



FINERPOL
Interreg Europe



European Union
European Regional
Development Fund

The EU Project FINERPOL and Trentino

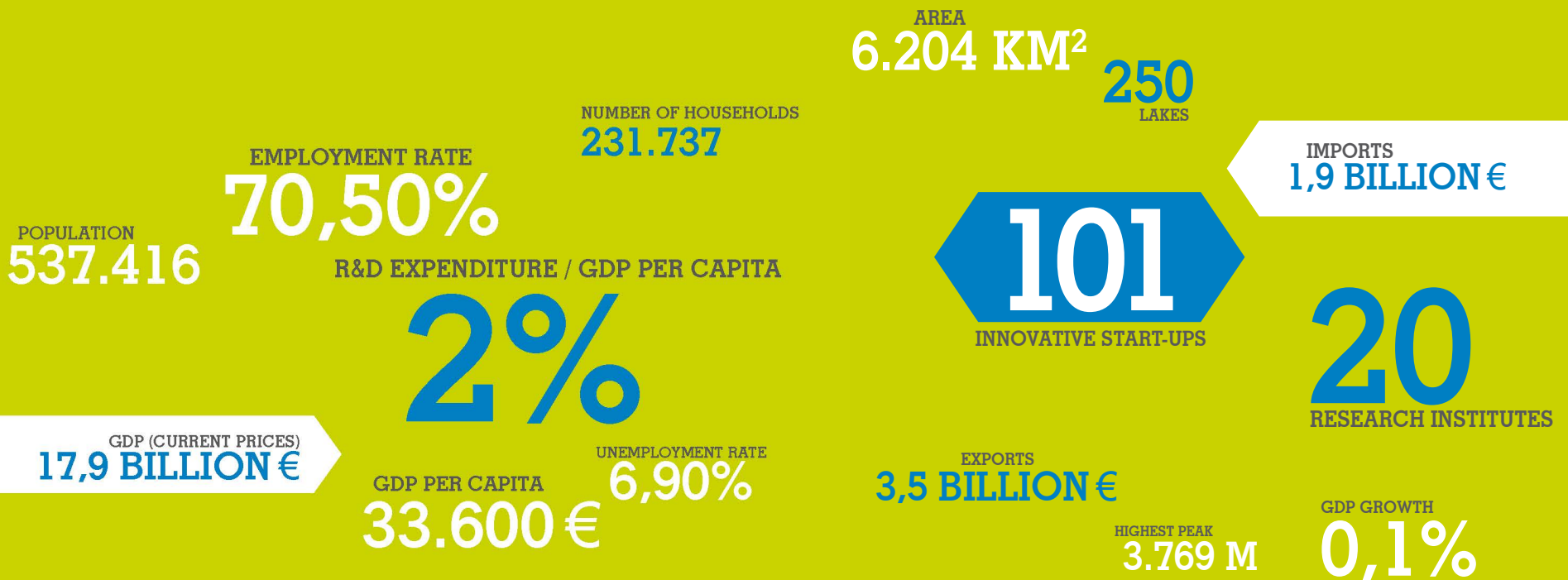
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TRENTINO'S FIGURES

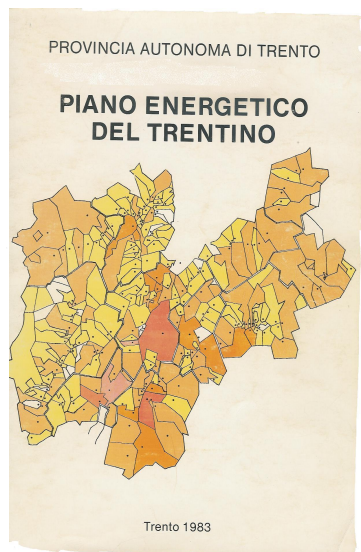


TRENTINO'S ENERGY POLICY

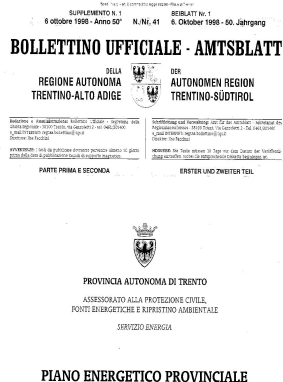
PROVINCIA AUTONOMA DI TRENTO

**PROPOSTA
DI
PIANO ENERGETICO
PROVINCIALE**

1979



1983



1998



2003



2013

Trentino Climate Law 5/2010

Energy autonomy by 2050, Trentino Zero Emissions by 2050

Trentino Energy Law 20/2012

Environmental Energy Plan 2013-2020

Economic, financial and technical support to private and public actors



TRENTINO'S
ENERGY TARGET

2020

Gross Final Energy Consumption 2020: steady

Electric Production 2020

Hydroelectric (normalised): steady

Pv: +19%

Biomass: +2%

Thermal production 2020

Solar: +16%

Residential biomass power plants: +74%

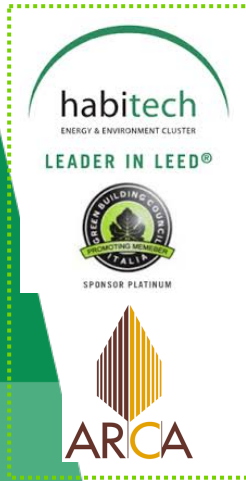
Heat pumps: +24%

Biomass heat district plants: +8%

(reference year 2010; data collection and elaboration under methodology: Burden Sharing Decree)

TRENTINO GREEN LAB

INNOVATION DRIVERS



RESEARCH ACTORS

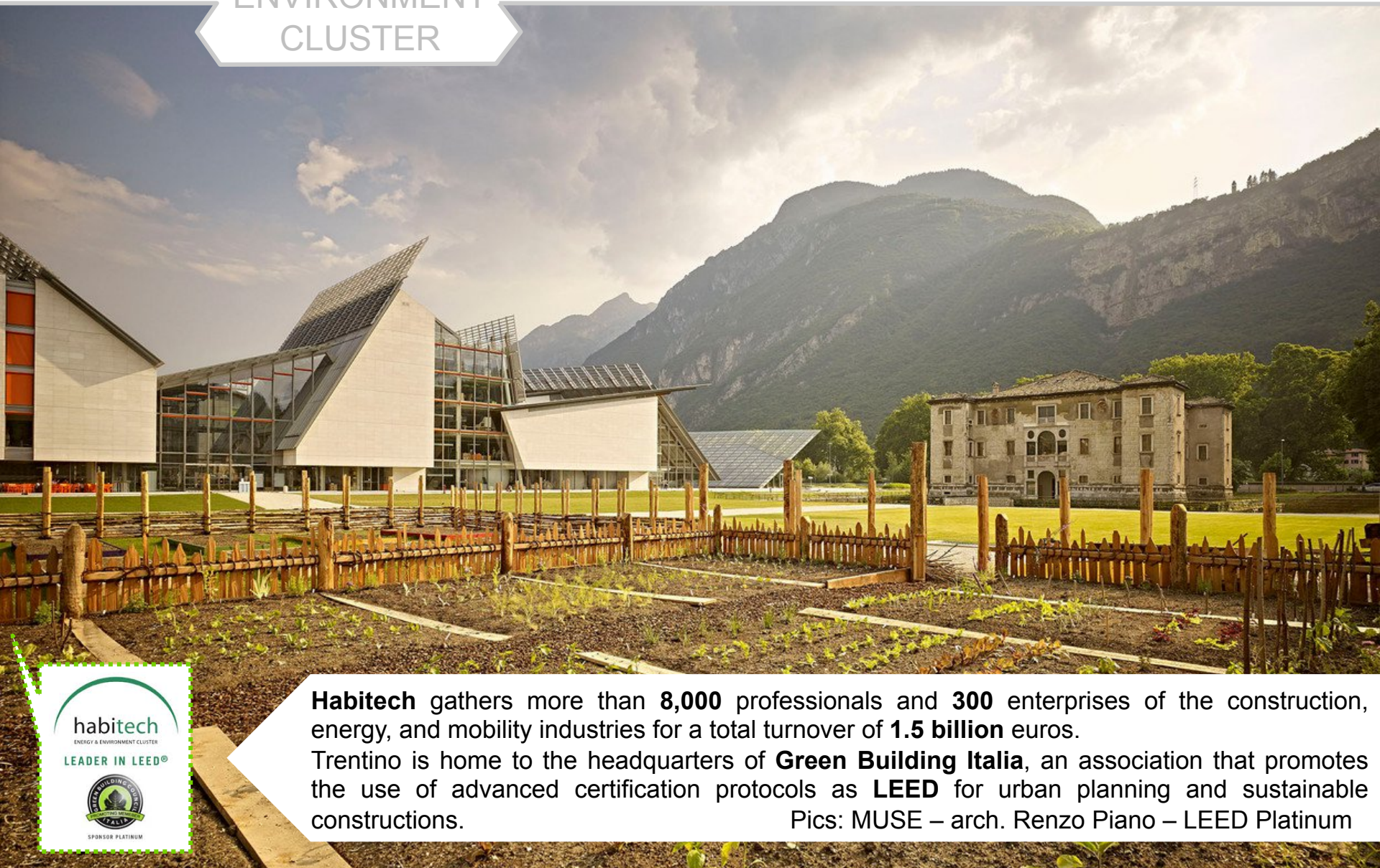


PROVINCIA AUTONOMA DI TRENTO

TRENTINOSVILUPPO
BUSINESS DEVELOPMENT AND DESTINATION MARKETING AGENCY



ENERGY AND ENVIRONMENT CLUSTER



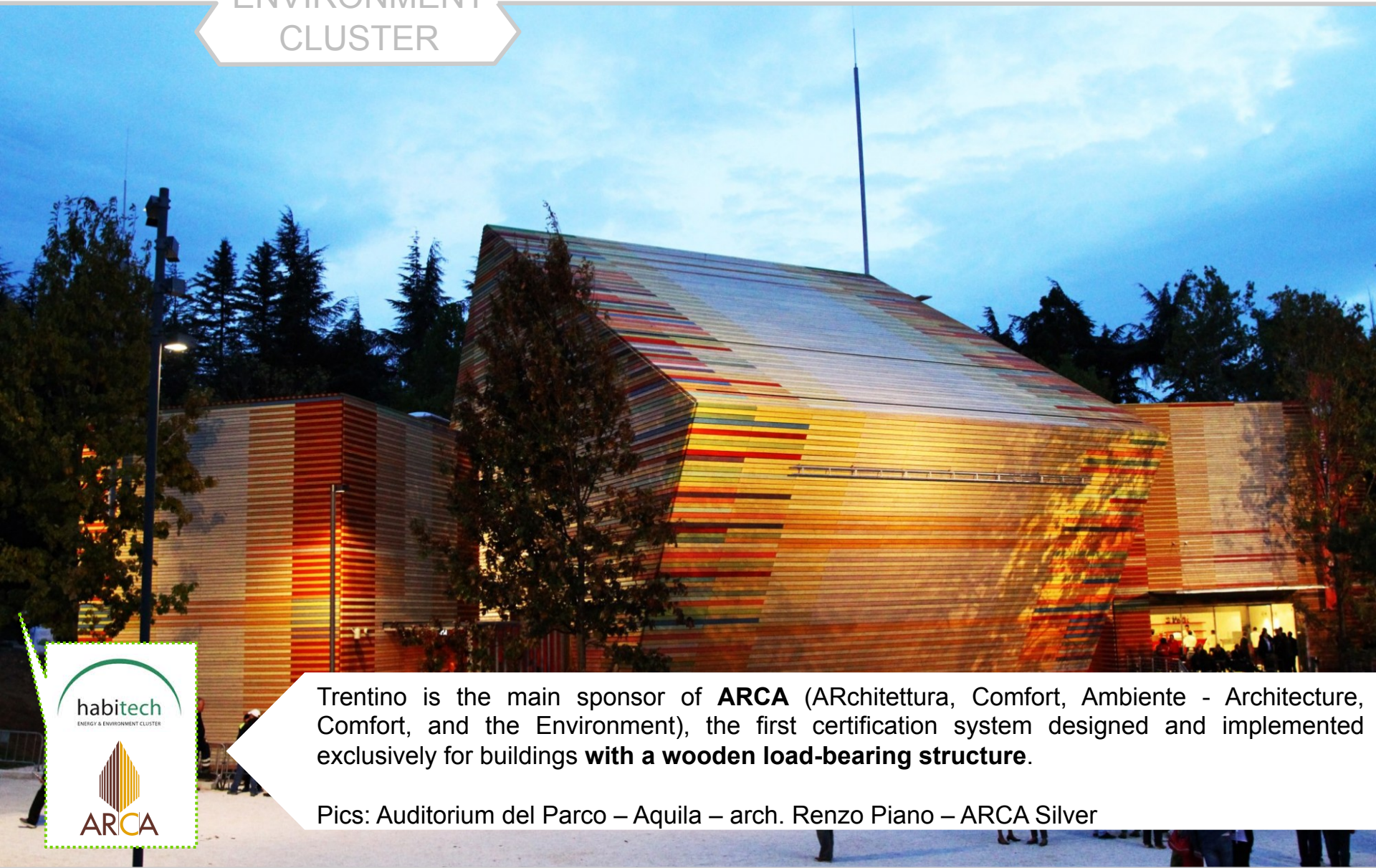
Habitech gathers more than **8,000** professionals and **300** enterprises of the construction, energy, and mobility industries for a total turnover of **1.5 billion** euros.

Trentino is home to the headquarters of **Green Building Italia**, an association that promotes the use of advanced certification protocols as **LEED** for urban planning and sustainable constructions.

Pics: MUSE – arch. Renzo Piano – LEED Platinum



ENERGY AND ENVIRONMENT CLUSTER



Trentino is the main sponsor of **ARCA** (ARchitettura, Comfort, Ambiente - Architecture, Comfort, and the Environment), the first certification system designed and implemented exclusively for buildings **with a wooden load-bearing structure**.

Pics: Auditorium del Parco – Aquila – arch. Renzo Piano – ARCA Silver

GREEN INNOVATION FACTORY



Progetto Manifattura focuses on the creation of innovative **start-ups** in the field of renewable energies, **green building**, and environmentally friendly technologies.



GREEN TECHNOLOGY HUB



Polo Meccatronica is a green technology hub where companies, students and researchers can collaborate for more innovative and efficient mechanical products.

TRENTINO'S ENERGY KPI

In the Autonomous Province of Trento renewables account for a share **three times higher** than the national one.

Furthermore, the Autonomous Province of Trento has overshoot by a good margin the target set by the National Action Plan on renewables, reaching already at the end of 2012 a cumulative power **two times higher** than the goal of 8 GW of installed power foreseen by the National plan for 2020.

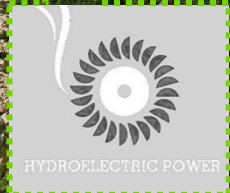
production/consumption: 40,3%

foreseen 2012: 30,9% | foreseen 2020: 35,5%

TRENTINO ENERGY PERFORMANCE

Hydroelectric power: the Autonomous Province of Trento can count on a high number of hydroelectric power stations (209) and a gross installed power of 10,4% italian one.

378 ktoe – (Trentino consumption of electricity 302 ktoe) - 2014



TRENTINO ENERGY PERFORMANCE



Woody Biomass: represents by far the renewable energy source that is most used after hydroelectric power. **22 district heating** + more than 130 thermal plants for hotels

Residential biomass power plants: **126 ktoe**

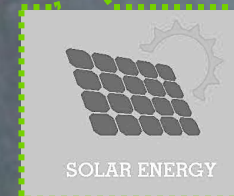
Biomass heat district plants: **10 ktoe**



TRENTINO ENERGY PERFORMANCE

Solar energy: Trentino boasts a per capita solar surface **seven times higher** than the national Average.

Pv = 12 ktoe - Solar = 9 ktoe



ENERGY EFFICIENCY - LIGHT & DEEP RETROFIT OF PUBLIC BUILDINGS

Provincial Social housing company

700 buildings - 9539 social public dwellings

70% of building stock has a consumption higher than 120
kWh/m²y

60% energy savings potential

Provincial public building stock

166 buildings

60% of building stock has a consumption higher than 45
kWh/m³y

40% Energy savings potential

Municipal public building stock

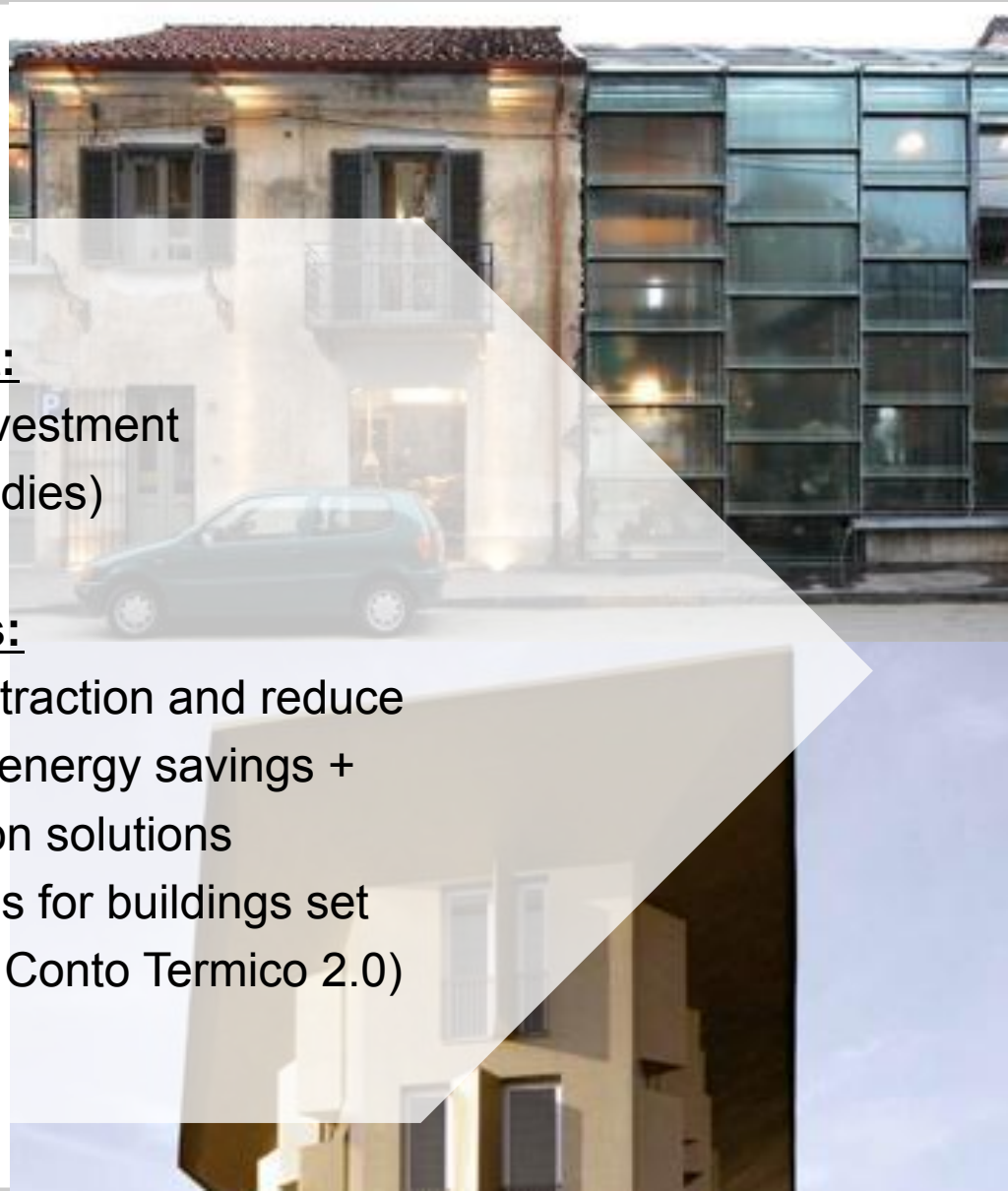


Scale of investment:

circa 150 mln euro of total investment
(preliminary feasibility studies)

Sector Potentialities:

- Set of buildings to maximise value extraction and reduce transaction costs: high potential of energy savings + standardisation of construction solutions
- Standardisation of public procedures for buildings set
- Additional resources: GSE (TEE and Conto Termico 2.0)



ENERGY EFFICIENCY - LIGHT & DEEP RETROFIT OF CONDOMINIUMS

Scale of investment:

15000 condominiums in the province

Sector Potentialities:

- National additional resources: GSE (TEE and Conto Termico 2.0)
- Provincial additional resources: provincial grants (Progetto Condomini) [total budget: 8 mln euro in 10 years]

NOW: Requests for 1821 energy audits = 163 mln euro



ENERGY EFFICIENCY - PUBLIC STREET LIGHTING

Current energy consumption 44000 MWh = 9 mln euro
After renovation: 26600 MWh - **89000 light points**
- **39% energy saving**

(reference year: 2016 – data from circa 180 public light plans/210 municipalities)

Scale of investment:

Circa 170 mln euro of total investment

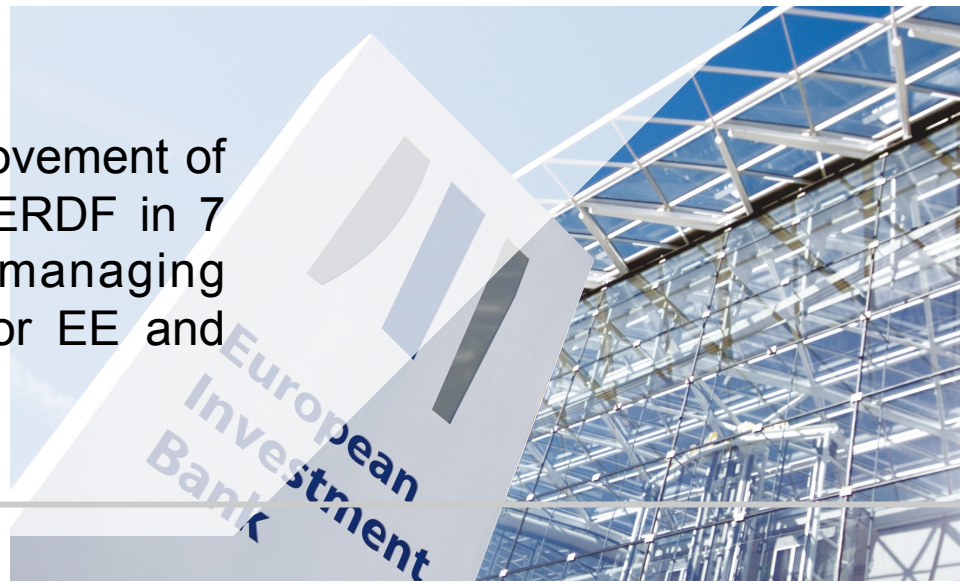
Sector Potentialities:

- High standardisation of interventions & smart solutions
- Maintenance and operation services: strong interest in real-time monitoring and management systems
 - Standardisation of procedures and contracts



General objective is to promote new policies, or improvement of existing policies, aimed to the creation of funding instruments, especially Financial Instruments (FIs) supported by ERDF funds and integrated with EC funding initiatives, such as EFSI (Juncker Plan 06/2015), tools from the European Investment Bank EIB (ELENA, Margarite Funds) or even from public private partnerships.

The expected results will be the improvement of the specific regional policies and the ERDF in 7 regions of the EU, involving 5 managing authorities with ERDF competences for EE and RES projects.



Sub-objectives:

- To transfer current partners practices in the definition of policies combining FIs and ESIF for energy efficiency and renewable energy investment in buildings.
- To learn from existing and successful EU best practices in the creation of FIs for the development of EE and RE in buildings.
- To provide, to any interested regions, with an interregional tool for best practices consultation, Finermap, which will increase the interchange of case studies and accelerate the replication process.
- **To generate Action Plans which will lead to:**
 - improve the management of existing EE and RES policies;
 - to implement new projects aimed to promote EE and Res in buildings.

LOCAL OBJECTIVES

1. To realise a **permanent discussion** on key success factors for financing energy efficiency at operational level between key actors from cities, communities and industry as well as the financial sector
2. To **establish and consolidate synergies** between stakeholders
3. To **elaborate a co-production process of efficient and effective roadmaps** to overcome exiting barriers and bottlenecks in Public Buildings, Residential Buildings and Street Lighting sectors

Past and Current Activities

- (A) Ongoing process of Stakeholders involvement – identification of target groups
- (B) (establishing) Trentino Energy Board
- (C) 19/12 Workshop on combination of different financial instruments available at national and provincial level, in particular the lead role of «Conto Termico 2.0»
- (D) Ongoing «Progetto Condomini» on private residential buildings

Selection and analysis of 5 Italian case studies (1)

PadovaFIT – City of Padoa - Residential Buildings

City Council as facilitator & institutional garantor | involvement and engagement of households + building managers - FACILITATORS TRAINED | technical and financial model to identify sunsustainable works and MIX of attractive buildings – LIGHT ENERGY AUDITS | bundling of contracts + pooling of buildings | selection of 1 Esco as Delivery Partner | EPC contract template

PARIDE – Province of Teramo - bundling of contracts

3 temporary associations of 33 municipalities | selection of 3 Esco as Delivery Partner | EPC contract template

TO2020 – Piedmont Region – Public Buildings & Public Lighting

Technical and financial model to identify sunsustainable works and MIX of attractive objects | bundling of contracts + pooling of buildings | selection of Delivery Partners | EPC contract templates

Selection and analysis of 5 Italian case studies (2)

LEMON – AESS Modena (area Emilia-Romagna Region) [ongoing activity]

Social Housing – 622 dwellings | Energy Performance Tenancy Agreement to solve the tenant/owners dicotomy | bundling of contracts + pooling of buildings

ENERshift – Liguria Region [ongoing activity]

Social Housing | bundling of contracts + pooling of buildings

n.3 Trentino strategical projects → 3 today round tables

Light and Deep Energy Retrofit of Public Buildings

focus on: the point of balance between energy, environmental and well-being aspects of works and the attractiveness of investments

By: METHODOLOGICAL SUPPORT FOR THE IDENTIFICATION OF SUSTAINABLE MIX of WORKS to be financed by a mix of existing European, national and local instruments

Light and Deep Energy Retrofit of Private residential buildings

Starting from «Progetto Condomini», DEFINITION OF A TEMPLATE FOR PROJECT PROPOSAL AND CONTRACT

Energy Efficiency of Public Street Lighting

Support to project financing

Cassa del Trentino S.p.A. («CdT»), società *in-house* della Provincia autonoma di Trento («PAT»):

- è lo strumento deputato alla gestione e alla provvista (“*one for all*”) delle risorse finanziarie per gli investimenti pubblici nel territorio provinciale;
- riveste un ruolo fondamentale per l’implementazione delle strategie finanziarie del governo provinciale e per l’ottimizzazione della gestione della liquidità (*braccio operativo della PAT a sostegno dei Comuni e degli EELL*);
- fornisce supporto e assistenza in materia finanziaria alla PAT e, su richiesta della stessa, ai soggetti collegati alla finanza provinciale;
- vanta un elevato merito creditizio: rating A3/A di Moody's / Fitch.

SUCCESSFUL LOCAL EXPERIENCE

Ritorni fiscali

PROVINCIA AUTONOMA DI TRENTO
Contributi annui per investimenti

Annualità

MERCATI FINANZIARI

European Investment Bank The ELL bank

GRUPPO CASSA DEPOSITI E PRESTITI

.. Investitori istituzionali ..

Provvista finanziaria

Rimborso provvista finanziaria

CASSA del TRENTO

Erogazioni a fabbisogno

**COMUNI
COMUNITÀ DI VALLE**

liquidità

Interessi attivi

Ottimizzazione gestione liquidità

Infrastrutture ed altre opere pubbliche finanziate

Bassi tassi d'interesse Nessun onere gestionale per EELL

Ottimizzazione liquidità

+ PIL

+ Occupazione

Sostegno al sistema economico locale

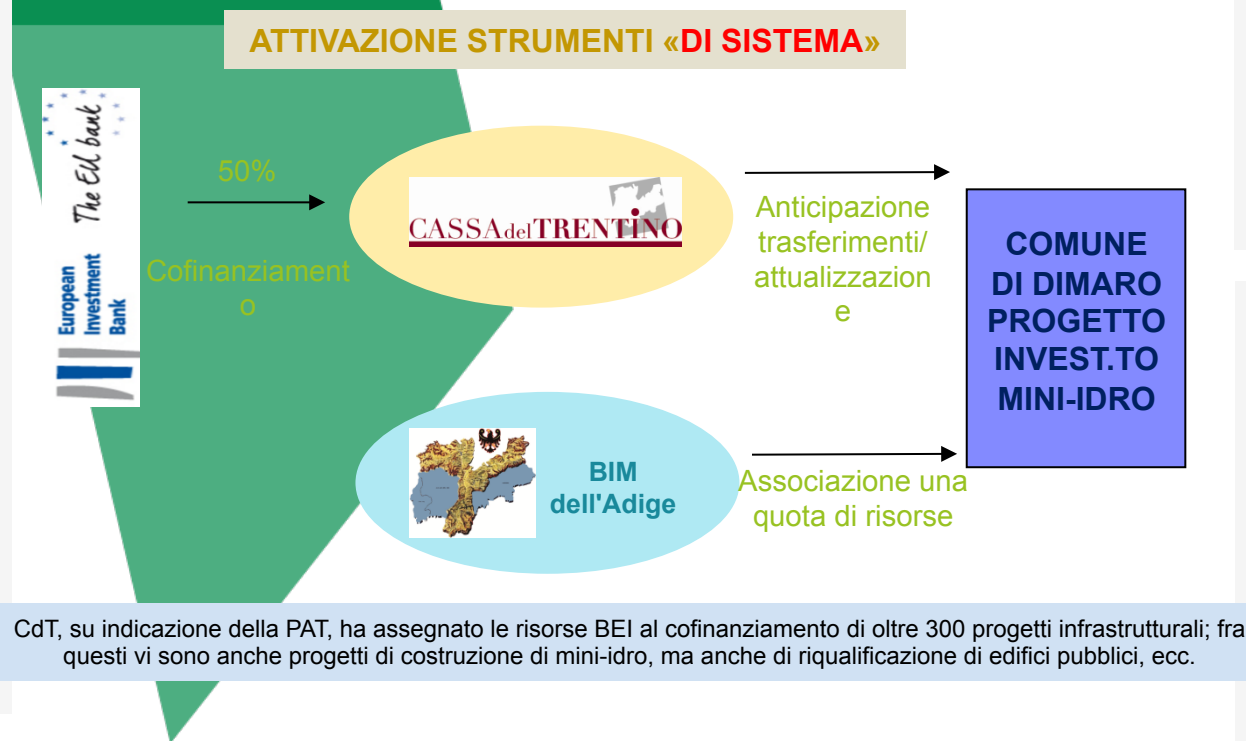
MODALITÀ D'INTERVENTO PAT: *esempio mini-idro*

Mini-idro Dimaro:

- Progetto: realizzazione di un impianto idroelettrico con una potenza di 1,9 MW (*sfrutta la portata del torrente Meledrio*);
- Investimento: nell'ordine di 8,5 €mln;
- Produzione energia annua: 12,5 milioni KWh;
- Approvazione PAT: intervento valutato positivamente con DGP n. 1182/2014 / lavori conclusi nel 2016

Art. 7 LP n. 25/2012:

- Introduce la possibilità per la PAT di anticipare trasferimenti ai Comuni a valere sulle risorse spettanti agli stessi per finanziare progetti di investimento aventi un accertato grado di redditività e di ritorno economico;
- prevede che, per il tramite di CdT, possa essere disposta l'attualizzazione di risorse autorizzate sul fondo previsto dall'art. 3 bis della L.P. n. 36/1993, con successivo recupero delle stesse in rate annuali a valere sui fondi della finanza locale.



Art. 5 LP n. 16/2013:

- prevede la possibilità di assegnare i contributi mediante anticipazione di somme a valere sugli stanziamenti per gli esercizi successivi del fondo nel limite del **70%** dell'assegnazione.

DGP n. 520/2014

- definisce le modalità di applicazione della norma, i requisiti, anche di redditività economica, dei progetti ammissibili a finanziamento, nonché i tempi e le modalità di recupero, in quote annuali, dei trasferimenti assegnati, tenuto conto dei profili di ritorno economico dei progetti.

CdT, su indicazione della PAT, ha assegnato le risorse BEI al cofinanziamento di oltre 300 progetti infrastrutturali; fra questi vi sono anche progetti di costruzione di mini-idro, ma anche di riqualificazione di edifici pubblici, ecc.



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Many thanks

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Project media