



Pole Program and cluster development in Hungary

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Cluster Workshop

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Projekat za razvoj
konkurentnosti i
promociju izvoza

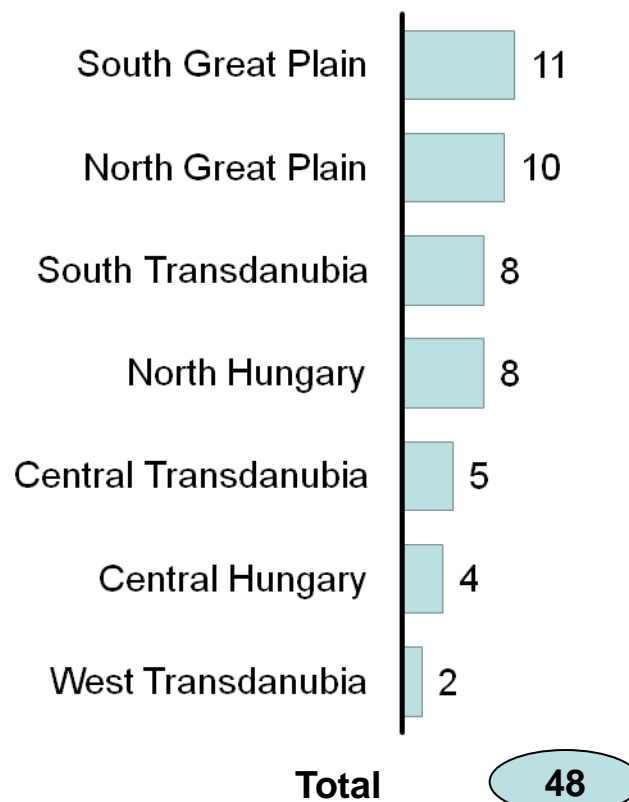


Република Србија
МИНИСТАРСТВО ЕКОНОМИЈЕ
И РЕГИОНАЛНОГ РАЗВОЈА

Cluster development in Hungary before 2008

- First cluster established in 2000
 - PANAC – automotive cluster
 - Top-down approach
 - EUR 200 thousand support from the Ministry of Economy
- Cluster call in 2001-2002 from national sources
- Cluster call in 2005-2006 from Structural Funds

Clusters with perceived operations in Hungary before the Pole Program, 2007 (pcs)



Findings

Identified problems

- General lack of trust and confidence among business actors – as a result inadequate number of business co-operations
- Existing and successful business co-operations could not count on stable policies
- Mixed experience and result of cluster support programs
- No consistent national policy on clustering

Issues to handle

- Form of clusters
- Efficient operation of clusters (professional cluster management)
- Financing of clusters and cluster projects
- Intellectual property problems

Main challenges of the Hungarian economy

- Imbalance of the tradable and non-tradable sectors (overweight of non-tradable sectors):
 - Decreasing export and competitiveness
 - Growth rate lags behind potential rate
 - Low and stagnating level of employment
- Integration in the European economic area determines the development path of the Hungarian economy in the next 10-15 years

Adequate responses in development policies according to foreign practices

- **Development of macro and business environment**
 - Stable business environment facilitating efficiency
- **Cluster development**
 - Co-operations of SMEs with proven market successes can be visible and competitive in international markets, as well contrary to single SMEs
 - Cluster development policy shall help start a lot of new co-operations among business actors
 - Cluster development policy shall help co-operations realise joint projects
- **Innovation policy**
 - Innovation driven by market needs improves international competitiveness owing to higher added value

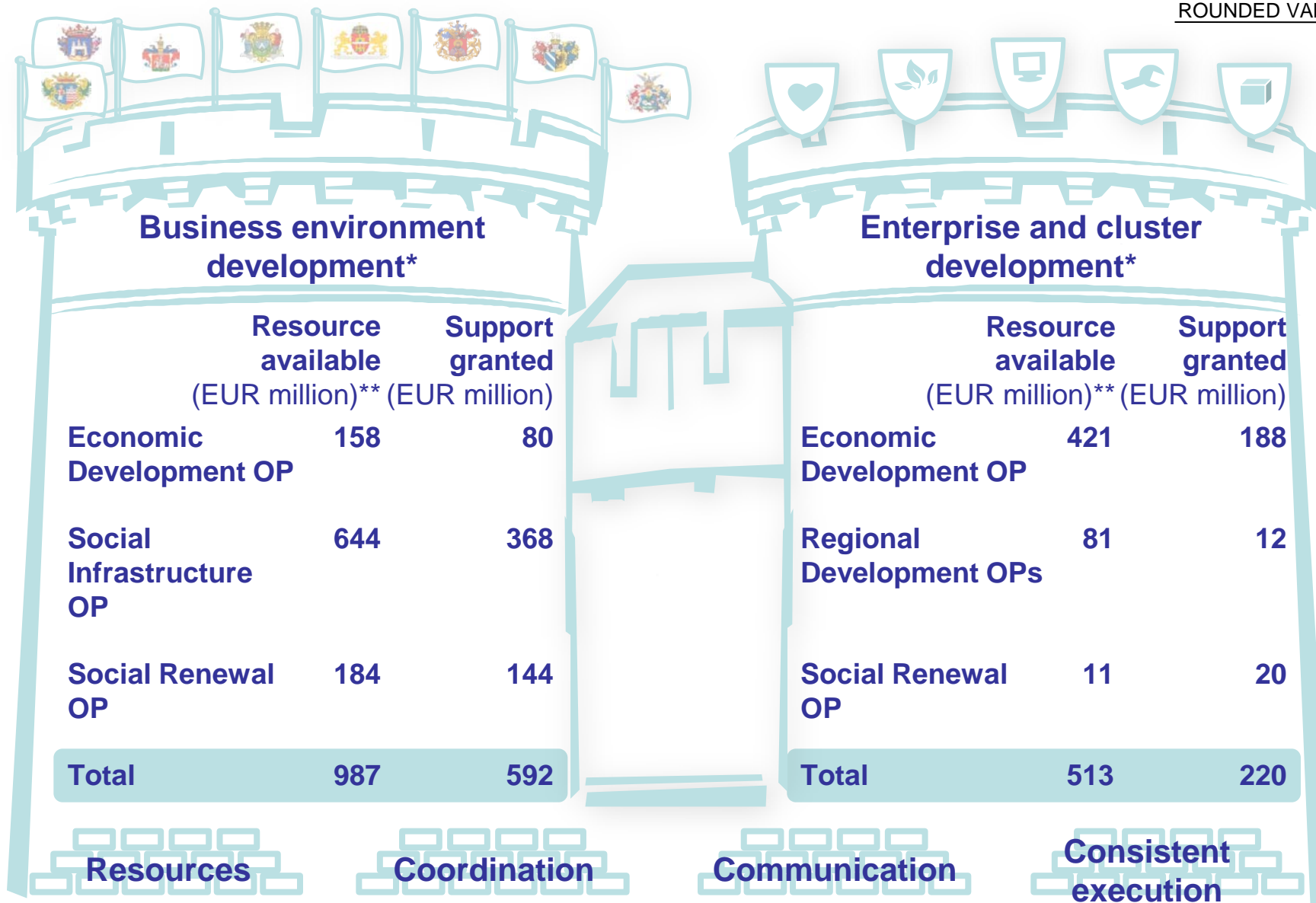
Challenges of economic development in the field of R&D&I

- *Macroeconomic aspect:*
 - R&D expenses over GDP is well below EU average
 - Overweight of state R&D both in research staff and in financing
- *Propensity of enterprises for R&D:*
 - Low propensity for risk and entrepreneurship
 - Lack of trust and co-operation
- *Education:*
 - Moderate number of professionals in science and technology
- *Research:*
 - Brain-drain
 - Gap between science and business, inadequate number of patents
 - Universities oriented at basic research
- *Financing:*
 - Enterprises face slow, expensive and bureaucratic procedures to get loans
 - Lack of risk capital and business angel network

Responses of the Pole Program

- **Reaching at least EU average R&D spending over GDP**
- **Increasing innovation of enterprises**
- **Risk reduction**
- **Clusters, enhancing trust**
- **Education system sensitive to business needs**
- **Tight co-operation of education, research and business**
- **Increasing the number of opportunities for external financing**
- **Risk reduction**

ROUNDED VALUES

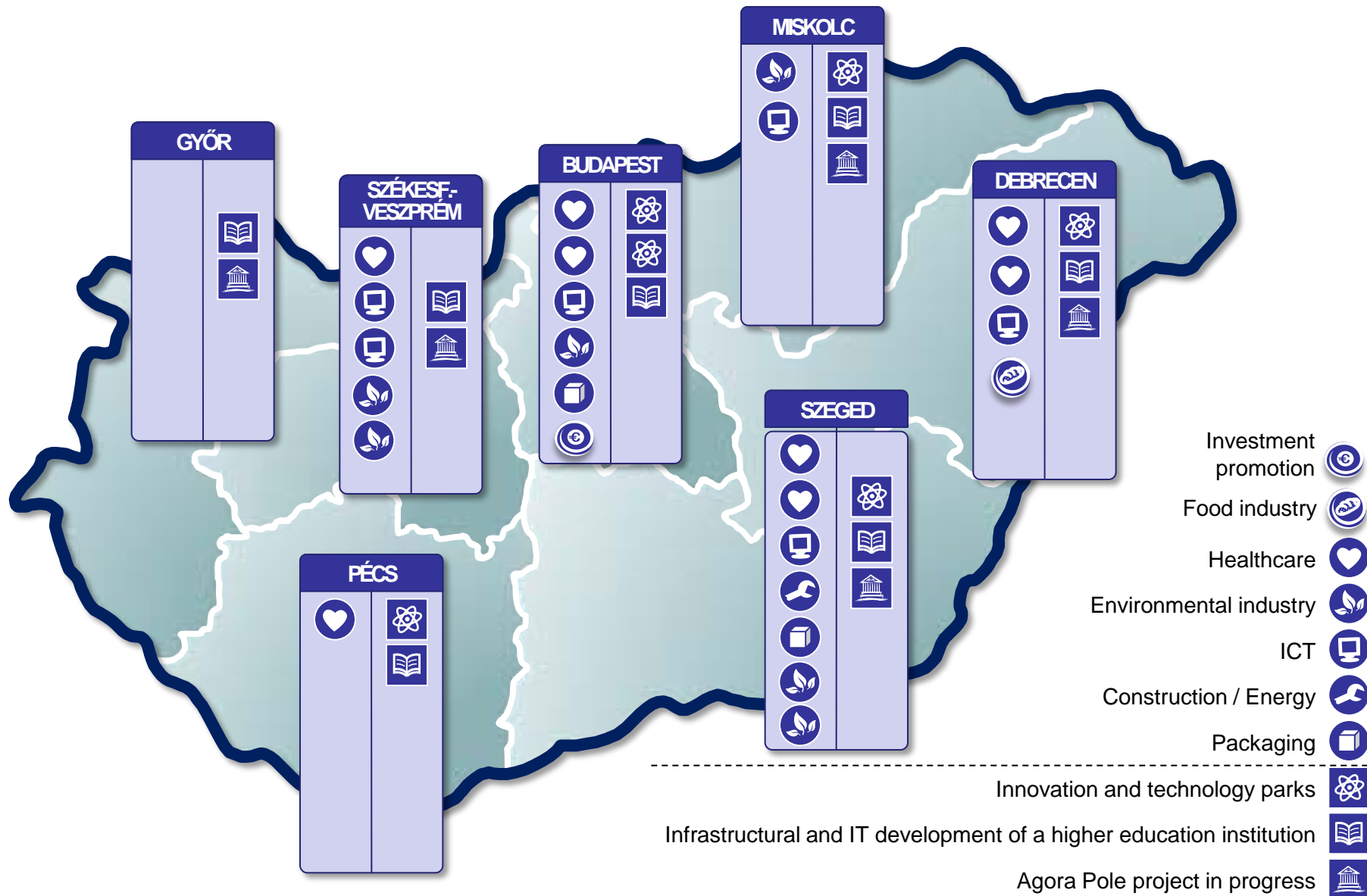


* CHOP mirror calls are included in the respective convergence OPs

** 2007-2013, based on the list of the proposals calls as of August 2009, rounded values

Source: PPO, EPAP

Actor	Activity	Possible advantages
<ul style="list-style-type: none"> ▪ Municipalities, Chambers of commerce and civil organizations 	<ul style="list-style-type: none"> ▪ Defining clear development targets ▪ Coordination of economic development 	<p>SOCIAL AND ECONOMIC ADVANTAGES</p>
<ul style="list-style-type: none"> ▪ Universities and R&D institutes 	<ul style="list-style-type: none"> ▪ Running educational and research infrastructure ▪ Building strategic relations 	<p>CREATION OF KNOWLEDGE</p>
<ul style="list-style-type: none"> ▪ Companies 	<ul style="list-style-type: none"> ▪ Sustainable development ▪ Achieving business and development goals 	<p>ECONOMIC GROWTH</p>



Results of the main calls of the horizontal economic development pillar

Supported projects **ROUNDED VALUES**

	Miskolc	Debrecen	Szeged	Pécs	Veszprém-Székesfehérvár	Győr	Budapest	Support granted* (EUR million)
EDOP 1.2.2. Support of innovation and technology parks	NANOPOLIS Innovation Park	Pharmapolis Pharmaceutical Science Park	Genomic Innovation Center	Healthcare Innovation Center in Pécs	Did not apply	Did not apply	Medical Biotechnology Innovation Center 1st and 2nd wave	50
SIOP 1.3.3. Agóra Pole	2nd round of project selection	2nd round of project selection	2nd round of project selection	Not eligible	2nd round of project selection	2nd round of project selection	Not eligible	Evaluation in progress
SIOP 1.3.1. Educational, research and IT infrastructure development in the higher education	Complex renewal of the University of Miskolc	Infrastructural development of the University of Debrecen	Infrastructural development of the University of Szeged	'Science, Please!' 'Science Building at the University of Pécs	Infrastructural development of the Pannon University	Infrastructural development of the Szent István University	16 supported higher educational institutions	185
SROP 4.2.1. Development of knowledge transfer	University of Miskolc	University of Debrecen	University of Szeged	University of Pécs	Did not apply	Széchenyi István University	BME SOTE	12
SROP 4.2.2. Support of innovative research teams	Did not apply	University of Debrecen	University of Szeged	University of Pécs	Pannon University	Széchenyi István University	BME SOTE	28
Total								275

The Pole Program's main horizontal development calls in the Pole cities have resulted in a total support amount of EUR 275 million up until now

*SIOP = Social Infrastructure Operational Program,
SROP = Social Renewal Operational Program,
EDOP = Economic Development Operational Program

Source: EMIR, PPO, EPAP

Cluster manual – cluster definitions in the international literature

Introduction of the Pole Program

Institutional system

Cluster methodology

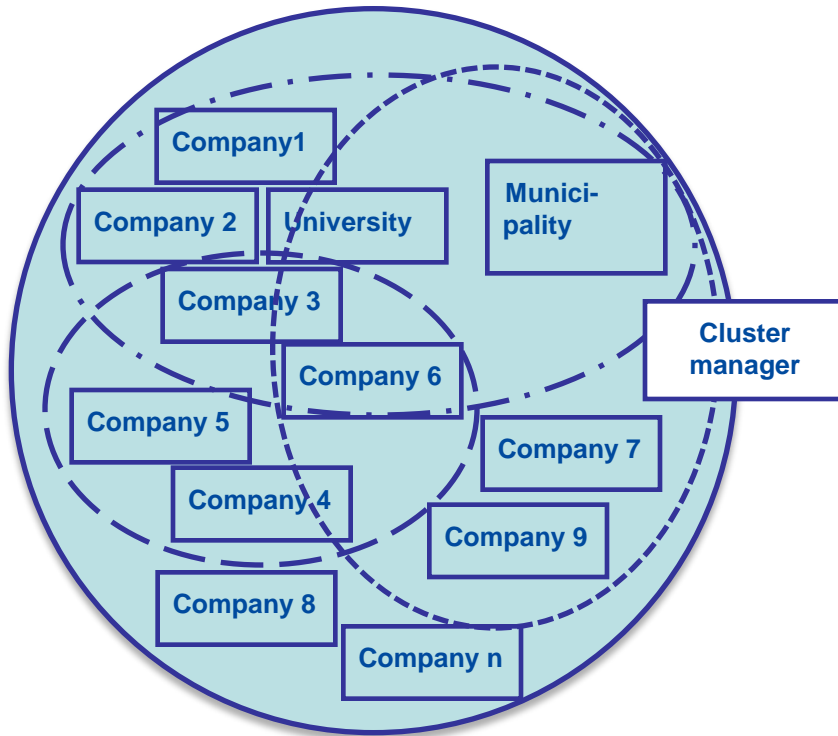
Practical information

Enclosures

- *Porter (1998)*: „ Clusters are geographic concentrations of interconnected companies, specialised suppliers, service providers, firms in related industries, and associated organisations (such as universities, standard agencies, trade associations) in a particular field linked by commonalities and complementarities. There is competition as well as cooperation.
- *UNIDO*: „A cluster can be defined as a sectoral and geographical concentration of enterprises, especially Small & Medium enterprises (SMEs), which have common opportunities and face similar threats”
- *European Commission DG Enterprise*: „a group of independent companies and related institutions, which compete and co-operate at the same time; which have a geographical concentration in one or more regions; which specialise in a particular field linked by common technologies and or skills; cluster can be science based or developing in traditional sectors”

- **The Pole Program does not define a cluster definition**
- **The clusters which fulfil the Program’s goals will be accredited (accredited innovation cluster)**
- **The Program does not aim at the monopolisation of the cluster term – the non-accredited clusters may also count for considerable development resources**

Positioning of the clusters



Cooperation

- The cooperation is successful if it has advantage for all participants

Members of the cluster

- They do not give up their individual goals
- They act together
- They take local advantages:
 - Cost reduction
 - Fostering innovation
 - Getting know best practices
 - Minimising transaction cost

Support

- The target-oriented and tailor made support of the clusters is a focal point in the Pole Program

- **Support alone is not enough for the success of clusters**
- **Only self-organized cooperations which are based on mutual advantages can give a real answer to the challenge of the global competition**

Cluster handbook – Cluster operational model

● Cluster member

CM organization

- Acts in the interest of the members
- Its services are business oriented
- Controllable
- Evaluable
- Transparency in its operations for the members and for the institutional system

Area to be influenced

Freely shaped structure

CM

Services and Compensation

Governance

Cluster

Cluster

- The cluster organizes freely and can choose any form (association, atypical contract, foundation)
- Its government and its decision making processes are defined by the members
- The cluster controls directly or via a contract the CM organization

The result is a cluster development system model that can be interpreted in the same way by all stakeholders

Possible tasks of the cluster management organization

Possible tasks of the cluster manager

Joint appearance

- Joint printed or electronic informational materials
- Common webpage
- Representation of the cluster on events

Improvement of the cooperation

- Organization of meetings and events
- Databases
 - Market analysis
 - Patents, licenses,
 - Partner database
 - Competences
- Project management
- Strategy elaboration and audit
- Benchmarking club

Services

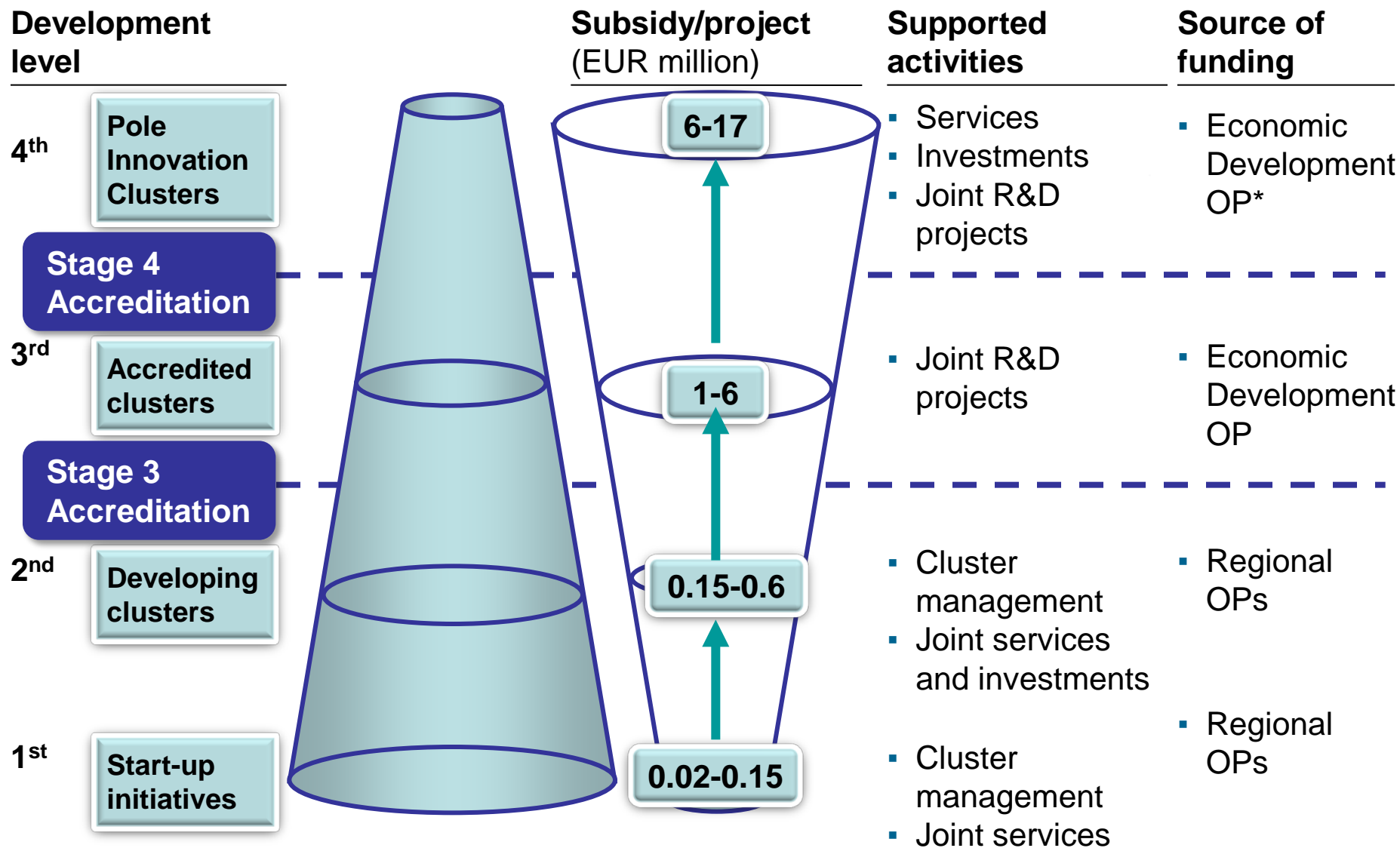
- Trainings, educational programs
- Advisory
 - R+D
 - Legal and IP rights
 - Tender
- Translation
- Marketing
- International study trips

The primary goal of the cluster manager organization is to provide services for the members of the cluster

The rules of the cooperation may be included in a service contract

The cluster manager organization is not the main decision body of the cluster – way of decision making is defined by the members

It is advisable that the operational form of the cluster manager meets the requirements of transparency and verifiability – in governance and finance as well



ROUNDED VALUES

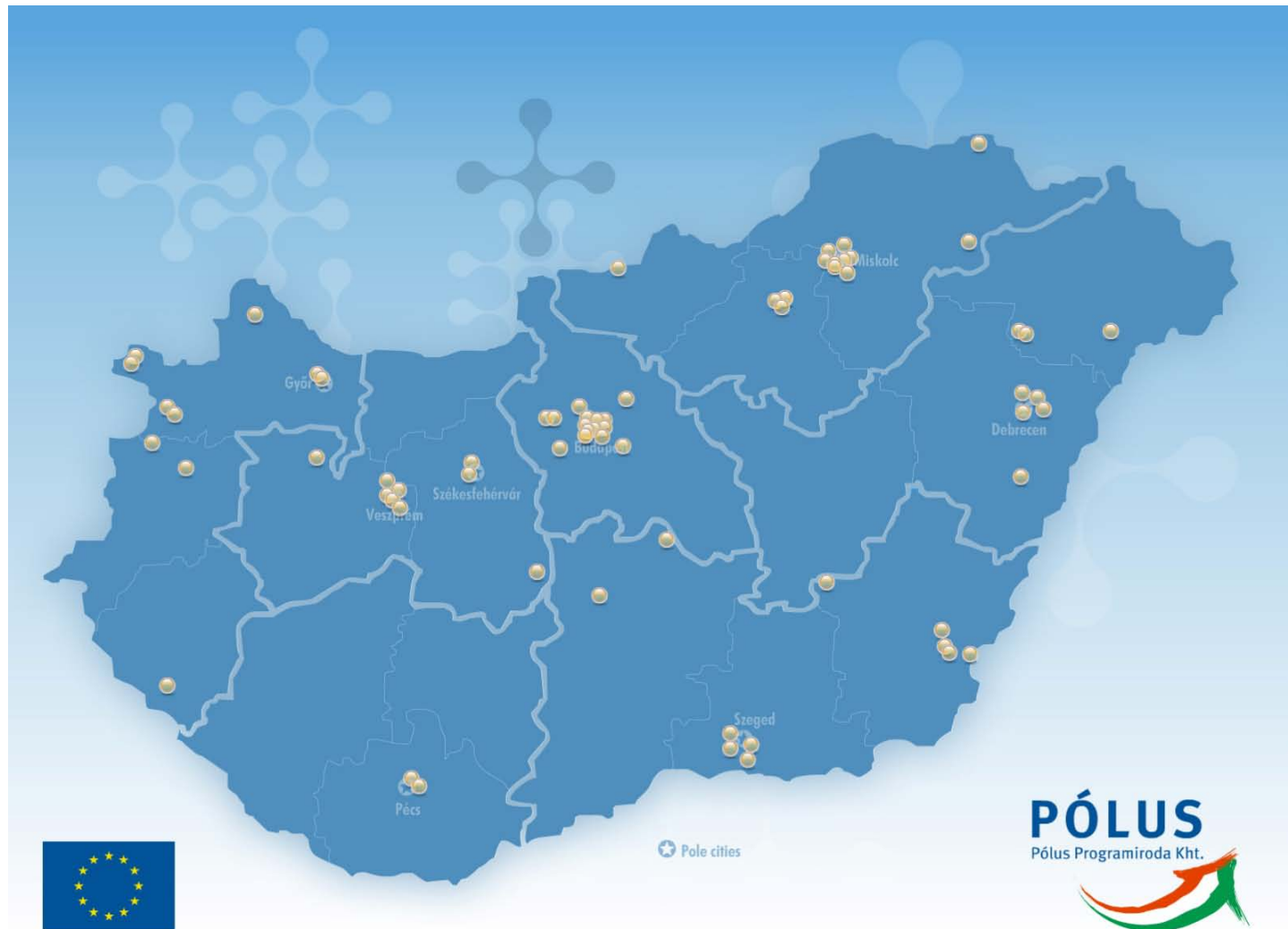
Development level	Number of clusters and co-operations* (pcs)	Calls for proposals	Successful applications (pcs)	Support granted (EUR million)
Pole Innovation Clusters	-	<ul style="list-style-type: none"> Under elaboration 	-	-
Accredited clusters	18	<ul style="list-style-type: none"> Two dedicated calls for proposals in EDOP Altogether 63 projects in 12 accredited clusters have been supported up until now 	63**	49
Developing co-operations	21+	<ul style="list-style-type: none"> Developing calls for proposals in the Regional OPs 	21	5.3
Start-up co-operation initiatives	79+	<ul style="list-style-type: none"> Start-up calls for proposals in the Regional OPs 	79	8.0
Total			163	62.3

EDOP = Economic Development Operational Program
 ROPs = Regional Operational Programs

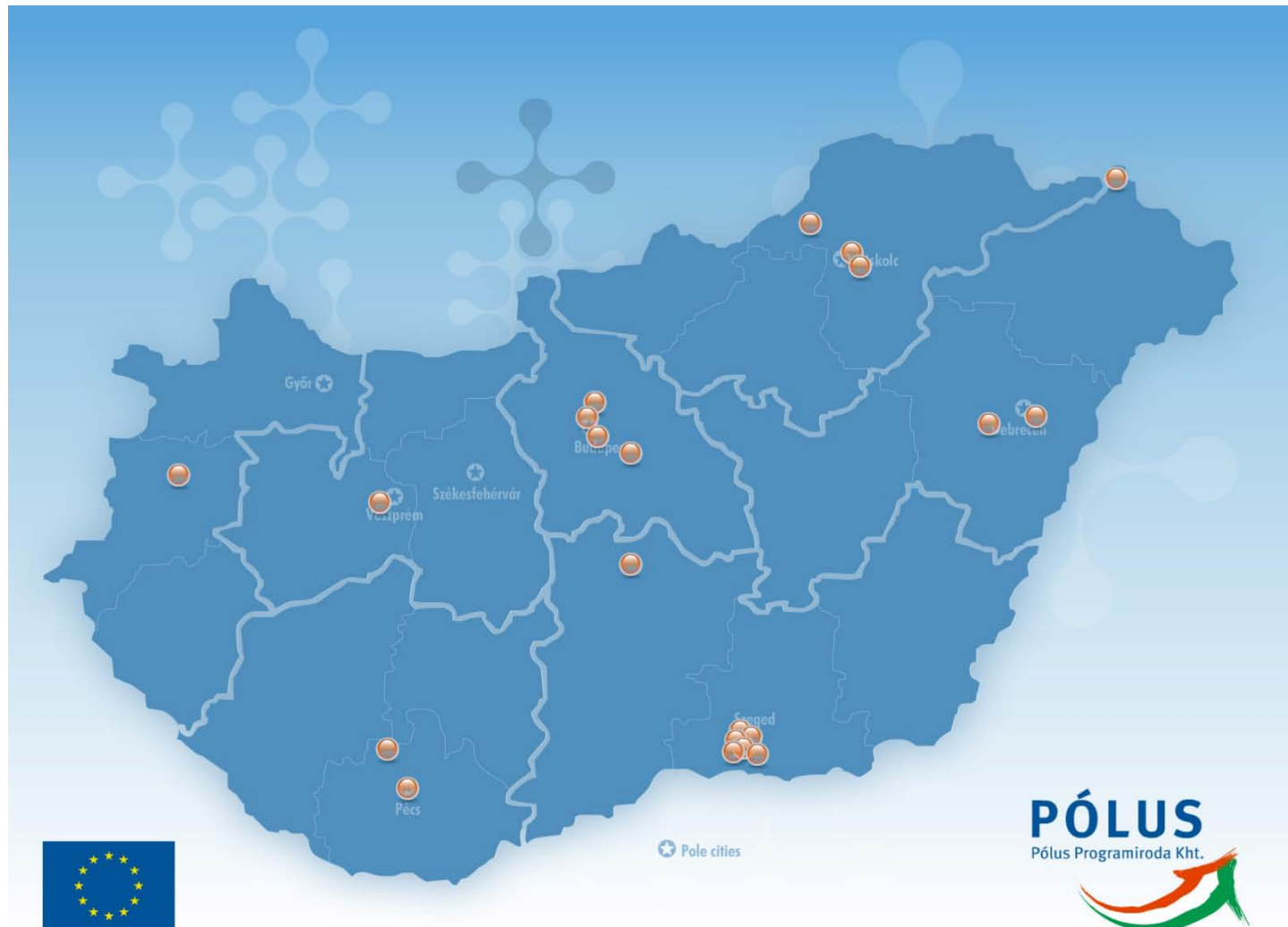
* No of supported clusters and co-operations in the calls of the Regional Operational Programs and the accredited clusters

** Applications received and evaluated till 31.12.2009

Source: SMIS, PPO, EPAP

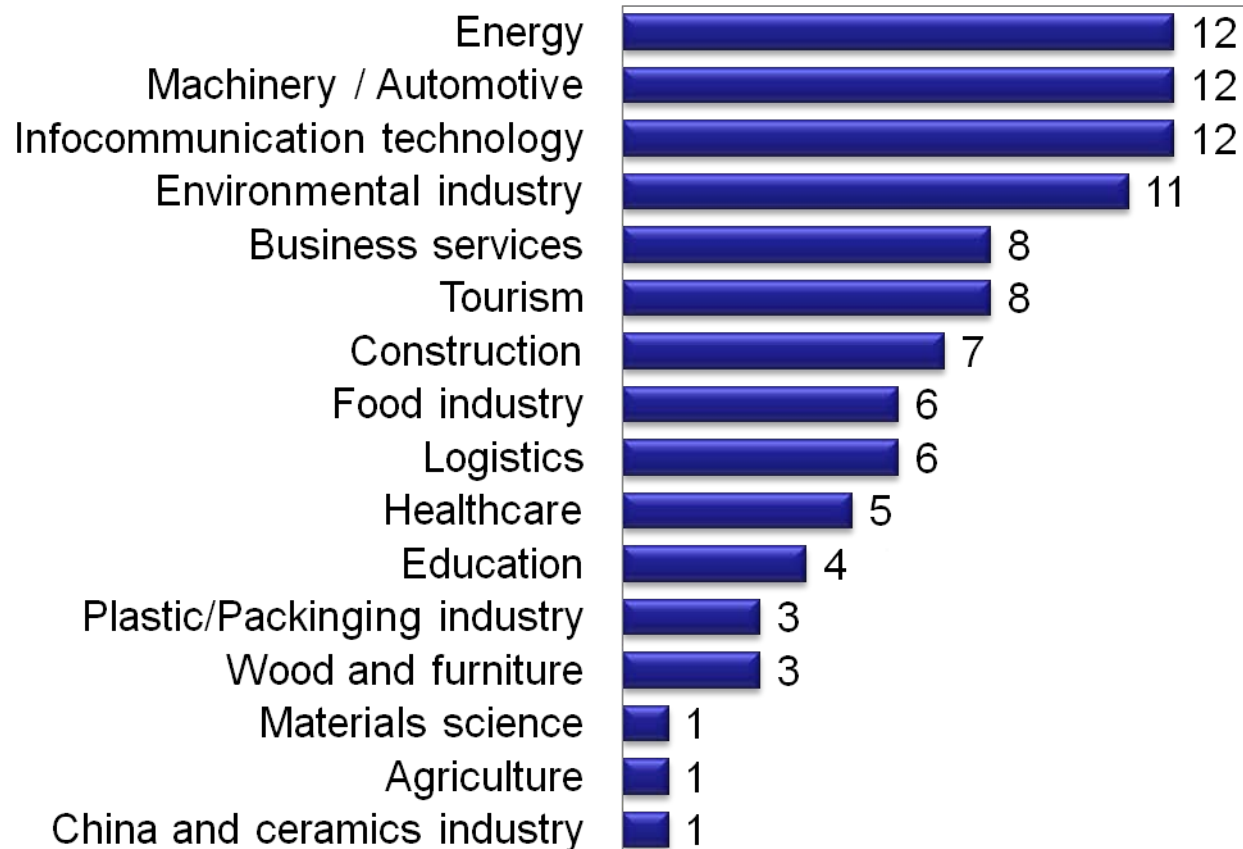


In the ROP start-up cluster tenders 79 applications have been approved, with a total support amount of EUR 8 million

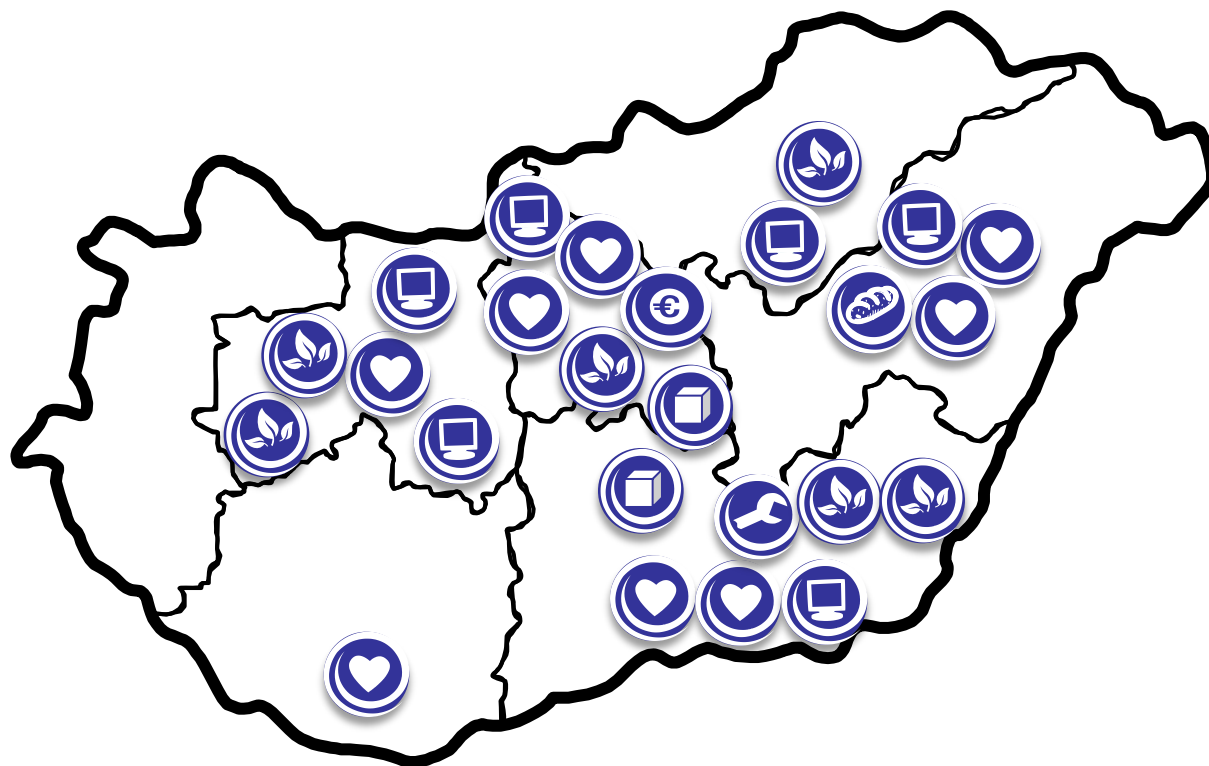


In the ROP developing cluster tenders 21 applications have been approved, with a total support amount of EUR 5.3 million

Sectors of the granted start-up and developing co-operations (pcs)



- There are 100 co-operations for which support has been granted
- Energy, machinery / automotive, ICT and environmental industry are the most popular sectors among the supported applications



Accredited clusters

Industry	Number
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	Healthcare	8
	ICT	6
	Environmental industry	6
	Packaging	2
	Construction / Energy	1
	Food Industry	1
	Investment promotion	1

Total	25
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- 25 clusters have been accredited up until now
- Most of the clusters operate in the South Great Plain and Central Hungarian region
- Most of the clusters operate in the healthcare, environmental and ICT industry

Main parameters of tender call EDOP 1.2.1

Description

Amount of subsidy

- EUR 1-6 million
- Each project has to reach a value of at least EUR 2 million

Intensity

- R&D: SME 50%; large enterprise 40%
- Cost linked to patents and intellectual property rights: SME 50%
- Regional investment subsidy according to the regional aid intensity map, but max. 50%

No. of tenders per applicant

- Only accredited cluster may apply
- One cluster in one tender call may apply for altogether EUR 6 million with more projects

Applicant

- Project company established by cluster members who own the majority of its shares

Type of subsidy

- R&D
- De minimis
- Investment

- 
- **The tender has been called in January 2009**

Main parameters of EDOP 1.3.1./B (Support of enterprise innovation)

Description

Amount of subsidy

- EUR 0.06-1.4 million

Intensity

- R&D: small enterprise 45%; medium enterprise 35%; large enterprise 25%
- If the project is realized in cooperation of independent companies the intensity can be increased by 15 percentage points

No. of tenders per applicant

- Without limitation

Applicant

- Only accredited cluster member companies

Type of subsidy

- Innovation (mandatory content)
- Marketing (de minimis)



▪ **The tender has been called in January 2009**

	Number of projects (pcs)	Number of the applying accredited clusters (pcs)	Average number of received applications (pcs / cluster)	Total amount of support claimed (EUR million)	Average amount of support claimed (EUR million / cluster)
No. of applications	101	15	6.7	82.8	5.5

	Number of projects (pcs)	Number of the supported accredited clusters (pcs)	Average number of successful projects (pcs / cluster)	Total amount of support granted (EUR million)	Average amount of support granted (EUR million / cluster)
Supported projects	63	12	5.3	45	3.8



- 15 of the 25 accredited clusters applied for support for innovation projects and 12 have been granted support
- Successful clusters have handed in more than 5 winning projects on average and a support amount of EUR 3.8 million has been granted for each of them on average up until now
- ICT and biotechnology clusters have the most number of successful projects
- Accredited clusters from 6 regions have been supported up until now

By 2013-2015:

- **5-10 successful pole innovation clusters will operate in Hungary**
- **All of them will reach a significant market share in their respective markets in Europe**
- **All of the successful pole innovation clusters will be an organic part of the global industrial value chain**

Parameters of a successful pole innovation cluster

- It consists of 30-35 SMEs and has multinational members
- It exports to several countries of the world
- It contributes to the employment growth primarily by the creation of highly qualified jobs
- It operates in one of the most profitable segments of the industrial value chain
- It has strong and live international relations with foreign business and academia

Strategic steps between 2009-2013:

- **Elaboration and introduction of the pole innovation clusters in the cluster development model**
- **Strong support for the internationalization of the Hungarian accredited and pole innovation clusters**
- **Gaining synergies from the tight connection of the cluster development pillar and the horizontal economic development pillar of the Pole Program**

Due to the successful clusters the focus of the Hungarian economy shifts to activities with higher added value than presently

Overview

Aim

- Select and classify the clusters that:
 - Are able to reach significant international and domestic performance
 - Have further potential remarkable opportunities
 - Are not rent-seekers

Duration

- The accreditation license is valid for 2 years
- After 2 years the license has to be renewed

Frequency of the accreditation

- Continuous application
- Cluster accreditation quarterly

The accreditation entitles for

- Sole right for applying for dedicated pole program sources
- Advantages and preferential treatment in many calls for proposals (extra points in the selection process)
- New members of the cluster (joining the cluster after the accreditation) can benefit also from the above advantages

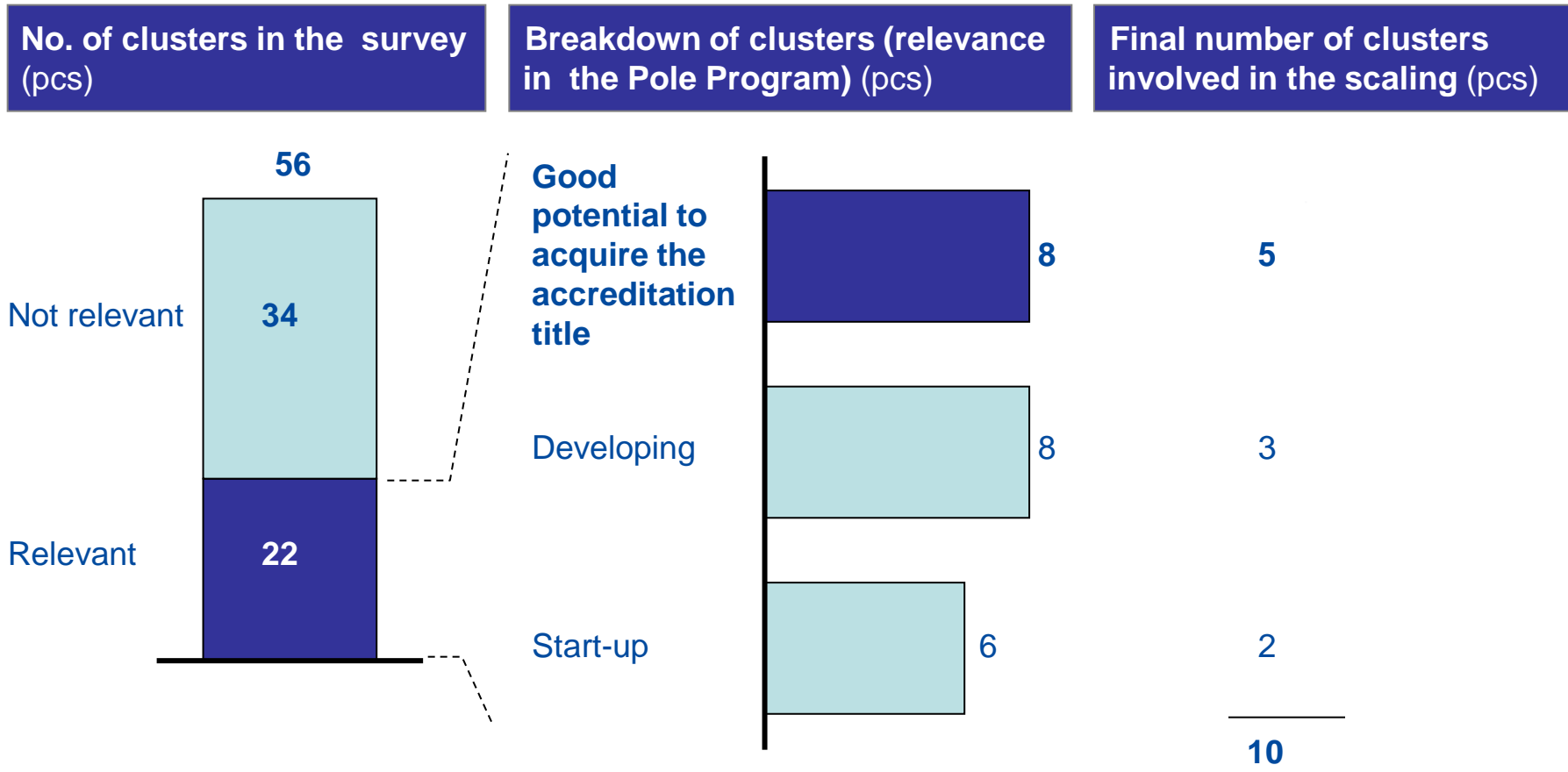
Accreditation Certificate

- The clusters successfully going through the accreditation process receive a certificate

- **The accreditation of clusters is a rigorous expert evaluation system with the aim of selecting the most promising initiatives**
- **The Accreditation Committee comprises of governmental decision makers and reputable economists from the private sector**
- **Due to the considerable EU development sources the accredited clusters can play an important role in Hungary's sustainable development**

	<u># of criterion</u>	<u>Goal of the criterion group</u>	
I. Cooperations in the cluster	▪ 10*	▪ Evaluation of the forms and content of the cooperations in the cluster	<ul style="list-style-type: none"> ▪ The accreditation model is based on quantitative and qualitative criteria that have been determined by experts and have been tested on operating clusters ▪ The model is a coherent evaluation system grouped to five subcategories ▪ The model aims to select cooperations which reached market-proven success
II. Members of the cluster	▪ 2	▪ Analysis of the sort and number of cluster members	
III. Business performance of the SME members	▪ 5	▪ Examination of market-proven success with emphasis on the export activities and high added value	
IV. R&D performance	▪ 4	▪ Analysis of R&D activities in the cluster	
V. Strategic and operational plan	▪ 14	<ul style="list-style-type: none"> ▪ Analysis of the cluster's vision and strategy ▪ Filtering the cooperations without relevant content 	
} 35			

We were testing and scaling the Stage 3 accreditation model on a basis as wide as possible



- Close and iterative co-operation during the testing between the PPO and the clusters
- Data provision on voluntary basis from clusters

Development level	No. of clusters and co-operations* (pcs)
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Pole innovation clusters

5-10

Accredited clusters

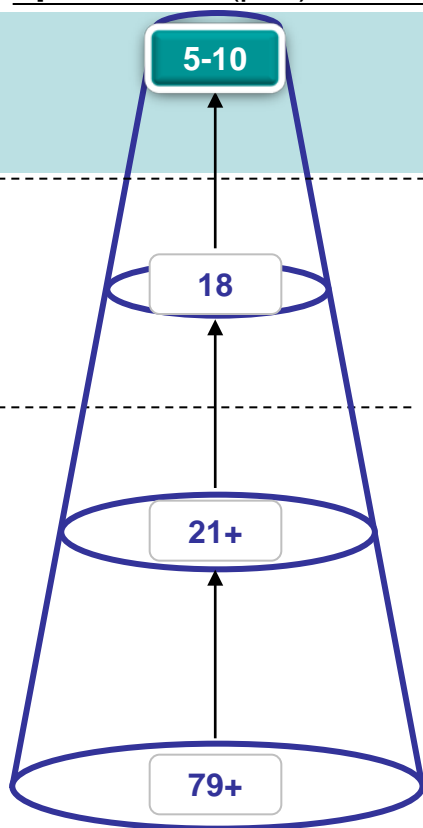
18

Developing co-operations

21+

Start-up co-operations

79+



- The Government expects the followings from the Pole Program:**
 - Enterprises increase in size through networks and clusters and co-operation with academia so that they become competitive on a European scale
 - Clusters increase substantially the competitiveness of the Hungarian economy through high value-added and export-oriented activities
- Expected results:**
 - 5-10 successful Pole Innovation Clusters will operate in Hungary by 2013-2015
 - All of them will reach a significant market share in their respective markets in Europe
 - All of the successful pole innovation clusters will be an organic part of the global industrial value chain
 - SMEs get stronger (international competitiveness, development potential, potential to become reliable, long term supplier)
 - The structure of employment improves
 - The role of the regions increases through the strengthened Pole cities
- Supported activities:** joint R&D projects, services, investments
- Subsidy for supported cluster or project:** EUR 6-17 million
- Support available till 2013:** EUR 80-160 million
- Aim:** Complex background infrastructure for the most successful clusters and joint R&D projects

* No. of clusters and co-operations supported in the ROP co-operation (cluster) calls; the accredited clusters; the expected number of Pole Innovation clusters

Entry criterion

- Potential clusters must have a **track record of 3 years** and a **1-year-long accredited operation** before the application

Validity

- For **3 years** from getting the certificate

Focus on the examination of economic performance

- The Pole Innovation Cluster stage requires **active participation of large companies** therefore the examination of economic performance shifts from SMEs to the total performance of the cluster including large companies
- The economic performance and the potential competences of the cluster **have to prove the ability to fit in the final goals of the Pole Program**

Evaluation criteria to use

- **Realistic expectations** should be defined based on the present performance and the future potential of the accredited clusters
- **New criteria** will be applied to measure the economic performance of cluster member companies and the R&D&I performance of the cluster
- Some of the criteria from the Stage 3 accreditation will be used with modifications, while some will be deleted based on experience

Strategy and action plan

- The **strategy and action plan** has to be a **key factor** of the evaluation
- **Project descriptions** form part of the strategy plan
- **Professional external experts** to be assigned for evaluation

Progress report

- Pole innovation clusters shall present the strategy of the cluster for the Accreditation Committee when judging on the pole innovation cluster title. Further, the cluster shall **present annually on the progress** for the Accreditation Committee

The Stage 4 accreditation call should apply similar content and structural criteria as the Stage 3 accreditation call but it should set higher requirements and it should be stricter



The updated cluster manual is available from September 2009







Thank you for your attention!

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