



UNISDR

United Nations Office for Disaster Risk Reduction

PROVINCE OF POTENZA

UNISDR ROLE MODEL FOR INCLUSIVE
RESILIENCE AND TERRITORIAL SAFETY

COMMUNITY CHAMPION "KNOWLEDGE FOR
LIFE" - IDDR2015

EU COVENANT OF MAYORS FOR CLIMATE AND
ENERGY COORDINATOR



Twinning Programme
2017-2018

Granada, April 12th-13th 2018

#weResilient: A local governance and accountability model for territorial and community resilience



Promoting resilient and sustainable
cities and human settlements:
intersectorial cooperation and
evidence-based policies

Province of Potenza, Italy

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Area of interest



REGION: Basilicata (580.000 inh)
2 Provinces: Potenza and Matera

PROVINCE OF POTENZA:

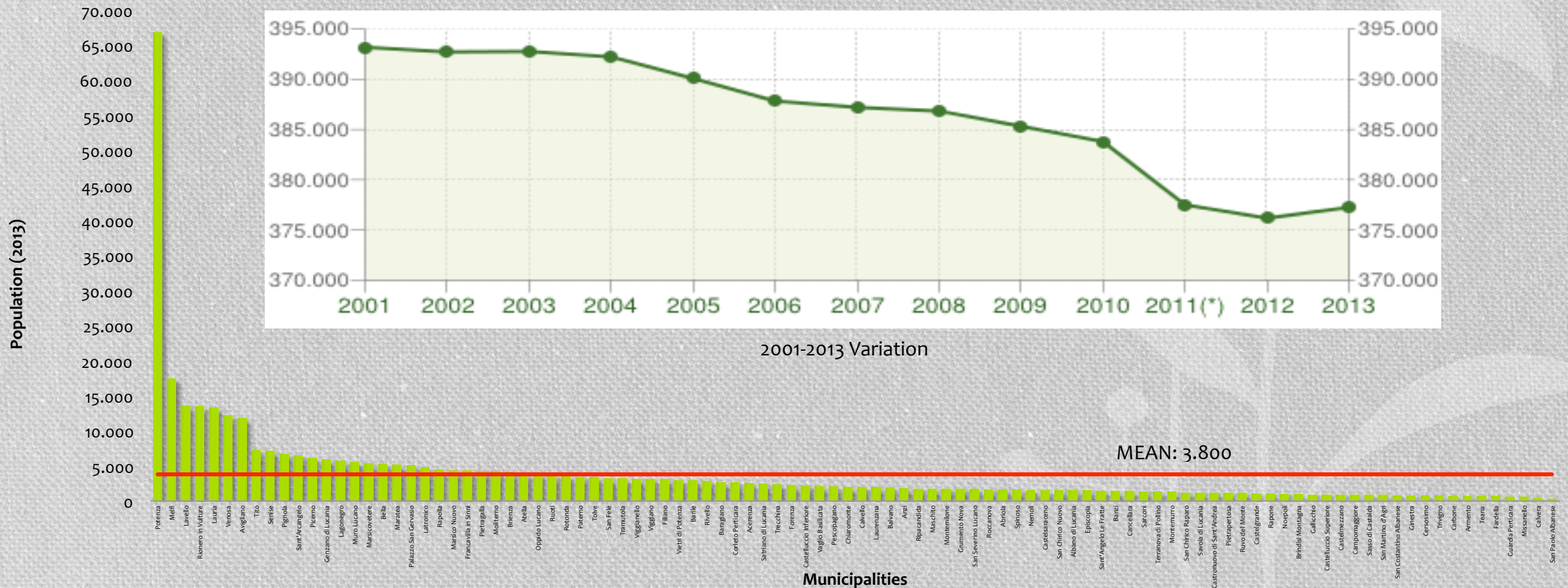
- AREA: 6.500 sqkm
- POPULATION: 378.000 inh
- POP. DENSITY: 60 inh/sqkm
- **MUNICIPALITIES: 100**
- CAPITAL CITY: Potenza (67.000 inh)



Area of interest



Population distribution and variation

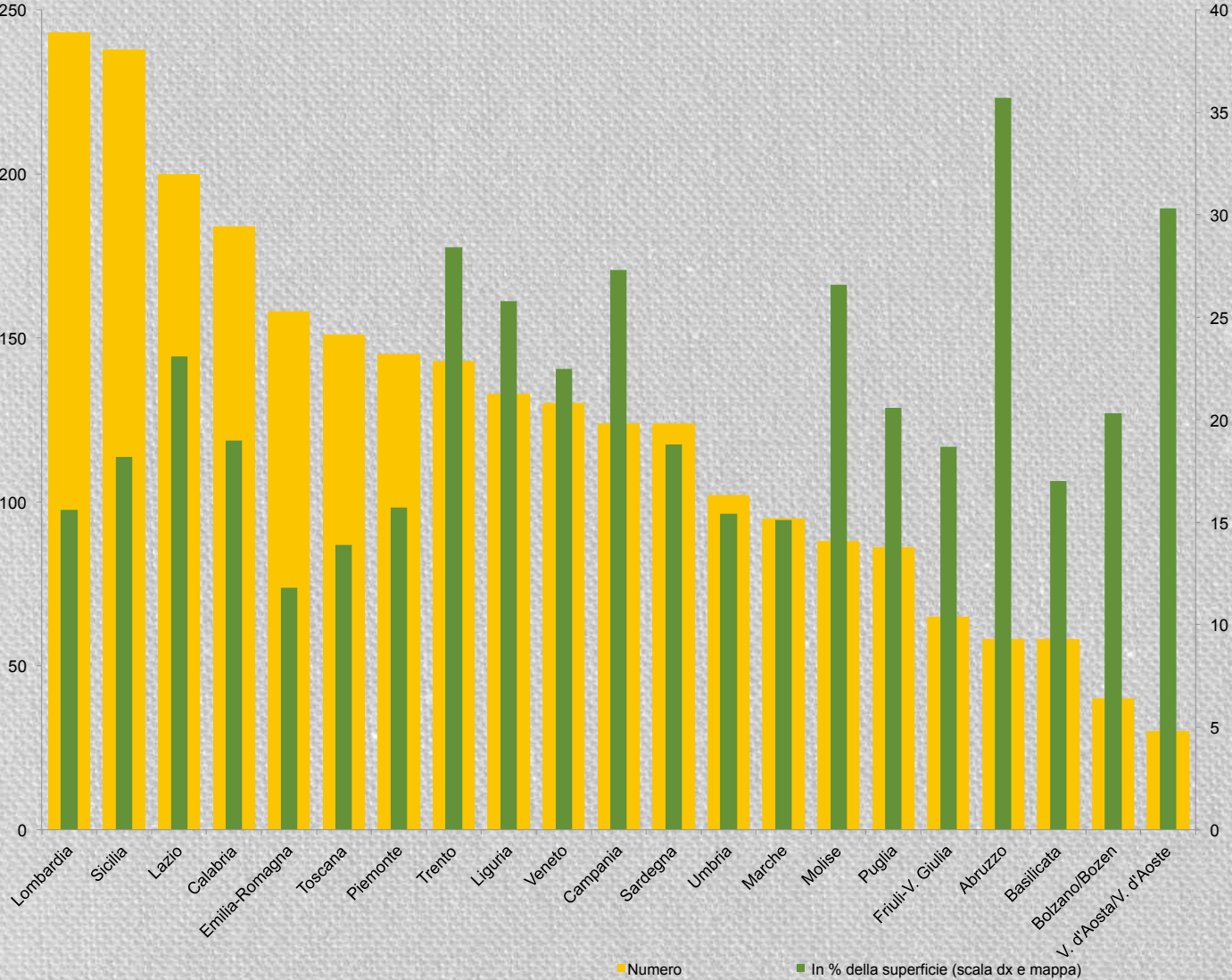
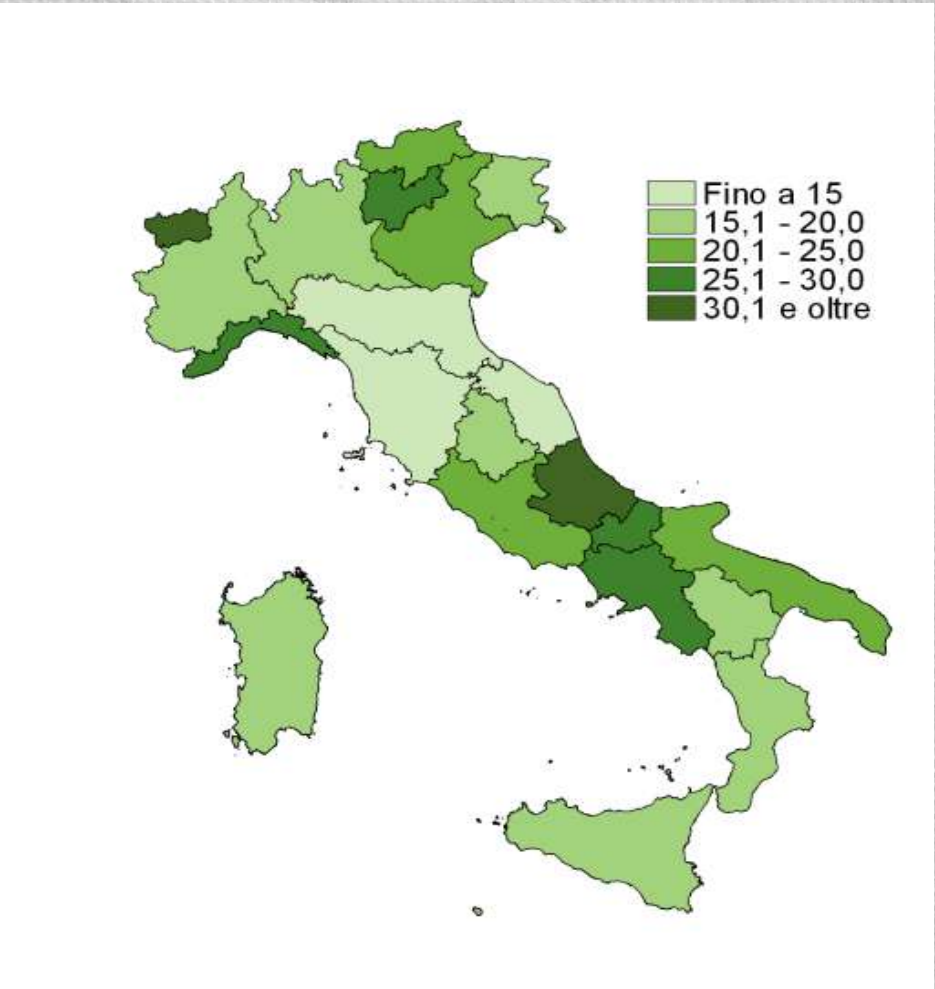


Main Risks



Natural	Land-use and management policies (human induced)
- Earthquakes - Landslides - Floods (hydraulic network system and dams) - Drought/Desertification - Wild Fires - Cold/Heat Waves - ... Climate Change	- Technical Risk – Industrial settlements - Urban sprawl - Soil sealing - Soil consumption - Soil degradation

Natural Areas



Bilancio energetico nazionale

Anno 2015, valori assoluti in milioni di tonnellate equivalenti di petrolio (Mtep)

RISORSE E IMPIEGHI	Tipo di risorsa					Totale
	Solidi	Gas naturale	Petrolio	Rinnovabili	Energia elettrica	
ANNO 2015						
Produzione (1)	0,39	5,55	5,47	30,69	-	42,10
Importazione (2)	13,00	50,12	80,53	1,99	11,19	156,83
Esportazione (3)	0,27	0,18	27,47	0,12	0,98	29,02
Variazione delle scorte (4)	0,06	0,18	-0,16	-0,01	-	0,08
Consumo interno lordo (5)=(1+2-3-4)	13,05	55,30	58,69	32,69	10,20	169,82
Consumi e perdite del settore energia (6)	-0,15	-1,61	-4,07	-0,01	-39,88	-45,71
Trasformazioni in energia elettrica (7)	-10,55	-16,89	-2,19	-24,78	54,40	0,00
Totale impieghi finali (8)=(5+6+7)	2,35	36,81	52,44	7,79	24,72	124,11
Agricoltura (9)	-	0,14	2,15	0,02	0,49	2,80
Industria (10)	2,28	11,47	4,00	0,10	9,17	27,01
Trasporti (11)	-	0,90	35,78	1,15	0,93	38,77
Usi non energetici (12)	0,08	0,57	4,82	-	-	5,47
Bunkeraggi (13)	-	-	2,60	-	-	2,60
Civile (14) (a)	-	23,73	3,08	6,51	14,14	47,46
Totale impieghi finali (8)=(9+10+11+12+13+14)	2,35	36,81	52,44	7,79	24,72	124,11

Fonte: Ministero dello sviluppo economico, Bilancio energetico nazionale

(a) Comprende i consumi del settore domestico, del commercio, dei servizi, della Pubblica amministrazione.

Produzione lorda di energia elettrica degli impianti da fonti rinnovabili

Anno 2015, valori assoluti in milioni di kWh

FONTI	VALORI ASSOLUTI						VARIAZIONI PERCENTUALI				
	2010	2011	2012	2013	2014	2015	2011/ 2010	2012/ 2011	2013/ 2012	2014/ 2013	2015/ 2014
Idrica (a)	51.116,8	45.822,7	41.874,9	52.773,4	58.545,4	45.537,3	-10,4	-8,6	26,0	10,9	-22,2
Eolica	9.125,9	9.856,4	13.407,1	14.897,0	15.178,3	14.843,9	8,0	36,0	11,1	1,9	-2,2
Fotovoltaica	1.905,7	10.795,7	18.861,7	21.588,6	22.306,4	22.942,2	466,5	74,7	14,5	3,3	2,9
Geotermica	5.375,9	5.654,3	5.591,7	5.659,2	5.916,3	6.185,0	5,2	-1,1	1,2	4,5	4,5
Bioenergie (b)	9.440,1	10.832,4	12.486,9	17.090,1	18.732,4	19.395,7	14,7	15,3	36,9	9,6	3,5
Solo produzione	6.189,2	6.608,0	7.294,3	9.619,3	9.909,4	9.828,0	6,8	10,4	31,9	3,0	-0,8
Produzione combinata di energia elettrica e calore	3.250,9	4.224,4	5.192,6	7.470,8	8.823,0	9.567,7	29,9	22,9	43,9	18,1	8,4
TOTALE	76.964,4	82.961,4	92.222,3	112.008,4	120.678,9	108.904,1	7,8	11,2	21,5	7,7	8,8

Main Risks



Produzione lorda di energia elettrica per fonte energetica utilizzata e regione

Anno 2015, valori assoluti in milioni di kWh

ANNI REGIONI	Fonte energetica					Totale	Di cui: Da fonte rinnovabile
	Idrica (a)	Eolica	Fotovoltaica	Termica tradizionale	Geotermica		
Basilicata	318,5	959,9	483,1	641,3	-	2.402,8	1.974,1
ITALIA	46.969,2	14.843,9	22.942,2	192.053,5	6.185,0	282.993,8	108.904,1
Basilicata	13,3	39,9	20,1	26,7	-	100,0	82,2
ITALIA	16,6	5,2	8,1	67,9	2,2	100,0	38,5

Consumo di energia elettrica per macrosettore economico e per regione

Anno 2015, valori assoluti in milioni di kWh

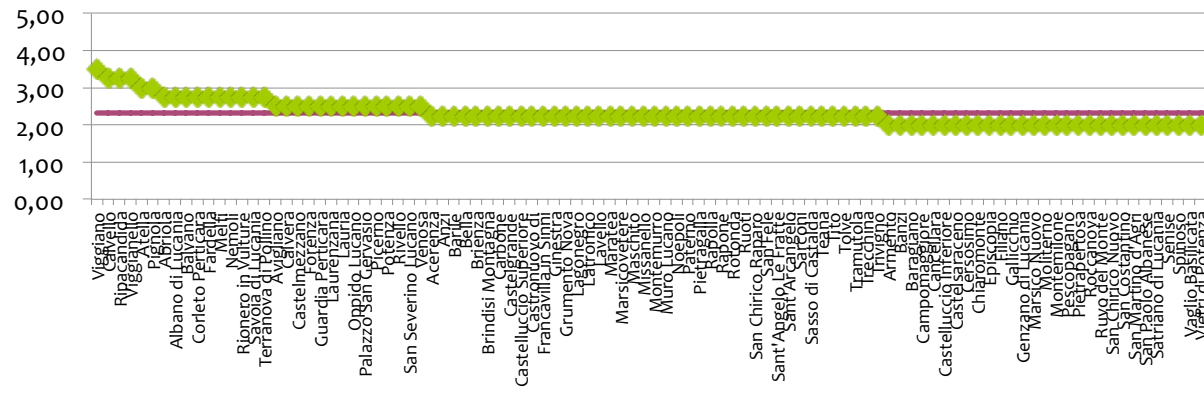
ANNI REGIONI	Agricoltura	Industria				Totale	Terziario (a)	Usi domestici	Totale (a)
		Manifatturiera di base	Manifatturiera non di base	Costruzioni	Energia e acqua				
Basilicata	62,1	474,0	565,7	9,8	333,0	1.382,4	605,5	498,9	2.548,9
ITALIA	5.689,9	52.234,0	52.983,3	1.355,0	15.790,0	122.362,3	97.834,3	66.187,3	292.073,7
Basilicata	2,4	18,6	22,2	0,4	13,1	54,2	23,8	19,6	100,0
ITALIA	1,9	17,9	18,1	0,5	5,4	41,9	33,5	22,7	100,0

City's Resilience Level: The assessments

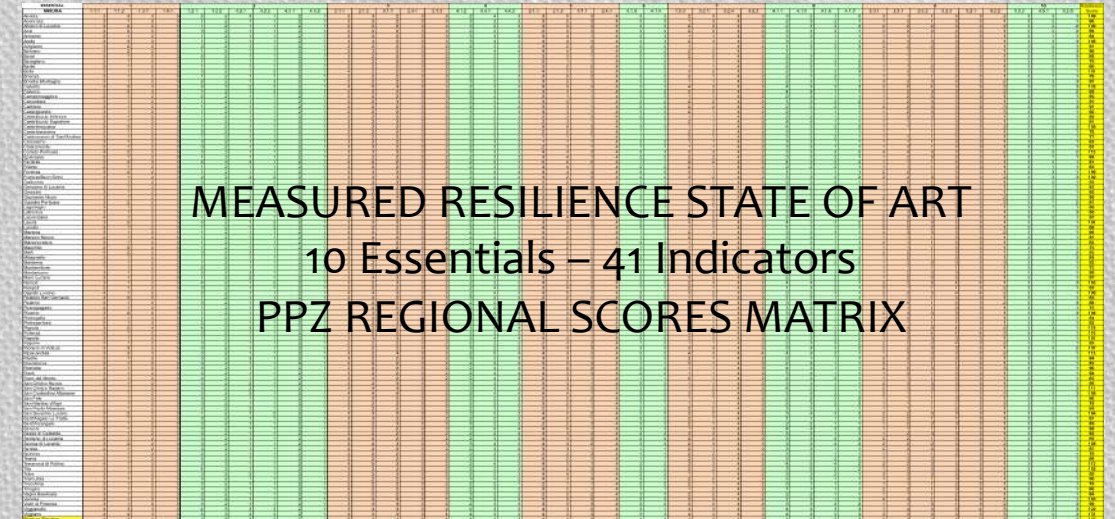


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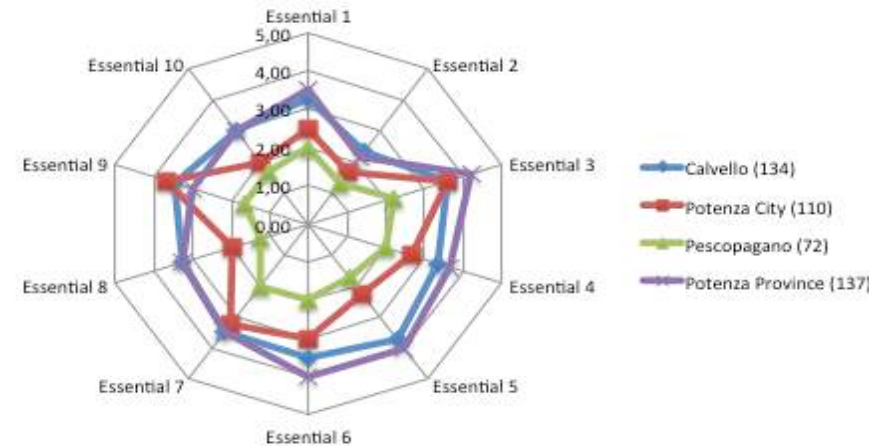
Essential 1



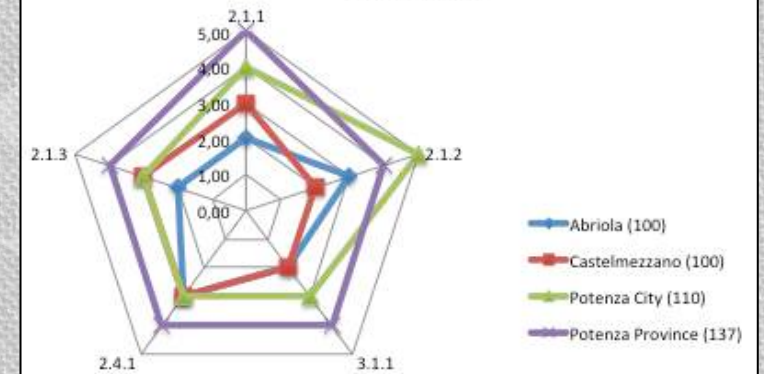
MEASURED RESILIENCE STATE OF ART
10 Essentials – 41 Indicators
PPZ REGIONAL SCORES MATRIX



Castelmezzano (100)



Essential 3



Identifying challenges (governance)



Assessment of Existing Gaps/Barriers At City level Lacks, main problems

A strong self-assessment action for defining the existing Resilience level has been performed under the Unisdr Making Cities Resilient Campaign - joined by all the 100 municipalities and coordinated by the Province – that provides for a set of specific tools built on the Sendai Framework for DRR



Identified solutions as Inputs for the Province's Strategy



**Act on a “structural” channel:
Land-Use and Government
Policy Coordination**

The Vision and the strategy ...



Territorial safety
+
Sustainable development
+
Climate change
=
#weResilient

... the Tool (Provincial TCP, 2013): Land Use/Government Policy Coordination

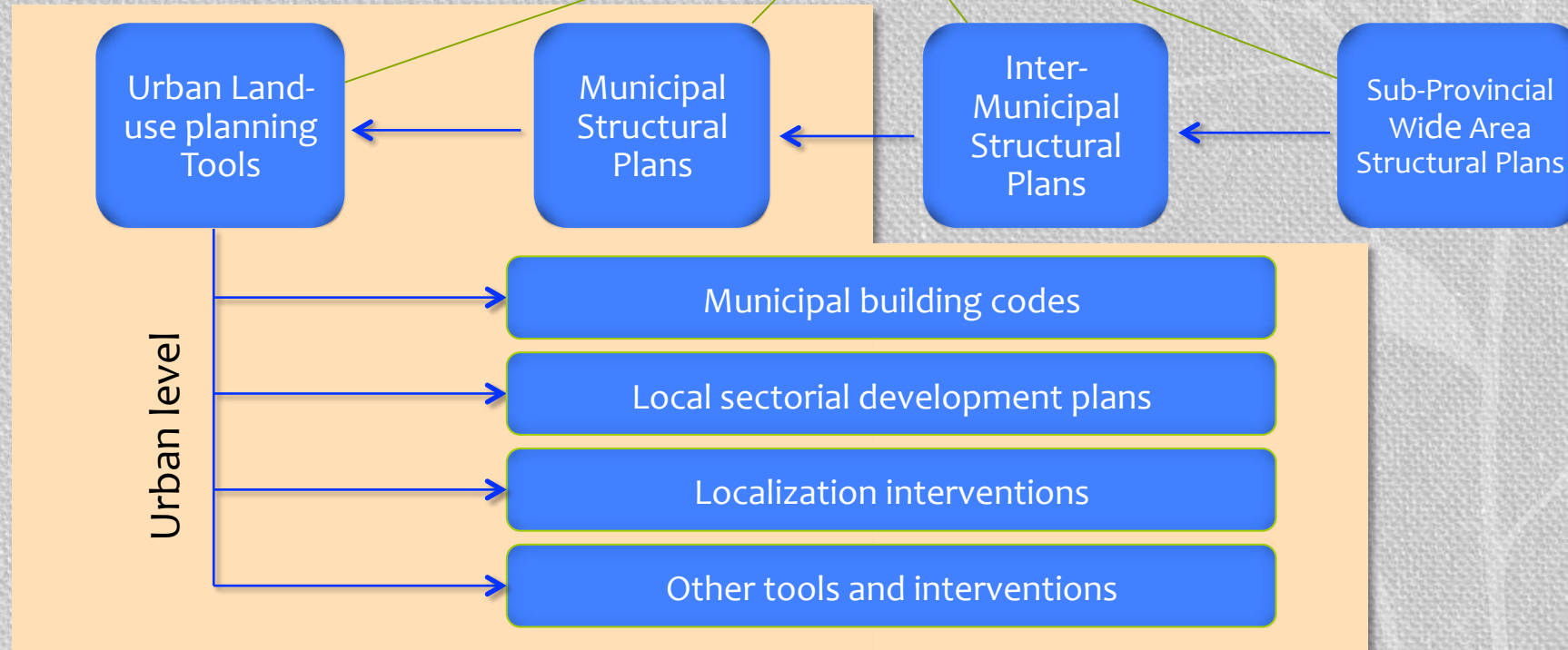


National and Regional Land Use / Government Framework



Provincial Territorial Coordination Plan TCP (2013)

Directives, Guidelines
Recommendations, Advices



... the Tool (Provincial TCP, 2013): Land Use/Government Policy Coordination



Main contents and actions:

Strategic and structural **local development action-plans** based on extensive **wide-area analysis and programs** of governance interventions on different interacting sectors, including:

- Environment (Natural, Environmental and Landscape systems)
- Settlements and urban structure (urban, suburban and open land areas)
- Relational system
- Viability, mobility and other Infrastructures
- Energy
- Productive sectors
- Social, cultural, etc. systems
- Territorial data collection and organization (GIS)



Implementation: Governance and Accountability



Implementation:

Resilient Development fields of intervention



Implementation:

Resilient Development fields of intervention



REGIONAL INITIATIVES

- VIE BLU (ERDF OP 2007-2013) – 8 Meuros/year (2008-2014)
- Forestry interventions (ERDF OP + RDF+ ESF) - 1 Meuros/year
- Natural Protected Areas and Reserves (ERDF OP + RDF+ ESF) – 1,5 Meuros (2018)
- Monitoring of Underground Water Resources (ROP) – 0,1 Meuros (2006-2007)
- Safe Ecological Schools (ERDF OP + RDF+ ESF) – 70 Meuros (2007 – currently)
- ... many others

Implementation:

Resilient Development fields of intervention



EU co-funded initiatives (1/2)

- **APEA** Agenzia per l'Energia e l'Ambiente della Provincia di Potenza (**SAVE II**)
- **PHARE TWINNING** Monitoring of Drinking Water Quality (**PHARE**)
- **SEDEMED I e II** Sécheresse et Désertification dans le bassin Méditerranée - assessment and mitigation of drought and desertification (**Interreg IIIB**)
- **MIPAIS** Methodologies et Instruments pour la Pianification et la gestion durable de l'Irrigation en condition de Secheresse (**Interreg IIIB**)
- **ESPA** Emergency Stress Psychological Assistance in Civil Protection Activities (**EU Commission DG Environment and Civil Protection**)
- **ES-2008 ERMES** Earthquake Simulation 2008 - Efficacious Reaction Of Messina Strait (**EU Commission DG Environment and Civil Protection**)
- **EDUCA-RUE** Percorsi di efficienza energetica negli edifici scolastici (**IEEA**)

Implementation:

Resilient Development fields of intervention



EU co-funded initiatives (2/2)

- **FUTUREENERGY** *Risparmia, cammina, pedala, rispetta* (**Fondi Nazionali Ministero Istruzione E DPC**)
- **RENERGY** *REgioNal strategies for EneRGY conscious communities* (**Interreg Ivc**)
- **REMIDA** *smaRt Energy chains and coMmuntities in the meD Area* (**Interreg Med**)
- **LOCARBO** *Novel roles of regional and LOcal authorities in supporting energy consumers' behaviour change towards a low CARBOn economy* (**Interreg Europe**)
- **EPICURO** *European Partnership for Innovative Cities within an Urban Resilience Outlook* (**EU Comm - Europe for Citizens**)
- **EPICURO** *European Partnership for Innovative Cities within an Urban Resilience Outlook* (**EU Comm– DG-ECHO**)
- **INNOVAGRO** *Development of an Innovative Network for the Promotion of Extroversion of Agrofood Companies in Adriatic – Ionian Area* (**Adrion Interreg VB - 2014-2020**)

Engaging stakeholders and Communities: Communities profiling and clustering



Building Trust and Increasing Confidence Interconnecting for increasing opportunities



Covenant of Mayors Twinning Programme 2017-2018, Granada, April 12th-13th 2018



Building Trust and Increasing Confidence

Exporting know-how and Interconnecting



Disaster Risks Reduction:
Sendai Declaration March 2015
→ Sendai Framework



Climate Changes → December 2015

ROAD TO PARIS 2015
TOWARDS COP21, PARIS CLIMAT 2015



Sustainable Development
Post-2015 Agenda → September 2015

Building Trust and Increasing Confidence

Role Appointments and Acknowledgements



Covenant of Mayors Twinning Programme 2017-2018, Granada, April 12th-13th 2018





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#weResilient: A local governance and accountability model for territorial and community resilience

Energy and Mitigation initiatives in territorial coordination

Province of Potenza, Italy

Vincenzo Moretti

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Authority, Italy*

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Initiative n.1

Covenant of Mayors



Initiative n. 1: Supporting structure of the Covenant of Mayors

Province of Potenza has been recognized as supporting structure for the Covenant of Mayors, initiative launched in 2008 by the Directorate General for Energy of the European Commission to actively involve European cities on the path to energy and environmental sustainability.

Main objective of the Province is to promote the accession to the Covenant committing the mayors to go beyond the objectives set by the EU for 2020, reducing the CO2 emissions in their respective territories by at least 20%, through the implementation of Sustainable Energy Action Plan. At 1 February 2018, 60 municipalities joined the Covenant of Mayors. Difficulties encountered during the implementation: it has been difficult to obtain data of energy consumption at the municipal level.

Initiative n.2: Safe Ecological Schools



Initiative n. 2 “Safe Ecological Schools”

- The initiative aims at improving energy performance in the building sector at the local level paying particular attention to educational buildings.
- A total of 70 million Euros have been invested in developing earthquake resistant and energy efficient schools across the province. The schools will also be constructed using low-cost techniques and ecological materials.
- The innovation and effectiveness of this practice is in the bottom-up approach that raises the awareness among stakeholders of educational buildings such as teachers, students and their family members regarding energy efficiency.
- The initiative was awarded as a best practice 2011 by Legambiente and GSE in the framework of “Renewable municipalities 2011”. A remote control system with a “public” display allows monitoring the production of RE plants. The total estimated energy production is about 743,742.5 kW/y corresponding to € 320,735.86 with about € 272,432.19 saved on the energy bill and 319,060 tons CO2 avoided.

Initiative n.3: Environmental Assessments



Initiative n. 3 Environmental Accounting and Territorial Certification

The project was started in 2000 with an agreement between the Province of Potenza and ENEA (Italian National Agency for New Technologies, Energy and the Environment) for the promotion and dissemination of environmental management systems of the territory through the application of EU directive n.761/2001, called EMAS. This agreement provides a strategic goal to develop a process of sustainable development of municipalities in the province of Potenza, identifying the system of environmental management and audit scheme (EMAS), one of the most effective tools for achieving this goal. The project was financed with funds from the provincial budget to € 50,000.

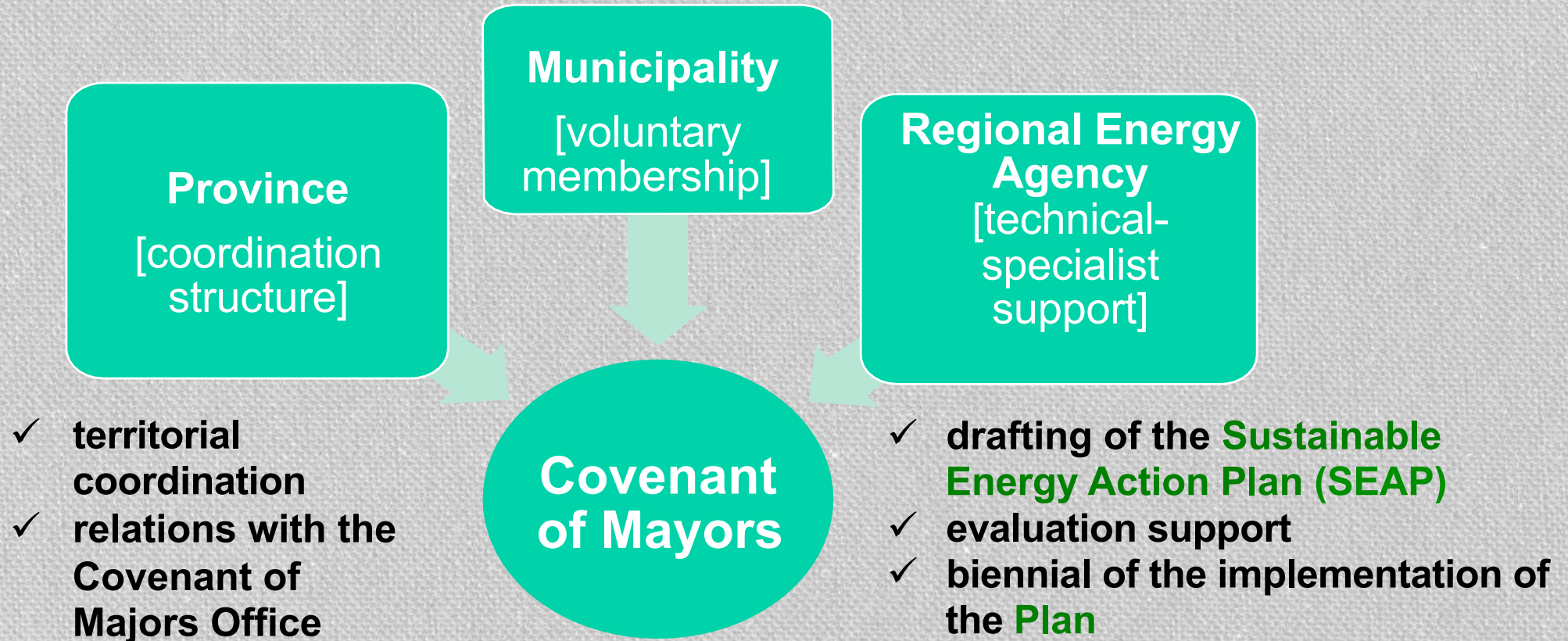
Essential issues: testing methodology environmental accounting.

Timeframe: in 2003, published three books theme.

Institution involved: Municipalities of Acerenza, Oppido Lucano and Calvello. Battaglini School of Venosa.



The Covenant of Mayors



Basic Emissions Inventory for Municipalities of Potenza Province

Analysis of energy consumption and CO₂ emissions by energy sector and by energy vector

- ✓ Residential
- ✓ Public
- ✓ Tertiary
- ✓ Transport
- ✓ Waste
- ✓ Excluding Industry and Agriculture



- ✓ Electric energy
- ✓ Fossil fuels
- ✓ Renewable energies

Basic Emissions Inventory for Municipalities of Potenza Province



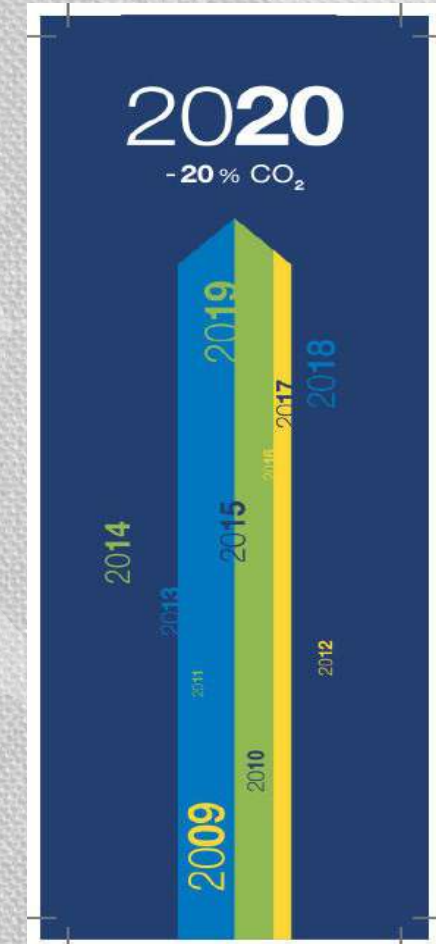
- ✓ Analysis of the public building heritage
- ✓ Analysis of the private building heritage
- ✓ Analysis of public lighting
- ✓ Transport analysis
- ✓ Waste management analysis
- ✓ Use and potential of renewable sources analysis



Guidelines



- ✓ **Savings and Energy Efficiency**
- ✓ **Energy production from renewable sources**
- ✓ **Smart Grids**
- ✓ **Sustainable Eco Public Transport**
- ✓ **Environmental certification**
- ✓ **Green Public Procurement and Food at Km 0**
- ✓ **Binomio Tourism and Sustainable Energy**



Current situation



60 Municipalities joining to the Covenant of Mayors

- ✓ SEAP approved in the City Council: 29
- ✓ SEAP in progress: 9
- ✓ SEAP to be edited: **22**

200.000 tons of CO2 to be reduced by 2020 (almost 30% of average reduction per municipality)

Awards



- ✓ **KlimaEnergy Award 2013** for the direct support activity to the Municipalities in the drafting of SEAPs, in particular for the rigor and originality in the design choices
- ✓ **Kyoto Club Award Spend without money** to the City of Calvello for the "energy democratization" interventions foreseen in its SEAP drawn up by the Lucan Energy Company
- ✓ **Legambiente 2013 Renewable Municipalities Prize** for activities of energy planning

Awards



A + CoM Award to SEAP of Sasso di Castalda [best Italian SEAP for municipalities up to 5,000 inhabitants]



Application - 1

SEAP Municipality of Potenza - San Carlo Hospital photovoltaic plant



Impianto fotovoltaico da 710,64 kWp realizzato su pensiline nel parcheggio dell'AOR San Carlo di Potenza.



Application - 2

SEAP Municipality of Tito - Photovoltaic system on land



Impianto fotovoltaico da 992.25 kWp realizzato in agro sito in Contrada Serra - Isca Pantanelle nel Comune di Tito.

Società Energetica Lucana



Application - 3

SEAP Municipality of Tito - Photovoltaic system on the Cecilia Cultural Center



Impianto fotovoltaico da 16.2 kWp realizzato su copertura del Centro per la Creatività "Cecilia" nel Comune di Tito.

Società Energetica Lucana



Application - 4

SEAP Municipality of Anzi - Photovoltaic system on the a school roof



Impianto fotovoltaico da 9.18 kWp realizzato sul tetto della Scuola Materna di Via D'Amico nel Comune di Anzi.





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The Interreg Europe LOCARBO Initiative

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Project ID



LOCARBO:

Novel roles of regional and LOcal authorities in supporting energy consumers' behaviour change towards a low CARBOn economy

Interreg Europe project web page:

<http://www.interregeurope.eu/locarbo/>

Project ID



SPECIFIC OBJECTIVE
Low-carbon economy

Project ID



Project duration: 54 Months

2 phases project (1st 30 Months; 2nd 24 Months)

Number of Project Partners: 7

Involved EU Countries: 6

7 fully feasible Action Plans

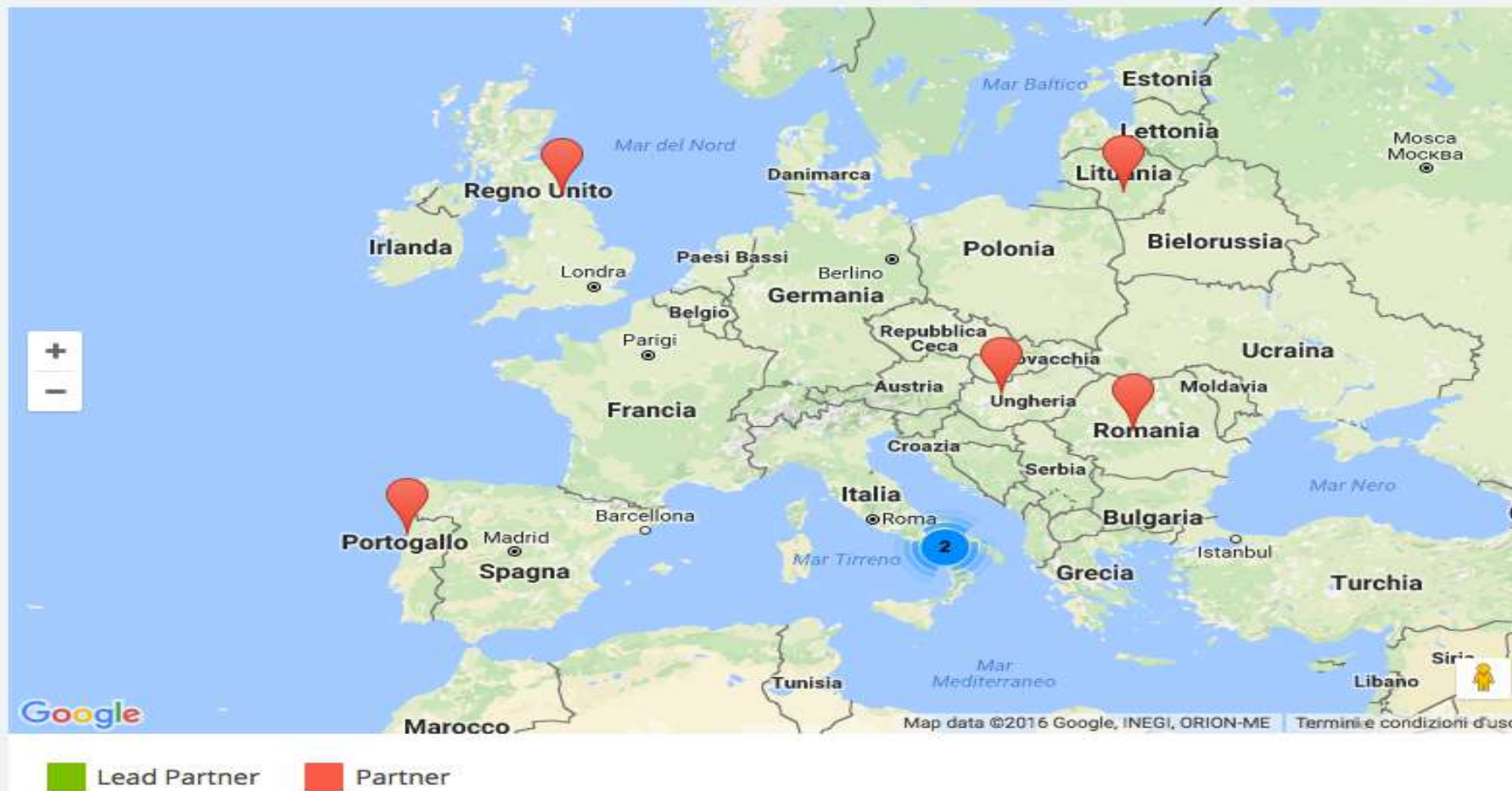
Addressing 7 Policy Instruments

Influencing around 100 Ml of EU funds at regional level

Project ID



Partnership



MAIN FOCUS



**Influencing Regional Programs and EU programming:
the overall project task**

**ACTION PLAN: an OPERATIVE TOOL for the implementation of project
achievements**



Thematic components



The overall objective of LOCARBO is **improving policy instruments** targeting *demand-driven initiatives* **to increase energy efficiency related to the built environment.**

This is to be achieved **by finding innovative ways for regional/local authorities to support energy consumers' behaviour change.**

LOCARBO is unique in focusing its activities on **bottom-up initiatives** and mainly because of the approach to handle 3 thematic pillars (services, organizational structures and technological solutions) in a fully integrated way.

Thematic components



3 thematic pillars:

services:

Supplementary services and products offered by authorities, i.e. energy consultancy services to end users and energy ambassadors (fast track training for individuals to carry out easy-to-use energy assessments), building on the track record and remarkable results of key LOCARBO partners

organizational structures:

Innovative cooperation models: Local energy communities (LEC) have demonstrated effectiveness in numerous EU regions to foster an active involvement of stakeholders, especially energy consumers. LECs refer to groups of economic/civil actors cooperating on a common goal linked to EE/RES. Similarly, grassroots initiatives present innovative community-led solutions to efficiently respond to local bottlenecks in sustainability and represent the interests and values of communities involved

technological solutions:

Innovative smart technologies: Europe is split concerning the penetration of smart/ICT technologies such as energy management systems or smart meters. The aim is thus to 1) support the spread of intelligent technologies in new Member States with typically lower penetration rates 2) systematically collect and analyse data and feed-back information to support fact-based regional policy making, as a joint issue for almost all EU regions.

Involvement activities



Two singular approaches:

Local Living Labs (LLL), operating as testing grounds for regional bottom-up approach.

“MA Café”, a tool for engaging Managing Authorities (MAs) and reach a common understanding in their commitments.



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THANK YOU FOR YOUR ATTENTION

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