

# AIR QUALITY and CLIMATE CHANGE

*How to address both challenges  
effectively together at local levels?*



# DIFFERENT ORIGINS AND TREATMENTS

- **AP** addressed as early as years 60, at national and local levels
- **CC** more recently, and at global level
- Different scientific communities and tools
- Distinct negotiation frames and regulation structures

# A GROWING AWARENESS OF TIGHT INTERACTIONS

## Some reference reports

- Air pollution and climate change policies in Europe: exploring linkages and the added value of an integrated approach. EEA 2004
- Air quality and ancillary benefits of climate change policies. EEA 2006;
- Air Quality Expert Group report - Air quality and climate change: a UK perspective. DEFRA 2007.
- France: Rapport Richert “10 ans de LAURE” : QA et CC, mêmes enjeux, même urgence.





# Links at multiple levels

- Atmospheric Physico chemistry
- Impacts on health, ecosystems, biodiversity
- Emission sources
- how to control them
- Economic co-benefits

# INTEGRATION NEEDS TO BE REINFORCED *From science to policy*

- **Stockholm Congress**, September 2008, GAPF (IUAPPA) in partnership with UNECE, UNEP  
*Scientific background for policy integration*
- **EFCA symposium**, European Parliament in Strasbourg, November 2008.  
*Need for closer integration in European regulations and policies*
- **Goteborg workshop**, October 2009  
*Contribution of AP policies to climate control*
- **Utrecht workshop** June 2010 *synergies and trade-offs*

# INTEREST OF AN INTEGRATED APPROACH

- Separately, **AP** and **CC** policies are insufficient to reach both targets, but can deliver substantial co-benefits at lower costs when combined.
- Priority for co-benefits policies : e.g. demand side management, energy efficiency increase, increased share of renewables, decrease in coal and oil use,
- Check the absence of trade-offs and arbitrage between contradictory options.

# Co-benefits

- Not an explicit feature presently
- Implicitly the options are clear:

<b>Champions</b>		CO <sub>2</sub>	NOx	PM/BC	Noise
Energy conservation		+	+	+	
Renewable energy sources		+	+	+	
Electric vehicles		+/-	+	+	+
Biogas		+	+/-	+	
Biomass in power stations	+	+/-	+/-		
<b>Dubious</b>					
Biofuels		+/-	+/-	+/-	
Biomass in homes		+	-	-	

# SUPPOSED « ecologically correct » MEASURES. Better look twice

- Wood combustion energy
  - Problem with small burners and PM
  - Example of the « Merton Rule » in UK (10% of local origin energy)
- Biofuels
  - N<sub>2</sub>O, land use changes, ...+ specific pollutants??
  - socio-économical, ecological, ethical aspects,
- Diesel (cf. bonus malus in the French Grenelle)
  - Controlling NO<sub>x</sub> and PM reduces CO<sub>2</sub> benefits
  - Effects of diesel particles on health
  - Heating effect of black carbon
- Dwellings insulation and Indoor air





# INTEGRATION AT LOCAL LEVELS, why ?

- Urban areas generate about 2/3 (??) of all CO2 emissions.
- Up to 80% (??) of all energy is consumed in cities (source ICLEI)
- Cities are highly vulnerable to CC, and AP mostly affects urban areas with large concentrations of populations
- Local governments are closest to citizens
- Local governments have a large range of concrete and direct levers at their disposal

# INTEGRATION AT LOCAL LEVELS, how ?

Local governments have a large potential to achieve substantial emission reductions

- **EQUIPMENT:** Urban planning, transports, construction...
- **ASSETS:** buildings, vehicles, street lighting...
- **ACTIVITIES:** energy, waste, transportations, institutional buyings
- **EDUCATION:** information, behaviours

# Which local authority or local level? The example of Italy

- Regions 20
- Provinces 110
  - Municipalities 8101 [n° of residents ranging from 33 to 2,546,804  
86% have less than 10,000 residents 25% less than 1,000]

A huge number of agencies, academic or educational or social institutions, NGOs dealing with environmental issues

**Not one considers the issue of co-benefits**

# In Italy authority delegated for ...

## **AIR QUALITY (Provinces)**

To manage air quality monitoring networks and action plans to prevent overcoming of limit values or to attain limit values or target values

## **INDUSTRIAL EMISSIONS (Regions or Provinces)**

Permissions establishing allowed emission limits (IPPC)

## **THERMAL PLANTS (Municipalities)**

(local regulations, promotion of new boilers with low emissions, boiler inspections)

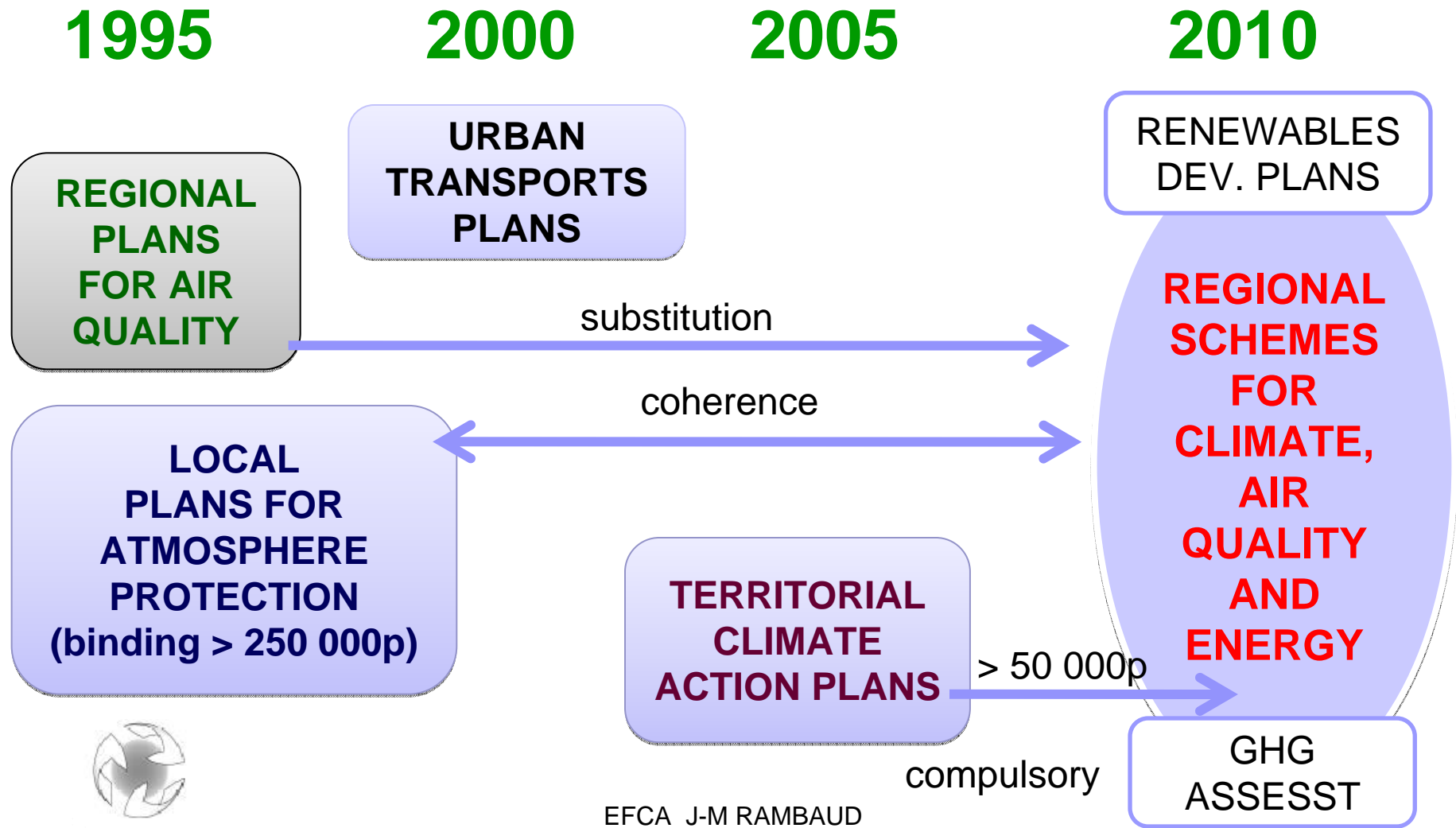
## **RENEWABLE ENERGY (National and regional plans)**

EU Structural and Cohesion Funds or Italian Governmental resources support renewable energy and energy efficiency projects

# Authority delegated for ...

- **MOBILITY (Provinces and/or big municipalities)**
- Traffic limitation (Traffic Restricted Zones, parking space reduced, parking price, limited time for loading and unloading activities of goods, ..)
- Promotion of private low-emission vehicles (methane, LNG, etc.)
- Improvement of public fleet with low-emission vehicles
- Blu label (annual inspection of all kind of vehicles)
- Cycle tracks and bicycles at disposition of citizens in some central areas
- Promotion of mobility management for public institutions and private companies through car pooling
  
- **AGENDAS 21 (Public institutions , municipalities)**

# EVOLUTION OF REGIONAL PLANS IN FRANCE



# **EFCA (and IUAPPA) NEXT SYMPOSIUM (March 2011 France)**

## **Integration of AP and CC action at local levels in Europe**

- Levers for action
- Co-benefits assessment tools
- Coherence between bottom up initiatives and top down policies
- Exchange of experiences and good practices

# SOME EUROPEAN LOCAL GOVERNMENTS NETWORKS

- Assembly of European regions
- Council of European municipalities and regions
- ICLEI Local Gov. For Sustainability
- Climate alliance
- Covenant of Mayors
- Eurocities
- .....



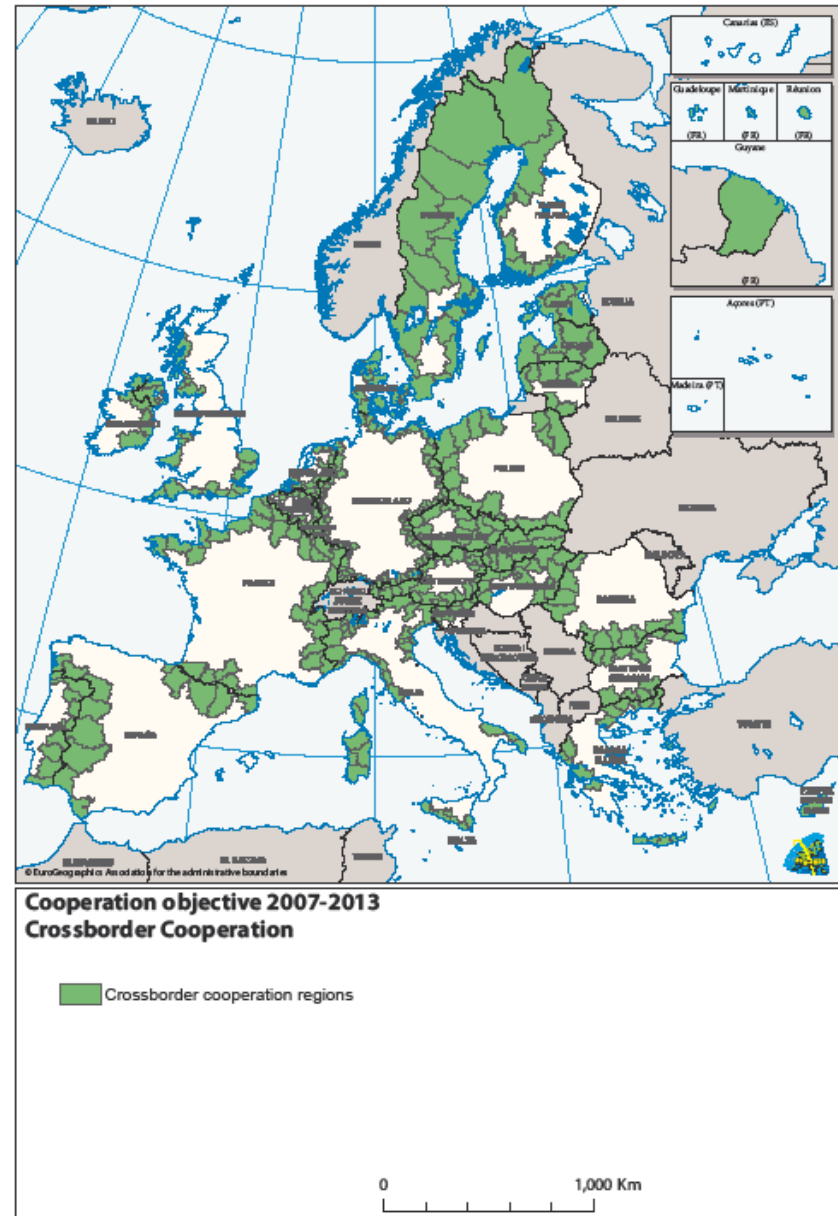




# NEED AND OPPORTUNITIES FOR TRANSBOUNDARY INTER REGIONAL COOPERATION



EFCA J-M RAMBAUD  
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# The end

Thanks for attention

**Time for questions**

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