



# Questionnaire for mapping the research human potential and issues in WBC universities

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## *Introduction*

### *To whom this questionnaire is intended*

The questionnaire is a tool for mapping the research human potential and issues in University of Niš, University of Belgrade, University of Novi Sad, University of Kragujevac (RS), University of Montenegro (ME), University of Sarajevo, University of East Sarajevo (BA), University of Tirana (AL) and University of Vlora (AL). All above partners are invited to nominate one person from their Re@WBC team who will coordinate the local efforts in data collection, namely a local mapping coordinator.

### *Objectives*

The objective of this questionnaire is twofold. First, it aims at establishing the state-of-the-art, namely a detailed and comprehensive picture of current human potential in science and research in targeted universities, including the issues, related to HR management, career development and employment of researchers, ethics, working conditions, accountability, training and collaboration. Second, it is a tool for development of individual HR strategies of each of the universities<sup>1</sup>. It is foreseen that the tool will facilitate synthesis of a background data for gap analysis, relative to the principles of European Charter for Researchers and Code of Conduct for Recruitment<sup>2</sup>.

### *Data collection*

The questionnaire covers a range of topics relevant for HR management in research institutions, all of which are highlighted in the European Charter and Code, or The Human Resources Strategy for Researchers (HRS4R) process<sup>3</sup>. These topics are highly relevant for the overall objectives of Re@WBC project. The accuracy (or reliability, in case of estimations) and completeness of the input, provided by the partners are of extreme importance for the fulfillment of these objectives, in terms of establishment of a ground basis for the future activities. Thus, all partners are invited to put a good faith effort to provide accurate, reliable and complete data. Possible sources of data are internal documents and reports, information systems and databases, other projects' deliverables, contacts with employees in HR departments, researchers and CD centers.

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<sup>1</sup> HR strategies for each of the partner universities are planned deliverables of Re@WBC project

<sup>2</sup> <http://ec.europa.eu/euraxess/index.cfm/rights/europeanCharter>

<sup>3</sup> <http://ec.europa.eu/euraxess/index.cfm/rights/strategy4Researcher>

## How the data will be used

The data, collected by this questionnaire will serve as an input for drafting a synthesis report<sup>4</sup>. The synthesis report will be developed by University of Niš. It will highlight individual issues, as well as the good practices in resolution of these issues and in other aspects of HR management and career development. Additionally, EU partners will be invited to contribute with their feedback on the relevant topics. Their contribution will be included in the synthesis report. To the widest possible extent, the synthesis report will replicate the outline of the HRS4R template. Thus, it will make a valuable tool for the individual partners, in the activities of HR strategies' development. In fact, after the delivery of the synthesis report, the partners will be invited to prepare short action plans, aiming at resolution of most critical issues, and get endorsement of the upper university management for implementation of the foreseen actions.

## Help and support

Person in charge for the mapping exercise from the University of Niš, namely a project mapping coordinator, is assigned. Project mapping coordinator will continuously keep in contact with local mapping coordinators, offer and provide help and assistance in data collection, missing and/or uncertain data situations. Role of project mapping coordinator is assigned to Milan Zdravković<sup>5</sup>.

## Questionnaire

### 1. Research potential

#### 1.1. Human resources potential

1.1.1. Provide a number of researchers employed at your university (full or temporary contract) at each stage, at each scientific field: (source: UNSA Annual Report 2014, full contract)

|                              | <i>PhD candidate</i> | <i>PhD candidate with employ. contract</i> | <i>Teaching ass with PhD</i> | Assistant professor | Associate professor | Full professor |
|------------------------------|----------------------|--|------------------------------|---------------------|---------------------|----------------|
| Natural sciences:            | 94                   | 45   | 1                            | 29                  | 22                  | 14             |
| Engineering and technology:  | 193                  | 58   | 9                            | 61                  | 46                  | 43             |
| Medical and health sciences: | 217                  | 180  | 9                            | 64                  | 48                  | 39             |
| Agricultural sciences:       | 87                   | 47   | 2                            | 22                  | 32                  | 11             |
| Social sciences:             | 301                  | 36   | 3                            | 60                  | 45                  | 48             |
| Humanities:                  | 201                  | 54   | 8                            | 77                  | 52                  | 48             |
| Arts:                        | 8                    | 8  | 0                            | 21                  | 35                  | 34             |

1.1.2. Provide a number of researchers from abroad currently working or studying (PhD) at your university (full or temporary contract, visiting professorship, PhD or a research grant), at each scientific field: (ask faculties/academies)

|  | Full contract | Temporary contract | Visiting professor | PhD grant | Research grant |
|--|---------------|--------------------|--------------------|-----------|----------------|
|  |               |                    |                    |           |                |

<sup>4</sup> In the Re@WBC project, the synthesis report is referred to as "Comparative (gap) analysis"

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|                              |  |   |   |   |   |
|------------------------------|--|---|---|---|---|
| Natural sciences:            |  |   | 1 |   |   |
| Engineering and technology:  |  |   | 5 | 4 |   |
| Medical and health sciences: |  |   | 4 |   |   |
| Agricultural sciences:       |  |   |   |   |   |
| Social sciences:             |  |   |   | 8 | 1 |
| Humanities:                  |  | 1 | 2 | 9 |   |
| Arts                         |  |   | 4 |   |   |

1.1.3. Provide a number of PhD students at your university, at each scientific field (source: UNSA Annual Report, 2015):

|                              | Number of PhD students |
|------------------------------|------------------------|
| Natural sciences:            | 59                     |
| Engineering and technology:  | 5                      |
| Medical and health sciences: | 105                    |
| Agricultural sciences:       | 7                      |
| Social sciences:             | 85                     |
| Humanities:                  | 81                     |

1.1.4. Provide accurate or estimated age structure of researchers employed at your university (in total or percentage):

<25 yrs     
 25-40 yrs     
 40-55 yrs     
 >55 yrs

1.1.5. Would you consider a gender balance in your university as fair? Highlight the most important aspects, including overall gender balance, scientific excellence (mentoring, project coordination and leadership, outstanding scientific achievements), management (deans, department managers, centers management, etc.) and situation in different scientific fields (source: Evaluation Report, 2013):

Yes among teaching staff (female (639) and male (696) (note: in close future it is expected that this ratio will change in favor of female since the total number of assistants and senior assistants shows a ratio of 308 female to 224 male.  
Deans: 22 male deans/4 female deans

1.1.6. Provide a list of outstanding international awards (which award, when, which scientific field?) in specified scientific fields received by the individual researchers from your university<sup>6</sup>:

**List includes awards in 2015**

**Natural sciences:**

The Best Paper Award for „Integrating Building Planning and Design Process – Creating Synergy Between Building’s Structure, Materials and Form“, authors: Dž. Bijedić, R. Čahtarević, S. Halilović, at Second International Conference on Advances in Civil, Structural and Construction Engineering - CSCE 2015 – Rome – Italy.

**Arts:**

Grand prix for the best show „Dame biraju“, directed by ADMIR GLAMOČAK, International Festival of Comedy „Gola mesečina“ Skopje, 2015

Grand prix for the best director, ADMIR GLAMOČAK, show „Dame biraju“, International Festival of Comedy „Gola mesečina“ Skopje, 2015

Grand prix for the best male role for ADMIR GLAMOČAK at the International festival of Actors for the role of Igor in the show „Brašno u venama“, Nikšić 2015

Award „Zlatna Antena“ at VI international domestic TV shows FEDIS, Beograd, for the most popular TV show „Lud, zbunjen, normalan“ 2015

SFF, CineLink Eurimages Award for the development of the movie 'Balada' by prof. Aida Begić-Zubčević

Award "Red Dot Award 2015–Winner" to prof. Salih Teskeredžić (Product design) -, chair design

Award "Red Dot Award 2015–Winner", to prof. Salih Teskeredžić (Product design) – bed design

Award "Interior Innovation Award 2015 – Winner" to prof. Salih Teskeredžić, chair design

Award "Interior Innovation Award 2015 – Winner" to prof. Salih Teskeredžić, bed design

Award "Interior Innovation Award 2015 – Selection" to prof. Salih Teskeredžić (Product dizajn) – armchair design

Award "Interior Innovation Award 2015 – Selection" to prof. Salih Teskeredžić (Product dizajn) – table design

Award “Month of Design”, Ljubljana 2015 to prof. Salih Teskeredžić (Product dizajn) for collection of furniture „Fawn“, brend “Gazzda”

Award Graphis Silver Typography 3 i Graphis Silver Social&Political Protest Poster in New Yorku 2015, prof. mr. Dalida Karić – Hadžiahmetović (Department Graphic Design)

**Humanities:**

Rector's Award, University Bilkent, Ankara to prof. dr. Kerima Filan for her contribution to research in field of Turkish language

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<sup>6</sup> Also including ERC grants

### 1.1.7. Any other remarks relevant to human resources potential at your university?

In May 2015, the Government of the Sarajevo Canton (the founder of the university) passed a temporary moratorium on new employment in all public institutions and this moratorium remains in place until the end of 2016. The new staff can only be employed with a prior approval of the government and this action also applies to temporary contracts. This situation significantly affects HR potential at UNSA. Besides, HR potential differs from one university member to another. Based on data obtained from a limited number (11) of university members the situation can be described as follows:

Natural sciences (PMF): from their own human resources they cover 80% of needs for teaching and scientific processes with an increased working load of all teachers and associates. The remaining 20% of teaching process is covered through the engagement of external associates from other UNSA members (three teachers are from other universities in BiH).

Social sciences: In spite of the moratorium the School of Economics and Business has a sufficient number of teachers and associates to provide teaching in local languages as well as in English language. The Faculty for Criminalistics, Criminology and Security Studies: human resources are respectable if taking into account the kind of study of the Faculty. Students (MA and PhD) are from BiH as well as from countries in the region (PhD students: 4 from Croatia, 8 from Kosovo and 1 from Montenegro)

Medical sciences: law regulation and the decision of the Government make it impossible to hire additional senior assistants; Faculty of Health Sciences: human potential could be better

Engineering and technology (ETF): the situation with HR is satisfactory. However there is enough room to improve the situation by employing younger academic staff (assistants and senior assistants) which is not possible due to law regulations.

Agricultural sciences: the balance of professors and assistants is not satisfactory since the Faculty of Forestry has only two assistants and since it has specific scientific field assistants from other faculties can only be engaged in teaching more general subjects.

Humanities: Faculty of Philosophy has a significant human potential. However there is a need for teaching and research staff especially because of the restriction for employment of young researchers (assistants and senior assistants) which slows down the process of development and ensuring researchers. Due to the shortage of researchers teaching staff has to focus on teaching which is why other aspects are slowed down; Faculty of Pedagogy: for the existing three departments there is a need for additional 5 full-time teachers with permanent contract.

Institute of History: there are 20 researchers (6 PhD holders in science, 4 PhD in research/senior associate (due to the shortage of funds for advancement) 8 PhD students expected to complete their PhD thesis until the end of 2016 and 2 MA holders. It is necessary to ensure additional funds for employment of young staff since starting from Jan 2017 the Institute won't have young assistants without PhD;

## 2. Employment and career development

### 2.1. Employment and promotion

2.1.1. How many researchers were employed (signature of a new contract, do not include extensions – career advance) at your university in 2014, per scientific field?

|                              | Employed |
|------------------------------|----------|
| Natural sciences:            | 13       |
| Engineering and technology:  | 22       |
| Medical and health sciences: | 20       |
| Agricultural sciences:       |          |
| Social sciences:             | 3        |
| Humanities:                  | 38       |

|       |   |
|-------|---|
| Arts: | 5 |
|-------|---|

2.1.2. How many of those researchers were employed at senior positions (signature of a new contract for assistant professors or higher)?

|                              | Employed at senior pos |
|------------------------------|------------------------|
| Natural sciences:            | 5                      |
| Engineering and technology:  | 5                      |
| Medical and health sciences: | 19                     |
| Agricultural sciences:       |                        |
| Social sciences:             | 73                     |
| Humanities:                  | 24                     |
| Arts:                        | 5                      |

2.1.3. How many researchers were retired at your university, in 2014, per scientific field?

|                              | Retired in 2014 |
|------------------------------|-----------------|
| Natural sciences:            | 2               |
| Engineering and technology:  | 7               |
| Medical and health sciences: | 7               |
| Agricultural sciences:       | 1               |
| Social sciences:             | 6               |
| Humanities:                  | 10              |
| Arts:                        | -               |

2.1.4. Where all open positions are advertized? Provide URL of a web page, if any.

All open positions are advertized on the web site of the University ([www.unsa.ba](http://www.unsa.ba)), web sites of faculties/academies as well as in daily newspapers

2.1.5. What is the duration of position advertisement (in days)?

15

2.1.6. What are the maximum durations of contracts (with all possible extensions) for each of the positions? Indicate if a signature of permanent work agreement is possible for some positions<sup>7</sup>. (see Article 88, Law on Higher Education, Sarajevo Canton)

|                      | Max duration (years) |
|----------------------|----------------------|
| Teaching assistant:  | 4                    |
| Assistant professor: | 10                   |
| Associate professor: | 12                   |
| Full professor:      | permanent            |
| Other:               |                      |

<sup>7</sup> For example, in Serbia, all full professorships positions are permanent, while all others are temporary.

2.1.7. What are the typical durations of contracts for each of the positions? (see Article 88, Law on Higher Education, Sarajevo Canton)

|                      | Typical duration (years) |
|----------------------|--------------------------|
| Teaching assistant:  | 4                        |
| Assistant professor: | 5                        |
| Associate professor: | 6                        |
| Full professor:      | permanent                |
| Other:               |                          |

2.1.8. Does your university supports/implements transferrable grants<sup>8</sup>? If yes, could you shortly describe the process of a transfer?

Not common.

2.1.9. List all criteria factors<sup>9</sup> which are formally taken into account for advancing career from one position to another<sup>10</sup> (for example, from assistant to associate professor). Consider all possible promotions, not only the one given as an example.

**Assistant professor:** holds a PhD, 3 scientific papers published in acknowledged journals, teaching competencies  
**Associate professor:** at least one elective period as assistant professor, at least 5 scientific papers published in acknowledged journals, 1 book and original professional success such as project, patent or original method all post to the election to the position of the assistant professor, at least 1 mentorship (MA)  
**Full professor:** at least one elective period as associate professor, at least 2 books, at least 8 papers published in acknowledged journals all this post to the appointment to the position of an associate professor, 2 mentorships (1 MA, 1 PhD)

2.1.10. Describe shortly the process (in bullet points - steps) in which the members of evaluation committees are nominated. Are there any criteria for participation in evaluation committees? (Source: Statute of the University of Sarajevo 162-163)

- The Council of Faculty/Academy nominates the Commission for the preparation of the proposal for selection
- The Commission numbers from three to five members holding the same academic position as advertized position or even higher
- Most of Commission members are from a specific scientific field as advertized position while some of them can also be from a close scientific field

2.1.11. Describe shortly the process of candidate selection (in bullet points - steps). Are there standard evaluation templates (allowing that different standard templates may exist for the different scientific fields)?

<sup>8</sup> When a researcher transfers from one institution to another and requests continued support from a previously approved grant/project at the new location

<sup>9</sup> Possible criteria factors include but are not restricted to papers in journals, books, mentoring, participation in evaluation committees, project coordination, etc.

<sup>10</sup> Do not include the ones that are regarded but not mandatory, list only mandatory criteria.

- The Commission is obliged to submit a written proposal for the selection of candidates to the Council of Faculty/Academy within 30 days starting from the date set as deadline for submission of application by taking into account the fulfillment of all defined criteria for appointment to the relevant academic position
- The final decision referring to the specific academic position at the Faculty/Academy level is made in accordance with the criteria prescribed by the Law, the Statute and general rules of the Faculty/Academy
- During the decision-making process at the University level one Commission representative (rapporteur) must be present at the session of the Senate at which the decision is considered (in case this person is not the proposed selection will not be considered)

University members define their own procedures for evaluation.

2.1.12. Who is entitled to make a decision on announcing an open position at your university (or faculties, in case of disintegrated university)? List all possible factors for rendering such a decision, for example: long-term employment strategy, short-term need (available project grant), retirement, any other.

The Council of Faculty/Academy defines the needs for employment of academic staff in accordance with the standards and regulations in higher education. These standards among others define the average number of students per teacher.

2.1.13. Would you consider a research positions at your university as competitive? How many candidates typically apply for a certain position?

The research positions at the UNSA are in mostly not competitive because positions exclusively for researchers are rarely opened. The reason for this lies in the fact that teachers are at the same time researchers with 30% (according to standards). Here's an overview of how many candidates typically apply for a certain position according to scientific fields:

|                              | Comments  |
|------------------------------|---|
| Natural sciences:            | 2 candidates (position of a teacher)<br>5 candidates (position of an associate)   |
| Engineering and technology:  | 5 – 21 applications for the position of an assistant (architecture, positions of researchers very attractive)<br>1 – 2 candidates (Electrical Engineering, Faculty of Mechanical Engineering, Faculty of Civil Engineering) |
| Medical and health sciences: | No funds for opening positions for researchers exclusively (research is conducted by teachers according to standards); when a position is advertised approx. 1 - 2 candidates apply (medicine)                              |
| Agricultural sciences:       |   |
| Social sciences:             | 2 candidates<br>3 candidates (higher positions – teachers) and 10 candidates for the position of researcher at the Institute of Criminalistics, Criminology and Security studies „CriminalEast“                             |
| Humanities:                  | 5 candidates (institutes)<br>1 – 15 (Faculty of Philosophy)<br>1 candidate (Faculty of Pedagogy)<br>10 candidates (Oriental Institute)  |
| Arts:                        | 1 candidate   |

Note: Institute of Languages reports more applications for positions of researchers rather than academic staff

2.1.14. Any other remarks related to employment and promotion at your university?



**In May 2015, the Government of the Sarajevo Canton (the founder of the University) passed a temporary moratorium on new employment in all public institutions without a prior approval of the government. This action also applies to temporary contracts. The moratorium remains in place until the end of 2016. This moratorium significantly affects the employment dynamics at UNSA.**

- there is an increased demand for the employment of new staff and researchers than it's approved by the founder (the Canton);
- persons with scientific/research titles are mostly employed at universities. In other words the number of positions for researchers in economy and industry is rather low;
- researchers are engaged in teaching process (according to standards more in teaching process than in research)
- current financial situation does not provide possibilities to employ more researchers
- insufficient research infrastructure
- the founder should take care of Institute of Languages because of its important role in society and accordingly ensure a balanced treatment of new researchers
- Faculty of Philosophy: despite a significant human potential this Faculty lacks financial resources to employ additional staff and ensure the running of all processes. The research takes place through the Center for research and professional activities which also included institutes, centers, labs. The research is additionally strengthened through the Library with over 250 000 titles, COBISS, but the Faculty also closely follows the research and work of teachers, associated, researchers and students
- Faculty of Criminalistics, Criminology and Security studies: since there is an ongoing process of the development of the new Law on scientific and research in the Canton of Sarajevo, for the moment the research and scientific actions are kept within the borders of the Faculty and the University
- Oriental Institute: shortage of financial means for career advancement, the rector needs to sign work contracts together with deans for the purpose of an easier insight into the number of employees at the University, etc.

## 2.2. Career development services

2.2.1. Do you have a Career Development center, established at your university? If not, disregard the remaining questions in this section.

NO

2.2.2. How many students were served by CD center at your university in 2014?

2.2.3. What are the most commonly provided services to students?

2.2.4. How much staff is currently employed or engaged in the CD center at your university? What is their specialty and/or background (legal, administrative, marketing, etc.)? How many full time employees in CD center (working exclusively in providing CD services) are there?

2.2.5. Did staff of CD center receive some training? In which skills?

- 2.2.6. Does CD center at your university provide services to PhD students or researchers? If yes, how many PhD students/researchers were served in 2014? What are the most commonly provided services to PhD students/researchers? If not, do you plan to extend the services of CD center to PhD students/researchers? Describe shortly this plan (when, which services will be offered, etc.)?

- 2.2.7. Does CD center at your university give trainings/courses to students/PhD students/researchers? In which skills? How many students/PhD students/researchers attended those trainings in 2014?

- 2.2.8. Any other remarks relevant to activities of CD center at your university?

### 3. Ethics

#### 3.1. Institutional tools

- 3.1.1. Describe the process (in bullet points - steps) of nomination of members of Ethical Committees. Were there any complaints related to the transparency and credibility of this procedure? Were there any complaints related to questioning independence of the members of Ethical Committees?

At the University of Sarajevo there is an Ethical Council at the University level as well as Ethical Boards at the level of faculties/academies and institutes.

- **Ethical Council** is a counseling body and numbers nine members: one representative of each scientific field/arts (there are six) one representative of the Center for Human Rights, one representative of Student Parliament and one representative of the Rectorate.
- Members of the Ethical Council are nominated by the Senate upon rector's proposal for a four-year mandate.
- The Ethical Council selects the chair among its members in its constituting session
  
- **Ethical Board** of the faculty/academy/institute is nominated by the dean/director and with the approval of the scientific/art Council for the period of four years
- Ethical Board numbers 5 members (in certain cases based on the Rules of University more numbers can be nominated but not more than seven). During the appointment it is also necessary to appoint vice-members. In cases when the behavior of students is considered the Board membership is extended with two additional members (representatives of students)
- The chair of the Board has to be a teacher and is nominated by the dean
- A faculty/academy can pass an additional rule book of the Ethical Board and set and define rules on work and procedures of the Board that are not foreseen by the Ethical Code

There were no complaints regarding the work of Ethical Boards and Ethical Council.

3.1.2. Present a few typical reasons for Ethical Committee engagement (in bullet points). Ethical Board? (source: Code of Ethics)

According to the Code of Ethics unaccepted behavior includes:

- discrimination (direct or indirect)
- harrassement
- prejudices
- fabrication of results
- falsification
- plagiarism, etc.

3.1.3. How many cases are handled by the Ethical Committee annually, in average? In how many of those, misconduct was established?

Natural sciences (PMF): one case since 2013 (misconduct wasn't established)

Medical sciences: Ethical Boards are established for the purpose of ethical conduct of experimental researches (Dental School considered 15 projects (PhD and MA thesis), no misconduct was established)

Engineering and technology (ETF): one case since 2013 (misconduct wasn't established)

3.1.4. What are the possible consequences of a found misconduct? Are there any consequences for a complaintee if his/her complaint is found to be unsupported?

Is revoking scientific titles an option and under which conditions? Have it ever happened?

Academic title can be revoked in case it is proved that someone else's scientific work has been adopted as one's own or it has been falsely or based on falsification cited as one of criteria for appointment to an academic position. The decision on revocation is made by the Senate upon the proposal of the Council of Faculty/Academy (Statute, art. 168). The revoking of scientific title has never happened.

3.1.5. Would you consider the cases handled by the Ethical Committee transparent? Which information is published on the university website (separately, during process and post-mortem)? URL?

Opinions of Ethical Boards and of Ethical Council are public. Ethical Council/Ethical Board determine the way and the place of their opinions' systematic publication. For the purpose of data protection when going public personal data mentioned in opinions must be omitted and therefore opinions are published in a reduced form (source: art. 33, Code of Ethics)

3.1.6. Are members of Ethical Committees remunerated for their work? If yes, how the amount of remuneration is determined? How the work of Ethical Committees is funded?

No, members are not remunerated.

- 3.1.7. Are there any tools in your university which can help members of Ethical Committees in their work, such as plagiarism monitoring tools, PhD databases, etc.?

During the process of appointment or reappointment to scientific, teaching and artistic positions within the application candidates are expected to submit a written statement in which they state that their work and achievements represent primary results of their work and that the work does not include sources other than those referred to in their work. Following is an overview of situation at some university members:

Natural sciences: data base of PhD thesis

Social sciences: School of Economics and Business has a Rule book on plagiarism which applies to teaching staff as well as to students. This faculty continuously monitors the cases of plagiarism through the software program Turn-it-in. Faculty of Political Sciences does not have a software for monitoring plagiarism nor does it have a database with PhD and MA works

Medical sciences: for this purposes libraries and existing data bases are used (Faculty of Pharmacy does not have any of these), all tools are comprised in the work of the Board for Quality Assurance (Faculty of Medicine); Faculty of Health Sciences: coordinators of the second and third cycle are at times included in the work of the Ethical Board which enables a close insight into all documents and procedures

Engineering and technology: there are no standardized instruments that would help the members of Ethical Boards (there are mostly PhD databases)

Institutes: internal evidence of the Institute is used by the Board

- 3.1.8. Does Ethical Committee discuss about ethical issues arising from the research projects, such as privacy, data protection, animal testing, clinical trials, etc.?

Yes, as defined in the Code of Ethics faculties and academies discuss such issues as they arise from projects: *Researches that can result in unnecessary and unaccepted risk or even bring to psychological or physical injuries of humans, animals or environment, which can be avoided. This also includes any kind of support, encouragement to action and failure to report such activities performed by other members of academic community. Animals that are used for experimental purposes should be treated in accordance with relevant legal and professional standards and ethical guidelines.* (Source: Article 17, Code of Ethics),

Medical sciences: Ethical Boards are established for the purpose of establishing ethics in experimental trials and approving projects for this kind of research

- 3.1.9. Any other remarks relevant to the work of ethical committee at your university?

There is a need for instruments and tools that would support ethical boards in their work

Faculty of Pedagogy: the Ethical Board of the Faculty works together with the Team for monitoring and coordination of the implementation of the Action Plan for Fighting Corruption at the level of the Faculty of Pedagogy

## 3.2. Seniority culture and its impact to research freedom

- 3.2.1. What is the number of PhD students supervised by younger researchers (level of assistant professor) in 2014? If you don't have access to this information, would you consider such situation as common? In which scientific fields?

According to legal regulations an Assistant Professor (docent) cannot mentor PhD students. A mentor to PhD students can only be an associate or full professors (note: this is different as compared to neighboring countries)

- 3.2.2. What is the number of research projects managed by younger researchers (level of assistant professor and below)? If you don't have access to this information, would you consider such situation as common? In which scientific fields?

Yes

- 3.2.3. What is the typical age structure among associate and full professors?

Up to 35 (28,24 %), 35-45 (27,27%), 45-55 (20,22%), 55-65 (19,40%), over 65 (4,8%)

- 3.2.4. What is the typical distribution of scientific titles (assistant, associate, full professor) among research project coordinators at your university?

- 3.2.5. Any other remarks relevant to the seniority culture and its impact to research freedom?

## 4. Working conditions

### 4.1. Working conditions

- 4.1.1. Is there a EURAXESS Service Centre at your university? If yes, how many people are involved in its activities? What are their specialties and/or backgrounds? Which services are typically given? Does the center submit EURAXESS statistics regularly to European Commission?

Yes, there is (established within the project entitled "Development of Network Mobility Centers in Bosnia and Herzegovina (BAMONET)").

One person from the Office for Scientific-Research/Artistic-Research Activities of the University of Sarajevo is appointed to coordinate activities of the ESC. ESC activities provide a comprehensive assistance to researchers and their families during their period of mobility in all matters related to their professional and daily lives helping them to reach the adequate services for their needs. The ESC submits statistics to European Commission.

- 4.1.2. What is the typical teaching/research balance in your university (estimation in percentage, provide different estimations for different scientific fields, if relevant)? What is average engagement (number of classes per week) in teaching, in different scientific fields, in different career levels/positions? Are PhD students (assistants and senior assistants working on their PhD) involved in teaching activities? If yes, how much classes per week (typically) – Standards?

70% (teaching, commissions, participation in working bodies)/30% research (source: Standards and Regulations for HE.

PhD students who are at the same time employed as assistants and senior assistants are involved in teaching activities. According to the Standards the balance is 85% teaching and 15% research activities.

- 4.1.3. Would you consider the level of development of research infrastructure (lab equipment, devices, testing and demonstration facilities, etc.) in your university as satisfactory? Do you have agreements with industries and/or other research organizations related to access to

## their specific research infrastructures?

At the university level the development of research infrastructure is not as satisfactory and needs to be improved. However, the limited finances do not provide essential support for development of this area. The most university members lack equipment and adequate premises for their work in research. Some university members have managed to improve their infrastructure and some of them have agreements with industries:

- The School of Economics and Business has a Business Council with members who are directors and managers of leading companies in BiH and this Council plays a significant role in the work of the School, employment of students and scholarships, work on projects and case studies, experience exchange with business community
- Faculty of Agriculture has agreements with industry
- Faculty of Pharmacy has established collaboration with pharmaco industries for the purpose of project implementation and teaching as well as with public and private pharmacies
- Faculty of Architecture has „research labs“ – „Life in Site“ but also a lab for architectural physics which does not provide equipment for a large scale and detailed research but rather for research at the level of basic measuring and monitoring at an architectural object (e.g. termovision)
- Faculty of Electrical Engineering has a satisfactory level of research infrastructure as well as signed agreements with a certain number of companies which provide possibilities to access their specific research infrastructure
- Faculty of Medicine does not have agreements with industry
- Institute for Languages: there is always room for improvement of research infrastructure. However, the most important infrastructure represent human resources for which adequate positions are necessary; the institute has a number of signed memos of understanding and established collaboration with scientific and educational institutions of similar occupation
- Faculty of Forestry: if compared to European standards it is not at satisfactory level; on the other hand if compared to BiH standards and faculties from related field the research infrastructure is at a satisfactory level
- Faculty of Veterinary: the development of research at this Faculty is at a satisfactory level, this Faculty also has agreements with industry which are related to the access to certain research field;
- Faculty of Philosophy: this Faculty continues to develop and improve its research infrastructure despite limited resources and shortage of support by the Cantonal Ministry. Due to this situation, equipment and in general the level of research capacities is not optimal but it fulfils some set goals of scientific and research work at the Faculty and this is mainly managed through national and international projects.
- Faculty of Mechanical Engineering: the level of research infrastructure at the Faculty is not at a satisfactory level, a part of equipment is very old or out of order. The Faculty does not have agreeable agreements with industry of other research agencies related to access to their specific research infrastructures
- Faculty of Health Sciences: the Faculty does not have its own lab or equipment but it has got agreements with research institutions having research infrastructure
- Faculty of Civil Engineering: the Faculty has agreements with industry
- Faculty of Pedagogy: the level of research infrastructure is not satisfying; there are no agreements with industry;
- Faculty of Criminalistics, Criminology and Security Studies: we believe to have an optimal level of research infrastructure, we cooperate with a number of institutions which are directly involved in issues of our studies (we have signed agreements on scientific and professional cooperation with agencies implementing the laws, institutes and faculties as well as NGOs from related and closely related field (e.g. prosecutor's office of BiH, border police BiH, SIPA, OSA, UNDP, faculties with related studies from the region: Faculty of Security, University of Belgrade, Faculty of Security University in Skoplje, Faculty of Political Science, University of Zagreb, Faculty of Security, University of Ljubljana
- Oriental Institute: so far it would be necessary to improve collaboration between university members; the equipment in IT sense could be better, there is an expressed need for a central data base of a digital UNSA library (PhD, MAs in PDF, etc.) We also lack a subscription for scientific data bases

4.1.4. Did your university implement a specific award system for extraordinary achievements in science and research?

Yes.

- honorary doctorate
- university ambassador
- medal
- plaques
- charters
- awards for peace and progress
- letter of thanks, etc.

There is also an established Board for Awards.

4.1.5. Is sabbatical opportunity used in your university? Under which conditions? What are the typical purposes? Under which conditions, a researcher working in your university can pursue the visiting professorship opportunity?

Not common. A Researcher can pursue his/her visiting professorship opportunity under the following conditions:

**1. Paid leave**

A paid leave can be approved in duration up to two semesters (a year) in the following cases:

- work on MA or PhD thesis,
- scientific, artistic and professional development (congresses, symposiums, etc.),
- moving to another HE institutions abroad for the purpose of one's development or within academic exchange,
- for the purpose of working on issues that are of special interest for the university/faculty.

A paid leave can only be approved if there are planned financial means or in case there's a replacement in order to ensure a continuous teaching and other obligations

**2. Unpaid leave**

Upon an employee's request an unpaid leave from work can be approved under the condition that such absence does not interfere with the regular work. This can happen in following cases:

- When an employee is engaged in work abroad based on his/her own wish concerning international scientific-technical, cultural, educational and other cooperation
- Participation in social, cultural, sport and other events in country or abroad
- Participation in work of international organizations, etc.

(Source: Statute, art. 179 and art. 180)

#### 4.1.6. Any other remarks relevant to the working conditions at your university?

The working conditions could be improved through the improvement of infrastructure. Some of persisting problems represents a limited access to relevant data bases as well as to research funds. An access to more relevant data bases would facilitate publication of work and research possibilities. University members proposed some areas for improvement:

- The Faculty of Agriculture - insufficient infrastructure, it's necessary to enable an access to libraries and relevant data bases as well as to research funds
- The Faculty of Natural Sciences and Mathematics – the level of research infrastructure is unsatisfactory and it's necessary to invest in infrastructure
- The School of Economics and Business - similar faculties in the region have an access to a larger number of data bases and other resources which facilitates the publication of works, research, model creating, checking the model and other activities;
- Faculty of Pharmacy – it's a significant disadvantage that university members do not have an access to data base which publish *in extenso* scientific work from the field of natural-mathematics and bio-mathematics sciences. The data base HINARI provides an approach to open- access journals, while EBSCO is more oriented towards humanities and social sciences. The data base Science Direct would be very helpful for medical sciences
- The Faculty of Electrical Engineering – what can be further developed in the field of scientific and research area is to work on better and an increased number of collaboration with industry in scientific and research development projects.
- The Faculty of Forestry: teachers and associates have excellent working conditions (office and IT equipment); the only problem is a limited access to digital libraries and data bases
- The Faculty of Philosophy: working conditions are good; the Faculty needs additional space because of the number of scientific fields and the number of study programs. The Faculty has a significant structure but also need a better quality equipment, books and other teaching means
- Faculty of Mechanical Engineering: insufficient financial support from the founder for the purchase of equipment but also an insufficient access to international funds
- Faculty of Health Sciences: conditions for the development of research in labs are unsatisfactory (one of disadvantages is the shortage of one's own space); thanks to collaboration with other research institutions and the possibility of application of epidemiologic and other researches which are not limited to the lab we're trying to cope with the given situation
- Faculty of Pedagogy: the Faculty lacks space and means for research;
- Faculty of Criminalistics, Criminology and Security Studies: regarding the space at disposal and capacities it is well structured, human potential is optimal with a tendency to further develop
- Faculty of Traffic and Communication: poor working conditions
- Institute of History: very poor working conditions. The Institute rents its room, there's no heating system during winter
- Oriental Institute: working conditions are at a satisfactory level

## 5. Accountability and public responsibility

### 5.1. Accountability of researchers

5.1.1. How would you consider the level of awareness of researchers in your university on the ethical issues and standards in research, related to data protection, privacy, confidentiality, plagiarism and others?

Very low    Low    Satisfactory    Good    Very good

There are legal and standard frameworks regulating these issues.

5.1.2. How would you consider the level of awareness of researchers in your university on the contractual and legal obligations arising from work contracts, laws and by-laws?

Very low    Low    Satisfactory    Good    Very good



good

Any specific remark on this topic?

- 5.1.3. Which kind of reports related to teaching and research the researchers in your university are obliged to submit to management (in bullet points)? In which periods? How these reports are used, for statistical purposes/reporting to other bodies/individual assessment and evaluation/other?

There is a comprehensive database on employed and hired staff at the University of Sarajevo as well as on other working and legal issues of employees. Through this data base organizational units (faculties, academies, institutes, centers) are obliged to submit data on their staff such as:

- personal data in accordance with the Law on Protection of Personal Data,
- kind of employment,
- working experience,
- education,
- professional development,
- personal skills and competencies,
- academic advancement,
- published scientific and professional works, books, projects, patents and original methods,
- publically presented works of artistic creation,
- acknowledgements for successful work in certain scientific fields (

Note: all changes that occur must be updated in the HR data base within 15 days. An access to this database is reserved for authorized representatives of organizational units (only authorized representatives of the Rectorate have an insight into overall data at University level)

These data are used for a more successful organization and realization of strategic goals of the University and its organizational units. (source: Rulebook on Management of HR at UNSA)

- 5.1.4. Any other remarks relevant to the accountability of researchers at your university?

## 5.2. Public engagement

- 5.2.1. List the typical activities (in bullet points) in which the scientific results and achievements in your university are presented to the wider public:

- Participation and presentation of results in conferences, congresses, symposiums, round tables
- Presentation through media (press conferences)
- Publication of results in scientific journals, national and international
- Scientific meetings in the country and abroad
- Scientific data bases
- Web sites of faculties/academies + web site of university
- Organization of seminars, digitalization of folk music, ICTM
- Interviews and presentations through media (radio, TV, internet portals, news)
- International collaboration in mentorships
- Organization of lectures for engineers working in industry
- Promotion of research reports

Institute of History: publishing: the Institute has its two journals: Attachments (comes out once a year) and Historical Quests (comes out twice a year). Besides there are also special research series in which the Institute publishes the results of its research: Historical Monographies, Special Editions, Edition Memoirs and Documents. Also the Institute organized scientific gatherings, round tables and promotions

5.2.2. Do you organize science career promotions in schools?

No

5.2.3. Does your university have PR department? If yes, how many people work in this department? What are their typical activities (in bullet points)? Do you have media kits?

One Expert Associate is working within PR department. Maintenance of University news page, cooperation with media, arranging interviews with senior University officials, providing link between media and appropriate unit for data collection.

5.2.4. Do you have university Facebook or Twitter account? If yes, is it regularly used for promotional activities? URL?

Yes. <http://www.facebook.com/univsaraj>

5.2.5. Any other remarks relevant to the public engagement at your university?

The university as well as its members are at disposal to social community in terms of education and expert counseling. Scientific results are presented at national and international levels.  
Faculty of Philosophy: The Faculty is a teaching, scientific and cultural public institution. All ongoing processes, the work of its teachers and researchers significantly influences the processes in society. Institute of Istory is present in public life in BiH through organized talks on important historical issues having their contemporary significance and the associates of the Institute are also guests on TV and in daily and weekly newspapers  
Faculty of Pedagogy: Faculty closely follows current issues related to pre-school and primary school education as well as to HE. Employees (researchers) participate in public discussions upon the invitations from media;

## 6. Training

### 6.1. Mentoring and supervision

6.1.1. Under which conditions (bullet points), a researcher at your university can work as a mentor and/or supervisor to a PhD candidate?

He/she has to hold the position of an associate professor or be a full professor

6.1.2. Under which conditions (bullet points), a researcher at your university can participate in a work of PhD evaluation committee?

- Members of the PhD Evaluation Committee can be at least assistant professors
- More than a half of members have to be from the scientific field of the PhD
- There are usually 3 to 5 members

6.1.3. When, after admission, a PhD candidate in your university is assigned a mentor or supervisor? In which process such an assignment is made (bullet points)? Does candidate have any influence to that decision (in other words, can he/she choose a mentor)?

- PhD student is admitted
- Council of Faculty/Academy appoints a Commission
- PhD candidate defends PhD proposal
- Post to defense of PhD proposal the candidate submits a form to register his PhD (this phase is called eligibility of the topic and conditions)
- Commission and mentor are appointed
- Commission submits a report which is verified by the Senate
- Candidate writes his/her PhD draft which he/she then submits it
- Commission for PhD defense is appointed (mentor is known) and writes reports which are approved at different levels (faculty, councils of scientific field at university level, Senate)
- Post to PhD defense a report on the process Commission writes a report which is adopted by the Senate

6.1.4. Does PhD candidate or his/her mentor/supervisor submit regularly reports on his/her work? What exactly is reported (bullet points)? How these reports are used afterwards?

Yes and the dynamics of reporting is defined by the mentor and the candidate.

6.1.5. Under which conditions a PhD candidate in your university can be granted a request to change an assigned mentor or supervisor?

In case a PhD candidate assesses that he/she cannot complete his/her task or a mentor for justified reasons cannot supervise PhD one can ask for a change of assigned mentor. This is regulated at the university member level and needs to be justified in detail.

6.1.6. Are mentors remunerated for the mentoring and supervision work? How?

Each university member has its rule book on allocations of funds coming from the third study cycle which regulates the remuneration of mentor and commission members

6.1.7. Are members of the PhD evaluation committees remunerated for their work? How?

See 6.1.6.

6.1.8. Any other remarks relevant to the mentoring and supervision?

## 6.2. PhD training

6.2.1. Does your university offer accredited PhD and/or master courses (study programs?) in English language? In which scientific fields? If yes, did you implement such courses so far? Any identified issues? If not, what is the reason for not offering such courses?

Yes. Study programs in English language:

| Scientific field              | No of Study Programs in English language |
|-------------------------------|--|
| Natural sciences:             | 1 PhD                                    |
| Engineering and technology: - |  |
| Medical and health sciences:  | 1 (integrated BA and MA)                 |
| Agricultural sciences:        |  |
| Social sciences:              | 6 MA, 1 PhD, 1 DBA                       |
| Humanities:                   | 1 MA                                     |
| Arts:                         |  |

Note: there are 84 study programs (MA, PhD) which offer some academic activities in English language (exams, paper work, mentorship, research, etc). (Source: Study Catalogue, 2015)

6.2.2. Does your university offer joint PhD degrees in collaboration with other universities? In which scientific fields? If yes, did you implement such degrees so far? Any identified issues? If not, what is the reason for not offering such degrees?

Yes.

- Natural Sciences (Universities from Austria, Slovenia, Bulgaria, Albania, Serbia, Macedonia, Montenegro)
- Social Sciences (University of Vienna, University of Ljubljana)

6.2.3. What is the typical engagement of PhD students in your university, in summer schools, visits to industry/other research organizations, participation at conferences and other similar activities? How the costs of such activities covered?

Activities:

- PhD students who are employed at the faculty/academy are engaged in teaching and research projects
- PhD students participate in symposiums, conferences, round tables in country or abroad
- PhD students write articles for journals
- PhD students pay visits to other research organizations, industries which are interested in scientific results
- PhD students engaged in research labs and clinical teaching data bases
- PhD students are also engaged in summer schools, schools for training and field work
- PhD students can depending on their scientific/research field access different forms of education (incl. Seminars, workshops, conferences, round tables, academic mobility
- Faculty of Health Sciences: according to the curriculum of the thrid cycle students are expected to take part in activities in each semester and accumulate ECTS credits; they are also expected to publish one paper from their specific field or two papers from a more general field as first authors; at the annual level they must take part in two conferences or in other kinds of professional development
- Faculty of Traffic and Communication: rather poor enagement of PhD students
- Oriental Institute: engagement of PhD students in certain research projects as well as engagement in research and developmental project of institutions (grants, applications for donor funds)

Costs:

- In most cases PhD students cover all costs
- Costs of some activities are covered from projects
- Free of charge can be activities that are organized at partner institutions in country or abroad
- Participation in summer schools, visits to research organizations are con-financed from domestic or international projects
- The Cantonal Ministry of Education partially covers the costs for printing of PhD dissertation
- Faculties/academies if possible partially cover the costs of travelling to and participation in scientific meetings, conferences, etc.

6.2.4. In which transversal skills the PhD students in your university are trained during their studies<sup>11</sup>? Is this training a regular part of the offered PhD courses?

Since september 2013 the University of Sarajevo has been organizing a program TRAIN – *Training and Research for Academic Newcomers* for academic staff (assistant, senior assistant and assistant professors) which includes 8 modules aiming at the improvement of skills and competencies in fields such as teaching, research and communication (e.g. Methodology in Research, Communication Skills, Entrepreneurial Skills, Networking and Teamwork, Project Management etc.) Among participants there are also PhD candidates. 75 participants on average pass this program per year.

University members also include trainings for their PhD candidates:

- Natural sciences: trainings are anticipated by the curriculum for the 3rd cycle and are specific for each study field
- Social sciences: different educational programs are organized for young researchers (focus is on research methodology – emerged from the needs assessment as well as on project management, new teaching methods, etc.)
- Medical sciences: examples of case studies are included in curriculum which foster the development of critical thinking, problem identification and development of new ideas . The methodology of a scientific paper is compulsory subject for PhD students
- Engineering and technology: curriculum includes some topics that are important for PhD students (presentation, analysis, synthesis, presentation of the problem and research results); PhD students participate in certain projects and developed their transversal skills
- Arts: an integrated part of the curriculum are following trainings: development of creative skills (performance of music works, critical thinking in musical sciences, new theories in music and application in one's own work, lifelong learning and management in musics, writing about music and development of verbal competencies, methods of presentation of one's own knowledge
- Agricultural sciences: trainings are part of curriculum for the third cycle but also such trainings are recognized if taken outside the faculty in BiH or abroad
- Faculty of Health Sciences: trainings are an integrated part of the curriculum of the third cycle and they are organized at the Faculty as independent lectures or through elective subjects and methodology of scientific paper
- Faculty of Pedagogy: PhD students have such trainings during their study and these training are a part of the curriculum of subjects such as: Multimedia Didactics and Distance Learning, Modern Models in Teaching and Learning, Methodology of Research in Upbringing and Education, Academic Writing, ICT for IT support to project management in school, Research in Inclusive Education, Management of Human Potentials in Education, Constructing Instruments for pedagogical research, etc.

6.2.5. Any other remarks relevant to the PhD training in your university?

Necessary to establish a Center for Researchers/Development and PhD students that would provide a comprehensive support to researchers at the university level. With an increased investment in research it will be possible to organize more trainings in different fields. The revision of the Rules for the third cycle is ongoing and it represents an opportunity to add kinds of compulsory and elective trainings that students need to take.

## 7. Research projects and collaboration

### 7.1. Research projects

- 7.1.1. How is the research in your university funded? Can you estimate a proportion of overall research funding, coming from: a) national research fund; b) EU programmes; c) industry collaboration; d) own funds? Separate estimations in different scientific fields will be

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<sup>11</sup> Examples of transversal skills: Creative skills (analysis, problem solving, critical thinking, ability for formulate new problems and ideas), Interpersonal (social) and leadership skills, Project management & organization, Research information management, Entrepreneurship, IPR, Self-management & work habits, Written and oral communication, Presentation skills, and others

strongly regarded.

The research at the university level is funded mainly from the university's own funds and from grants received from the Federal Ministry of Education and Cantonal Ministry of Education (as a founder it is foreseen by the law to a certain %) and projects.

National Research Fund: -

EU programs: info exclusively for research projects not available

Industry collaboration: at faculty level

Own funds (2014): - 20% of total revenues (approx. 11 mil. EUR)

Federal ministry of education (2015): grant for financing and co-financing research projects (163.248 EUR):

| Scientific field             | Amount (EUR) | %      |
|------------------------------|--------------|--------|
| Natural sciences:            | 46749,49     | 28,64% |
| Engineering and technology:  | 16687,26     | 10,22% |
| Medical and health sciences: | 75055,46     | 45,98% |
| Agricultural sciences:       | -            |        |
| Social sciences:             | -            |        |
| Humanities:                  | 24756,25     | 15,16% |
| Arts:                        |              |        |

Federal Ministry of Education (2015): grant for financing/cofinancing research projects that are of importance to the Federation of BiH – 275.714 EUR), projects are related to publication of journals, bibliographies, professional developments of employees at universities (MA, PhD), support to the work of libraries, organization of national and international events, support to research of importance to F BiH, support to authors, cofinancing of research work, equipment supply that is necessary for research, etc.

7.1.2. Does university maintain a central database of research projects? Is this database open?

Yes.

7.1.3. List all FP7/H2020 research projects in which university participated in last two years (ONLY research projects). Any MC/MSC<sup>12</sup> actions? (source: <http://www.npc.ba/ba/tekuci-projekti-fp7.aspx>)

**FP7 projects**

- BAMONET
- BECAN
- BALKANGEONET
- OBSERVE
- V-MusT.net
- BALCON
- SERSCIDA
- OSTEOGROW

**Horizon2020**

- BITNET
- INAMEBA (status: final)
- Judgment of Transformation: The political transformation and its socio-cultural results after the quarter of the century: the verification of the current theories on the political changes in the post-Communist Slavonic countries of the Central Europe and the Balkan Peninsula together with the literary representation of the transformation from the view-point of the platform turn towards the national memory (in process of approval)
- Real shape of Balkan neighborhood towards the challenges facing the full integration with Europe: Realities, its causes and perspectives (in process of approval)

Both projects are in process of approval

<sup>12</sup> Marie Curie/Marie Sklodowska Curie

7.1.4. Any other remarks relevant to the research projects?

## 7.2. Research collaboration

7.2.1. What is the uptake of industry representatives in formal research process (in specific, PhD studies and evaluation committees)?

The uptake of industry in formal research process is generally insufficient at university level and differs from one university member to another.

Social sciences – representatives of industry are included through Business Council in the third program cycle through assistance when it comes to choosing the research topic (counseling when it comes to which researches are market sensitive), hiring the space for different kinds of surveys and analysis, access to different data relevant for research;

Medical sciences: participation in work of Commissions is defined by the relevant Law on HE and the Rule book on study (third cycle), which implies that Commission members need to have PhD and the academic title of an assistant professor or higher; until now the Faculty of Pharmacy has not had representatives of industry that would have fulfilled both criteria. Faculty of Medicine: representatives of pharmaceutical industry are predominantly included in formal research through ordered studies. Representatives of industry can be included in commissions in case they hold necessary academic titles.

Engineering and technology: Faculty of Architecture closely works with industry representatives within the second study cycle (Bologna). At the Faculty of Electrical Engineering a certain number of teachers who are engaged in industry also participate in the work of commissions such as:

- Commissions considering project proposals related to PhDs
- Commissions assessing proposals of topics for PhD
- Commissions assessing PhD dissertation

Faculty of Mechanical Engineering: weakly represented; in most cases it is a commission member who is a teacher but also engaged in industry (through projects, employment or as a consultant)

Faculty of Civil Engineering: certain engineers from industry are also PhD students. In civil engineering in BiH scientific research is carried out at faculties and the uptake of industry in commissions is very rare

Faculty of Traffic and Communication: industry representatives are engaged as expert from praxis

Agricultural sciences: industry representatives are not engaged in teaching process; some industry representatives attend the third cycle; at the moment there are 7 PhD students who are included in research process which they financially support on their own or within a research project.

Humanities: Oriental Institute: IT industry could be more involved in process of using research results, on the other side industry does not take an initiative in different fields where it could

### 7.2.2. Describe your activities towards collaboration with alumni association and scientific diaspora. Who carries out those activities?

The University of Sarajevo is about to introduce an alumni association at the university level. So far some university members have established their own alumni associations or collaborate in other other way with their alumni (e.g. networks)

Natural sciences: do not have alumni associations nor active contact with scientific diaspora. However there is a certain way of collaboration with some researchers from the same scientific field.

Social sciences: the School of Economics has its own Alumni association which is an important partner in its work. The Alumni Association enables exchange of ideas, information and data with business community. Also the cooperation with scientific community is very important which provides excellent researchers like Emir Veledar, Nenad Princip etc.

Medical sciences: the collaboration with alumni and scientific diaspora is taking place through visiting professors and participation in commissions' work. Faculty of Veterinary: the collaboration so far has taken place through scientific meetings which were organized by the dean and vice-dean for research, post-graduated studies and continuous education; Faculty of Health Sciences: the Faculty has appointed a coordinator of its alumni association. Within the sistem of quality assurance activities related to alumni association development are anticipated.

Engineering and technology: the Faculty of Architecture does not have its own alumni association but has contacts with its alumni who are teachers at universities or experts worldwide (Austria, Japan, UK). The Faculty of Electrical Engineering has contacts with scientific diaspora but it's rather based on personal contacts of teaching staff. As a result of such contacts there are joint applications for projects, joint applications for staff mobility, etc. Faculty of Mechanical Engineering: Quadriple helix (academia, business, public administration, NGO/society) as a concept is not well understood and accepted in BiH, collaboration is rather sporadic  
Faculty of Civil Engineering: Faculty has its own alumni association but it also has contacts with the most prominent representatives of scientific diaspora who are engaged as professors at the second and third study cycle, but also if deemed necessary as mentors for PhD thesis. Faculty of Traffic and Communication: organization of conferences

Arts: Academy of Music has its own alumni association with which the cooperation is established through concerts (there is an annual concert of MA), visiting of alumni who are currently working in institutions for music worldwide, organization of festivals with the help of alumni living abroad, publication of works of alumni in the journal of Musical Academy, etc.

Humanities: Institutes: cooperation with scientific diaspora is established through continuous contacts, work on joint scientific and research projects, joint organization of presentation of research results abroad, etc. For instance the Institute of Languages offers trainings and participates in relevant projects related to languages for BiH diaspora. Target groups are organizations willing to cooperate (stakeholders are the Institute itself and relevant actors from BiH and abroad (ministries, faculties, institutes, organizations, etc.) The Institute of History maintains collaboration through scientific journals of the Institute.

Faculty of Philosophy: certain alumni associations have members who are Faculty staff (e.g. US Alumni Association). An examples of a project of education of teachers of Bosnian language is implemetned by the Center NIRSA in Austria.

Faculty of Pedagogy: establishment of the LLL center and Alumni association of Faculty of Pedagogy is ongoing. The cooperation is established through the organization of seminars and professional meetings from the area of preschool and primary school education. The office for teaching and the vice-dean for teaching and students' affairs are responsible for these activities

Oriental Institute: for now it's only based on memos of collaboration and visits; the organizers of such activities are in most cases associations from diaspora



7.2.3. How would you rate the collaboration of research teams in your universities with other actors, e.g. public administration, NGO, etc.?

There is a certain form of collaboration with the public administration and NGOs.

Natural sciences: sporadic cooperation with public sector and certain NGOs is at a satisfactory level

Social sciences: the School of Economics has been developing its cooperation with other actors with a special care because of its very significant leading positions in BiH. Faculty of Political Sciences has a good collaboration with foundations and NGOs in different fields of social research

Medical sciences: cooperation with public sector takes place through the contact with citizens and service provision; at times NGOs engage experts from this field as consultants (NGOs have an easier access to funds/sources); Faculty of Veterinary never had such collaboration; Faculty of Health Sciences: has got signed agreements with public institutions providing health services; this collaboration also takes place through teaching in the first, second and third study cycles.

Engineering and technology: collaboration with NGOs is rather sporadic and mostly generated by individuals who are working on certain topics (e.g. PhD dissertation) and the Faculty of Architecture provides written letter of support. The Faculty of Electrical Engineering has a good collaboration with public sector which is visible from the engagement of certain teaching staff from public sector, participation in organization of conferences, symposiums, etc. Faculty of Civil Engineering reports solid collaboration. Still there is enough room and possibilities to extend and deepen this collaboration. Faculty of Traffic and Communication: it's non-existent

Arts: relatively good collaboration with the public and NGO sector

Humanities: Institute of Languages has a good cooperation with other actors. Recently, the support of formal bodies has become more present. Faculty of Philosophy: very successful in this sense with a need to improve further. The research also takes place through different agreements between the Faculty and other interested parties for the purpose of realization of certain projects. Faculty of Pedagogy: not sufficiently developed; Oriental Institute: it could be better

Agricultural sciences: this kind of collaboration is present at an individual level;

7.2.4. Any other remarks relevant to the research collaboration?

As already mentioned above there is enough room to improve research collaboration. At the moment this collaboration is rather based on individual contacts of researchers. Despite all disadvantages the contribution of researchers is significant and can be further improved. The cooperation with relevant ministries regarding their support to research also needs to be enhanced and strengthened. Unfortunately success in research is based on individual contacts and endeavors which clearly shows that there is an urgent need for a more systematic approach to issues concerning research collaboration with all relevant actors. It is also necessary to improve collaboration with international research institutions. Faculty of Pedagogy: not sufficiently developed with a number of difficulties such as: shortage of relevant institutes, long-lasting process for obtaining permissions for and uncertain outcome of application for research in base points (kindergartens, schools, governmental and nongovernmental organizations, etc.), labs are not adequately equipped and there is an expressed shortage of finances for research. Oriental Institute: we are expecting more joint research projects at the University level, unification of individual research potential and centralization of data and research results for a better visibility of the University.

Note as of 22<sup>nd</sup> July: many university members have complained about the shortage of an access to scientific data bases. We would like to point out that starting from September 1<sup>st</sup> 2016 the University of Sarajevo will have an access to the following scientific data bases: Web of Science, Scopus and EBSCOhost.