

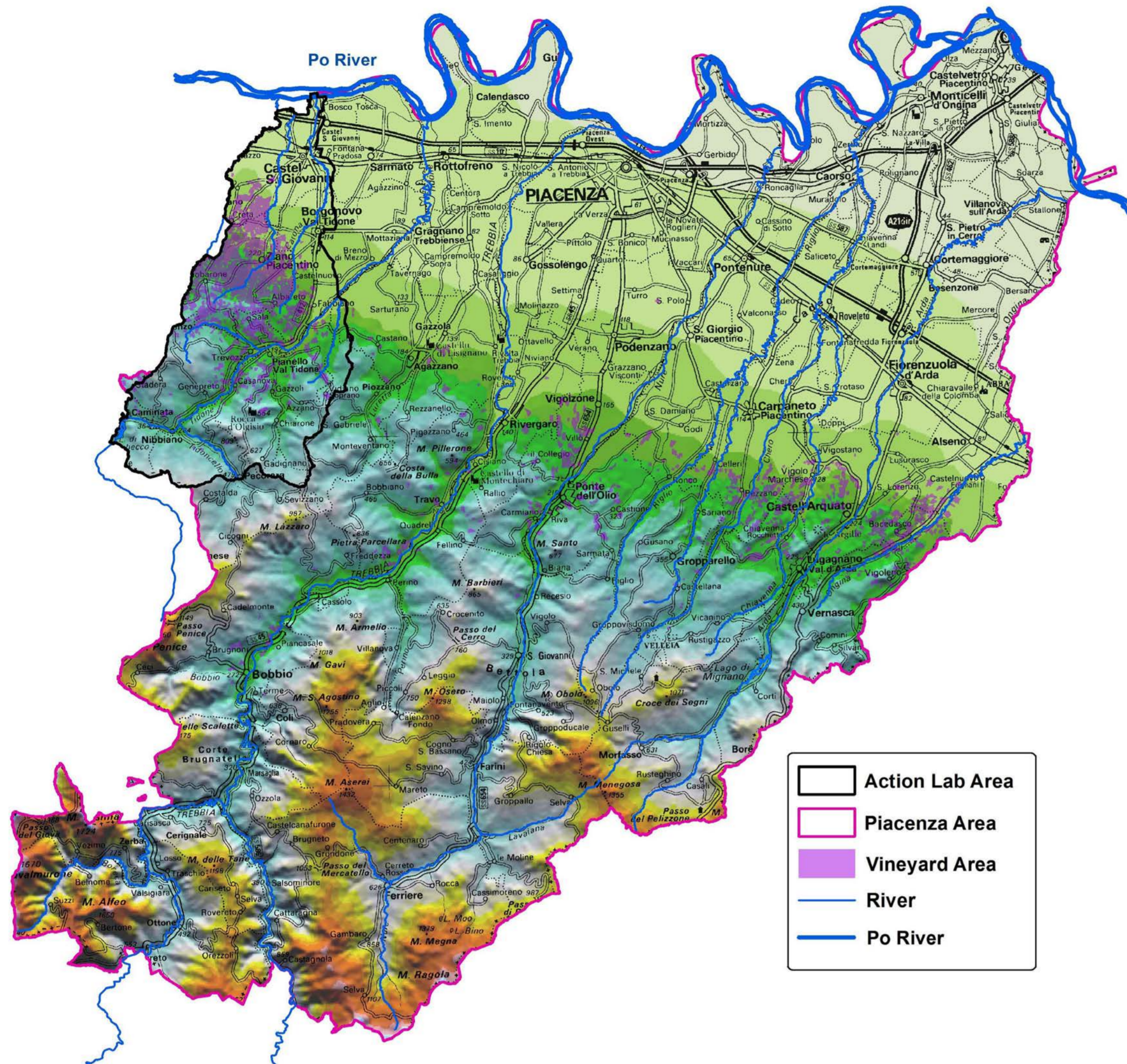


WATERPROTECT

Action Lab Val Tidone

THE CATCHMENT

- Situated in the north-west of Italy in the Emilia Romagna region
- The area covers five municipalities for a total of 28548 inhabitants.
- Hilly zone characterized by an elevation level between 100 and 350 above sea level
- Known for the **deeply rooted tradition and vocation to viticulture.**



AGRICULTURAL ACTIVITIES

- An alternation of vineyards, woods and typical villages
- **Vineyard with slope >2%**
- 4000 hectares of vineyards in the Piacenza Province and **2941 hectares in the Action lab Area** (see map)
- **Wine production, wines produced:** *Whites* and their sparkling varieties, *reds* and their sparkling varieties, *Barbera* and its sparkling variety, *Fortana* and its sparkling variety, *Marsanne* and its sparkling variety, *Muller Thurgau* and its sparkling wine varieties, and *Riesling* and its sparkling variety.
- The surface and ground water are used in the agricultural and zootechnical sectors

LOCAL CHALLENGES

- mixed urban/rural land-use;
- ground water is used for drinking water production and for zootechnical and agricultural applications
- **a non-adequate quality of the ground water mainly due to the presence of plant protection products (PPP) and nutrients**
- **until now the impact of the grape cultivation on pesticides and nitrates groundwater contamination was never investigated**

MITIGATION MEASURES & BMP'S

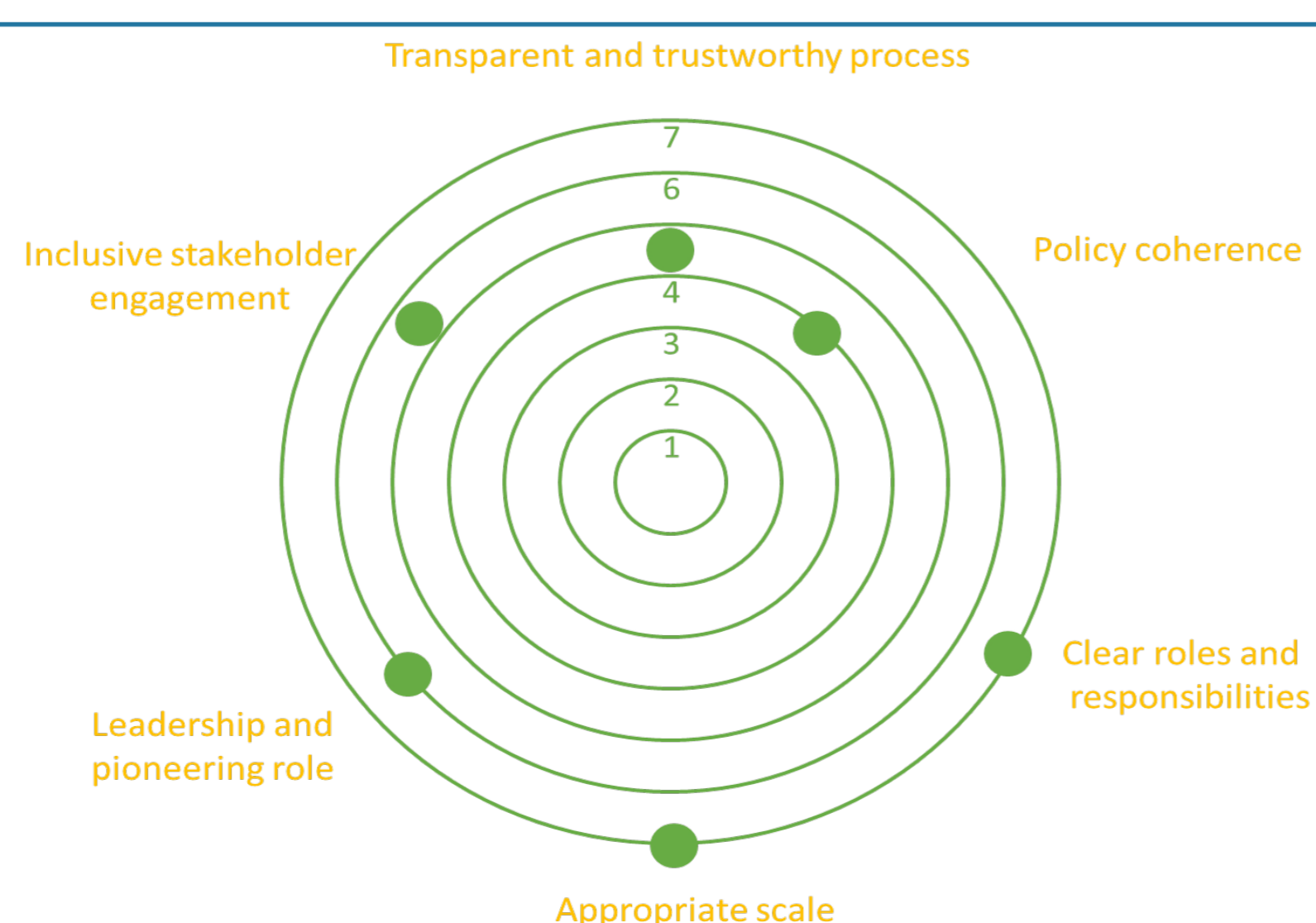
- Adapted Soil management for run off and erosion control
- Adoption of bio purification system (as biobed, heliosec etc) ✓
- Adoption of vertical barriers to intercept the drift ✓
- Limitation linked to the age of equipment
- Compulsory training of operators
- Compulsory regular technical inspection of pesticide application equipment
- Compulsory correct handling and appropriate storage PPPs and for treatment of their packaging and remnants ✓
- Compulsory Non Spray buffer zone if indicated on the label
- Compulsory Integrated Pest Management
- Regional guidelines on IPM for Integrated Pest Management voluntary program (compliance with Regional IPM, designed on the model of the National Quality System for IPM) that include compulsory Physical chemical analysis of soil for pH, nutrients, and organic matter ✓
- Education, training and sustainable programs for wine producers in addition to compulsory training programs ✓

PROJECT IMPACT

- Trend towards better water quality: which parameters are priority?
- **PPPs and nitrates**
- Number/Kind of Training Events
- **on-line training courses in winter period- requested by farmers**
- Info about collaborative Webtool / App
- **adaptation of belgian WaterProtect Tool- maps containing: erosion, sampling points, soil land use, drainage and data for PPPs, nitrates, pH, conductivity, etc**
- Target /number of mitigation measures
- **16 MM and 4 BMPs considered important**
- Approach & goals for the harmonised datasets
- **Database requested by the WaterProtect Tool and containing historical data from ARPAE and IRETI and data produced in the project by UCSC and ARPAE (water isothopy and conductivity)**
- Number of actors engaged in governance process



GOVERNANCE



Multi-actor

Several stakeholders categories are engaged: farmers, farmer's unions, environmental authority, health authority, social cellar, drinking water supplier, farmer's consultancy consortia, reclamation authority, local business, research organization.

Multi-level

All the decisions must respect the legislation starting from the European level and following the national, River Basin, regional and local levels.
European institutions (Parliament, Commission and Council) – Italian National institutions (Parliament and Ministries): transposition of Community legislation in National legislation
National Institutions – Regione Emilia Romagna: transposition of national legislation in regional legislation (could be more restrictive)
Municipalities – AUSL (Health Authority): the municipality may restrict the use of drinking water based on the potability of drinking water decided by AUSL.



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