#### What is EFCA?

### Federation of National Associations in Europe

Non-political, non-governmental, non-profit and independent expert organisation

### **Objectives and Mission**

- To encourage professional activity in Europe
- To help to achieve policies and measures that will protect the environment, climate and human health in Europe against the effects of pollution while fostering sustainable development





# What didn't we hear?

#### How to solve the PM-problem

- 400 million Europeans lose 6 months of their lives on average; 75% of this is caused by PM
- Can we help them adequately with regulation for PM<sub>10</sub>/PM<sub>2.5</sub>, which are indicator metrics for a complex mixture?
- Which are its toxic fractions?
- Which are their sources?

# What do we know?

- PM may contain at least four different, potentially toxic fractions:
  - black carbon (BC)
  - primary organic aerosols (POA)
  - > secondary organic aerosols (SOA)
  - heavy metals (HM)
- Predominantly observed in the ultrafine (<</li>
  150 nm) and nanofractions (<70 nm)</li>

# What do we have to know?

- Relative prevalence of each of these four fractions in PM<sub>2.5</sub>
  - Emissions inventories and their dominating sources
  - ➤ Monitoring data
- Relative toxicity of each of them
  - **➢** Bioassay
  - ➤ Model studies
  - > Epidemiological studies and other

# How to proceed?

- Better tools and more research
  - ➤ Pilot monitoring networks which are PM fractionspecific
  - ➤ Research into dose-effect relations for each of these fractions
  - Atmospheric and model studies on secondary particles

# Anything else?

- Possibly higher health risks because of higher SOA production from biofuels for transport
- Doubts on supposed advantage of diesel cars above petrol cars (climate and air quality)

#### Wanted:

- New assessment of biofuels, including their effects on air quality
- New assessment comparing performances of diesel and petrol cars (climate and air quality)