

Transform European Research and Innovation (T4ERI)
Project no. 10103580531.01.2022

MS 9. SWOT ANALYSIS OF R&I STAFF DEVELOPMENT CONCEPTS AT THE T4E UNIVERSITIES

Work done under T4ERI WP3 THE BEST CAREERS FOR THE BRIGHTEST
MINDS

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WP3: The best careers for the brightest minds

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INTRODUCTION	3
REPORT (WRITTEN BY KATARZYNA WIĘCEK-JAKUBEK & MAŁGORZATA CHRUPAŁA-PNIAK)	3
AIM.....	3
MATERIALS AND METHOD.....	4
PARTICIPANTS AND PROCEDURE	4
ANALYSIS	5
RESULTS.....	5
STRATEGIC GOALS, MISSIONS AND VISIONS DECLARED BY THE UNIVERSITIES	5
THE BEST PRACTICES IN R&I STAFF DEVELOPMENT	10
THE SWOT ANALYSIS	14
CONCLUSION.....	18
APPENDIX 1.....	19
QUESTIONNAIRE SWOT ANALYSIS OF R&I STAFF DEVELOPMENT CONCEPTS AT THE T4E UNIVERSITIES	19

INTRODUCTION

In the Framework of the Transform for European Research and Innovation project (T4ERI), the University of Silesia, together with the University of Trieste and the University of Alicante, co-leads the WP3, entitled "The Best Careers for the Brightest Minds". In December 2021, the concept and methodology of the work packages' tasks execution were accepted by the T4ERI alliance authorities. This enabled the task team to design and prepare the research activities focused on the diagnosis phase. This milestone summarises the work carried out so far under task 3.4 and indicates further activities planned for implementation according to the project's adopted work schedule.

R&I support staff are key partners for scientists, and their development is a prerequisite for developing and improving R&I and collaboration in R&I within the T4E alliance. Activities in task 3.4 are closely connected with the partner universities' HRS4R actions.

SWOT analysis in the R&I staff development concept has been made via an online survey for the specialists/experts of HR departments, the science departments or the related units at the Transform 4 Europe universities. The invitation to the survey was sent in September 2022, and the last respondent submitted the survey in November 2022.

REPORT (WRITTEN BY KATARZYNA WIECEK-JAKUBEK & MALGORZATA CHRUPAŁA-PNIAK)

AIM

The research aimed to gather information on the main goals and strategic directions in research and innovation (R&I) staff development across the alliance. Additionally, the best practices have been studied at the allied universities: Vytautas Magnus University in Kaunas, VMU (Lithuania), The University of Silesia in Katowice, USIL (Poland), St. Kliment Ohridski, UNISOFIA (Bulgaria), The University of

Alicante, UA (Spain), The University of Trieste, UNITS (Italy), The Estonian Academy of Arts in Tallinn, EKA (Estonia), Saarland University, USAAR (Germany).

The result of the conducted analysis is identifying the best practices that could be recommended to implement in the alliance's joint strategy and shape the future cooperation between the allied universities.

Based on the survey conducted among the universities' representatives – experts from personnel departments, science departments, and the related units, we would like to compare and contrast definitions of visions and missions and strategic goals of these universities in the R&I staff development area.

This report presents the main findings and conclusions of the survey.

MATERIALS AND METHOD

This exploratory study adopted the qualitative methodology. Data was collected through seven submitted surveys and subsequently analysed using qualitative methods.

The report was structured around three significant themes: (1) strategic goals, visions and missions, (2) the best practices, and (3) the SWOT analysis.

PARTICIPANTS AND PROCEDURE

A total of 7 University experts from the HR departments/ the project departments/the science departments, or other units took part in the study. Each University has selected an expert to whom an interview questionnaire has been sent with the request to complete it. Respondents were also informed about the aim of the study. The in-depth interviews took place between September 2022 and November 2022. 19 questions about goals and activities dedicated to the R&I support staff development were asked during the structured interview. The questions asked were open-ended (see appendix 1).

ANALYSIS

The questionnaire consists of 19 open-ended questions and allows us to know everything from the participants' perspectives on the research subject. The aim was to obtain information, get to know respondents' opinions on the current situation of R&I staff development, and find out the similarities and differences across the alliance.

The presented analyses were created due to the respondents' statements being divided into problem areas. From the interviews' analysis, the three main aspects appeared to be: (1) strategic goals, visions, and missions, (2) the best practices regarding the R&I staff development, and (3) the SWOT analysis.

RESULTS

Survey completed all seven universities partnered in T4E alliance.

1	The Estonian Academy of Arts (EKA)
2	Sofia University St. Kliment Ohridski (UNISOFIA)
3	The University of Trieste (UNITS)
4	Saarland University (USAAR)
5	University of Alicante (UA)
6	University of Silesia in Katowice (USIL)
7	Vytautas Magnus University (VMU)

STRATEGIC GOALS, MISSIONS AND VISIONS DECLARED BY THE UNIVERSITIES

All universities have defined the strategic goals, VISION or MISSION in the area of R&I staff development in their strategic documents (e.g. strategy, plan etc.) The results show that a few universities which have adopted HRS4R in their policies also stress the Action Plans as strategic documents. Some universities report that

their declared strategic statements are too broad and general; thus, it is unclear if they also covered R&I support staff development.

The VISIONS

1	EKA's strategic goal as a research and development institution is to create new knowledge from the standpoint of society and culture through academic and artistic research and to be a part of the international art, design and architecture field and research in these disciplines. EKA supports high-level and diverse science at the level of fundamental research, applied research and experimental development and artistic research. EKAs Research, Development and Creativity Strategy 2022-2025 states as one of the main objective, that: "EKA's research, development and creativity support structure supports EKA's research and development activity as a single network."
2	The The Vision of Sofia University "St. Kliment Ohridski" is related to the aspiration to consolidate its role as an educational, scientific and cultural centre of European importance. – The educational programmes of Sofia University should meet the European quality standards and approach the world's leading models. – The University strives to master the best practices in the development, management and use of science for the vital purposes of society and the individual. – The University will continue to expand its crucial role in the formation and development of policies, strategies and projects for the development of the country. – The University strives to be a leader in learning, scholarship and key projects for the development of society.
3	YES in the PIAO (Integrated plan of activities and organization 2022/2024 – https://www.units.it/operazionetransparenza/files/PIAO_2022-24_UniTS.pdf) we define in the chapter 3.2 the three-year plan of the needs of teaching and research staff (how to define R&I staff needs and to schedule recruitment). In the same document at chapter 3.4 the staff the staff training vision is described.
4	To obtain the EU Human Resources Strategy for Researchers (HRS4R) seal of quality, a human resources strategy was developed to provide an attractive working environment for researchers of all stages. This includes efforts to provide promising career opportunities as well as permanent positions for permanent tasks where this is possible. Staff development is open to researchers as well as to research support stuff and includes all faculties and central entities of the university.
5	Yes. UA vision is to be a public institution of teaching and research prestige, a reference for excellence, innovation and social commitment ("Institutional Strategic Plan 2022-2024"). The University of Alicante, firmly committed to talent attraction and retention, guarantees an open, transparent and merit-based recruitment system, offering equal opportunities to all candidates, making national and international research and cooperation more effective,

	encouraging more profitable research investments and making research careers more attractive (“University of Alicante’s Open, Transparent and Merit-based researcher recruitment policy”).
6	Yes, the University of Silesia has defined the Vision in the area of R7I staff development in the Development Strategy 2020 – 2025 (http://bip.us.edu.pl/sites/bip.us.edu.pl/files/prawo/strategia_us-2021-07-19.pdf). The University employ and recruit the high qualified staff. Community members are aware of the need for continuous development, respond to the current challenges of the environment, are actively involved in the University's affairs, know and understand the mechanisms of scientific evaluation and funding mechanisms, actively apply for research funds, using specialized administrative and logistic support (projects’ specialists).
7	Yes. VMU vision is to be one of the strongest, wide-ranging universities in the Baltic region, fostering the principles of Artes liberales, bringing together a community to build the future of Lithuania and Europe.

*Note: the table contains exact quotations from the questionnaire

The MISSIONS

1	EKA’s strategic goal as a research and development institution is to create new knowledge from the standpoint of society and culture through academic and artistic research and to be a part of the international art, design and architecture field and research in these disciplines. EKA supports high-level and diverse science at the level of fundamental research, applied research and experimental development and artistic research. EKAs Research, Development and Creativity Strategy 2022–2025 states as one of the main objective, that: "EKA’s research, development and creativity support structure supports EKA’s research and development activity as a single network."
2	The R&I Strategy should support the mission of Sofia University "St. Kliment Ohridski": to preserve, enrich and transmit through the century’s knowledge and the human quest for truth and knowledge. The University develops science and trains students in all its fields, educates highly educated, nationally responsible personalities who lead the Bulgarian nation to spiritual uplift and prosperity.
3	YES, the mission in the area of R&I is declared in the Strategic plan (https://www.units.it/sites/default/files/media/documenti/ateneo/piani-strategici/units_piano_strategico_2019_2023_finale.pdf) The incipit: “Aware of the role of basic research, which characterizes the public university, it becomes strategic allocate resources according to objective and transparent criteria of merit, guaranteeing all scientific sectors an adequate level of funding. At the same time, applied scientific research must be supported and enhanced in its capacity interaction with the productive fabric with partnership formulas, conventional or institutional.

4	Specifically, activities are planned in the areas of recruitment management and application management. To obtain this, Saarland University has committed to all the actions comprised in the Action Plan of the HRS4R process which are to a great part designed to further enhance the development of R&I staff. What drives to need for development of R&I staff is the growing world-wide competition as well as global challenges that can only be tackled with highly-qualified research staff. The qualification of researchers can thus also serve as a motor for development of the region.
5	UA essential mission is to provide an integral education/training to its students, potentiate a cutting-edge research and to promote an effective transfer to our socio-economic environment. Excellent research, in all fields, has been always a distinguishing aspect of the University of Alicante and this constitutes the second key strategic pillar of our Strategic Plan. In the last years, the undeniable evolution of some research results (research recognition steps, fundraising, talent attraction, etc.) encourages the exploitation of our research capacity and potential in different areas of knowledge. So, the research-related strategic pillar aims at making the research nature of the University flourishing. This is ensured by fostering research activities development and supporting the dissemination of results (scientific production, for instance), boosting competitive fundraising research talent attraction and retention, PhD potentiation and finally, scientific cooperation at national and international level ("Institutional Strategic Plan 2022-2024").
6	Yes, the University of Silesia defined a mission statement (in 1997) but the document is prepared in a very general way (https://us.edu.pl/en/uczelnia/onas/misja-universytetu-slaskiego/). It is difficult to point out the specific area of R&I staff development at our university.
7	VMU mission to be the community institution of science, arts, and study which continues the mission of the University of Lithuania, established in Kaunas in 1922, creating liberal learning conditions for an individual, developing partnerships and taking an active part in the life of Lithuania to advance its future and contribute to the global cultural and academic development

*Note: the table contains exact quotations from the questionnaire

The STRATEGIC/MAIN GOALS

1	EKA's research, development and creativity support structure supports EKA's research and development activity as a single network. * Under the leadership of research and development department, we will strengthen cooperation of EKA's RDC (R&I) support structure, exchange of information and development of skills related to initiation and administration of projects using common training courses, seminars and instructional materials. * We will prepare clear guidelines for organization of research and development activity. * Through advisory activities and training courses, we will support the increase of awareness and capabilities in the field of open science at EKA. * We will
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	organize legal consultation for implementers of research and development projects, including on the subject of intellectual property.
2	The Strategy for Human Resources Development in Science and Innovation at Sofia University "St. Kliment Ohridski" for the period 2021–2030 (adopted in June 2020) aims to create an attractive working environment for attracting, engaging and developing talented researchers to contribute to the establishment of Sofia University "St. Kliment Ohridski" as an educational, scientific and cultural centre of European importance, as well as to contribute to the achievement of scientific excellence that contributes to the well-being of society and the Bulgarian nation. Sub goals: – Improve the environment for science and innovation and motivate researchers; – Improve training and career development of researchers; – Improve the selection and evaluation system for researchers; – Introduce measures to attract young promising scientists and researchers; – Effectiveness and efficiency of activities in support of human resources for science and innovation.
3	1) Internationalisation 2) Quality 3) Act as a connection between the academic and the entrepreneurial worlds 4) Technology and know-how transfer
4	support in the application process, smooth recruitment and the start of work, continuous further training
5	– To foster excellence in research in all fields. – To boost and support open dissemination in the form of high impact publications. – To reinforce research support services within a programme of institutional strengthening. – To develop a model of attraction and retention of research talent. – To ensure a high quality PhD programs offer. – To foster scientific cooperation and the internationalisation to potentiate UA leadership in RTD.
6	There are three main strategic goals: 1. Creating conditions conducive to the professional and personal development of employees. 2. Developing human resources by employing academic teachers with high competences with the potential to make significant scientific discoveries and their dissemination on the international forum, and the ability to create and manage research teams. 3. Strengthening human resources in the group of employees who are not academic teachers.
7	1. Rally scientists and artists into stable, competitive and productive groups. 2. Aspire to better funding for research and artistic activities. 3. Aspire to better funding for research and artistic activities. 4. Take advantage of the European University Alliance "Transform4Europe – T4E" partnership by bringing the University's strategic activities into the European dimension. 5. Strengthen partnerships.

*Note: the table contains exact quotations from the questionnaire

The BEST PRACTICES in R&I staff development

The results confirm that there are many best practices in R&I staff development across the alliance. The activities are organized during different phases of the HR process. The main addressed group is a group of academic teachers and researchers, but some universities also pointed out the support staff (projects specialists, project managers, data stewards, technology brokers etc.)

Some universities adopted their best developmental practices on the Action Plan related to the HRS4R. All universities have internal training programs with different forms of activities based on the needs analyses and competence model. VMU has a staff development system based on career opportunities and a staff position system related to the motivational system. As is best practice, USIL emphasizes the cooperation between the universities' transfer technology office and the business environment.

1	<p>* High mobility among research staff and R&I supporting staff, via Erasmus+ programme, EKAs research fund and other projects – staff exchange, conferences, workshops etc. * Good Teaching Seminar programme once a month – also for the research staff – various topics * All-day-seminar for project managers and coordinators once per semester, organized by R&D Office – best possibility to get to know, share experiences, best practices and learn, also set common goals.</p>
2	<p>– Successful application for HR excellence award and launching of an Action Plan for implementation of the principles of the Charter and Code and the OTM-R guidelines in the university; – Availability of EURAXESS center well integrated in the EURAXESS network and supporting the university with the knowledge and skills in the area of career and mobility of researchers; – Launching of Career Development Centre for support of researchers, with particular emphasis on PhD students and young researchers; – Development with EU support of the GATE (Institute Big Data for Smart Society) which already successfully recruit well-know and young researchers; – Establishment with support of the government of the INSAIT (Institute for computer science, artificial intelligence and technologies) where started attracting of young talents mentored by prominent Bulgarian scientists from all over the world.</p>
3	<p>The strategy for covering the needs The estimate of the evolution of personnel needs was carried out in relation to the needs operated on the basis of the digitization of processes, of their re-engineering, of the outsourcing or</p>

	internalization, of the divestment of services and the need to activate new ones.
4	leadership programme quality assurance system for young researchers (being developed)
5	<p>STRATEGIC -UA new Rectoral team renewed its commitment of fostering research, making it clear from the very beginning its willingness to potentiate (even more) research. As one of the main results, the previous Vice Rectorate for Research (and Technology Transfer) was split into two VRs, so the research and innovation processes are now strongly boosted. The VR for Research has been potentiated, by the creation of two focus areas: Research Resources and Research Structures. - The University has been awarded by the European Commission with the HRS4R seal of excellence. - University of Alicante's Open, Transparent and Merit-based Researcher Recruitment Policy is fully in place. - Set up and operation of the Research Institutes that are devoted to scientific, technical and artistic research. - Ongoing modernization of UA researchers' support services to provide all Rs the best conditions to carry out research and technology transfer, not allocating high efforts to bureaucracy, thus maximizing their possibilities of attracting funds and making research in their fields flourish. - The participation of researchers with different profiles at the governing bodies of the university is ensured by the Law and University Statutes. OPERATIONAL - Full set of e-tools for external candidate to apply to job offers. Job offers are widely disseminated via press, social media, the institutional website, Euraxess, etc. In addition, there are specific job offers whose target can be only external candidates. - Candidate minimum administrative burden for selection processes: UA is requesting exclusively the mandatory documentation as established by law. No additional documentation is being requested since in this case one of UA priorities is to avoid any unnecessary submission of documentation that could discourage candidates. - Gender dimension: within our institutional Equality Plan, there is a special procedure in which in case of obtaining the same evaluation, the least represented gender in this specific job category has selection priority. - Continuous improvement of all Rs working conditions is a major focus especially when welcoming new Rs (Welcome Manual). - Researchers' Portal has been launched. It is a space for Rs that provides access to all information related to their research activities, a crucial advancement in terms of institutional data integration and benefit for all Rs that now have at their disposal high quality data (projects, publications, other research activities, etc.) in the same place. - Teaching reductions: wide teaching reduction policy in line with national regulations. - With the intention of providing better support to Rs at later stages of their career (mainly R2), a major improvement has been applied to the already existing Doctoral School that now has the feature of being "international" (EIDUA). Thanks to this, the support and training services of the International Doctoral School are being potentiated to UA international Rs. This is being done with the aim of creating a flourishing and dynamic node where UA Rs can benefit from advice, training, mobility and other beneficial options for their careers. As a first step in terms of widening</p>

	<p>training to foreign Rs, all PhD horizontal modules materials are now available in English. – UA Industrial Research Agent supporting Rs when implementing their research outside academia and to foster funds attraction (synergies with the private sector are cornerstone for the socio-economic development). This Agent also supports in terms of development of agreements with the private sector and the PhD project. We also have an industrial mention for the doctors that are focusing their research on industry.</p>
6	<p>1. Internal programme of scientific excellence dedicated both academic and non academic staff, for R&I staff KADRA TECH – an open call for internal projects, strengthening the competences for scientific communication 2. Training and programmes for data stewards and science communicators; strengthening the competences for scientific communication, data management and promoting an open science 3. Cooperation between technology brokers (TTO) and academics 4. Technology transfer office – business cooperation; matching/ partnering business' needs to scientific project, solutions etc. 5. SPIN–places – SPIN–US; SPIN–LAB; SPIN–ART; SPIN–place – creating space for young academics, innovators, scientists and artists,</p>
7	<p>1. Staff development system: career opportunities, staff position system. 2. Selection for positions, qualification requirements for positions. 3. The university has a researchers motivation system, researchers are motivated not only for the highest level of science and art, but also for other scientific activities. 4. Researchers have excellent opportunities to improve their qualifications: Erasmus+ programme, VMU Research fund, and other projects – staff exchange, conferences, workshops etc. 5. Based on the monitoring results, the university organizes activities such as psychological education, and personal development training.</p>

*Note: the table contains exact quotations from the questionnaire

The recommended **BEST PRACTICES** in the area of R&I staff development to transfer at the alliance level are as follows:

- EKA – staff exchange mobility and common seminars for project personnel on various topics related to R&I management,
- UNISOFIA – involving leading researchers to attract young talents,
- UNITS – the analysis of the trend of indicators relating to the recruitment of teaching staff and the organization of the staff – on the need to reduce the costs of contract teaching and to implement scientific excellence for the purposes of research quality assessments,
- USAAR – quality assurance system (defined processes for support, formal documents for monitoring etc.),
- UA – UA Delegation Unit for Links with the Society; UA Alumni Programme, UA Senior Programme, Institutional Funding Programme,
- USIL – minimum one joint development program for R&I staff, training and a programme for data stewards and science communicators, strengthening the competences for scientific communication, data management and

promoting open science, cooperation between technology brokers (TTO) and academics on the alliance level,

- VMU – VMU has a researchers' salary promotion system, which could be applied within the framework of the alliance. VMU has a research management system (VMU CRIS).

The **GAPS** in the area of R&I staff development that should be considered on the alliance level are as follows:

- The greatest gap at EKA in this field is that EKA does not have a holistic strategy for the staff development of the R&I supporting staff. The HR department is responsible for the development of the academic staff, but the R&I supporting staff is the responsibility of the Research and Development Office. There are two separate pieces of training and some periodical events and practices, but no overall strategic plan.
- UNISOFIA emphasizes the difficulties to attract talents and young researchers in STEM. There is a lack of resources to support researchers' mobility and a lack of access to engineering scientific databases (e.g. ACM, IEEE) as well as publishing in the open science databases. Additionally, there is no sufficiently attractive research infrastructure and a lack of state-of-the-art technologies.
- UNITS and UA pointed out that there are many legal limitations that make it impossible to exchange personnel between EU universities.
- USAAR stresses the role of networking opportunities across disciplines in terms of information on career opportunities outside academia.
- USIL noticed the high risk of brain drain and very limited resources, or it is allocated in the wrong way.
- VMU recommended establishing and consolidating research units to focus on research capacity and research infrastructure, and more efficient funding of the research activities in priority fields, as well as developing joint interdisciplinary study programmes by promoting joint doctoral training with universities in Europe and beyond; and strengthening the inter-institutional and interdisciplinary cooperation and networking.

The SWOT Analysis

Code	STRENGTHS
S.1	One of the greatest strengths in EKA in this field is very good mobility funding we have from ERAMUS+, which is one of the highest among Estonian universities - all our academic staff and also supporting staff are using it actively and it is recommended and encouraged part of the development - networking, getting new knowledge and skills, exchanging experiences - it keeps people motivated and in constant development.
S.2	<ul style="list-style-type: none"> - Availability of talented recognized researchers with strong knowledge in their main research area, substantial research outcomes, and excellent reputation; - Leadership of the university at national level in R&I, international recognition of excellent research teams, and individual researchers; - Strong experience in large research and educational projects at national and EU levels, and good level of collaboration under ERASMUS and ERASMUS+ with European universities; - Good traditions in higher education and in research, and provision of strong theoretical basis of education in STEM and humanities; - Substantial autonomy of R&I staff in research, teaching and management of activities and willingness to overcome the existing problems; - Strong contacts in higher education with a large number of private and state-owned companies in Bulgaria; - Availability of EURAXESS center to transfer European practice in building environment facilitating the career and mobility of researchers; - Availability of Technology Transfer Office to facilitate the knowledge transfer to industry; - Development of Centres of Excellence and Centres of Competence (with funding from Structural Funds) aimed at research excellence.
S.3	Monitoring In relation to the "Organization and human capital" section, the Evaluation Unit also monitors, on a three years, the consistency of the performance objectives with human resources and the improvement of the skills of the personal.
S.4	a range of workshops is available to researches (partly free of charge) measures of the HRS4R strategy (e.g. leadership programme being developed)
S.5	<ul style="list-style-type: none"> - Research Support services -Teaching reductions - Institutional Funding Programme
S.6	<ol style="list-style-type: none"> 1. Openness to new knowledge / experiences 2. Strong motivation/ enhancing to develop R&I staff
S.7	<ol style="list-style-type: none"> 1. VMU has very strong mobility funding from Erasmus and VMU Research Fund. 2. Strong experience in large research and educational projects. 3. Availability of a Technology Transfer Office to facilitate the knowledge transfer to the industry. 4. Institutional Funding and Motivation Programme.
Code	WEAKNESSES
W.1	<ol style="list-style-type: none"> 1. Missing of an overall strategy (see also answer nr 7) 2. Small number of supporting staff, so there cannot be any specializing - every project manager, coordinator and R&D specialist must know something about

	everything and this leads to work overload, fluctuation of personnel and problems with the quality of the support system.
W.2	<ul style="list-style-type: none"> - Fragmented nature of research activities and not sufficient recognition of industry and society needs, and Insufficient visibility of research achievements; - Disparities among faculties in higher education, research and innovation, and training of young researchers; - Persistent education in strong technology fields excluding building of interdisciplinary and multidisciplinary competences of students and researchers; - Lack of stable contacts and not sufficient collaboration with businesses in R&I, incl. joint doctorates, knowledge transfer, internships and joint R&I projects. - Not sufficient knowledge transfer activities, and knowledge sharing with other research teams in Bulgaria and abroad; - Not sufficient multidisciplinary approach and synergy with other research teams and other Bulgarian organizations for complementary knowledge; - Not sufficiently attractive research environment and career prospects, incl. up-to-date research infrastructure, and access to world scientific engineering databases; - Ageing and brain-drain of R&I staff and not sufficient initiatives to attract young talents in STEM; - Lack of 'soft' skills of researchers, and complementary skills for technology transfer, project, innovation and IPR management, etc.; - Lack of specific guidelines and rules for career development of R&I staff, incl. career planning, rules for scientific supervision and mentorship; - Lack of plan for training and additional qualification of R&I staff, incl. professional support for project writing and IPR protection; - Lack of mechanism for regular monitoring of the needs of the R&I staff for new knowledge and skills, specialized service and research infrastructure; - Low effectiveness of the existing information services and e-tools, e.g. for projects, publications and R&I staff expertise; - Difficulties with finding support and resources needed by the R&I staff activities; - The available information for the specific university units, procedures and documents is not complete or up-to-date.
W.3	Limited language skills of staff; targeted e-learning training for newly hired staff; Reduced level of interdisciplinarity
W.4	programmes/offers could be more systematic
W.5	<ol style="list-style-type: none"> 1. work overload 2. low readiness to create professional networks 3. knowledge of foreign languages, barriers in communicating in foreign languages
W.6	<ol style="list-style-type: none"> 1. Fragmented nature of research activities and not sufficient recognition of industry and society needs, and Insufficient visibility of research achievements; 2. Lack of stable contacts and not sufficient collaboration with businesses in R&I, incl. joint doctorates, knowledge transfer, internships and joint R&I projects. 3. Insufficient interdisciplinarity.

Code	OPPORTUNITIES
O.1	<p>What we can bring out as the opportunity for the R&I development at EKA is a great support and active contacts with Estonian Research Agency and active network of R&D offices of Estonian national universities. ERA (ETAg) is supporting with very active trainings, workshops, information sharing, personal consulting etc. Very supportive is also the active networking with the R&D offices of the other universities – the bigger universities have more staff, more experiences and its especially useful for the smaller universities (like EKA), but we also discuss and develop common understandings and statements about R&I policies to have together bigger impact on state level (interaction about R&I policies, laws and strategies with ministries and other state level organisations for example)</p>
O.2	<ul style="list-style-type: none"> - Strong focus on research in national priority areas and provision of targeted funding for R&I; - Undergoing changes in National strategies for research and higher education and aligning them with the innovation strategy; - Available project funding under EU programmes for R&I (e.g. Horizon Europe MSCA) and Structural Funds; - Exchange of advanced knowledge in research through networking with EU research organizations and European technology platforms, and establishment of long-term collaboration; - Enhancing collaboration with industry for researchers internships and joint innovation; - Enhancing collaboration with national and regional clusters and industrial organizations for knowledge transfer and boosting innovation; - Gaining complementary knowledge and competences through targeted training and exchange of staff; - Enhancing collaboration with STEM centers in schools for attracting young people as PhD students and for R&I career; - National and EU focus on attracting talents in R&I and strengthening collaboration between research and education, in particular with schools. - Focus on Open science and building open science databases, and thus facilitating the access to latest research achievements.
O.3	<p>keep the specific technical skills of the various professional fields constantly updated, from sector-specific training, updating on the use of procedures develop and strengthen skills in work organization and human resource management</p> <p>update and enhance the University's IT and digital skills, in support of digital transformation and of evolution opportunities</p>
O.4	<p>the topic of staff development is treated in different sections, expertise can be combined</p>
O.5	<ul style="list-style-type: none"> - Implementation of high quality research - International dimension
O.6	<ol style="list-style-type: none"> 1. joint development projects 2. sharing their knowledge and experience 3. new networks

O.7	<ol style="list-style-type: none"> 1. Strong focus on research in national priority areas and provision of targeted funding for R&I. 2. Exchange of advanced knowledge in research through networking 3. Gaining complementary knowledge and competences through targeted training and exchange of staff 4. Encourage researchers and students to create and incubate start-ups
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Code	THREATS
T.1	<p>Lack of the supportive staff is a threat to the research funding of for our researchers.</p> <p>Lack of the overall strategy is threat to the quality of the R&I development and sustainability of the R&I support system in our university</p>
T.2	<ul style="list-style-type: none"> - Not well elaborated national mechanism for boosting research and higher education; - Research and Innovation systems and stakeholders not sufficiently linked; - Low funding for research and higher education and insufficient national research project opportunities; - No stable, stimulating and attractive research environment and career prospects; - Increased competition for state universities due to establishment of new private universities, and opening of EU universities to Bulgarian students; - Decreasing recognition of researchers in industry and society; - Increasing gap in industry-academia collaboration; - Danger for sustainability of STEM research due to ageing and mobility of researchers; - Not keeping abreast of the advance of research and innovation in STEM and further decline of research and higher education; - Difficulties for integration in EU research streams, and coordination of European R&I projects.
T.3	reduced flexibility for new or needed professional roles outside the three-year recruitment program
T.4	complex decision processes
T.5	<ol style="list-style-type: none"> 1. different approaches to the partner university 2. legal requirements 3. differences in organizational culture among partners
T.6	<ol style="list-style-type: none"> 1. Lack of supportive staff is a threat to the research funding of our researchers. 2. No well-elaborated national mechanism for boosting research and higher education; 3. Research and Innovation systems and stakeholders are not sufficiently linked; 4. Low funding for research and higher education and insufficient national research project opportunities.

CONCLUSION

The analysis of the collected empirical material shows that all partner universities have strategic documents defining the main directions of development, including development in the area of research and innovation. Unfortunately, at this stage of the research, it is difficult to clearly state which of the quoted provisions apply to the support staff and which to the staff of academic teachers. However, it seems that most of the professional development-oriented efforts at individual universities concern academic staff.

Universities awarded the HR Excellence in Research distinction point out that some of the strategic activities have been included in the Action Plan. The primary difficulty in directly transferring the activities from plans is that the universities may have their plans defined in different time frames.

The best practices promoted by universities look interesting, but the possible transfer of some good practices to the alliance level requires additional discussion among the partners.

The research allows us to indicate the main strengths and weaknesses on the part of the internal factors of the university as well as opportunities and threats on the part of the external factors. The SWOT analysis shows that the universities carried out elements of the strategic diagnosis for the purpose of developing a future common strategy. The next step in this regard will be to estimate the weights of individual SWOT factors and to analyse the internal factors, taking into account the impact of the external factors.

The survey questionnaire also covered the gaps and critical aspects of R&I staff development. The collected material will be used in the further process of preparing a joint development strategy on the alliance level.

APPENDIX 1

Questionnaire SWOT analysis of R&I staff development concepts at the T4E universities

Please read the guidelines before filling in the survey. Thank you!

Strengths – positive phenomena from the point of view of staff development, opportunities directly influenced by the university – strengths, advantages, qualities, assets.

Weaknesses – phenomena limiting opportunities for staff development, directly influenced by the university – weaknesses, disadvantages, barriers.

Opportunities – positive phenomena from the point of view of the possibilities of staff development, the occurrence of which is conditioned by the factors lying beyond the possibilities of direct influence of the university – opportunities, possibilities coming from the environment.

Threats – negative phenomena that may pose a threat to staff development, the occurrence of which is conditioned by factors lying beyond the possibilities of direct influence of the university – threats, anything that poses a danger of unfavorable change.

1. Please select your university

- Saarland University (**USAAR**)
- University of Alicante (**UA**)
- The Estonian Academy of Arts (**EKA**)
- University of Silesia in Katowice (**USiI**)
- Sofia University St. Kliment Ohridski (**UNISOFIA**)
- The University of Trieste (**UNITS**)
- Vytautas Magnus University (**VMU**)

2. Does your university has defined the **VISION** in the area of R&I staff development (e.g. in its strategic documents)?

If yes > Please, define the **VISION** in the area of R&I staff development at your university.

If not > Please, describe the **TARGET STATE** of the area of R&I staff development in the strategic perspective of your university? *

Wprowadź odpowiedź

2. Has your university defined its VISION (...)?

- ⋮
3. Please, define the **MISSION** in the area of R&I staff development at your university.
If yes > Please, define the **MISSION** in the area of R&I staff development at your university.
If not > Please, indicate **WHAT DRIVES** the need to develop R&I staff at your university?
*

Wprowadź odpowiedź

- ⋮
4. Please, define the **STRATEGIC/MAIN GOALS** in the area of R&I staff development at your university. *

Wprowadź odpowiedź

- ⋮
5. Please, list and describe shortly the **BEST PRACTICES** in the area of R&I staff development at your university. *

Wprowadź odpowiedź

- ⋮
6. Please, indicate the **BEST PRACTICES** in the area of R&I staff development at your university which would you **RECOMMEND** to adopt/transfer at the alliance level? *

Wprowadź odpowiedź

- ⋮
7. Please, list and describe shortly the **GAPS** in the area of R&I staff development at your university. *

Wprowadź odpowiedź



8. Please, indicate the **GAPS** in the area of R&I staff development at your university which should be taken into account when we are thinking to build a joint strategy of R&I staff development at the alliance level? *

Wprowadź odpowiedź



9. Please, list and describe shortly the **CRITICAL POINTS** in the area of R&I staff development at your university. *

Wprowadź odpowiedź



10. Please, indicate the **CRITICAL POINTS** in the area of R&I staff development at your university which should be taken into account when we are thinking to build a joint strategy of R&I staff development at the alliance level? *

Wprowadź odpowiedź



11. What are the **STRENGTHS** of the current approach to R&I staff development at your university? *

Wprowadź odpowiedź



12. Please, indicate the **STRENGTHS** in the area of R&I staff development at your university which should be taken into account when we are thinking to build a joint strategy of R&I staff development at the alliance level? *

Wprowadź odpowiedź

⋮
13. What are the **WEAKNESSES** of the current approach to R&I staff development at your university? *

Wprowadź odpowiedź

⋮
14. Please, indicate the **WEAKNESSES** in the area of R&I staff development at your university which should be taken into account when we are thinking to build a joint strategy of R&I staff development at the alliance level? *

Wprowadź odpowiedź

⋮
15. What are the **OPPORTUNITIES** of the current approach to R&I staff development at your university? *

Wprowadź odpowiedź

⋮
16. Please, indicate the **OPPORTUNITIES** in the area of R&I staff development at your university which should be taken into account when we are thinking to build a joint strategy of R&I staff development at the alliance level? *

Wprowadź odpowiedź

⋮
17. What are the **THREATS** of the current approach to R&I staff development at your university? *

Wprowadź odpowiedź

⋮
18. Please, indicate the **THREATS** in the area of R&I staff development at your university which should be taken into account when we are thinking to build a joint strategy of R&I staff development at the alliance level? *

Wprowadź odpowiedź