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# TRANS REG NCP

*Regional clusters as innovation drivers*

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# Why clusters are so important?

- Under globalization conditions, **Nations are competing with their territories**
- Territory is not a mere addition of productive factors
- It is a *social system*: its relational resources are “local public goods”; it hosts “specific advantages”
- This reality doesn't take off to the State its main responsibilities: “en amont” of industrial system, (research) and “en aval” (norms, security, quality etc.)

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# Cluster definition

- Clusters are **regional** (territorial) concentration of **specialized companies** and institutions **linked** through multiples linkages and spill-over.
- The same concept can be called differently (industrial district, competitiveness pole, SPL, APL, cluster...)
- A cluster is not an industrial sector; neither an entrepreneur club nor a “technopole” or an industrial park.

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# The three pillars of a cluster

- **Agglomeration** of productive units
- **Specialization**
- **Specification:** cooperation  
complementarity  
distinctive competences  
(those which will allow to maintain advance  
on competitors)

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# The three pillars of a research driven cluster

- Business entities (large enterprises and SMEs)
- Research entities (universities, research organizations, and research for-profit bodies) and Training entities
- ... And at a different level: public supporting authority: local / regional government, regional development agencies

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# Two models of Research driven clusters

- **Push model** (*high tech cluster*)  
From research to market
  
- **Pull model** (*creative business cluster*)  
Reduce time to market

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# How a business agglomeration become a cluster?

- Transformation of agglomeration of enterprises into a cluster require method
- What sort of input will produce effect of “clusterisation”?

Public intervention can be decisive

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# Favorable conditions

- Identity and shared value
- Good quality of infrastructures
- Insertion in national and international networks
- Animation: an intermediary function

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# Main obstacle to overcome

- Lack of confidence
- Some ways to (re)build it

Find common issues and shared interest  
between cluster actors

Provoke cooperation through public incentive

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## Public action for cluster : previous questions

- All types of business agglomerations?
- What regional scale?
- What size: How many companies?
- Global and/or PME?
- What research institutions to associate?

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# A good way to stimulate potential clusters: call for tender (with public guidance)

- **Advantage:**

- Participation of actors (definition of strategic plan, partnership construction...)

- **Disadvantages**

- For weak sectors under high competition

- For very innovative activities

- For poor regions

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# Another method: individual support

- **Requirement:**

Efficient and well spread public services

Example: APL's in Brazil

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# Some key factors of success

- Common will of private and public actors to be successful (together)
- Engagement of some (it may be few) personalities who will act as leaders
- « Critical mass »
- Governance
- Long term public support (contractualisation for a couple of years)

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# Mapping and analyze of the productive chain

Not all segments have to be integrated from the beginning

Widener the productive chain takes time; it can result of the association with another cluster  
(=polycentric cluster: tourism+ perfume or food business, consume universe etc.)

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# The critical mass

A too small group of companies will not have the capacity and the resources to launch projects.

But at the same time a dynamic and coherent core is better than a too large group.

**Give responsibility to the entrepreneurs**

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# Example: Arve Valley (I)

- I. A spontaneous marshallien industrial district compound of 700 companies with strong specialization on metal working, located in an Alpine valley (82 000 inhabitants)
- Region with good level of education
- Many transfer centers
- Construction of development contract for Arve valley

*Public support through SPL policy (1998-2003)*

*Public support through region, partner for Valley Development program with 5 dimensions: technological, intelligency, capacitating, communication and promotion, prospective*

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## Arve Valley (II)

- New obligations, new challenges:  
internationalization, cooperation, work with  
University

*Pole of competitiveness policy* encouraged the  
companies to gather with research centers and build  
innovative and cooperative projects

*The same* (research and innovative platform), main  
actor to transform Arve Valley into a new research  
driven cluster

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# Arve Valley (III)

## Arve Industries to day:

- 208 companies members (90% SME); Over 100 engaged in Innovative projects
- A governance compound of a strategic council and an operational team (6 professional)
- Different programs among them: **program for innovation** (process innovation, organization innovation and product innovation) to search for innovative projects, consolidate network, stimulate links between SME and research laboratories

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# Hyères Hortipole (I)

- Cluster history begins in 1997.
- Professionals of cut flowers (700) of Hyere region (French Riviera) conduce a quality program but competition increasing, efforts on quality remain insufficient
- With public support (town first and State later with cluster policy) a strategic plan is put on
- One job is created for a permanent animator
- A distinctive product: Mediterranean flower is marketed
- An ambitious federative program is launched: quality and valorization of Mediterranean horticulture, sustainable production etc.

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# Hyères Hortipole (II)

## To day

- LPS federates “amount and avail” of activity (value chain)
- 700 producers, 45 commercial companies, 13 professional organizations, 5 institutes of higher formation and 2 of adult capacitating
- A partnership with Italian cluster on research firmmed
- Marketing policy is intensify
- An INTERREG project should be concluded

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# Axelera (I)

- **The Lyon Rhône Alpes Chemicals and Environment competitiveness cluster** put together local players in industry, training and research,
- In the fields of **chemical and environment** joining around a shared vision: *“Accelerating the shift towards a cutting-edge chemicals sector that integrates environment management through eco-design”*
- For this cluster works on:
  - The design of new and more durable products
  - The design of new and cleaner manufacturing processes
  - R&D (Research and Development) activities
  - The training of industry players

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# Axelera (II)

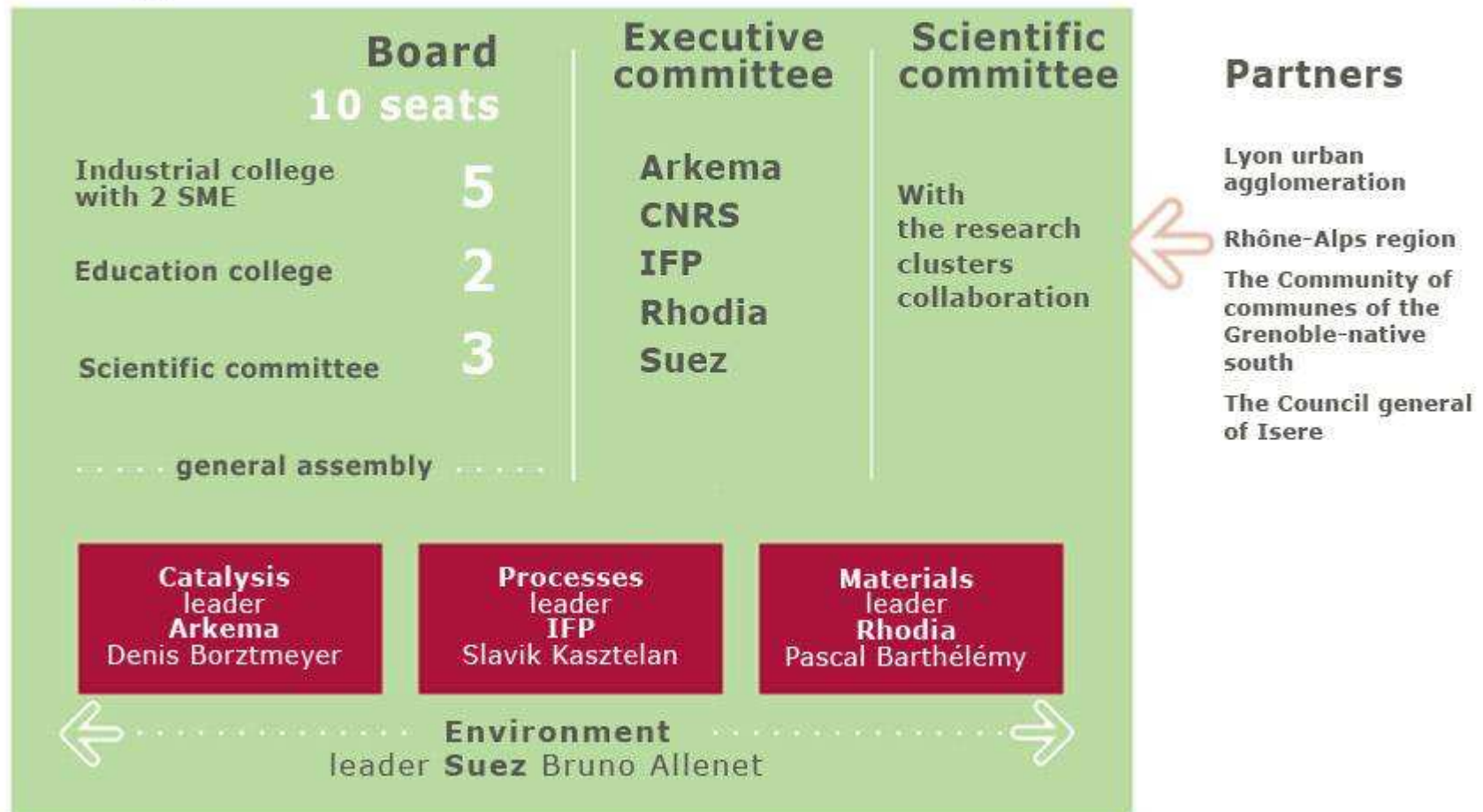
- The cluster activities are focused on:

**12 Technological projects in one of the 3 topics: catalysis, materials and processes**

**5 Cross-functional projects**

# Axelera (III)

## Organization



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# Pôle industrie agro ressources (I)

**The “Industries and Agro-Resources (IAR) Cluster” unites stakeholders from research, higher education, industry & agriculture in the Champagne-Ardenne and Picardy regions of France around a shared goal: the non-food exploitation value-added of plant biomass.**

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# Pôle industrie agro ressource (II)

The Cluster is based on:

- an **independent Scientific Advisory Board** which comments on project areas.
- a **Funding Commission** which includes public- and private-sector partners (the French state, the regions, financial institutions, etc.) and which seeks to orient projects towards the most appropriate funding solutions.
- an **Institutional Partners Committee** (including the local authorities and civil service departments), which coordinates the cluster's activity.

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# Pôle industrie agro ressource (III)

The association is compound of:

- a 10-person **Executive Committee**, which sets the cluster's strategic orientations and accredits projects.
- a **Management Committee** which implements the strategy defined by the Executive Committee.
- specific working groups

# Pôle industrie agro ressource (IV)

## The IAR cluster: a forum for interdisciplinary dialogue

The IAR cluster has set up **sector-specific working groups** (*(biocarburants, bioénergies, biomolécules, agromatériaux)*) **and thematic working groups** (*Analyse de la demande des industriels - Adaptation et mobilisation de la ressource - Adaptation des procédés - Evaluation des choix technologiques et développement durable - Dissémination, essaimage, formation et transfert*) in order to address all facets of the non-food exploitation of plant biomass.

These working groups are true think-tanks and brainstorming sessions and are open to all IAR members, whether researchers or businesspeople.

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# Pôle industrie agro ressource (V)

## Stake holders:

### ■ Universities, Schools and Technical centers

Université de Picardie, Université de Reims, UTC, UTT, Arts et Métiers, CUG, INRA, CRITT, Cetim etc.

### ■ Enterprises

GM: Cristal, Champagne Céréales, Oréal

PME: Bio3D, Crépin petit, Marnaise etc.

### ■ Other partners:

Professional federations, Chambers of commerce, Financial establishments etc.

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# General conclusion about cluster stories

- No two cluster stories similar
- Though for successful ones, some constant steps:
  - When doesn't pre-exist a strong solidarity between the components, its emergence comes often from a simple initiative like a study whose conclusions will be shared ,

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- Then, because some leaders have a clear vision of the necessity to work differently, the animator (the intermediary agent) may suggest collective initiatives:

Simply convivial (as breakfast or a visit) at first,  
Followed by formalization of reciprocal engagements

- Then comes the time of the more sophisticated collective actions; open to all partners or to only a small group of them. And positive results appear

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## But also some failures due to...

- Discontinuity in public support
- No leader
- Insufficient size
- No confidence

*Change of compartment takes time !...*

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# UE support

- Structural funds: innovation supported by the PO (FEDER), INTERREG
- Competitiveness and innovation Programme
- FP7 (Eureka, Capacities: regional of Knowledge, Research Potential)
- Ask (and perspective?) for easier public support in « ***French Memorandum on European cluster policy*** »