



LIFE 15 IPE IT 013



# LIFE IP PREPAIR

*Po Regions Engaged to Policies of Air*

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*Environmental Protection Agency, Autonomous Province of Trento (Italy)*

LIFE Platform Meeting on Air Quality

“Abating urban exposure to air pollutants”

*Barcelona, 26–27 September 2017*

**YOU'VE GOT AIR!**

*Together for the  
Policies of air quality*



# Background



**The Po Basin represents a significant nonattainment area for PM, NO<sub>2</sub> and O<sub>3</sub> limit values**

- densely-populated / heavily-industrialised / intensively-farmed area
- morphology
- meteorological conditions

## Why an Integrated Project?

- **Regional AQPs:** Regions have implemented air quality plans over the past decade, partially succeeding in reducing PM, NO<sub>2</sub> and O<sub>3</sub> levels below EU standards. In order to further reduce background air pollution coordinated actions should be undertaken at basin scale.
- **Po Basin Agreements on AQ** (since 2005):
  - in 2013 establishment of common measures for most relevant emission sources (**transport, biomass burning for domestic heating, energy consumption, agriculture**), involvement of the Italian Ministry for Environment and other competent Ministries
  - in 2017 establishment of coordinated measures for mobility, biomass burning and agriculture

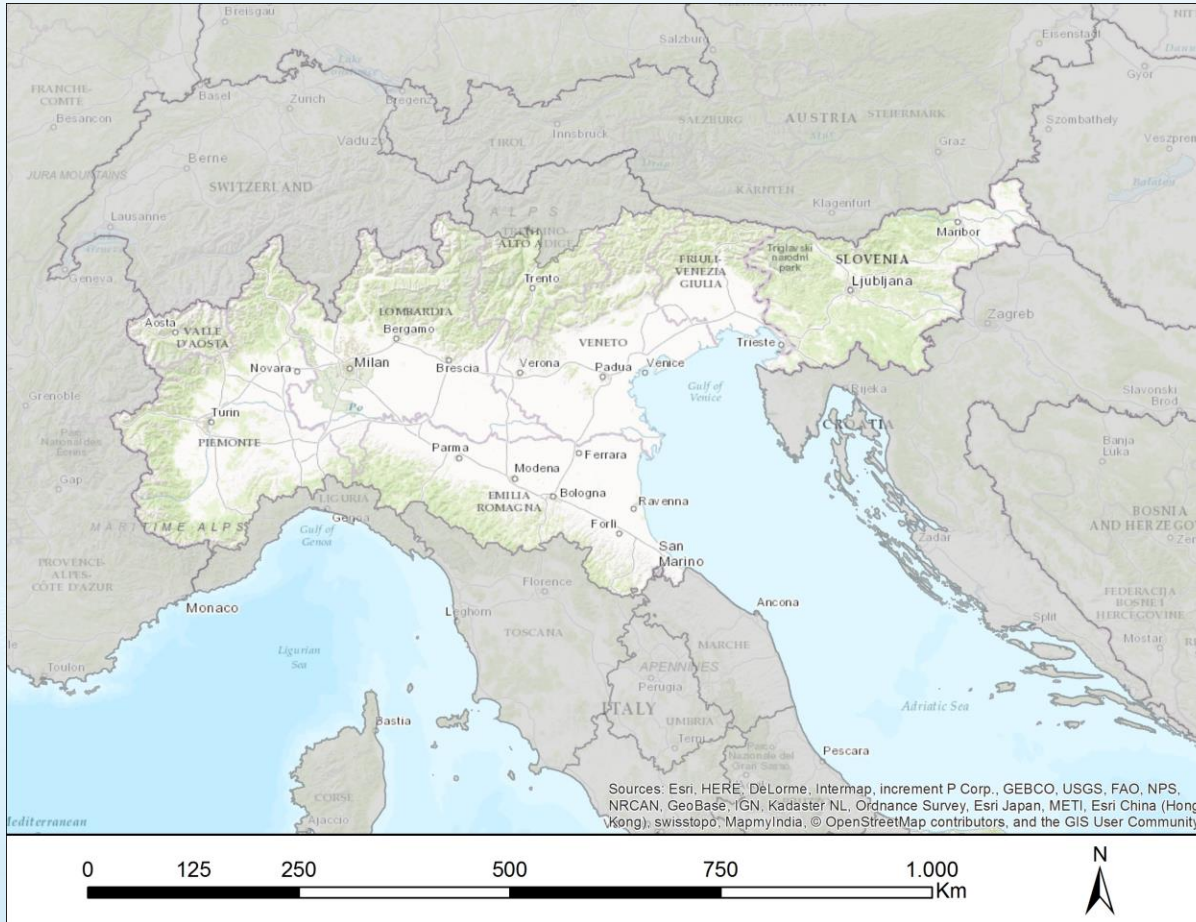
### **PREPAIR will**

- help the full implementation of AQPs and Po Basin Agreement measures at larger territorial scale → **concrete environmental actions by Regions and Cities**
- establish a permanent data sharing infrastructure for monitoring / assessing air quality and measures implementation in the project area → **technical actions by Environmental Agencies**
- allow the assessment / reduction of pollutants transport across the Northern Adriatic Sea

### **PREPAIR aims to**

- strengthen synergies among Regions and Environmental Agencies on AQ issues and policies
- establish a **Permanent government platform** formed by:
  - representatives of the Regions involved in AQ issues
  - representatives of the Authorities in charge of complementary funds
  - stakeholders

# PREPAIR in numbers



## 6 Regions

Region Emilia-Romagna (coordinating beneficiary), Region Lombardy, Region Piedmont, Region Veneto, Autonomous Province of Trento, Region Friuli Venezia Giulia

## 7 Environmental Agencies

ARPAE Emilia-Romagna, ARPA Lombardy, ARPA Piedmont, ARPA Veneto, ARPA Valle d'Aosta, ARPA Friuli Venezia Giulia, Slovenian Environmental Agency

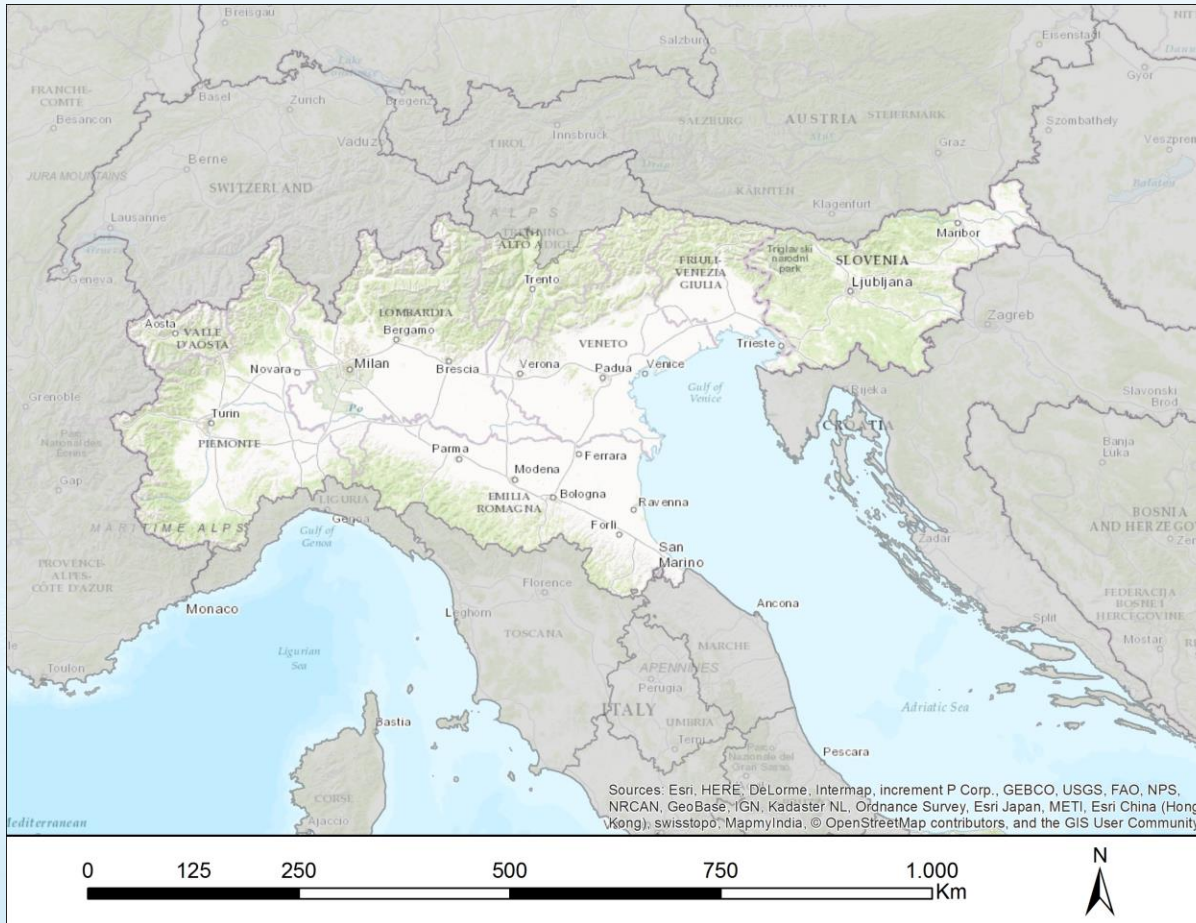
## 3 Municipalities

Bologna, Turin, Milan

## 2 Private non-commercial agencies

ERVET, FLA

# PREPAIR in numbers



## 7 Air Quality Plans

## 36 actions

## Duration

- Grant Agreement signed in December 2016
- 7 years (1/2/2017-31/01/2024)
- 3 phases

## Budget

- Total: 16.805.939 €
- EU co-financing: 9.974.624 €



## Complementary funds

- 850 M€
- EAFRD, ERDF, regional and national funds



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## General objectives

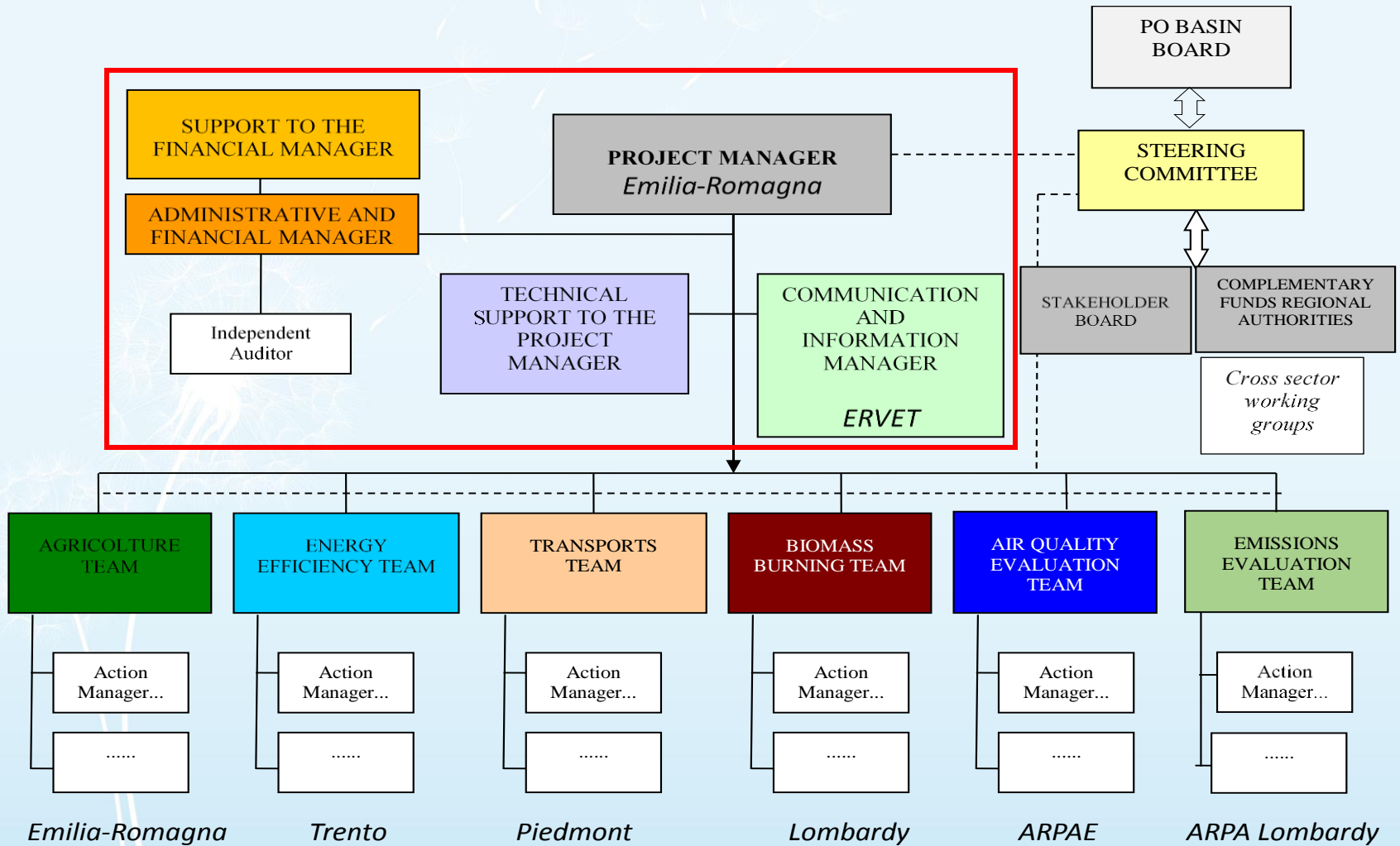
**PREPAIR aims to implement actions in the territory of the Po Basin and Slovenia in order to improve AQ and comply with:**

- **2008/50/EC Air Quality Directive**
- **European strategy “Clean Air for Europe”**
- **National Emission Ceiling – NEC Reduction Commitments.**

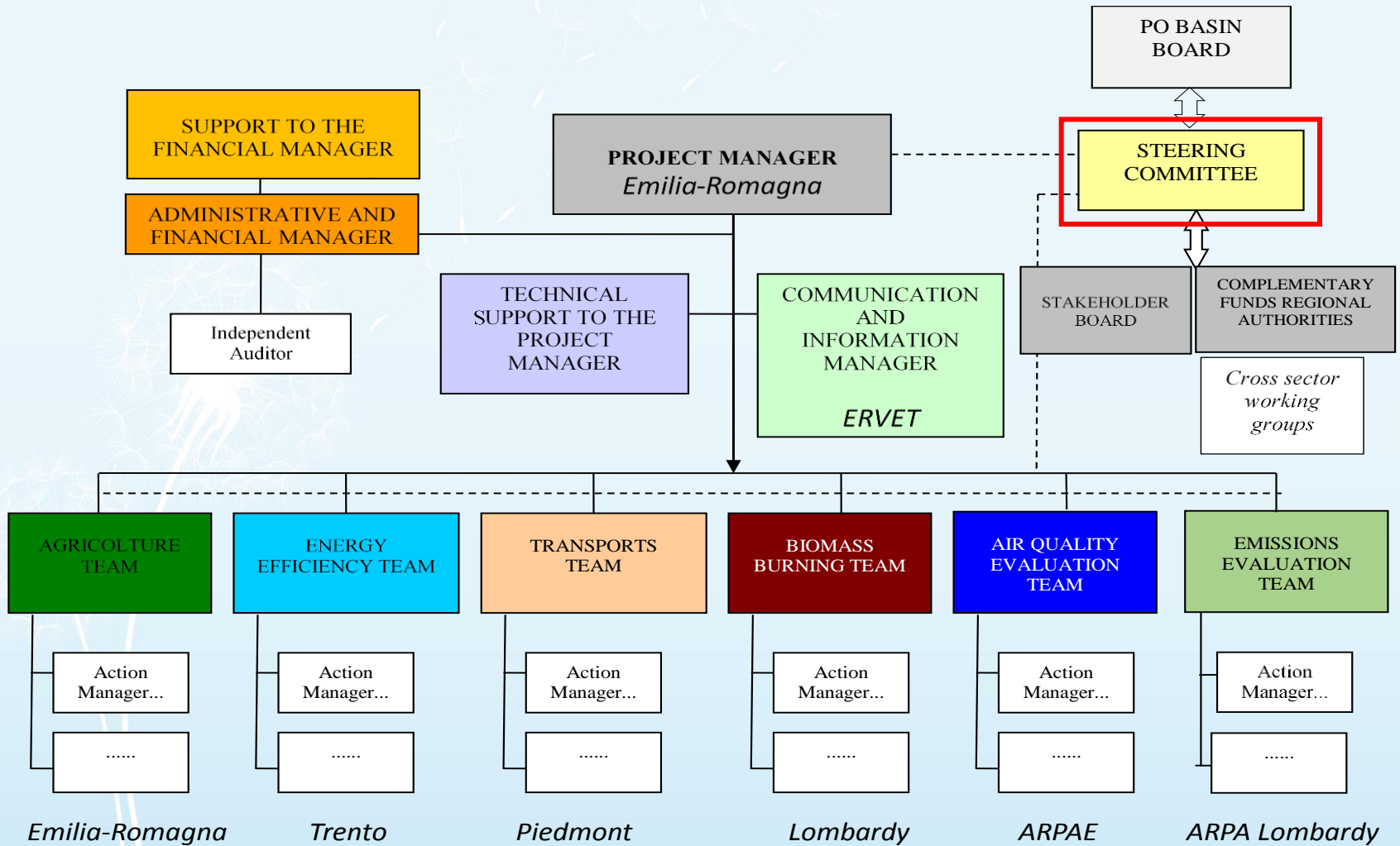
### General objectives:

- implementation of measures included in the AQPs and in the Po Basin Agreement, acting on multiple sectors/policies (agriculture, biomass, energy, transports) and on multiple pollutants (PM, NO<sub>2</sub>, O<sub>3</sub>, NH<sub>3</sub>, VOC) in a synergic way
- assessment of the effectiveness of PREPAIR actions on AQ through common tools
- increase of know-how and reinforcement of capacity building for public authorities and private operators
- establishment of a permanent network of national, regional and local governments, environmental agencies and other stakeholders in the project area
- increase of the awareness about risks posed by air pollution for human health and for the environment

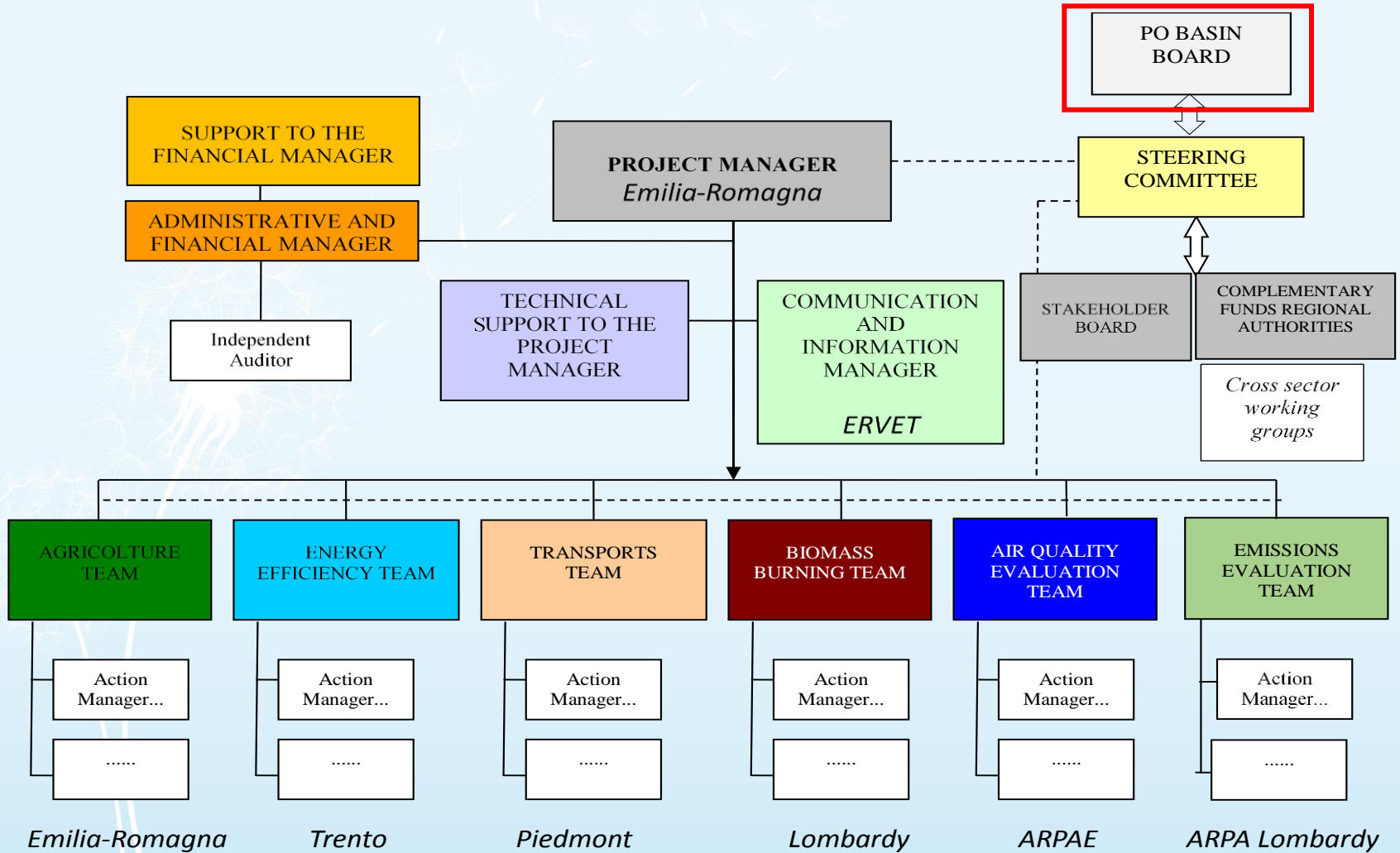
# Project management and structure



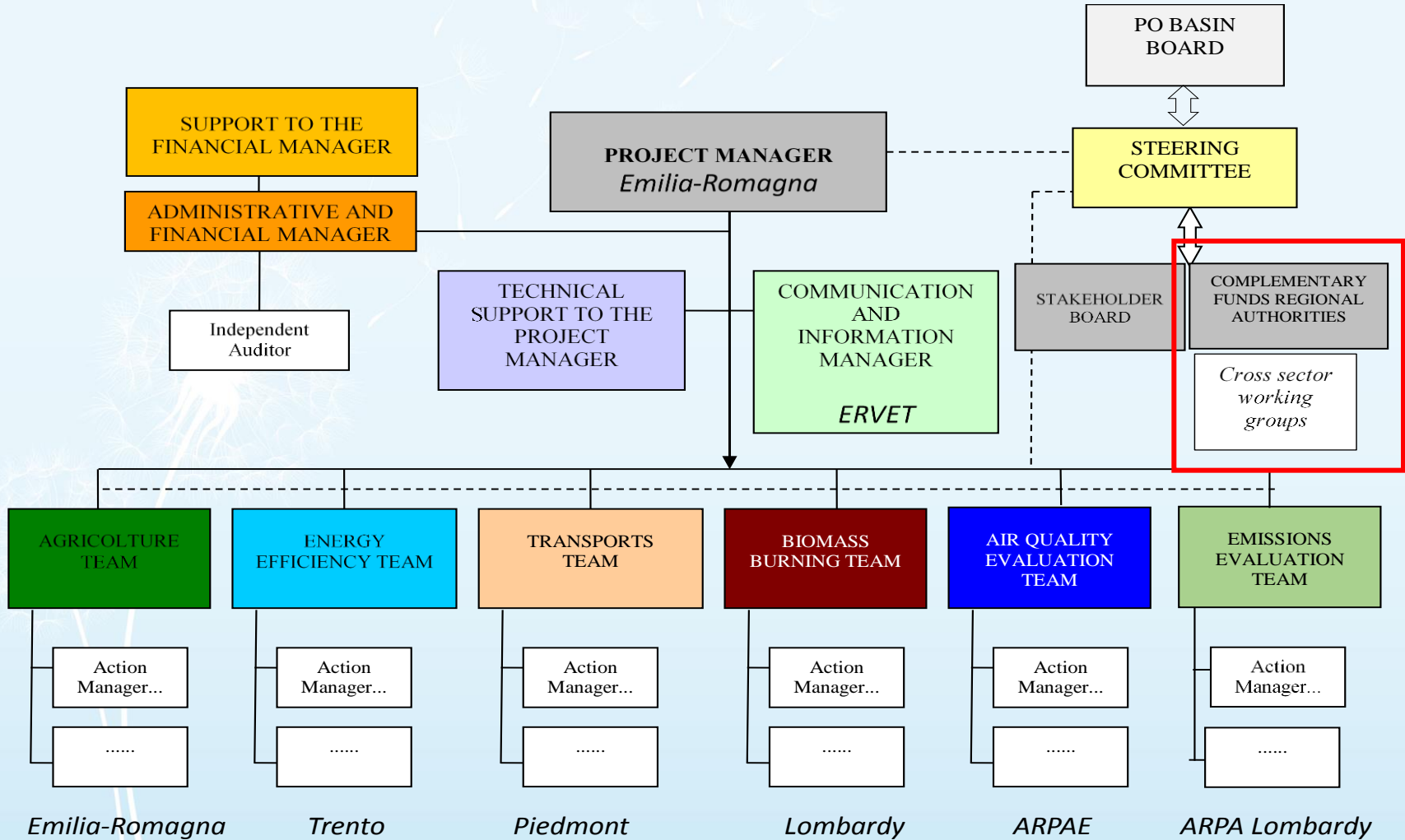
# Project management and structure



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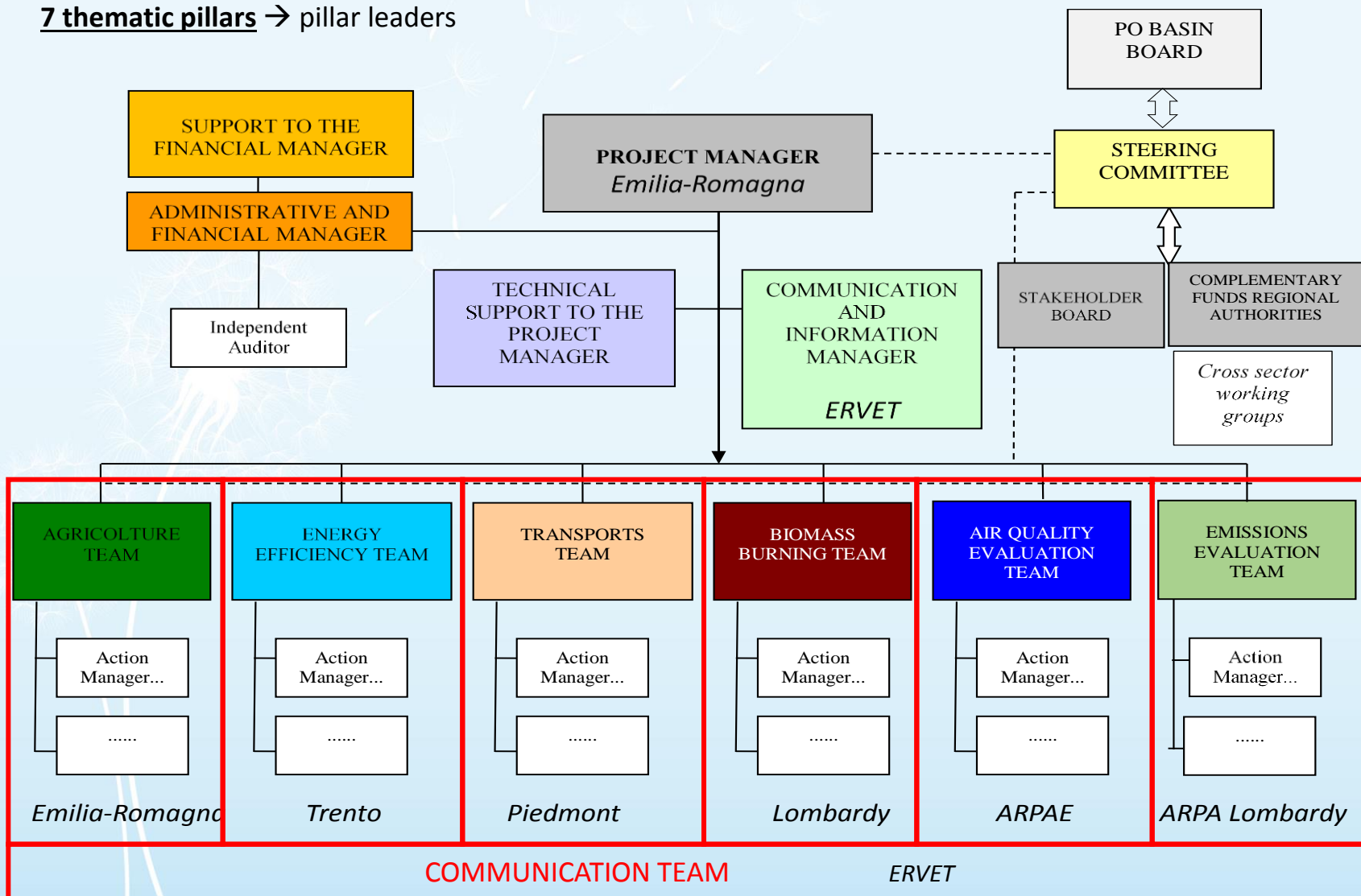


# Project management and structure



# Project management and structure

**7 thematic pillars** → pillar leaders



# Project management and structure

## PROJECT MANAGEMENT AND MONITORING OF PROJECT PROGRESS (F) - 3 actions

Administrative and financial management of the project, Independent Auditing, Establishing the governance permanent platform

## PREPARATORY ACTIONS (A) 4 actions

- emission data set
- environmental accountability system for AQPS measures
- preliminary assessment of AQPs
- network of special stations for monitoring AQPs environmental impacts

## CONCRETE IMPLEMENTATION ACTIONS (C) - 17 actions

Environmental Actions in 4 sectors:

- agriculture
- biomass burning
- transports
- energy efficiency

Technical Actions:

data sharing infrastructures, emission data warehouse, implementation of the integrated assessment model (RIAT+)

## MONITORING ACTIONS (D) 6 actions

- collection and update of data (AQPs measures, emissions, traffic flows, biomass consumption)
- regular assessment of air quality
- monitoring and estimation of actions' impacts

## COMMUNICATION AND DISSEMINATION ACTIONS (E) - 6 actions

- promotion and dissemination of actions' results at local, national and international level
- specific communication actions on particular issues: domestic burning of biomass, electric mobility, school targeted educational paths on air quality

# EMISSIONS EVALUATION actions

## To set up common databases and tools for emissions evaluation

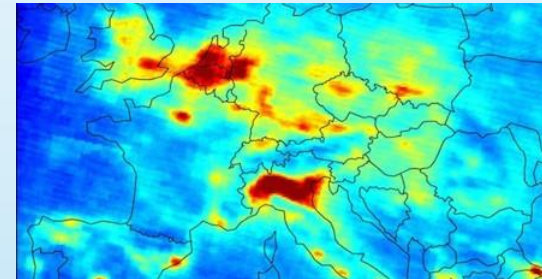
- first common emission dataset by harmonization and merging of existing emission inventories
- tool and algorithms for improved emission inventory at Po basin level and emission data warehouse
- common data flow exchange protocols
- periodic update of emission data
- traffic flows estimation and modelling at Po Basin level
- residential wood consumption estimation at Po Basin level



# AIR QUALITY EVALUATION actions

## To set up common tools for AQPs monitoring and environmental accountability

- common dataset of measures and indicators planned by regional AQPs and by PREPAIR
- common environmental accountability system
- permanent monitoring and modelling infrastructure for data sharing and common protocols for data flow
- common AQ model
- network of special stations (possible IOPs - Intensive Observation Periods)
- preliminary assessment of expected pollution levels after AQPs full implementation
- preliminary evaluation of Po Basin to Slovenia trans-boundary effects
- periodical collection and update of measures / AQ data and AQ assessment reports
- periodical evaluation of impacts of the measures from AQPs and PREPAIR on AQ in the Po Basin and trans-boundary effects
- Integrated Assessment Model for actions cost-effectiveness evaluation and AQPs design



# AQPs monitoring and assessment system



Emission data

transport

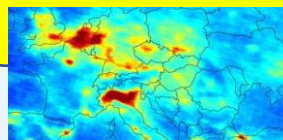
biomass

Accountability system  
(AQPs measures)

AQ data from monitoring  
stations

special stations +  
source apportionment  
+ common protocols

AQ models



Integrated  
Assessment model  
(RIAT+)



SCENARIOS  
(2010, 2015,  
2020, 2050)

Data sharing  
infrastructure

daily AQ  
assessment  
and forecast

periodical  
reports on AQPs  
impact

# AGRICULTURE actions

**To promote sustainable and low-emission farming and breeding practices**



Promotion of low N release application of fertilizers, survey on methods, identification of BAT, estimation of the impacts, expert meetings, training activities



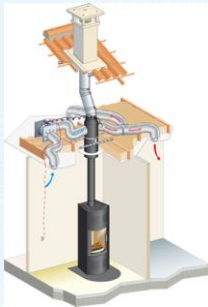
Survey on models for the evaluation of gaseous ( $\text{NH}_3$ ,  $\text{N}_2\text{O}$ ,  $\text{CH}_4$ ,  $\text{CO}_2$ ) and odour emissions, for application to intensive rearing of cattle, pigs and poultry, set up of a common model at Po Basin level, training activities

# BIOMASS BURNING actions

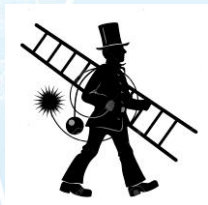
## To optimize the use of woody biomass for domestic heating



Survey on woody biomass demand & offer, and on woody biomass supply chain at Po basin level



Technical training for designers, installers and maintainers of domestic biomass systems



Enhancement of the role of "qualified chimney sweep" for control and maintenance of domestic biomass systems



Communication and awareness campaign addressed to citizens on the proper use of biomass for domestic heating

# TRANSPORT actions

## To promote sustainable mobility

### *Actions promoting cycling mobility*

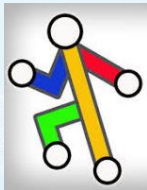


To increase cycling mobility share of modal split in urban areas, through:

- Training and awareness campaign for policy makers, citizens and students
- Survey on bike infrastructures availability in the railway stations and urban areas
- Modal split analysis in urban areas



### *Development of ICT tools for public transport users*



- Design and develop a new multi-modal “open” and integrated journey planning tool for public transport services (web, App)
- Information on mobility offer, congestion levels along the journey path, available options of collective mobility, etc.

### *Training on Eco-driving*



- To raise awareness in drivers (bus drivers, taxi drivers and driving schools) and transport service companies about eco-driving techniques and practice (less fuel consumption / less emissions)

# TRANSPORT actions

## To reduce the impacts of road traffic

### *Actions in support of electric mobility*



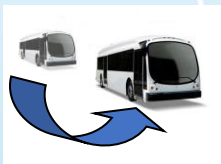
- to foster the diffusion of electric mobility, collaborating with public and private stakeholders and also at the policy level
- courses on the advantages of e-mobility addressed to local administrators, professionals and mobility managers; stakeholders consultations; studies to identify the best areas for electric mobility implementation

### *Rationalization of short-range freight logistics in urban and peri-urban areas*



- development of a shared logistic model through: survey on existing city centre logistics, development of innovative logistic models, pilot study, agreements among Region and operators, etc.

### *Pilot study on the conversion of the propulsion system of a bus from diesel to electric*



- to study a system to convert an old Euro III bus equipped with a diesel engine into a vehicle with full electric traction



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# ENERGY EFFICIENCY actions

## To reduce energy consumption

### *Industries*

Provides companies, included SMEs (Small Medium Enterprises), with the tools needed to achieve targets on energy efficiency and for an efficient energy use

### *Private buildings*

Specific training on near-zero energy buildings and renewable energies in order to develop professional expertises for an holistic approach to building works, specifically oriented to multi-family houses/condos, involving all actors (from building administrators to architects, engineers, etc.)

### *Public buildings*

Technical support and information to local authorities on access to finance and investment opportunities for energy saving initiatives

### *Green Public Procurement*

Trainings and workshops for diffusion the GPP approach between local bodies & enterprises, also using e-learning tools.

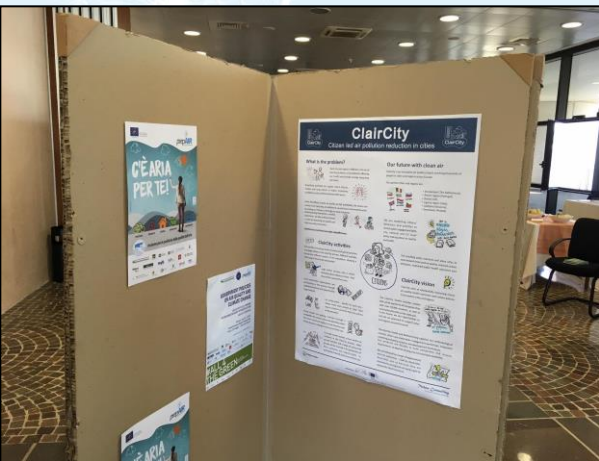
# COMMUNICATION actions

- Dissemination of project results
- Support to single concrete actions, e.g. e-learning platform
- Communication actions on biomass, electric mobility and school-targeted educational paths
- Networking with LIFE and non-LIFE projects on related themes
- Website: [www.lifeprepare.eu](http://www.lifeprepare.eu)

# YOU'VE GOT AIR!

*Together for the Policies of air quality*

**PREPAIR LAUNCH CONFERENCE: 8-9 JUNE 2017**



# Stakeholders involvement

- A Stakeholder Board has been established during PREPAIR Launch Conference (8-9 June 2017)
- It includes professionals, operators, national and regional trade associations, universities, research centers, municipalities, etc.
- The Stakeholder Board will be periodically consulted and involved in PREPAIR actions, through thematic workshops, working groups, direct audits, data collections, best practices collection, training initiatives, communications, dissemination initiatives, etc.



## GOVERNMENT POLICIES ON AIR QUALITY AND CLIMATE CHANGE

PREPAIR LIFE15 IPE IT 013  
Launch Conference

Bologna, June 8 - 9, 2017  
Emilia-Romagna Region Headquarters  
Room "20 Maggio"  
Viale della Fiera, 8





With the contribution of the LIFE Programme of the European Union

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# Thanks for your attention!



[www.lifeprepare.eu](http://www.lifeprepare.eu) – [info@lifeprepare.eu](mailto:info@lifeprepare.eu)



REGIONE DEL VENETO



PROVINCIA AUTONOMA DI TRENTO



Agenzia Regionale per la Prevenzione e Protezione Ambientale del Veneto



Agenzia Regionale per la Protezione dell'Ambiente



agenzia regionale per la protezione dell'ambiente del Friuli Venezia Giulia



ARSO ENVIRONMENT  
Slovenian Environment Agency



Comune di Bologna



Comune di Milano



CITTA' DI TORINO



Emilia-Romagna Valorizzazione Economica Territorio



Fondazione Lombardia per l'Ambiente