

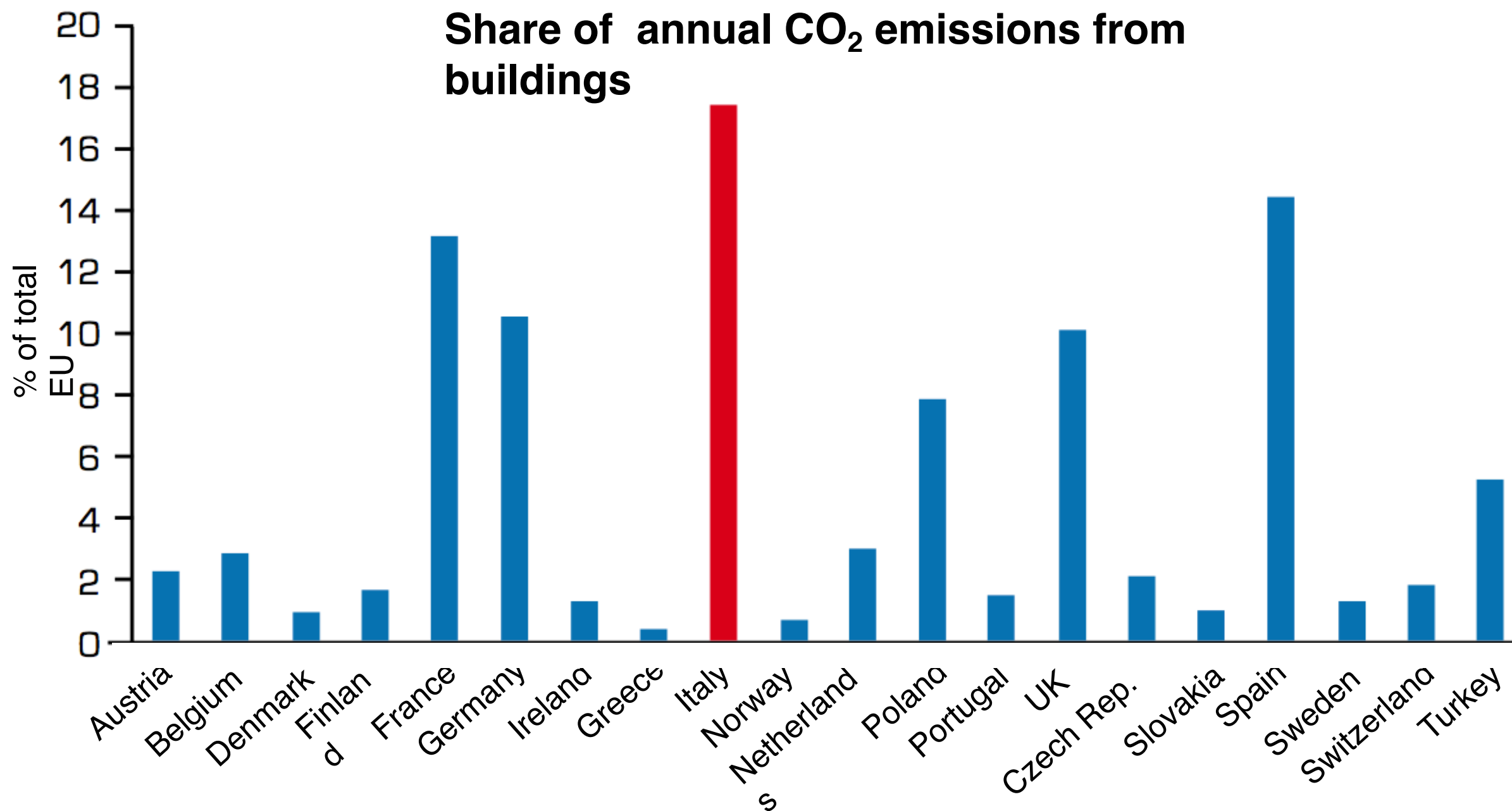


**PROGETTO  
MANIFATTURA**  
green innovation factory

# Key Concepts

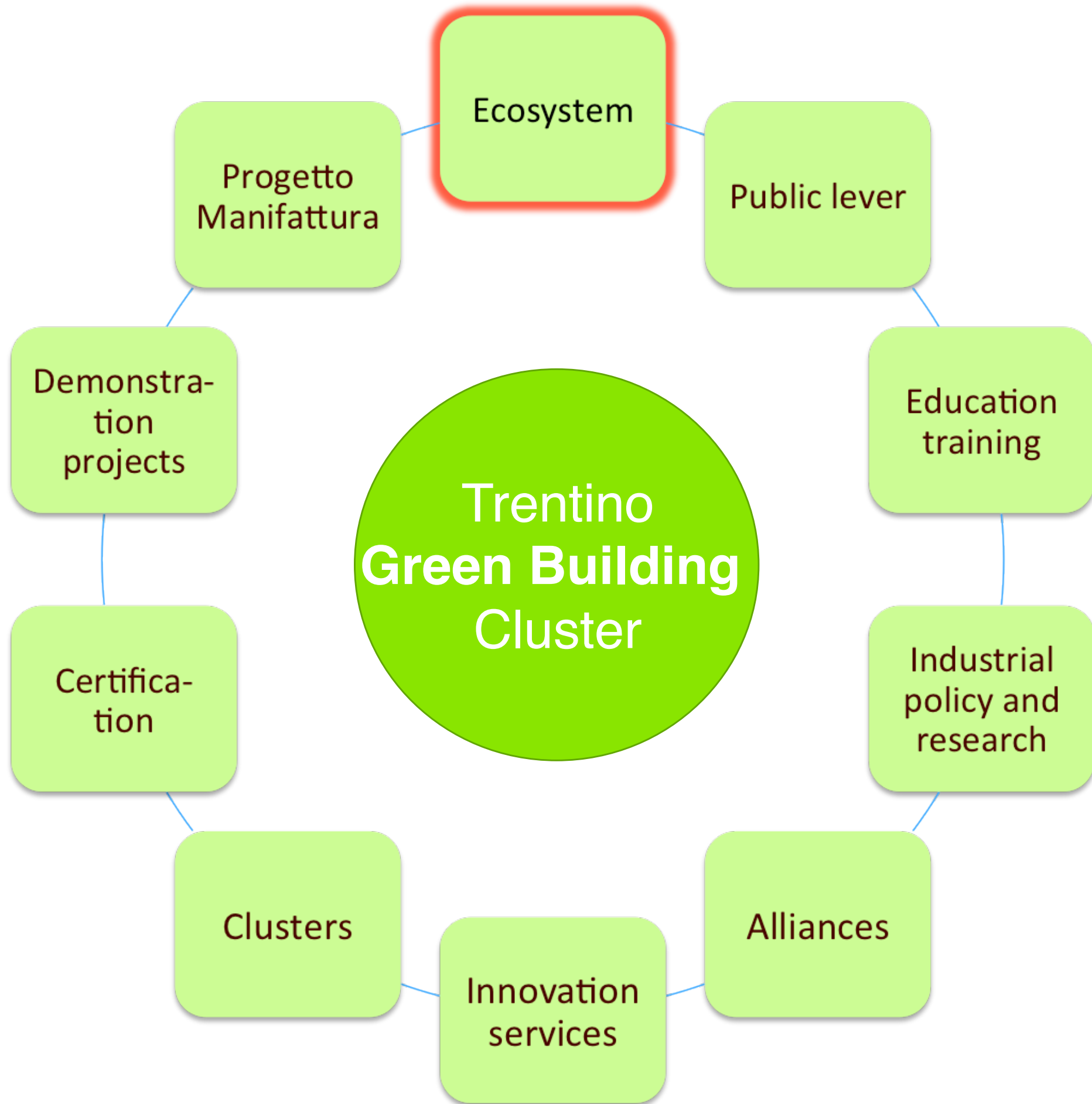
- EU eco-industry = €319 Billion = 2,5% PIL/UE
- EU annual growth = 8%
- 3,4 million workers = 1,5% EU workforce
- 2004-08 600,000 new jobs
- 2009-10 45% of companies in production, agri-food, water sectors made green innovation
- EU eco-investments 2010 = € 1,3 Billion
- 2004-10 EU eco-investments growth = 500% compared to 2004
  
- World eco-industry 2007 = €1000 Billion
- World annual growth = 5%

# The opportunity to reduce is large



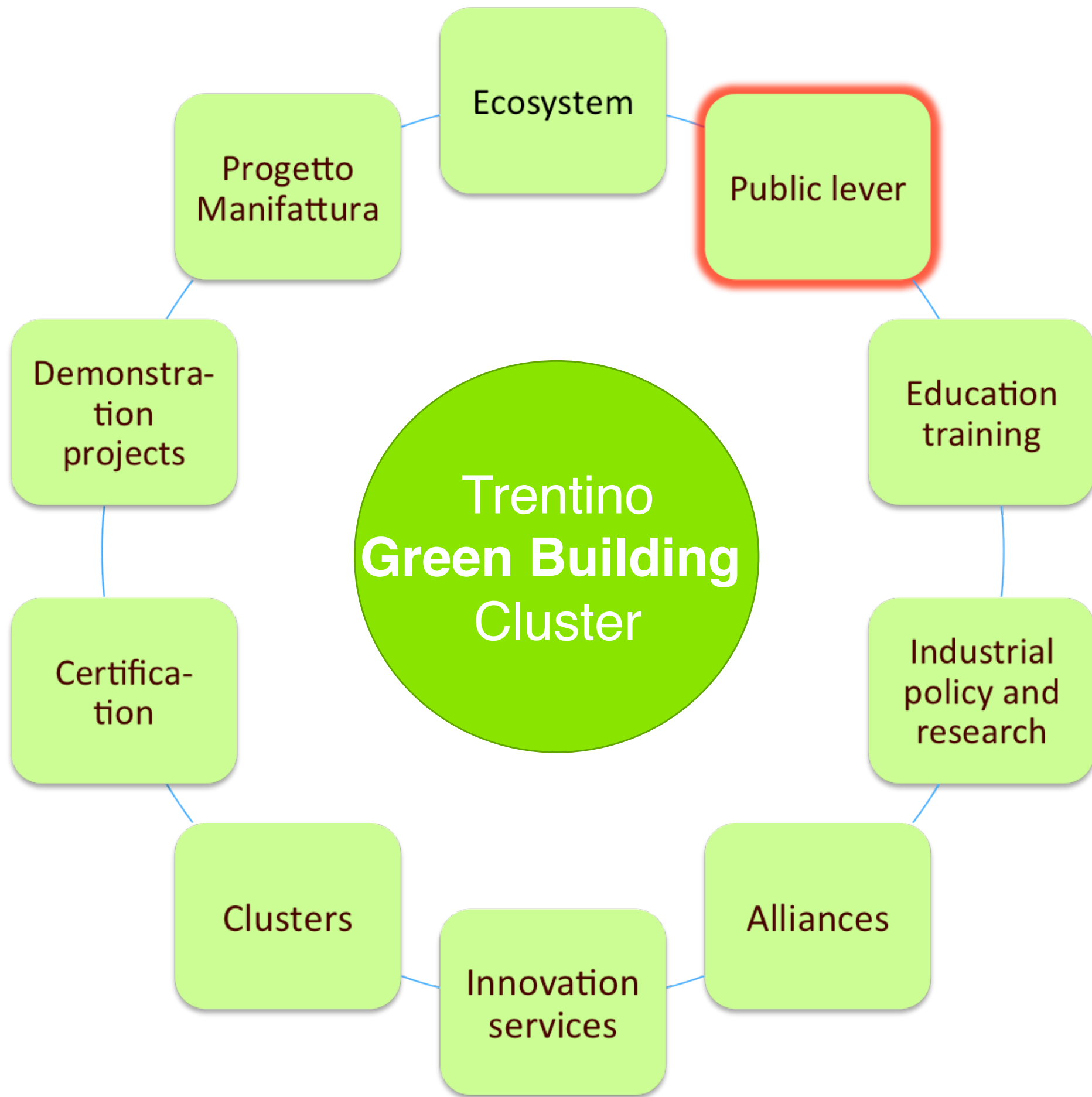
- 96 million tonnes CO<sub>2</sub> from Italian buildings
- 550 million tonnes CO<sub>2</sub> from EU buildings





# Trentino Ecosystem

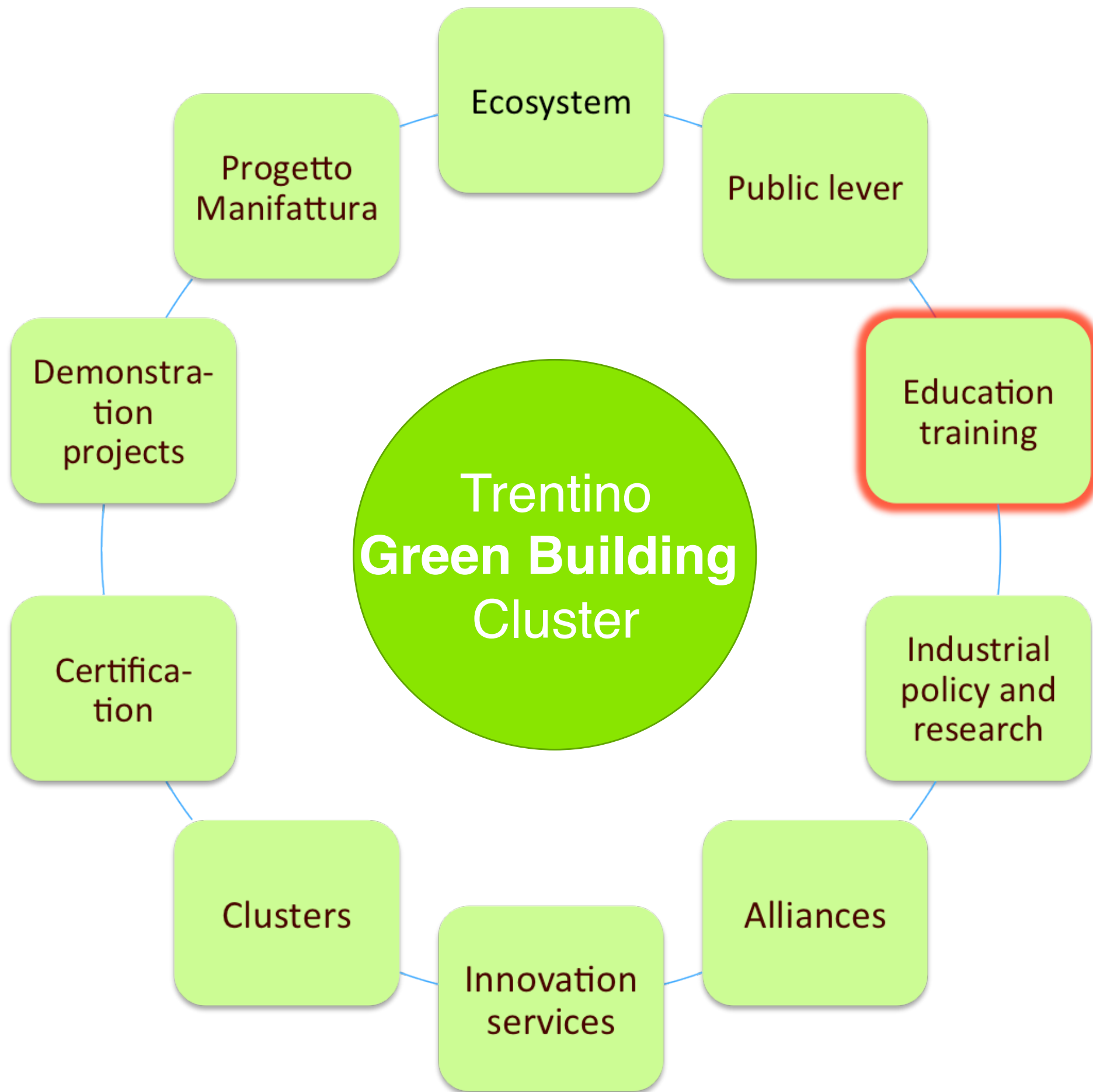
- Policy
- Public demand
- Research, Education, Training
- Financing
- Innovation services
- Clusters
- Demonstration projects
- Certification systems
- Alliances



## Public Lever – rules, incentives, demand

- LEED certification is obligatory for public works
- Province establishes guidelines for wood buildings
- Minimum energy performance required for new construction (class B)
- *Incentives*: volume bonus and financial support for green buildings and energy saving measures

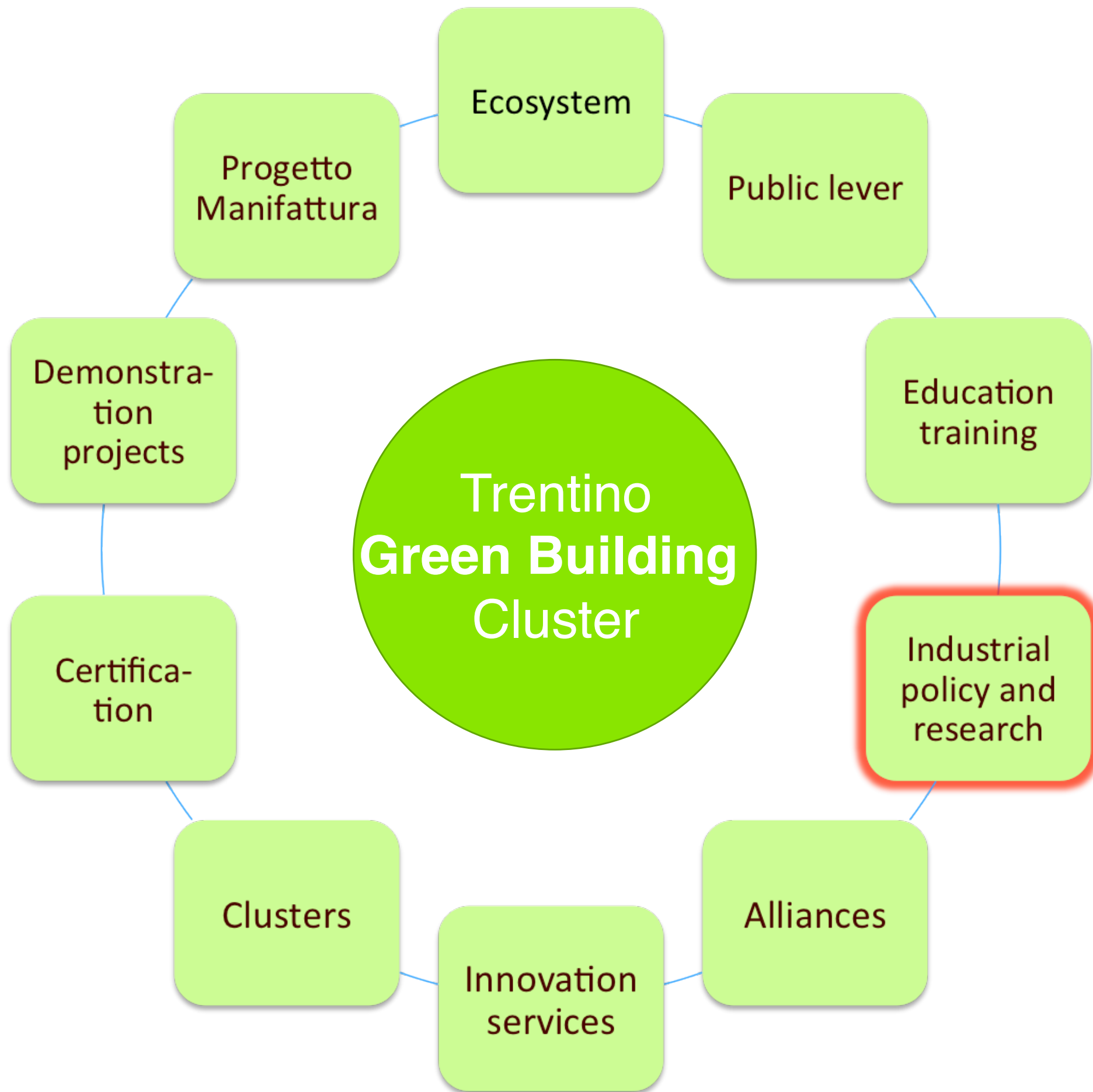






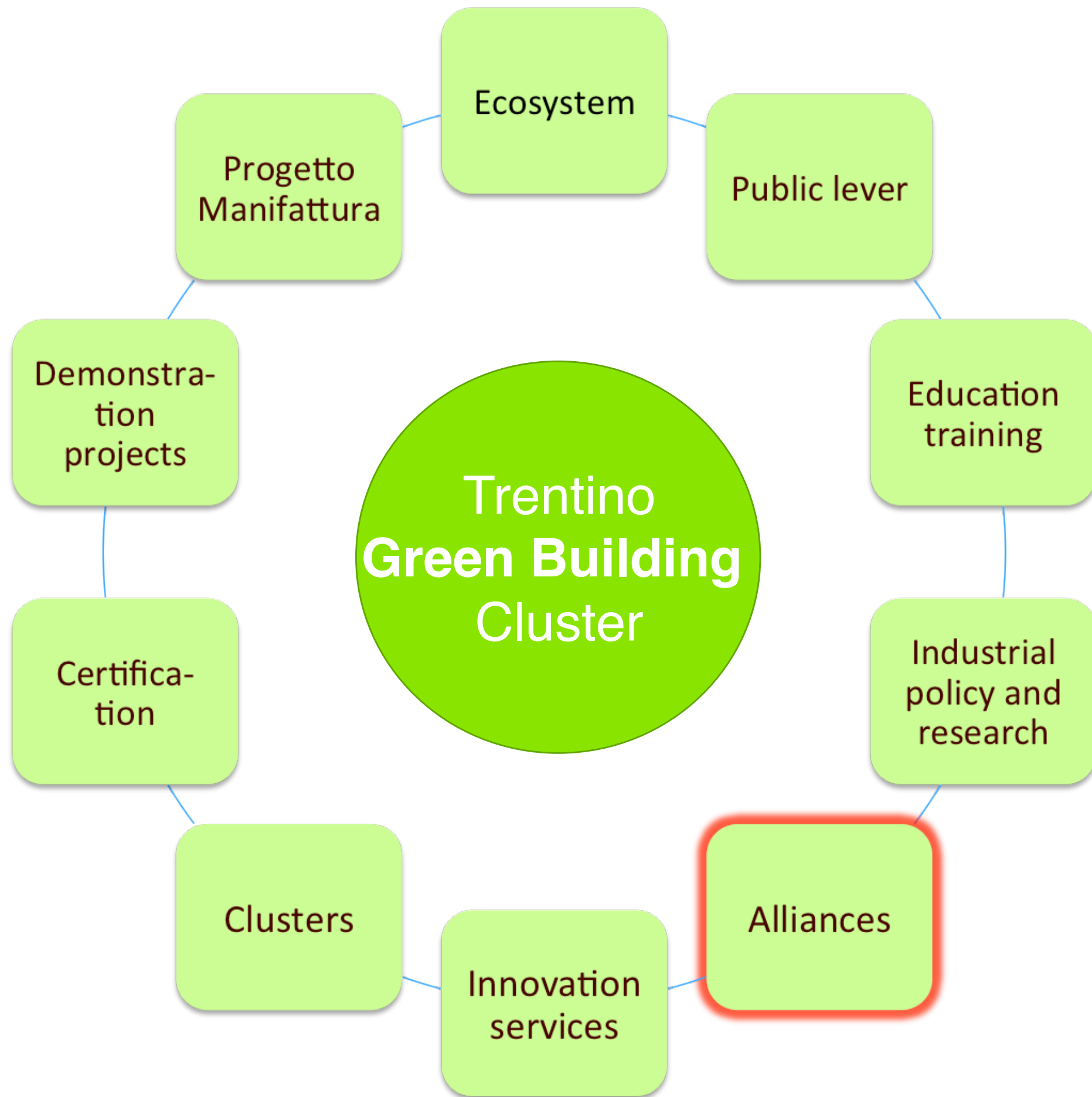
## Education, training

- Highest rated university
- Top tier public education
- Post secondary training
- **Vocational education focused on energy and sustainable buildings issues**

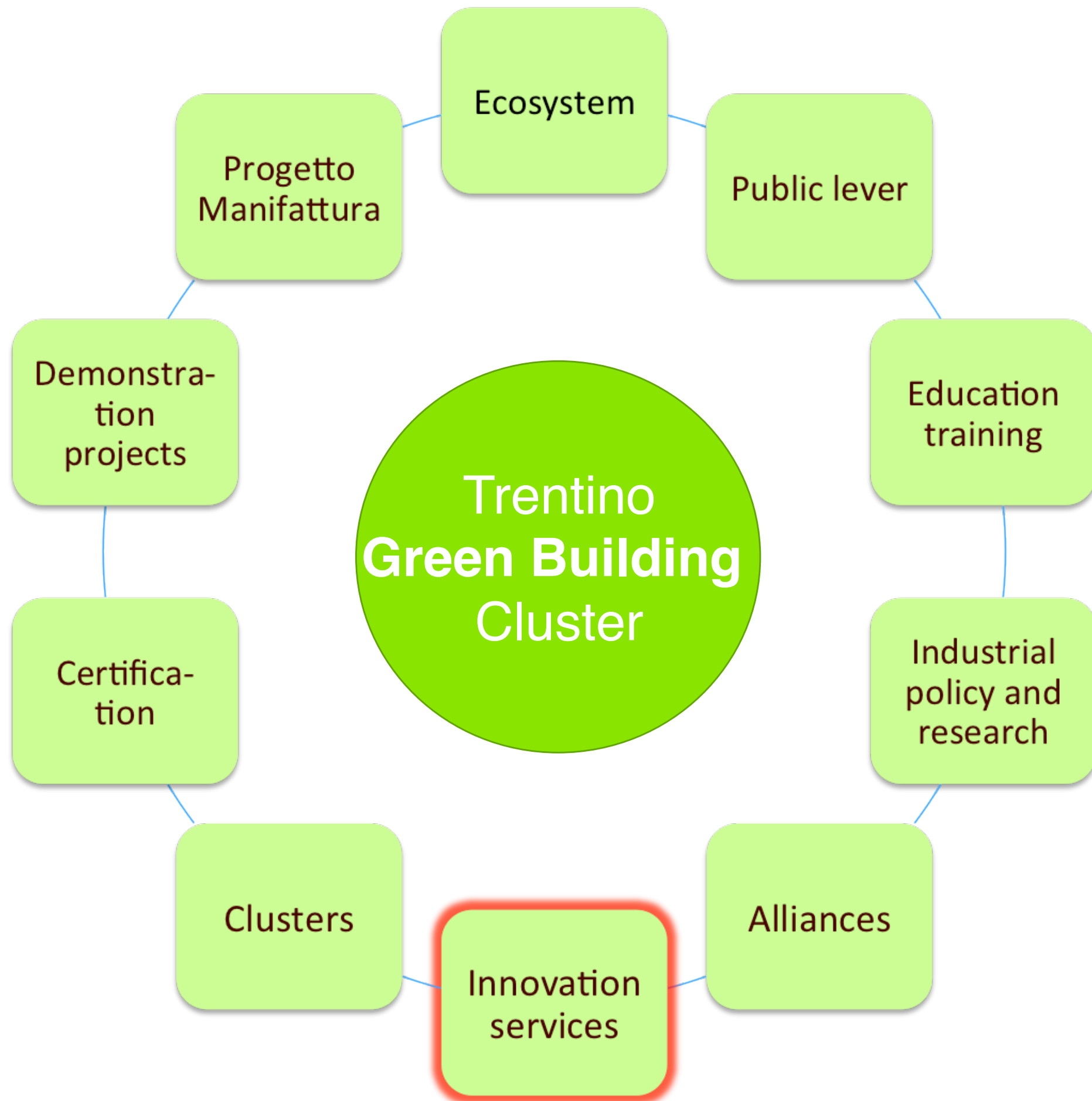


## Industrial policy and research

- R&D financing
- Research centers
- Cluster development
- Cleantech/Green building



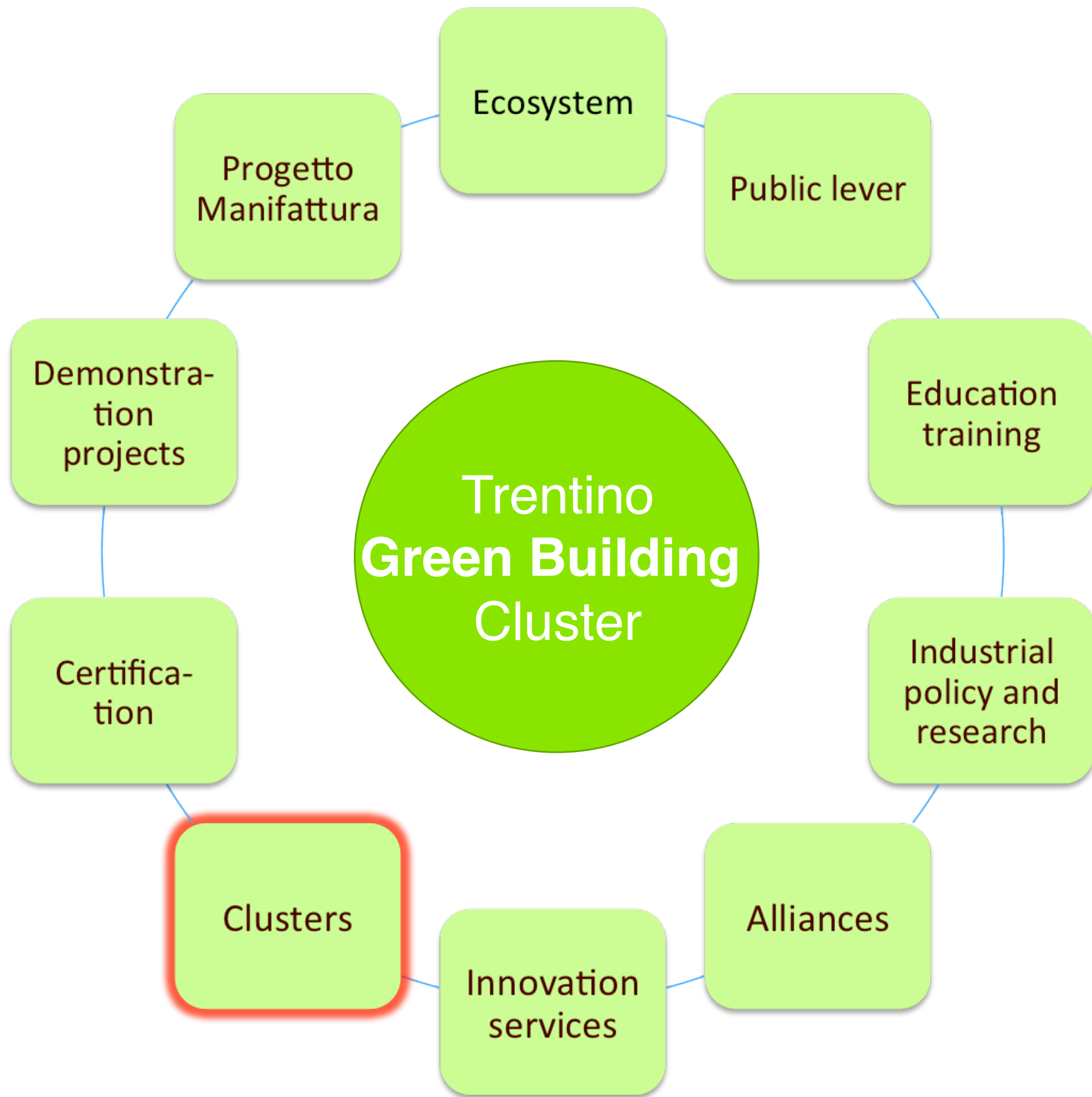
- Strategic alliances with “Europaregion”  
(CasaClima and metacluster)
  - Tyrol, Austria
  - Autonomous province of Bozen-Bolzano, Italy
- Research and collaboration agreements with
  - British Columbia, Canada
  - Quebec, Canada



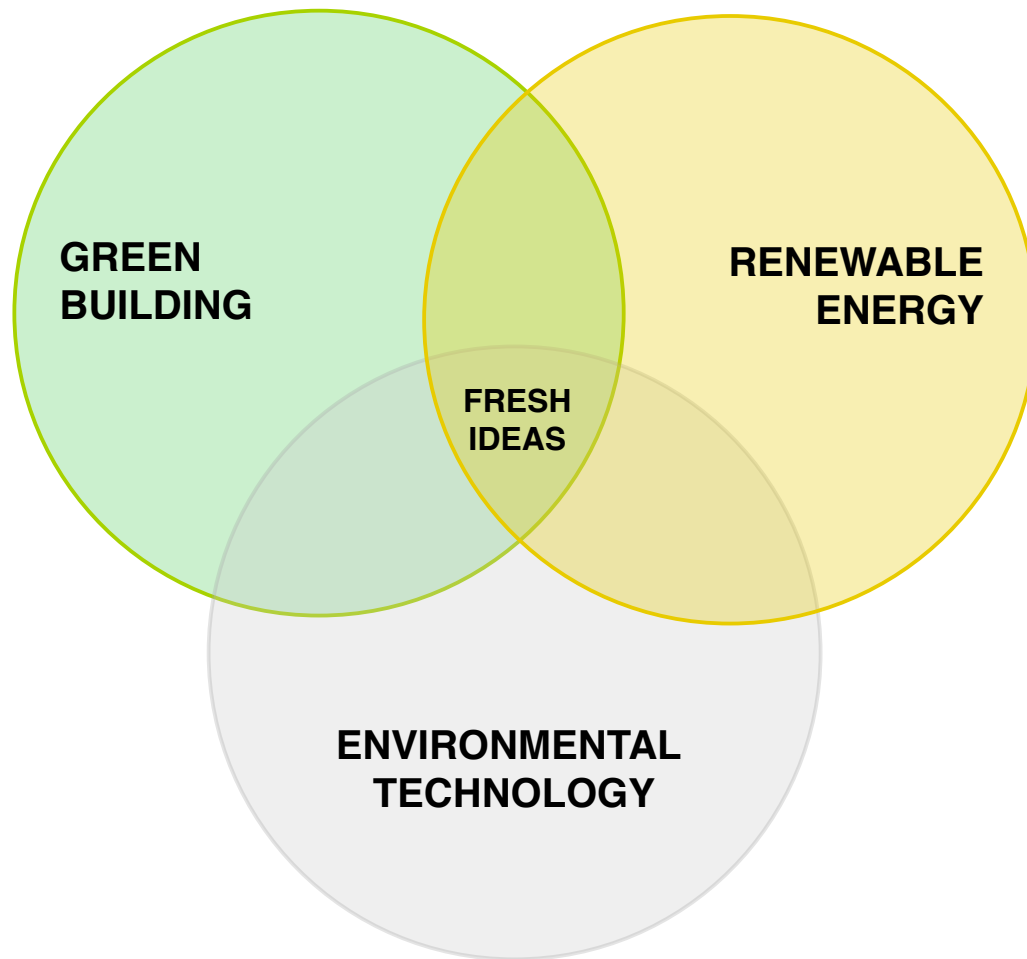
## Innovation services

- Local financing agency (APIAE)
- Local development agency (Trentino Sviluppo)
- Seed money
- Start-up support
- Networking





# A place for



Energy efficiency  
Earthquake resistant wood buildings  
Building retrofits  
Historical building upgrades  
Natural and recycled materials  
Quality of life (health, comfort)  
Building information modeling

Production systems: solar, hydroelectric, biomass, waste-to-energy...  
Distributed micro CHP  
Intelligent energy management  
Smart grids  
Cogeneration systems

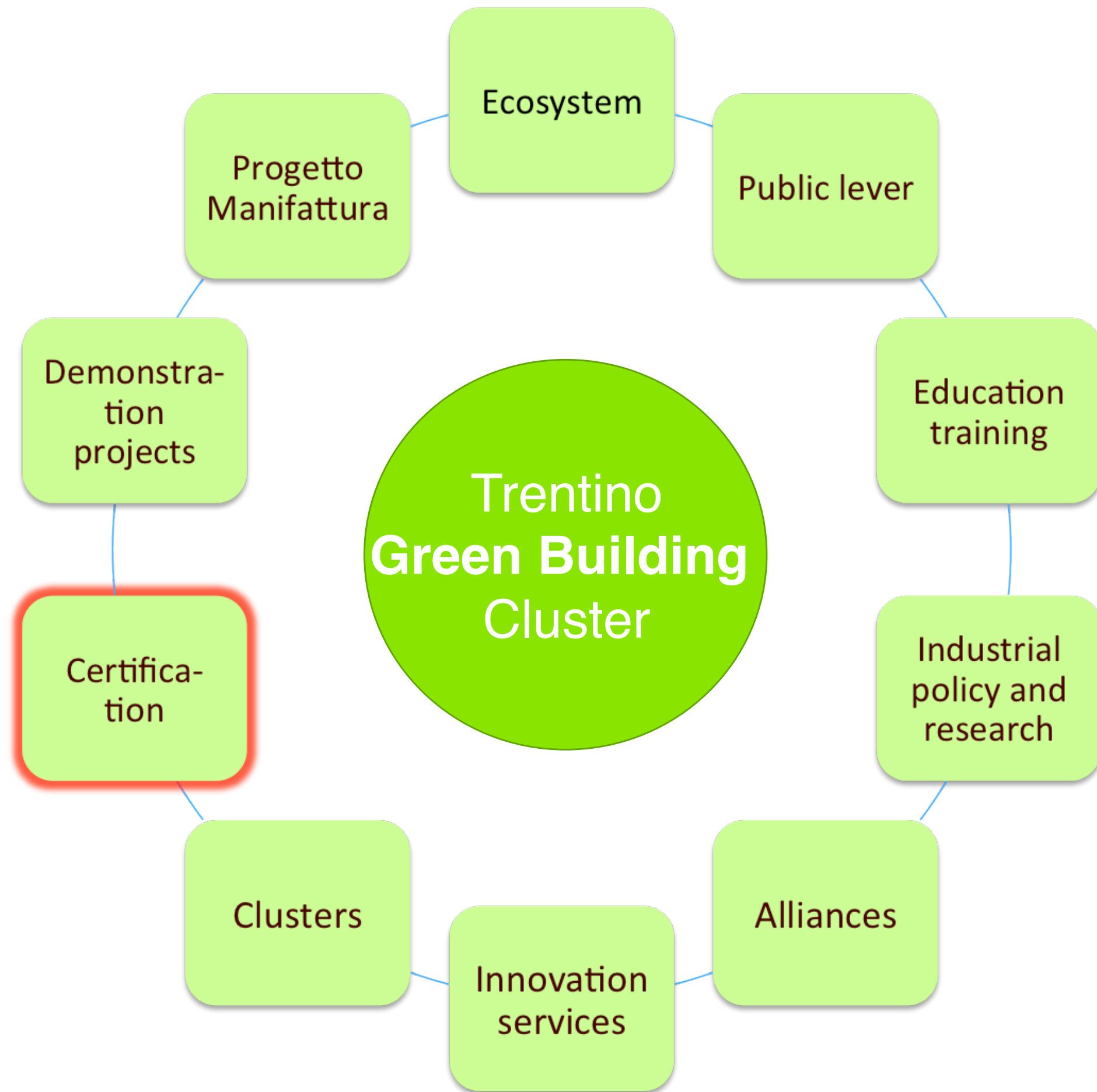
Intelligent management for the environment, infrastructure, utilities...  
Environmental sensors  
Sustainable development through localized energy production  
Tele-heating systems  
Water management  
Remediation systems

If you have an idea that might fit in a green growth vision, we would love to hear it.



# Clusters

- Private-public partnership
- Habitech (300 members):
  - Green building
  - Renewable energy
  - Environmental technologies
- Italy Green Building Council (600 members)



# Certification

**Goal:** Improve quality and innovation in the green-building value chain (research, production, design, consulting)



- **LEED**

International rating system, green building is a tool for addressing climate change and energy consumption

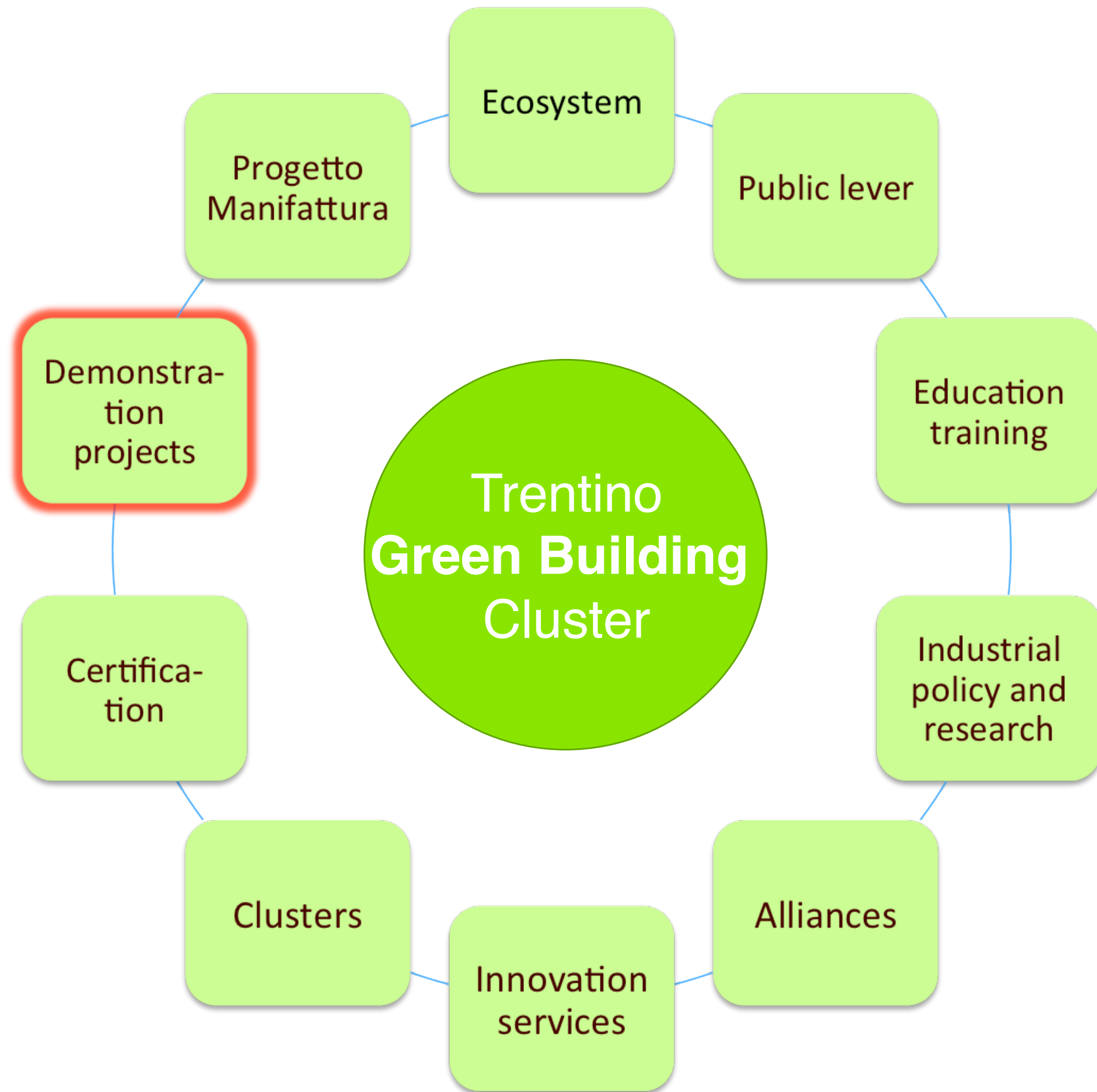


- **ARCA**

Spread the culture of wood as construction material

Requires cultural and professional transformation.





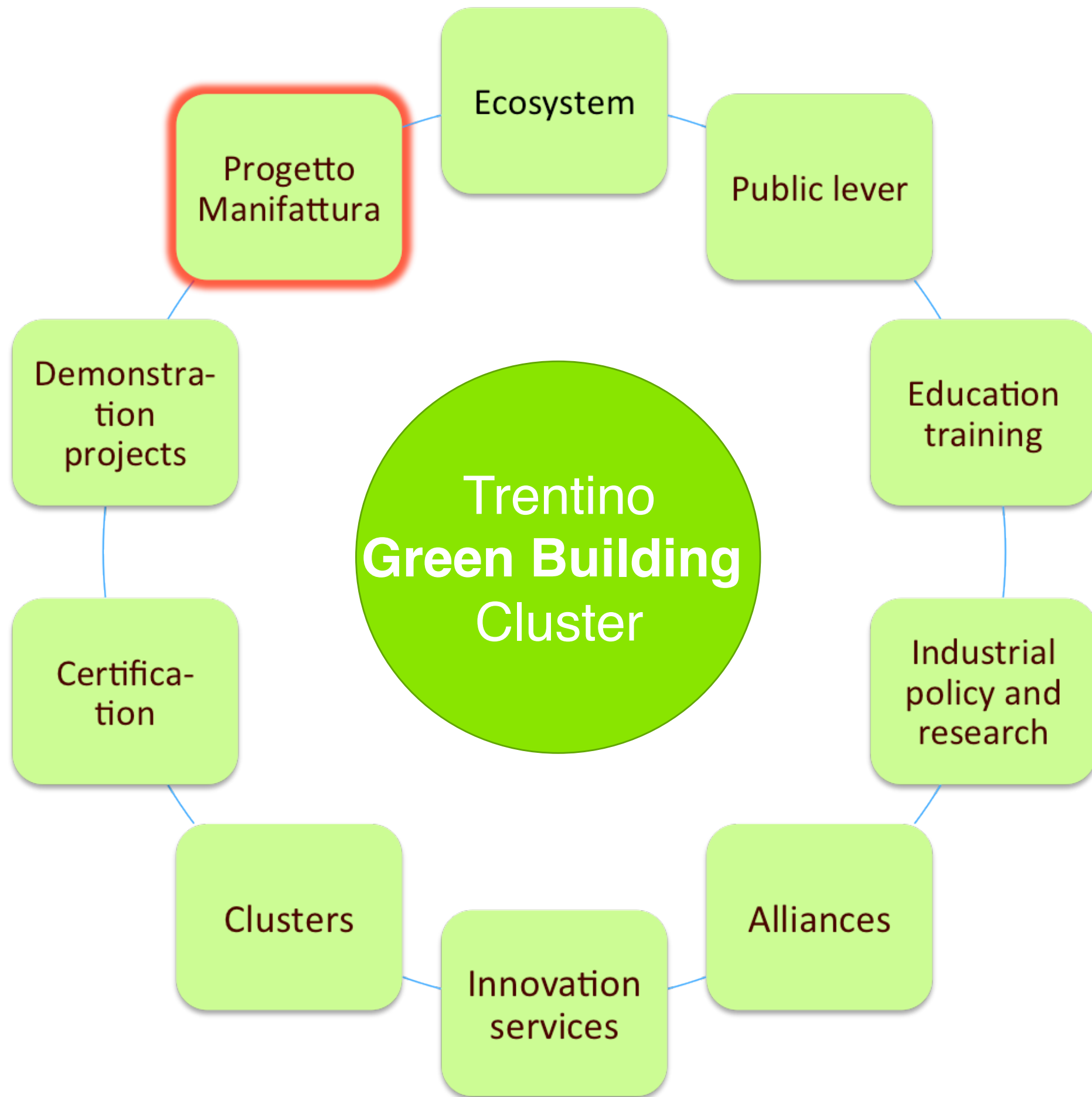


## Sandbox: key experience

- Help local construction industry change mode
- Encourage sector expansion outside the province







# Progetto Manifattura

- Transform a historic tobacco facility into an innovation hub
- Create strategies for public-private partnership
- Demonstrate how to reduce consumption and achieve sustainable growth



## Demonstration project: landmark structure

- 60,000 m<sup>2</sup> of renovated and new
  - 2/3 for private enterprise
  - 1/3 for research labs, training facilities and public uses
- 
- 2011 in use
    - 3000 m<sup>2</sup> office
  - 2012 adding
    - 3500 m<sup>2</sup> office
    - 750 m<sup>2</sup> production



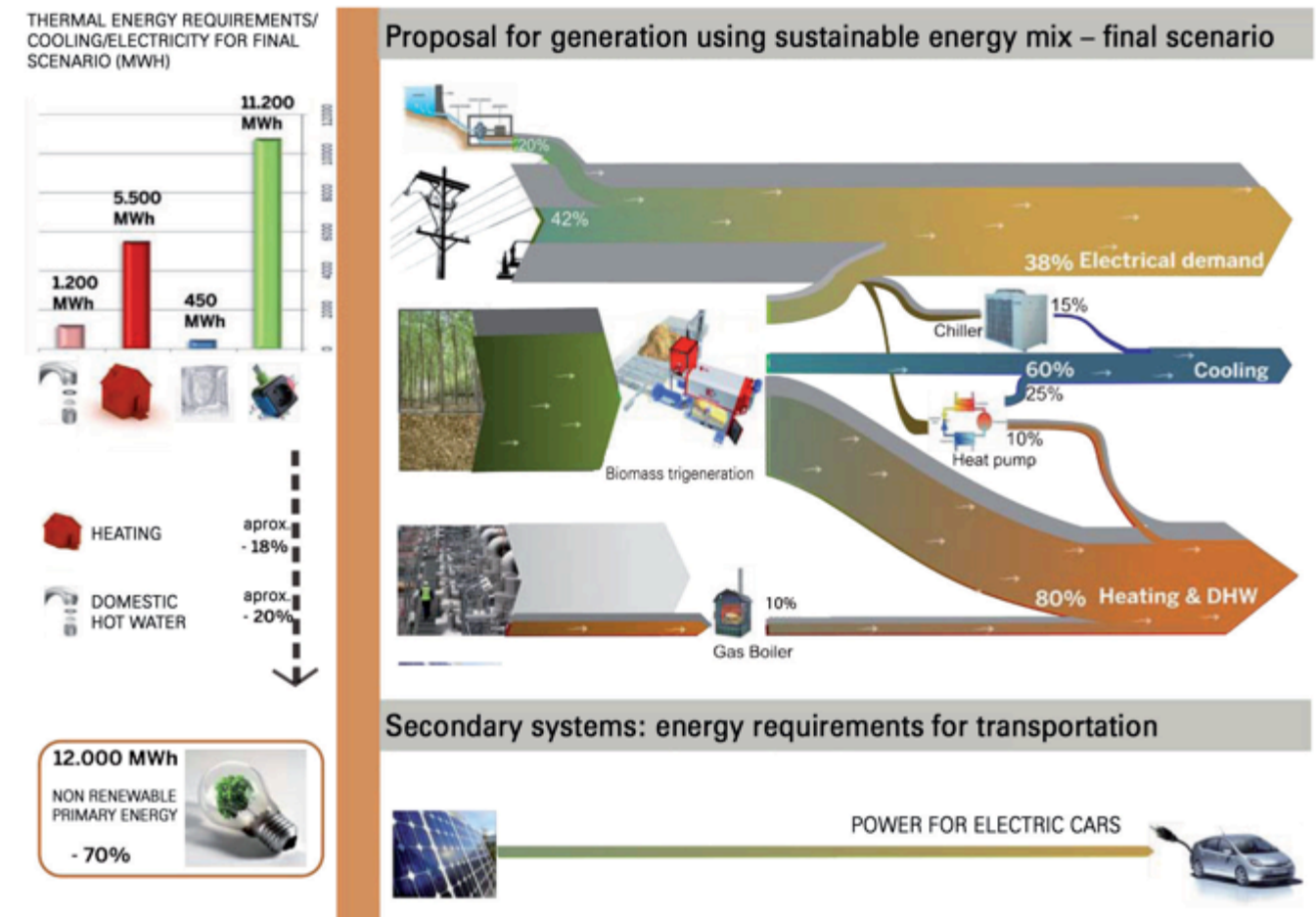
# Vision

- Model for sustainable growth
- Green business innovation center with offices, light manufacturing, test labs, research, training and services.
- Targeted services for eco-sustainable enterprise.



## A low-carbon infrastructure

- Cutting CO<sub>2</sub> emissions 85%
- Reducing energy demand by 40%
- Providing sustainable energy mix
- Offering smart sustainable transport



## Guiding principles

- Plan and build a campus dedicated to companies in the green economy
- Offer a stimulating work environment with public and private activities
- Build and remodel buildings with the lowest possible environmental impact
- Promote innovation through a mix of training, research and production
- Promote social, economic and environmental sustainability

# Formats

Companies interested in setting up offices or production at Progetto Manifattura can choose between these kinds of spaces:

- Open space desk - personalized rental rates, for long or brief periods
- Office in a box - around 20 m<sup>2</sup> of furnished space
- Office by the meter - in increments of 100 m<sup>2</sup>
- Light production modules - from 300 to 1800 m<sup>2</sup>



## Formula

- Tenants at Manifattura sign a services contract
- Possibility of receiving a contribution from local government to cover part of the expense
- Tenants all benefit from baseline services
- The length of the contract varies according to type and build out

# Tenants

- Caretta Technology R&D S.r.l.
- Dotmatic
- Elle20
- Evotre S.r.l.
- Green Building Council Italia
- Green Prefab Italia S.r.l.
- GreenTrendDesign
- Oros S.C.
- Habitech
- Green Building Council Italia
- COSBI The Microsoft Research - University of Trento Centre for Computational and Systems Biology



*Workforce 83*

# Benefits

Companies that participate at Progetto Manifattura can count on a attractive growth environment:

- A beautiful, historic setting with high environmental sustainability standards.
- An environment that favors supply chain integration  
Examples are the Habitech green building and renewable energy consortium, Green Building Council Italia.
- Business assistance for pre-incubation and startup.
- Opportunities for learning and advanced training.
- Shared labs, technology transfer and access to renowned research centers in the province of Trento and beyond.
- An auditorium, meeting rooms, and exposition areas.
- State of the art IT Infrastructure and business services.
- A strategic geographic location.

## Projected numbers (2018)

- Total Investment: **€110 million**
- Total companies: **130**
- Total workforce: **1,200**



## Implementation phases



	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTALI
<b>CONSTRUCTION COST</b>			2.250.000	14.700.000	21.830.000	14.600.000	14.700.000	16.620.000	6.500.000	91.200.000
<b>M2 TEMPORARY OFFICE SPACE</b>		3.000	6.450	6.450	3.450	2.350	2.350			
<b>M2 TEMPORARY PRODUCTION SPACE</b>			750	750	750	750	750			
<b>M2 FINAL OFFICE SPACE</b>					8.847	20.481	24.149	34.725	34.725	34.725
<b>M2 FINAL PRODUCTION SPACE</b>				4.578	15.287	16.049	16.049	20.215	20.215	20.215
<b>TERTIARY EMPLOYMENT</b>		90	228	228	392	491	522	885	885	885
<b>PRODUCTION EMPLOYMENT</b>			10	88	269	282	282	356	356	356
<b>TOTAL EMPLOYMENT</b>		90	238	316	661	911	940	1.241	1.241	1.241

# Ongoing

- Develop critical mass of cleantech companies  
Local, national, international
- Provide startups with a launching platform  
Low cost space, training, advanced infrastructure, high quality services
- Support company growth  
Consultants, services, marketing support
- Support retrofit market  
**RE-build**, September 2012