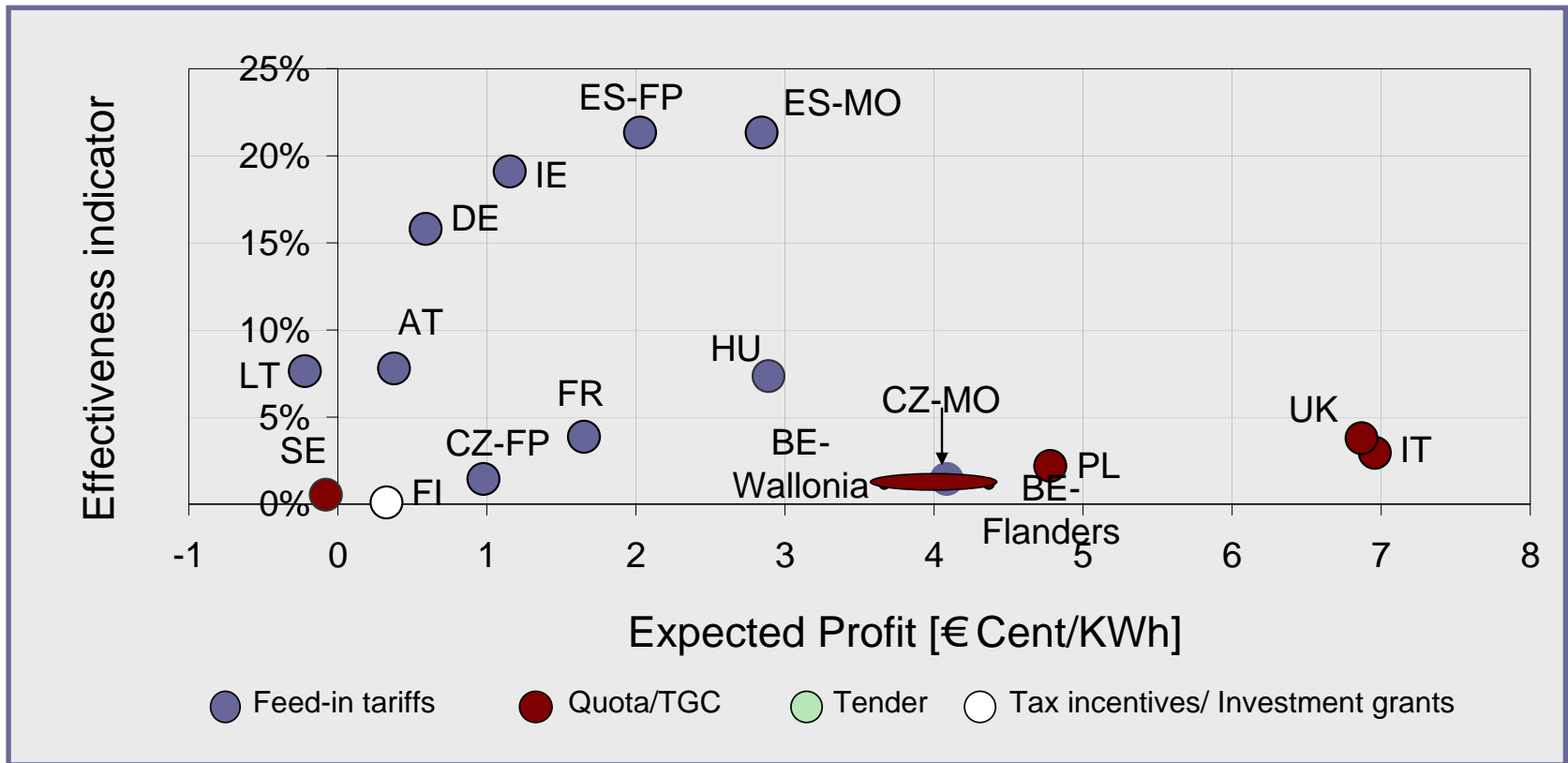
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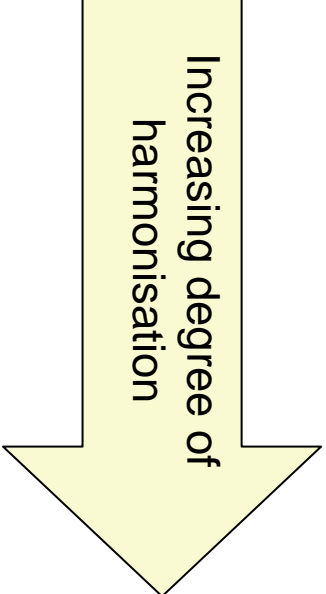


Degree "Convergence"

- Experience with respect to **effectiveness** as well as economic **efficiency** should decide about the choice of instrument!



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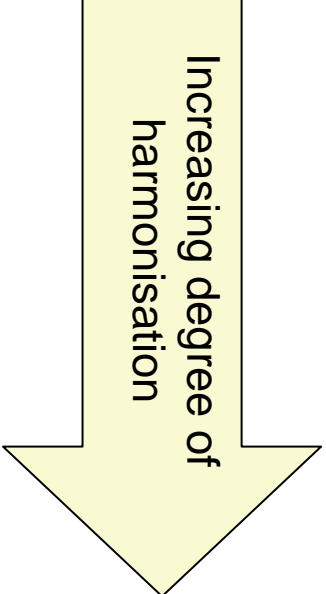


Degree "Full harmonisation"

- **Generic design criteria** (see above) should be applied ...
 - ... in particular a **technology specific support** is superior to non-technology specific with respect to cost minimisation and long term growth of RES.
- Full harmonisation does not necessarily mean a common harmonised quota system but could also be reached by technology specific support
- Parallels with ETS are not generally applicable:
 - because the benefits of CO_2 reduction are the same for all MS as opposed to the benefits of RES deployment
 - short term CO_2 reductions can largely build on mature technologies but RES deployment mostly involves new technologies
 - most RES plants are smaller than the minimum size of ETS plants (transaction costs / risk of fraud)



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Technology-specific harmonisation

One candidate for a first technology for harmonisation could be **tendering for offshore wind energy** because:

- Large infrastructure developments of European dimension are necessary
- Allows for best placement of parks, with little risk of NIMBY effect
- Typical plant sizes (park level) are above 100 MW



Harmonisation and burden sharing

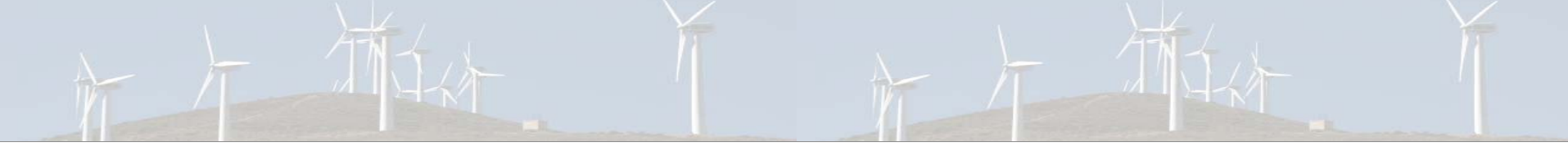
- Harmonisation does **NOT** mean burden sharing...
For the implementation of a burden sharing a harmonisation of support schemes is NOT needed
- Burden sharing = national target setting **on the basis of sharing costs and benefits** → NOT the same target (and not the same additional share) for each country
- Harmonisation = defining common framework conditions (and same instruments)
- National targets and corresponding burden sharing could be implemented by each instrument, in the case of Quota-TGC by directly sharing costs and benefits; in the case of feed-in tariffs through inter-governmental agreements also based on sharing costs and benefits



A possible way towards an EU-wide harmonisation

- 1. Set correct framework conditions for conventional power markets (full liberalisation)*
 - 2. Diminish the key barriers for RES-E development in each Member State*
 - 3. Set long term targets on EU level*
 - 4. Set minimum design criteria for support schemes (generic and instrument specific)*
 - 5. [Optionally: Start regional coordination of RES-E markets e.g. Nordic TGC market, Feed-In Cooperation]*
- Full EU-wide harmonisation only after successful completion of the above steps*





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Thank you for your attention!

