REGIONE PIEMONTE

PROVINCIA DI TORINO

CITTA' DI TORINO

FINPIEMONTE

CAMERA DI COMMERCIO
INDUSTRIA ARTIGIANATO E AGRICOLTURA
DI TORINO

api TORINO

UNIONE INDUSTRIALE TORINO

nereus
network of european regions
using space technologies

meets

PIEDMONT
AEROSPACE DISTRICT

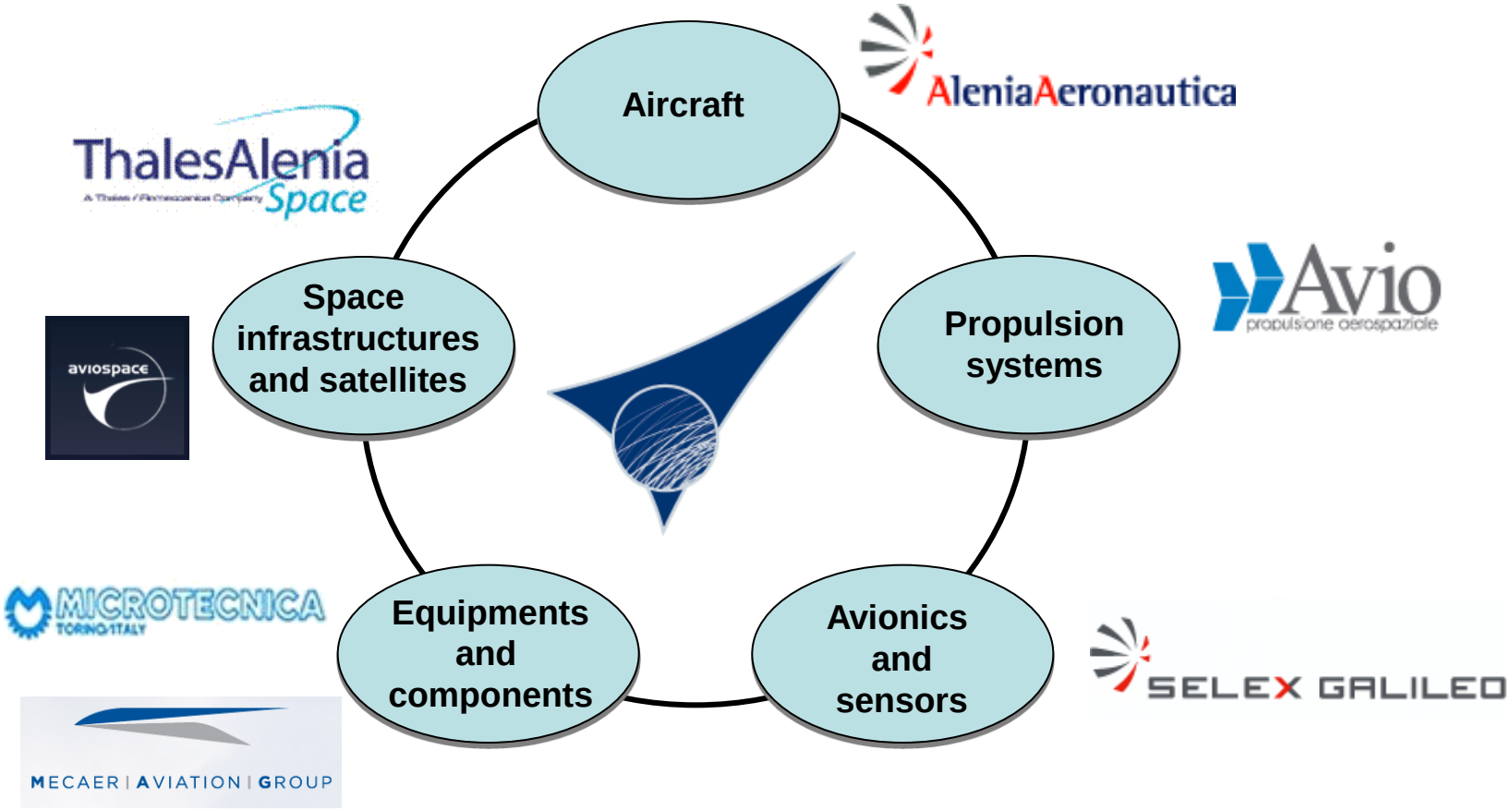
Altec, 19/10/2011

Aerospace in Piedmont

- **Key figures**
  - growing tradition since 1909
  - 2.5 Bln of Euro yearly turnover
  - 7 leading companies
  - about 200 SMEs
  - 12.000 specialized manpower
  - 25% of national aerospace R&D spending
  - 25% of national aerospace R&D manpower

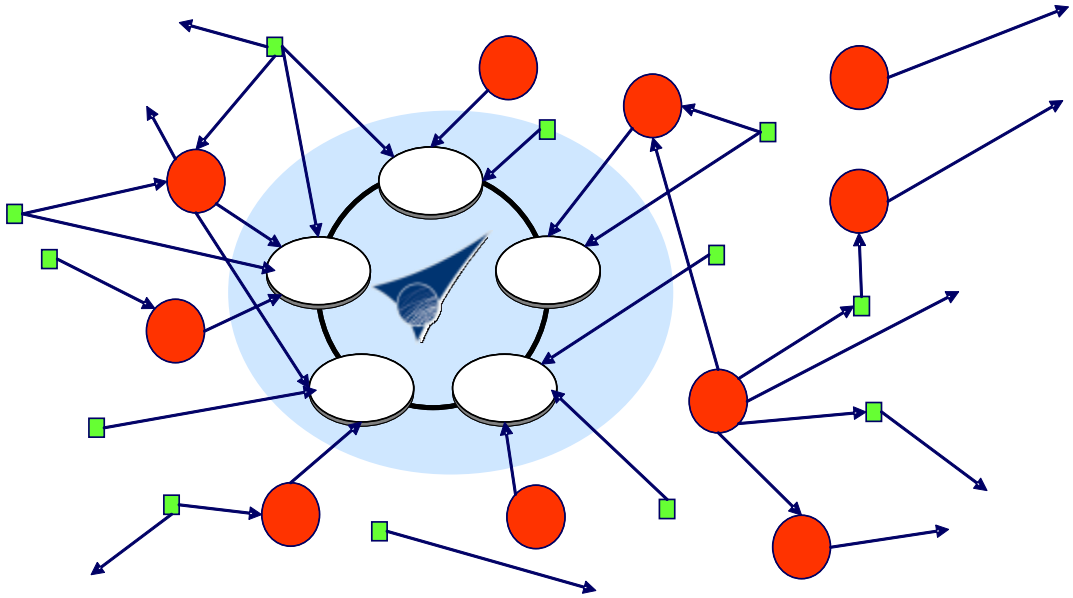
Aerospace leaders in Piedmont

- 7 global companies
- manufacturer and complex systems integrators



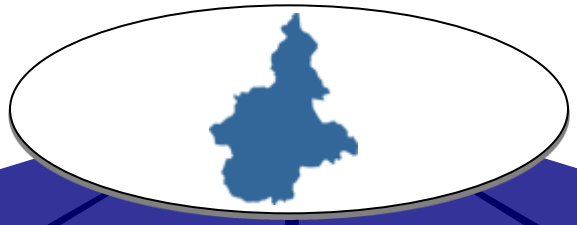
Aerospace SMEs in Piedmont

- 20 medium size productive units
- about 200 firms working in the industry
- leading companies regional supply chain and independent business



- remarkable export vocation (core business for over 10% of SME)
- international standard quality compliance at competitive prices

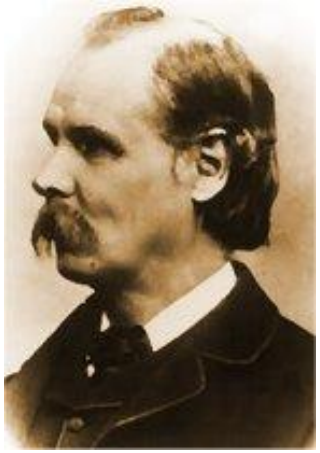
Piedmont: an aerospace cluster



Leading Firms	SMEs	Research Systems	Institutional support
Alenia Aeronautica Avio Aviospace Mecaer Microtecnica SELEX Galileo Thales Alenia Space	over 230 companies	3 Università INRIM ISMB Osservatorio Astronomico di Torino - INAF	Comitato Distretto Aerospaziale Piemonte Torino Piemonte Aerospace Aerospace & Defence meetings

Industrial clusters: a changing model

1920



Globalisation:
Capital
Goods
Production sites

2011

?

Traditional district

- natural resources
- local manpower markets
- firms
- informal

Contemporary cluster

- knowledge
- relationship
- firms, academy, institution
- organised

INPUT COST

OUTPUT VALUE

Aerospace district organisation

Piedmont aerospace district committee

Committee
coordination body

- Regione Piemonte
- Provincia di Torino
- Comune di Torino
- Finpiemonte
- CCIAA di Torino
- UI di Torino
- API Torino

since december 2005
with the support of Finpiemonte
(Regional development agency)

Steering Committee
consulting body

- Politecnico di Torino
- Università di Torino
- Università del Piemonte Orientale
- ITIS Grassi
- Osservatorio Astronomico TO
- COREP
- Ordine Ingegneri – prov. Torino
- AIAD
- Alenia Aeronautica
- Avio
- SELEX Galileo
- Thales Alenia Space
- AMMA
- Unionmeccanioca
- Trade Unions

TRAINING

COMMUNICATION

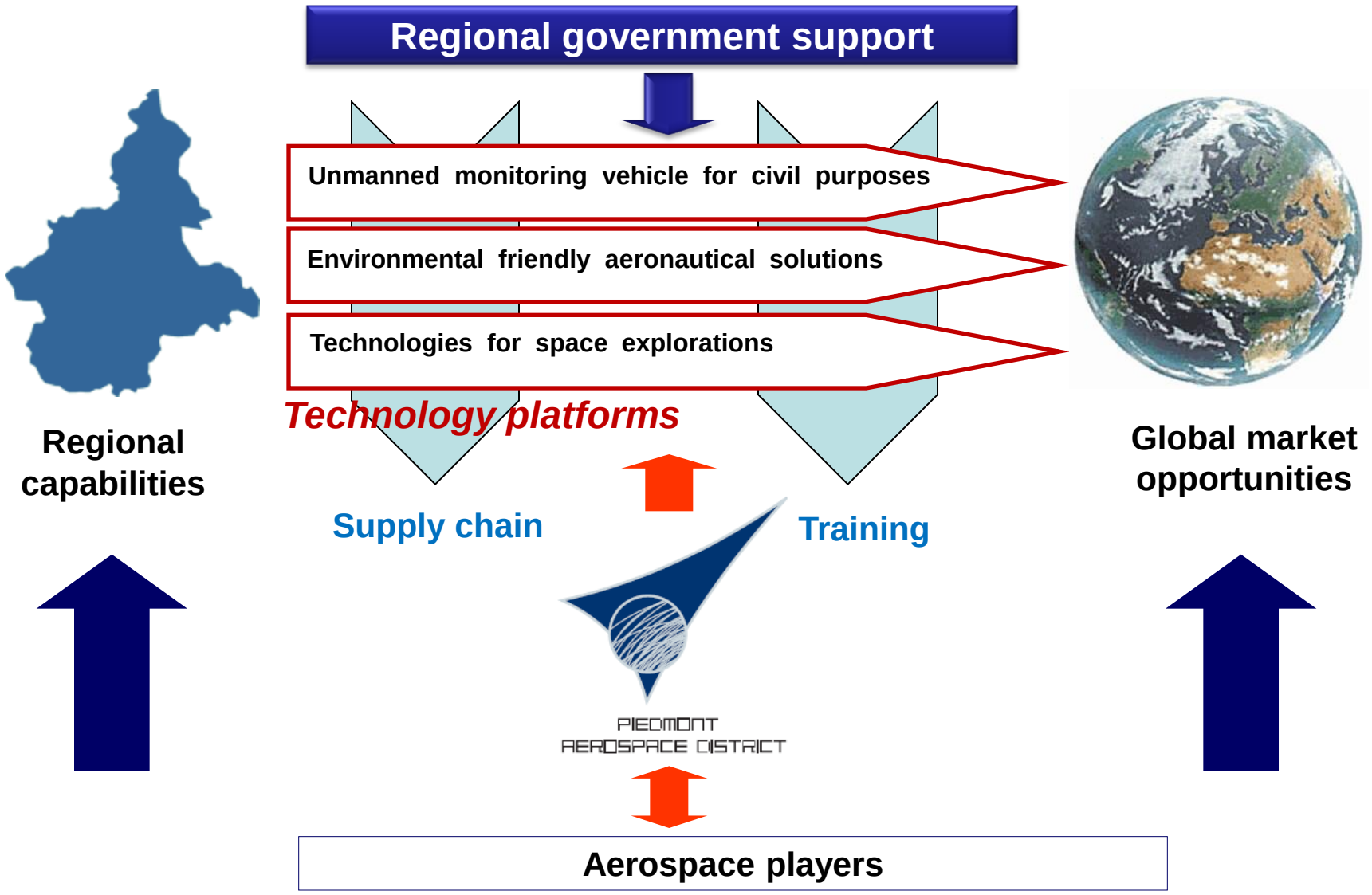
ANALISYS

NETWORKING

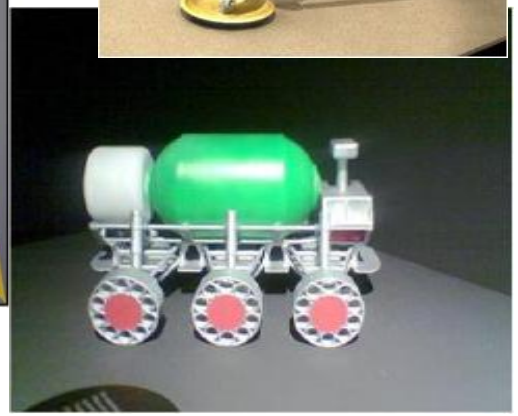
COMMUNICATION

PROJECTS

Technology platforms



III platform project → STEPS



Sistemi e Tecnologie per l'EsPlorazione Spaziale

- **Joint technology development (Research system + Industry) for Moon and Mars landing and rovering by virtual and physical demonstrators.**
- **Lead by Thales Alenia Space**
- **End by 31/05/2012**

Phase 2 – From platform to critical technologies

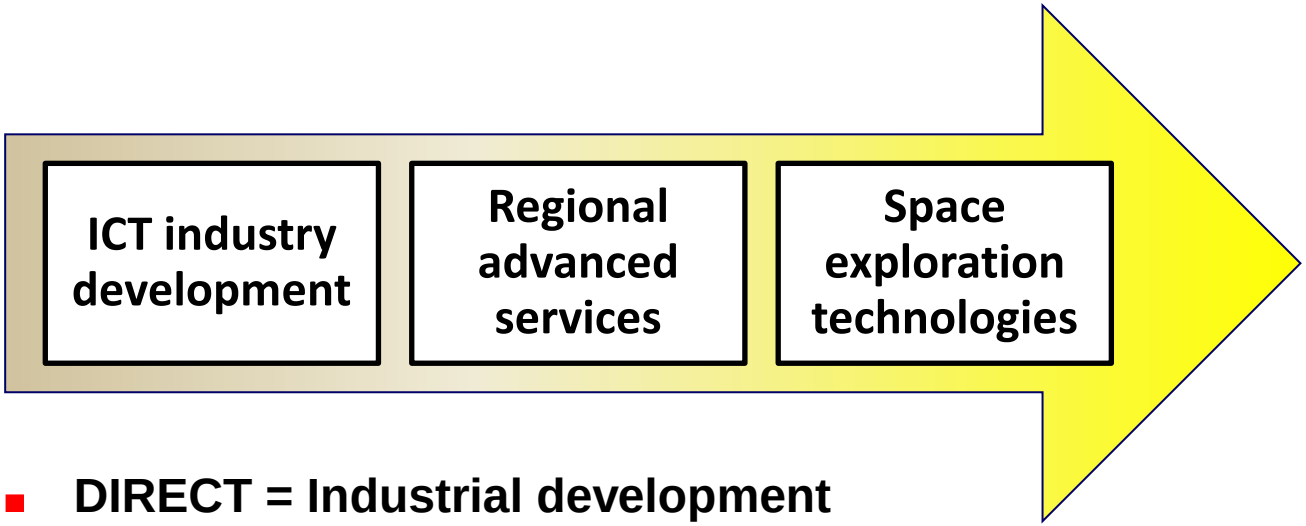
SCENARIO	PRODUCT	TECHNOLOGIES		SUPPORTS
		System	Phoenomenon	
Aeronautical Engine	➢ Green engine stages	➢ Engine architecture	➢ Materials ➢ Aerodynamics ➢ Combustione ➢ …	➢ Collaborative Engineering ➢ Tools prototypingili ➢ …
UAS	➢Civil monitoring system	➢ Metaplane C-Fly ➢ SCS	➢ Textile wing for C-Fly ➢ X band sensors …	➢ 3D Maps ➢ …
Space Exploration	➢ Landing ➢ Rovering	➢ Entry, Descent and Landing ➢ Surface navigation	➢ Terrain exploration ➢ Odometry ➢ …	➢ Virtual environment ➢ Mars terrain ➢ …

Phase I

Phase II

Examples

Space exploration expected outcomes



- Infomobility
- Smart transportation systems
- Telemedicine
- ….

- **DIRECT = Industrial development**
  - Technological innovation
  - High Value-Adding activities
- **INDIRECT = Knowlege spillover**
  - Supply chain qualification and empowerment
  - Research & Qualified employment
- **ENABLING = Making service advances possible**
  - Remote sensing
  - Unmanned / Remote control

Thank you!

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