ACTION PLAN

CLUSTERIX 2.0 NEW MODELS OF INNOVATION FOR STRATEGIC CLUSTER PARTNERSHIPS

HUNGARY

WEST-PANNON REGIONAL AND ECONOMIC DEVELOPMENT PUBLIC NONPROFIT LTD

Table of Content

Part I – General information

Project: **CLUSTERIX 2.0 - New Models of Innovation for Strategic Cluster Partnerships**

Partner organisation: **West-Pannon Regional and Economic Development Public Nonprofit Ltd**

Country: **Hungary**

NUTS2 region: **West Transdanubia**

Contact person: **Gál Körmendy**

Email address: **gal.kormendy@westpannon.hu**

Phone number: **+36 30 229-3769**

Part II – Policy context

The Action Plan aims to impact:

- X   Investment for Growth and Jobs programme
- ☐   European Territorial Cooperation programme
- ☐   Other regional development policy instrument

Name of the policy instrument addressed:

Economic Development and Innovation Operational Program (EDIOP) 1.3.2.: Enhancing professional cluster management organizations' capabilities and skills

Short introduction of the policy instrument addressed:

With the maturation of the cluster scene the naturally lopsided competence sets of cluster members and management organisations alike required a more flexible approach from policymaking. Previous support tools focused more on the generation and maintenance of clusters, so the ERDF-based **EDIOP1.3.2-15 "Enhancing professional cluster management organizations' capabilities and skills"** call, open between 15 February 2016 and 15 February 2018 was aimed at the internationalisation and competence development of cluster management organisations.

The call was published in Priority 1 of the Economic Development and Innovation Operational Programme, which focuses of **SME development**. In its original form the core aim of the call was producing the highest possible impact, and was therefore aimed at the clusters that attained the highest tier of development and proven sustainability in the country: **Accredited Clusters**. Cluster Accreditation is a Good Practice of Hungarian economic policymaking, a national certificate of cluster and cluster management performance and potential. It is in practice for 10 years, and the some of the criteria have been reworked in recent years, shifting the focus from the economic growth/performance of the members more toward strategy and cluster-level cooperation. Reflecting the twofold goal of internationalisation and cluster management competence development, the three major eligible activities within a project in this call, apart from staff and public procurement costs are **(1) ICT procurement, (2) Professional training and (3) Cluster management services supporting international appearance**. The fact that cluster internationalisation is the focal issue was reinforced by the condition that activities falling in this category were the only independently eligible ones, and the only ones to have a minimum rather than maximum ratio limit (40%).

Challenge / Starting point in the project:

During the development of the CLUSTERIX2.0 project it was decided that the main goal in Hungary would be furthering the support of cluster internationalisation activities – this is what the self-defined indicator is tied to as well. The interventions related to this and to the direct influence on the chosen policy tool have however been reframed during the project implementation in a wider context. Above all it was necessary to reinforce that internationalisation is not a goal unto itself, but

it is to be interpreted as one, albeit tightly linked and very visible indicator of the maturity, activity and macroregional competitiveness of a cluster.

This realisation – together with the fact that with the progress of time the action window for the chosen tool, the EDIOP 1.3.2 call was rapidly closing – meant that while cluster internationalisation still remains a valid and very important Action, two other interventions were necessary to be developed, which complement it at as strategic level, and support the strengthening and national/international competitiveness of mature and active clusters.

The Actions are linked along the logic of the classic PDCA-cycle, but in an adapted form:

This support logic differs from the Deming-cycle in that the target impact area is impossible to manage directly. Support is only able to prepare, point the direction and indirectly motivate, as opposed to the traditional production management solutions. This is reflected in the modified meaning of the 4 steps as well:

1. **Creating the Opportunity:** As a result of earlier/independent planning, negotiation and funding activities the policymaker has access to the tool, with which it can contribute to realising the set strategic objectives of the beneficiaries (in this case, cluster organisations). This tool tends to have significant impact, but on the other hand it is relatively complex and rigid. The task in this case is the development of an intervention which is feasible within the constraints of the approvable modification opportunities of the tool, and at the same time enables it to adhere more closely to the set strategic goals. This is possible with the review of the planning parameters and the implementation of simple modifications based on the results of good practices.

   In this specific case this translates to Action 1, modification of the conditions of the chosen funding tool EDIOP 1.3.2, enabling it to support cluster internationalisation more effectively.

2. **Enabling competence development:** In order to exploit the he tool in the focus of the Opportunity Creation step efficiently, the beneficiaries need a number of competences, which the fund, due to its objectives and natural constraints is only able to presuppose/ expect. The existence of these competences however is usually difficult to verify during the application process. Ambiguity is increased by two factors: currently neither the specific independent development trajectories of the beneficiaries, nor the supplying market can guarantee the easy, structured, tailored and quality-assured access to these competitiveness competences, or that the existing options are sufficiently utilised. It is therefore necessary on a systemic level that such a harmonizing and service providing interface be established, which

would improve the effectiveness of the chosen policy tool, and in general the competitiveness of the target area (in our case, the cluster scene).

The objective of Action 2 in this specific case is to indirectly foster the formation of a professional cluster platform, which, based on international good practices and through the active contributions of the stakeholders themselves, would be able to develop and maintain the service portfolio necessary for the general development of cluster management competences.

3. **Review:** Even at a theoretical level, the heritage of the PDCA-cycle is the continuous feedback and active realignment. In the case of the indirect support of cluster competitiveness, the system also needs a regular data collection and data analysis structure able to monitor the dynamics of competitiveness and cluster development. A key feature of this structure needs to be the balance between user-friendliness and comprehensiveness, serving the analysis, benchmarking and forecasting demands of both policymakers and cluster organisations.

   In this specific case this system is technically in place due to the data provided for cluster accreditation and OP-application processes. It is however not nearly complete and due to technical reasons not fully consistent, therefore its reshaping and improvement in the framework of Action 3 can provide valuable help for a more efficient positioning of clusters.

4. **Communication:** The final phase of the cycle is the establishment of a position corresponding to the increased competence level, the path towards a new opportunity. Within the policy logic this constitutes success communication, and a repositioning of the beneficiaries through this – gaining and providing approval of their changed possibilities.

   At the current state of Hungarian cluster development the fundamental goal of the policy is the support of independence of mature clusters in an effort to enable them to play a more significant role in development policy, in accordance with their value added. This process can be based on the establishment of a mutually supportive partner relationship and an expectation of independence, and fulfilled by the trusting vis-à-vis shouldering of a regional driver role warranted by the documented results. The three Actions above can provide a solid foundation for this step in the short and medium run. However, its result is heavily dependent not only on those results, but also on the economic policy and its relevant institutions, their internal relations at the time. As in this case these are difficult to accurately predict, in this Action Plan this step is only mentioned as the logical finish of the process and the start of a new cycle – due to the number of parameters and contingencies it would not be prudent to plan a separate action for it.

With the actions described in Part III of this CLUSTERIX 2.0 Action Plan the Hungarian stakeholders strive for fostering the internationalisation, competitiveness and innovation competences of clusters based on the interregional and regional learnings from the project in three fields:
- **Cluster internationalisation, a direct, horizontal goal.**
- **Developing previously nonexistent services for Cluster Management Organisations**
- **Enhancing the national cluster monitoring and evaluation system**

The Deputy State Secretariat for Economic Development Programmes, Ministry for Finance, as Managing Authority for Economic Development Programmes in Hungary and responsible for the Hungarian cluster policy was intensively involved in the interregional learning process as well as in the regional interaction with the stakeholder group.

The Department Economy endorses the CLUSTERIX 2.0 action plan developed by West-Pannon Nonprofit Ltd and Pannon Novum Nonprofit Ltd.

More specifically the Deputy State Secretariat:

- Has modified the targeted policy instrument (EDIOP-1.3.2-15 call for proposal) as a direct inspiration of the CLUSTERIX2.0 good practices in order to provide wider access to international visibility and competences among clusters (Action 1),
- Encourages the development of tailored and mutual services among clusters within the framework of the IKOSZ Hungarian National Alliance of Innovative Clusters and is ready to support innovative competence-development tools. (Action 2)
- Is actively working with West-Pannon Nonprofit Ltd. on finetuning and expanding the cluster monitoring system to allow for easier access and more consistent information (Action 3)

Part III – Details of the actions envisaged

ACTION 1 – OPPORTUNITY: CLUSTER INTERNATIONALISATION SUPPORT

1.1 - The background

Partners in projects financed in the INTERREG EUROPE programme are expected to realise policy development through influencing specific policy tools. West-Pannon Nonprofit Ltd, together with the International and Cluster Department of the Deputy State Secretariat for Economic Development Operational Programmes within the Ministry for National Economy (today Ministry for Finance) have selected the call EDIOP 1.3.2-15 "Enhancing professional cluster management organizations' capabilities and skills". In the project development phase, the goal was to find an international Good Practice to modify this call, in order for it to more effectively support the internationalisation efforts of Hungarian clusters, widen their opportunities.

Cluster internationalisation has been in the forefront of cluster policy efforts for the current funding period. This was due to the shift in paradigm, which, after the boom of new clusters started focusing on effective concentration and the preparation of mature clusters for true national and macroregional driving role.

The call has been dominated by the twin concepts of cluster internationalisation and cluster management competence development both at the level of underlying logic and in its details. The expected content conditions necessary for a successful application, the scope of eligible activities and the obligatory indicators are not so much direct consequences of one another, but rather complemented each other organically – the tool operated less on the results level, and more on consequences/impact.

- From the **application assessment criteria** it is evident that the conditions heavily favour stable, active networks operating along a conscious strategy. Out of the 100 total, 43 points are awarded for characteristics of mature clusters heading towards a sustainable European competitiveness: 25 points for international experience, 10 points for past cooperative development projects and another 8 for intensive collaboration with higher education institutions.
- **Eligible costs** within the project covers a heterogenous, yet complementary investments. The scope of activities covers 5 areas:
  - IT procurement
  - Trainings
  - Support of cluster management services aimed at internationalisation
  - Organisation and administration tasks (staff costs)
  - Consultation related to public procurement activity

  The emphasis on internationalisation is evident from (1) this being the only category that can be independently implemented, and (2) that this is the only case where the internal cost ratio has a minimum rather than a maximum: in the case of the originally eligible accredited clusters at least 40% of the eligible costs had to belong to this category.
- There are 4 binary choices for **obligatory indicators**, out of which 2 pairs were dictated by the programme (growth, employment and SME-development), and the other 2 adapted specifically for cluster organisations. These ((1) membership stability or membership size
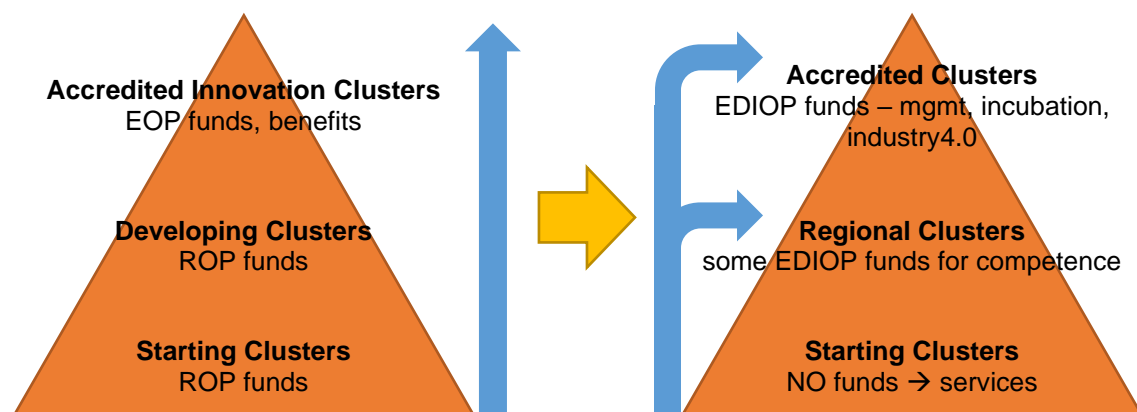
growth and (2) ESCA-certified excellence label or cooperative international development project with several members in the consortium) once again pose unarticulated expectations, since while the project can indeed contribute to their fulfilment, all of them are assume a level of maturity and experience. It is also reinforced that internationalisation plays a key role in the policy vision for cluster development, and implies that no top-tier clusters can operate strictly within the bounds of the country.

With the above restrictions, a successful application was able to receive up to 50M HUF (~155,000 EUR) from ERDF at a funding intensity of ~60% depending on activities, for a period of 24 months.

Challenges:

A fundamental characteristic of the Hungarian cluster support system is that it considers clusters as primarily business-based organisations, and therefore classifies their development within SME- and industrial policy. Beyond the general economic development benefits of cooperation, the primary coordination body, the Cluster Office of the Ministry of Finance works on presenting the innovation and international role of clusters as well, but the toolset for this is limited at the moment.

A specific opportunity for the Hungarian clusters is the Accreditation system (a Good Practice), managed by the Cluster Office as well. A review of the expectations of the system has recently completed, with the changes indicating significant development in methodology and a shift in strategy. This requires adjustment from the clusters themselves as well.

Accredited Innovation Clusters
EOP funds, benefits

Developing Clusters
ROP funds

Starting Clusters
ROP funds

Accredited Clusters
EDIOP funds – mgmt, incubation, industry4.0

Regional Clusters
some EDIOP funds for competence

Starting Clusters
NO funds → services

Source: Own work based on MNE slides

The two pyramids show the change in policy assumptions between the 2007-13 and 2014-20 planning periods. The first one depicts a "cluster ladder", which provided dedicated funds for every phase of cluster development, and basically enabled all willing networks to climb to the top and receive accreditation within 5 years. It is evident that the basic narrative here was that of a freshly developing cluster scene, and the main goal was penetration.

The second pyramid paints a radically different picture. It presupposes an essentially mature cluster scene, with no real need for new entries – which no longer receive actual funding. The roles of the top two tiers are different as well. Both are considered mature, the difference being that of competitiveness and scope of influence. This is no longer a ladder, and therefore the role of Accreditation morphs as well: it starts to focus more and more on the clusters with the most potential,

paring down their number and recalibrating conditions to match their new status, but at the same time providing more diverse and specific funding options for them.

This process, especially the role-change of regional clusters has been an iterative one, with institutional resistance and inertia slowing in on both sides. Finding the proper means of **supporting regionally significant clusters** in a way that is both attractive and stimulating has been a key dilemma in cluster policy.

A second, more technical challenge had been a that of timing. As the call had opened during the evaluation period of the CLUSTERIX2.0 project, the scope and complexity of **possible change was limited** to modifications that could be implemented through condition modifications going forward without disrupting the underlying structure and the implementation of earlier submissions. This, however, dovetailed with the envisioned paradigm of the Opportunity phase of the cycle, so it was not unexpected.

Relevance of CLUSTERIX 2.0 / Lessons learned:

The modification was inspired by the cluster approach of Belgium's Flanders region. The clusters there are relatively young, but policy makes significant effort to boost competitiveness, and promote innovation and internationalisation. Their Good Practice is "Cluster Pacts", introduced for the selection of key actors.

Their system has two tiers, making a distinction between Spearhead Clusters and Innovative Business Networks – and naturally the option to found a cluster without regional support is open to anyone. The difference between the two types of supported clusters is fundamental both in their activities and in their ambitions:

Spearhead clusters	Innovative business networks
• **Cluster organisation** as facilitator • **Removal of obstacles** for growth • Activities along the **innovation spectrum** (all TRL-levels)	
Strategic domain (6)	Bottom up (20)
Ambitious, large scale	Smaller scale
Long term vision – intermediate results	Short term results
Triple helix (comp, KI, gov)	All relevant actors, focus on businesses
Contractual agreement based on comp. progr.	Contractual agreement based on action plan
Commitment of all partners in **cluster pact**	
Max 10j, max 500 k€/y funding	Max 3j, max 150 k€/y funding
50% private investment	

It is apparent that in their case Cluster Pacts play a roughly similar role to the Hungarian Cluster Accreditation system. This is the mechanism for selecting the most competitive organisations and regulates their preferential treatment. It is an important difference in approach however, that while cluster pacts come to be through individual bargains after a long process of negotiation and joint strategy-building, accreditation uses a standard methodology and assessment board. There are of

course philosophical differences as well, since in one case there is an agreement and in the other a certification at the end, which has practical consequences for support, whether strategic, professional or financial. Yet, the two are similar in that both operate through a promise of funding sources and representation.

The background situations are also somewhat different in that the Hungarian cluster scene is much wider and more fragmented, while the capacity of the Cluster Office is limited, which also hinders the implementation of drawn-out supportive negotiation processes.

Yet, the aspect with the greatest effect on the thought process of the Ministry for National Economy and later Ministry of Finance is the concept of differentiated support, in which the non-premium clusters also receive strategic direction and tailored support, albeit a more general-purpose one with a lower amount than the Pacts of the Spearheads. The realisation that the development of regionally active clusters can also be handled at a manageable support/service level led to the modification of the conditions of the EDIOP 1.3.2-15 call during 2017.

1.2 - Description of Action

The Ministry for National Economy acknowledged that the construction was not a series of calls, but one single opportunity open for 2 years, with the Managing Authority planning to assess the submissions on a semi-annual basis. During its lifetime the project was modified a total of 11 times, although most were just clarifications or minor easings of the conditions.

Reviewing the possibilities, it was decided that the objective needs to be achieved through simple yet significant changes, which only extend the call's scope, but not change it. After getting inspired by the Good Practice described above, the option of **making non-accredited clusters eligible to apply for the call** was raised, specified, approved and implemented on 23.06.2017. The introduction of the change took place within the Managing Authority, which resulted in no extra development costs. Due to uneven absorption the modification did not restrict the access of Accredited Clusters to funds, and could be rolled out without any significant negative consequences or budgetary bottlenecks.

1.3 - Players involved

- EDIOP Managing Authority
- Ministry for National Economy, Cluster Office
- West-Pannon Nonprofit Ltd (consultation)

1.4 - Timeframe

- Idea generation: 02-04. 2017
- Modification specification and approval: 05-06.2017
- Publication of modification: 23.06.2017
- Call closes: 16.02.2018
- Assessment and contracting: Q3 2018-Q1 2019
- Implementation of projects: 2018-2021

1.5 - Costs

Development of modification: no extra costs, staff cost covered by the respective organisations.

Costs of projects: an estimated 1 million EUR from the allocation of the call, no shifts necessary.

1.6 - Funding sources:

EDIOP 1.3.2-15 call, ERDF funds.

1.7 - Monitoring

A total of 11 clusters submitted applications to the call before it closed.

Out of the 11, 2 proved ineligible during the formal screening, and 3 was dropped during the assessment phase.

Out of the remaining 6 applications, 2 received funding during Period 5 of the CLUSTERIX2.0 project, another 2 during Period 6, and the remaining 2 have been approved but are not yet public at the time of writing this Action Plan, and are therefore to be reported in Period 7.

Project Title (HUN)	Date of funding	Reason for denial	Funds requested (HUF)	Total cost requested (HUF)	Funds approved (HUF)	Total cost approved (HUF)
Az Alkalmazott Földtudományi Klaszter nemzetközi piacra való kilépésének megvalósítása	2018.07.16		49 978 425	72 467 100	49 978 425	72 467 100
Az Okos Régió Innovációs klaszter tagvállalatainak pozicionálása Európán kívüli piacokon	2018.08.23		24 124 800	41 749 600	24 124 800	41 749 600
A PackPlus Csomagolástechnikai Klaszter tagvállalatainak külföldi piacra lépését támogató szolgáltatások nyújtása és fejlesztése	2018.12.03		28 380 496	37 840 662	28 298 071	37 730 762
Zsótér Konferenciák	2018.12.17		49 505 100	71 088 800	43 311 236	62 830 315
Komárom-Esztergom Megyei Építő-, Környezetvédelmi és Innovációs Klaszter minőségi szolgáltatásnyújtásának fejlesztése	2019.03.27		41 670 833	66 641 907	Amount not public yet	Amount not public yet
A MIÉNK Klaszter tevékenységeinek és szolgáltatásainak fejlesztése	2019.03.27		37 935 935	59 114 580	Amount not public yet	Amount not public yet
Kreatív Ipari Klaszter országos klaszterré fejlesztése és nemzetközi láthatóságának növelése		Refused	5 067 008	9 036 011		
EGME 4.0 - Az EGME Klaszter fejlesztése a digitalizáció kihívásaival összhangban		Refused	29 610 000	43 480 000		
LabsBro projekt és a klaszter szolgáltatásának fejlesztése		Refused	31 078 481	44 637 974		
A Sustelligent Környezetgazdálkodási Klaszter hálózatosodásának, szervezeti fejlesztésének, illetve nemzetközi tevékenységének támogatása		Ineligible	49 855 650	70 830 200		
A jövő agráriuma! – Az Agrárinformatikai Klaszter fejlesztési programja		Ineligible	42 712 006	59 605 337		

Source: public data structured courtesy of Ministry of Finance

This means that a total of 6 clusters are receiving support for internationalisation. The currently public ERDF total of the 4 earlier projects is ~450,000 EUR. Together with the remaining two projects, the

final grand total of EU funds influenced is expected to be between **680,000-705,000 EUR**, depending on exchange rates and deductions.

ACTION 2 – COMPETENCE: INTEGRATED SERVICES FOR CLUSTER MANAGEMENT ORGANISATIONS

2.1 - The background

The development paths of Hungarian clusters are widely heterogenous, and very rarely structured tightly. The roots for this can be traced to the historical situation. It is worthwhile considering the following characteristics:

- Management organisation competences are many and divergent, therefore clusters are more dependent on the individual skillset of the cluster manager, whose professional background and attitude often predetermines the opportunities of the organisation.
- Despite the fact that the specific structure of the cluster requires high levels of knowledge at least in the fields of network management and sectoral knowledge, this is rarely enforced in reality and there are no higher- level courses for cluster management competences in the country.
- In addition, the low affinity for institutional collectivism prevalent in Hungarian (and in general, Eastern European) culture, compounded by critically high levels or risk avoidance and critically low trust levels severely hinder long-term organisational cooperation. Willingness of SMEs to cooperate, and in many cases even to develop is low, involving them in cluster activities is difficult.
- The situation is further complicated by the fact that Hungarian clusters are traditionally not cluster initiatives institutionally maintained and supported, but at least in theory individual, bottom-up entities with case-by-case, project-based funding.
- Besides all of the above, concentration analysis is neither compulsory, not even expected condition for cluster establishment. This means that even the networks that do form are gravitating naturally towards small fragmented clusters, which include friendly and therefore trusted enterprises irrespective of potential. In such cases even national-level competitiveness is not necessarily a key issue.

Such a combination of factors predestines cluster managers aiming for actual performance to experience which behavioural patterns work and which do not by themselves, through trial and error. On the one hand this results in very significant personal knowledge capital accumulation in each case, however these capitals are highly specific to the given cluster manager, unstructured, difficult to transfer and characteristically dependent on the environment of the given region and sector.

No cluster policy can effectively build on this spontaneous and in many cases, divergent knowledge pool. Therefore in order for (1) the funds to produce plannable and appropriate impact, and for the Hungarian clusters to be able to (2) drive the innovation performance of their respective sectors at a high level, (3) compete in the European market, it is essential that the fractured and unstructured knowledge present in the system are organised in a framework, which in turn would enable inter-cluster and outward knowledge transfer. Without this, any funds allocated in the Opportunites phase of the cycle will have questionable knowledge efficiency, and training costs go towards purchasing general, external, un-tailored knowledge.

Knowledge transfer, however is in high demand at every phase of a cluster's lifecycle – and is very much in tune with the objectives of cluster policy. In the case of **starting clusters** the goal of cluster

policy is providing guidance for quick and efficient maturation, yet no services exist in the country to offer the practices and network necessary for new management organisations to keep up the development momentum. On the other hand, **competitive clusters** keep expanding their boundaries, exploring new options and possibilities, which, once again, implies a massive demand for tailored knowledge that is not readily available on the market, and is therefore provided by generalist consultants.

Challenge:

Competence development as a general need appears in the EDIOP 1.3.2-15 call as well, even though with a cost limit of 5%. It is important to note however that the lack of training opportunities is only a symptom of the larger issue, that clusters and management organisations have access to very limited number, type and scope of tailored services in general. Even though the Cluster Office of the Ministry of Finance makes everything it can with its limited resources to coordinate the cluster scene, even their services are not systematic, nor is there realistic possibility to be developed much further among the current conditions.

Several solution attempts have taken place for this issue from the sides of academia, policy or the clusters themselves. One of the greatest potential among this is the last manifestation of cluster-cooperation, the Hungarian National Alliance of Innovative Clusters, formed during the first ClusteriX project in 2014, which works on a knowledge pool, participates in international projects developing specific cluster management trainings and cooperates with a wide range of experts in the country. Yet, both the business model and the service portfolio of the Alliance are in dire need of development to be sustainable.

Apart from the two above actors there are local or sectoral networks of active clusters, and some regional cluster integrators, which provide services. These sometimes offer very high quality, but both the portfolio and the territorial scope are rather narrow.
It is apparent that both the systemic demand and the knowledge necessary for the service supply side are present, but there has not been a focused attempt yet which could strategically match and coordinate the two sides and establish an independent, sustainable service portfolio.

Relevance of CLUSTERIX 2.0 / Lessons learned:

One of the Good Practices that inspired this Action is the concept of Integrated Cluster Services developed by the Romanian ClusteRO Association. The system was tested with success in the first half of 2016. It has a characteristic funnel progress across the different knowledge levels, starting with a "General" workshop on innovation with 15-20 participants, then selecting, analysing and consulting the most promising clusters from them in the second "Individual Support" level. In the third, "Enhanced Support", a single cluster was selected from the participants of the previous level, and was consulted on international business development. The method has several benefits and inspirations:
- Three different types of competence development services are promoted in parallel, which form a complex whole.
- A logical forward path, during which the participants always have agency to decide on the further process.
- Due to the gradual nature of the exercise, tailoring to the participants is always present, and it always reflects on real situations

- Plus in Romania, thanks to the strategic cooperation with the Enterprise Europe Network, the project can receive funding, which can also serve as a template for sustainability in Hungary.

Apart from the Romanian GP, the working group tackling Services for CMOs has provided lots of good examples of possible services from European cluster coordination leaders (ACCIÓ, GoClusters) and CLUSTERIX2.0 partners (Flanders, South Tyrol, Skane), which are to be utilised in the development process.

Flanders provided a host of examples throughout the discussions in the Working Group "Services for CMOs". The two-tier cluster support detailed in Action 1 involves specific activities for all beneficiaries, including general and specific strategic consultations, inter-cluster network building, and a very interesting experiment of cross-border SME-network development. The first two are natural choices for service, however the meticulous approach taken by VLAIO is highly appreciated, and a number of small details (agenda structure, moderation choices, topics to be discussed, event frequency, etc…) are ideas worth considering. The concept of cross-border SME networks fits well with the organic growth patterns of Hungarian clusters, which tend to have their first foreign cooperation experiences with Hungarian nationals from the neighbouring countries. This service however needs to be thoroughly evaluated and tested before a possible adaptation, since it requires consistent project funding.

South Tyrol has a novel approach to clusters. They actually acknowledge that classic clusters have transformed into "Ecosystems", and treat them both in the widest sense of the word, and also consistently interlinked. This Ecosystem-based cluster approach results in a series of services (network and internationalisation events, competence development opportunities, and due to the specific policies, even funding options), which, due to their natively cross-cluster foundations are also well-suited for the prospective IKOSZ portfolio. Some small touches, like the exact methodology of regular updates and knowledge transfer among cluster managers are very inspiring as well, and are most likely to be adopted, even if the specific services themselves are transformed beyond recognition.

Skane is relatively fresh in their conscious effort of cluster development, however their uniquely Nordic approach of permanent dialogue, joint learning and co-creation both among the clusters and between policy/intermediary and the clusters is really inspirational. This kind of rapport comes naturally to the clusters and cluster organisations, which are based on similar networking principles themselves. Both Skane and South Tyrol are funding centrally hatched cluster initiatives though, which provides a different angle on working with CMOs. This makes it necessary to significantly rework some of their specific interventions, but in both cases, the interconnected, complex and sharing approach is a key element, which needs to be embedded in the vision of the Hungarian cluster alliance as well.

It is also worth noting, that in all three above cases (ie. Flanders, South Tyrol, Skane), the scope of potential services is opened really wide, but the activities realised are of a much tighter range, organically developed based on the demands, and tailored to the needs of the beneficiaries. This open-ended, but constraint-conscious practical approach to service development is also a very valuable lesson to be adapted.

2.2 - Description of Action

The goal of the action is to establish a service portfolio, which is independent from the Ministry of Finance, and is able to handle and satisfy the competence needs of Hungarian cluster organisations in at a high quality and in a sustainable manner – and at the same time support the new cluster strategy

of the Ministry. The most efficient way to achieve this appears to be the repositioning of the cluster alliance IKOSZ through widening and stabilising its member base, and speeding up knowledge transfer among its members.

This ties into the development of a new national cluster policy in preparation for the next funding period, for which the Ministry extensively utilises the input of active clusters, and aims to reinforce their position in industrial and innovation policy across the board.

Step 1: Re-visioning, joint supply and demand mapping: The first phase of this process has already started through the organisation of bi-monthly workshops, in which the participating clusters are discussing and setting down a joint vision of their present and future policy and economic position, and plotting the roadmap for getting there. This series of co-creation workshops and the work between sessions is expected to produce a list of competence gaps and available experiences, and a draft priority list and plan for developing the services themselves as a tangible output.

As the process runs parallel to the development of the cluster policy development, a continuous bidirectional feedback and interplay is expected between the two, mutually embedding the results in all products.

Outputs of step 1: Hungarian Cluster Vision document, prioritised service and knowledge supply and demand lists paired up for gap analysis.

Step 2: **Service development:** During this phase both the demand (competence gaps) and the supply (marketable experiences) are translated into training and consultation material. This process involves cooperation among the member clusters and relevant educators, international GP-owners and other competence centres. It is expected at the time of writing that a total of 5 services across all activity types can be developed to an operational level within Phase 2 of the CLUSTERIX2.0 project, together with a revised sustainable business model for IKOSZ integrating the new services.

It is expected that the products developed are to fall into the following categories:

- **Trust and community-building** to foster faster knowledge transfer across more solid channels – this range refers to possible adaptations of networking/matchmaking events, and general professional knowledge sharing opportunities. These possible activities do not focus on specific competences as a first priority, but rather aims to reach the level of interconnectivity among the cluster organisations evident in the centrally managed regions of South Tyrol and Skane, or those with strong intermediaries as in Baden Württemberg or Catalonia.
- General **baseline services** for efficient early cluster development (Entry level) – this range of possible services refers to possible adaptation of general strategy and management competence building, network development and basic internationalisation/project management techniques. These services need not be taken over from any particular region, although all of the examples have some sort of "Cluster Management 101"-type of intervention, easing early-lifecycle cluster development and management change crises.
- General **cluster excellence and competence building** services (Advanced level) – it is acknowledged that mature clusters have at least solid base-level competences in their respective key development areas, however this is the exact stage in the cluster's lifecycle, where a conscious demand for excellence and new competences appears. These competences are, as noted above, usually present somewhere in the network, but their application and transfer needs an interface. This kind of service is novel, but builds on the

inspiration from Flanders' and Baden-Württemberg's focused efforts on development streamlining.

- Specific services for **cooperative SME-based innovation** – this potential service group can involve many of the learnings from the later stages of the Romanian example, and specific actions for transforming the clusters into innovation drivers. These can vary from competence mapping (Lower-Austria/South-Tyrol), to the management of consortial H2020 projects (Romania), establishing open innovation platforms (Skane), and other "high-end" options.

Outputs from step 2: Business proposal and documentation of 5 service constructions selected and developed based on Alliance member needs, market potential and CLX20 good practices.

Step 3: **Market introduction and policy integration:** the marketability of the new services needs to be tested outside IKOSZ as well. As a final step, the developed products and activities are introduced to the Hungarian and macroregional market, and the framework is prepared for them to be eligible for support in the following planning period, making them visible and accessible to more networks, and further structuring cluster development.

Output from step 3: documented test run of all services, finalised offers appearing publicly, visibility supported by basic branding and marketing techniques outside the Alliance.

2.3 - Players involved

- IKOSZ Hungarian National Alliance of Innovative Clusters as driver, coordinator and beneficiary, including its member clusters
- Ministry of Finance, Cluster Office as policy owner, strategic partner and expertise provider
- Educators and external experts in product development
- Intermediary organisations (chambers, agencies etc…) for market entrance and local visibility

2.4 - Timeframe

Step 1: 12.2018-10.2019

Step 2: 09.2019-(12.2020) - ongoing

Step 3: 03.2020-(03.2021) - ongoing

2.5 – Costs

Step 1 has incidental organisation costs for the events (150 EUR/workshop), and a planned 30 days of worktime across the board for the production of the documents and concepts. With ~200 EUR per expert day calculated this comes to ~6000 EUR

Step 2 is an intensive planning phase, with about 30 working days worth of expert time calculated in average per product, including all negotiations. With ~200 EUR per expert day calculated and 5 products developed, this comes to ~30,000 EUR.

Step 3 once again has incidental and organisation costs, which are expected to stay within 3000 EUR

2.6 - Funding sources:

All costs of Step 1 are expected to be financed in-kind through voluntary participation by the participating organisations.

The costs of Step 2 can be divided into work undertaken by the member clusters and management organisations, and tasks for external experts. The development work of the cluster organisations are once again expected to be financed through in-kind contribution, as the process can effectively translate into their respective business development. Any work undertaken by the experts will need to be financed through relevant partner projects, or through direct membership transfers through IKOSZ.

The staff-related costs of Step 3 are expected to be financed in-kind, while the remainder are to be covered through sponsorship, project funds and joint programmes with intermediaries like EEN.

2.7 - Monitoring

Written documentation of all workshops are to be made available, and the written products need to go through a round of verification with both the participating clusters and the relevant policymakers. All these are to be made readily available within 2 weeks of the respective milestones.

It is difficult to provide an estimate for the amount of Structural Funds influenced, as the primary goal of the action in this regard targets the effective absorption of future funds. There is currently very little funding left for the current planning period, and this situation is just expected to exacerbate by the time the new set of services is market-ready.

ACTION 3 - REVIEW: SMART CLUSTER MONITORING

3.1 - The background

The maturity and economic potential of the Hungarian cluster scene has developed significantly in recent years. In order for both the clusters and the policy levels to be able to communicate this progress, it is essential to have a comprehensive, structured and fact-based monitoring system. The Cluster Office maintains a monitoring system tied to the accreditation process, which is based on the data submitted for accreditation an cluster-focused calls. This resulted in a long-term, consistent, detailed and well underpinned dataset, however its shortcomings are also exacerbated as time goes on.

Action 3 therefore is linked with the 3rd phase of the development cycle, and aims at revising the Hungarian cluster monitoring system.

Challenge:

The Hungarian cluster accreditation system, in force since 2008 has been presented as a Good Practice several times, most recently its last revised form in CLUSTERIX2.0. Its impact on cluster monitoring is also fundamental, since during the biannual process, the clusters are providing a vast amount of details for the Cluster Office to consider regarding their history, performance, activities and strategy both at network and management organisation levels. All data is stored within the EMIS system the whole Hungarian SF funding system uses.

Due to the revisions and cycle shifts a number of issues have arisen, and keep growing:

1. **Customising the central database** is cumbersome with a very limited capability to do changes that are independent from the rest of the system. It is also worrisome that a **technology switch** is expected after 2020, which raises a number of questions regarding data interaction.
2. During the revision of the cluster accreditation system the **philosophy of awarding the certificate has changed**. It shifted from being a general label of cluster maturity to be a gatekeeper of international competitiveness. All the processes this started, cluster mergers,

membership purges, profile changes, and the planned decrease in the number of accredited clusters are likely to pose a challenge in the future by making the datasets currently aggregated at the cluster level.

3. Another key aspect is that the change in methodology results in **changes in the data needs of the process**, which raise a different set of comparability issues.

4. Issues outside the accreditation subsystem can cause further methodological issues by causing assessment intervals to grow beyond 2 years. This leads to general **break in the dataset**, with complete years missing in some cases, causing more difficulties in long-term review. The same symptom can appear if a cluster chooses to lapse their accreditation for a time.

5. The voluntary and mixed nature of cluster memberships, and the process of selection results in a **challenge for finding a control group** beyond the level of general statistical data. This issue has been present from the initiation of the system and has turned into one of the most serious obstacles in the way of presenting meaningful and comprehensive reports to representatives of other policies.

Two more issues have been raised that do not stem from the internal structure of the system:

6. Harmonisation with ECEI: Originally the European labelling system has represented a philosophy completely different from the Hungarian one. While the former focused exclusively on CMO process quality, the latter put emphasis on network performance. Since their inception both methodologies have moved somewhat closer, but the remaining differences are still significant and meaningful. It is proposed that the Hungarian system could migrate to an extended ECEI dataset, integrating everything from the European system, and adding the locally relevant aspects.

7. In its current form the database is only accessible in its entirety by the policy actors. Cluster actors would greatly benefit from a benchmarking and mutual learning functionality, however this raises data protection development questions.

Relevance of CLUSTERIX 2.0 / Lessons learned

It was an early revelation that several partners are very interested in issues of cluster monitoring and evaluation, however there are very few directly applicable good practices in the field within the partnership. Therefore the discussion of this working group focused on joint problem solving and mutual inspiration, apart from bringing in relevant GPs from Norway and Spain.

Key points of inspiration for the Hungarian situation were the following:

- **Skane concept of storytelling in monitoring and the approach of utilising it primarily as a tool for joint learning**. These aspects of monitoring emerged during the discussions of the CLUSTERIX2.0 Working Group "Cluster Evaluation and Monitoring". The key goal of Region Skane (as apparent from their respective Action Plan) was the co-development of a monitoring system, which allows both the regional government and the clusters themselves to embark on a joint learning experience. The ultimate reason behind this approach is a more balanced, well-informed and conscious structure, in which cluster policy and economic development measures all evolve through the input of the key beneficiaries (clusters), while on the other hand the clusters have a firm grip on the behaviour expected of them, and willingly further the government's goals. This continuous loop of information → discussion → harmonisation → development

- o builds trust and transparency between the policy and business levels
- o empower the beneficiaries to utilise a wide range of shared knowledge and enact the policies in the most effective way
- o creates a balanced information setup, in which all stakeholders are able to access fact-based databases relevant for their strategic development, and form a common understanding of the situation
- o through the conscious, regular gathering, analysing and sharing of success stories, the system celebrates results and impact, and provides a means of communication and attractive pitching for all parties.

The storytelling and success communication aspect is definitely something that dovetails into the development cycle model, and can play a key role in its 4th "Communication" phase. The concept of joint learning is more difficult to adapt to the primarily top-down structure of the Hungarian system, however if feasibility and data access regulations allow, it can open up some interesting setups, like building a monitoring tool within the community that also produces input for policy as a side effect and not the other way around.

- The Norwegian model we learnt about during the Clermont-Ferrand meeting is very inspiring in that is shows an almost **fully automated data collection paired to a very impact-conscious analysis,** and focused indicator sets. Adapting this framework is a highly attractive perspective, yet definitely not feasible in its entirety within Phase 2, either methodologically, technically or financially. It remains therefore a medium-long term goal.
- The CLUSTERIX2.0 project worked intensively together with its sister, CLUSTERS3, sharing experiences and practices. The case of the Basque Country was particularly interesting for the Ministry of Finance. As mentioned above, the Hungarian cluster policy is moving closer to an impact-oriented support system, paring down the top tiers and selecting targets with the most potential for European competitiveness. The Basque system utilises high-level indicators and **expectations for economic performance** to even consider support, however they **provide constant dialogue and guidance** for all approved clusters. These are both highly attractive options for the Cluster Office to adapt, although they may be barred by organisational constraints.

3.2 - Description of Action

The key goals of the Action are to provide solutions to the most imminent issues identified with the existing system. These are:

- Providing a means for **continuous and effortless data collection** to manage continuity and comparability issues.
- **User-friendliness and accessibility** for both data provider and analysis, enabling qualitative aspects and stories and more focus on strategy.
- Ease of report generating for **benchmarking** purposes.

Step 1: Mapping options for ready-made **databases** and divergent development possibilities. The Cluster Office, as the owner and manager of the system has limited capacities for developing platforms independent from the rigid central systems. A mapping of different options, tied to the needs of the new cluster policy and transferability of existing data is necessary. The Ministry will have the opportunity to make a fully informed decision on the possible avenues of further progress.

Further activities in this area are dependent on political decisions, therefore the neither costs, nor exact activities can be proposed at this stage, although these will be part of the option map proposal.

Step 2: Revision of data collection priorities:

- finetuning indicators and providing an algorithm for the conversion of existing data. This initiative is made necessary by the probable change of platforms, and the migration of prior datasets. As such, however it is not simply a technical move, but it also reflects the "coding" of the shift towards a more strategy-driven approach into the system, including a conscious overlap between the ESCA and the Accreditation indicator sets.
- inclusion of a good practice / success story platform for the collection of communication fodder and qualitative strategy analysis (canvas harmonisation). The establishment of this platform is a direct adaptation of the concepts behind the Skane good practice, and will have the threefold objective of (1) including the clusters in relevant policy development in a structured manner, (2) reinforce the strategic aspect of the Accreditation and cluster development, and (3) build a positive communication showcase to promote cluster results in other policy dimensions.
- automation of the collection of publicly available data, limiting the scope of manually uploaded data to a focused subset. This initiative is highly technical, but is essential in developing the broad fact-base necessary for a comprehensive monitoring and evaluation system, since "manual" data acquisition is always a bottleneck.

The revision of the indicators and the definition of the qualitative fields is to take place through a discussion process between the Cluster Office and Westpannon, including other relevant policymaking bodies and IKOSZ in the process where needed. The scope, duration and costs of the actual IT development tasks are dependent on the choice made in Step 1, and are plotted here conditionally.

Step 3: Solution for data ownership and use in benchmarking, reporting and mutual learning. The crux of this area is the ownership of existing data to which the original owners have provided authorisation to the Cluster Office to use. Migrating this dataset constitutes a challenge from both GDPR and accessibility, considering especially the discontinuity and fluctuating membership of clusters, rendering some data owners inaccessible.

Mapping the options for this extension of the validity of data is a tasks that can start parallel with Step 2, but is heavily dependent on both Step 1 and unrelated, but overarching governmental decisions.

3.3 - Players involved

Ministry of Finance, Cluster Office – database owner, system manager, policymaker

West-Pannon Nonprofit Ltd. – expert consultant, strategic partner

IKOSZ Hungarian National Alliance of Innovative Clusters and its membership – users and possible beneficiaries, software development experts

Ministry of Finance – ultimate decisionmaker

Ministry of Technology and Innovation – strategic partner, communication target audience

3.4 - Timeframe

Step 1: 05.2019-09.2019

Step 2: 10.2019-12.2020

Step 3: 10.2019-12.2020

3.5 – Costs

Step 1: including 2 rounds of negotiations with the Ministry the production of the mapping document is estimated to require 15 expert days. With the 200 EUR rates used above, this totals to 3,000 EUR. The cost of the incidental software procurement/development is not included for the reasons mentioned above.

Step 2: this phase contains a series of discussion among the partners, and the production of a specification document. Incidental cost of meetings and work can total 3,000 EUR. The cost of software development is not included for the reasons mentioned above.

Step 3: much of this phase is an internal process within the Cluster Office and the Ministry of Finance, in consultation with the data owners. Support in organisation and meetings can be provided, but is expected to stay below 3,000 EUR even including the scenario for migration. Software development costs are not included for the reasons mentioned above.

3.6 - Funding sources:

The process itself costs less than 10,000 EUR, a lot of which is incidental, converted into cost from staff time of the partners involved. Any event organisation and unavoidable external expert costs are expected to be covered from the budget of IKOSZ, its members, or the Cluster Office.

Software procurement, development and introduction costs are expected to be covered by targeted government budget allocation or structural funds, depending on the choice and its timeframe.

3.7 – Monitoring

The progress of the process can be monitored by the intellectual outputs of the milestones and the documentation of the negotiation process.

As some change is applicable within the current software constraints, modification of the requested data is going to happen within Phase 2 even without major interventions or development projects. This can produce indicators like the number of ad-hoc reports generated by the Cluster Office or the number of Good Practices and success stories successfully validated within the system, and fed into the Communication phase.

The Action is unlikely to influence any actual Structural Funds within the current planning period unless the software procurement process requires some, but its key objective is the factual underpinning of cluster positioning as development and innovation drivers in the medium to long term.

Place, date: Szombathely, 2019-03-15

Signature West-Pannon Nonprofit Ltd:

Nyugat- Pannon Terület- és Gazdaságfejlesztesi
Szolgáltató Közhasznú Nonprofit Kft.
9700 Szombathely, Horváth Boldizsár krt. 9.
Adószám: 21464812-2-18
Banksz.: 18203198-06017916-40010012

Letter of Endorsement

CLUSTERIX 2.0
Interreg Europe

European Union
European Regional
Development Fund

Project acronym	CLUSTERIX2.0 (PGI00274)
Project title	New Models of Innovation for Strategic Cluster Partnerships
Name of the organisation (original) /including department (if relevant)	Gazdaságfejlesztési Programok Irányító Hatósága, Gazdaságfejlesztési Programokért Felelős Helyettes Államtitkárság, Pénzügyminisztérium
Name of the organisation (English) including department (if relevant)	Managing Authority for Economic Development Programmes, Deputy State Secretariat for Economic Development Programmes, Ministry for Finance
Name of the policy instrument addressed (original)	Gazdaságfejlesztési és Innovációs Operatív Program, 1.3.2: Professzionális klaszterszervezetek minőségi szolgáltatásnyújtásának támogatása
Name of the policy instrument addressed (English)	Economic Development and Innovation Operational Program (EDIOP) 1.3.2.: Enhancing professional cluster management organizations' capabilities and skills
Name of partner(s) concerned in the application form (English)	West-Pannon Regional and Economic Development Public Nonprofit Ltd.

The Deputy State Secretariat for Economic Development Programmes, Ministry for Finance, as Managing Authority for Economic Development Programmes in Hungary and responsible for the Hungarian cluster policy confirms that it was intensively involved in the interregional learning process as well as in the regional interaction with the stakeholder group. **The Deputy State Secretariat knows and endorses the CLUSTERIX 2.0 action plan developed by West-Pannon Nonprofit Ltd and Pannon Novum Nonprofit Ltd.** More specifically the Deputy State Secretariat:

- Has modified the targeted policy instrument (EDIOP-1.3.2-15 call for proposal) as a direct inspiration of the CLUSTERIX2.0 good practices in order to provide wider access to international visibility and competences among clusters (Action 1),
- Encourages the development of tailored and mutual services among clusters within the framework of the IKOSZ Hungarian National Alliance of Innovative Clusters and is ready to support innovative competence-development tools. (Action 2)
- Is actively working with West-Pannon Nonprofit Ltd. on finetuning and expanding the cluster monitoring system to allow for easier access and more consistent information (Action 3)

Name of signatory	*Balázs Greinstetter*
Position of signatory	*Deputy State Secretary (Head of Managing Authority)*
Date	**2019 OKT. 2 1**
Signature and institution stamp (if exists)	

CLUSTERIX2.0 project (PGI00274) is carried out under the Interreg Europe programme financed by the European Regional Development Fund, co-funded by the EU and the Hungarian State.