

# The process of joint learning as a determinant of cross-border project management

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## Abstract

*Cross-border projects are aimed at reinforcing relations between partners and achieving mutual objectives important for cooperating organisations and for the development of the borderland in which they are implemented. The quality and sustainability of these projects' results depends, among others, on the manner of skilful management thereof. Many processes in the projects are based on knowledge. Mutual planning and implementation of a cross-border project includes joint resolution of the problem underlying the project and, at the same time, providing a joint learning opportunity for partners. Therefore, knowledge can be treated as an important factor influencing the cross-border project management process. The paper is aimed at assessing the impact of the process of joint learning in cross-border projects on the effectiveness of managing them. The research problem was solved due to the quantitative and qualitative research in the Polish-Czech-Slovak borderlands (2018-2019). Research conclusions proved that sharing knowledge and experiences has a significant impact on the effectiveness of cross-border project management.*

*Keywords:* inter-organisational cooperation, cross-border cooperation, cross-border project management, knowledge, joint learning

## Introduction

The learning process development in contemporary organisations entails numerous implications in terms of functioning and relations with the environment. Effective learning may be based not only on the intra-organisational knowledge resources, but also on the external knowledge gained from other entities or on joint learning of several cooperating organisations. Cross-border projects implemented by partners from at least two neighbouring states can be an example of learning process implementation in inter-organisational cooperation. Cross-border project implementation should take into consideration joint learning of the project team

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members and joint learning of cooperating organisations. Exchange of experiences, knowledge transfer, mutual education and creating new knowledge or mutual improvement of skills often constitute aims of cross-border projects concerning cooperation, e.g. with the purpose of improving safety in the border areas, of developing culture, environment protection or entrepreneurship (Wróblewski, 2014). Moreover, joint learning may constitute the value added of cross-border cooperation of partners who are jointly developing skills of professional project management. In the era of the growing significance of the knowledge-based economy, cross-border projects become an important development tool of inter-organisational learning processes. Participation in cross-border projects allows cooperating organisations to generate high added value due to the mutual access to resources that can be used in synergy by the partners (Murgaš and Böhm, 2015). Mutual work results are often of an innovative character, at least for cooperating organisations and, quite often, for the whole borderland. Thus, knowledge becomes a new, significant resource supporting both organisations developing cross-border cooperation as well as the environment in which they operate at the borderland.

The research problem of the paper concerns cross-border project management with the use of the learning process. The comparison of such a project with one conducted by only one entity shows that each stage of the project carried out in partnership is more difficult to manage: conception, planning, organization, management, motivation and control. Especially in the cross-border project, it is very difficult to manage the partnership within the project results duration period (generally 5 years). Taking into account the European funds' main role as a driver of cross-border cooperation in the early stage, not as its long-term finance resource, it is necessary that the partnership be based on the real will to cooperate, knowledge, experience exchange and mutual trust. Otherwise, when partners only seek short-term implementation goals, the partnership may be regarded as a mere pretence. In order to make partners aware of the real benefits of cross-border cooperation projects, it is necessary to show them how they can improve their institutional capacity due to cooperation. The research results are valuable both at a theoretical and at a practical level because, thanks to them, the knowledge about the inter-organizational cooperation nature in cross-border structures is developed; furthermore, the entities which develop the cross-border project have the chance to experience how much added value this cooperation can bring into their organizations. As well as direct outputs, there are also the long-term competitive advantages based on the deepened knowledge regarding the cross-border cooperation process planning, implementation and evaluation. Therefore, the purpose of the research is to assess the impact of the process of joint learning in cross-border projects on the effectiveness of managing them. The author stipulated the extent to which factors related to the learning process influence the effectiveness of the cross-border project management process. The analysed factors were indicated as potentially most influencing for cross-border project management, both for the

partners involved and for the partnership as a whole. Some factors related to the joint learning process and to the project management were also analysed, among others.

Considering the significant role of knowledge in cross-border project management, the author set the aim to determine the extent to which factors related to the learning process influence the effectiveness of the project management process. In order to achieve the aim of the paper, the author specified the potential factors that determine the effectiveness of cross-border projects' implementation and studied the impact of this process. Following the theoretical analysis of the conditions governing the learning process and factors influencing the effectiveness of cross-border project management (first part of the paper), in the second part, the author presented the case study concerning the cross-border cooperation between the WSB University in Dąbrowa Górnicza campus in Cieszyn and VSB of the Technical University of Ostrava, among others, within the framework of the cross-border project developed and implemented by the Polish-Czech project team in the years 2018-2019. This project was aimed at joint learning of Polish and Czech scientists in the scope of developing the methodology of conducting cross-border scientific research. The analysis of this case study defined factors that influence effective cross-border project management, including factors related to the process of joint learning. In the next part of the paper, the author presented empirical (quantitative) research results of 50 organisations implementing cross-border projects in Poland, the Czech Republic and Slovakia (2018-2019). Research results enabled to make recommendations in the scope of using the learning process in cross-border project management.

## **1. The significance of the joint learning process in planning and implementation of cross-border projects - theoretical introduction**

### **1.1. Characteristics of the learning process at the level of: an individual, a team, an organisation and at the level of inter-organisational cooperation**

The term "learning cycle" was used as early as the 1960s while describing the organisation's reactions to environmental stimuli (Cyert, 1969, pp. 169-187). In 1969 a new approach to understanding organisational learning was proposed and was defined as the process of improving measures due to the better understanding of the situation. At the same time, the necessity to differentiate processes of conscious organisational learning and processes of adapting the organisation to the changes in the environment was underlined (Fiol and Lyles, 1985, pp. 803-813). Despite the fact that organisations learn from the experience and activities of their members, the organisational learning process and the group learning process significantly differ from the individual learning process of particular persons.

The individual learning process consists in increasing the person's ability to take effective actions (Kolb, 2014) through experiencing something new and the

ability to draw conclusions from such experiences. In fact, new ideas concerning mutual problems arise on the grounds of knowledge and experiences (Jashapara, 2004, p. 143). Furthermore, it is crucial to encourage motivation of persons participating in the joint learning process and teach them the ability to reflect on taken actions, especially to draw conclusions from mistakes.

Team learning constitutes the ability of the group to start a discussion and a dialogue (Senge, 1990). It requires a harmonious balance between group members' intelligence and the ability to consider complex problems in depth. It comprises acquiring the ability to undertake innovative and coordinated measures in the spirit of unanimity without, however, losing spontaneity and the individual approach of each group member (Jashapara, 2004, p. 145). Team learning leads to fundamental changes spreading in the whole organisation, resulting from meeting intellectual, emotional, social and spiritual challenges (Senge *et al.*, 1999, p. 414).

Organisational learning is defined, among others, as:

- a dynamic process of knowledge acquisition (Frank *et al.*, 2012, p. 112),
- a process based on the organisational culture supporting learning, as well as on the mutual vision of all members of the organisation (Sinkula *et al.*, 1997, p. 305),
- changes in beliefs and cognitive changes or changes in activities and behaviours (Easterby-Smith *et al.*, 2000, pp. 783-796).
- The above definitions are supplemented with another conception (Schulz, 2001, pp. 661-681) which relies the learning process on three key aspects:
- measures improving the organisation results due to the effort of all its members using of the available knowledge,
- consolidating knowledge in the process of coding conclusions drawn from gained experiences and changing them into organisational routines, e.g. procedures, conventions, technologies, strategies etc.,
- evolution of organisational knowledge by introduction of changes in the area of storage or changes in the manners of distribution.

Organisational learning is based on the gained knowledge and experience, i.e. on using the organisational memory (Stata and Almond, 1989, pp. 31-42). The criterion of considering the organisation as a learning organisation is set, among others, by (Levitt and March, 1988, pp. 319-338):

- behaviours of the organisation members determined by specific patterns (rules, procedures, strategies),
- activities undertaken by organisation members resulting from their previous experiences, targeted at adopting binding patterns to current problems and needs of the organisation,
- focus of the organisation's members on achieving aims, related to specific cognitive needs.

As a result of the organisational learning process, there are quantitative and qualitative changes in the organisational knowledge. It should serve solving the

organisation's problems, as well as the achievement of its objectives through the agency of projects, among others.

Nowadays, no organisation is self-sufficient (Lynch, 1993) and one of the most desired, external resources is knowledge. Currently, it is increasingly acquired from the environment, as a result of individual, group and organisational learning processes also executed in various models of inter-organisational cooperation. A characteristic attribute of inter-organisational cooperation comprises collaboration beneficial for both parties (Kale *et al.*, 2002, p. 765), constituting a result of the evolution of mutual relations and experiences gained during previous cooperation (Mattessich *et al.*, 2001; Winkelen, 2010, pp. 8-23; Berlin and Carlström, 2011, pp. 159-171). In order to enable later use of accumulated knowledge at the level of inter-organisational cooperation, it is necessary to implement the inter-organisational learning process. Thus, the ability to learn in cooperating organisations determines their readiness to develop their own knowledge, as well as mutual, collective knowledge. It happens at the level of individual and team learning, as well as at that of organisational and inter-organisational learning. In particular, the inter-organisational learning allows cooperating organisations to compensate for their own knowledge shortages with the use of others' knowledge resources (Probst and Büchel, 1997). Therefore, mutual and joint learning constitute one of the basic benefits resulting from inter-organisational cooperation. Inter-organisational cooperation can develop both as bilateral relations between two organisations as well as network relations, within the framework of partnerships, consortia, alliances, networks or clusters, among others. Inter-organisational cooperation is a specific model of cross-border project implementation creating suitable conditions for using various knowledge resources, including:

- own knowledge of cooperating organisations, of which one acts as a leading partner in the project and the other as the partner from the other side of the border,
- knowledge available in the partners' environment on both sides of the border,
- knowledge of various groups of project stakeholders, among others, the knowledge of project results' recipients,
- knowledge developed mutually by partners in the learning process within the project,
- knowledge constituting one of the key project results (e.g. in educational projects or in projects consisting in exchanging experiences).

## **1.2. Cross-border project management**

A cross-border project is a single undertaking which often constitutes a part of the permanent cooperation between two or more organisations operating in border regions. This type of project is characterised by: novelty and distinction from routine activities, determinateness (specific timeframe of implementation and budget), uniqueness (unique products and results occurring on both sides of the border), as

well as aims, tasks and expected results mutually specified by partners (Lewis, 2001, p. 5; Juran, 2003, p. 24). Projects face various types of risk primarily resulting from the complexity of the border environment, and implementation requires engagement on both sides of the border of specific resources: human, material, financial and specialist knowledge. The cross-border project additionally fulfils the following requirements:

- it is implemented by at least two organisations, i.e. two partners from neighbouring border regions of at least two states,
- covers tasks which are performed on both sides of the border,
- engages representatives of each cooperating organisation, who jointly make a cross-border project team (or several teams),
- includes additional activities with regard to those that are usually performed by partners,
- its results are beneficial not only for partners' organisations and target groups on both sides of the border, but also generate so-called cross-border effects, i.e. beneficial changes in specific developmental areas of the whole borderland e.g. culture, education, economy etc.

The following key features of a cross-border project can be indicated (Kurowska-Pysz, 2019, p. 80):

- it constitutes a response to the needs of each partner and related stakeholders on both sides of the border;
- each cross-border project partner engaged in cooperation in an agreed manner adequate with regard to the held knowledge, skills, competences and possibilities with a consideration of the relation between input and benefits;
- each partner has an opportunity to generate expected effects in the cross-border project;
- results from the authentic willingness of cross-border cooperation and is not forced by circumstances e.g. availability of Union funds;
- leads to results which should further lead to pathways of developing cross-border partnership;
- the project is implemented in a manner promoting the enhancement of trust between partners and eliminating barriers in communication and cooperation at the borderland.

The cross-border project can be funded with partners' own resources and/or external resources (refundable and non-refundable), among others, due to European Union grants. The INTERREG programme is the most often used instrument of financial support for cross-border cooperation<sup>1</sup>. The willingness to use the INTERREG programme funds forces cross-border cooperation partners to use the methodology of managing this type of project required by the European Union.

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<sup>1</sup> INTERREG The European Territorial Co-operation Programme EC (retrieved from [http://ec.europa.eu/regional\\_policy/pl/policy/cooperation/european-territorial/](http://ec.europa.eu/regional_policy/pl/policy/cooperation/european-territorial/)).

Organisations implementing joint cross-border projects, funded under the INTERREG VA programme must jointly fulfil at least two out of four criteria:

- joint development of the project,
- joint implementation of the project on both sides of the border,
- joint personnel, i.e. teams representing each partner, cooperating with each other and responsible for project implementation on both sides of the border, as well as achievement of planned aims and results of the project,
- joint funding of the project by partners on both sides of the border, adequate to activities performed by them.

The cross-border project life cycle (Figure 1) constitutes a sequence of stages of planning, implementation and evaluation on both sides of the border (Kurowska-Pysz *et al.*, 2018). In order to initiate cross-border cooperation of partners, it is necessary for them to define common aims (one of which may be joint learning) and to have the complementary resources which will allow achieving those aims due to use of knowledge, among others.

**Figure 1. Cross-border project lifecycle**



Source: autor's representation

Cross-border project planning and implementation requires cooperating organisations to provide structures equivalent in terms of decision-making and responsible for taking relevant measures. The persons delegated by each partner to implement the cross-border project have to possess the specific skills, competences, knowledge and motivation necessary to manage such undertakings.

In the case of cross-border projects, the critical moment consists in obtaining funds for implementation which is, in many cases, dependent on the decisions of external entities, e.g. those distributing Union grants. Obtaining external funds to implement a cross-border project is generally possible only in the case of such undertakings, whose results also have a positive impact on the development of border areas.

Cross-border project implementation requires knowledge of the specific methodology of management taking into consideration performance of activities on both sides of the border in a manner allowing achievement of planned aims and obtaining the cross-border effect. It requires ensuring favourable organisational conditions for cross-border cooperation, primarily by both partners maintaining continuous contact and joint coordination of activities. Joint performance of the project conduces to joint learning of partners on at least two levels:

- improvement of the cross-border project management methodology,
- achievement of the thematic aim of the cooperation, e.g. education, culture, entrepreneurship etc.

Maintenance of the sustainability of the cross-border project results upon termination thereof is influenced by the quality of these results and by partners' motivation to continue the cooperation. A significant role is played by the partners' subjective conviction of the purposefulness of further joint measures and awareness of the benefits that can be thus generated (Böhm and Kurowska-Pysz, 2019).

Another critical moment constitutes the evaluation of the degree of achieving aims and results of the cross-border project. It allows formulating evaluating conclusions and making a decision on extending the cross-border cooperation, continuation of the terms and conditions, and limitation or cessation thereof. If, as a result of the project evaluation, it turns out that further cross-border cooperation is beneficial for both parties, another step usually comprises implementation of another cross-border project.

### **1.3. The inter-organisational learning process in the cross-border project - key conditions**

Inter-organisational learning in the cross-border project consists in each cooperating organisation applying behaviours (cooperation conditions, procedures, mechanisms) allowing, among others:

- knowledge transfer (between partners or to the borderland environment),
- joint creation of new knowledge within the framework of the project,
- absorption of knowledge by partners (obtained from one another or imported from the borderland environment),
- individual use of knowledge in cooperating organisations,
- joint use of knowledge by both project partners, to their benefit and/or to the benefit of the borderland environment.



Inter-organisational learning in the cross-border project can result in an increase in:

- learning speed, i.e. speed of moving through the learning cycle,
- learning depth, i.e. the degree to which the organisation can question assumptions,
- learning width, i.e. the ability to diffuse new knowledge to other parts of the organisation or partnership (Redding, 1994),
- competences and skills of cooperating organisations (among others, the ability to learn jointly).

The ability to learn jointly by organisations implementing cross-border projects constitutes their ability and readiness to develop their own knowledge, as well as mutual collective knowledge on the grounds of cooperation with the partner on the other side of the borderland. Joint learning in the cross-border project can occur at one or several levels: individual, team, organisational and inter-organisational. Special conditions for inter-organisational learning occur exactly in the cross-border project. The following can be considered as additional elements of the ability to learn in the cross-border project:

- a) focus on joint measures in the cross-border region,
- b) acceptance of cultural, social and ideological differences between partners and related stakeholders,
- c) the ability to communicate in partners' languages, understanding the partner,
- d) mutual recognition of potential and resources that can be used by partners in the inter-organisational learning process,
- e) acceptance of the principle of sharing costs and results of the learning process on both sides of the border,
- f) free knowledge flow between partners' organisations, i.e. elimination of related barriers and limitations,
- g) focus on obtaining knowledge individually and jointly from the environment and transfer between partners.

The value added for the organisations extending the ability to learn due to the cooperation in the cross-border partnership is related to:

- those organisations' use of the unique environment in the border areas where they operate;
- implementation of the joint learning process based on the unique cross-border cooperation mechanisms;
- engaging by each partner of the resources and potential necessary for the proper course of collaboration processes at border areas,
- support for those organisations provided by many various groups of stakeholders of the borderland development, interested in positive effects of cross-border cooperation, e.g. Euroregions.

The cooperation of partners in a cross-border project requires sharing knowledge continuously. It may be conducted intuitively or purposefully if partners

consciously want to learn jointly due to their participation in the project. The organisation's participation in the joint learning process may change in time and also depends on the organisation's role in the project (e.g. organisations that are project leaders have bigger influence on the joint learning process than those that are only partners, especially in network projects). In particular phases of the cross-border project management, the joint learning process varies, among others, due to the changing tasks of partners and the demand for specific types of knowledge. The highest intensity of the learning process occurs during the project implementation phase.

The effectiveness of the learning process in the cross-border project depends, at a minimum, on factors such as:

- awareness of the significance of knowledge in the development of cooperating organisations,
- availability of knowledge,
- the ability to absorb knowledge by cooperating organisations.

In order to apply the joint learning process in the cross-border project, it is necessary to appreciate knowledge as a strategic resource of contemporary organisations. The higher the availability of knowledge, the bigger the chance to obtain it by the cooperating organisations, whereas the bigger the absorption ability of the organisation, the higher the effectiveness of the joint learning process.

## **2. The joint learning process in cross-border projects - case study**

### **2.1. Characteristics of partners and description of the cross-border cooperation**

The Vysoka Skola Banska Technical University in Ostrava operates at the Polish-Czech borderland. It develops scientific research in the scope of regional development and sustainable development as well as cross-border cooperation at an international scale. The University has competent administrative staff preparing and implementing cross-border projects with Polish partners.

The WSB University has been operating, among other places, in Żywiec. The Żywiec campus conducts scientific research concerning, among others, cross-border cooperation with Czech and Slovak local governments, the Euroregion Cieszyn Silesia and the Euroregion Beskidy, and many NGOs and companies. The cooperation between partners started in 2013. So far, two cross-border projects, co-funded by the INTERREG Czech Republic -Poland 2014-2020 programme, were jointly implemented:

- Practical training program for staff developing a low carbon economy in border areas - part I (2017-2020);
- Polish-Czech scientific cooperation for cross-border research quality improvement (2018-2019).

As of 2020, another project, co-funded by INTERREG Czech Republic - Poland 2014-2020 programme, is implemented: Practical training program for staff developing a low carbon economy in border areas - part II (2020-2023). In a wider partnership, due to the co-funding from the Visegrad Fund, both universities also participate in the project Exchange of Smart Solutions between V4 and EU in Energy, Environment and Life. The partners jointly participated in planning the conception, budget and schedule of each of these projects, consulted with stakeholders, drew up the project documentation and jointly applied for co-funding. Both universities delegated administrative employees and academic-scientific employees to cooperate in all cross-border projects. The partners jointly undertook measures aimed at the maintenance and development of cross-border cooperation, among others, by other joint educational initiatives and joint scientific research.

Upon termination of implementing the project Practical training program for staff developing a low carbon economy in border areas - part I (2017-2020), the partners decided to continue the cooperation in this scope within the framework of the project Practical training program for staff developing a low carbon economy in border areas - part II. At the same time, the first results of this project generated in 2018 have already encouraged partners to extend cooperation:

- with new thematic aims due to the implementation of another joint project: The Polish-Czech scientific cooperation for the cross-border research quality improvement,
- in the new formula of partnership, due to the implementation of the network project within the Visegrad Group: Exchange of Smart Solutions between V4 and EU in Energy, Environment and Life (with the participation of partners from Hungary and Slovakia).

Due to the fact that in the project: The Polish-Czech scientific cooperation for the cross-border research quality improvement, the joint learning process is the thematic aim which, at the same time, provides the opportunity to improve the cross-border project management methodology, the author submitted this project to detailed assessment within the framework of this case study.

## **2.2. Project presentation: The Polish-Czech scientific cooperation for the cross-border research quality improvement**

The aim of the project was to intensify the cooperation of project partners in the scope of undertaking cross-border scientific research in the area of Polish-Czech and Polish-Slovak borderlands, especially in the Euroregion Beskidy. It resulted in the partners' joint implementation of the cross-border scientific research concerning issues important for the development of the Euroregion Beskidy. These studies were conducted on the basis of new methodology jointly developed by the partners within the framework of the project. Due to participation in the project, employees from

both universities could jointly learn, develop new competences and skills necessary to extend the Polish—Czech academic cooperation in the Euroregion Beskidy.

In order to develop the methodology of cross-border cooperation in the scope of scientific research, the partners jointly defined the information and counselling needs of key stakeholders of the cross-border cooperation (local governments, enterprises, non-governmental organisations). The research concerning the key needs of the development of the Euroregion Beskidy was conducted in two key areas: socio-cultural and economic-environmental.

Detailed aims of the project include:

1. Identification of priority thematic areas of research in the Euroregion Beskidy and definition of joint methodologies of conducting such research by project partners.
2. Methodological preparation of the scientific staff of partners to conduct cross-border scientific research in the Euroregion Beskidy.
3. Development of the joint learning system within the framework of cyclical methodological workshops in the Euroregion Beskidy.

The implemented measures and direct results thereof was a 3-day scientific workshop for the academic staff of both universities devoted to the discussion of the cross-border cooperation strategic areas requiring in-depth recognition within the framework of the Polish-Czech scientific research. Workshop participation was conducted by experienced moderators with significant academic achievements who helped participants in creating the methodology of cross-border scientific research. Thanks to the joint learning process, the Poles and Czechs were able to conduct the Polish - Czech quantitative and qualitative research in the Euroregion Beskidy within the following areas: cross-border entrepreneurship, local development of cities/towns and municipalities at the borderland, cross-border and inter-organisational cooperation, and cross-border cooperation in the area of culture. The research results were shared with the borderland stakeholders and discussed during the conference as well as published internationally.

### **2.3. Project results related to the learning process**

The impact of the project equally concerned the Polish and the Czech part of the Euroregion Beskidy. The identification of future strategic directions of the cross-border cooperation development is essential for the Euroregion Beskidy since its Polish and Czech parts do not have a common border and thus, due to various barriers, contacts are rather difficult. The project reinforced stakeholders in the cross-border cooperation in the Euroregion Beskidy in terms of information and counselling. Due to the development of academic cooperation, the project also contributed to the reinforcement of the intellectual capital of the Euroregion Beskidy and the whole Polish—Czech borderland. All project activities were attended by representatives of target groups from both parts of the borderland, who used the

project effects to develop municipalities, non-government organisations, and companies on both sides of the border, for example.

Researchers representing project partners developed their research potential and exchanged experiences from previous research. Polish and Czech recipients of the project results, among other local government members, entrepreneurs, non-governmental organisations, and public institutions of the borderland, obtained specific knowledge on the expectations of the local community of the Euroregion Beskidy and their demand for the development of the cross-border cooperation in various areas. Furthermore, they learned about currently existing barriers to such cooperation and proposed mechanisms of further development.

From the point of view of the joint learning process in the cross-border project, it can be stated that, in this case, it was used at all levels: individual, team, organisational and inter-organisational cooperation (Table 1). In the discussed case study, the knowledge transfer and the learning process constituted both the thematic aim of the project as well as the natural benefit resulting from the joint performance of the cross-border project, thanks to which representatives of both partners developed skills and competences to manage projects.

**Table 1. The use of the joint learning process in the discussed case study**

Level of learning	The impact of the knowledge transfer and of the joint learning process on achieving the thematic aim of the project	The impact of the knowledge transfer and of the joint learning process on improving joint management of the cross-border project
<b>Project participant: Pole or Czech</b>	<ol style="list-style-type: none"> <li>1. Development of knowledge on methodologies of cross-border scientific research.</li> <li>2. Development of competences to participate in cross-border scientific research.</li> <li>3. Development of the skills to work in the cross-border research team.</li> <li>3. Extending knowledge on significant information and counselling needs of stakeholders from the borderland.</li> <li>4. Preparation to provide information and counselling services to stakeholders from the borderland.</li> </ol>	<ol style="list-style-type: none"> <li>1. Improvement of various managerial and executive roles in cross-border projects e.g. promotion, settlement, reporting, performance of project activities on both sides of the border, communication in the project.</li> <li>2. Development of knowledge on methodologies of the cross-border project management.</li> <li>3. Development of the skills to work in the cross-border project team.</li> </ol>
<b>Team of participants: Polish team, Czech team.</b>	<ol style="list-style-type: none"> <li>1. Development of the skills to manage the research group.</li> <li>2. Development of the skills to cooperate with the research team from the other side of the border.</li> <li>3. Extending knowledge on methodologies of identifying research topics significant for borderland development.</li> <li>4. Extending knowledge on the manners of managing intellectual property created as a result of cross-border scientific research.</li> </ol>	<ol style="list-style-type: none"> <li>1. Improvement of methods and tools of cooperation between teams managing the cross-border project in both countries e.g. in the scope of: promotion, settlement, reporting, performance of project activities on both sides of the border, communication between teams.</li> </ol>

<b>Cooperating organisations:</b> <b>WSB</b> <b>Dąbrowa</b> <b>Górnicza, PL</b> <b>VSB TU</b> <b>Ostrava, CZ</b>	<ol style="list-style-type: none"> <li>1. Access to new methodologies of conducting cross-border scientific research (research tools and methods), which can be used by the organisation for the purposes of conducting international scientific research with other partners.</li> <li>2. The ability to prepare a good offer for a borderland stakeholder interested in using information and counselling services provided by the university and its employees.</li> </ol>	<ol style="list-style-type: none"> <li>1. Improvement of methods and tools of cross-border project management at the level of organisation i.e. partner in the project.</li> <li>2. Better adjustment of internal managerial procedures to the characteristics of participation in cross-border projects.</li> <li>3. Gaining new experiences related to planning, implementing and settling the project, which improve the quality of these processes at the level of organisation.</li> </ol>
<b>Inter-organisational cooperation in the Polish - Czech cross-border project</b>	<ol style="list-style-type: none"> <li>1. Developing procedures of permanent scientific cooperation between research teams from both universities.</li> <li>2. An increase in the number of joint scientific publications affiliated to both universities.</li> <li>3. Developing, together with the partner, a path for further inter-organisational cooperation by another research project based on the cooperation of teams representing both organisations.</li> </ol>	<ol style="list-style-type: none"> <li>1. Better organisational preparation of both partners for other joint cross-border projects on various topics and with a higher level of complexity.</li> <li>2. Adaptation of good solutions applied by the partner of the other side of the border to own administrative procedures regarding cross-border project management.</li> <li>3. Developing, together with the partner, a path for further inter-organisational cooperation by another research project based on the cooperation of teams representing both organisations.</li> </ol>

*Source:* autor's representation

The analysis presented in Table no. 1 proves that the knowledge transfer and the learning process generated a number of benefits for cooperating organisations, which might have been obtained only due to the joint implementation of the cross-border project. Particular benefits concern not only the scientific development of both universities' academic staff related to the thematic aim of the project, but also improve the managerial, organisational and administrative competences of both organisations, thus facilitating joint participation in other cross-border projects.

### 3. Methodological approach, figures and results

#### 3.1. The research design

The research problem of the work concerns cross-border project management with the use of the learning process. This process can have a positive impact on the achievement of the project's thematic aim and on the improvement of the cross-border project management process. The aim of the work is to stipulate the extent to which factors related to the learning process influence the effectiveness of the cross-border project management process.

In order to achieve the aim of the work, the incomplete numerical induction method was used for deducting generalisations on the grounds of experiments and facts, allowing formulation of the general rule based on the limited number of details. Taking into consideration the selection of the sampling, it has been assumed that the conclusions drawn from the research conducted with this method will be highly

probable. The probability of the inductive conclusion increases with the increase in the number of studied organisations, as well as with the studied organisations' higher degree of differentiation. Therefore, the research covered 50 organisations selected on criteria such as: type of organisation, country in which it operates, number of cooperating organisations, experience in cross-border cooperation, and number of implemented projects.

The desk research analyses concerning scientific publications and information materials regarding cross-border projects have been used in the work. Empirical research has been conducted: qualitative and quantitative. Qualitative research was based on the case study method. It concerned the cross-border cooperation of the Cieszyn campus of WSB University in Dąbrowa Górnicza and the VSB Technical University in Ostrava. The cross-border project implemented in the years 2018-2019 was subject to detailed analysis. The joint learning process of Polish and Czech researchers developing their knowledge and skills of conducting cross-border scientific research was discussed in the case study. It constituted the thematic aim of the project. Simultaneously, through the agency of joint management of this cross-border project, representatives of both cooperating organisations jointly learned how to improve these activities. This analysis allowed defining the factors which influence effective cross-border project management, including those related to the joint learning process. Then, these factors, enumerated in the Table 2., were analysed within the framework of quantitative research.

**Table 2. Factors influencing effective cross-border project management**

No.	Name of the factor
1.	Compliance of project's and cross-border partnership's aims with the aims of the partners' activities
2.	Compliance of project's and cross-border partnership's aims with the aims of borderland development
3.	Partners' credibility
4.	Partners' experience in projects
5.	Partners' engagement in cooperation
6.	Openness to new knowledge and experiences
7.	Good organisational preparation of projects' implementation
8.	Sharing knowledge and experiences
9.	Financial background for projects' implementation
10.	Willingness to jointly solve problems and implement good practices
11.	Partners' openness to changes and innovation
12.	Maintaining a stable project team by partners
13.	Also including other partners from the borderland in the cross-border cooperation
14.	High motivation of persons directly engaged in the project
15.	Willingness to jointly learn new things and measures in cross-border projects

*Source:* autor's representation

Respondents to quantitative research were obtained based on a non-random sampling method. The research population consisted of 50 Polish, Czech and Slovak organisations, such as local authorities, organisational units of local government, public administration units and universities, and non-governmental organisations (Table 3).

**Table 3. The number of respondents of quantitative research in particular groups**

Type of organisation	Number	Percent
Local authorities	24	48
Organisational units of local government	3	6
Public administration units	0	0
Non-government organisations	8	16
University	10	20
Other	5	10
<b>Total:</b>	<b>50</b>	<b>100</b>
<b>Cross-border partnership</b>		
Polish organisation with one partner from the Czech Republic (P1)	13	26
Polish organisation with one partner from Slovakia (P1)	12	24
Polish organisation with more than one partner from the Czech Republic (P1+)	4	8
Polish organisation with more than one partner from Slovakia (P1+)	6	12
Polish organisation with more than one partner from the Czech Republic and more than one partner from Slovakia (P1+)	15	30
<b>Total:</b>	<b>50</b>	<b>100</b>
<b>Experience in cross-border cooperation</b>		
3 - 5 years	16	32
Over 5 years, but under 10 years	11	22
10 years and more	23	46
<b>Total:</b>	<b>50</b>	<b>100</b>
<b>The number of implemented cross-border projects</b>		
1 - 2	15	30
3 - 5	18	36
6 - 10	6	12
Over 10	11	22
<b>Total:</b>	<b>50</b>	<b>100</b>

Source: autor's representation

The research was conducted by using the interview method, Computer-Assisted Telephone Interviewing (CATI) or the Computer-Assisted Web Interview (CAWI) technique. The results were measured on an ordinal scale (Likert scale and rating scale). Then, the analysis of the distribution of the assessment of response/approach of respondents, empirical analysis and analysis of correlations and preferences were conducted. A selection of the analysis method was determined by the research objectives and the measurement scale used in the questionnaire. The comparative analysis of the distribution of answers of researched organisations used the multiple box plot and basic position measures [first quartile Q1, Q2 (median) and



Q3]. The box plot is very useful in the analysis of differences in assessments between various types of researched organisations. The Relative Importance Index has been used to create rankings and was calculated in compliance with the formula below (Tam *et al.*, 2000, pp. 437-446):

$$RII = \frac{5 * n_5 + 4 * n_4 + \dots + 1 * n_1}{5 * n} \in [0,1]$$

In the formula presented above  $n_{(i)}$  ( $i=1,2,\dots,5$ ) is the number of persons ticking  $i$ ) position in a single question and  $n_{-}$  - the number of all answers. It is assumed that the closer the RII value is to 1, the more important the factor is.

The empirical analysis required performance of standard procedures of research on correlations between variables. To this end, the test for the Spearman's rank correlation coefficient, the chi2 independence test together with Cramér's V coefficient were used and Cramér's V coefficient, which allows assessment of the strength of correlations between variables, was calculated. The value of the coefficient falls within the range [0, 1], whereas the further the value is from 0, the stronger the correlation. For statistical tests,  $\alpha=0.05$  was adopted as an implicit level of statistical significance. Moreover, whether there are any differences in the assessment of particular features was verified. In the case of 2 subgroups, the Mann-Whitney U non-parametric test (MW test) was used, and in the case of more than 2 subgroups, the ANOVA Kruskal-Wallis non-parametric test (KW test) was used.

The research was conducted in the years 2018-2019. Research results allowed defining recommendations in the scope of using the learning process in cross-border project management.

### 3.2. Figures

The effectiveness of project implementation in partnership is influenced to the largest extent by the partners' engagement in cooperation (factor 1.5) and the sharing of knowledge and experiences (factor 1.8) (Figure 2). At least half of the respondents stated that these factors definitely influence the effectiveness of project implementation whereas in the case of the first factor, the respondents were more consistent in assessment (Figure 3). The following factors were considered the least important: including also other partners from the borderland in the cross-border cooperation (factor no. 1.13) and partners' experience in projects (factor 1.4).

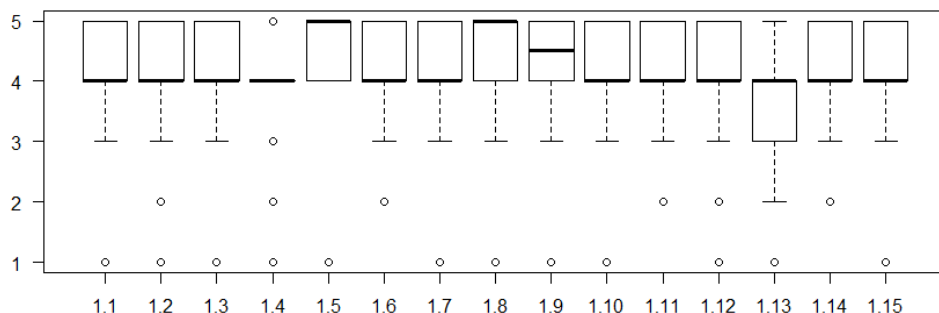
**Figure 2. Values of the Relative Importance Index (RII) of factors influencing the effectiveness of implementing projects in cross-border partnerships**



Source: autor's representation

At least one of the next highly-rated factors, willingness to jointly learn new things and measures in cross-border projects (factor 1.15), is also very important in the joint learning process because it communicates the level of partners' motivation to extend the benefits of the cross-border project to some indirect results, such as new knowledge and skills. One can also indicate the internal relations between this factor and two other important factors: partners' credibility (factor 1.3) and compliance of project and cross-border partnership's aims with the aims of the partners' activities (factor 1.1.). Only the knowledge comes from a credible source can be treat as valuable. The knowledge and experience accessible in the project are generally related to the project topics, so it is interest-worthy for the partners only if the project is really important for them, i.e. relevant to their individual goals. It can happen that, because of many reasons (political, financial, diplomatic pressure), partners implement projects that are not valuable for them. In this case, they do not pay the appropriate attention to its results and indirect outputs such as knowledge, experience, skills. It should be clearly stated that organizations should only focus on the really important aims and projects and should not allow any waste of resources.

**Figure 3. Distribution of assessments on the importance of factors influencing the effectiveness of implementing projects in cross-border partnerships**



Source: autor's representation

At least half of the respondents believe that the compliance of the project's and cross-border partnership's aims with the aims of the partners' activities (factor 1.1) and the compliance of the project's and cross-border partnership's aims with the aims of the borderland development (factor 1.2) influence or definitely influence the effectiveness of project implementation. However, in compliance with the ranking of factors developed on the grounds of the value of the RII, the compliance of the project's and cross-border partnership's aims with the aims of the partners' activities (factor 1.1) is ranked higher. From the point of view of INTERREG programme goals, the financial support for the partners developing cross-border projects is supposed to be strongly related to the borderland strategic development goals. However, for the programme beneficiaries, their individual needs are always a priority, and they engage in difficult cross-border projects only if results justify inputs. Taking into account these rules, the respondents' answers show that the knowledge and other values arising from the joint learning process are directly related to the project topics and activities.

The analysed factors are significantly correlated to a various extent (Table 4), yet the direction of this correlation is in each case positive; therefore, the increase in the assessment of the value of one factor is equal to the increase in the assessment of the other. The biggest correlations occur for the following pairs of factors: the compliance of the project's and cross-border partnership's aims with the aims of the partners' activities and the compliance of the project's and cross-border partnership's aims with the aims of the borderland development (factors 1.1 and 1.2) and openness to new knowledge and experiences and sharing knowledge and experiences (factors 1.6 and 1.7). These correlations show that the paper research problem is strongly related with the typical project situation when the only possibility to develop the cross-border project supported by the INTERREG programme is to adjust its relevance to the aims of borderland development. On the other hand, only those projects that are

suitable to the partners' aims and needs are considered interesting. So, if the two aforementioned factors are agreed upon, the cross-border project has the highest impact for the partners and for the borderland. The adequate project environment is necessary to maintain a high level of motivation among partners so they feel encouraged to acquire new knowledge and to share experiences.

**Table 4. Values of Spearman's rank correlation coefficients between factors influencing the effectiveness of cross-border projects' implementation**

	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	1.11	1.12	1.13	1.14	1.15
1.1	1.00														
1.2	<b>0.70</b>	1.00													
1.3	<b>0.30</b>	0.22	1.00												
1.4	<b>0.32</b>	0.22	<b>0.42</b>	1.00											
1.5	<b>0.43</b>	<b>0.44</b>	<b>0.43</b>	<b>0.41</b>	1.00										
1.6	<b>0.45</b>	<b>0.60</b>	0.17	<b>0.31</b>	<b>0.53</b>	1.00									
1.7	<b>0.48</b>	<b>0.65</b>	0.10	<b>0.33</b>	<b>0.48</b>	<b>0.85</b>	1.00								
1.8	<b>0.46</b>	<b>0.50</b>	<b>0.48</b>	0.27	<b>0.44</b>	<b>0.64</b>	<b>0.55</b>	1.00							
1.9	<b>0.39</b>	<b>0.32</b>	<b>0.43</b>	<b>0.39</b>	<b>0.32</b>	<b>0.37</b>	<b>0.33</b>	<b>0.60</b>	1.00						
1.10	0.24	<b>0.46</b>	<b>0.44</b>	<b>0.41</b>	<b>0.49</b>	<b>0.56</b>	<b>0.63</b>	<b>0.58</b>	<b>0.50</b>	1.00					
1.11	<b>0.34</b>	<b>0.30</b>	<b>0.34</b>	<b>0.36</b>	<b>0.45</b>	<b>0.42</b>	<b>0.49</b>	<b>0.40</b>	0.20	<b>0.51</b>	1.00				
1.12	<b>0.69</b>	<b>0.50</b>	0.23	<b>0.45</b>	<b>0.35</b>	<b>0.31</b>	<b>0.33</b>	<b>0.30</b>	<b>0.35</b>	0.24	<b>0.40</b>	1.00			
1.13	<b>0.46</b>	<b>0.68</b>	0.21	<b>0.31</b>	<b>0.44</b>	<b>0.50</b>	<b>0.51</b>	<b>0.31</b>	0.22	<b>0.44</b>	<b>0.50</b>	<b>0.43</b>	1.00		
1.14	<b>0.40</b>	<b>0.38</b>	<b>0.31</b>	0.27	<b>0.46</b>	<b>0.41</b>	<b>0.38</b>	<b>0.42</b>	<b>0.45</b>	<b>0.44</b>	<b>0.42</b>	<b>0.46</b>	<b>0.33</b>	1.00	
1.15	<b>0.41</b>	<b>0.41</b>	0.19	0.27	<b>0.35</b>	<b>0.38</b>	<b>0.38</b>	<b>0.38</b>	<b>0.45</b>	<b>0.41</b>	<b>0.37</b>	<b>0.52</b>	<b>0.51</b>	<b>0.69</b>	1.00

\* Marked correlation coefficients (in bold) are significant with  $p < 0.050$

Source: autor's representation

The vast majority of correlations were considered significant. Furthermore, it was also determined whether assessments of the significance of particular factors are varied by types of studied organisations (by type of organisation), by number of partners, length of the cross-border cooperation period, or by number of

implemented projects. It turns out that the researched types of organisations (e.g. local governments, non-governmental organisations etc.) perceive differently the significance of only several factors (Table 5). Partners' efforts to maintain a stable project team (factor 1.12) and inclusion of other borderland partners in cross-border cooperation (factor 1.13) are assessed differently by particular types of researched organisations. Whereas assessment of elements such as: partners' engagement in cooperation (factor 1.5), high motivation of persons directly engaged in the project (factor 1.14), and willingness to jointly learn new things and measures in cross-border projects (factor 1.15) differ in assessment among organisations with different number of projects, and whereas the assessment of the factors concerning maintaining a stable project team (factor 1.12) varies in the scope of the number of partners in projects (Table 5).

**Table 5. Differences between assessments of the significance of factors influencing the effectiveness of implementing projects and sustainability of results (p-values of the non-parametric test ANOVA)**

	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	1.11	1.12	1.13	1.14	1.15
Type of entity <sup>1</sup>	0.36	0.54	0.86	0.44	0.99	0.27	0.70	0.51	0.25	0.92	0.62	<b>0.00*</b>	<b>0.04**</b>	0.16	0.16
Partnership <sup>2</sup>	0.32	0.53	0.35	0.27	0.72	0.95	0.95	0.83	0.98	0.38	0.63	<b>0.03**</b>	0.20	0.45	0.37
Experience <sup>1</sup>	0.32	0.70	0.42	0.34	0.41	0.29	0.41	0.45	0.82	0.38	0.18	0.19	0.27	0.61	0.37
Number of projects <sup>1</sup>	0.56	0.14	0.66	0.62	<b>0.07***</b>	0.29	0.52	0.15	0.50	0.24	0.72	0.11	<b>0.10***</b>	<b>0.03**</b>	<b>0.07***</b>

<sup>1</sup> Kruskal-Wallis test, <sup>2</sup> Mann-Whitney U test

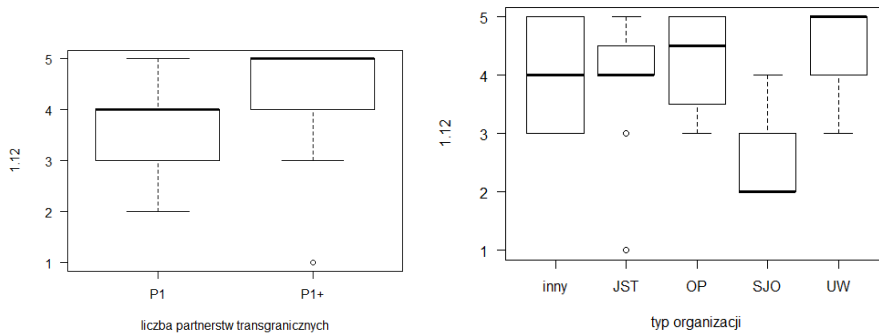
\*p<0.01 \*\*p<0.05, \*\*\*p<0.1

Source: autor's representation

It should be mentioned that the research sample is based on some types of organisations that have a potential to be cross border partners. For example, entrepreneurs were not included in the research; therefore, this would not be relevant for them. The individual partners' organizational culture and their internal organizational structure are other factors that can influence the attitude towards the cross-border cooperation efficiency. The INTERREG programme limitation regarding the impossibility of entrepreneurs' direct support prevent the entities, which are probably the most oriented on knowledge implementation, from participation in this process at the cross-border level.

The box plots below (Figure 4, Figure 5) illustrate differences between groups in the assessment of factors with numbers: 1.5, 1.12 and 1.15.

**Figure 4. Differences in assessments of the significance of factor 1.12 as divided into the number of partners (on the left) and the type of organisation (on the right).**



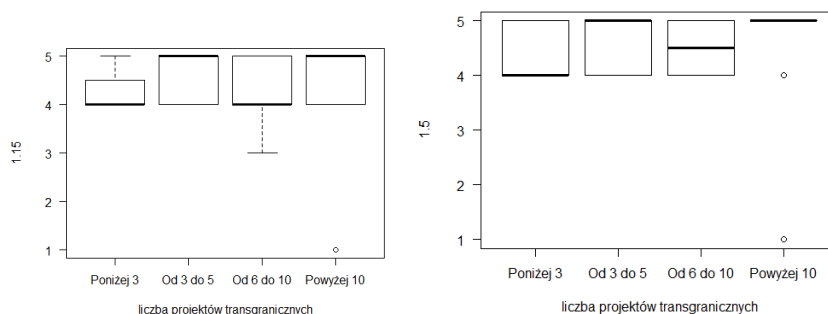
The legend:

liczba partnerstw transgranicznych	Number of cross-border partnerships
inny	Other
JST	Local authorities
OP	Non-governmental organisation
SJO	Organisational unit of local government
UW	University
Typ organizacji	Type of organisation

Source: autor's representation

For organisations implementing projects with more than one partner (P1+), maintaining by partners a stable project team (factor 1.12) is more important than for organisations implementing projects with one partner (P1). In this case, at least half of the respondents indicated that it is definitely significant (Figure 4, on the left). Among all researched types of organisations, only local government organisational units assess the importance of this factor the lowest - at least half of them consider it insignificant (Figure 4, on the right), whereas willingness to jointly learn new things and measures in cross-border projects (factor 1.15) and partners' engagement in cooperation (factor 1.5) are the most important for organisations implementing between 3 and 5 projects and more than 10 projects (Figure 5). The results show that the willingness to learn together is extending along with the cross-border cooperation experience level and the entities who are strongly involved in such projects (many projects) are more aware of the cooperation added value and they are able to use such relations better than entities which are rather inexperienced. The reason might also be the level of cross-border project management difficulty, especially for entities with little experience. They focused mainly on the project processes and on reporting the project progress to the INTERREG programme. It is necessary for the project to achieve settlement and reimbursement. The more experienced partners can also focus on other activities such as the joint learning process.

**Figure 5. Differences in assessment of the significance of factors 1.15 (on the left) and 1.5 (on the right) due to the number of implemented cross-border projects**



The legend:

Poniżej 3	Below 3
Od 3 do 5	3 - 5
Od 6 do 10	6 - 10
Powyżej 10	Over 10
Liczba projektów transgranicznych	Number of cross-border projects
Poniżej 3	Under3
Od 3 do 5	3 - 5
Od 6 do 10	6 - 10
Powyżej 10	Over 10
Liczba projektów transgranicznych	Number of cross-border projects

Source: author's representation

In conclusion, apart from the partners' engagement in cooperation, the respondents also included elements related to the learning process in the group of factors with the highest impact on the effectiveness of project implementation in partnerships, i.e.:

- Willingness to jointly learn new things and measures in cross-border projects,
- Sharing knowledge and experience,
- Openness to new knowledge and experiences,
- Willingness to jointly solve problems and implement good practices.

All of the above factors were indicated by over 85% respondents. Among these factors, particular attention should be paid to the strong relation between openness to new knowledge and experience and sharing knowledge and experience.

The effectiveness of project implementation is also strongly related to the aims targeted by those projects and partnerships implementing them, as well as to the individual aims of cooperating partners and to the aims of borderland development.

Some factors that influence the effectiveness of project implementation are also differently assessed by particular types of researched organisations. For organisations which develop cooperation with more than one partner, it is especially

important to maintain a stable project team. This factor is also significant for organisational units of local government subject to local government units (e.g. community centres, sports and recreation centres, schools etc.), which function in more distributed organisational structures.

Organisations which implement a bigger number of projects indicated: willingness to jointly learn new things and measures in cross-border projects and partners' engagement in cooperation as very important factors shaping the effectiveness of projects' implementation. Therefore, it can be stated that among many types of resources necessary for cooperating organisations for synergetic use within the framework of joint measures (among others, cross-border projects), it is information and knowledge that are used to a significant extent to manage projects. Inter-organisational cooperation in projects generates synergetic results, which can be related to the achievement of set aims. These aims are also often related to the increase in the significance of knowledge in organisation, not only for the purposes of project management, but also for the purposes of organisation development (Kurowska-Pysz, 2019, pp. 157-161). The other problem seems to be the process of knowledge management at the organizational level, because what is likely to happen is that the partners have access to valuable external knowledge resources and yet have no ability to learn in an efficient way. In such a case, the partners have no chance to use the project's additional benefits and are not even able to notice the loss. So, it should be stated that the efficient joint learning process in the cross-border project should also be adequately supported at the level of the individual partner.

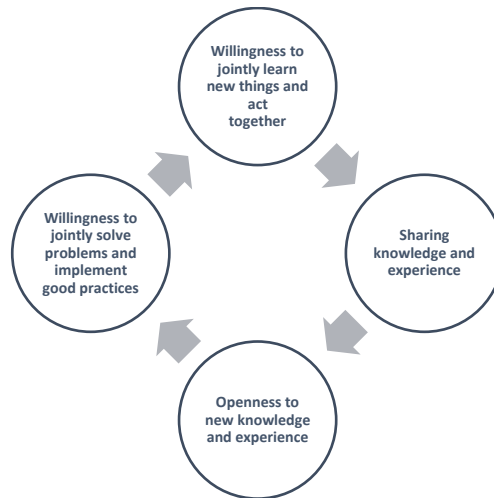
### **3.3. Results and discussion**

Cross-border project management is a complex process proceeding in several phases and with the engagement of a great team of employees, i.e. representatives of cooperating partners from both sides of the border. The effectiveness of the cross-border project management depends on many factors:

- Factors depending on cooperating organisations (knowledge, competences and skills of employees engaged in project management, among others),
- Factors related to the cross-border environment of cooperating organisations (e.g. knowledge available in the partners' environment; stakeholder demand for specific types of measures undertaken by cooperating organisations).

The factors that influence the cross-border project management include as many as four elements comprising the joint learning process in the cross-border project. They are presented in Figure 7.



**Figure 7. The joint learning process in the cross-border project**

*Source:* author's representation

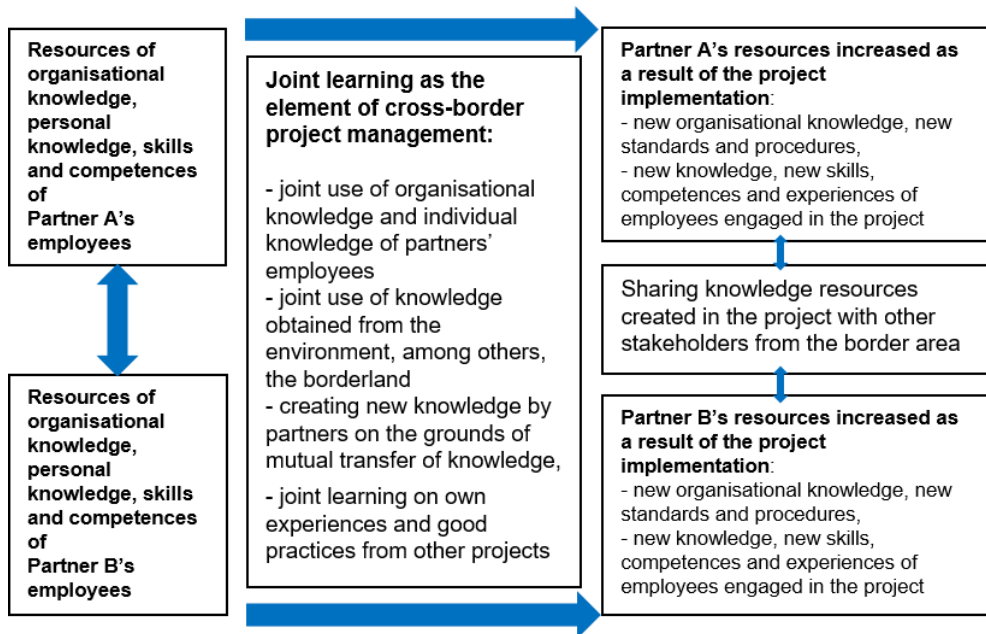
Motivation, which has to occur both at the level of cooperating organisations as well as directly at the level of persons engaged in joint management of the cross-border project, constitutes the starting point for participation in the joint learning process. Motivation to cooperate occurs when partners are strongly engaged in the cooperation and care about achieving aims. Project aims should be compliant with the aims of partners' activities.

For knowledge exchange between partners in the cross-border project to take place, it is necessary to ensure the mutual readiness of each partner to share knowledge, as well as openness to new knowledge and experiences. Such behaviours determine, to a large extent, the possibility to achieve the expected results of cross-border cooperation. It concerns both the results of the project's aims as well as the results related to the improvement of the cross-border project management process. In order to transfer knowledge, cooperating organisations should be aware of the value of knowledge they have to offer to one another and should have the ability to absorb this knowledge.

One of the elements considered while initiating a cross-border project is the knowledge of cooperating organisations, as well as personal knowledge, skills and competences of persons engaged to cooperate in the project. During project implementation, within the framework of managerial activities, the joint learning process should also occur. It is related to the conscious and purposeful processing of knowledge held by partners. It can be concluded that the cross-border project management process is effective when, as a result of implementation, the resources

of partners' organisational knowledge grow and, moreover, employees directly engaged in the project acquire new skills, competences and experiences and extend their personal knowledge resources.

**Figure 8. Transformation of knowledge of cooperating organisations in the cross-border project**



Source: author's representation

## Conclusions

To sum up, knowledge is generally one of the key resources used in cross-border project management. When we consider the knowledge impact on the project's partners and cross-border cooperation as a process, it is necessary to distinguish at least the key types of knowledge. The most available is the explicit knowledge written in reports, elaborations, and databases, which is easy to gain. Sometimes, it is one of the project's deliverables. In the case of projects supported by the INTERREG programme, it is necessary to keep this knowledge available in an open-source database. The second kind is the tacit knowledge, anchored in people's minds. It is a more valuable and less accessible kind of knowledge and it belongs to individuals. If the staff managing the cross-border project is changing, then this kind of knowledge, together with the personal experience, is easily lost.

We can also consider the knowledge accessible in the cross-border project from the project topics' point of view as well as from the project management know-how point of view. Generally, cross-border projects are related to similar topics supported by the INTERREG programmes. Despite slight changes in reference to the borderland, the characteristics are very similar to each border. Both types of knowledge, together with the experiences and skills linked with them, can be very useful for the partners, not only at the cross-border cooperation level but also in other spheres related with their fields of expertise. It is natural that cross-border cooperation could be a good testbed for the future as more international projects require the more-advanced consortium management. Figure 7 presents the joint learning process in the cross-border project as a cycle. After some cycles, it can occur that the cross-border environment is not sufficient to achieve the required knowledge and experience and the entity goes to another, more international level of cooperation, or it can simultaneously cooperate at the cross-border and international level, in different partnerships. It can be also stated that a successful joint learning process in a cross-border project requires the four presented stages, respect, and the partner's active participation. If any of them is missing or ignored, the whole process will be incomplete and inefficient. The process is supported by both kinds of factors: cooperation-dependent organizations, and those related to the borderland. The cross-border project implementation is possible only in the specific cross-border circumstances, which are necessary in this process.

Project management can be discussed in an effective manner when the obtained results (among others, created knowledge resources) have a higher value for partners than the resources invested in the project. To the largest extent, partners use their own knowledge in the project, which they continuously develop and enrich by creating new knowledge based on their own experiences and by using external knowledge obtained, among others, from the borderland. It can happen that partners are not fully open to cooperation and resource exchange. They are going to use partners' knowledge but, at the same time, they are unwilling to share the whole of their own knowledge. Sooner or later, this kind of relationship is bound to end without the expected long-term results because the disparities in partnership understanding produce inequality. A situation where one partner starts to dominate others and exploit their resources without reciprocity is not a good base for a sustainable long-term partnership (Kurowska-Pysz, Wróblewski, Szczepańska-Woszczyzna, 2018, pp. 3317-3327).

Concluding, the efficient knowledge used should be equivalent. The partners should be fully aware of what knowledge value they share and of what knowledge value they receive. In some projects, knowledge created as a result of the project is also shared with other stakeholders from the borderland. The best moment for this is the final project stage when partners are aware of the developed knowledge value. Use of knowledge in cross-border projects is definitely performed through collaboration of partners represented by teams of employees. These teams have

specific knowledge and skills directly related to cross-border cooperation, interpersonal skills and skills related to the process of joint learning, as well as motivation to develop this cooperation. The cross-border project staff competencies and skills are valuable assets not only for their organizations but also for the borderland as a whole.

Obviously, cross-border projects supported by the INTERREG programme are the most popular ones and the most appropriate tools to plan and implement borderland development. They gather individual benefits for both project partners and borderland, which is the key assumption of the European Union subsidies' policy related to the INTERREG programme. In this case, according to the transformation of the knowledge model presented in Figure 8, it is important to take care with respect to the process of sharing the knowledge between project partners and other borderland stakeholders. This could also be a big added value of cross-border cooperation, but this is a topic for further research. The author is going to continue the research that focuses on the cross-border networks and multilateral relations in the knowledge sharing process not only within the project but also within the constant institutional cooperation (for example, the self-government associations that manage the euro regions).

The research results are supposed to serve as assumptions for changes to the INTERREG programme policy. Up to now, it has concentrated mainly on programme priorities and planned results and indicators mainly related to the key areas of cooperation, whereas the second important aspect - the institutional ability for cross-border cooperation enhancement - is underappreciated. In the main, when we discuss the COVID-19 impact on cross-border cooperation, we can see that it is even more difficult to continue the projects and that everyday life on borderland has definitely changed. In this case, only institutional partnerships with strong foundations benefitting from smart employees and shared experiences can sustain the cross-border cooperation while maintaining its previous results.

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