

*M. Boella*  
**I S M B**

Istituto Superiore Mario Boella



## Promoting Wireless Technologies in Piedmont

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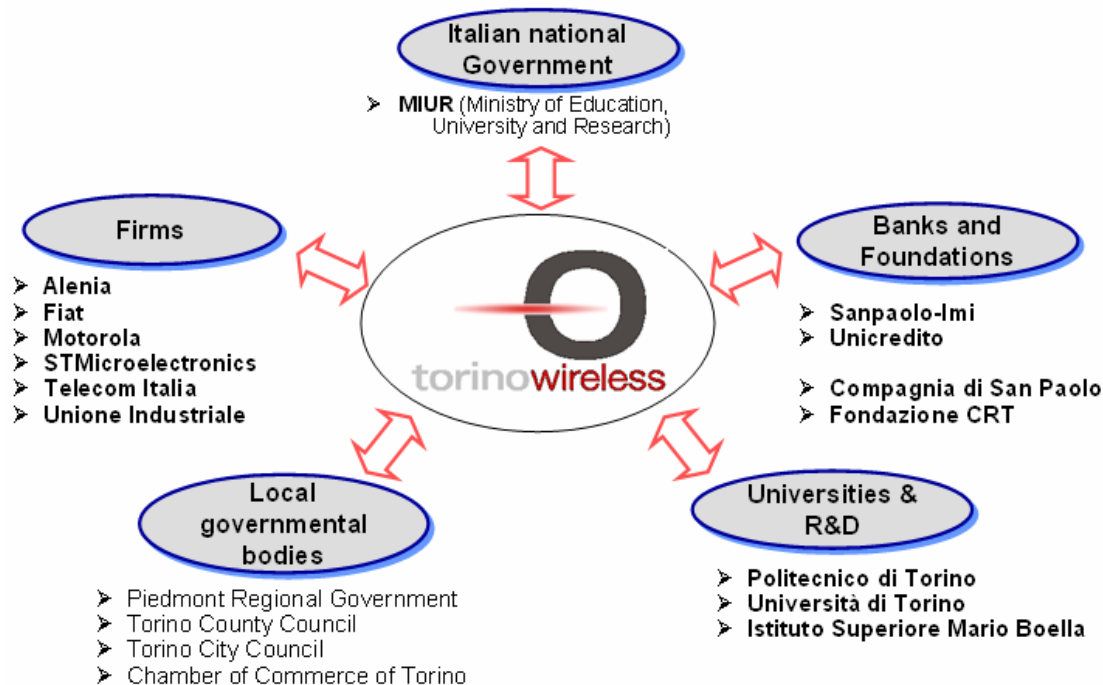
# Torino Wireless – history

## Creation

Formed in December 2002 and operating since September 2003

## Nature

**Non-for-profit foundation** built on a **wide public-private partnership** bringing together national and local governmental bodies



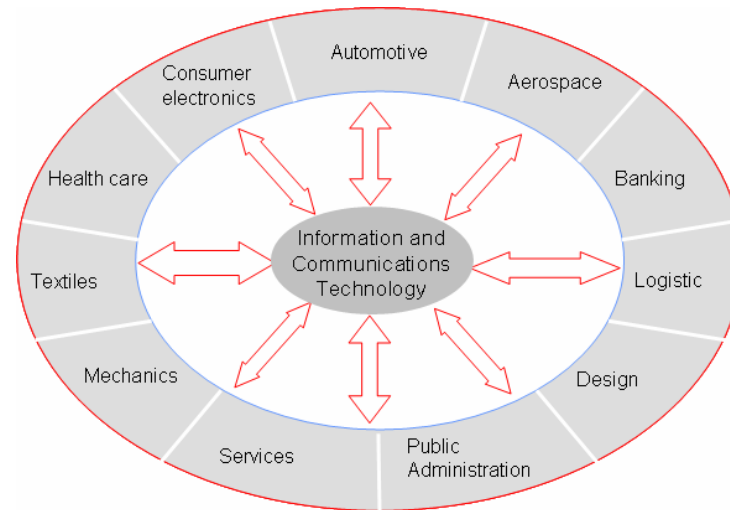
## Mission

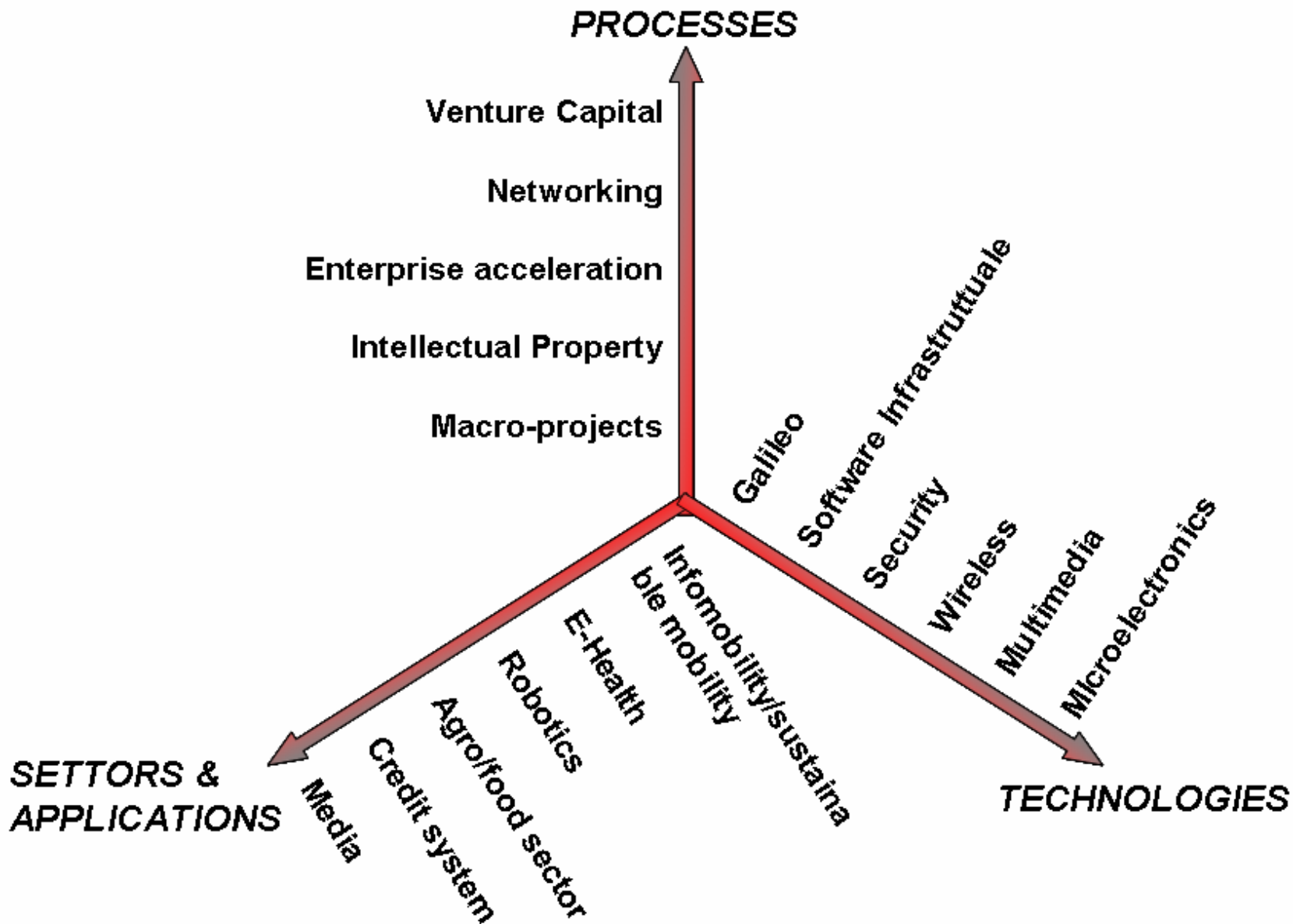
“(…) to create and develop the Piedmont **High-Tech District**, by increasing **ICT** contribution to regional wealth and positioning Piedmont amongst the international most innovative clusters”  
(art. 3.2 , Torino Wireless by-laws)

## Objective

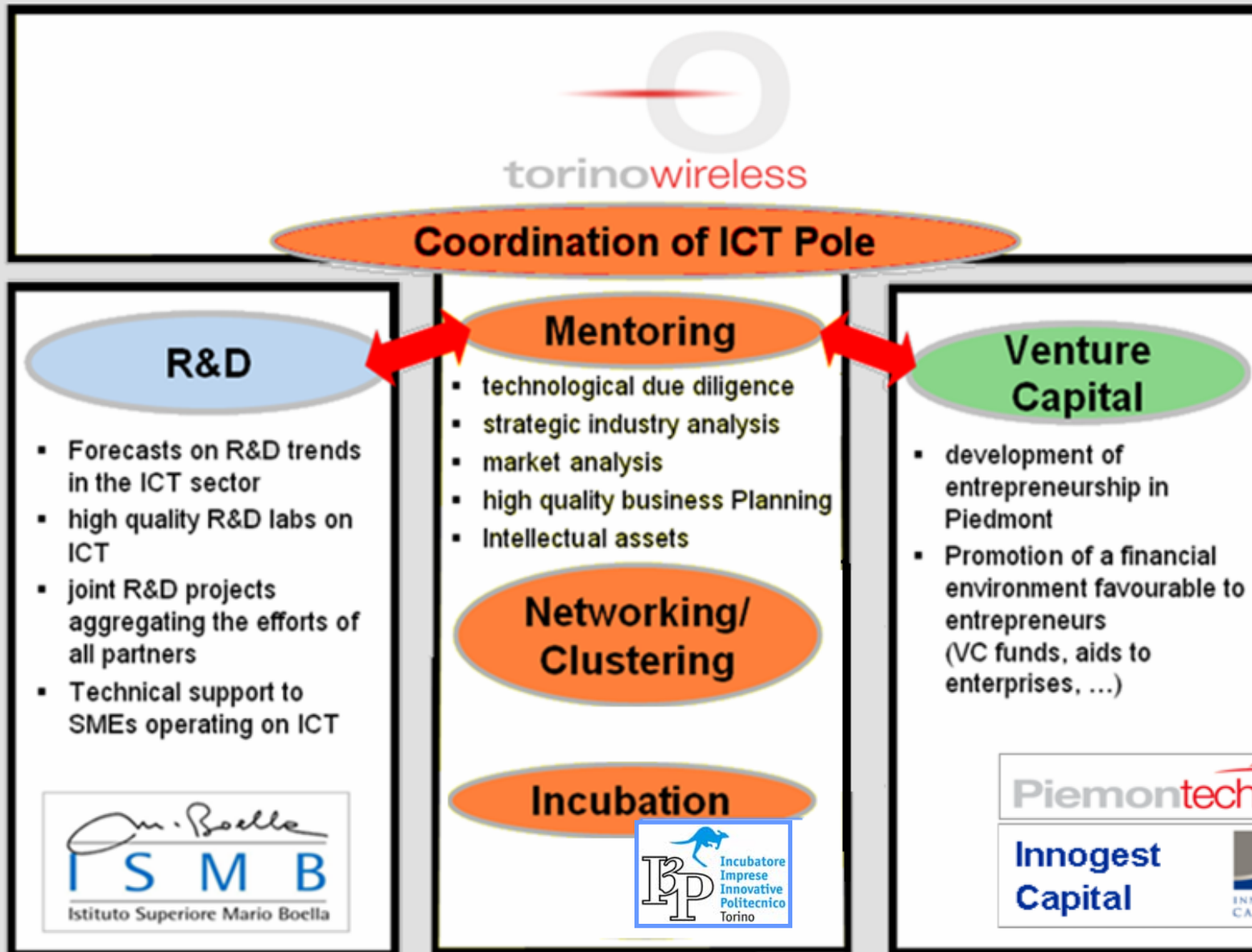
**Speed up and ensure a more effective impact of innovation** on the local economic and societal system through the promotion of **knowledge intensive development** by:

- **increased involvement of researchers in SMEs,**
- **support to university spin-outs,**
- **increased knowledge-content in products and services**

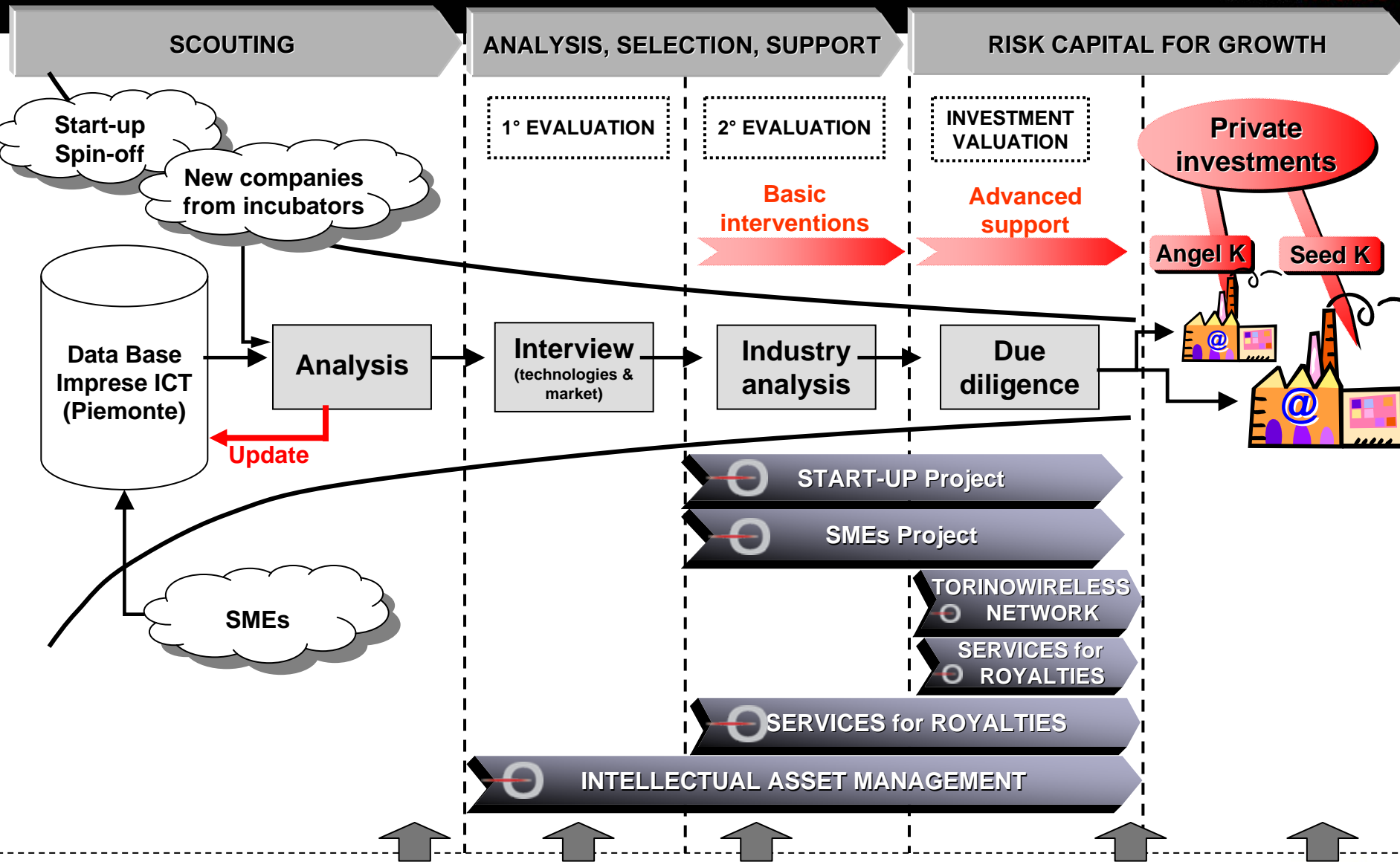




# Torino Wireless – a team of dedicated players



# Torino Wireless – Support to SMEs



A team of dedicated players



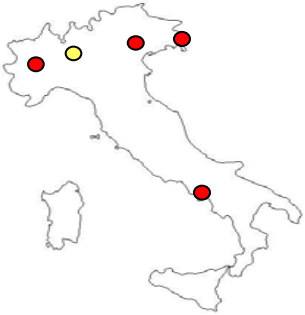
# Promoting the use of risk capital in the region

## Cluster financial focus/ Venture Capital market

	<b>Angel Investing</b> €20k – €200k per deal Seminal Funds	<b>Seed – Early Stage</b> €200k – €2m Per deal 1st Level Venture Capital	<b>Mid Stage</b> €2m – €5m per deal 2nd Level Venture Capital	<b>Late Stage                      Growth Capital</b> €5m – €50m per deal Growth Capital Mezzanine
Presence in <b>Italy</b>	Practically not existing as institutions	Practically non-existent	Very few	Few
Presence in <b>Europe</b>	Many, often linked to individuals or groups of individuals	>100 (e.g. >10 just in Cambridge)	>100	>50
Typical fund <b>size</b>	3m – 15m	10m – 40m	20m – 100m	50m – 500m
Typical <b>reach</b>	Regional	Regional / National	National / European	European

**Two areas that are not existing in the Cluster but crucial for the innovation chain:  
 Angel Investing and 1° level VC.**

# National and International networks

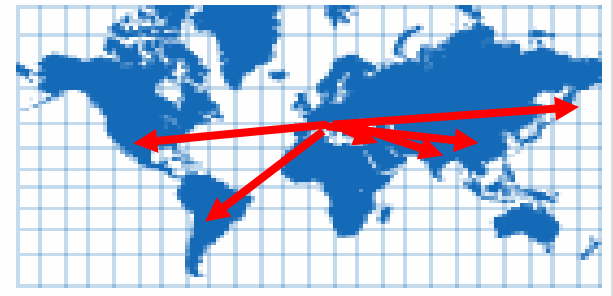


## National collaborations:

- **ADiTe - Italian Districts Association:** Torino Wireless, Imast Napoli, VenetoNanotech, CBM Trieste: Cooperation and exchange of best practices
- **Politecnico Milano:** Agreement on Intellectual Property and Venture Capital

## International collaborations:

- Network of excellence in Wireless Communication **NEWCOM:** 62 universities, 800 researchers (European Network)
- MoU with **Sophia Antipolis** hi-tech Cluster (France)
- MoU with **Queensland State** and **NICTA** (Australia)
- MoU with **Fundaciòn Chile** on Galileo (Chile)
- MoU with **Sapporo District** and **Softopia**, funded by **JETRO** (Japan)
- MoU with **British Columbia Wireless Cluster** and with the **Federal Research Center on telecommunications** – CRC (Canada)
- Joint Projects with **UCLA** on Sensor Networks

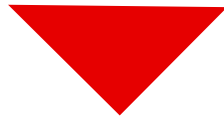


## Internationalization Programs:

- **UCLA Global Access Program** (USA) – 31 companies participating in 4 editions of GAP (from 2003 to 2006)
- **Excellence Match Program** (China) – 8 companies involved in 2006
- **China Access Bridge** (China) - 8 companies involved in 2006
- **Asia Invest II: Riding the waves of innovation** (India) – 10 companies planned for 2007
- **Pacte PME** (France) – 5 companies involved in 2006

# Enterprise Acceleration: Clustering

Cooperative models between companies belonging to the same industrial sector



Joint development of complex products/services thanks to complementary technologies

## Cluster Infomobility

**32 companies** participating in working groups

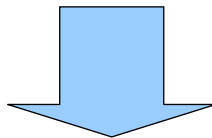
**4 vertical projects with commercial focus**, each one involving 8-15 firms

**2 structural action to strengthen the cluster own structure** (*Città-Vetrina* and *Organismo di indirizzo*)

Torino Wireless started with the design and development of **clustering initiatives** applied to specific industrial sectors

## Objectives

- analyze the sector's industry and market
- identify specific business opportunities
- facilitate companies aggregation for collaborative projects development and related products, whit higher level of complexity



Torino Wireless launched the “**Infomobility Cluster**” project, the first clustering project, focused on the infomobility sector in Piemonte

## Overview on the existing industry

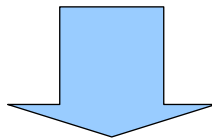
The presence of Fiat, Iveco and Iribus, truck and bus makers

The presence of Tilab, the R&D centre of Telecom Italia Group

The rise of good competences in software application development

The presence of several firms that produce electronic devices

The upcoming set up in Torino of the infrastructure for the Precise Time Facilities of Galileo



**The ICT industry in Piemonte will be able to realize a huge number of specific applications enabled by Galileo**

# Industrial sectors: enterprises operating in Piemonte

Sectors	Enterprises	n.
<b>Traffic Management</b>	CRF (Fiat R&D Centre), 5T/GTT, Mizar, CSST, ...	20
<b>Fleet Management and Traceability</b>	Divitech, Sistemobile, Cefin Systems, Viasat, Magneti Marelli, ...	35
<b>Logistics</b>	Villanova, Incas Group, Consulvision, @logistics Reply, Simet, ...	20
<b>Infomobility</b>	Ribes, 5T, Mizar Mediaservice, Fluidtime, LCT Infotelematics, ...	20
<b>Emergency and Security</b>	Divitech, Regola, Semar, Sepa, Soft-In, ...	15
<b>Galileo Systems and Infrastructure</b>	Alenia Spazio, Carlo Gavazzi Space, Fiat Avio, Sepa, Sia, ...	20

# Industrial sectors: world-class competences in Piemonte

Sectors	Strenghts
<b>Traffic Management</b>	<ul style="list-style-type: none"><li>➤ Hardware design and manufacturing (especially on board units)</li><li>➤ Traffic monitoring: data on flows and speeds collection, processing and modelling</li><li>➤ Technologies enabling flows and speed measurement through GPS location</li><li>➤ Traffic control: alorgorythm for optimal synchronization of traffic lights and prioritization for public transport means</li></ul>
<b>Fleet Management and Traceability</b>	<ul style="list-style-type: none"><li>➤ Huge number of fleet management solutions for<ul style="list-style-type: none"><li>▪ different markets: public transportation, commercial vehicle operations</li><li>▪ both small and large fleets</li><li>▪ general purpose and for special fleets</li></ul></li><li>➤ Increasing number of applications for goods tracking and tracing, in particular in the food industry</li></ul>

# Industrial sectors: world-class competences in Piemonte

Sectors	Strenghts
<b>Logistics</b>	<ul style="list-style-type: none"> <li>➤ Strong development of intermodal centres (road and railway)</li> <li>➤ Integration between traditional logistics (store and transportation) and productive/transformation processes</li> </ul>
<b>Infomobility</b>	<ul style="list-style-type: none"> <li>➤ High level information about average traffic speed and about status and scheduling of the public means in the urban area</li> <li>➤ Personal navigation services using GPS equipped PDA and smartphones</li> <li>➤ Pay per use applications in the motor insurance sector</li> </ul>
<b>Emergency and Security</b>	<ul style="list-style-type: none"> <li>➤ Strong competences on blue lights/public forces support applications</li> <li>➤ Strong competences on health emergency management (ambulance dispatching)</li> <li>➤ Increasing application for environmental security</li> </ul>
<b>Galileo Systems and Infrastructure</b>	<ul style="list-style-type: none"> <li>➤ All the applications related to the Precise Timing Facilities</li> </ul>

# Clustering methodology

Phases	Examples of activities	Output
<b><i>Cluster analysis</i></b>	Direct interviews General sources of research	Database with 100 companies and R&D centres
<b><i>Strategic business segmentation</i></b>	Market and industry analysis Value chain analysis	Identification of strategic segments
<b><i>Strategic options for the industry</i></b>	Strategic workgroup Interviews with mature buyers	Best ways to address the business
<b><i>Ideal cluster modelling</i></b>	Models of cluster and comparison to leader clusters	Identification of the best structure for the cluster
<b><i>Strategic options for the cluster</i></b>	Strengths and Weaknesses Threats and Opportunities	Best opportunities for the cluster companies
<b><i>Actions for the cluster</i></b>	Structural actions	Cluster coordination body Showroom-City
	Business projects	Es: Access control system through mobility credits (12 firms)