Science and Technology Park for Environment Torino – Italy
Regione Piemonte lays in the northwestern Italy, and Torino is the capital city.

The Region accounts 4,450,000 inhabitants (8% of national population), and accounts for 8.7% of national GDP (115 Bn Euros) and 10% of national export.

Piemonte is among most industrialized Italian regions, main sectors are automotive and fine mechanics, agro-food, aerospace and textile. Manufacturing account around 50,000 enterprises, mainly SMEs.

Top known enterprises are FIAT, Alenia, Ferrero, Zegna, Martini & Rossi and many others.
Environment Park was founded on 1996, by an initiative of Piedmont Region, Province of Torino and City of Torino, and it’s built on a former industrial area.

Envipark is a private shared company with public shareholders

Park mission is to provide SMEs support to develop innovative solutions in the fields of environmental and energy technologies

Envipark is coordinator of POLIGHT, regional R&D cluster on green building and hydrogen technologies
Mission and Model

The Company business model operates along three main activity areas:

1) real estate management of Environment Park site (carbon free site)

2) Renewable energy production (hydropower plant)

3) Technology transfer to enterprises in environmental and energy fields (R&D contracts and EU/national/regional funded projects)

Activities are developed in an integrated way, where Real estate and Technology transfer actions mutually support each other in the achievement of statutory and economical targets.
Since 2002 Envipark operates inside four main technology areas, each one splitted into several technology “platforms”
Technology platforms are structured with pilot plants, test facilities, technology projects
Operational model: collaborative research with enterprises and Research bodies (main focus on SMEs)
Internal personnel plus cooperation with academies
Hydrogen and Building activities are part of POLIGHT CLUSTER programme
POLIGHT: mission and goals

On April 2009, in the framework of EU ERDF Regional Plan, Regione Piemonte has created twelve “Poli di Innovazione”

Environment Park is the coordinator of POLIGHT – R&D cluster on Eco Building and Hydrogen

Today cluster accounts 158 members, 23% of working on hydrogen, manufacturing represents 35% of enterprises.

Cluster mission is to support companies “innovation to market” activities, giving support to R&D activities, training, coaching and promotional and marketing events and tools.
158 members: 150 companies together with R&D entities such as Politecnico di Torino, University of Torino, University of Eastern Piemonte, FIAT research center, ENEA – Fabbricazioni Nucleari, EDISON, National Metrology Institute and other private centers.
Building drivers : R&D to market

- EU directives (Energy efficiency and Zero energy buildings to 2020)
- Energy certification schemes (national and regional)
- Regional Solar bind Act
- Energy and real estate market drivers
- Incentives (national and regional)
- R&D environment (Local academies)
R&D Axis: Passive energy saving

- Develop components and materials to increase energy performances
- Windows and frames, Phase change materials, ventilation systems
R&D Axis: Energy generation

- Maximize energy production in building with a priority line on RES and low emission systems
- Fuel cells, new heating solar concept and integration with heat pumps,
R&D Axis Fast deployment

- Integration of fast deployment building components and system to reduce refurbishment costs (works, authorization, disturbance of occupants («Flash intervention»))
- Prefab roofs systems, internal insulation, fast mounting windows and frames
• Reduce embedded energy in construction materials and maximize use of raw and recycled materials (LCA concept)
• New S-Al based concrete, recycled cellulose, wool scraps to insulation
R&D Axis: ICT in building

- ICT as a horizontal technology in energy management and Building automation
- Voice control system, meteo to energy management, new concept of probes and data management
Innovation to market

- Innovation is something that have to be sold
- Support to companies in internationalisation of their market: expositions and investment framework projects
- Target areas are: France, Spain, Alpine and South Mediterranean Countries
Environment Park skills, competences and facilities are made available to cluster members both to implement Cluster Regional programme and EU and National ones, contributing to regional fallouts of those initiatives.

At the same times, EU programmes allow the cluster to organize and manage market targeted activities, in particular in cooperation with other EU cluster.

### Cluster Activities (2010-2012)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Count</th>
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<tbody>
<tr>
<td>Networking with cluster (IT and EU)</td>
<td>24</td>
</tr>
<tr>
<td>Technology workshops</td>
<td>53</td>
</tr>
<tr>
<td>Corporate meeting and B2B</td>
<td>16</td>
</tr>
<tr>
<td>National fair and expos</td>
<td>13</td>
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<tr>
<td>International fair and expos</td>
<td>13</td>
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</tbody>
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### Regional R&D cluster programme

- # Activities run: 98
- Regional R&D cluster funds attracted: 18,1 M€
- Investment activated by: 32,9 M€
- # members involved in: 145

### EU funding programmes (2007-2012)

- # EU project (2007-12): 41
- Eu funds attracted (2007-12): 8 M€
- EU Overall value of activities: 11,2 M€
- Companies directly involved in: 25

### Other R&D funds (2007-2012)

- # Project granted: 9
- Funds attracted: 2 M€
Networking at EU and National scale is focused on research of market and R&D collaborative opportunities for cluster’s members.

- The Italian Energy National Cluster
- EU clusters TENNERDIS (RRA, F), Vehicule du Futur (Alsace, F), ongoing contacts in Spain and Germany.
- Research Centers (i.e. INES, CSTB, LABEIN, University and technology Parks).
- Institutional network (i.e. EUROREGION Mediterranean Alps) ERRINN, EU Regions network for innovation.

There is a strong interest in increasing the network.
Conclusion

Important drivers are supporting innovation in building sector

Industry involvement a must, economical (and environmental) fallouts a target

- Key role of EU programmes in developing and capitalizing knowledge and R&D portfolio
- New business opportunities for companies involved in EU partnerships, besides knowledge acquisitions