

# EGTEI – Expert Group on Techno-economic Issues

Methodology for data collection

Presented by

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## **EGTEI**

### **Determination of costs of reduction techniques**

- ◆ Development of methodologies for different sectors and delivery of default cost data representative of the average European situation (detailed description in background documents and summary in synopsis sheets),
- ◆ Investment, fixed and variable operating costs (exhaustive consideration of the different components of variable costs)
- ◆ Characterisation of country specific data
- ◆ Development of a computer tool ECODAT to manage all data

## **EGTEI**

# **Determination of costs of reduction techniques**

## **Constraints**

- ◆ Improve significantly the representation of sectors compared to the existing situation and especially the capacity to representing the impact of regulations
- ◆ Simplified methodologies for limiting country specific data collection

## EGTEI

# Determination of costs of reduction techniques

## Organisation

- ◆ Estimation of costs developed in consultation of industry experts and national experts
- ◆ Obtain an agreement between different participants on methodologies and costs



# Determination of reference installations

## Possible ways of representation of installations

- ◆ Ideal approach of representation of installations
  - Knowledge of technical parameters (sizes, emissions, etc...) of representative sample of installations
- ➔ Problem: **too large variability** of cases in the whole Europe

## Possible ways of representation of installations

- ◆ Solution adopted by EGTEI
  - Characterisation of a sector by one or several **reference installations**

### Reference Installations (RI):

- All installations characterised by one RI can apply the same reduction techniques
- For one RI, efficiencies and costs of reduction techniques can be represented by average values

➔ **Choice of the number of RI must be appropriate per sector**

Determination of reference installations



Reference situation in terms of emissions



## Reference situation in terms of emissions

- ◆ Determination of the **reference situation** in terms of emissions
  - Corresponds to the situation **without emission reduction techniques**
  - The choice has a major role in the determination of marginal costs (costs expressed according to the ton of pollutant avoided)

Determination of reference installations



Reference situation in terms of emissions



Characterisation of reduction techniques  
of NO<sub>x</sub>, SO<sub>2</sub>, PM and VOC

## Available reduction techniques and costs

- ◆ Determination of reduction techniques and costs
  - Primary measures and secondary measures considered
  - The techniques associated to concentrations of pollutants in waste gases ( $X \text{ mg/Nm}^3$ )
  - Investment and fixed and variable costs determined

Determination of reference installations

Reference situation in terms of emissions

Characterisation of reduction techniques  
of NO<sub>x</sub>, SO<sub>2</sub>, PM and VOC

Concentration of pollutants in cleaned gases

Costs

Data to be collected by national experts

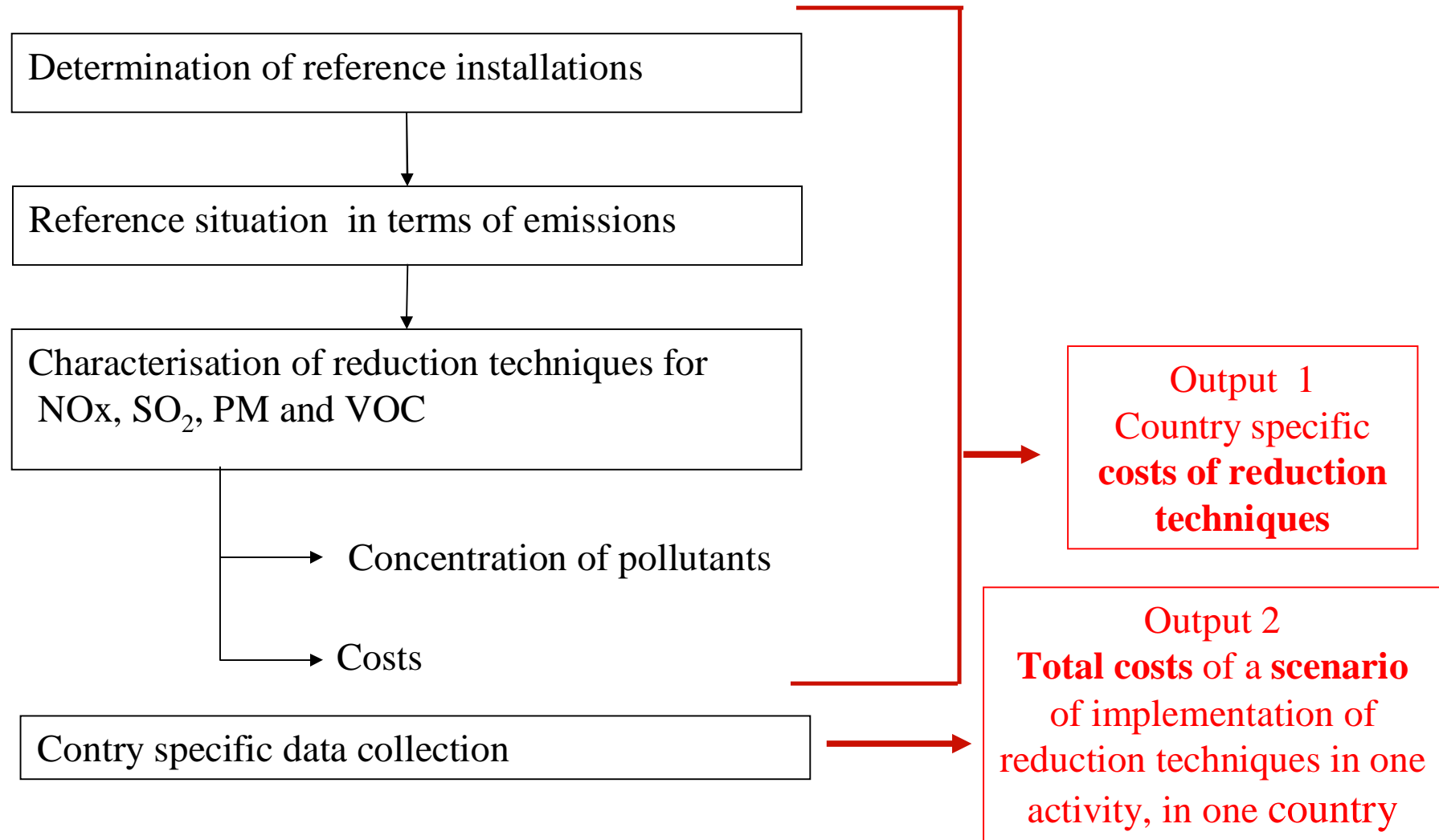
## Data to be collected

To define **technique country specific costs**:

- Parameter for estimating country specific costs (electricity costs, labour costs, energy costs...)

To define **total costs for one activity for a scenario** of implementation of techniques:

- Activity level from 2000 to 2020 by step of 5 years
- Share of reference installations from 2000 to 2020
- Application rates of reduction techniques from 2000 to 2020 (following regulations by example)
- Applicability rates



## Results obtained

- ◆ Estimation of **costs of reduction techniques**
  - w for one or several reference installations
  - w per ton of activity
  - w per ton of pollutant abated
  
- ◆ Estimations of **emissions** of pollutants for different scenarii of use of reduction techniques and **associated costs**

## Advantages of this representation

### ◆ Methodology of determination of costs

- Traceability
- Transparency
- Comparability
- Reduction of uncertainties

But

- Necessity to collect country specific data to complete the representation



## **ECODAT**

Computer tool aimed at managing the large number of parameters and data needed for cost calculation, and enabling country specific data collection by Parties and at calculating country specific costs for one scenario of implementation

## Conclusions

- ◆ Costs determined for 52 activities (Background documents and synopsis sheets for all of them)
    - In cooperation with industry and administration experts
    - Adapted representation of sector
    - Definition of RI
    - Costs of reduction measures
    - Parameters to be collected at the national level, for defining country specific costs for a scenario of implementation of reduction techniques in an activity
  - ◆ Methodologies applicable at the national level
- ➔ **Traceability, transparency, comparability of costs determined and reduction of uncertainties**