



Pannon Novum West-Transdanubian Regional Innovation Nonprofit Ltd.

Action Plan (West-Transdanubian Region)

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INNOGROW – "Regional policies for innovation driven competitiveness and growth of rural SMEs"

The INNOGROW project aims to improve partners' policies on rural economy SMEs competitiveness as regards the integration of new production technologies and business models that lead to innovative products. The project will promote the adoption of innovation by rural economy SMEs, through sharing practices/experiences between regions and actors relevant to rural economy SMEs competitiveness and integrating lessons learnt into regional policies and action plans.

Rural economy SMEs need to remain globally competitive by adopting innovative solutions, new business models and modernisation approaches that will lead to increases in productivity and access to new markets. Territorial capacity building and policy innovation involving all regional actors are critical factors for promoting the diffusion of innovations, to maintain and strengthen SMEs' competitiveness and consequently regions' growth. Regions in rural areas can play an important role in the modernisation of existing SMEs and the proliferation of innovative start-ups, providing incentives to promote the adoption of technological innovations, such as organic farming, functional food, crop resistance systems, selective breeding and feeding processes to boost livestock resistance to local conditions. At the management level, incentives need to be provided for mixed production of crops and livestock products, and new business models and coalitions that lead to innovative business ideas.

- INNOGROW brings together 9 partners from 8 countries, involving the managing authorities & regional bodies influencing regional and national policy instruments, to promote the adoption of technology and business model innovations by rural economy SMEs. To boost SMEs' competitiveness and foster rural development, the project includes a wide range of activities, focusing on promoting the interregional learning process and the exchange of experience among regional authorities. Project activities include:
 - - Investigation of innovative technologies' impact on rural economy SMEs competitiveness and productivity.
 - - Identification of successful new business models for rural economy SMEs.
 - - Evaluation and analysis of existing policies and strategies related to the promotion of innovation in rural economy SMEs.

Part I – General information

Project:	INNOGROW
Partner organisation:	Pannon Novum West-Transdanubian Regional Innovation Nonprofit Ltd.
Other partner organizations involved (if relevant):	Ministry of Finance
Country:	Hungary
NUTS2 region:	West-Transdanubian Region
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Part II – Policy context

The Action Plan aims to impact:

Investment for Growth and Jobs programme	X
European Territorial Cooperation programme	
Other regional development policy instrument	
Name of the policy instrument addressed:	

Name of the policy instrument addressed:

Territorial and Settlement Development Operational Programme of Hungary 20142020 (TOP)

Basic information about the policy instrument:

In Hungary, there are no regional operational programmes. The national TOP aims at supporting decentralised economic development and employment based on local resources. It focuses on creating local conditions to boost economic growth and increase employment. Priority 1A – “Promotion of companies’ capabilities through the creation of a business environment with the required local conditions” supports local governments on developing local business infrastructures and services to improve SMEs competitiveness. The actions supported under priority 1A involve the development of incubators, innovation centres and logistics centres. This also deals with local market development in rural areas, where local governments support rural economy SMEs via TOP, offering advanced services on postproduction management of products, such as storage, cooling, sorting and packaging.

In order to support rural economy SMEs to increase their competitiveness, a wider range of high quality services need to be offered by local governments; neither the TOP foresees such measures,

nor local initiatives have been put into place. While planning and building local business infrastructures, local governments have to first understand the needs of SMEs operating in their areas, and offer targeted services. This way, improvement to the TOP will enable a higher number of rural economy SMEs to be benefited by the policy instrument.

The experience gathered through INNOGROW will enable public authorities of the counties of Zala, Vas and Győr-Moson-Sopron in West Transdanubia to improve the local business infrastructure and services offered to SMEs in these rural areas. New types of services are expected to be designed and offered, including:

- Joint promotion campaigns of local products produced particularly by rural economy SMEs.
- Development of innovation support centres to provide advice on new coalitions for products commercialisation.
- Development of local logistics centres for local agricultural products, strengthening the cooperation between rural and urban SMEs.
- Promotion of start-ups in the related new markets.

The Managing Authority of TOP anticipates that the results of the INNOGROW project can improve the governance of TOP by:

- Enhancing the involvement of intermediary bodies (such as PANOVA) in the management and monitoring of regional and local measures, initiatives, and projects.
- Empowering the Ministry's staff with knowledge on innovation support services and business infrastructures to improve rural economy SMEs' competitiveness at local level, and steer the implementation of TOP's measures towards this direction in other local administrations that face similar challenges.
- Pursuing the involvement of experts on building innovation centres and logistics centres adjusted to the needs of rural economy SMEs operating in the area.

Part III – Details of the actions envisaged

INTRODUCTION

West Transdanubian Region (WT) is a developed and industrialized region at Hungary's Western border. WT is specialized in automotive and machinery industries that are characterized by larger than the national average weight of FDI. Regional innovation performance is weaker than the national average, but industry-university collaboration is intensive.

Main basic data:

- Territory – 11 328.0 km
- Population– 983 933 thousand (2016)
- GDP per capita (PPS per inhabitant; % of the EU28 average, NUTS2): EUR 21 500; 75% (2015)
- Total R&D expenditure (GERD, NUTS2, % of GDP): 0.66 (2014)
- Unemployment rate (NUTS2, %): 2.7 (2016)

WT's industrial production per capita is the highest in Hungary: double of the national average. The industry is most specialized in is automotive. Consequently, the 2008-2010 crisis hit West Transdanubia particularly hard: the number of jobs decreased by nearly 7%. Since then, growth resumed and employment increased. The unemployment rate is much lower than the national average (6,8 % in 2016), only 2,7%.

Among the Hungarian convergence regions WT features the most spectacular development in terms of innovation performance, albeit starting from a low basis in the mid-2000s. WT used to rank last among Hungarian regions in terms of all major innovation indicators. Its meagre innovation performance, especially in the light of a relatively good economic performance, used to be referred to as WT's innovation paradox: innovation performance was much inferior to what the region's relatively good economic performance would suggest. Indicators represent WT's weaknesses in regard of innovation performance. These are especially: public-private co-publications (this is very low in WT); European Patent Office (EPO) patent applications; marketing or organizational innovations; trademark applications; international scientific co-publications; most-cited scientific publications; R&D expenditures public sector; and R&D expenditures business sector.

The West-transdanuban region Regional Innovation Strategy (RIS3) sets the main regional innovation priorities reacting to current problems and challenges:

- Creation of the missing institutions that form a well-functioning regional innovation system;
- Improvement of regional economic actors' innovation performance;
- Support to high value adding knowledge-based activities.

The identified key specialization sectors are the following:

- Machine industry,
- Car industry,
- Electro mechanics,
- Forestry and wood industry,
- Health, Thermal tourism,
- Logistics,
- ICT sector
- Agriculture

Strategic development pathway

(please describe the shortages of the policy instrument, the aims of the policy measures included and the lessons learnt from the project that constitute their basis)

The territorial situation of the policy instrument

In West Transdanubia, the share of rural economy SMEs introducing product, process, marketing or organisational innovations is well below the EU average. As also acknowledged in the national RIS3, industrial production zones of Hungarian counties, such as Zala, Vas and Győr-Moson-Sopron represented by Pannon Novum, need to improve the connection of rural economy SMEs of the area with innovation chain.

This can be achieved with the promotion of research, development and innovation activities, through the development of appropriate business infrastructures for rural economy SMEs. Such a development can contribute to West Transdanubia becoming a successful vendor of high value products, and strengthen the SME sector. By taking the path of sustainable growth, West Transdanubia will have the opportunity to set up its own knowledge centre for rural economy SMEs, and eventually become a region of knowledge in this field.

The national RIS3 priorities of Hungary include healthy & local food, and agricultural innovation. This priorities will be supported by smart specialisations, i.e.: a) systems science (new scientific results in agricultural sciences), b) smart production (using smart technologies and/or advanced materials for product development), and c) sustainable society (providing innovative answers to societal challenges, like food security).

The aims of the policy measures

Pannon Novum as member of the Regional Innovation Agency network, was the regional coordinator (West Transdanubia) and expert of the Smart Specialisation Strategy elaboration process, with the National Innovation Office. It has also coordinated the Territorial Operation Programme of Győr-Moson-Sopron.

It is the only accredited organisation in WestTransdanubia for startup project mentoring and business planning, having dealt with more than 200 innovations.

The national RIS3 priorities of Hungary include healthy & local food, and agricultural innovation. This priorities will be supported by smart specialisations, i.e.: a) systems science (new scientific results in agricultural sciences), b) smart production (using smart technologies and/or advanced materials for product development), and c) sustainable society (providing innovative answers to societal challenges, like food security).

Action Plan for West-Transdanubia addressed the initial policy instrument: Territorial and Settlement Development Operational Programme of Hungary 20142020 (TOP 1.). The Action Plan has been earlier supported by the Ministry of National Economy, after the governmental structural changes by the Ministry of Finance, but the same department, the Department of Strategy Planning and Evaluation of the Regional Development Programmes was contributed. They are also support between the West Transdanubian partner Pannon Novum West-Transdanubian Regional Innovation Nonprofit Ltd. and the regional and national stakeholders in the Action Plan development and furthermore the participation in Interregional Learning Workshops and study visits.

Pannon Novum has the capacity to influence TOP implementation through its members (municipalities), who act as territorial actors and coordinators of TOP. Last periods there was a common works with the Managing Authority on how to improve SMEs competitiveness in West Transdanubia, and report back to the Ministry, offering a local perspective of TOP's implementation, with the aim to transfer knowledge to other local administrations that face similar challenges relevant to rural economy SMEs. Effectively transferring and implementing national measures at local level as regards innovation support services.

The expected benefits from this cooperation:

- developing local logistics centres for rural economy SMEs
- supporting joint marketing campaigns developing
- innovation support centres to consult on new business models for local products commercialisation.

a) Main barriers that hinder regional innovation and rural economy development

Barrier 1: Rural economy SMEs has no experiences in innovation, difficulty in accessing funding and receiving limited support from regional authorities to enable the markets with new products.

- The regional political level was decreased in Hungary and at the moment no decentralized regulation and support in field of innovation in regional level
- There is no national regulatory frame and policy tool also for the rural level in the Territorial Settlement Operative program for the SMEs, mainly the for the municipalities
- Cultural and traditional issues such as a negative attitude towards technology
- Unfavourable perception of competitiveness of renewable energy options compared to the old technologies.

- Difficulty in motivating the owners to invest in the development of renewable energy solutions, as the energy bill is paid by the managing company, who would be the one benefitting from the energy costs savings.
- Lack of good practices as a sample in field of rural innovation;

Barrier 2: Difficulty for SMEs to integrate new technologies into business processes, as well as the limited internal know-how to adopt it in innovative product development.

- This is particularly true considering that innovation is a highly costly procedure.
- High innovative costs and uncertainty over business benefits and high risk
- Unavailability or inadequate existence of technological infrastructures
- Lack of internal research and technological capabilities
- Lack of expertise and/or skills of existing employees
- Inability to hire new employees with relevant skills
- Limited access of rural economy SMEs to capital and cost of financing, as an upfront capital cost is required for investing in renewable energy technologies.
- Inadequate capacity building programs, creating a gap between demand and supply of the skills needed.

Barrier 3: Difficulties in accessing funding from external sources and lack of own financial resources which is the most constraining factors in innovation in rural and local level.

- A relatively low ratio in field of innovation and competitiveness in the Community Led Local Development programs.
- Uncertain demand for the newly developed products – lack of customer demand
- Lack of incentives and clear policy instruments, such as introduction of feed-in tariffs or tax rebates, and preferential loan terms for the purchase of renewable energy technologies, to increase technology competitiveness and lower upfront investment costs.
- Weaknesses in networking and cooperation with the innovation stakeholders
- Lack of dedicated institutional bodies such as coordinating agencies for renewable energy deployment, and international and regional cooperation mechanisms to overcome technical and institutional capacity barriers.

b) Identification of good practices from INNOGROW project with the highest potential to be transferred to the project partner territory:

Case studies related to barrier 1:

- Case study on IOT agriculture applications: (Study visit in Lombardia, Italy)
- Drones in agriculture: (Supporting new business models for rural SMEs, 4th Policy Workshop 2018.07.03-04. Győr, Hungary)
- Case study on the setting-up of vertical and horizontal collaboration in innovative business models able to increase rural SMEs competitiveness. (Study visit, Region of Thessaly September 2018.)
- Case study on agro-logistic system in Letenye city, Hungary (4th Policy Workshop 2018.07.03-04. Győr, Hungary)
- Case study on TSDOP Programme in Hungary (European Summit, 12th of February 2019 Biotechnical Faculty, Ljubljana, Slovenia)

Case studies related to barrier 2:

- Case study on Selected Biogas Farsala S.A. (Study visit, 4-5th of September 2019 in Larissa, Greece)
- Case study on Agroil/ Staff Colour Energy (Study visit, 4-5th of September 2019 in Larissa, Greece)
- Case study on Decision support systems (Study visit February 2018. in Lombardia, Italy)
- Case study on the research with Pannon University on colour potato chips in Hungary (Comparative analysis of measures promoting innovation adoption by rural SMEs, 2017)

Case studies related to barrier 3:

- Community-led Local Development (CLLD) Program (European Summit, 12th of February 2019 Biotechnical Faculty, Ljubljana, Slovenia)
- Case study on the development a policy reform on innovation and define a clear regional strategy as milestones of a supporting ecosystem for rural SMEs (Interregional Workshop on Innovation Hubs in Mantova, March 2017).
- The online benchmarking tool (University of Newcastle, Policy workshop, Stara Zagora, 2017)

ACTION 1. Promoting the innovation process in in agro-logistic activities, which helps the rural SME's to increase the regional competitiveness

1. The background

(please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)

Pannon Novum participated in the 2days study visit in the INNOGROW project, which was organized by the FLA in Mantova city, in Italy on the 21st to 23rd of February 2018, with the participation of all project partners. A meeting was also organized in this project meeting to the Italian entrepreneur, who implemented an innovative process and successful business model from the agricultural possibilities. The study visit main topic was to transfer experiences on innovative production processes.

The focus of the study visit was the sustainable development of the rural territory and innovation for rural SME's, Business model of the successful SMEs in Mantua, Regional policies and measures to promote competitiveness for rural SMEs, The role and activity of the Bonoris Foundation in the territory of Mincio Park. Furthermore we can have an overview on successful experiences of the production process, Innovative agri-food products to adapt to legislative constraints, Promotion of scientific knowledge and sustainable tourism, Promotion of the quality through territory values.

The Action Plan related to lessons learnt during project cooperation, mainly the policy workshops and the two study visit in Mantova, Italy and Larissa, Greece regions.

IOT agriculture applications: (Study visit in Lombardia, Italy)

AGEvoluzione is an innovative start-up and R&D Center carrying out research, development and consultancy in the field of the Internet of Things (IoT) offering cutting-edge solutions. AGEvoluzione also acts as an incubator for ideas which are developed and transferred into the market, aiming to promote sustainable business growth and to develop mechanisms to monitor environmental impact and resource efficiency. The company develops smart meters and IoT mechanisms for agricultural SMEs.

Pannon Novum also organized a policy workshop in Győr city Hungary on July 2018, where During the workshop, regional authorities' representatives have had the opportunities to exchange views and ideas with their peers, familiarize themselves with policy measures and strategies implemented in other regions and co-shape a common approach for promoting business model innovation and forwarding rural SMEs involvement in new coalitions.

The mission of the workshop was to facilitate the exchange of ideas and experiences, acquisition of knowledge and inspiration on how to steer policy implementation in developing innovation support centers for rural economy SMEs. The interregional workshop was pursue the following four objectives:

- Highlight the most relevant needs and challenges (associated with the adoption of innovation by rural economy SMEs) to be addressed through regional policies.
- Inform regional authorities about the impact of innovation technologies on SMEs' competitiveness and productivity.
- Gather experience from different regions and countries towards coordinated strategies in developing and running innovation support centers.
- Bring together elected representatives of regional public administrations and members of stakeholders' groups, to enable them benefit from a structured interaction, revolving around a specific thematic area.

Drones in agriculture: (4th Policy Workshop 2018.07.03-04. Győr, Hungary)

It remains a challenge for everyone involved in the agricultural sector to enable increasing numbers of agricultural SMEs to adopt innovative techniques that make for competitive and sustainable land use through effective monitoring.

One such approach, expected to become increasingly streamlined in the next decade, involves the use of UAVs – unmanned aerial vehicles – commonly known as drones. Drones for uses in agriculture will soon become indispensable, if agricultural production, which according to some estimates will have to increase by 70% to cover the needs of 9 billion people, is to become sustainable and land use as efficient as possible.

Never before had it been possible for farmers to have access to affordable aerial monitoring, allowing them to maximise yields and manage crops in an unprecedented fashion. A drone can be mounted with virtually any sensor and some of the most relevant ones are those which provide data on soil conditions to enable the farmer to evaluate irrigation needs and preventing him from wasting water resources. The advantage is therefore multiplied both for the farmer and the rural community as a whole. Plants' health assessment is yet another advantage featured by drones. Tracking changes in plants with multispectral scanning, enables the farmer to stop the spread of bacteria and mitigate the risk of poor quality yields.

Case study on agro-logistic system in Letenye city (4th Policy Workshop 2018.07.03-04. Győr, Hungary)

The establishment of a collection point for the support of the producer market supporting local market producers and the promotion of agro-logistics developments in Letenye city, Hungary. The two main activities of the project are the establishment of a producer market with a community cold store and the creation of a collection point to support agro-logistics development. The two activities complement each other perfectly the market together with the cold store provides a complex service for prospective tenants.

The innovative utilization of local resources is achieved through the local products being sold on the local market, while increasing the development of innovative products and related services. Provides warehousing and quality services, does not need to deliver them between market days, reduce incidental costs, losses

The agro-logistics centre promotes advanced knowledge expansion, knowledge transfer and the agro-innovation group is established, the short supply chain, post-harvest manipulation featured the development of activities. The code number of the public summons TOP-1.1.3-16. The address of the public summons: Local economic development (to improve the regional economic environment, to promote employment)

Target group: Municipalities as well as majority-owned business companies. The Territorial and Settlement Development Operational Program is the main tool for sustainable, intelligent and inclusive growth, based on internal resources, which promotes economic and employment-promoting regional and local economic development in line with the national target for full employment and the working-based society.

Infrastructure required for development based on local raw materials which promotes small-scale product development and logistics development related to short supply chains as a result of the companies by the agricultural products produced new demands for satisfying customers to the local markets.

- Supporting the business infrastructure of the local economy
- The local raw materials based on regional development helping local market growers

Milestones need to be defined in order to implement the local economic development project. Account should be taken of the local development plan.

In February 2019 in the European Summit, in Biotechnical Faculty, Ljubljana, Slovenia, the representatives of Hungarian Managing Authority of the Territorial Settlement Development Operational Program (TOP) introduced the Operational Program two priorities.

Purpose of TSDOP measure 1.1 (*European Summit, 12th of February 2019 Biotechnical Faculty, Ljubljana, Slovenia*)

- Providing local and regional conditions that indirectly help the operation of businesses, with the support of the local authorities (local governments)
- Target area: the counties outside the towns with county rights
- Target groups: the municipalities, businesses, enterprises and population of the affected areas in an indirect and direct way
- Beneficiaries: local governments, majority-owned enterprises of local governments

Calls of TSDOP measure 1.1

TSDOP-1.1.1 Development Industrial Parks and Industrial Areas

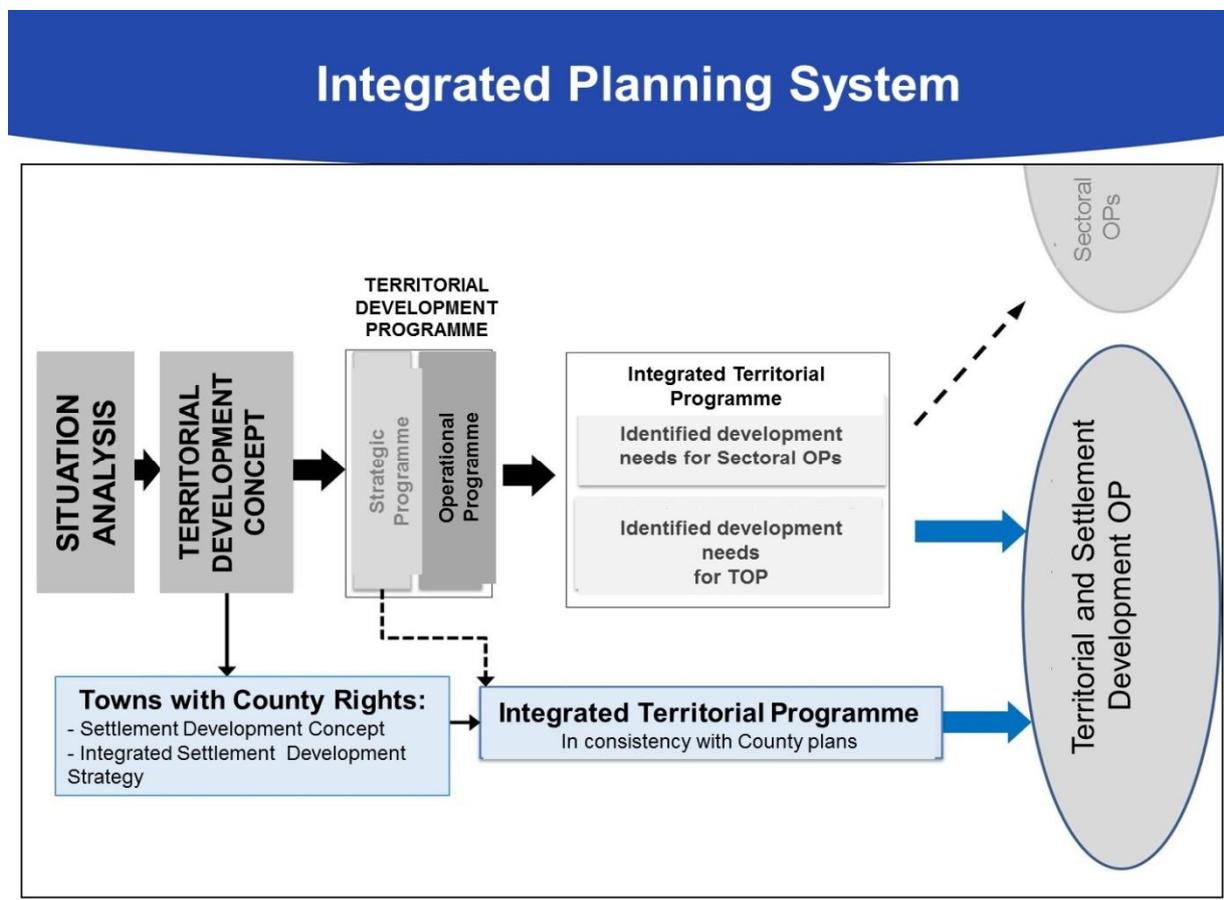
- Activities: building, transforming, renovating and expanding basic infrastructure construction and construction of new building and service activities renovation, upgrading, reconstruction or reinforcement of roads or junctions that create or strengthen accessibility

TSDOP-1.1.2 Development of incubators

- o Activities: For industry development and industrial development, service provider incubation functions are shared spaces and joint workshops

TSDOP-1.1.3 Local economic development

- o Supporting local producers, market access
- o Supporting local government for self-catering purposes, if it supports local producers, local products (school, kitchen of any municipal institutions)
- o Support for agri-logistical developments to facilitate market access for local products with a hub



2. Action

(please list and describe the actions to be implemented)

The action that will be implemented and financed in the frame of the improved policy instrument, addressed a new call for proposal financed by the operational program TSDOP, with improved services for SMEs, in the TOP 1. priority axis. The proposed indicator is the improvement of the GDP/capita of the rural SMEs in the West-transdanubian region.

Promoting the innovation process in in agro-logistic activities, which helps the rural SME's to increase the regional competitiveness (in connection with the initial policy instrument, TOP 1. priority axis). This action is promoting the small start-up innovative companies to increase their innovation capacity, integrate innovation elements in their activities and the identification of potential customers which more appreciate this scheme in this field.

- o Additional personal consultancy and skype tele conferences two times per periods and with Ministry of Finance, Department of Strategy Planning and Evaluation of the Regional Development Programmes in semester 7-10.
- o Half annual report of implementation activities and status
- o Monitoring meeting first half of 2020 in semester 8 and 9
- o Update of indicator figures, very brief status of implementation any problems occurred and potential other measures to be taken
- o Stakeholder meeting in semester 8 and 10

3. Players involved

(please indicate the organisations in the region who are involved in the development and implementation of the action and explain their role)

The organisations deal in county, regional and national level, and involved in the implementation of the action.

Players involved:

Name of organization	Role in Action Plan
Ministry of Finance, Department of Strategy Planning and Evaluation of the Regional Development Programmes	National authority, a competent ministry that is preparing TSDOP framework in Hungary and promoted Hungarian policy making experiences in European Summit in Ljubljana and have personal knowledge from the international examples. They are direct policy makers that can influence OP.
Municipality of Letenye City	The Municipality has direct experiences with the TOP 1.1.3 own project implementation and financial situation in the frame of TSDOP 1. priority axis and can serve with useful knowledge from the previous program period.
Zala County Municipality	This organization is closely working with the Ministry, since their institution municipalities implementing the TSDOP program calls. They will prepare feedbacks on the new proposed

	calls and statistics on data for the monitoring process and evaluation.
Zala County Foundation for Enterprise Promotion	This organization is one of the owned institution of the Zala county Municipality and with daily operative works dealing with the SME sector in the rural development territory.

Responsible institution: Pannon Novum West-transdanubian Regional Innovation Nonprofit Ltd.

Number of days, needed to carry out this task: 48 days.

4. Timeframe

4 period, 24 months, permanent task

2nd phase, 01.04.2019 –31.03.2021

Specific Activities and Timeframe		
Activity Number	Activity Description	Timeframe
1	Meeting with the Ministry to check the progress, what will be adopted from the Slovenian European Summit in the framework INNOGROW project	February 2019
2	Check with the Ministry about the report of the Action Plan by the Managing Authority Department of Strategy Planning and Evaluation of the Regional Development Programmes	June 2019
3	Discussion with the Ministry on the progress, approval from National authority	July 2019
4	Meeting with the Ministry to check the publication of the new TSDOP operative program and discussion on the new program goals.	September 2019
5	Meeting with the Managing Authority Department of Strategy Planning and Evaluation of the Regional Development Programmes and discussion on future TSDOP calls in 2020 to achieve the Action Plan 1st action main goal	March 2020

5	Publication of the new TSDOP calls in the Priority Axis 1. in the field of rural economy development, promoting the innovation process in in agro-logistic activities, which helps the rural SME's to increase the regional competitiveness	September 2020
6	Monitoring the number of the submitted project proposals with the Zala County Municipality and through the Ministry support and the statistics of the reports of the Managing Authority Department of Strategy Planning and Evaluation of the Regional Development Programmes.	March 2021
7	Communication with the Ministry and the Managing Authority via e-mails, phone calls and personal meetings on monitoring the implementation of the Action Plan 1 st action in the framework TSDOP in Prority Axis 1. in Hungary.	March 2019 – March 2021

5. Costs

(if relevant)

ERDF budget for all granted projects in the addressed policy instrument, TOP Priority Axis 1. (TOP-1.1.3.): 29.000.000.000 Ft HUF 90.625.000 EUR(exchange rate 320 HUF/EUR).

Implementation costs for the project partner according to the 2nd phase project budget. No additional costs expected.

6. Funding sources

(if relevant):

Addressed policy instrument "Territorial and Settlement Development Operational Programme of Hungary 2014-2020" (TOP)

Funding sources are Priority Axis 1: TOP-1.1.3 Development of local economy

Risk and Contingency Plans

Description of Risk	Level of probability (High, Medium, Low)	Description of Contingency Plan
Interest for the project proposal will be low in the beginning of a new program and not recognised between SMEs	Low	Find means of better communication and promotion of voucher program.
Interest for the specific project proposal will be in low level, because SMEs will not see the benefits of the services.	Low	Introducing the project proposal for the SMEs with external services and propose them to the policy maker also.

ACTION 2. Stimulating joint small scale co-operations between rural enterprises, research institutions and start-ups to integrate the innovation process in their activities (TOP 6)

1. The background

(please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)

The project partner participated in the 2-day INNOGROW study visit in Thessaly where some issues were raised and discussed during the course. The overarching theme innovative production processes with an emphasis on technology investments. Indeed, rural SMEs are reportedly facing substantial obstacles in acquiring information and guidance on financing opportunities for technology intense restructuring of production processes. The latter are much needed by rural SMEs due to geographical restrictions they face, and isolation from advisory and consulting sources.

Selected Biogas Farsala S.A. (Study visit, 4-5th of September 2019 in Larissa, Greece)

Selected Biogas Farsala S.A. is an exemplary case of innovation, sustainability and technology-intense investment from plural sources in the energy production sector. The company is developing the largest biogas plant in Southern Europe which entered the commissioning phase in January 2018. Its capacity is 5.25MWe and will be using 300,000 tons of livestock and agricultural waste from 100 farms.

Apart from energy production, the plant will de facto function so as to reduce organic pollutants discharge in aquifers and landfills.

Therefore, the renewable energy and circular economy concept in this case not only contribute to resource efficiency and reaching 'zero waste' targets, as one sector's waste become the resource of another, but also, this facility alters the regional investment, since until recently no new investments on livestock units were underway, discouraged mainly by environmentally non-viable waste management options resulting in recurrent penalties. Biogas plants present flow-on effects increasing the overall performance of regional economies and the rejuvenation of existing rural sectors.

Decision support systems (Study visit February 2018. in Lombardia, Italy)

GaiaG provides effective Decision Support System of Systems (DSSoS) able to monitor remotely, in continuous and in near real time more than 50 environmental variables all over the territory of interest selected and set up by users. In January 2016 GaiaG launched a new Software as a

Service, which enables users to monitor more than 50 environmental variables all over the Earth, including solar radiation, wind, air, vegetation, land, soil, weather, sea & oceans, ice, cloud and security (fire, inundation, extreme weather events); factors evidently useful for agricultural activities. This system has been developed by combining satellite data with data sources such as ground-based sensors, manned and unmanned aircraft, and by including them in Spatial Data Infrastructure (SDI).

2. Action

(please list and describe the actions to be implemented)

The type of the Action is a new call for proposal financed by the TSDOP, with improved services for SMEs, with improved services for SMEs, in the TOP 6. priority axis. The proposed indicator is the improvement of the number of the innovative rural SMEs supported by research-development and innovation process in the West-transdanubian region.

Stimulating joint small scale co-operations between rural enterprises, research institutions and start-ups to integrate the innovation process in their activities (targeted a new policy instrument, in the same Operative Programme, TOP 6.) This action supporting the cooperation between R&D institution, universities and the innovative small and medium sized enterprises in field of rural economy, mainly in field of renewable energy, rural tourism, agricultural territory and forestry.

- o Additional personal consultancy and skype tele conferences two times per periods and with Ministry of Finance, Department of Strategy Planning and Evaluation of the Regional Development Programmes in semester 7-10.
- o Start-up Academy Hubs in the West-transdanubian Region in field of rural economy, to boost of small and medium sized entrepreneurs in field of innovation process and to integrate the new innovation process models, supports economy impacts and generates new businesses.
- o Half annual report of implementation activities and status
- o Update of indicator figures, very brief status of implementation any problems occurred and potential other measures to be taken

3. Players involved

(please indicate the organisations in the region who are involved in the development and implementation of the action and explain their role)

Responsible institution: Pannon Novum West-transdanubian Regional Innovation Nonprofit Ltd.

Number of days, needed to carry out this task: 48 days.

The organisations deal in county, regional and national level, and involved in the implementation of the action.

Players involved:

Name of organization	Role in Action Plan
Ministry of Finance, Department of Strategy Planning and Evaluation of the Regional Development Programmes	National authority, a competent ministry that is preparing TSDOP framework in Hungary and promoted similar Hungarian policy making experiences in European Summit and have personal knowledge from the international examples. They are direct policy makers that can influence in TDOP 6. as well.
Municipality of Nagykanizsa City	The Municipality has direct experiences with the TOP 6 Priority Axis with the Nagykanizsa Incubator and Innovation Centre development and in field of services for the innovative SMEs. They have project implementation and financial situation in the frame of TSDOP 6. and can serve with useful knowledge from the previous program period.
Nagykanizsa Innovation Center and Incubator House	This organization is one of the owned institution of the Nagykanizsa Municipality and with daily operative works dealing with the SME sector in the rural development territory.
The National Research, Development and Innovation Office (NRDI Office)	This organization is closely working with the Ministry, and the innovative municipality institutions harmonize and implementing the NRDI and TSDOP program calls. They will prepare feedbacks on the new proposed calls and statistics on data on the monitoring and evaluation process in field of research-development and innovation.
University of Pannon Georgikon Faculty	One of the main important university in agriculture and rural development and its experiences can help the research-development and innovation process in the new policy making process.
University of Sopron, Faculty of Agricultural and Food Sciences	One of the main important university in field of forestry and wood industrial sector and the rural development. Their experiences can help the research-development and innovation process in

	the new policy making process.
Pannon University Nagykanizsa Campus	One of the main important university in field of tourism and rural development and its experiences can help the research-development and innovation process in the new policy making process.

4. Timeframe

4 period, 24 months, permanent task

2nd phase, 01.04.2019 –31.03.2021

Specific Activities and Timeframe		
Activity Number	Activity Description	Timeframe
1	Meeting with the Ministry to check the progress, what will be adopted from the Slovenian European Summit in the framework INNOGROW project	February 2019
2	Check with the Ministry about the report of the Action Plan by the Managing Authority Department of Strategy Planning and Evaluation of the Regional Development Programmes	June 2019
3	Discussion with the Ministry on the progress, approval from National authority	July 2019
4	Meeting with the Ministry to check the publication of the new TSDOP operative program and discussion on the new program goals.	September 2019
5	Meeting with the Managing Authority Department of Strategy Planning and Evaluation of the Regional Development Programmes and discussion on future TSDOP calls in 2020 to achieve the Action Plan 2nd action main goal	March 2020
5	Publication of the new TSDOP calls in the Priority Axis 6. in the field of rural economy development, promoting the innovation process in research institutions and start-ups to integrate the innovation process in their activities	September 2020

6	Monitoring the number of the submitted project proposals with the National Research, Development and Innovation Office and through the Ministry support and the statistics of the reports of the Managing Authority Department of Strategy Planning and Evaluation of the Regional Development Programmes.	March 2021
7	Communication with the Ministry and the Managing Authority via e-mails, phone calls and personal meetings on monitoring the implementation of the Action Plan 2nd action in the framework TSDOP in Priority Axis 6. in Hungary.	March 2019 – March 2021

5. Costs

(if relevant)

ERDF budget for all granted projects for the addressed policy instrument priority calls, TOP Priority Axis 6.: 10.000.000.000 HUF 31.250.000 EUR(exchange rate 320 HUF/EUR). The policy instrument is influenced only in county level.

Implementation costs for the project partner according to the 2nd phase project budget. No additional costs expected.

6. Funding sources

(if relevant):

Addressed policy instrument "Territorial and Settlement Development Operational Programme of Hungary 2014-2020" (TOP)

Funding sources are Priority Axis 6: The sustainable rural urban development on county level. The policy instrument influenced by only local county level.

Risk and Contingency Plans

Description of Risk	Level of probability (High, Medium, Low)	Description of Contingency Plan
Interest for the project proposal will be low in the beginning of a	Low	Find means of better communication and promotion

new program and not recognised between SMEs		of voucher program.
Interest for the specific project proposal will be in low level, because SMEs will not see the benefits of the services.	Low	Introducing the project proposal for the SMEs with external services and propose them to the policy maker also.

ACTION 3. Supporting the activities in the field of innovation for rural action groups in the small scale territorial program (CLLD) (TOP7)

1. The background

(please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)

Pannon Novum participated in the 2nd policy workshop in Stara Zagora, where a very useful online tool was introduced, which can help supporting the activities in the field of innovation for rural action groups in the small scale territorial program. The University of Newcastle as a partner of the INNOGROW project, drawing on the cumulative experience and findings of previous project activities, developed an innovative and simple to use benchmarking tool. Before providing details on the tool, it is important to ask what a benchmarking tool is because it is not self-evident, eg. situating own practice against best practices, improving performance, adaptation or harmonizing metrics and measures.

The online benchmarking tool (University of Newcastle, Policy workshop, Stara Zagora, 2017)

The online benchmarking tool gives many options for custom benchmarking. In fact, it constitutes an 'open' tool in the sense that users co-shape its scope. They can do so by registering new regions about which they want to gauge the levels of entrepreneurial performance and compare them with other regions or countries. This function is especially relevant to the needs of regional/local authorities and other decision-making bodies who are in need of data-driven interventions but lack the resources necessary for large-scale and time-consuming research.

It is equally a useful and user-friendly tool for those without any particular stake in a region. Researchers will find the tool useful, as it integrates thematic quantitative data on businesses performance and it performs benchmarking with the least of efforts. Naturally, the sources of the built-in data sets are available to the researcher who wants to extend her inquiry or combine the tool's outputs with other data.

Existing or prospective entrepreneurs might also find use in the tool due to the type of information disclosed which may be useful to inform an investment decision. Using the tool, the entrepreneur has a one-click opportunity to compare between neighbouring regions and on the basis of metrics to determine where then investment is worth being diverted.

The set of indicators concerning 'high growth' enterprises and certain variables thereof (e.g. size, number of employees) captures this dimension of sustainability. A high growth enterprise is one which grows rapidly and a company that grows rapidly is one which is likely innovating in some

crucial way: It could be innovation in terms of the products offered, or the supply chain structure, or any other dimension related to the business model.

Community-led Local Development (CLLD) Programm (European Summit, 12th of February 2019
Biotechnical Faculty, Ljubljana, Slovenia)

The aim of implementing Community-led Local Development (CLLD) of the 7th priority of the Territorial and Settlement Development Operational Programme (TOP) is to strengthen local communities, to renew the cultural and community life of cities and to develop and disseminate community-based economic development methods.

The essence of the CLLD approach is that LAGs (Local Action Groups) reflecting the composition of local society determine the goals and interventions that are important for the community, and the development resources to be allocated to them within the framework available to them.

As a result of the developments the proportion of the population regularly using the renewed community spaces within the framework of the implementation of the strategy is expected to increase, as well as the public satisfaction with the community, public service spaces, facilities, and the cultural and community institutions of the settlement.

The main goal that the Community Led Local Development Program (CLLD) in the TOP7 priority not only help the cultural activities of the communities, but supports the innovation activities for example social innovation activities for the rural action groups in the small scale territorial program.

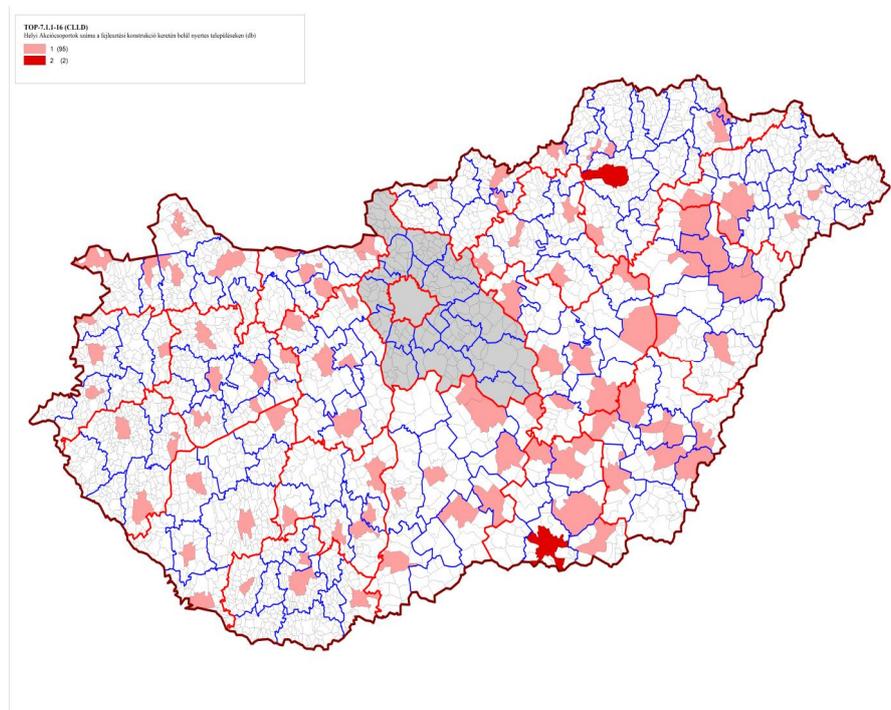
Main purposes:

- Development of cultural and community spaces and services
- Strengthening local identity
- Enhance local community participation and awareness in order to develop local and community based economies
- Program based bottom-up development at urban level

Hungarian approach to rural CLLD

- Focus on less developed regions (Central Hungary is not included)
- Towns where the population more than 10 000
- Local Action Groups (LAGs)
- Total budget: 147, 2 million EUR
- Available fund depends on the population of the town (min. 0,8 million EUR):
 - 10 001 – 18 000: 1,61 million EUR
 - 18 001 – 60 000: 2,57 million EUR
 - 60 001 – 150 000: 4,84 million EUR

CLLD Local Action Groups in Hungary



2. Action

(please list and describe the actions to be implemented)

The action type is improvement of an existing call inspired by the interregional learning that will be placed under the TOP7 calls of the TSDOP Priority Axis 7. The proposed new developed indicator is in the Local Action Groups indicator: "Number of services for economic growth in the SME sector".

Supporting the activities in the field of innovation for rural action groups in the small scale territorial program (targeted a new policy instrument, but very close, in the same Operative Programme, TOP 7. CLLD Programme). Action aims are to developing integrated, community-based, bottom-up, local partnership-based urban development programs; helps community capacities and stimulating innovation (including social innovation); and supports the creation of innovative communities which can cooperate with each other and with their environment, creating the sustainable settlements.

- Additional personal consultancy and skype tele conferences two times per periods and with Ministry of Finance, Department of Strategy Planning and Evaluation of the Regional Development Programmes in semester 7-10.
- Coordinating the discussion with the Municipality on the CLLD topics to involve innovation and economically competitive aspects into the calls, two times a period.
- Half annual report of implementation activities and status

- o Monitoring meeting first half of 2020 in semester 8 and 9
- o Update of indicator figures, very brief status of implementation any problems occurred and potential other measures to be taken
- o Stakeholder meeting in semester 8 and 10

3. Players involved

(please indicate the organisations in the region who are involved in the development and implementation of the action and explain their role)

The organisations working in county, regional and national level, who are involved in the implementation of this 3rd action.

Players involved:

Name of organization	Role in Action Plan
Ministry of Finance, Department of Strategy Planning and Evaluation of the Regional Development Programmes	National authority, a competent ministry that is preparing TSDOP framework in Hungary and promoted similar Hungarian policy making experiences in European Summit and have personal knowledge from the international examples. They are direct policy makers that can influence in TDOP 7. as well.
Municipality of Nagykanizsa City	The Municipality has direct experiences with the TOP 7 Priority Axis in field of CLLD program and they are responsible for the Local Action Group as well. Discussions on concrete opportunities to include new indicator in the CLLD programs.
Chamber of Commerce and Industry of Nagykanizsa City	This organization is supporting the activities in the field of innovation for rural action groups in the small scale territorial program (targeted a new policy instrument, but very close, in the same Operative Programme, TOP 7. CLLD Programme).
University of Pannon Nagykanizsa Campus	The organization can monitoring and evaluating the action aims, to developing integrating, community-based, bottom-up, local partnership-based urban development programs, how to promote the local and rural economy development.

Responsible institution: Pannon Novum West-transdanubian Regional Innovation Nonprofit Ltd.

Number of days, needed to carry out this task: 48 days.

4. Timeframe

4 period, 24 months, permanent task

2nd phase, 01.04.2019 –31.03.2021

Specific Activities and Timeframe		
Activity Number	Activity Description	Timeframe
1	Meeting with the Ministry to check the progress, what will be adopted from the Slovenian European Summit in the framework INNOGROW project	February 2019
2	Check with the Ministry about the report of the Action Plan by the Managing Authority Department of Strategy Planning and Evaluation of the Regional Development Programmes	June 2019
3	Discussion with the Ministry on the progress, approval from National authority	July 2019
4	Meetings with representatives of the Municipality and the Local Action Group for the opportunities of cooperation and development of the CLLD program calls and the new topics and indicators.	September 2019
5	Meeting with the Ministry to monitoring and evaluate the TSDOP 7. Priority Axis previous call Operative indicators, how to promote the how to promote the local and rural economy development in SME sector.	September 2019
6	Meeting with the Ministry to monitoring and evaluate the TSDOP 7. Priority Axis previous call Local Action Plan indicators, how to promote the how to promote the local and rural economy development in SME sector.	November 2019
7	Meeting with the Ministry to check the publication of the new TSDOP 7. Priority Axis calls in CLLD system and discussion on the new program goals.	February 2020

8	Meeting with the Managing Authority Department of Strategy Planning and Evaluation of the Regional Development Programmes and discussion on future TSDOP 7. calls and indicators in 2020 to achieve the Action Plan 3rd action.	March 2020
9	Preparation and publication of a call for in-depth training and counselling in the field of the new indicator "Number of services for economic growth in the SME sector" in CLLD calls, marketing and digital tools.	June 2020
10	Organizing an annual meeting with Local Action Group, Nagykanizsa Municipality and Ministry to introduce and describe the new calls and new indicators in 2020.	September 2020
11	Publication of the new TSDOP calls in the Priority Axis 7. in the field of CLLD, supporting the activities in the field of innovation for rural action groups in the small scale territorial program.	September 2020
12	Dissemination of results, meeting with Local Action Group and entrepreneurs via e-mails, electronic media, news and websites.	October- December 2020
13	Monitoring the number of the submitted project proposals with the Municipality and the University and through the Ministry support and the statistics of the reports of the Managing Authority Department of Strategy Planning and Evaluation of the Regional Development Programmes.	March 2021
14	Communication with the Ministry and the Managing Authority via e-mails, phone calls and personal meetings on monitoring the implementation of the Action Plan 3rd action in the framework TSDOP in Prority Axis 7. in Hungary.	March 2019 – March 2021

5. Costs

(if relevant)

ERDF budget for all granted projects for the addressed policy instrument priority calls, TOP Priority Axis 7.: 28.000.000.000 HUF, 90.000.000 EUR(exchange rate 320 HUF/EUR). The policy instrument is influenced only in rural county level, in West-transdanubian Region.

Implementation costs for the project partner according to the 2nd phase project budget. No additional costs expected.

6. Funding sources

(if relevant):

Addressed policy instrument “Territorial and Settlement Development Operational Programme of Hungary 2014-2020” (TOP)

Funding sources are Priority Axis 7: Community Led Local Development Programme

TOP-7.1.1-16 - Infrastructural development of cultural and community spaces and local community organization related to the rural urban local community development strategy

Risk and Contingency Plans

Description of Risk	Level of probability (High, Medium, Low)	Description of Contingency Plan
The attendance in the Local Action Group discussions and trainings by the SMEs will be low	Medium	Analyse the cause of low attendance and solve issues. Enhance promotion.
The “Number of services for economic growth in the SME sector” indicator in CLLD calls will not correspond need of the potential attendees	Low	Continuous monitoring of the most relevant topics for the target groups.
Funds will be available late in 2020.	Medium	Continuous contact with Ministry as a policy maker for monitoring the timetable of the implementation of the policy instrument and in case of delay try to find an alternative plan.



European Union
European Regional
Development Fund

Date: Szombathely, 21/10/2019

Signature: _____

PANNON NOVUM
NYUGAT-DUNÁNTÚLI REGIONÁLIS
INNOVÁCIÓS NONPROFIT KFT.

Stamp of the organisation (if available): _____

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