Salzburg Principles: Situation in Armenia

1. The core component of doctoral training is the advancement of knowledge through original research. At the same time it is recognised that doctoral training must increasingly meet the needs of an employment market that is wider than academia.

European approach

Armenian approach
(major findings)

- **Training by research**-there is clearly a shared view amongst all participants that the core element of all doctoral programmes is, and should remain, **training by doing research**. It is hence essential that the development of doctoral education follows its own path and not use the same tools as the first and second cycles.
- **Transferable skills**-Europe needs more researchers who will be able to work not only in academia, but also in the various sectors of the economy and society, industry, SMEs, public sector, NGOs, etc. Training in transferable skills and competences should become an integral part of all doctoral programmes in order to meet challenges and needs of the global labour market

- **Originality of research**-the main requirement of the all PhD and doctoral dissertations is scientific novelty. There is a lack of distinct mechanisms to determine whether the dissertation complies with the requirements of novelty and original research.
- **Applicability**-1.absence of commercialization of research results, 2.lack of financial means, 3.weak link between universities and labor market, 4. absence of opportunities for testing research results in the practice.

Proposals

➤**Training by research:**

1. Increasing involvement of doctoral candidates in scientific trainings

2. Developing a research plan for a doctoral candidate taking into account the achieved skills

3. Developing an additional plan for multidisciplinary research

➤**Originality of research:**

1. Bring the processes of doctoral education under control (research topic approval process, monitoring the progress of doctoral candidates through progress reports etc.)

2. Publications in peer reviewed scientific journals

➤**Labour market:**

1. Government should set priority dimensions for innovative research

2. Admission should be implemented according to labour market needs and priorities and not only according to planned number of students or planned expenses for it (quantitative approach versus qualitative approach).

2. Embedding in institutional strategies and policies: universities as institutions need to assume responsibility for ensuring that the doctoral programmes and research training they offer are designed to meet new challenges and include appropriate professional career development opportunities.

European approach

Armenian approach
(major findings)

➢ **Research supportive environment**-all regulations, guidelines and/or code of practice in doctoral programmes should be developed and established not only at department or faculty levels, but also at the highest institutional level. This would strengthen the social value and recognition of doctoral degree. Information on all doctoral programmes and regulations should be available on university websites.

➢ **Transparent career opportunities-** career development opportunities for researchers of all categories including doctoral candidates should be a part of the strategies. Academic culture should be re-evaluated: doctoral candidates should feel they are needed, respected and welcome and they have career opportunities after completing doctoral studies.

• **Development and review of legal basis-**change and amend relevant national regulations, documentation and legislative frameworks, documents and doctoral programmes.

• **Career opportunities**-1.updating students on new career opportunities,2. exchange with other universities,3. opportunity for students to combine teaching with research, 4.encouraging international cooperation.

Proposals

➤**Research supportive environment**:

1. **HEIs should amend their strategies selecting several main directions of research thus :**
   - Making students' career development opportunities more transparent,
   - Achieving critical mass needed for research,
   - Complying with the needs of the labour market thus gaining a financial support from the market.

2. **Establish a body which will verify research topic alignment with the institution's strategic aims and overall trends:**
   - Developing the institutional policy for research highlighting research alignment to institution's strategic aims.

3. **Monitor the scientific progress of the individual doctoral candidates by achieved scientific results and career tracking**

4. **Develop an institutional capacity building policy (doctoral schools, research centres, networks etc.) .**

5. **Review existing curricula and doctoral programmes.**

3. The importance of diversity: the rich diversity of doctoral programmes in Europe – including joint doctorates – is a strength which has to be underpinned by quality and sound practice.

European approach

Armenian approach
(major findings)
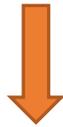
- ➤ **Creating collaborative environment-** for the development of doctoral programmes as the third cycle in the Bologna Process it is important to recognise and understand various scientific, institutional and cultural traditions and values.
- ➤ **Full responsibility of university for QA of DP-** Universities should take full responsibility for quality assurance of doctoral programmes. They should autonomously formulate and enhance their quality criteria and standards in an open and transparent way. Each doctoral programme should contain appropriate measures of research assessment that are consistent with institutional guidelines or regulations.
- ➤ **Taking into account diversity of disciplines while building any new DP or organizing new structure-**It is often disciplines and disciplinary differences, and not institutional or country differences that require different approaches. Participants felt that more debate is needed on the development of doctoral programmes within disciplines and among disciplines.

Collaborative environment- 1.Providing locations for the practical part of research, 2. supporting researchers' participation in scientific-educational programs in Europe,3. cooperation with numerous international projects and foreign universities, 4. benchmarking between PhD awarding procedures and environment in Armenia and in EU HEIs, 5. lack of provisions/documentations for regulating bilateral and multilateral programmes, 6. absence of joint research programs, 7. uncertainties concerning the regulations of financial and organisational resources for joint programmes, 8. the Ministry of Education and Science mostly will not consider reasonability for diverse research, 9. the practice of doing interdisciplinary research with two supervisors is not developed in Armenia
QA- The universities have no the autonomy to create their qualitative indicators

Proposals

➢ **Creating collaborative environment:**

Eliminate absolute deviations of doctoral programs of different institution (e.g. by benchmarking) thus leaving room for cooperation.

➢ **Quality assurance:**

Set quality assurance mechanisms for assessing doctoral programmes and enhancement of their effectiveness and efficiency.

4. Doctoral candidates as early stage researchers: should be recognized as professionals – with commensurate rights - who make a key contribution to the creation of new knowledge.

European approach

➢**Early stage researchers-**"Early stage researchers are professionals who are trained through research in the conception or creation of new knowledge, products, processes, methods and systems, and in the management of the projects concerned". The main outcome of doctoral education are the early stage researchers and their contribution to society through knowledge, competences and skills learnt by undertaking research, as well as awareness and openness towards other disciplines.

➢**Engagement-**Doctoral candidates should preferably be engaged in all levels of governance at the university and participate in decision-making.

➢**Rights**-the rights and responsibilities of doctoral candidates should be clearly formulated in written tripartite agreement. These rights should assure adequate standards of social security, regardless of the legal nature of the employment.

Armenian approach
(major findings)

➢To concentrate attention of doctoral candidates mainly on the real needs of economy, which will allow to get reimbursement from acting employers.

➢Doctoral candidate could be engaged in all levels of governance at the university and participate in decision-making.

➢A sample of an agreement between the doctoral candidates, supervisors and university could be developed, where the rights and responsibilities of doctoral candidates could be formulated.

➢To build relations between lecturers and researchers as between a skillful scientist and beginner-researcher.

➢Most of the scientific institutions employ their PhD candidates as researchers at the beginning of their studies with commensurate rights and responsibilities thus giving them an opportunity to integrate into a research organization's activities.

Proposals

➤ **Early stage researchers-**Increasing involvement of doctoral candidates to research oriented activities.

➤ **Rights**:

- Clearly formulate rights and responsibilities of doctoral candidates (tripartite agreement)

- Develop doctoral program handbook with detail description of learning objectives and plans of achievement in line with policy of an institution.

➤ **Engagement**-Increase motivation of doctoral candidates to be engaged in institution's governance.

5. The crucial role of supervision and assessment: in respect of individual doctoral candidates, arrangements for supervision and assessment should be based on a transparent contractual framework of shared responsibilities between doctoral candidates, supervisors and the institution (and where appropriate including other partners).

European approach
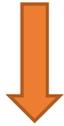
➢**Supervision**- supervision must be a collective effort with clearly defined and written responsibilities of the main supervisor, supervisory team, doctoral candidate, doctoral school, research group and the institution, leaving room for the individual development of the doctoral candidate.
➢**Professional development** -providing professional development to supervisors is an institutional responsibility, whether organized through formal training or informal sharing of experiences among staff. Supervisors must be active researchers.

Armenian approach
(major findings)

➢Multiple supervisory, i.e. supervisory panels with the several experts/ professors could be tested.
➢The supervisor gives instructions, assists the PhD student to define the objectives and tasks of the dissertation, directs and observes the process of work, makes corrections, assesses the work and assures that the dissertation is completed as scheduled. Every year supervisors run validation of the PhD student about their thesis.
➢The rights and responsibilities between the research student and supervisor must be clarified .
➢The supervisor is not encouraged or punished, when his/her research student presents bed results. There are neither state nor interuniversity mechanisms for this.

Proposals

➢**Supervision:**

1. Formulate responsibilities and duties of supervisors by written agreement.

2. Set criteria for supervisor's qualification requirements (professional, research).

➢**Professional development:**

3. Set mechanisms for supervisors' professional development

4. Set or describe a workload of a supervisor

5. Develop a policy to increase the professional experience exchange among supervisors

6. Establish a network of supervisors

6 Achieving critical mass: Doctoral programmes should seek to achieve critical mass and should draw on different types of innovative practice being introduced in universities across Europe, bearing in mind that different solutions may be appropriate to different contexts and in particular across larger and smaller European countries. These range from graduate schools in major universities to international, national and regional collaboration between universities.

European approach

Armenian approach
(major findings)

➤**Research environment**-doctoral candidates should have the **opportunity to work in research teams** and **different research environments** including virtual research networks.
➤**Critical mass-** critical mass does not necessarily mean a large number of researchers, but rather the **quality of the research**. In line with the sixth Salzburg Principle, **Europe's universities have developed diverse strategies to assure critical mass and diversity**, building their areas of strength through focused research strategies and engaging in larger research networks, collaborations or regional clusters.

➤To collaborate with research related institutions at regional, national and international level, as well as with governments and business sector in order to present research results.
➤Giving doctoral candidates an opportunity to work in different research environment including virtual research network
➤Make English translated abstracts of successfully defended theses available online for an international audience.
➤In the Scientific-Coordination Council very strong critical mass has been established especially while discussing dissertations.

Proposals

➤**Achieving critical mass:**

1. New innovative structures of doctoral programmes need to be developed (doctoral/research schools, clusters etc).

2. Doctoral thesis and main results should be available to all the stakeholders.

➤**Research environment:**

1. Giving doctoral candidates an opportunity to work in different research environments (collaborate with research related institutions at regional, national and international level, as well as with governments and business sector).

7. Duration: doctoral programmes should operate within appropriate time duration (three to four years full-time as a rule).

European approach
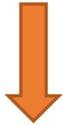
➢**Duration**-the duration of doctoral programmes was discussed in several working groups and panel discussions, but no clear consensus was achieved (3-4 years).

➢**Duration flexibility**-it seems that **strict regulation on the duration of doctoral training would not be the right solution.**

There are various conditions that have an impact on the length of studies, mainly disciplinary differences (e.g., in sciences work in laboratories includes repeating experiments several times during certain periods that cannot be shortened).

Armenian approach

(major findings)

➢Duration complies with the legislation of RA. The regulatory documents set the following duration of PhD studies :full-time – 3 years, part-time – 4 years, seekers for PhD degree – 5 years.

➢Because of the credit system introduction, the core time spent on research has been reduced, and, as a matter of fact, the full-time PhD candidates have to do their research during two years.

• Reduce required parallel activities (teaching responsibilities, publications etc.) of PhD students to allow them time to focus on their research.

• Exclude administrative procedures (thesis assessment and defense) from the overall duration of the PhD program completion.

Proposals

➢Take into consideration the impact of various factors while setting the length of doctoral studies

➢Adopt a flexible approach to the timeframe of doctoral programmes (providing midterm progress reports)

➢Allocate sufficient time for the thesis work

➢Give an opportunity for a supervisor and a doctoral candidate to develop an individual plan for the candidate which should be clearly set forth in the policy

8. The promotion of innovative structures: to meet the challenge of interdisciplinary training and the development of transferable skills.

European approach

➢**Transferable skills-** Although there may be a disagreement among university representatives whether courses in transferable skills should be mandatory or voluntary, all agree that it is very important to offer these courses to all doctoral candidates. **Training in transferable skills should, however, form only a small part of doctoral training and should not be overemphasised with respect to original research.** ECTS is also considered a good tool for international mobility. However, majority of participants strongly disagreed with using ECTS for measuring research progress.

➢**Interdisciplinarity -**Fast development of the sciences and the emergence of new disciplines and problem-oriented research funding often combine different fields and "pull down" the boundaries of traditional disciplines opening the way to multidisciplinarity. Doctoral training should reflect this development by offering innovative ways of research education. **Structures and curricula should be open and flexible enough to allow doctoral candidates to undertake research and theses based on interdisciplinary approach.**

Armenian approach
(major findings)

➢Interdisciplinary trainings don't exist in Armenia as such

Proposals

➢Develop a research strategy/policy for finding additional sources of financing

➢Promote the development of transferable skills (starting from master's degree programs)

➢Develop open and flexible curricula to undertake research and theses based on interdisciplinary approach

9. Increasing mobility: Doctoral programmes should seek to offer geographical as well as interdisciplinary and intersectoral mobility and international collaboration within an integrated framework of cooperation between universities and other partners.

European approach

➢**Mobility- Doctoral programmes should provide mobility experience to doctoral candidates which must be driven by the research project.** There is a wide range of programmes providing opportunity to mobility, on the other hand there are still a lot of obstacles that limit mobility of doctoral candidates throughout Europe(insufficient financial resources; family-related issues; gender disadvantages; administrative obstacles; social, cultural and language obstacles; lack of social security; lack of information; opposition from supervisors; etc.). **Mobility should be recognized as an added value and considered as a part of career development.**

Armenian approach
(major findings)

•Many students apply for international programs/funding for international conferences/grants.
•The University allows young researchers to participate in international conferences and pay for travel, as well as carries out printing costs.
•University finds research and travel grants for PhD students.
•There are no doctorial programmes to offer geographical as well as interdisciplinary and intersectoral mobility.
•In the websites there can be found different contracts, signed and in force, between the HEIs and other universities, which founds a platform to establish and develop various cooperation, however not always the aims and objectives in a contract are realized.
• HEIs are involved in some programs with international HEIs. However, there is no sustainable collaboration with other research and scientific institutions.

Proposals

➢Adopt mobility supportive approach (international, interdisciplinary, intersectorial)

➢Find sufficient financial resources

10. Ensuring appropriate funding: the development of quality doctoral programmes and the successful completion by doctoral candidates requires appropriate and sustainable funding.

European approach

➢**Financing-** All participants agreed that if we want to ensure high quality doctoral programmes, **appropriate funding is crucial**. Doctoral candidates are not just fee-paying students who bring an income for the institution, but should be also considered junior research and teaching staff who contribute to the creation of new knowledge. **Institutions and governments should provide sustainable financing of doctoral programmes.** Financing of doctoral candidates in Europe varies from country to country and from institution to institution.

Armenian approach
(major findings)

• There is no appropriate and sustainable funding and no ideas to change this inadequate situation.
• The Universities participate in a variety of grant programs.
• The main issues and the most important thing is that innovative research programs do not find public or private funding sources.
• The biggest problem is the lack of financing in the University budget with a separate line about science funding.
• Funded PhD system and degree seeking students compensate the lack of the state funding.

Proposals

➢State funding for the doctoral candidates should be increased:

Advise Government to:

▪ develop a policy for research investments setting strategic priorities and analysing the effectiveness of the research investments (research as a service to society),

▪ evaluate the needs of researchers.

➢Provide doctoral candidates with decent salary.

THANK YOU!
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