

# Development of a framework for well-performing RES-E supporting measures

Infraday 2008  
Cedric De Jonghe  
KULeuven - Belgium

## Objective:

*“Compare mechanisms within a region based on performance optimization of the RES-E supporting policy toward the future”*

## How?:

*“Building a framework with medium and long term objectives”*

# Development of a Framework for well-performing RES-E supporting measures

- Introduction
- Why do we need renewables?
- Framework for supporting measures
- Supporting measures within the framework
- Redesigning to improve performance optimization
- Dynamic portfolio of supporting measures
- Conclusion

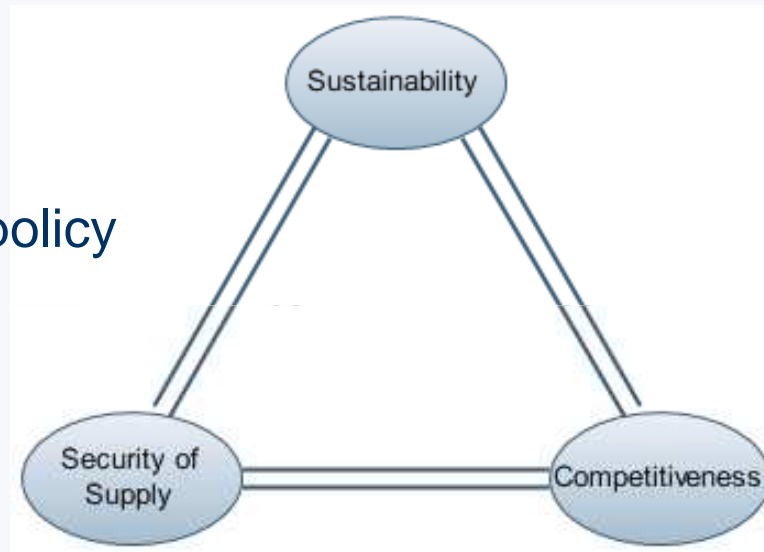
- Introduction

- [Directive 96/92/EC](#)
- [Renewables Directive 2001/77/EC](#)
- [Promotion of the use of biofuels: Directive 2003/30/EC](#)
- [Taxation of energy products and electricity: Directive 2003/96/EC](#)
- Renewable Energy Road Map
- European Strategic Energy Technology (SET) plan

# Development of a Framework for well-performing RES-E supporting measures

- Why do we need renewables?

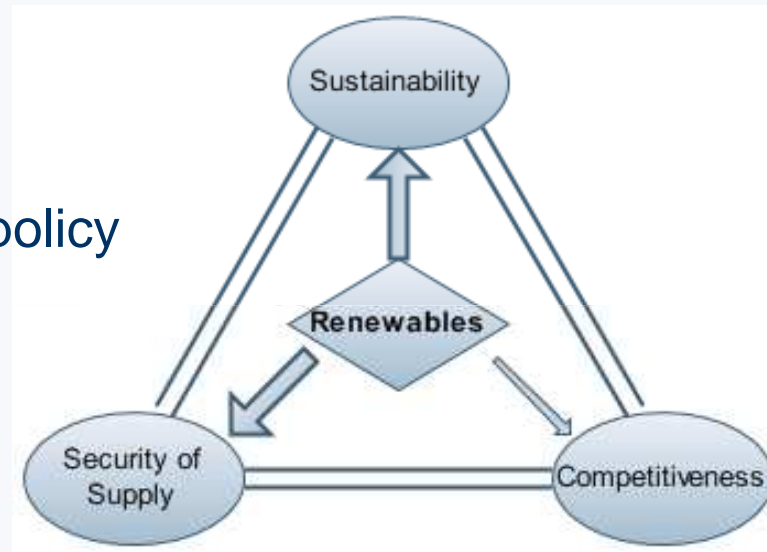
EU energy policy



- Improved security of energy supply
- Mitigation of greenhouse gas emissions by the EU power sector
- Mitigation of regional and local pollutant emissions
- Enhanced competitive edge for the EU in the renewable energies technology industries
- Improved economic and social prospects especially for rural and isolated regions

- Why do we need renewables?

EU energy policy

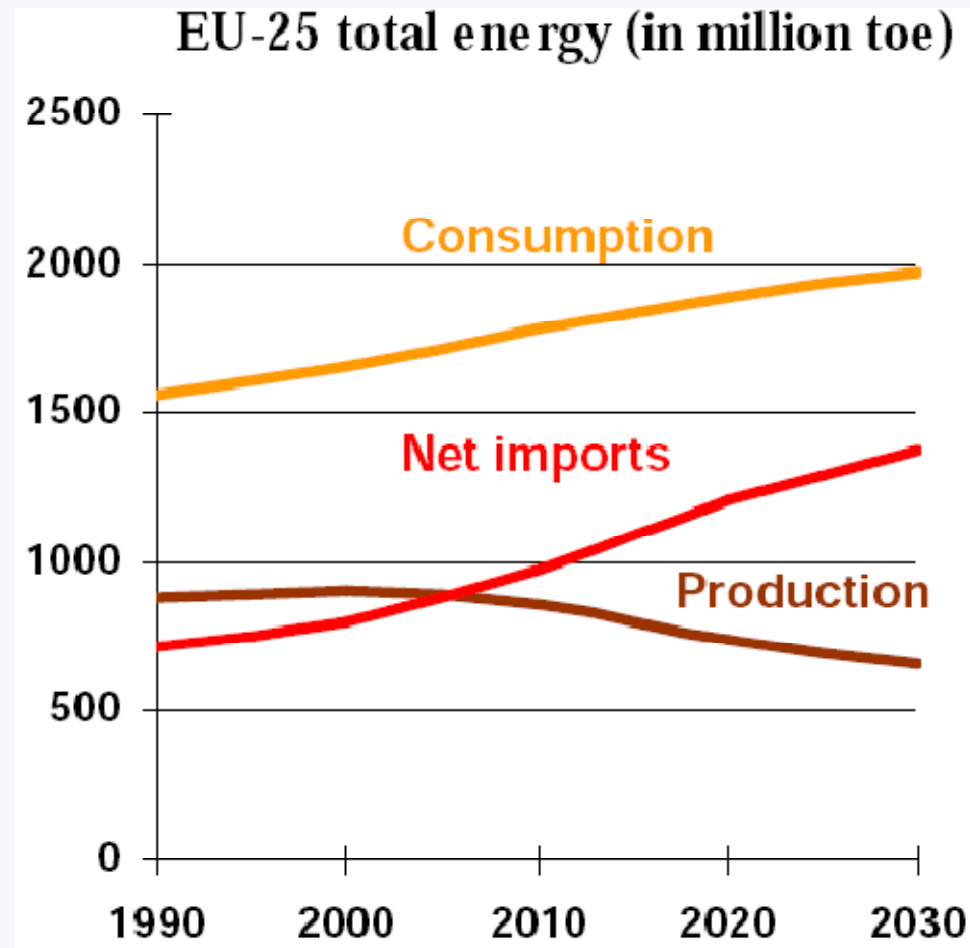


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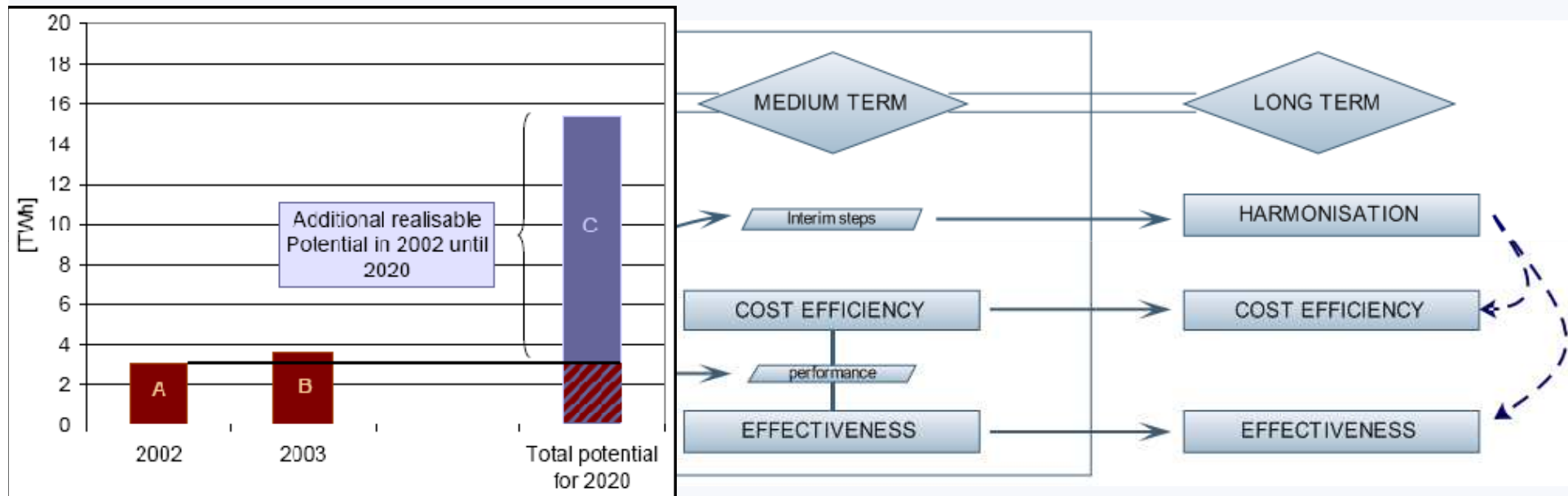
- Why do we need renewables?

Green Paper on security of supply



# Development of a Framework for well-performing RES-E supporting measures

- Framework for supporting measures

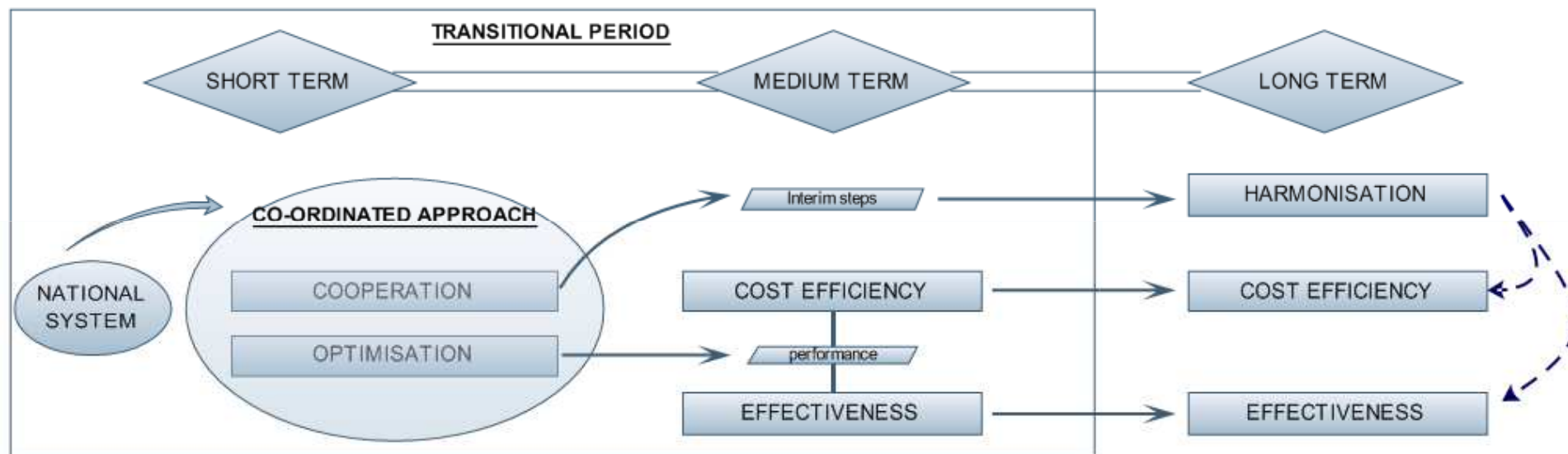


Cost-efficiency = total money received for RES - generation cost



# Development of a Framework for well-performing RES-E supporting measures

- Framework for supporting measures



- Supporting measures withing the framework

	Tendering	Fiscal incentive	Feed-in	Certificates
Increasing stability & reducing investment risk				
Encouraging technological diversity				
Selection of least cost options				
Compatibility with internal market				
Keeping the pressure towards the objectives				

- Supporting measures within the framework

	Tendering	Fiscal incentive	Feed-in	Certificates
Increasing stability & reducing investment risk	-	-	++	--
Encouraging technological diversity	+	+	++	--
Selection of least cost options	+	-	--	++
Compatibility with internal market	+	+	--	++
Keeping the pressure towards the objectives	--	-	--	++

# Development of a Framework for well-performing RES-E supporting measures

- Redesigning to improve performance optimization
  - Feed-in tariff
  - Tradable certificates

	Tendering	Fiscal incentive	Feed-in	Certificates
Increasing stability & reducing investment risk	-	-	++	--
Encouraging technological diversity	+	+	++	--
Selection of least cost options	+	-	--	++
Compatibility with internal market	+	+	--	++
Keeping the pressure towards the objectives	--	-	--	++

- Redesigning to improve performance optimization
  - Feed-in tariff
    - Forecasting obligation
    - Demand orientation
    - Premium system
    - Tariff degression

# Development of a Framework for well-performing RES-E supporting measures

- Redesigning to improve performance optimization
  - Tradable certificates
    - **Setting minimum prices**
    - **Setting maximum prices**
    - **Technology specific quota**
    - **Banking and borrowing**

# Development of a Framework for well-performing RES-E supporting measures

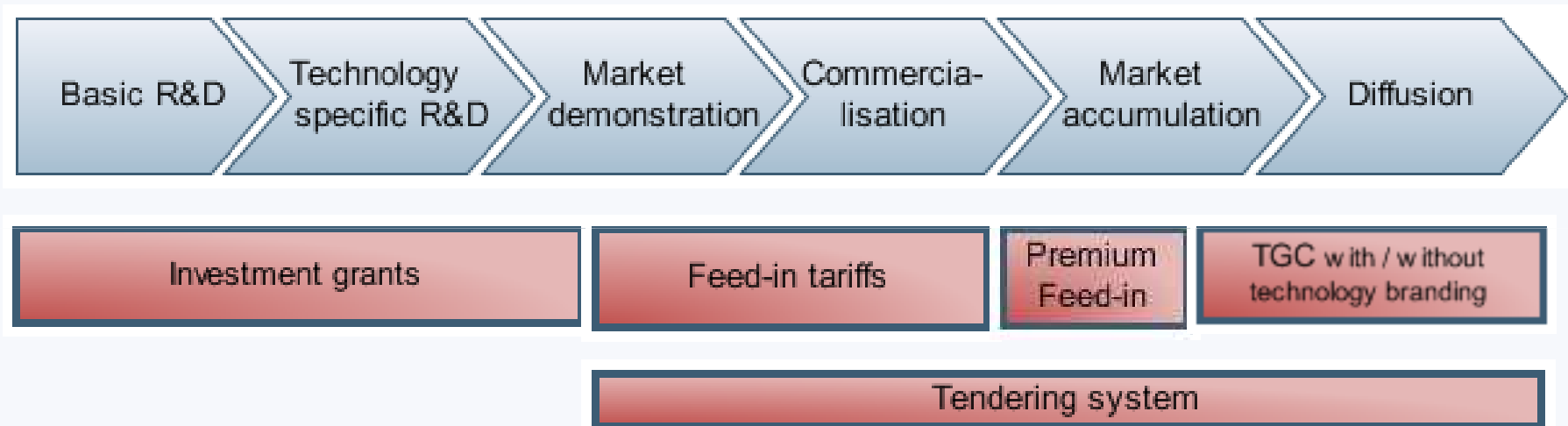
- Dynamic portfolio of supporting measures  
Competition between mature and developing technologies

**Learning curve:** non linear cost reductions



# Development of a Framework for well-performing RES-E supporting measures

- Dynamic portfolio of supporting measures





- Conclusion
  - Need for RES - Legal fundament
  - Focus on effectiveness and cost efficiency
  - Feed-in and certificate opposite performance
  - Redesign can improve performance
  - Diversify – Dynamic portfolio