

JOINT STRATEGY
of
Cooperation and Development

VET-TWIN PARTNERSHIP UNTIL 2030



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I. Introduction

This document has been drawn up within the partner project implemented by three partners, i.e. the National Veterinary Research Institute (NVRI) in Puławy as the project leader, the Federal Institute for Risk Assessment (BfR) in Berlin and the Technical University of Denmark, National Veterinary Institute (DTU Vet) in Copenhagen.

The project is co-financed under the Horizon 2020 EU Framework Programme, Part IV Spreading Excellence and Widening Participation. The type of the project is related to the Twinning action, which is aimed at strengthening a developing institution (in this case NVRI) in a specific research area by creating connections with at least two internationally leading institutions in this domain. The project assumes the achievement of four specific objectives, namely:

1. Enhancing the potential and capacities of NVRI in terms of international scientific cooperation by establishing strategic and operational framework for cooperation and creating future partnerships with the institutions involved in the implementation of the VET-TWIN project.
2. Improving skills and better exchange of knowledge between scientists in the field of new research methods and tools in selected research areas.
3. Increasing scientific activity of young scientists involved in the development of the VET-TWIN partnership.
4. Improving the scientific role and international image of NVRI and its partners as leaders of the selected research areas and supporting them in building the expert background in the field of infectious animal diseases, zoonotic diseases and the safety of food supply chains.

The Strategy was created within the project over the course of the Partnership development. It is based on experience and conclusions from analyses performed as part of the project, in particular those set out in *the Report on the conducted analysis, assessing how the developing VET-TWIN partnership and the created common cooperation and development strategy are in line with the context of EU, national and regional policies, as well as EU cohesion policy instruments*. This document was prepared by the Partners in line with the assumptions of Work Pack No. 2 planned within the project - *Defining a road map*

for joint actions and the joint strategy for cooperation and growth to build partners' capacities in terms of research and technological development.

Creating the Strategy is aimed at ensuring durability of the effects of collaboration initiated during the project implementation, as well as increasing its scale by systematising activities and setting clear objectives.

2030 was approved as the time horizon of the Strategy, so that it encompasses the next Financial Perspective of the EU funds 2021-2027 and the period of implementation and financial settlement of projects that will be carried out within this perspective. Due to relatively long timeframe of the Strategy, it is assumed that this document may be updated by means of joint consultations and by approval of all the Partners.

The structure of this document reflects the logic and the order of creating its specific elements. Chapter II constitutes the analytical part, which comprises conclusions and synthetic presentation of performed contextual analyses of conditions that had to be taken into consideration when developing this Strategy. The next chapter is considered as the strategic part which includes the objectives, both the key one and the specific ones. This is a crucial part of the entire document. Chapter IV presents the area of the Strategy implementation, and at the same time refers to areas set out in detail in the Strategic Research Plan and the Road Map built upon the Plan. These documents are attached to this Strategy.

II. Analytical part – assumptions underlying Strategy development

2.1 SWOT analysis

Assumptions underlying the development of the Strategy are based on results of a SWOT analysis. This analysis applied to the VET-TWIN Partnership, in particular to NVRI that is the project Leader and at the same time an institution, for which increasing scientific excellence is especially important from the point of view of substance of projects under the Twinning action. The table below illustrates the conducted SWOT analysis:

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> ✓ Experiences gained based on collaboration within the VET-TWIN project; ✓ Important Partners' position and role within national systems of controlling and ensuring food safety; ✓ Familiarity of Partners' common research areas, their significance and their meaning for the development of scientific excellence; ✓ Well-motivated staff with an innovative approach; ✓ Modern laboratory infrastructure; ✓ A network of reference laboratories with 135 national reference mandates and 3 OIE mandates; ✓ Stable financial support in terms of basic statutory activity; ✓ Experience in obtaining grants, including international ones; ✓ Existence of defined common objectives of the Partnership development. 	<ul style="list-style-type: none"> ✓ Differences in national systems of controlling and ensuring food safety in Poland, Denmark and Germany and, thus, different roles and tasks of the Partners; ✓ Different systems of obtaining external funds at national and regional level; ✓ Language differences and long geographic distances between the Partners, which impedes frequent direct contacts; ✓ Relatively short period of collaboration, which translates into unsatisfactory level of the Partnership visibility on the international stage; ✓ Insufficient level of mobility of scientific staff, especially of young researchers; ✓ Discrepancies in the level of scientific excellence of the Partners and their growth potential within the detailed research areas.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> ✓ Smart specializations at the regional and the national level in line with research 	<ul style="list-style-type: none"> ✓ Gradually decreasing financial support from the government;

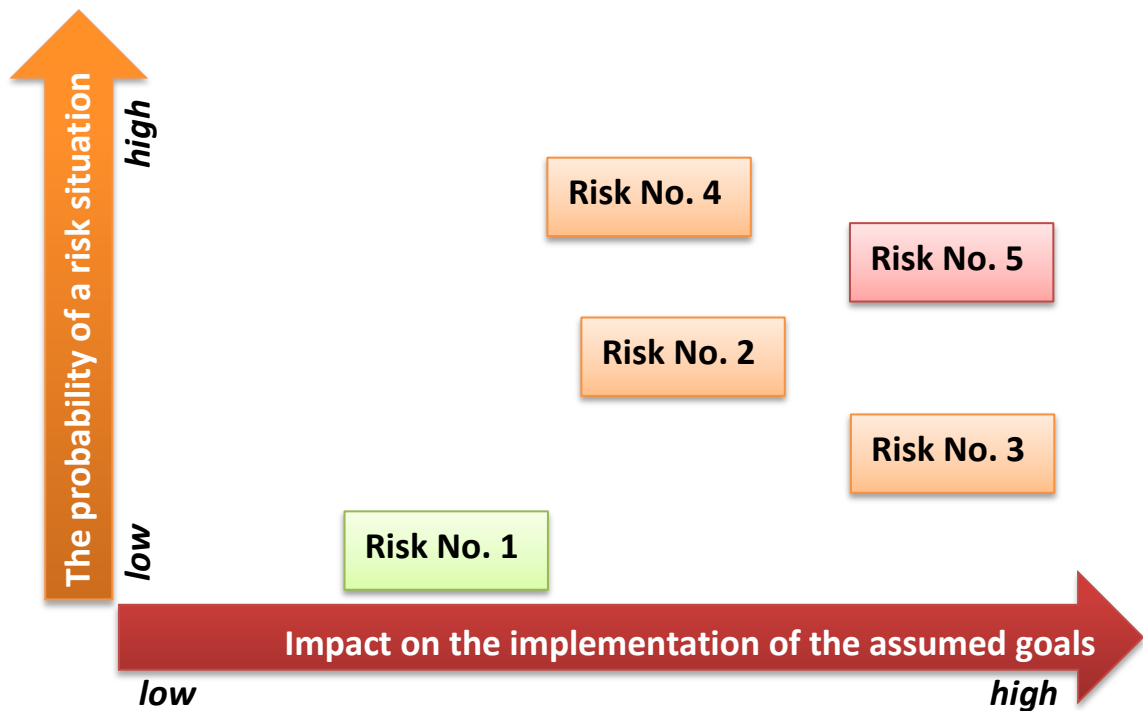
<p>profile of NVRI;</p> <ul style="list-style-type: none"> ✓ Compliance of the VET-TWIN Partnership area with priorities of the EU policy; ✓ Financial support within European Funds; ✓ Strong pressure from the stakeholders and food producers on food chain safety; ✓ Substantial number of young people, graduates of studies compliant with the VET-TWIN Partnership research area. 	<ul style="list-style-type: none"> ✓ Growing number of well-educated graduates moving abroad; ✓ Constantly decreasing number of livestock animals (especially pigs); ✓ Low level of agro-industry development in the region where NVRI is located; ✓ Possible competition from other European research units.
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The above SWOT analysis is supplemented by conclusions from identification of the most important areas of risk crucial from the perspective of the Partnership development, i.e.:

- Risk 1: Changes in the EU policy and priorities of distributing R&D funds;
- Risk 2: Potential changes in legislation which may affect the scope and/or the nature of the Partners' activity;
- Risk 3: Potential organisational changes within the Partners' institutions which may change their operations or the scope of their statutory tasks;
- Risk 4: Personnel changes which might result in competence shortages in the areas that are crucial for the Partnership development;
- Risk 5: Risk related to ineffectiveness in terms of obtaining research grants which would be in line with the common research areas and would facilitate the Partnership development.

Impact on the achievement of the Partnership objectives and probability of occurrence of the aforementioned situations are illustrated by the risk matrix below:

Figure 1. Risk matrix



Source: Own study

The above analysis proves that possibilities of the Partnership development are substantial, and that activities undertaken in this Partnership may prove to be effective. Based on this analysis, main areas that should be in focus of activities and aspirations of the Partners have been defined. These include in particular:

- deepening the existing collaboration in terms of R&D activities;
- developing human resources by increasing exchange of knowledge and experiences;
- collaboration in terms of building potential of future scientific staff, in particular of young scientists;
- supporting image and visibility of the Partners and the Partnership on the international stage.

These areas should involve implementation of activities which will ultimately lead to increased scientific excellence and will allow for further development of the VET-TWIN Partnership.

2.2 Context of the European, national and regional policies

The conducted analysis, assessing how the developing VET-TWIN Partnership and created common cooperation and development Strategy are in line with the context of EU, national and regional policies, as well as EU cohesion policy instruments, allowed to conclude that it is the EU policy that will have the greatest impact on the development of the VET-TWIN Partnership. This conclusion is supported by both the cohesion and consistency of programme assumptions for all institutions functioning within the European Union, as well as by the importance and availability of financial instruments for the Partnership as a whole.

Also, when it comes to thematic areas that are common to all the Partners, to the greatest extent they are consistent with the directions of the EU policy development. Currently, the greatest emphasis within the EU policy is placed on the development of innovations, which is reflected in the key strategic documents, i.e.: “Europe 2020: A strategy for smart, sustainable and inclusive growth” and so-called flagship initiatives created to achieve the objectives of the Strategy. Food safety is one of priority areas of the EU innovation policy, which affects both the institutional and programme spheres. In order to develop and implement assumptions of the innovation policy, a number of institutions and initiatives have been established, including the European Institute of Innovation and Technology (EIT) and the European Technology Platforms (ETP), within which thematic initiatives are developed, e.g. EIT Food, or ETP ‘Food for Life’. Then, under these initiatives collaboration in respective thematic areas is initiated by different stakeholders, including independent public and private partnerships, universities, research institutions and enterprises.

Incorporating the Strategy of cooperation of the VET-TWIN Partnership into the context of the EU policy allows for developing its activity at international level and for establishing collaboration with the biggest centres from all over Europe. At the same time, activity which reflects directions of the development of the EU policy provides opportunities to influence its future R&D structure.

In the context of EU funding sources, Horizon 2020 and the planned Horizon Europe programmes will be of special importance for implemented and planned joint actions of the

Partners. In the context of the research area which is crucial for the VET-TWIN Partnership, actions related to Food Security, Sustainable Agriculture and Bioeconomy are the most interesting ones. All actions from the Excellent Science priority area should also be of interest to the Partnership to increase scientific excellence and the research potential of the institutions.

National and regional policies, as well as instruments of financial support available under these policies will be more important to build individual potentials of respective Partners. This results from the assumptions of national or regional policies, since they focus on the development of specific territorial areas. Each national innovation policy is focused on specific development objectives, within which common areas include: creating the framework for developing innovations, science and business collaboration, or internationalisation of collaboration on innovation. National and regional policies are aimed at the development of selected areas, i.e. so-called smart specialisations. Poland, Germany and Denmark all decided that health, including healthy food, is one of their priorities. Despite common areas which combine national and regional policies in Germany, Denmark and Poland, financial instruments are mostly addressed to national institutions. Therefore, they will be of greater importance from the point of view of the development of respective institutions engaged in the Partnership individually. Thus, it is important that development activities planned on the basis of Partners' domestic programmes are consistent with the main assumptions of the Partnership and they reflect the context of international cooperation. Such attitude will allow for building the Consortium's potential through the growth of respective Partners.

2.3 Conclusions and recommendations for incorporating activity of the consortium into the mainstream of regional, national and European policies

One of the key conclusions drawn from the conducted analysis, assessing how the developing VET-TWIN partnership and the created common cooperation and development strategy are in line with the context of EU, national and regional policies as well as EU cohesion policy instruments, is the one set out in point 2.2 – *It is the EU policy that will have the greatest impact on the development of the VET-TWIN Partnership.* Therefore, the main

recommendation for the development of the consortium's activity is to build the development strategy based on and in correlation with the development of the EU policy in the field of research and knowledge related to infectious animal diseases, zoonotic diseases and safety of existing food supply chains.

Since national and regional policies are of greater importance from the point of view of the development of respective institutions involved in the Partnership individually, the activities undertaken by the Partners based on programme documents and financial instruments at national and regional level should precisely reflect the context of the European policy. Development activities planned based on national programmes of respective countries should in all cases be in line with the main assumptions of the Partnership and should reflect the context of international collaboration. The development of the Partners as separate entities is an important factor influencing the capacity building of the Partnership as a whole, in particular by utilizing its potential and experience of respective Partners to enhance the transfer of knowledge and experiences, as well as to achieve the synergy effect.

Works carried out during the performance of the analysis allowed for distinguishing main research priority areas, i.e. thematic areas, around which the VET-TWIN Partnership should grow, and on which further research cooperation within this Partnership should focus. These include:

- I. food and feed safety;
- II. animal health;
- III. zoonotic diseases.

Within these main research areas, 24 detailed ones have been defined:

1. Research on human, animal and environmental health (One Health)
2. Swine Diseases
3. Pharmacology and Toxicology
4. Research to harmonise and standardise assessments of exposure
5. Omics Analyses
6. Epidemiology and Risk Assessment
7. Fish Diseases
8. Hygiene of Animal Feeding stuffs
9. Hygiene of Food of Animal Origin
10. Early risk detection
11. Microbiology

12. Virology
13. Poultry Diseases
14. Radiobiology
15. Authenticity testing of food and feed
16. Nanotechnology
17. Risk communication
18. Biochemistry
19. Cattle and Sheep Diseases
20. Parasitology and Invasive Diseases
21. Food and Environmental Virology
22. Serological Diagnosis
23. Pathology
24. Foot-and-Mouth Disease

The priority research area recommended for further growth of the Partnership is One Health - Research on human, animal and environmental health, which is a topic of substantial development potential anticipated also in the coming years, and also the EU policy focuses on this specific topic. This is relevant with regard to incorporating the Partnership activity into the mainstream of the EU policy. This concept directly links human health with health of animals and natural environment. One Health is a multidisciplinary approach to monitoring and controlling threats to public health and to learning the ways the diseases of people, animals and environment spread. Because of its broad approach to the issue of public health, the concept is directly related to the matters of food safety which is currently one of the main research areas of the Partners.

III. Strategic part – vision and objectives

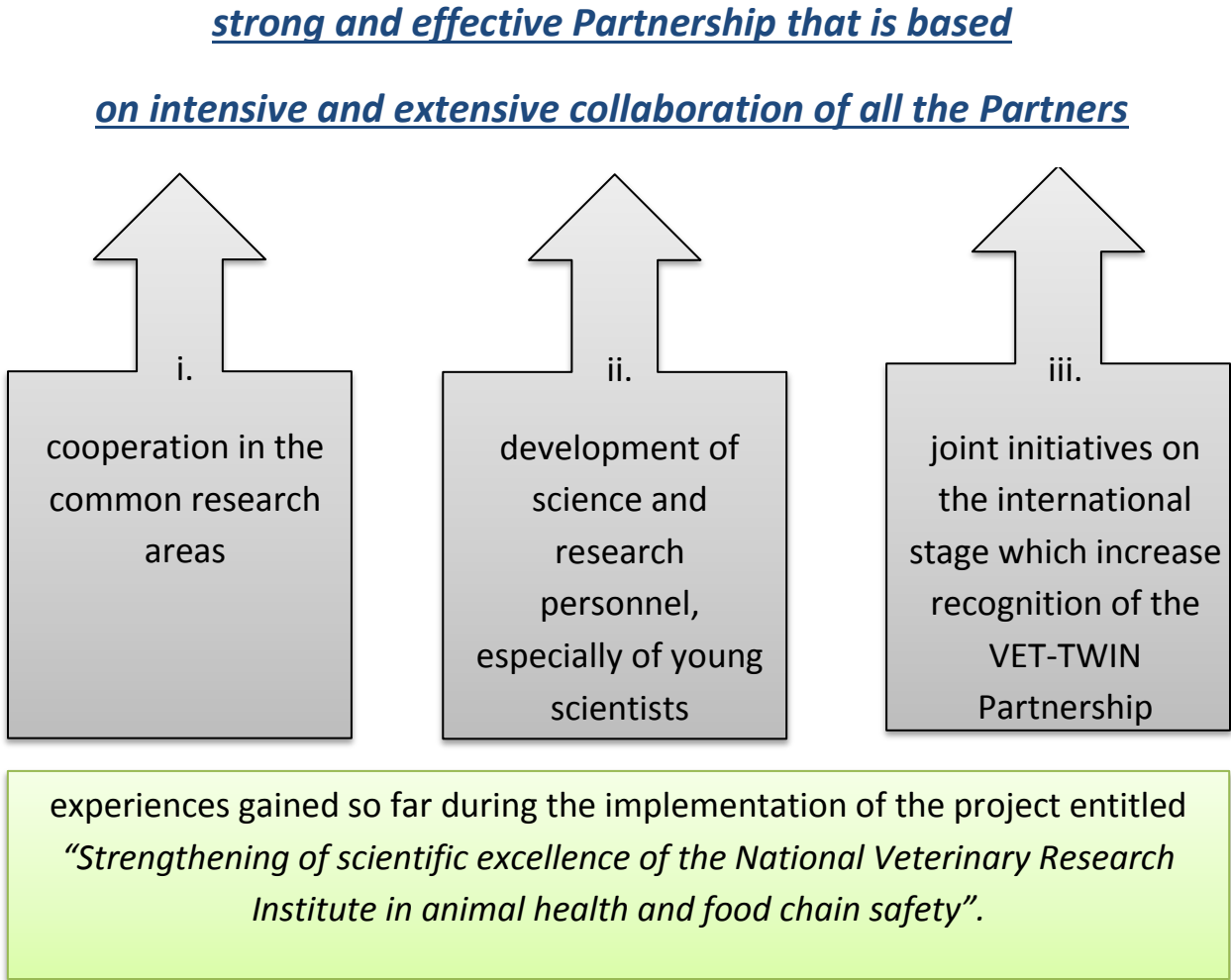
3.1 Vision

The Partners seek to develop the cooperation and enhance the synergy effect resulting from this cooperation. The vision until 2030 is about a strong and effective Partnership that is based on intensive and extensive collaboration of all the Partners. This collaboration will be based on experiences gained so far during the implementation of the project entitled *“Strengthening of scientific excellence of the National Veterinary Research Institute in animal health and food chain safety”*.

Based on this pillar, the following ones will be created:

- i. cooperation in the common research areas, i.e. food and feed safety, animal health and zoonotic diseases;
- ii. development of science and research personnel, especially of young scientists;
- iii. joint initiatives on the international stage which increase recognition of the VET-TWIN Partnership.

Figure 2. Pillars of Joint Strategy of Cooperation and Development



Source: Own study

3.2 Objectives

With reference to the conducted SWOT analysis and the aforementioned Partnership vision, both a key objective and specific ones have been defined. The envisaged time horizon to achieve them is 2030.

Key objective:

development of the potential of the VET-TWIN Partnership and at the same of respective Partners to function within international science and research environment as a leader in the field of research and knowledge relating to infectious animal diseases, zoonotic diseases and safety of food chains

The key objective will be achieved through 4 specific objectives which correspond with the cooperation pillars described earlier.

Specific objectives:

Specific objective 1 - Enhancing research collaboration in areas which are crucial for the Partnership;

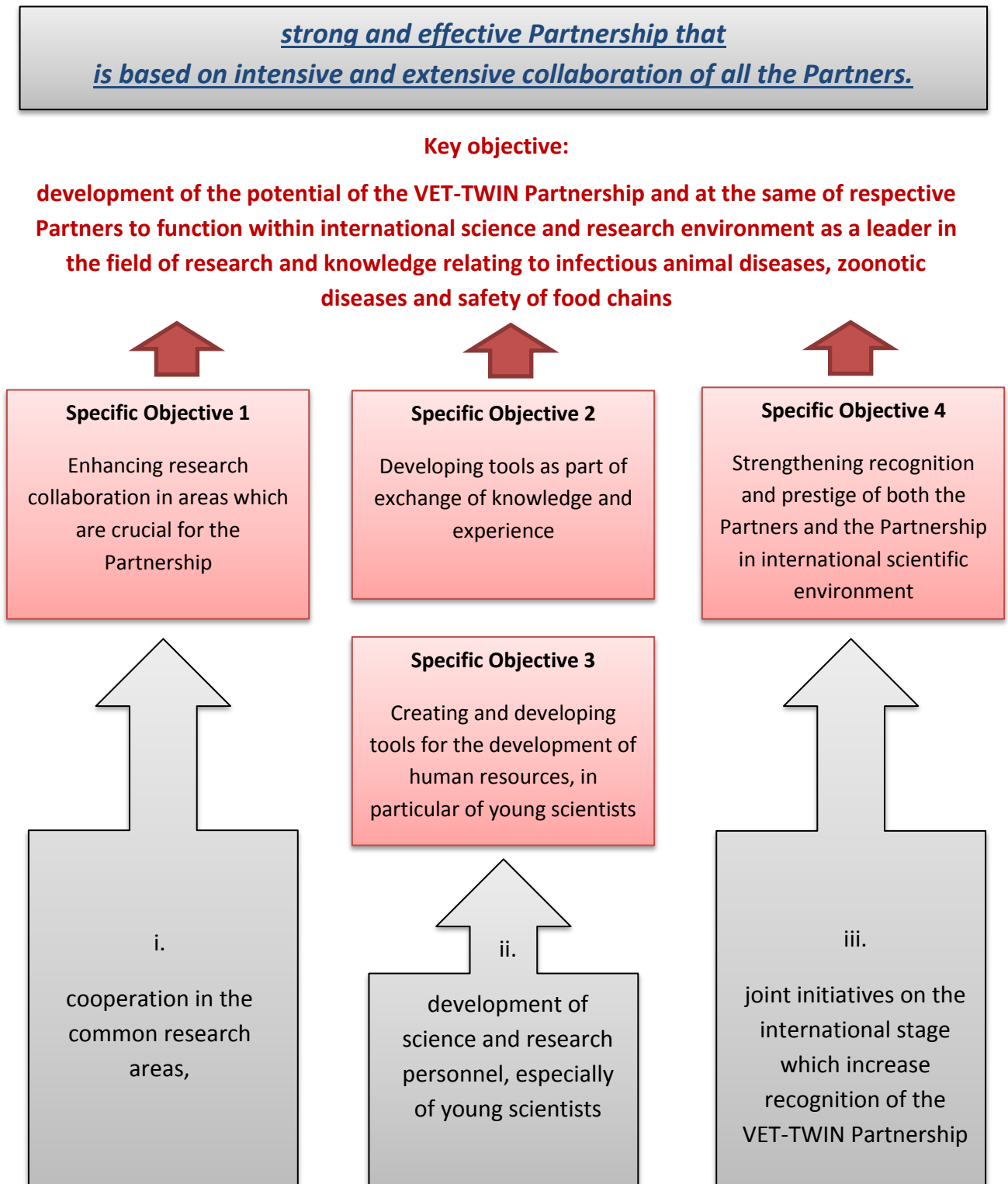
Specific objective 2 - Developing tools as part of exchange of knowledge and experience;

Specific objective 3 - Creating and developing tools for the development of human resources, in particular of young scientists;

Specific objective 4 - Strengthening recognition and prestige of both the Partners and the Partnership in international scientific environment.

The figure below illustrates mutual relation between the objectives and the logic behind implementation of the vision of the VET-TWIN Partnership.

Figure 3. Vision and objectives of the VET-TWIN Partnership



Source: Own study

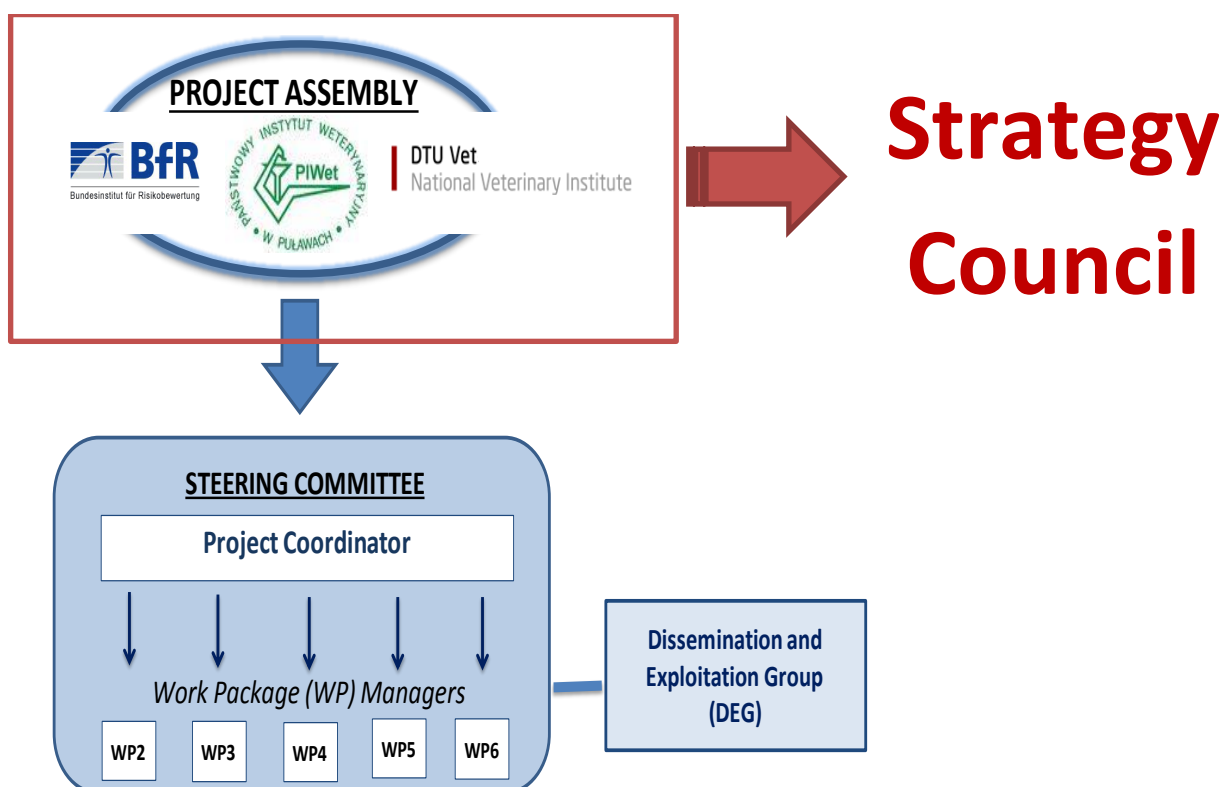
IV. Operational part – system of Strategy implementation

4.1 Institutional system and communication

The institutional system and communication related to the implementation of this Strategy will be based on developed patterns which function based on institutional collaboration within the VET-TWIN Partnership to date.

The system will be based on the developed strategic management level. The figure below illustrates relation between the structures within the VET-TWIN project and the new institutional system.

Figure 4. Relation between the structures within the VET-TWIN project and the new institutional system



Source: Own study based on VET-TWIN project template

As part of the project, a Project Assembly operated at the level of strategic management. The Project Assembly, composed of one representative of each partner and chaired by the Project Coordinator, was the governing body of the consortium. It was convened at least once per year. The Project Assembly hold the ultimate responsibility for decision-making within the project and decided on general project issues not foreseen to be managed otherwise. Decisions of the Project Assembly were binding for all partners.

In order to implement this Strategy, after the project completion the Project Assembly will be transformed into a Strategy Council, which will take over operational methods and communication channels applicable to date to the Project Assembly.

The Strategy Council will be responsible for monitoring and updating the Strategy. It is assumed that the Strategy will be implemented in a form of project approach that is in line with the approach of the Project Cycle Management. In this process, the Strategy Council will play a key role by performing its tasks within the following stages, i.e.:

- **Programming** – analysis and update of this Strategy, as well as, at the operational level, initial verification of projects which are compliant with the implementation of the envisaged objectives;
- **Identification** – it includes more detailed identification of respective projects which implement the Strategy. At this stage, a Project Team is initially established. Based on conducted analyses, including the SWOT analysis, needs and objectives of specific projects are defined. The Council's task is to verify overall project assumptions, i.e. a tentative project logic;
- **Formulation** – based on overall project assumptions adopted and approved by the Strategy Council, the Project Team starts to plan project activities in detail. Resources necessary to carry out the project are planned too. At this stage, the Council performs the final verification of the project approval, also in form of application documents to be submitted for competitions co-financed from external sources;
- **Financing** – the Strategy Council decides on applying for funding from external sources, gives opinions on projects in terms of financing them with own funds as per possibilities and resources possessed by respective Partners;

- **Implementation** – at the stage of the implementation of the envisaged actions, the Council has the aforementioned role of the Project Assembly;
- **Evaluation and Audit** – the task of the Strategy Council is to gain knowledge resulting from the implementation of projects. Thus, it analyses conclusions and experiences from the entire process, which in turn contributes to developing next projects and closing the project life cycle.

Figure 5. Project Cycle Management and Strategy Council



Source: Own study

The project approach to the Strategy implementation means that for each project an institutional structure appropriate for its scope and complexity will be specified, which will apply especially to the Project Coordinator and Work Package Leaders. In case of these individual projects carried out in Partnership, the Partnership Council will have management function at the strategic level. In this way, consistency of implemented projects with the assumptions of this Strategy, as well as their continuity and experience learning will be ensured.

In order to achieve the envisaged specific objectives, it is necessary to undertake activities in the defined main research areas, i.e.:

- i. cooperation in the common research areas, i.e. food and feed safety, animal health and zoonotic diseases;
- ii. development of science and research personnel, especially of young scientists;
- iii. joint initiatives on the international stage which increase recognition of the VET-TWIN Partnership.

Ad. i - Cooperation in the common research areas, i.e. food and feed safety, animal health and zoonotic diseases:

The first field, which is related to cooperation within the common research areas, will be implemented through the development of scientific excellence of the Partners. Activities within this domain should focus on initiating joint research projects concentrated around three common thematic areas, i.e. **food and feed safety, animal health and zoonotic diseases**. Joint research work of the Partners and achieved successes will allow for achieving the common objective, which is to increase the level of scientific excellence of the three institutions and at the same time the development of the potential of the VET-TWIN Partnership and respective Partners to function in international science and research environment as a leader in the field of research and knowledge relating to infectious animal diseases, zoonotic diseases and safety of existing food chains.

Besides establishing collaboration within the priority research areas, the VET-TWIN Partnership should develop cooperation based on defined detailed strategic areas, in particular focusing on the ones that are crucial for the Partnership as a whole, i.e. *Research on human, animal and environmental health (One Health); Swine Diseases; Pharmacology and Toxicology*, as well as on thematic areas which are very important for the Partnership, including *Omics Analyses, Epidemiology and Risk Assessment, Fish Diseases, Hygiene of Animal Feeding Stuffs*.

Active research cooperation of the Partners will also contribute to improving recognition of the Partnership in the international research environment, at the same time strengthening the Partnership's position as a leader in its specific research area.

Detailed research areas and their strategic importance for the Partnership are specified in the Strategic Research Plan, which together with the Road Map are attached to this document.

Ad. ii - Development of science and research personnel, especially of young scientists:

Activities within this area will focus on supporting mobility and trainings, including those carried out using cascade method. Another important aspect is about mutual visits of scientific personnel, which will allow for exchange of knowledge and experiences, as well as for building personal relations that are important for setting interdisciplinary international research teams.

The scope of planned activities may also include internships and scholarships, which can be also provided as part of Partners' collaboration. This instrument is relevant especially for the development of young scientists.

Moreover, support should be provided to initiatives which will contribute to attracting outstanding researchers from other scientific centres who in the future will build new research teams. Activities of this type will support mobility, and they are in line with the assumption to develop participation in the European Research Area. In this context, the scope of Partners' activities should be supplemented by enhancing the system of HR management, including recruitment based on openness and equality.

Ad. iii - Joint initiatives on the international stage which increase recognition of the VET-TWIN Partnership:

In this area, it is necessary to undertake as many initiatives as possible which will become visible of the international stage. In this way, information about cooperation will be spread and, therefore, the VET-TWIN Partnership's recognition will be increased too.

A similar effect will be achieved through active membership in international organisations and participation in different events like conferences, seminars, etc.

Also, activity in social media will be of great importance to increase visibility of the Partnership. Actions taken by the Partners should be coherent and consistent in promoting both the respective Partners, and the Partnership as a whole.

Attachments

Attachment 1 - Strategic Research Plan

Attachment 2 - Road Map
