



**Technical University in Zvolen**

**ORGANIZATIONAL DIRECTIVE  
no. 9/2021**

**on the Evaluation of Creative Activities  
at the Technical University in Zvolen**

**Zvolen 2021**

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**SPHERE OF COMPETENCE:** Technical University in Zvolen

**CHECKING COMPLIANCE WITH THE DIRECTIVE IS AUTHORIZED BY:**

Management of the Technical University in Zvolen, the chairman and members of the Board for Internal Quality Assessment System

**DEVELOPED BY:** Vice-rector for Science and Research

**EFFECTIVENESS:** 4<sup>th</sup> December 2021

## **Article 1**

### **Introductory provisions**

1. The Organizational Directive on Evaluation of Creative Activities at the Technical University in Zvolen is part of the Internal Quality Assessment System for Higher Education at the Technical University in Zvolen (hereinafter referred to as "TU in Zvolen") in accordance with Act no. 269/2018 Coll. on Quality Assurance in Higher Education and on the amendment of Act no. 343/2015 Coll. on Public Procurement and on the amendment of certain acts as amended, with the Standards for the Internal Quality Assessment System (hereinafter referred to as "Standards") and the Methodology for Assessing the Standards which were approved by the Executive Board of the Slovak Accreditation Agency for Higher Education (hereinafter referred to as "SAAHE").
2. The purpose of the Directive on Evaluation of Creative Activities at the TU in Zvolen is to regulate the approval of criteria for Evaluation of Creative Activities and the selection of creative activity outputs.

## **Article 2**

### **Definition of terms**

1. For the purposes of the Directive, a set of concepts concerning the structures of the Internal Quality Assessment System of the TU in Zvolen is defined:
  - a) Academic fraud is an unfair and dishonest act that is the opposite of research integrity and the contrary to moral standards. This mainly concerns plagiarism, cheating and cribbing during exams, fabrication of research results, recording fictional data, an omission of inappropriate facts and data, falsification of research, dishonest practices in publishing results, failure to declare a conflict of interest, misuse of the information obtained during the assessment, fictitious authorship, superficial and low-quality assessment, systematic and conscious publishing in magazines and publishing companies in which there appear signs of unfair practices (magazines and publishers that show signs of predatory practices).
  - b) Self-citation is the agreement of any author or several authors in the cited and citing document.
  - c) The dean of the faculty is a representative of the faculty who manages and represents it, and acts in matters of the faculty, and is also the chairman of the scientific board of the faculty.
  - d) Long-term and continual accomplishments are continuous accomplishments in the period of the last 10 years before the year in which a creative activity is evaluated.
  - e) The faculty is part of the TU in Zvolen and its activity, scope of self-governing authority and rights are governed by Act no. 131/2002 Coll. on Higher Education and changes to certain laws as amended and Internal Regulations of the TU in Zvolen.
  - f) Criterion is a specific requirement of the standard or its partial aspect, the fulfilment of which to a required extent is a prerequisite for the overall assessment of fulfilling the relevant standard.
  - g) The internationally recognized level of creative activity (A-) is the third highest level

- of quality of the results referring to creative activities determined since evaluating according to the procedures and criteria specified in the Methodology for Evaluation of Creative Activities issued by the SAAHE. The term does not refer to the nature or a geographical extent or to the place of implementation or to the place of dissemination of the creative activity results.
- h) The nationally recognized level of creative activity (B) is the fourth highest level of quality of the results referring to creative activities determined on the basis of evaluating according to the procedures and criteria specified in the Methodology for Evaluation of Creative Activities issued by the SAAHE. The term does not refer to the nature or a geographical extent or to the place of implementation or to the place of dissemination of the creative activity results.
  - i) Response is a citation, review or art criticism of a published work. The response to an art activity is mainly a published citation of a work, presentation and art performance, a review or art criticism of a work, presentation or art performance, a reproduction of a work with a clear indication of the author in a foreign publication or home publication or media.
  - j) The Board for the Internal Quality Assessment System of the TU in Zvolen is defined in the internal regulation of "Internal Quality Assessment System for the Higher Education at the TU in Zvolen".
  - k) The rector of the university is the representative of the university who manages and represents it, and acts in matters of the university, at the same time he is the chairman of the Scientific Board of the TU in Zvolen and the Board for the Internal Quality Assessment System of the TU in Zvolen.
  - l) The top international level of creative activity (A+) is the highest quality level of the results of creative activities determined on the basis of assessing according to the procedures and criteria specified in the Methodology for Evaluation of Creative Activities issued by the SAAHE. The term does not refer to the nature or geographical extent or to the place of implementation or to the place of dissemination of the creative activity results.
  - m) The field of study is defined according to the decree of the Ministry of Education, Science, Research, and Sport of the Slovak Republic no. 244/2019 Coll. on the System of Fields of Study in the Slovak Republic.
  - n) Creative activity is a research activity, development activity, art or another creative activity of the higher education institution which, from the viewpoint of fulfilling the mission of the higher education institution, is relevant especially in relation to the goals and outcomes of education.
  - o) The level not reaching the standard of nationally recognized quality in terms of originality, rigour and impact of the creative activity output, or unclassified output (C).
  - p) Scientific integrity is the primary condition of quality scientific work based on rigorous adherence to the highest professional and moral standards, transparency, conducting research critically and with no prejudice, and in the absolute integrity of the practice, teaching and administrating science. Its opposite is scientific unfairness and dishonesty.
  - q) The scientific board of a faculty is composed of the important experts working in the areas in which the faculty carries out educational, research, and creative activities and who are appointed and dismissed by the dean of the faculty with the consent of the academic senate of the faculty.
  - r) The Scientific Board of the TU in Zvolen is composed of the important experts working

in the areas in which the TU in Zvolen carries out educational, research, and creative activities and which appoints and dismisses the rector with the approval by the Academic Senate of the TU in Zvolen.

- s) The significant international level of creative activity (A) is the second highest quality level of the results of creative activities determined on the basis of assessing according to the procedures and criteria specified in the Methodology for Evaluation of Creative Activities issued by the SAAHE. The term does not refer to the nature or geographical extent or to the place of implementation or to the place of dissemination of the creative activity results.

### **Article 3**

#### **Purpose and principles of Evaluation of Creative Activities**

1. The assessing of creative activities at the TU in Zvolen represents the assessment of the level of creative activity in relation to the relevant standards for the study programme and the Standards for the habilitation proceedings and the inauguration proceedings.
2. Creative activity means a research activity, developmental activity, art or other creative activity at the TU in Zvolen which is relevant from the viewpoint of its mission, especially in relation to the aims and outcomes of education.
3. Creative activity is evaluated through the assessment of:
  - a) the level of creative activity of the teachers who provide the major subjects of the study programme in the relevant study field/fields in which the study programme takes place or
  - b) the level of creative activity of persons who are responsible for the development and quality assurance of the field of habilitation proceedings and inauguration proceedings (hereinafter the guarantors of the rights of habilitation proceedings and inauguration proceedings).
4. Creative activity at the TU in Zvolen is demonstrated and assessed through the most significant outputs of the creative activity of teachers providing major subjects of the study programme or outcomes of the guarantors of the rights of the habilitation proceedings and the inauguration proceedings.
5. Within the proposal and approval of the criteria for the level of creative activity at the TU in Zvolen, peculiarities of the nature of creative activities across individual scientific disciplines and types of art are considered, which can justify differences in the detailed approach to be assessed.
6. The principle of proposing and approving the criteria for the level of creative activity at the TU in Zvolen is that all types and forms of creative activity and its outputs are assessed fairly and equally for each discipline.

7. The result of the proposal and approval of the criteria for the level of creative activity at the TU in Zvolen is classifying each creative activity output to one of the quality levels: A+, A, A-, B or C.
8. When proposing and approving the criteria for the level of creative activity at the TU in Zvolen, the terms "top international", "significant international", "internationally recognized", "nationally recognized" quality and a level not reaching the nationally recognized quality standard within Evaluation of Creative Activities refer to the quality level and do not refer to the nature or geographical scope of specific studies or to the location of research implementation or dissemination of results.
9. The areas of assessment are defined by:
  - a) the study programme in the relevant field of study in which it takes place or is to take place, or
  - b) the field of habilitation proceedings and inauguration proceedings which are assigned to one or two fields of study.
10. In case that the faculty/university runs several study programmes in the relevant field of study, it demonstrates the level of creative activity results for each study programme. This does not apply in conjunction with cases such as study programmes or parts of study programmes with similar majors (major subjects):
  - a) content-related higher degree study programme in the relevant field of study run at the same faculty or university,
  - b) another form or language mutation of an identical study programme carried out at the same faculty or university.
11. The area of assessment is assigned to the field of study / fields of study in which the relevant study programme takes/take place or is/are to take place or to which the field of habilitation proceedings and inauguration proceedings are assigned.
12. The assessment period is 6 years before the year in which the relevant application for accreditation was submitted.

#### **Article 4**

##### **Approving the criteria for assessing the level of creative activities**

1. The rector, in case of study programmes carried out at the university, or the dean, in case of study programmes carried out at a faculty, will ensure the development of proposed criteria for assessing the level of creative activity quality for a field of study based on monitoring the internal environment of the university or a faculty.
2. The proposal of the criteria for assessing the level of creative activity quality for a field of study is submitted by the dean to be discussed to the scientific board of the faculty, then the rector submits it to the Scientific Board of the TU in Zvolen and then to the Board for the Internal Quality Assessment System of the TU in Zvolen.

3. Approval of the criteria for assessing the level of creative activity quality for the field of study shall be carried out by the Board for the Internal Quality Assessment System of the TU in Zvolen in accordance with the Internal Quality Assessment System for Higher Education at the TU in Zvolen.
4. When preparing and approving the proposed criteria for assessing the level of creative activity quality for the field of study, it is necessary to consider the originality, rigour and impact of each output, respecting the peculiarities of creative activities and their assessment in the relevant department.
5. Originality is understood as the extent to which the output significantly contributes to understanding and knowledge in the relevant field. Outputs demonstrate originality mainly by having at least one of the following characteristics:
  - a) create and interpret new empirical findings and/or a new material,
  - b) they deal with a new and/or complex research problem,
  - c) develop innovative research methods, methodologies and/or analytical techniques,
  - d) point to imaginative and creative solutions,
  - e) provide new arguments and/or new forms of expression, formal innovations, interpretations and information,
  - f) gather new types of data with which they work and/or develop theoretical knowledge or analyses of doctrines, politics or practice and new forms of expression.
6. Rigour is understood as the degree to which the output demonstrates intellectual coherence and integrity and adopts robust and appropriate concepts, analyses, sources, theories and/or methodologies that are demonstrated, in particular:
  - a) by classifying the outputs of creative activity such as database publications into quartiles according to the WoS or Scopus databases,
  - b) by classifying the outputs of creative activities such as book publications according to the reputation of national and foreign publishing companies,
  - c) by classifying the outputs of creative activity of the type of industrial property rights according to their nature and the territorial level of their validity,
  - d) by including other outputs of creative activity according to the international response,
  - e) by classifying the outputs of artistic activity according to their quality.
7. The impact of the output is understood as the beneficial effect of the output on the external environment outside the TU in Zvolen as well as on its educational activities and students, i. e. on the economy, society, culture, public policy and services, health, the environment or quality of life in various geographical contexts. The impact includes e. g. effect, change or contribution to activities, attitudes, awareness, behaviour, opportunities, capacities, performance, policy, practice and process of understanding. It can manifest itself within different categories of beneficiaries – clients, voters, communities, students, organizations, society or individuals. Impact can also mean limiting or preventing risk, damage, cost or other negative effects. Part of the assessment of the impact of the output is the assessment of its impact on the development of a

scientific or artistic discipline, scientific and artistic thinking and the impact on students, education and other activities. Reach will be assessed in terms of the extent to which potential categories of beneficiaries – clients, voters, communities, organisations, society, students or individuals – have been reached. The reach is not judged from a purely geographical viewpoint or from the viewpoint of the absolute number of beneficiaries. The criteria apply regardless of where the impact occurred, regardless of the geographic location of the beneficiary. Assessing the impact also considers the extent to which the impact enabled, enriched, influenced, informed or changed the performance, policy, practices, attitudes, products, services, understanding, awareness or quality of life and saturation of the beneficiary needs.

8. The scope of the impact of the output must be demonstrable and provable so that no doubts can arise about its existence.
9. When preparing and approving the proposed criteria for assessing the level of creative activity quality for a field of study in terms of originality, rigour and impact, the following general definitions of quality levels marked with the letters A+, A, A-, B and C are applied:
  - a) A+: the top international level in terms of originality, rigour and impact of the output of the creative activity – the output brings a new agenda within the relevant creative activity or has a fundamental contribution to the development of the relevant creative activity in a global context,
  - b) A: the significant international level in terms of originality, rigour and impact of the output of creative activity – the output significantly contributes to the development of the relevant creative activity in a wider international context,
  - c) A-: the internationally recognized level in terms of originality, rigour and impact of the output of creative activity – the output represents a certain contribution to the development of the relevant creative activity within the international context,
  - d) B: the nationally recognized level in terms of originality, rigour and impact of the output of creative activity – the output represents a certain contribution to the development of the relevant creative activity within the national context,
  - e) C: the level not reaching the standard of nationally recognized quality in terms of originality, rigour and impact of creative activity output or unclassified output.
10. As part of the preparation and approval of the proposed criteria for assessing the creative activity quality for a field of study, the peculiarities of the assessment of the level of creative activity according to the fields of study to which the relevant area of assessment is assigned are considered.
11. For the change of criteria for assessing the level of creative activity quality for a field of study, the previous provisions shall be applied accordingly.

**Article 5**  
**Selection of the outputs of creative activities**  
**and provision of materials for assessing**

1. University management or the management of the faculty identify persons according to the Internal Quality Assessment System for Higher Education at the TU in Zvolen who ensure



the major subjects of a study programme or are guarantors of the rights of the field of habilitation proceedings and inauguration proceedings in the relevant area of assessment.

2. It is possible to include in the selection only the persons who have entered the contract of employment with the TU in Zvolen for the established weekly working hours at the time of submitting the application. In the areas of assessment related to study programmes oriented to professional education, the education of artists it is also permissible to include the experts from practice who have an employment contract concluded with the university for shorter working hours.
3. One person can only be included in one area of assessment defined by the study programme and in one area of assessment defined by the field of the habilitation proceedings and the inauguration proceedings.
4. Obligations of the university management, or the management of the faculty within the selection of creative activity outputs and providing documents are as follows:
  - a) to submit 5 outputs of each assessed person, i. e. 25 outputs for each area of assessment and at least two outputs of each assessed person must be from the period of the last 6 years before the year when the application for accreditation was submitted.
  - b) to submit one and the same output within the relevant area of assessment only once,
  - c) in case of outputs by several authors, to ensure that the same output is submitted and attributed to other assessed persons in other assessments of creative activity no more than three times,
  - d) to ensure the availability of records relating to the submitted outputs of creative activity and responses to these outputs in the bibliometric and citation databases, registers of recordkeeping of publication and artistic activity or in other search systems that are accepted as appropriate in the relevant branch of study.
5. The obligations of the assessed person within the selection of creative activity outputs and providing documents are as follows:
  - a) to submit only those outputs of creative activity that relate to the outputs of education or to the solution of issues within the relevant area of assessment, while its justified interdisciplinary overlaps are permissible,
  - b) in case of outputs with several authors, the output is submitted by the assessed person who has demonstrably significant author's contribution to its creating,
  - c) in case of outputs with several authors, they also include in the documents the characteristics of the author's contribution of the assessed person,
  - d) to provide enough information about each output so that it can be determined exactly what the output is, whether it is the work of one person or several people, in what physical form the output exists and where it is located,
  - e) to submit outputs in a complete form, i. e. in such a way that they can be assessed through a holistic expert assessment,
  - f) in justified cases, especially if the nature of the output does not allow for its remote assessment, to ensure access to the output to be assessed physically,
  - g) if the submitted output is published in a language other than the national language or English, to ensure that an abstract in English characterizing the content, nature and main results of the output is attached to it,
  - h) to submit a list of citations for each output,
  - i) to attach a short annotation to each output, in which it provides contextual information

- regarding the impact of the output on socio-economic practice,
- j) in the annotation, to present information that serves as evidence of how the output obtained recognition, influenced the state of science, art, technology, led to further development or was used; this evidence should be brief, verifiable and externally cited, if necessary,
  - k) if claims are made regarding the industrial significance of the output, there must be included the contact details of the industrial partner to enable verification of the claims,
  - l) in case of submitting a non-textual or other practical output (including patents, software and documents on standards), to submit an annotation with contextual information, especially a description of the creative process and the content of the creative activity, if this is not obvious in the output,
  - m) if it is decided to present an output that contains classified facts or other sensitive data, it is obliged to obtain the consent of the relevant authority or interested part with its submission for assessment,
  - n) it is not allowed to present an output that could raise doubts about compliance with the rules of academic and scientific integrity.
6. The assessed person fills in all the attributes for the output of the creative activity in the VTC Excel file from the SAAVS website (<https://saavs.sk/ziadosti/ziadost-o-uvedenie-akreditacie-studijneho-programu/>). They insert the "Details" sheet into the Excel file which analyses the details of the output from the viewpoint of the research area and scientometric indicators. It is recommended to select outputs based on the "Details" sheet.
7. Instructions for filling in the VTC form and examples are in the annex to this directive.

## **Article 6**

### **Continuous annual assessment of the level of creative activities output quality**

1. University management or the management of the faculty shall ensure, through reports on the scientific research activities of the university and faculties, based on approved criteria, a continuous annual assessment of the level of creative activities output quality for the fields of study.
2. In accordance with the Internal Quality Assessment System for Higher Education at the TU in Zvolen, the reports on the scientific research activities of the faculties are approved by the scientific board of the faculty, and reports on the scientific research activities of the university are approved by the Scientific Board of the TU in Zvolen and discussed by the Board for the Internal Quality Assessment System of the TU in Zvolen.

## **Article 7**

### **Final provisions**

1. Amendments and supplements to this directive can only be made by written amendments to it, after discussion in the Academic Senate of the TU in Zvolen and after approval by the Scientific Board of the TU in Zvolen.

2. This directive was discussed by the Academic Senate of the TU in Zvolen on 23 November 2021 and was approved by the Scientific Board of the TU in Zvolen on 14 December 2021.
3. This directive becomes valid and effective on the date of its approval by the Scientific Board of the TU in Zvolen on 14 December 2021.
4. An integral part of this directive is the Annex: Instructions for filling in the Creative Activity Output Form (VTC).

In Zvolen on 20<sup>th</sup> December 2021

Dr. h. c. Prof. Ing. Rudolf Kropil, PhD.  
the rector

## 5 Annex: Instructions for filling in the Creative Activity Output Form (VTC)

<p>OCA1 Surname of the assessed person <sup>2</sup>  <i>VTC note: According to Article 21 of the Methodology for Standards Evaluation</i></p>	<p><b>Article 21 Assessed persons according to <i>the Methodology for Standards Evaluation</i></b></p> <p><b>1. The university identifies persons who provide majors (major subjects) of the study programme or are responsible for the quality development and assurance within the field of habilitation proceedings and inauguration proceedings in the relevant area of assessment.</b></p>
<p>OCA2 Name of the assessed person <sup>2</sup>  <i>VTC note: According to Article 21 of the Methodology for Standards Evaluation.</i></p>	<p><b>2. Only the persons who have an employment relationship with the university for the specified weekly working hours at the time of application submission can be included in the selection. In the areas of assessment related to study programmes focusing on professional education, education of health employees, members of the armed forces and artists, it is permissible to include also experts in practice who have an employment relationship concluded with the university for shorter working hours at the time of application.</b></p>
<p>OCA3 Degrees of the assessed person <sup>2</sup>  <i>VTC note: According to Article 21 of the Methodology for Standards Evaluation.</i></p>	<p><b>3. One person can only be included in one area of assessment defined by the study programme and in one area of assessment defined by the field of habilitation proceedings and inauguration proceedings.</b></p>
<p>OCA4 Hyperlink to the entry of the person in the Register of University Staff <sup>3</sup>  <i>A hyperlink to the person's entry in the Register of University Staff is stated: <a href="https://www.portalvs.sk/regzam">https://www.portalvs.sk/regzam</a></i></p>	<p><b>4. One person can be included in the evaluation at only one university.</b></p> <p><b>Example:</b> <a href="https://www.portalvs.sk/regzam/detail/7493?mode=full&amp;do=filterForm-submit&amp;name=Jaroslav&amp;surname=%C5%A0%C3%A1lka&amp;sort=surname&amp;employment_state=yes&amp;filter=Vyh%C4%BEada%C5%A5">https://www.portalvs.sk/regzam/detail/7493?mode=full&amp;do=filterForm-submit&amp;name=Jaroslav&amp;surname=%C5%A0%C3%A1lka&amp;sort=surname&amp;employment_state=yes&amp;filter=Vyh%C4%BEada%C5%A5</a>  <i>After copying the link from the university portal, it is necessary to check the functionality of the link.</i></p>
<p>OCA5 Area of assessment <sup>4</sup>  <i>VTC note: The name and degree of the study programme or the name of the field of the habilitation proceedings and</i></p>	<p><b>When filling in for the first time, the name and degree of the study programme or the name of the field of the habilitation proceedings and the inauguration proceedings according to the type of procedure are indicated,</b></p> <p><b>Examples:</b>          Forest Ecosystem Services, doctoral degree          Forestry, habilitation proceedings and inauguration proceedings          Manufacturing Technology, MSc. degree</p>

<p><i>inauguration proceedings according to the type of procedure is be stated.</i></p>	
<p>OCA6 Category of the research/ artistic/other outputs <i>VTC note: Choice from 6 options (see Explanations for OCA6).</i></p>	<p><b><i>Possibilities of categories according to the Decree of the Ministry of Education, Science, Research and Sports of the Slovak Republic No. 397/2020 Coll. on the Central Register of Publication Activity Records and the Central Register of Artistic Activity Records</i></b></p> <p>scientific output professional output educational output artistic output intellectual property rights document and standard / other outputs</p>
<p>OCA7 Year of publishing the research/artistic/other outputs</p>	
<p>OCA8 ID of the record in the Central Register of Publication Activity (CRPA) or the Central Register of Artistic Activity (CRAA) <sup>5</sup> <i>VTC note: The ID of the record in the CRPA or the CRAA is stated.</i></p>	<p><b><i>The ID of the record from the Central Register of Publication Activity or from the Central Register of Artistic Activity shall be indicated.</i></b> <b><i>Example:</i></b> TU.Zvolen.0013258 EUCA50560</p>
<p>OCA9 Hyperlink to the record in the CRPA or the CRAA <sup>6</sup> <i>A hyperlink to the output record in the CRPA or the CRAA, which are available at <a href="https://cms.crepc.sk/">https://cms.crepc.sk/</a>, is stated.</i></p>	<p><b><i>Example:</i></b> <a href="http://www.crepc.sk/portal?fn=*recview&amp;uid=1108373&amp;pageId=resultform&amp;full=0">http://www.crepc.sk/portal?fn=*recview&amp;uid=1108373&amp;pageId=resultform&amp;full=0</a> <b><i>After copying the link from the CREPČ or the CREUČ portal it is necessary to check the functionality of the link.</i></b></p>

<p>OCA10 Hyperlink to the record in another publicly accessible register, catalogue of research/ artistic/other outputs <sup>7</sup></p> <p><i>VTC note:</i> E. g. the catalogue of publication activities of the Slovak Academy of Sciences (SAS), WoS, Scopus, etc.</p>	<p><b><i>OCA10 – OCA15 are filled in only for outputs that are not registered in the CREPČ and the CREUČ. Provide a hyperlink in the WoS, Scopus databases, the publishing house, Office of Industrial Property, or elsewhere According to the nature of the output.</i></b></p> <p><b><i>Example:</i></b> <a href="https://www.worldcat.org/title/ash-species-in-europe-biological-characteristics-and-practical-guidelines-for-sustainable-use/oclc/70156489">https://www.worldcat.org/title/ash-species-in-europe-biological-characteristics-and-practical-guidelines-for-sustainable-use/oclc/70156489</a> <b><i>After copying the link, it is necessary to check the functionality of the link.</i></b></p>
<p>OCA11 Characteristics of the output in the format of the CRPA or the CRAA bibliographic record, if the output is not available in a publicly accessible register or catalogue of outputs.</p>	<p><b><i>List the EPCA bibliographic record:</i></b></p> <p>AAA FRAXIGEN (BOSHIER, D., CORDERO, J., HARRIS, S., PANNELL, J., RENDELL, S., SAVILL, P., STEWART, J., CUNDALL, N., HUBERT, J., SAMUEL, S., ERIKSEN, B., WALLANDER, E., MARTINSSON, O., BELLIDO, J.A., FAYOS, P.G., LÓPEZ, R.M., ROLDÁN, M., VERDÚ, M., MATEU, I., MONTILLA, A.I., SPANOS, K., KYRIAKIDIS, D., PAPI, R., BLADA, I., PALADA, M., POPESCU, F., POSTOLACHE, D., ČAŇOVÁ, I., ĎURKOVIČ, J., GÖMÖRY, D., KRAJMEROVÁ, D., PAULE, L., SLOBODNÍK, B.) 2005: Ash Species in Europe: Biological Characteristics and Practical Guidelines for Sustainable Use. University of Oxford, Oxford, 128 pp. ISBN 0 85074 163 7.</p>
<p>OCA12/ Type of the output (if the output is not registered in the CRPA or the CRAA)</p> <p><i>VTC note: Choice from 67 options (see Explanations for OCA12).</i></p>	<p><b><i>Example:</i></b> Monograph 41</p>
<p>OCA13 Hyperlink to the webpage where the output is available (full text, other documentation, etc.)</p>	<p><b><i>Include a hyperlink in the publisher’s database, researchgate.net, academia.edu, the Industrial Property Office, or Elsewhere depending on the nature of the output.</i></b></p> <p><b><i>Example:</i></b> <a href="https://www.academia.edu/24792948/Ash_species_in_Europe_biological_characteristics_and_practical_guidelines_for_sustainable_use">https://www.academia.edu/24792948/Ash_species_in_Europe_biological_characteristics_and_practical_guidelines_for_sustainable_use</a> or <a href="https://www.researchgate.net/publication/262765209_Ash_Species_in_Europe_Biological_Characteristics_and_Practical_Guidelines_for_Sustainable_Use">https://www.researchgate.net/publication/262765209_Ash_Species_in_Europe_Biological_Characteristics_and_Practical_Guidelines_for_Sustainable_Use</a></p>

<p>OCA14 Characteristics of the author's contribution</p>	<p><b>Example:</b> The publication is an output of the international project entitled FRAXIGEN within the 5th EU Framework Program. A group of 10 partner institutions from 6 countries working on the project contributed by the assessed author (JĎ) and his 3.03% contribution proportion to the monograph. The assessed author participated in determinations of the genetic diversity of manna ash (<i>Fraxinus ornus</i>) populations, one of 3 analysed species of ash in detail, when using molecular DNA markers. In addition, the assessed author contributed to the formulation of results, discussion and conclusions, and he also participated in the final review process. The order of the authors in the publication follows alphabetically according to the individual partner institutions.</p>
<p>OCA15 Annotation of the output with contextual information concerning the description of creative process and the content of the research/artistic/other activity, etc. <sup>8</sup> <i>VTC note: Range up to 200 words in Slovak and the range up to 200 words in English are stated in the case of non-text outputs, if it is not obvious from the nature of the output. Annotation of the output is provided with contextual information concerning the description of the creative process and the content of the research/artistic/other activity, etc.</i></p>	<p><b>Example:</b> The monograph is a result of the scientific project of 5th FP of EU entitled Ash for the Future: Defining European Ash Populations for Conservation and Regeneration (FRAXIGEN, No. EVK2-CT-2001-00108) with a close connection to sustainable management and regeneration of <i>Fraxinus</i> populations in Europe. It takes into account biological and ecological processes involved in the formation of populations in 3 European ash species: <i>F. excelsior</i>, <i>F. angustifolia</i>, and <i>F. ornus</i>. The experimental part was focused on two parts: i) study of gene flow and genetic diversity patterns of ash species and how these processes are affected by variation of reproduction systems, (ii) how sufficiently natural ash populations are adapted to the environment and how the anthropogenic selection for yield traits affects adaptive variation. Creation of an end-user group in each of six partner countries was an integral part of these research activities in order to improve communication and put the research results into practice. The relevance of practical impact of the study is presented through recommendations to groups of government, private and public interest with emphasis on the selection of ecologically and genetically suitable reproductive material for the preservation of genetic diversity and sustainable management of ash stands in Europe.</p>

<p>OCA16 Annotation of the output in English<sup>9</sup>  <i>VTC note: Range up to 200 words is stated in case the output is published in a language other than English. Annotation of the output in English is provided, briefly characterizing the nature, content and main results of the output.</i></p>	<p><b><i>It is given if the output is published in a language other than English. An annotation of the output in English, in which the nature, content and main results of the output are briefly characterized, shall also be given.</i></b></p>
<p>OCA17 List of maximum 5 most significant citations corresponding to the output <i>Range up to 200 words</i></p>	<p><b><i>We recommend selecting citations to publications also listed in VUPCH, VI.6.2, VI.6.3 and VI.6.4. The citations should be selected primarily in the WoS database in the following order: highly cited, hot papers, the high number of citations, journals with a very high impact factor or based on their application in economic and social practice. In the case of outputs significant for social and economic practice, it is necessary to provide evidence of their implementation and significance.</i></b></p> <p><b><i>Example:</i></b>  AAA FRAXIGEN (BOSHIER, D., CORDERO, J., HARRIS, S., PANNELL, J., RENDELL, S., SAVILL, P., STEWART, J., CUNDALL, N., HUBERT, J., SAMUEL, S., ERIKSEN, B., WALLANDER, E., MARTINSSON, O., BELLIDO, J.A., FAYOS, P.G., LÓPEZ, R.M., ROLDÁN, M., VERDÚ, M., MATEU, I., MONTILLA, A.I., SPANOS, K., KYRIAKIDIS, D., PAPI, R., BLADA, I., PALADA, M., POPESCU, F., POSTOLACHE, D., ČAŇOVÁ, I., ĐURKOVIČ, J., GÖMÖRY, D., KRAJMEROVÁ, D., PAULE, L., SLOBODNÍK, B.) 2005: Ash Species in Europe: Biological Characteristics and Practical Guidelines for Sustainable Use. University of Oxford, Oxford, 128 pp. ISBN 0 85074 163 7.  Cited by:  PAUTASSO, M. - AAS, G. - QUELOZ, V. - HOLDENRIEDER, O. European ash (<i>Fraxinus excelsior</i>) dieback – A conservation biology challenge. <i>Biological Conservation</i>. ISSN 0006-3207, 2013, vol. 158, pp. 37-49. (202 citations in WoS - highly cited paper).  GROSS, A. - HOLDENRIEDER, O. - PAUTASSO, M. - QUELOZ, V. - SIEBER, T.N. <i>Hymenoscyphus pseudoalbidus</i>, the causal agent of European ash dieback. In <i>Molecular Plant Pathology</i>. ISSN 14646722, 2014, vol. 15, no. 1, pp. 5-21. (195 citations in WoS - highly cited paper).  QUELOZ, V. - GRÜNIG, C.R. - BERNDT, R. - KOWALSKI, T. - SIEBER, T.N. - HOLDENRIEDER, O. Cryptic speciation in <i>Hymenoscyphus albidus</i>. In <i>Forest Pathology</i>. ISSN 14374781, 2011, vol. 41, no. 2, pp. 133-142. (174 citations in WoS - highly cited paper).  BACLES, C.F.E. - ENNOS, R.A. Paternity analysis of pollen-mediated gene flow for <i>Fraxinus excelsior</i> L. in a chronically fragmented landscape. <i>HEREDITY</i>. ISSN 0018-067X, 2008, vol. 101, no. 4, pp. 368-380. (77 citations in WoS)</p>



	<p>KJÆR, E.D. - MCKINNEY, L.V. - NIELSEN, L.R. - HANSEN, L.N. - HANSEN, J.K. Adaptive potential of ash (<i>Fraxinus excelsior</i>) populations against the novel emerging pathogen <i>Hymenoscyphus pseudoalbidus</i>. In <i>Evolutionary Applications</i>. ISSN 17524563, 2012, vol. 5, no. 3, pp. 219-228. (76 citations in WoS)</p>
<p>OCA18 Characteristics of the output's impact on socio-economic practice  <i>VTC note: Range up to 200 words in Slovak/  Range up to 200 words in English</i></p>	<p><i>Above all, state explicit applications of output results in social and economic practice. We recommend also specifying the scientometric parameters of the output.</i></p> <p><b>Example 1:</b>  The results of this monograph indicate the usefulness and suitability of molecular genetic approach applications in the forestry practice in order to provide the stakeholders from governmental, private and public organizations with the information about the collection, use and conservation of genetic resources for three species of the genus <i>Fraxinus</i>. A selection of genetically appropriate resources of the forest reproductive material indicates the improved robustness, sustainability and production value for the newly established ash stands. The main recommendations for forestry practitioners (forest owners, forest managers, and bodies involved in the conservation and use of forest genetic resources) concern the conservation of genetic diversity at the local level (up to 250 km scale) even though <i>F. excelsior</i>, <i>F. angustifolia</i>, and <i>F. ornus</i> show a relatively high genetic variation over a large area of natural distribution. The use of genetically less diverse reproductive material may result in a reduced adaptive potential of the studied ash trees. The publication recorded 88 citations without self-citations in WoS and Scopus databases with an average of 5.5 citations per year.</p> <p><b>Example 2:</b>  Due to its properties, thermally modified wood is used mainly in exteriors as a replacement for exotic woods in the construction of terraces, garden furniture, doors, windows, roofs, etc. Thermal modification changes the colour of wood. The results of the research presented in the publication express the dependence of the change of coordinates in the colour space CIE <math>L^*a^*b^*</math> on the type of wood, the technology of thermal modification and grinding, while these dependences are assessed using three assessment methods. The results allow producers to choose the type of wood species and a suitable technology for thermal modification to reach the required shade of wood surface.</p> <p><b>Example 3:</b>  The conclusions resulting from the publication say there were not used appropriate new mechanisms of the intersectoral coordination which were also required by the program NATURA 2000 formulated at the EU level. The absence of intersectoral coordinative mechanisms was caused by value orientation when formulating the program NATURA 2000 at the national Slovak level. The analysis of intersectoral coordination in the field of biodiversity protection and forestry in the formulation of Natura 2000 system in Slovakia shows that the adequate intersectoral coordination is lacking. The interdepartmental comment procedure a "top-down" coordination mechanism was not sufficient to articulate the interests of all interested sectors from the viewpoint of</p>

	<p>forestry participants, which was confirmed based on the theory of advocacy coalitions. The systems of value orientations made consensus between the ecological and ownership coalitions impossible. NATURA 2000 formulation process in the Slovak Republic was carried out without the participation of forest owners and managers, with negative consequences for the implementation of the NATURA 2000 program in Slovakia.</p> <p>The publication recorded 27 citations without self-citations in WoS and Scopus with an average of 3 WoS and Scopus citations per year. The publication also has 3 domestic citations without self-citations. Partial results presented at the RegioResources conference in Dresden, where the presented results were well-received.</p> <p>(<a href="https://www.yumpu.com/en/document/read/9456574/preliminary-program-regioresources-21-eli-web">https://www.yumpu.com/en/document/read/9456574/preliminary-program-regioresources-21-eli-web</a>).</p>
<p>OCA19 Characteristics of the output and related activities' impact on the educational process  VTC note: Range up to 200 words in Slovak / Range up to 200 words in English</p>	<p><b><i>We recommend to list above all the final theses that were created based on the publication. Furthermore, it is necessary to indicate the influence of the publication on textbooks or teaching texts and to indicate the pedagogical events in which the publication is used. Subjects and final theses of other employees within the accredited study programme can also be listed, with the name of the employees (teacher of the subject and supervisor of the final thesis).</i></b></p> <p><b><i>Example 1:</i></b>  Results and experimental approaches in assessment of genetic variation and flowering phenology of ash populations in Slovakia were lectured within majors (major subjects) Genetics of Forest Trees (branch of study Forestry, study programme Forest Ecology, first degree) and Scientific Methodology (Forest Phytology, third degree). Based on applied methodological procedures resulting from the monograph, 2 MSc theses of foreign students, 1 MSc thesis and 2 PhD theses of the Slovak students were prepared:</p> <ol style="list-style-type: none"> <li>1. Stolaric, I. 2004. Height growth of common ash and narrow-leaved ash provenances growing at provenance plot Trstice. MSc thesis, FF TUZVO, 47 pp., supervisor prof. Ladislav Paule.</li> <li>2. Cutlac, I. 2004. Research into leaf variation in clones of common ash and narrow-leaved ash in seed orchard Trstice. MSc thesis, FF TUZVO, 52 pp., supervisor prof. Ladislav Paule.</li> <li>3. Kurjak, D. 2005. Flowering and male reproductive potential of manna ash. MSc thesis, FF TUZVO, 43 pp., supervisor Dr. Branko Slobodník.</li> <li>4. Piecka, J. 2010. Genetic differentiation of common ash (<i>Fraxinus excelsior</i> L.) populations in Slovakia. PhD thesis, FF TUZVO, 113 pp., supervisor prof. Ladislav Paule.</li> <li>5. Bajcar, V. 2011. Reproduction processes and offspring tests in common ash and narrow-leaved ash. PhD thesis, FF TUZVO, 164 pp., supervisor prof. Ladislav Paule.</li> </ol> <p><b><i>Example 2:</i></b>  Samples of wood used in experimental measurements were part of the dissertation: Vančo, M. 2018. Analysis of the factors influencing the qualitative indicators of the processing of thermally modified oak wood in face milling, supervisor Š. Barčík. Technical University in Zvolen. An example of the practical implementation of the</p>

methodology of measuring optical quantities using semiconductor elements is taught within the subject Intelligent Sensors in the doctoral degree in the study programme Manufacturing Technology.

***Example 3:***

On the basis of this publication and during its preparation, several bachelor's and Master's diploma theses were developed. E. g. Gargalík Peter, Ing. 2014. Analysis of local conflict in the management of the predatory wolf (*Canis lupus*). Study programme: LF B-AZP full-time study. Knechta Oliver, Ing., 2014. Damage due to restriction of property rights in the Svetlianska cerina Nature Reserve. Study programme: LF B-LESN full-time study. The 3rd author of the publication is the PhD. student of the assessed author who dealt with the intersectoral relations of forestry in her dissertation. Dobšínská, Zuzana, Hierarchical and network coordination in relevant policies for forestry: actors, relationships and processes. Final thesis. Bratislava: 2013. 152 p. Study programme: European Studies and Policies, Branch of study: 3.1.8. Political Theory, Training workplace: Institute of Public Policy, FSEV, UK Bratislava.

Results and assessment methodology and she lectured on the major subject Forestry Policy (Adaptive Forestry, 2<sup>nd</sup> grade) and is part of the textbook on Forestry Policy in the chapter on intersectoral coordination, and the theory of advocacy coalitions used in the publication is part of the study texts Analysis of Public Policy to Ensure Ecosystem Services Forests (Ecosystem Services of Forests, 3<sup>rd</sup> year of studies). In addition, the issue of intersectoral relations was presented in the subject of Economic Policy (Economics and Management of Renewable Natural Resources, 2<sup>nd</sup> degree).

**Instructions for completing the sheet of “Details “:**

Title of the publication	<b>Example:</b> Sarvašová, Z., Šálka, J., & Dobšínská, Z. (2013). Mechanism of cross-sectoral coordination between nature protection and forestry in the Natura 2000 formulation process in Slovakia. Journal of Environmental Management, 127, S. 65-S72.
Branch of studies	<b>List potential branches of studies or the field for habilitation and inauguration proceedings where the publication can be used.</b> <b>Examples:</b> Forestry Economics and Management
Study programme	<b>Indicate potential study programmes and the degree of study where the publication can be used.</b> <b>Examples:</b> Adaptive Forestry, 2 <sup>nd</sup> degree Forest Ecosystem Services, 3 <sup>rd</sup> degree Economics and Management of Renewable Natural Resources, 2 <sup>nd</sup> degree Economics and Management in Wood Processing Companies, 3 <sup>rd</sup> degree
Published	<b>Example:</b> 2013
Category according to the Decree until 2020	<b>State the category according to the Decree of the Ministry of Education, Science, Research and Sport of the Slovak Republic No. 456/2012 Coll. on the Central Register of Publication Activity and the Central Register of Artistic Activity.</b> <b>Example:</b> ADC
Category according to the Decree since 2021	<b>State the category according to the Decree of the Ministry of Education, Science, Research and Sport of the Slovak Republic No. 397/2020 Coll. on the Central Register of Publication Activity and the Central Register of Artistic Activity.</b> <b>Example:</b> V
Category (JCR)	<b>All "Category" according to the Journal Citations Report, which is part of Web of Science, shall be listed.</b> <b>Example:</b> ENVIRONMENTAL SCIENCES
JCR quartile in the year of publishing	<b>The "quartile" for all "categories" according to the Journal Citations Report, which is part of the Web of Science, shall be listed.</b> <b>Example:</b> Q1
IF in the year of publishing (JCR)	<b>The "impact factor" for all "categories" according to the Journal Citations Report, which is part of the Web of Science, shall be indicated.</b> <b>Example:</b> 3.188
Percentile in the year of publishing in “environmental sciences “	<b>The "percentile" for all "categories" according to the Journal Citations Report, which is part of Web of Science, shall be listed.</b>

	<b>Example: 82%</b>
SJR quartile in the year of publishing (Scopus)	<b>The "quartile" according to the Scopus database is indicated, if it is relevant for the choice of the output. Example: Q1</b>
Proportion of the assessed author (CREPČ/CREUČ)	<b>The proportion of the author according to the Central Register of the Publication Activity or the Central Register of Artistic Activity shall be indicated. If the output is not registered in the CREPČ/CREUČ, the proportion with the proof of the author's share is given, or the share calculated as 1 divided by the number of authors is given. Example: 33%</b>
Corresponding author (yes/no)	
Is there a description of the activities of the co-authors in the publication? (Yes/No)	
Citations: absolute, relative	<b>All citations shall be given without self-citations. The absolute number of citations and the relative number of citations which is calculated as the absolute number of citations divided by the number of years since publishing the output are given.</b>
Number of the citations of foreign citations from EPCA in WoS and Scopus databases without self-citations (category 1)	<b>The output from EPCA shall be produced for the chosen output of creative activity. We recommend preparing outputs from EPCA by means of "F-Personal bibliography with responses". In the output from EPCA, there have not been registered yet, e. g. citations from 2020, therefore the database will need to be updated throughout the year and the VTC will need to be updated before the application is submitted. Citations can also be obtained from other sources, e. g. from your own records. Database citations need to be confronted and synchronized with databases.</b>
Number of home citations from EPCA in the WoS and Scopus databases without self-citations (category 2)	
Number of foreign citations except for WoS and Scopus without self-citations from EPCA (category 3)	
Number of home citations except for WoS and Scopus without self-citations from EPCA (category 4)	
Number of WoS citations without self-citations	<b>It shall be made according to the WoS database. Citations can also be obtained from other sources, e. g. from EPCA or your own records.</b>
including the number of CC citations without self-citations	
including the number of WoS conference citations without self-citations	
including the number of WoS conference in Slovakia citations without self-citations	
including the number of citations in Slovakia without self-citations	
including the number of citations from the TUZVO without self-citations	

Number of Scopus citations without self-citations	<i><b>It shall be made according to the Scopus database. Citations can also be obtained from other sources, for example from EPCA or your own records.</b></i>
including the number of conference citations registered in Scopus without self-citations	
including the number of Slovak conference citations registered in Scopus without self-citations	
including the number of citations from Slovakia without self-citations	
including the number of the citations from the TUZVO without self-citations	
List of citations:	<i><b>All citations shall be listed and 5 citations which will be included in the VTC_RCH letter will be marked.</b></i>