

# **Japanese Regional Innovation Policy and its target SMEs**

**February 4<sup>th</sup> 2010**

**Table ronde**

**Les politiques d'innovation et leur impact sur les PME,  
la création de start-ups, les clusters et les dynamiques régionales**  
**Colloque International "Politiques régionales d'innovation et PME"**

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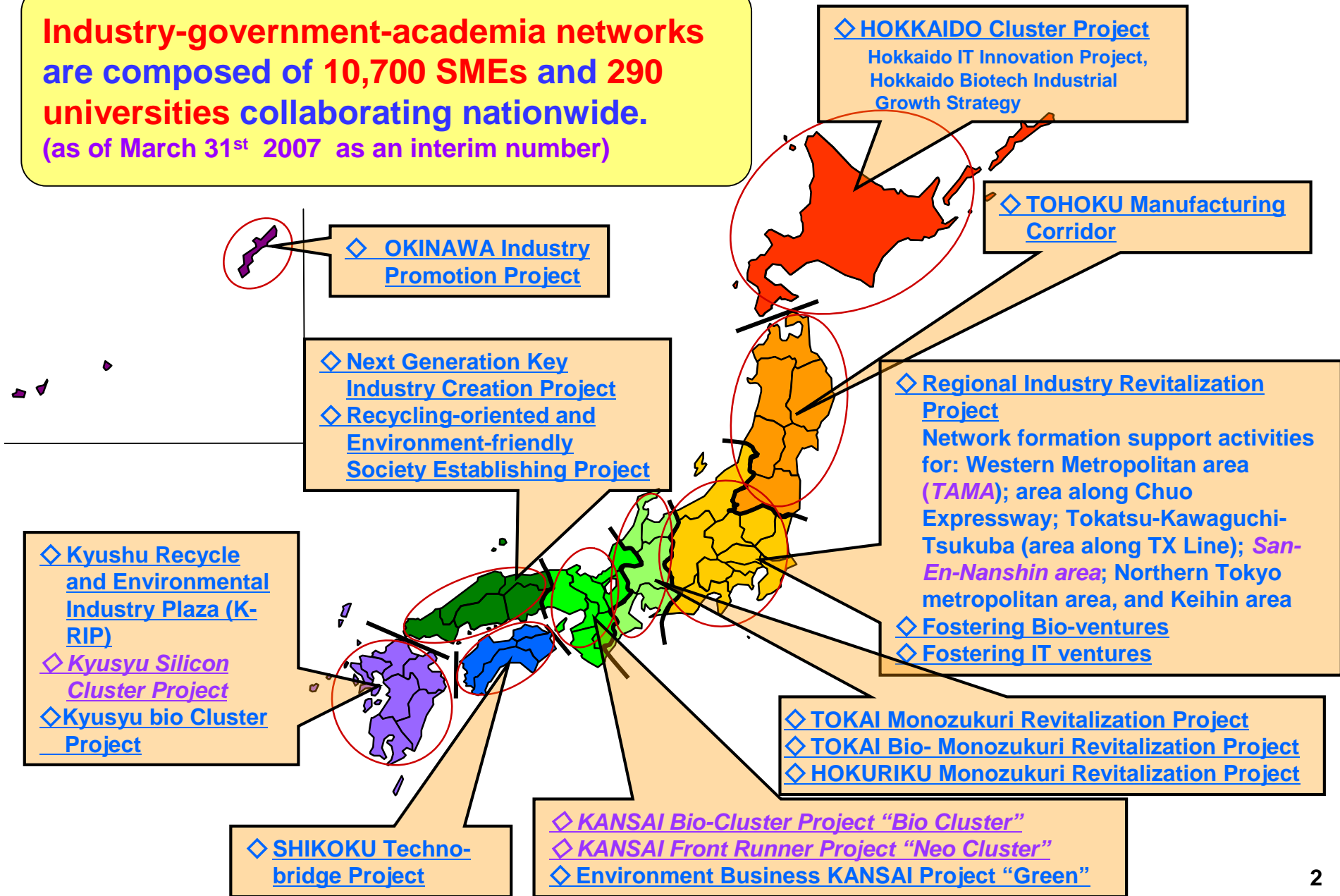
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**Ministry of Economy, Trade and Industry**

# Industrial cluster policy of the Japanese Government

	Ministry	Basic objectives	Policy tools	Start year	Number of project/region	Budget
<b>Industrial Cluster Program</b>	Ministry of Economy, Trade and Industry (METI)	Forming industrial clusters that facilitate innovation and the creation of world-viable new businesses to be created	①Support for forming industry-government-academia networks in regions through a subsidy for a private promotional organization ②Supporting regional technology development activities through subsidies ③Enhancing business incubation functions by building facilities and supporting various activities	Phase 1 2001 Phase 2 2006	Phase 1: 19 projects Phase 2: 18 projects	FY 2009 : Industrial cluster project ¥ 1.13 bn.  Joint research and development projects from industry-university collaborations ¥ 6.51 bn.
<b>Regional S&amp;T Promotion Programs</b> <b>1) Knowledge Cluster Initiative</b>  <b>2)City Area Program</b>	Ministry of Education, Culture, Sports, Science and Technology (MEXT)	Forming regional clusters aiming at creating persistent innovation through close networking among industry-government-academia	Conducting and funding industry-academia-government joint research in which universities or other public institutions take core part for the purpose of forming regional clusters under local initiatives	1)1st stage 2002 2nd stage 2007  2) 2002	1)1st stage: End 15 regions, Active 3 regions 2nd stage: Active 9 regions  2)End 50 areas, Active 30 areas	1)FY 2009 : ¥ 8.9 bn. (For each region, ¥ 0.5 bn. to 0.8 bn. /year, over 5-year period)  2)FY 2009 : ¥ 4.5 bn. (For each area, ¥ 0.1 bn. to 0.2 bn. / year, over 3-year period)

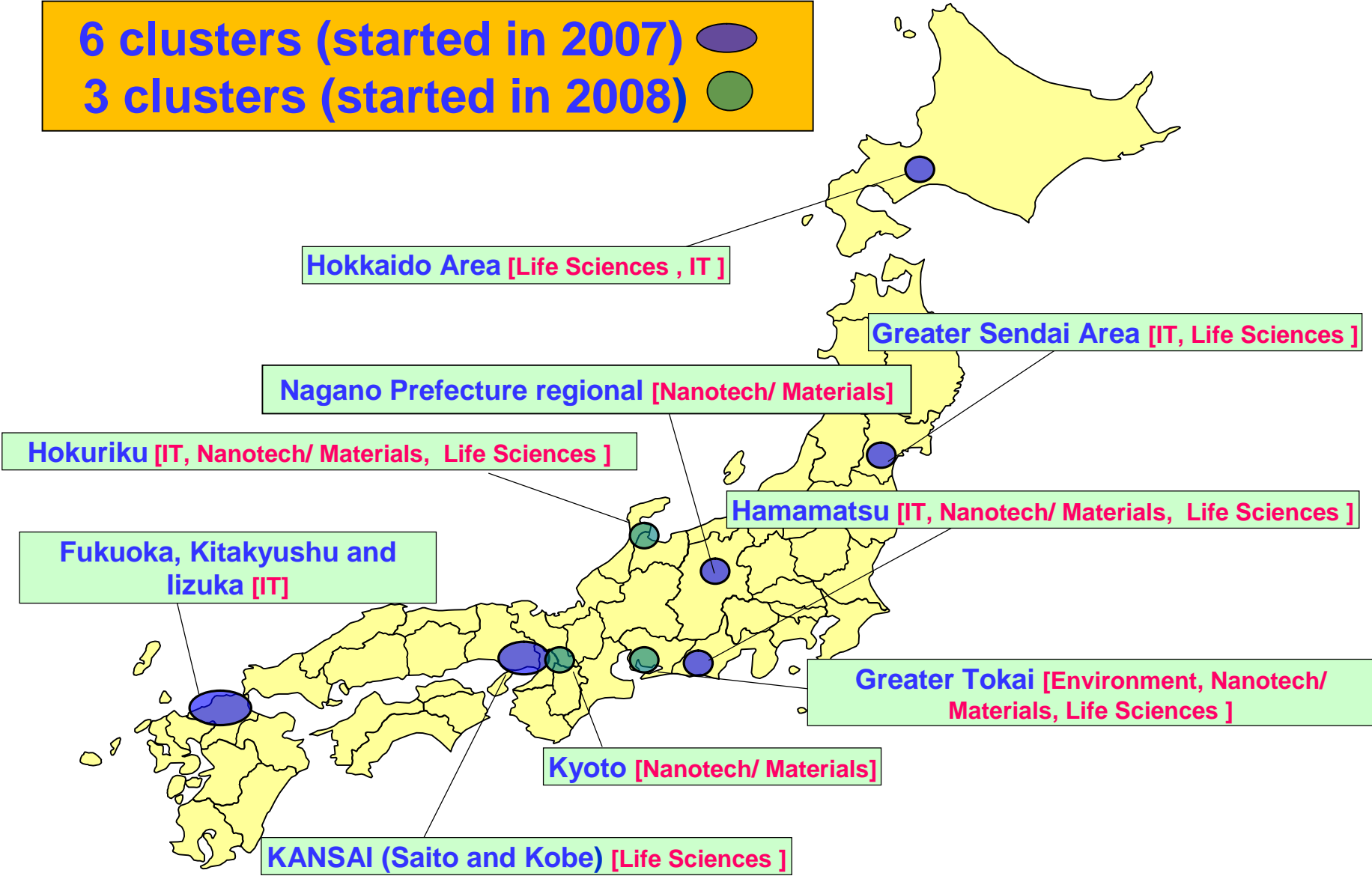
# Industrial Cluster Program (Phase II: 18 projects)

Industry-government-academia networks are composed of 10,700 SMEs and 290 universities collaborating nationwide. (as of March 31<sup>st</sup> 2007 as an interim number)



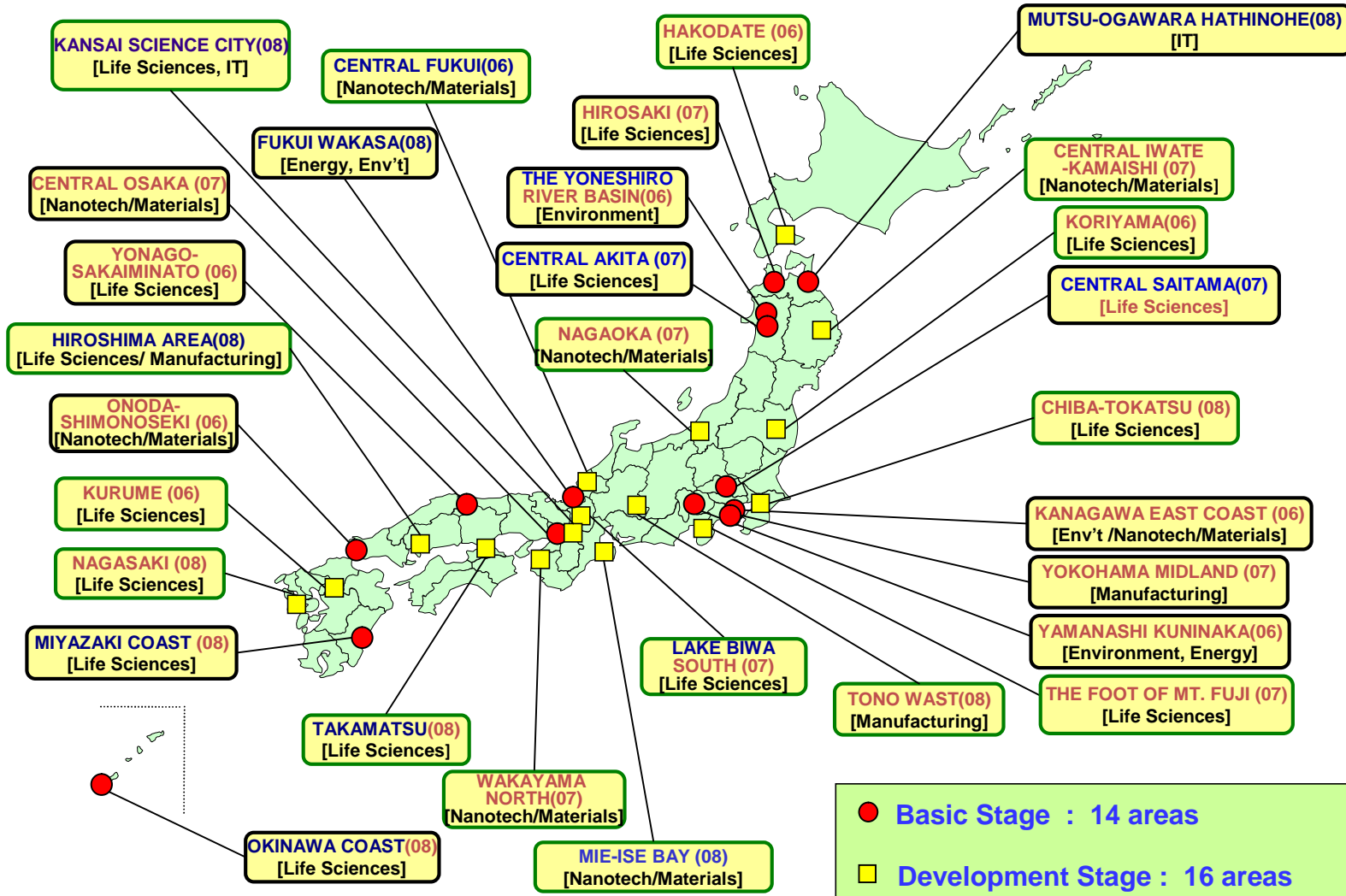
# Knowledge Cluster Initiative (2nd Stage)

6 clusters (started in 2007) ●  
3 clusters (started in 2008) ●



# City Area Program

<30 areas (except end 50 areas)>



## ***Dynamic relations between industry-lifecycle, region and type of innovation according to Audretsch et al (2008)***

	Product lifecycle: conventional explanation	Industry lifecycle by Audretsch et al.(2008)	Regions corresponding to industry lifecycle	Main players in production of goods and innovation	Types of innovation	Knowledge spillover	Products
Phase I	Introduction	First entrepreneurial phase	Urban agglomerations	SMEs	Product innovation	Inter-industry knowledge spillovers (Jacobs externalities)	Brand-new products
Phase II	Growth	First routinization phase	Industrial agglomerations	Large firms	Product & process innovation within top-performing incumbents	Less knowledge spillovers	Standardized products
Phase III	Maturity	Second entrepreneurial phase	Industrial districts* & Urban peripheries	SMEs	Product innovation	Intra-industry knowledge spillover (MAR externalities)	Niche products supplied by complement incumbents
Phase IV	Decline	Second routinization phase	Peripheries	-	-	-	-

\*Rather specialized regions located in more peripheral areas, often near industrial agglomerations

Audretsch, Falck, Feldman and Heblich (2008), "The Lifecycle of Regions"

## Typology of the “Industrial Cluster Program” targets

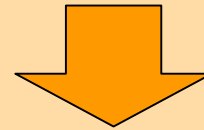
Target	Phase of Audretsch et al. (2008)	Industry / Products	Technology	Type of business	Present status
<u>Type 1</u>	<u>Phase I</u> (Embryos of new cluster in the metropolitan areas)	New industries ( <u>bio, ICT etc.</u> )	<u>Most advanced</u>	<u>Start-ups</u>	<u>Spin-off from large enterprise</u>
					<u>Spin-off from university</u>
<u>Type 2</u>	<u>Phase III</u> (Hidden champions located in the industrial areas)	New products in the broad range related to <u>machinery, materials and metal processing</u>	<u>Advanced</u>	<u>Second-time Start-ups</u> (New entrants to different markets from where their present businesses belong)	<u>Subcontracting firms of still competitive industries</u> (automobile, high-end electronics etc.)
					<u>Independent niche-top business</u>

*Tentative classification by the author*

## ***Three target terms of the Industrial Cluster Program***

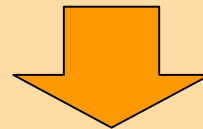
***Term I (2001-2005)***

**Industrial cluster launch period**



***Term II (2006-2010)***

**Industrial cluster development period**



***Term III (2011-2020)***

**Industrial cluster autonomous growth period**

# Industrial cluster policy modification

~ FY 2009

Support based on "Act on Promotion of Establishment of New Business Facilities"  
(2.22 billion yen)

- Support for promotion of establishment of new business facilities
  - Promotion of establishment of new business facilities
  - Personnel training
  - Maintenance of common facilities
  - R & D, etc.

Support in form of Industrial Cluster Subsidies  
(1.14 billion yen (finished))

- Support for forming 18 industrial cluster projects
  - Forming networks
  - Creating new businesses
  - Promoting cooperation
  - Developing market
  - Dissemination, etc.

FY 2010

Support based on "Act on Promotion of Establishment of New Business Facilities"  
(2.19 billion yen)

- Support for promotion of establishment of new business facilities
  - Promotion of establishment of new business facilities
  - Personnel training
  - Maintenance of common facilities
  - R & D, etc.

○ Support for developing industrial clusters

- Cluster tie-ups
- Creating new businesses
- Developing market, etc.

Regional competitive edge strengthening business  
(1.39 billion yen (new))

- Creating new growth industries
  - Business matching
  - Coordinator arrangement
  - Cooperation with support organs
  - Coordinator training, etc.

① Bottom-up Initiative Clusters

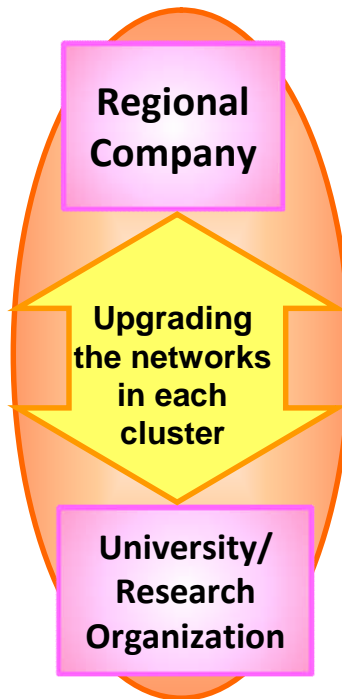
- Clusters initiated by regions for regional promotion

② Top-down Initiative Clusters

- Clusters for which it is necessary to promote nationwide network formation in order to ensure international competition as new growth industries (aerospace, environmental business, bioindustry, etc.)

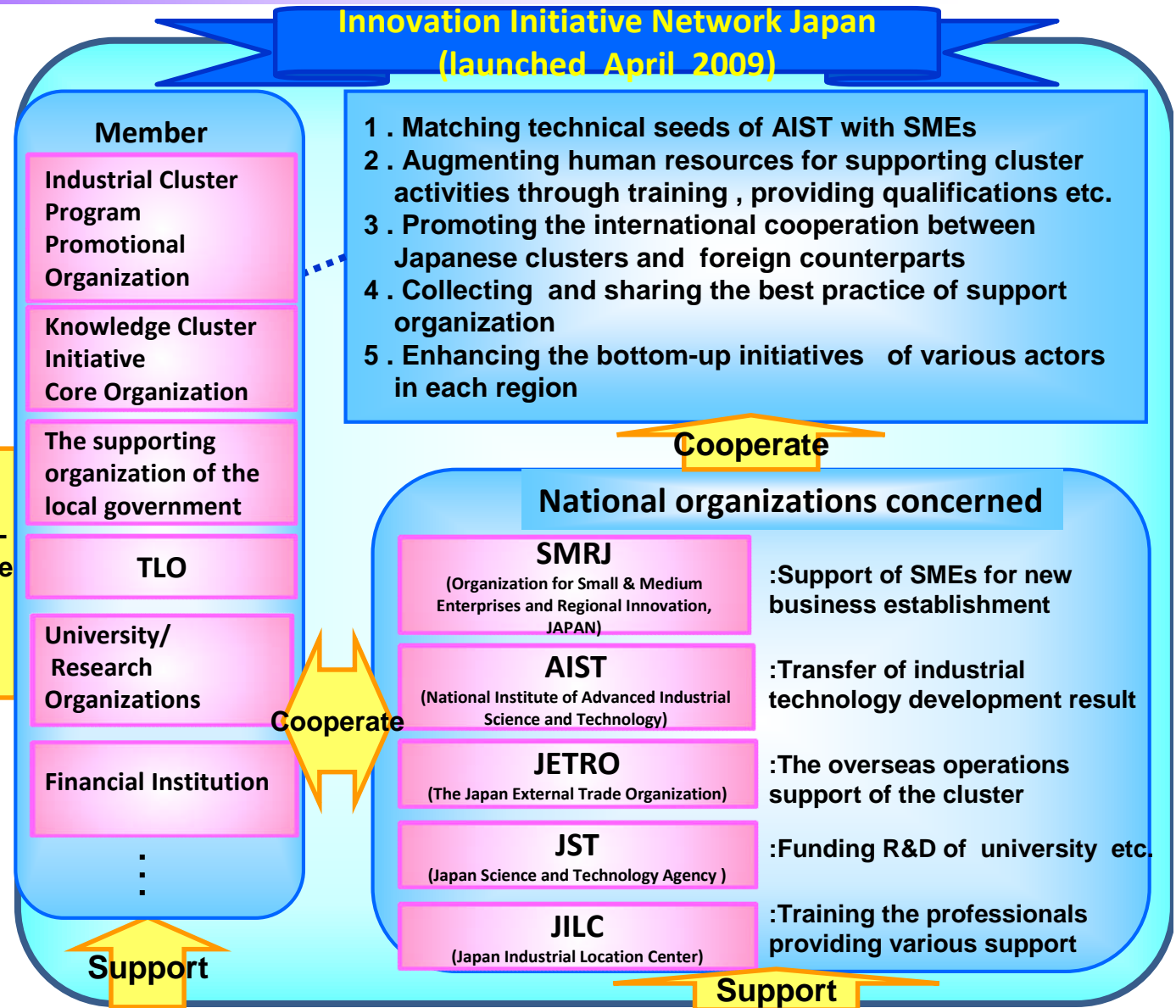
# Innovation Initiative Network Japan (National cluster association)

Local economy revitalization  
by promoting regional  
innovation



Support

Reinforce-  
ment of the  
support  
function



# References

Audretsch, D. O. Falck, M. Feldman and S. Heblich (2008), “The Lifecycle of Regions,” CEPR Discussion Paper No. 6757.

METI, “Industrial Cluster Program,” <http://www.cluster.gr.jp/index.html> (English contents inside).

MEXT, “Knowledge Cluster Initiative,” [http://www.mext.go.jp/a\\_menu/kagaku/chiiki/cluster/index.htm](http://www.mext.go.jp/a_menu/kagaku/chiiki/cluster/index.htm) (English content inside).