

Promoting internationalization of research through establishment and operationalization of Cycle 3 Quality Assurance System in line with the European Integration (C3QA)

Initial country review report

“French University in Armenia” Foundation (UFAR), Armenia

1 Chapter 1: Overall landscape – National Higher Education (HE), research and QA context (with focus on Doctorate level) (6-8p)

1.1 Brief presentation of the HE and research system

2 Chapter 1: Overall landscape – National Higher Education (HE), research and QA context (with focus on Doctorate level) (6-8p)

2.1 Brief presentation of the HE and research system

2.1.1 Country size:

Territory, km ² (2016)	29 743 ¹
De jure population, 1000 (2016)	2 998.6 ²
Domestic product (gross, market prices) (2015)	5 032.1 (bln. Drams) or 10 529.1 (mln. US dollars)
Gross domestic product per capita (2015), Indicator is calculated based on average annual number of de jure population RA	1 674.8 (thous. Drams) or 3 504.3 US dollars ³

Number of HE students:

¹ National Statistical Service of the Republic of Armenia, General Description, Territory and Population of Republic of Armenia by the Administrative-Territorial Division, as of January 1, 2016, p.10, available at <http://www.armstat.am/file/doc/99499378.pdf>

² National Statistical Service of the Republic of Armenia, General Description, Territory and Population of Republic of Armenia by the Administrative-Territorial Division, as of January 1, 2016, p.10, available at <http://www.armstat.am/file/doc/99499378.pdf>

³ National Statistical Service of the Republic of Armenia, System of National Accounts, Economic Indicators, p. 223, available at <http://www.armstat.am/file/doc/99499428.pdf>

Number of students enrolled in the HEIs, Cycle 1, 2015/2016	84 591 ⁴
Number of students admitted to the HEIs, Cycle 1, 2015/2016	18 061 ⁵
Number of students graduated from the HEIs, Cycle 1, 2015/2016	12 666 ⁶
Number of foreign students enrolled in the HEIs, Cycle 1, 2015	3 798 ⁷
Number of students enrolled in the HEIs, Cycle 2, 2015/2016	11 911 ⁸
Number of students admitted to the HEIs, Cycle 2, 2015/2016	5 807 ⁹
Number of students graduated from the HEIs, Cycle 2, 2015/2016	6 484 ¹⁰

⁴ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Education and Culture*, Education, Enrolment in the Higher Educational Institutions by Specialty Groups (the first stage), p.132, available at <http://www.armstat.am/file/doc/99499398.pdf>

⁵ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Education and Culture*, Education, Enrolment in the Higher Educational Institutions by Specialty Groups (the first stage), p.131, available at <http://www.armstat.am/file/doc/99499398.pdf>

⁶ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Education and Culture*, Education, Enrolment in the Higher Educational Institutions by Specialty Groups (the first stage), p.134, available at <http://www.armstat.am/file/doc/99499398.pdf>

⁷ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Education and Culture*, Education, Number of Foreign Students in Higher Educational Institutions of RA (the first stage), p.136, available at <http://www.armstat.am/file/doc/99499398.pdf>

⁸ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Education and Culture*, Education, Organizations Provided Second Stage Educational Program of Higher Education, p.138, available at <http://www.armstat.am/file/doc/99499398.pdf>

⁹ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Education and Culture*, Education, Organizations Provided Second Stage Educational Program of Higher Education, p.138, available at <http://www.armstat.am/file/doc/99499398.pdf>

¹⁰ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Education and Culture*, Education, Organizations Provided Second Stage Educational Program of Higher Education, p.138, available at <http://www.armstat.am/file/doc/99499398.pdf>

Number of foreign students enrolled in the HEIs, Cycle 2, 2015	314 ¹¹
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Enrolment, Admission and Graduation of Postgraduates¹²			
2012	2013	2014	2015
Total number of postgraduates (end of year)			
1 104	1 241	1 223	1 178
of which: those studied at the scientific institutions			
190	212	234	217
of which studying full-time			
125	105	114	114
At the higher educational institutions			
914	1029	989	961
of which studying full-time			
388	357	329	328
Admission of postgraduates, total			
373	395	321	353
to the scientific institutions			
55	82	69	70
of which studying full-time			
34	41	42	47
to the higher educational institutions			
318	313	252	283
of which studying full-time			
140	118	111	113
Total number of postgraduates completed their education			
368	239	314	324
At the scientific institutions			
56	50	48	44
of which studying full-time			
38	38	31	29
At the higher educational institutions			

¹¹ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Education and Culture*, Education, Organizations Provided Second Stage Educational Program of Higher Education, p.138, available at <http://www.armstat.am/file/doc/99499398.pdf>

¹² National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Science*, Enrolment, Admission and Graduation of Postgraduates, p.149, available at <http://www.armstat.am/file/doc/99499403.pdf>

312	189	266	280
of which studying full-time			
173	105	125	110
From total number of postgraduates with advanced education completed those having academic degree			
203	139	138	128
At the scientific institutions			
32	40	29	28
of which: with available education			
24	34	26	25
At the higher educational institutions			
171	99	109	100
of which: with available education			
80	72	78	70

Number of postgraduate students admitted to doctoral programmes (Aspirantura, Cycle 3) in 2016 with full state funding and without state funding (persons)¹³

	Admitted		Including			
	Total	Out of which female	Full state funding		No state funding	
			Total	Out of which female	Total	Out of which female
At the scientific organisations	80	26	77	25	3	1
Out of which studying full-time	42	3	41	3	1	-
At the higher education institutions	316	164	302	151	14	13
Out of which studying full-time	124	19	118	13	6	6
Doctoral students (aspirants), total	396	190	379	176	17	14
Out of which studying full-time	166	22	159	16	7	6

Number of postgraduate students enrolled in doctoral programmes (Aspirantura, Cycle 3) in 2016 with full state funding and without state funding (persons)¹⁴

¹³ National Statistical Service of the Republic of Armenia, *Socio-Economic State of RA*, January-March 2017 (in Armenian), 5. Sociodemographic Sector 5.20, Post-graduate education in 2016, p. 235, available at http://www.armstat.am/file/article/sv_03_17r_5200.pdf

¹⁴ National Statistical Service of the Republic of Armenia, *Socio-Economic State of RA*, January-March 2017 (in Armenian), 5. Sociodemographic Sector 5.20, Post-graduate education in 2016, p. 235, available at

	Enrolled		Including			
	Total	Out of which female	Full state funding		No state funding	
			Total	Out of which female	Total	Out of which female
At the scientific organisations	246	71	237	68	9	3
Out of which studying full-time	126	8	123	6	3	2
At the higher education institutions	956	542	912	512	44	30
Out of which studying full-time	330	42	323	36	7	6
Doctoral students (aspirants), total	1 202	613	1 149	580	53	33
Out of which studying full-time	456	50	446	42	10	8

Number of postgraduate students graduated from doctoral programmes (Aspirantura, Cycle 3) in 2016 with full state funding and without state funding (persons)¹⁵

	Graduated		Including			
	Total	Out of which female	Full state funding		No state funding	
			Total	Out of which female	Total	Out of which female
At the scientific organisations	71	19	71	19	-	-
Out of which studying full-time	40	1	40	1	-	-
At the higher education institutions	263	128	254	121	9	7
Out of which studying full-time	116	16	115	16	1	-
Doctoral students (aspirants), total	334	147	325	140	9	7
Out of which studying full-time	156	17	155	17	1	-

http://www.armstat.am/file/article/sv_03_17r_5200.pdf

¹⁵ National Statistical Service of the Republic of Armenia, *Socio-Economic State of RA*, January-March 2017 (in Armenian), 5. Sociodemographic Sector 5.20, Post-graduate education in 2016, p. 236, available at http://www.armstat.am/file/article/sv_03_17r_5200.pdf

Enrolment, Admission and Graduation of Postgraduates by Science Fields (persons)¹⁶			
2012	2013	2014	2015
Number of postgraduates, total			
1 104	1 241	1 223	1 178
of which by science fields:			
physics and mathematics			
160	138	152	134
chemistry			
8	18	16	13
biology			
54	57	57	43
geology			
21	16	18	24
technical			
190	200	165	178
agriculture			
10	20	23	13
history			
39	65	68	70
economics			
218	271	269	256
philosophy			
34	26	24	20
philology			
69	101	96	86
geography			
1	-	-	-
law			
89	112	107	103
pedagogics			
15	19	22	39
medicine			
34	40	37	26
pharmacy			
2	3	1	2
veterinary			
4	4	4	1

¹⁶ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Science*, Enrolment, Admission and Graduation of Postgraduates by Science Fields, pp. 150-151, available at <http://www.armstat.am/file/doc/99499403.pdf>

art			
25	24	24	23
architecture			
38	17	17	24
psychology			
21	37	43	42
sociology			
11	12	14	13
political science			
61	61	66	68
Number of doctoral students (Cycle 3) graduating per year, total			
368	239	314	324
of which by science fields:			
physics and mathematics			
53	34	42	39
chemistry			
1	1	6	4
biology			
16	15	11	11
geology			
5	3	6	3
technical			
67	41	55	55
agriculture			
2	4	5	5
history			
14	5	11	11
economics			
97	60	73	83
philosophy			
4	3	5	11
philology			
30	16	18	15
geography			
2	-	-	-
law			
25	23	25	29
pedagogics			
4	6	6	7
medicine			
8	5	11	9

pharmacy			
-	-	2	-
veterinary			
-	-	-	3
art			
7	5	6	6
architecture			
11	3	3	6
psychology			
2	4	6	6
sociology			
1	-	5	4
political science			
19	11	18	17

Number of HEIs:

Number of higher educational institutions (Cycle 1) as of 2015/2016 ¹⁷	60
Number of higher educational institutions (Cycle 2) as of 2015/2016 ¹⁸	45
Number of institutions providing postgraduate education (Cycle 3) as of 2016 ¹⁹	58
of which	
Higher Education Institutions	20
Institutes under the RA National Academy of Sciences	31
Other Scientific Organisation	7

Number of Teaching Staff of Higher Educational Institutions in 2015/2016 (at the beginning of academic year, persons) ²⁰	
Number of teaching staff (regular), total	7 947
of which with academic degree of Doctor of Science	683
of which with academic degree of Doctor (candidate of Science), Cycle 3	3 352
of which with academic status of a professor	787
of which with academic status of a senior	

¹⁷ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Education and Culture*, Education, Higher Educational Institutions by Types of Training (the first stage), p. 124, available at <http://www.armstat.am/file/doc/99499398.pdf>

¹⁸ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Education and Culture*, Education, Organizations Provided Second Stage Educational Program of Higher Education, p. 138, available at <http://www.armstat.am/file/doc/99499398.pdf>

¹⁹ National Statistical Service of the Republic of Armenia, *Socio-Economic State of RA*, January-March 2017 (in Armenian), 5. Sociodemographic Sector 5.20, Post-graduate education in 2016, p. 235, available at http://www.armstat.am/file/article/sv_03_17r_5200.pdf

²⁰ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Education and Culture*, Education, Number of Teaching Staff of Higher Educational Institutions, p. 125, available at <http://www.armstat.am/file/doc/99499398.pdf>

lecturer (Docent)	2 507
Out of total-number of teachers working sparetime	1 907

Type of HEIs (public/private, general or very specific).

There are following types of HEIs in Armenia:

- State HEIs
- Non-state (private) HEIs
- HEIs established by intergovernmental agreements
- HEIs with states’ involvement

State HEIs operate under the responsibility of a number of RA ministries, but majority of HEIs are under the supervision of the RA Ministry of Education and Science²¹. There are:

- 27 state higher education institutions²²
- 31 licensed non-state (private) higher education institutions with programmatic (professional) accreditation²³
- 5 HEIs established by intergovernmental agreements and HEIs with states’ involvement
- 5 branches of the foreign state HEIs
- 2 branches of the foreign non-state (private) HEIs.²⁴

Article 12 of the RA law on Higher and Postgraduate Professional Education provides the following types of HEIs within higher and postgraduate professional education system of Armenia²⁵:

²¹ Higher Education in Armenia, Official Source on RA Higher Education, <http://studyinarmenia.org/hea>

²² RA Ministry of Education and Science, ՀՀ պետական բարձրագույն ուսումնական հաստատությունների ցանկ, available at <http://edu.am/index.php/am/documents/view/552>

²³ RA Ministry of Education and Science, ՀՀ-ում գործող լիցենզավորված և ըստ մասնագիտությունների հավատարմագրված ոչ պետական բարձրագույն մասնագիտական ուսումնական հաստատությունների ցանկ 2017թ. փետրվարի 14-ի դրությամբ, available at <http://edu.am/index.php/am/documents/view/551>

²⁴ RA Ministry of Education and Science, ՀՀ-ում գործող արտերկրի պետական և ոչ պետական բարձրագույն ուսումնական հաստատությունների մասնաճյուղերի ցանկ 2017թ. ապրիլի 14-ի դրությամբ, available at <http://edu.am/index.php/am/documents/view/550>

²⁵ The Law of the Republic of Armenia on Higher and Postgraduate Professional Education (14 December, 2004, N HO-62-N), Official Translation, Ministry of Justice of the Republic of Armenia, 29 MAY 2015,

HCERES

- University
- Institute
- Academy
- Conservatory
- Military and police higher education institutions, and some others.

The four types of HEIs are defined in the RA law on Education as²⁶:

- “university” - a higher education institution, the activities whereof are aimed at organising higher, post-graduate and supplementary education, fundamental scientific research and studies in different directions of natural sciences, sociology, science and technology, and culture;
- “institute” - a higher education institution implementing professional and postgraduate education programmes and scientific studies in a number of directions of science, economy and culture;
- “academy (educational)” - a higher education institution the activities whereof are aimed at developing education, science, technology and culture in a particular field; which carries out the preparation and re-qualification of highly qualified specialists in a certain branch (sector) and implements postgraduate education programmes;
- “conservatory” - a higher education institution, the activities whereof are aimed at preparation, raising the qualification of specialists and implementation of post-graduate education programmes in the field of music;...”

Missions of the HEIs:

The RA law on Higher and Postgraduate Professional Education defines HEI as “...(2) higher education institution shall mean an educational institution implementing educational programmes for Bachelor’s degree, Master’s degree and degree of a certified specialist;...”²⁷

available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-higher-and-postgraduate-professional-education/>

²⁶ The Law of the Republic of Armenia on Education (14 April, 1999, N HO - 297), Official Translation, Ministry of Justice of the Republic of Armenia, 29 May 2015, available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-education/>

²⁷ The Law of the Republic of Armenia on Higher and Postgraduate Professional Education (14 December, 2004, N HO-62-N), Article 3, Main Concepts Used in this Law, Official Translation, Ministry of Justice of the Republic of Armenia, 29 MAY 2015, available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-higher-and-postgraduate-professional-education/>

Article 11 of the same law lists the tasks of HEIs in Armenia²⁸:

“The main tasks of the higher education institution shall be as follows:

- (1) meeting the needs of mental, spiritual and moral development of a person through higher and (or) postgraduate professional education;
- (2) developing science, education, economy and art through scientific research and creative activities of scientific and pedagogical workers and learners, applying the acquired results in economy, research and educational process;
- (3) preparing and training the scientific and pedagogical workers with higher education;
- (4) assuring the quality of education and introducing relevant system of improvement;
- (5) ensuring the uninterrupted nature, transparency and publicity of educational process;
- (6) upbringing learners in the spirit of national, moral and universal values;
- (7) disseminating knowledge among the population and enhancing its educational and cultural level;
- (8) enrooting civic views, skills and responsibility for work among learners, within the framework of governance of democratic and civil society.”

- The role of HEI in research and delivery of doctoral programs, award of qualifications, the role of other bodies in charge for the award of doctoral qualifications²⁹:

According to the RA law on Higher and Postgraduate Professional Education “...2. The higher education institution shall have be competent to: ... (10) provide postgraduate education as prescribed by the legislation of the Republic of Armenia...”³⁰

The same document states that “...5. Educational programmes of higher and postgraduate professional education shall be elaborated and approved by the higher education institution as well as the organization providing postgraduate professional education on the basis of state educational standards.

6. The curricula and courses offered as of professions and specialisations by the higher

²⁸ The Law of the Republic of Armenia on Higher and Postgraduate Professional Education (14 December, 2004, N HO-62-N), Official Translation, Ministry of Justice of the Republic of Armenia, 29 MAY 2015, available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-higher-and-postgraduate-professional-education/>

²⁹ Also see quantitative data above and below

³⁰ The Law of the Republic of Armenia on Higher and Postgraduate Professional Education (14 December, 2004, N HO-62-N), Article 6, Autonomy, Competence and Academic Freedoms of Higher Education Institutions, Official Translation, Ministry of Justice of the Republic of Armenia, 29 MAY 2015, available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-higher-and-postgraduate-professional-education/>

education institution and the organisation providing postgraduate professional education shall guarantee the learning process of learners at different stages of education (enrolment in the educational programme and withdrawal from the programme), ensuring the accumulation and transfer of educational credits, and granting of qualification degrees....”³¹

Postgraduate academic degrees (Cycle 3) are awarded by specialised councils on the basis of formal doctoral thesis defense. The Supreme Certifying Commission (SCC) of the RA Ministry of Education and Science confers diplomas to the awardees. The specialised councils are established by the SCC at the scientific and higher education institutions, scientific manufacturing companies, and scientific technological organisations famous for their accomplishments in science³².

Description of the general architecture of training programs provision (Bachelor, Master, Doctorate, ECTS?...) and of Degrees awarded:

In the context of this section the RA law on Higher and Postgraduate Professional Education provides the following definitions of terms and provisions³³:

- “...higher professional education shall mean professional education provided on the basis of at least secondary education through programmes for Bachelor’s degree, degree of a certified specialist and Master’s degree;”
- “postgraduate professional education shall mean professional education provided on the basis of higher professional education (Master’s degree and degree of a certified specialist) by programmes for researchers of doctoral studies, as well as programmes for researchers and external researchers;”
- “supplementary education shall mean education, provided on the basis of professional education beyond the framework of basic education programmes, aimed at improving professional qualities, ensuring professional re-qualification, continually

³¹ The Law of the Republic of Armenia on Higher and Postgraduate Professional Education (14 December, 2004, N HO-62-N), Article 8, State Educational Standards and Educational Programmes of Higher and Postgraduate Professional Education, Official Translation, Ministry of Justice of the Republic of Armenia, 29 MAY 2015, available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-higher-and-postgraduate-professional-education/>

³² Government Decision of 8 August 1997 N 327 on “Procedures for Awarding Scientific Degrees in the Republic of Armenia”, Unofficial Translation, available at <http://boh.am/jurist.php?langid=3>

³³ The Law of the Republic of Armenia on Higher and Postgraduate Professional Education (14 December, 2004, N HO-62-N), Article 3, Main Concepts Used in this Law, Official Translation, Ministry of Justice of the Republic of Armenia, 29 MAY 2015, available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-higher-and-postgraduate-professional-education/>

complementing the professional qualification of a person;”

- “student (trainee, attendee) shall mean a person admitted to relevant higher education institution, in a prescribed manner, and studying under certain educational programme of higher professional education;”

- “lecturer shall mean a scientific and pedagogical worker of higher professional education system, who teaches the students and learners theoretical, practical and professional knowledge and promotes the mastering thereof”

- “researcher of doctoral studies shall mean a person with higher professional education (Master’s degree, degree of a certified specialist), pursuing his or her study further within the framework of doctoral studies under postgraduate education programme and preparing a thesis to seek the scientific degree of Doctor of Philosophy³⁴, and who may be conferred a qualification degree of a researcher as a result of attestation under postgraduate professional education programme;”

- “researcher of post-doctoral studies shall mean a person holding the scientific degree of Doctor of Philosophy and registered, in a prescribed manner, as a person preparing a thesis to seek the scientific degree of Post-Doctor of Philosophy³⁵”

- “external researcher shall mean a person with higher professional education (holding qualification of Master’s degree or that of a certified specialist) preparing a thesis to seek the scientific degree of Doctor of Philosophy without attending doctoral studies, or a person holding the scientific degree of Doctor of Philosophy and preparing a thesis to seek the scientific degree of Post-Doctor of Philosophy and who is attached, in a prescribed manner, to the organisation providing postgraduate professional education;”

- “academic credit (standard) shall mean a conventional unit of measurement for academic workload, expressed in the amount of hours”

- “credit (standards) system shall mean a system for organising the academic process, for measuring, registering and transferring the outcomes of studies through academic credits, which shall involve the teaching, practical and individual classes, consultations, preparation of course papers and other papers, preparation of exams, assessment, etc.”

- “European credit transfer and accumulation system (ECTS) shall mean a pan-European credit system which ensures the compatibility and transferability of academic credits, facilitates mobility of students within common European higher education area;”

³⁴ Candidate of Sciences

³⁵ Doctor of Sciences

- “medical internship (internatura) shall mean preparation of specialists implementing general medical practice activities through the programme for medical intern, based on higher professional education (Master’s degree, degree of a certified specialist);”

- “residency medical training (ordinatura) shall mean preparation of highly qualified specialists through the programme for residency medical practitioner, on the basis of higher professional education (Master’s degree, degree of a certified specialist).”

According to the Article 8 of the law “...4. Higher and postgraduate professional education in the Republic of Armenia shall be provided through the following basic and supplementary programmes:

(1) through basic programmes of higher professional education for:

- Bachelor’s degree;
- Master’s degree;
- degree of a certified specialist;

(2) through basic programmes of postgraduate professional education for:

- researcher;
- residency medical practitioner;

(3) supplementary education programmes for:

- training;
- raising of qualification of specialists.”³⁶

Article 9 explains qualification degrees, time periods and forms of instruction of higher and postgraduate professional education: “1. Basic programmes of higher professional education may be implemented on an uninterrupted basis and (or) with interruptions, as of levels.

2. Two-level qualification system of higher professional education shall be established within the Republic of Armenia.

The persons having passed the final attestation, shall be granted with:

(1) the Bachelor’s degree — in the first level;

³⁶ The Law of the Republic of Armenia on Higher and Postgraduate Professional Education (14 December, 2004, N HO-62-N), Article 8, State Educational Standards and Educational Programmes of Higher and Postgraduate Professional Education, Official Translation, Ministry of Justice of the Republic of Armenia, 29 MAY 2015, available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-higher-and-postgraduate-professional-education/>

(2) the Master's degree — in the second level.

The qualification of a certified specialist shall also be retained in the Republic of Armenia.

3. The qualification degree of a researcher provided under postgraduate professional education shall be established in the Republic of Armenia.

4. The duration of instruction of basic education programmes of higher and postgraduate professional education shall constitute:

(1) at least 4 years for obtaining a Bachelor's degree, whereas for police or military professions — at least 3 years;

(2) at least 5 years for obtaining a qualification degree of a certified specialist, whereas for art and physical education professions — at least 4 years;

(3) at least 1 year for obtaining Master's degree;

(4) at least 3 years for obtaining qualification degree of a researcher.

(5) at least 5 years for medical professions under uninterrupted and integrated educational programmes, the educational degree granted as a result whereof shall be equivalent to Master's degree;

(6) one year of post-graduate study — medical internship (internatura), for graduates of higher military and medical education institutions or subdivisions of higher military and medical education institutions of the Republic of Armenia and other foreign States.

5. Persons having obtained a graduation document for relevant degree of higher professional education, shall have the right to pursue their studies further, in a prescribed manner, under the educational programme of the next level.

7. Postgraduate professional education shall be provided through on-site education, offsite education, distance learning and external studies, the procedure for which shall be defined by the Government of the Republic of Armenia.”³⁷

Article 10 gives the following provisions on graduation documents for higher and postgraduate professional education: “1. Persons having completed their studies under higher and postgraduate professional education programmes and having passed the final attestation, shall be granted with a graduation document of relevant higher education institution or that of the organisation

³⁷ The Law of the Republic of Armenia on Higher and Postgraduate Professional Education (14 December, 2004, N HO-62-N), Article 9. Qualification Degrees, Time Periods and Forms of Instruction of Higher and Postgraduate Professional Education, Official Translation, Ministry of Justice of the Republic of Armenia, 29 MAY 2015, available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-higher-and-postgraduate-professional-education/>

providing postgraduate professional education, with relevant supplement of diploma:

- diploma of Bachelor's degree,
- diploma of Master's degree,
- diploma of a specialist with higher education,
- diploma of a researcher;
- diploma of a residency medical practitioner

2. Persons having not completed the basic programme of higher and postgraduate professional education, shall be granted with an academic statement of information of a prescribed sample issued by the higher education institution or organisation providing postgraduate professional education.

3. Persons having completed the educational programme of supplementary professional education and having passed the final attestation exam, shall be granted with a graduation document of a prescribed sample issued by higher education institution or the organisation providing postgraduate professional education (certificate, education certificate).³⁸

Article 14 provides the general framework for admission to organisations providing higher and postgraduate professional education: "... 1. Admission to state and non-state higher education institutions under the programme for Bachelor's degree shall be carried out upon the applications submitted by persons with at least secondary education, as prescribed by the Government of the Republic of Armenia.

4. Admission, on a competitive basis, to the second level (Master's degree) in the two level system of the higher education shall be carried out by taking account of the grades of the first level (Bachelor's degree), in accordance with the procedure established by the authorised public administration body for education.

5. The procedure for admission to state and non-state higher education institutions, according to the educational programme for Bachelor's degree, shall be defined by the Government of the Republic of Armenia.

Admission to higher education institutions shall be carried out in accordance with the list

³⁸ The Law of the Republic of Armenia on Higher and Postgraduate Professional Education (14 December, 2004, N HO-62-N), Article 10, Graduation Document for Higher and Postgraduate Professional Education, Official Translation, Ministry of Justice of the Republic of Armenia, 29 MAY 2015, available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-higher-and-postgraduate-professional-education/>

of professions defined by the Government of the Republic of Armenia, through application of the principles of accessibility, publicity, justice, credibility, transparency and equality.”³⁹

Articulation between Master and Doctorate level, statistics per level of study and field of study, students /graduates statistics⁴⁰:

Article 14 of the RA law on Higher and Postgraduate Professional Education states:

“...6. Admission to doctoral studies shall be carried out through programmes for Master’s degree and degree of certified specialist, on the basis of the results admission examinations of the applicants, held on a competitive basis, the procedure and list of professions whereof shall be defined by the Government of the Republic of Armenia. The higher education institution shall, along with the application on admission to doctoral studies, conclude a contract with the applicant, the text whereof shall be promulgated together with the announcement on admission and shall be priorly provided to the applicant. The form of the model contract shall be defined by the Government of the Republic of Armenia.

7. The documentation for post-doctoral studies shall be carried out upon availability of a scientific degree of the Doctor of Philosophy and a scientific topic for post-doctoral thesis....”⁴¹

References to the national qualifications frameworks:

The RA law on Education defines the National Framework of Qualifications as “... - the integrity of descriptions of qualification degrees of professional (vocational) education, which includes generalized descriptions of outcomes of instruction in each level of studies, and those

³⁹ The Law of the Republic of Armenia on Higher and Postgraduate Professional Education (14 December, 2004, N HO-62-N), Article 14, Admission to Organisations Providing Higher and Postgraduate Professional Education, Official Translation, Ministry of Justice of the Republic of Armenia, 29 MAY 2015, available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-higher-and-postgraduate-professional-education/>

⁴⁰ Also see quantitative data above and below

⁴¹ The Law of the Republic of Armenia on Higher and Postgraduate Professional Education (14 December, 2004, N HO-62-N), Article 14, Admission to Organisations Providing Higher and Postgraduate Professional Education, Official Translation, Ministry of Justice of the Republic of Armenia, 29 MAY 2015, available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-higher-and-postgraduate-professional-education/>

of knowledge, skills and abilities required for professional (vocational) activities;...”⁴²

The National Framework of Qualifications places the Cycle 3 of professional higher education to the level 8 and provides the following descriptors⁴³:

Education level	Qualification	Educational Programme	Knowledge	Skills			Competence
				Skills to apply knowledge	Communication skills, ICT skills and skills to work with data	Generic cognitive skills	Autonomy and responsibility
8	Candidate of Sciences Diploma of the Candidate of Sciences	Postgraduate professional educational programme Duration - minimum 3 years (180 ECTS)	Advanced (progressive) knowledge in their disciplinary and multi(inter)disciplinary areas of study, applied in learning , research and professional field. Comprehensive and in-depth knowledge of new theories, approaches, hypotheses and scientific research methods in their disciplinary and multi(inter)disciplinary areas of	Advanced professional skills including synthesis and evaluation that are required to: apply acquired knowledge and understanding of conceptual principles and methods of the field of study for solving complex theoretical and practical problems. Plan and conduct innovative scientific research.	Advanced skills to present and interpret theoretical, practical, and complex problems, and research results to the academic communities and general public. Comprehensive ICT skills for conducting a research and creating new knowledge . Skills to evaluate and apply big	Skills required to: propose complex concepts, present existing information and problems, and propose new and original interpretation based on the evaluation of research results. Skills required to:	Initiate and manage comprehensive and innovative activities in scientific, educational and professional leading fields by demonstrating scientific and professional integrity, independence and autonomy. Manage a research or professional team demonstrating sufficient efficacy and commitment

⁴² The Law of the Republic of Armenia on Education (14 April, 1999, N HO - 297), Main Concepts Used in This Law, Official Translation, Ministry of Justice of the Republic of Armenia, 29 May 2015, available at <http://www.anqa.am/en/about-us/legal-field/laws/law-of-the-republic-of-armenia-on-education/>

⁴³ Government Decision of 31 March 2011 N332-N on “Establishment of the National Framework of Qualifications of the Republic of Armenia”, Unofficial Translation

			study.		quantitative and qualitative data collected from interrelated fields of study to propose comprehensive and complex concepts and create new knowledge .	plan and carry out an original research. Achieve results that will make a contribution to scientific and (or) professional fields and are published in national and international reviewed editions . Theorise research results.	nt. Act for the benefit of the nation and sustainable development of the state by preserving and securing national and universal values.
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1.1.2 National statistics on research and role of the HEIs within the research system (if some), research priorities (at national level or at HEI level)? Role of other actors (if some):

Domestic Costs for Research and Development (According to the statistical reporting data) ⁴⁴				
	2012	2013	2014	2015
Domestic costs, total mln. drams	9 713.2	9 355.7	10 912.0	11 929.9
of which at the expense of budgetary funds	6 750.6	6 711.0	8 285.2	9 308.4

⁴⁴ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Science*, Domestic Costs for Research and Development (According to the statistical reporting data), p.146, available at <http://www.armstat.am/file/doc/99499403.pdf>

Number of Organizations Engaged in Research and Development ⁴⁵				
	2012	2013	2014	2015
Scientific organizations, total	72	62	66	70

Volume of Scientific and Technical Works (mln. drams) ⁴⁶								
	Total				of which conducted with ones' own powers			
	2012	2013	2014	2015	2012	2013	2014	2015
Volume of scientific and technical works	9 731.9	10 236.6	11 520.7	12 634.2	5 104.1	10 236.6	11 388.0	12 532.7
Research and development	9 409.5	9 943.9	11 176.4	12 321.0	4 966.4	9 943.9	11 100.0	12 260.3
Scientific and technical services	322.4	292.7	344.3	313.2	137.7	292.7	288.0	272.4

Performance of Scientific and Technical Works (mln. drams) ⁴⁷								
	At cost of work				At cost price			
	2012	2013	2014	2015	2012	2013	2014	2015
Actual volume of completed work and work accepted by customer	11 740.2	7 421.3	8 977.3	10 069.3	10 396.9	7 186.9	8 852.5	9 786.3
Volume of works								

⁴⁵ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Science*, Number of Organizations Engaged in Research and Development, p.146, available at <http://www.armstat.am/file/doc/99499403.pdf>

⁴⁶ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Science*, Volume of Scientific and Technical Works, p.147, available at <http://www.armstat.am/file/doc/99499403.pdf>

⁴⁷ National Statistical Service of the Republic of Armenia, Statistical Yearbook of Armenia (2016), *Science*, Performance of Scientific and Technical Works, p.148, available at <http://www.armstat.am/file/doc/99499403.pdf>

performed from the beginning of the year	10 077.6	10 631.6	12 037.2	13 059.5	8 100.1	10 352.9	11 847.7	12 753.6
of which: volume of scientific and technical works (production)	9 731.9	10 236.6	11 520.7	12 634.2	8 000.5	9 991.3	11 376.7	12 337.1
including: research works	7 510.0	8 555.8	10 278.2	10 452.6	6 111.4	8 502.1	10 260.2	10 419.1
of which: fundamental research	1 308.8	1 630.7	1 749.4	1 993.5	1 100.6	1 642.9	1 766.7	1 998.1
Design-engineering and technological works	1 575.6	1 058.2	531.7	1 433.7	1 455.4	925.9	480.3	1 258.2
Preparation of experimental samples (lots) of production	234.7	292.2	269.2	241.6	190.9	243.1	239.5	211.5
Design work for construction	89.2	37.7	97.3	193.1	29.2	57.0	50.6	131.9
Scientific and technological services	322.4	292.7	344.3	313.2	213.6	263.2	346.1	316.4

- Statistics on research funded projects and type of owner
- Relationships between Academia and Research centers

1.1.3 Relationships between HE and Enterprises: internships, practicum, etc.

- Are there placements included in the Curriculum?
- Are there incentives from the HEIs to promote results dissemination and research exploitation policy (transfer, start-up, incubator...)

2.2 Overview of the national legal framework and regulations governing quality assurance (QA) of Cycle 3

- Is there a national legal framework for QA of HE? And more specifically Cycle 3? If not, are there other mechanisms? (role of international, regional frameworks? / any other ?

The main document governing the QA of HEIs is “The statute on state accreditation of institutions and their academic programs in the Republic of Armenia”, decision of RA Government on “Standards of Accreditation of Professional Education of the RA” which; however, are more concerned with the first and the second cycles of education. For time being, the third cycle of education is neglected.

- Is there any national regulation governing the possibility to open a PhD program? What are the national requirements to open such programs?

The regulation governing the possibility to open PhD programmes and to carry out the defense of doctoral theses is regulated by the Research Degree Awarding regulation, which stipulates the following:

Only higher educational institutions and scientific organizations accredited by SCC have the right to confirm the topic of a thesis. In order to acquire authorization, higher educational institutions and scientific organizations, each having at least three prominent specialists in the given field as permanent staff members, must apply to SCC. These specialists must be holders of doctoral degrees and at least one a holder of a Doctor of Science degree in that specific field of knowledge.

The Supreme Scientific Commission of the Republic of Armenia (SCC) creates a specialized council which functions in accordance with the regulations specially defined for the council by SCC. SCC creates councils in those scientific and higher educational institutions, scientific manufacturing companies, and scientific technological organizations that are famous for some accomplishments in science. Councils are created when these organizations, establishments submit an application and when a relevant ministry or an interested organization or the RA National Academy of Sciences presents information about its willingness and readiness to give advice, provide conveniences and conditions to perform academic activities and research work.

Information concerning the members of the council must also be attached to the above-mentioned documents.

Holders of Doctor of Science degrees in the fields relevant to the specializations of the council form the council provided that during the last 5 years, they have published at least one monograph, or 5 scientific papers or have been the scientific supervisor of a Ph.D. degree holder.

In case when the number of the Doctors of Science in that field is not sufficient to organize the defense of the thesis, holders of Doctor of Science degree in immediately adjacent fields or specialties can be included, provided they have 5 scientific papers in that field of knowledge. Ph.D. degree holders in the same field of knowledge can as well be included if they have published 10 scientific papers or a monograph in the last 5 years.

The council is appointed for a period of 3 years after which it may be eligible for reappointment.

The council uses the seal and stamp order form of the relevant institution or organization.

In case when during a year three of the recommendations of the specialized council (for awarding a scientific degree) are rejected, the SCC, based on the 31st and 37th paragraphs of

these regulations, can reconstitute the council. In such cases SCC contacts the appropriate organization to consider the issue of whether the inclusion of the scientific supervisors and opponents of rejected works in state financed programs is appropriate or not⁴⁸.

2.3 Strategies and incentives for Cycle 3 at national level

- Did your government recently decide new policies for Cycle 3? If yes, what are the main reasons for this? And what are the main changes?

No.

- Is the development of Cycle 3 encouraged by other ways?

Some minor encouragements include but are not limited to:

- ✓ small amount of salary increase when employed at HEIs/TLIs,
- ✓ opportunity to be employed at a HEI/TLLI,
- ✓ receiving a small amount of scholarship granted to full-time PhD students in some HEIs,
- ✓ free of charge education, as far as full-time PhD studies are concerned,
- ✓ military deferment,
- ✓ else.

- Are there incentives for HEIs / professors/students engaged in Cycle 3?

Some incentives include but are not limited to:

- ✓ small amount of salary increase when employed at HEIs/TLIs,
- ✓ opportunity to be employed at a HEI/TLLI,
- ✓ receiving a small amount of scholarship granted to full-time PhD students in some HEIs,
- ✓ free of charge education, as far as full-time PhD studies are concerned,
- ✓ military deferment,
- ✓ else.

- Is there any gender evaluation on the PhDs? Is there any regulation or mechanism to favor gender balance on PhDs?

De facto there are no written rules favouring gender balance; however, since admission to full-time PhD studies grants military deferment, more male than female

⁴⁸ <http://boh.am/jurist.php?langid=3>

candidates are accepted to full-time PhD studies.

Certain standards have been elaborated within the framework of VERITAS project, which, however, are not yet ratified.

- Are companies looking for PhD graduates? Do they consider PHD graduates as an added-value? Do PHD graduates have advantages in terms of salary, responsibility...?

There is no universal approach among the companies as far as PhD candidates are concerned. Some companies favour PhD candidates; yet, more often, the companies are not in search of such candidates. The only sphere which requires PhDs is that of education and especially higher education.

2.4 Impact of European Principles, Standards and Guidelines at national level

- Do you know the ESG? If yes, do they have an impact on Cycle 3?

The majority of TLIs of the RA, especially the ones who have previously undergone external review resulting in accreditation, have information on ESG. However, as far as their knowledge regarding the third cycle of education is concerned, it can be stated that the level of awareness is not that high. However, information that circulates in different HEIs can be summarized below:

The ESG apply to all higher education offered in the EHEA.

- ✓ **Quality assurance**: all activities within the continuous improvement cycle (i.e. **assurance and enhancement activities**), as well as **accountability**. Taken together, these create **trust in the higher education institution's performance**.
- ✓ The focus of the ESG is on **quality assurance related to learning and teaching in higher education**, including the learning environment and relevant links to research and innovation.

1.2 (Design and approval of programmes)

Institutions should have **processes for the design and approval of their programmes**. The programmes should meet their **objectives** and intended **learning outcomes**. The qualification

resulting from a programme should be clearly specified and communicated, and refer to national qualifications and, consequently, to the QF-EHEA.

1.9 (On-going monitoring and periodic review of programmes)

Institutions should **monitor and periodically review their programmes** to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews should lead to **continuous improvement** of the programme. Any action planned/taken as a result should be communicated to all those concerned.

1.10 (Cyclical external quality assurance)

Institutions should undergo **external QA** in line with the ESG on a cyclical basis.

Having said this, it must be highlighted, that PhD programmes in Armenia do not yet undergo any external QA and hence it can be stated that ESG guidelines do not have any impact of the process of organization and monitoring of PhD programmes.

- Do you know the Bologna Principles? Impact?

The Republic of Armenia joined the Bologna Process in 2005 in Bergen (Bergen Communiqué). Following its ratification by the Republic of Armenia (RA) National Assembly in 2005 steps have been undertaken to actively implement the Bologna lines to integrate into European Higher Education Area. Although the Armenian universities have developed and are operating, to different extents, their internal QA systems, delivery of doctoral programmes along with the Salzburg Principles has been left unattended. This causes difficulties with the recognition of the 3rd level degrees at international level⁴⁹.

- Do you know the Salzburg Principles? Impact?

Notwithstanding the fact that much has been said and announced on Salzburg principles, it cannot be ascertained that all TLIs are well aware of them, nor can we state that these principles are being guided with as far as PhD studies and programmes are concerned.

Salzburg Principle I: 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 (EUA, 2005).

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⁴⁹ Retrieved from <http://www.anqa.am/>

Originality of research - the results of the fact-finding process indicate that though the main requirement of all research papers is scientific novelty, there is lack of distinct mechanisms in the Armenian universities to determine whether theses comply with the requirements of novelty and original research.

Applicability - the results of the fact-finding process revealed that the absence of commercialization of research results, lack of financial means, weak link between universities and labour market and absence of opportunities for testing research results in the practice hinders the further development of doctoral education.

Salzburg Principle II: 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 (EUA, 2005).

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Development and review of legal basis - the results of the fact-finding process demonstrate that the HEIs agree on the need to change and amend relevant national regulations, documentation and legislative frameworks as well as doctoral programmes.

Career opportunities - there is a lack of

1. updating students on new career opportunities,
2. having exchange with other universities, and
3. encouraging international cooperation.

Salzburg Principle III: 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 (EUA, 2005).

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Collaborative environment - the results of the fact-finding process show that in order to ensure the collaborative environment in Armenia there is necessity to:

1. provide locations for the practical part of research,
2. support researchers' participation in scientific-educational programs in Europe,
3. cooperate with numerous foreign universities and be involved in relevant international projects,
4. conduct benchmarks between EU and Armenian universities
5. develop sufficient documentations for regulating multidisciplinary programmes,
6. develop joint research programs,

7. establish a culture of interdisciplinary research with more than one supervisor.

Salzburg Principle IV 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 (EUA, 2005).

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Early stage researchers - the fact-finding process revealed that most of the scientific institutions employ their PhD students 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. There is also a tendency to concentrate attention of doctoral candidates mainly on the real needs of economy, which will allow getting reimbursement from acting employers. Relationship between teachers and researchers as between a skilful scientist and beginner-researcher is not yet prevalent.

Engagement - doctoral candidates in Armenia are not yet engaged in all levels of governance and participation in decision-making at the university.

Rights - in the fact-finding HEIs highlighted the importance of development of an agreement sample between doctoral candidates, supervisors and university, where the rights and responsibilities of doctoral candidates could be formulated.

Salzburg Principle V: 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) (EUA, 2005).

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Supervision - the main responsibility of supervisors at Armenian HEIs are: giving instructions, assisting doctoral candidates to define the objectives and tasks of the thesis, directing and observing the process of work, making corrections, assessing the work, assuring that the dissertation is completed as scheduled, running validation of doctoral candidates on their thesis (each year).

Despite the fact that the responsibilities of supervisors are defined, the rights and responsibilities between doctoral candidates and supervisors must be clarified. Supervisors are not encouraged or punished when their research students present good or bad results; there are neither state nor interuniversity mechanisms for this.

Professional development - there are no set mechanisms to provide professional

development to supervisors at the Armenian HEIs.

Salzburg Principle VI: 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 (EUA, 2005).

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Critical mass and research environment - the availability of relevant critical mass was stated as a result of the fact-finding process implemented by the partner HEIs. However, the necessity to make critical mass stronger is essential especially by involving international actors. The importance of giving doctoral candidates an opportunity to work in different research environment including virtual research networks was emphasized by the partner universities.

Salzburg Principle VII Duration: doctoral programmes should operate within appropriate time duration (three to four years full-time as a rule) (EUA, 2005).

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Duration - according to the RA legislation, duration of PhD studies varies from three to five years. Nevertheless, the effectiveness of the set duration has not been assessed. Most of the universities claim that because of the credit system introduction, the core time spent on research has been reduced, and, as a matter of fact, PhD students have to do their research during the last year of their study. Therefore, there is a growing demand to reduce required parallel activities of doctoral candidates to allocate time to focus on their research as well as to exclude administrative procedures (thesis assessment and defence) from the overall duration of the PhD program completion.

Salzburg Principle VIII: The promotion of innovative structures: to meet the challenge of interdisciplinary training and the development of transferable skills (EUA, 2005).

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Transferable skills - although the Armenian universities provide courses in transferable skills, HEIs sometimes overemphasise the role of these courses hindering research activities and leading doctoral candidates to hunt for credits.

Salzburg Principle IX: 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 (EUA, 2005).

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Mobility - according to the results of the fact-finding process many doctoral candidates apply for international funding/programs for international grants/conferences. Universities foster and assist young researchers to participate in international conferences as well as find research and travel grants for PhD students. HEIs cooperate with universities abroad, there are different contracts signed and in force, however not always the aims and objectives in contracts are realized. There is no sustainable collaboration with other research and scientific institutions.

Salzburg Principle X: Ensuring appropriate funding: the development of quality doctoral programmes and the successful completion by doctoral candidates requires appropriate and sustainable funding (EUA, 2005).

Financing - sustainable and appropriate financing of doctoral programs is a worldwide issue and Armenia is not an exception. The fact-finding process revealed that the biggest problem is that innovative research programs do not find public or private funding sources. There is also no allocation of science funding with separate line in the universities' budgets. HEIs mostly ensure appropriate funding by participating in a variety of grant programs, another source are fee-paying PhD students who compensate the lack of the funding.

PhD student salary - a very small amount of salary is allocated only for the full-time PhD students (in Armenia there are full-time, part-time PhD students as well as seekers for PhD degree)⁵⁰.

- Do you know any other standards/ principles that have an impact of Cycle 3?

- ✓ RA Regulation on Scientific Degree Award which can hardly be called a standard.
- ✓ Certain standards have been elaborated within the framework of VERITAS project, which, however, are not ratified.

⁵⁰ The information on Salzburg principles has been taken from the article "Salzburg Principles: The State of Arts in the Republic of Armenia", L. Pipoyan, R. Topchyan

2.5 Financial conditions

Description of funding mechanisms which have an impact

- Are there any financial incentives to develop Cycle 3? For Professors, HEIs, students?
- Are there any fundings?

3 Chapter 2 – Cycle 3: state of the art (4-6 pp)

3.1 Main characteristics of Cycle 3 programs (type of provision, of study, statistics...)

(Or Main obstacles to the implementation of Cycle 3 Programs in general and alignment with the internationally best practices in particular.)

3.1.1 Are there Cycle 3 Programs in your university country?

- If not at all, please explain the reasons for that
- If yes, is it a professional doctorate or a PhD program? Please also provide some historical background

At least 6 months before of each academic year Armenia's Education and Science Ministry (the Ministry) on the basis of applications received from institutions, present to Government of the Republic to approve the admission distribution for postgraduate and doctoral places (included full-time post-graduate and doctoral places).

Definitions:

PhD programs: Students are expected to extend the body of knowledge in their field to apply the knowledge to solve for a real-world problem in their workplace or community. They demonstrate this through a dissertation.

Professional doctorate programs: Students are expected to apply existing knowledge in their field to a real-world problem in their workplace or community. Professional doctorate students demonstrate this through an applied dissertation doctoral capstone, comprised of a paper, product, or portfolio.

3.1.2 Nature of the doctoral programs:

- Curriculum design (methodology ?)
- ECTS crédits (if any)
- Defense guidelines
- Etc

3.1.3 Characteristics of the Cycle 3 study:

- Describe the way Cycle 3 study is organized (selection of candidates and procedures for recruitment? research activities? Thesis to write and defend? National/local Commission to grant the diploma? National or universities regulation regarding minimum and maximum length of a thesis? Etc.)

- How many universities are granting cycles 3? Which ones?
- Which fields attract students?
- What are the main reasons to have more students in those fields? Is there an unbalanced situation among the different fields?
- Must thesis supervisors/directors have a particular status/degree? Is there a minimum number of theses each of them can supervise?
- Is there a minimum number of publications or other research indicators to get competences for supervising thesis?
- Is PhD international mention included as an option for PhD Candidates? In affirmative case, what are the requirements?
- How do thesis defenses take place? Has each university set regulations for that? If so, what are they?
- Are there specific criteria to defend a thesis and are they passed on to PhD students and thesis supervisor?
- What is the legal composition of a jury? How many people? Is the thesis director/supervisor member of the jury? Is the defense private? Public? For the defense is there a specific ceremonial presentation (gowns, proclamations, etc.)?
- Are there procedures to validate a “PhD at work”? And a PhD on “validation on skills”?
- Are there definitions of specific skills for a doctorate?

Applicant can be accepted in PhD program on a basis of master degree or specialized diploma. For medical professions, on a basis of doctor's certificate, case-oriented clinical medical specialties.

Fellowship adopted for application shall be given by the person or his authorized representative to the head of the institution, together with the following documents:

Bachelor's and Master degrees diplomas or specialized diploma or certified copies of diploma and their applications (for higher education in foreign countries who received their education adequacy of the document).

A foreign language and informatics principles subjects attestation certificates or corresponding document (internal threshold, scoring assessment).

At least one copy of published research or scientific work, at least 20 printed pages.

autobiography and three photos (3 x 4 size).

Excerpt from the work (if any).

Admission in Postgraduate is realized for full-time student and a full refund of state support in the form of tuition fees (the charge) for compulsory military service deferment places, exercised in accordance with the terms set by the Government of the Republic of Armenia to organize the recruitment period.

In order of the head of the institution or his deputy is created PhD-Commission for student's admission.

PhD admissions committees (Commission composed from 3 up to 5 degreed specialists) are established for conducting professional examinations by the order of the Head.

The exam day of professional postgraduate admission approved by the heads of institutions and inform the Ministry.

The applicant must be informed for

The date, place and time of seven working days before the start of the examination information.

Questionnaire at least a month before the professional examination.

Procedural requirements, which are approved by the head of the institution.

The applicant permission to participate in the examination is given by the admission committee according to the certificates of foreign language and informatics principles

The following languages are considered to be one of the smallest unit,

English, «TOEFL» (IBT) 46 and «IELTS» 5.5 unit.

In French, «TCF» 200 units.

German, «on DAF» unit 60.

If for applicants English, French or German languages are theirs specializations, they have to pass exam in other foreign language too.

Required minimum for the principles of informatics and communication score is 25 points.

The questions of Professional exam questionnaire are composed of professional chairs (departments), academic department or by the Commission and approved by the head of the institution.

According to the specificity of the profession, professional manner of conducting the examination (written or oral) set by the admission committee.

The oral test is recorded, and the results are kept for at least 24 hours after publication.

Professional exam results are estimated to be 20-point scale. The test shall be deemed given if the applicant has received at least 13 points.

The decision is taken by the arithmetic mean of knowledge evaluation assessments by each member of the committee.

The person, who receives the maximum points in professional exam is a first accepted.

In case of equal marks of professional examination the following parameters shall take into account in order,

Master's or degreed specialist overall average quality rating.

The amount of the average quality bachelor's and master grade.

The number of scientific publications.

International or national student competitions or Olympiads subjects who received diplomas or participation in international conferences (reports).

The admission committee makes a decision based on each applicant on the results of the competition.

The decision of entrance or failure of the applicants must be announced within seven working days.

Admitted student signing a contract.

Full-time students at a post-graduate course free of charge receives amount of scholarship from the beginning of acceptance date.

More attractive fields are economy, information technologies and computer sciences, law, because with these three disciplines is a easy to get job or to have the collaboration in the board.

Scientific supervisor may be appointed doctors of science in the field, and candidates of Ph.D who obtain the Higher Qualification Commission's authorization. For permission this candidate must have at least 30 published scientific works in the field of research (at least 5 in the last five years).

For PhD theses defense the applicant must have at least six scientific articles, two of them without co-authors, or three articles, including at least one article in Web of Science or Scopus databases of scientific publications and an article without any of the co-authors.

PhD thesis volume must be about 100-150 page excluding attachments. The volume can be increased by 30% for the social sciences. For some theoretical theses, according to Commission's agreement, the thesis may have a smaller volume.

The thesis should have a brief statement, Abstract (Summary). Summary of thesis reflects the basic provisions and conclusions of novelty, practical significance. Number of summary's copies must be at least 50.

The summary must be published in accordance with the higher education institution or research organization's website.

Dissertation abstract (summary) is presented in Armenian. According to Council's decision it can be presented in another language.

At the end of the abstracts Russian and English summaries must be written (Armenian Summary: if abstract is in other language).

Scientific council (nine persons for each specialty included one chairman and one scientific secretary) is established and operates in accordance with the Higher Qualification Commission

Council is created by Higher Qualification Committee in the universities, in the institutions of the National Academy of Sciences of Armenia, which have at least 3 doctors of sciences in the corresponding field.

Council is composed by doctors of sciences and also by philosophy doctors of the corresponding field.

The council approved the three-year period, after which period of his activities may be extended.

Council appoints two opponents for dissertation thesis defense.

The defense can take place if one of opponents is absent, but if the council has his written opinion.

The decision to grant the degree dissertation defense counsel admitted to a secret ballot.

Council's decision is positive, if three-quarters of the members present at the meeting voted in favor. The council sends the necessary documents to Higher Qualification Commission for awarding the Ph.D degree.

3.1.4 Statistics related to Cycle 3: (in your HEI or in your country)

	2012	2013	2014	2015	2016
Nb of students starting a doctorate					
% of students coming directly after a Master of the same university					
% of Male starting doctorate					
% of Female starting doctorate					
Nb of graduates					
% of Male graduates					
% of Female graduates					
Nb of thesis in co-direction or bi-national direction					
Nb of students having fundings					
Nb of students becoming teacher at the end of Cycle 3					

Nb of students becoming professors at the end of Cycle 3					
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-Please provide your own tables showing for the last five years:

- Repartition of graduated per field of study
- Duration of thesis, repartition per field of study for the last five years
- Drop out rates for the last five years and provide also information about the reasons and the fields of study
- Repartition of co-direction and of bi-national direction thesis by field of study,
- How many PhD are going back to university after a period of professional activities? How long after their master? Why? How many PhD graduates are recruited as the Academic staff at the end of their Phd ?

3.1.5 Positioning of Cycle 3

- Do doctoral (professional and PhD) students belong to a research laboratory while writing their thesis?
- What are the relations of PhD students with the research laboratory?
- Are PhD research subjects chosen in partnership with research units and in line with the scientific local, regional and national environment?
- Beyond research unities are there operational interactions with the industry sector and/or national, regional or local authorities?
- What is the ratio of PhD workers in the private sector?
- Is there any regulation that favors the employment of PhD workers?
- Are there any contribution from the private sector the PHD curriculum? or to its financing ? of regulation ?

During scientific research, the department provides post-graduate student scientific equipment, laboratories, computer equipment, libraries, right trips, hostel etc.

For full-time graduate student during the annual tuition is given a two-month vacation, maintaining the scholarship.

Facility manager may set additional extra-budgetary funds.

Remuneration of scientific supervisor is made by Postgraduates scientific institution (50 hours per year).

3.1.6 Follow-up of Phd Students and graduates

- Besides the direction provided by each research supervisor, does the university follow up PhD students?
- Are there trainings provided to PhD? Are they compulsory to validate a doctorate? Do they give credits?
- Is there a document, a “thesis charter” specifying the mutual commitments between PhD students and thesis supervisors?
- Are there rules of conduct for doctorate within universities? Are they written? How are they applied? Has the university set up methods against plagiarism? Which tools (software against plagiarism) are used?
- In connection with local officials, are proceedings adapted to PhD profiles set up in order to follow up the progress of their research project (results obtained, publications/productions, integration opportunities, etc.)?
- Are plans set up by the institution to prevent and reduce situations that may lead to dropouts,

for example follow-up committees for thesis, defense in the course of a thesis, tutor or referent, mediator in case of conflict, etc.?

- Does the institution provide its PhD students with theoretical and practical trainings in order to integrate into society at a level corresponding to his/her qualification, in the private or academic sector?
- How many PhD receive a scholarship/financing to write their thesis? Where do scholarships/financing come from?
- Are there theses financed by private or public firms, or by State bodies, on subjects specified by the financing bodies?
- What is the percentage of PhD finding a job immediately after their thesis? Six months after? A year after? Later? Are such jobs directly linked to their thesis subject or to the subject area of the doctorate?
- Are there Alumni associations? Are they highly active?
- Are there any consideration for the PhD title or defense if an international stay in a foreign research or HEI is done?
- Are there any grants for travel to improve the internationalization of PhDs?
- What are the accepted languages to defence and/or write the PhD dissertation? In case of more than one, could you provide any figures concerning the number of PhD dissertation in foreign languages?

The study carried out by both internal and external, free and paid. In the form of a training period not exceeding 3 years, and external courses duration of 4 years.

Postgraduate training full-load equivalent to 180 credit unit, which consists of two interconnected parts: education and research.

During the study students must,

1) give educational program (plan) of the test (tests) (including vocational test), collect the appropriate credits, completion of dissertation thesis and the institution to hold an initial discussion.

2) a work plan approved by the institution's scientific council, scientific director and at least 36 hours in pedagogical or scientific-research workload.

Each year graduate student must pass accreditation organized by department, division (sector, laboratory). In the relevant department of the University, the Faculty Council, academic departments of the organization, the scientific council regularly are hearing reports and are discussing the post-graduate students and their supervisors.

3.2 IQA and EQA mechanisms of Cycle 3 (actors involved, statistics...)

3.2.1 Internal QA (mechanisms inside the HEI)

ESG PART 1	YES	NO	EXPLAIN
Do HEI have a policy to guarantee internally quality of the Degrees delivered?			Since the term "Internal Quality" is mostly viewed within the first and second cycles of education, taking into account the fact that these cycles are the ones who undergo accreditation and

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			<p>subsequently an external review process, IQA is mostly guaranteed throughout undergraduate and graduate degrees and is neglected on the third cycle.</p> <p>Some HEIs might have separate regulations and/or policies on IQA, but this is not a common practice.</p>
If yes, is it made public and part of its strategic management?	N/A		
If yes, do they have appropriate structure and processes?	N/A		
Are the pedagogical methods and methods of delivery assessed?			
Does the university assess the supervision of the director of thesis			
Does the PhD student assess the supervision of his/her director during his/her thesis?		V	There is no common practice of assessing the work of the supervisor.
Does the university assess the success rates at the doctorate?	V		Universities have statistic data, since the Ministry of Education and Science of the RA requests analytical data once or twice per annum.
Are the criteria for the assessment made public?	V		
Is assessment carried out by an external examiner?	V		
Is there a procedure for students appeals?		V	The student who has been rejected the being granted the degree can appeal the decision of both the Scientific Committee and the Supreme Certifying Commission.
Are there regulations for student admission?		V	
Are there regulations for student progression?		V	The Universities have regulation governing the progression of the students. In particular, student have to take different certification exams throughout their full-time study. What is more, the students have to be accredited each year in front of the Chair they are attached to, to make sure their work is in progress and to trace any divergence that may emerge.
How is the competence of teachers assessed?	V		Each HEI has its own regulation and/or procedure. Mostly, the competence is assessed by means of questionnaires.

Are there fair and transparent procedures for the recruitment of staff?	V	Staff recruitment usually follows the set principles like the ones governing recruitment at BA and MA levels. In particular, announcement are posted in certain newspapers, via different sites and on the website of the university highlighting the requirements and the procedure.
Do the HEI collect analyses and use relevant information for the management of Cycle 3?	V	That varies from university to university.
Do the HEI publish clear, accurate and objective information on Cycle 3?	V	That varies from university to university.
Are the Cycle 3 programs well monitored?	V	
Are the Cycle 3 programs reviewed and modified?	V	Some HEIs review and monitor their Cycle 3 programmes; however, there are no regulations and a policy governing the said procedure.
Can the PhD students make their own evaluation of skills acquired throughout their thesis?		The Universities have regulation governing the progression of the students. In particular, student have to take different certification exams throughout their full-time study. What is more, the students have to be accredited each year in front of the Chair they are attached to, to make sure their work is in progress and to trace any divergence that may emerge.

3.2.2 External QA (mechanisms outside the HEI)

- EQA: who is in charge of the external assessment of the cycle 3 of each university? How? What is the procedure? What methodology? What criteria? When? For what purpose? What is the periodicity? Are there peer-reviews? Are the reports published?

The main body in charge of carrying out external quality assurance is the ANQA (National Centre for Professional Education Quality Assurance Foundation). However, until present no HEI has ever undergone an EQA of the third cycle of education. The QA framework and the procedures of accrediting the third cycle of education have been elaborated within the framework of VERITAS project. Within the scope of the said initiative, several HEIs have undergone pilot accreditation; however, the outcomes are not yet ratified.

- EQA: if it is relevant, give examples of an external evaluation used to improve the cycle 3 of a university?

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N/A

- Is each particular PhD program evaluated does the evaluation take into account the University/Faculty as a whole?

This question cannot be answered, as no evaluation of PhD programmes have been undertaken hence far.

- Is it available a procedure to establish a category (level) of the Cycle 3 in a National/Local level (ranking of PhD studies according to different indicators)?

N/A

4 Chapter 3 – Main challenges of Cycle 3 Programs and its QA (4-6 pp)

4.1 At national /policy level

Describe the needs and incentives to develop Cycle Program at national level/ the problems that need to be solved.

Below are the main recommendations, taken from the PDAREC conference proceedings⁵¹, which are the outcomes of the focus group discussions with the relevant stakeholders and are made for the alignment of the Armenian doctoral education to the Salzburg principles based on the results of the factfinding process. The proposed recommendations can serve as a basis for the quality enhancement of the Armenian doctoral education in compliance with the Salzburg Principles.

Salzburg Principle I

Training by research:

1. Increase direct involvement of doctoral candidates in scientific trainings,
2. Develop an intended learning outcome-based individual research plan for a doctoral candidate.
3. Develop a plan including components of multidisciplinary research.

Originality of research:

1. Increase the accountability of processes of the doctoral education (research topic approval process, monitoring the progress of doctoral candidates through progress reports etc.).
2. Foster doctoral candidates to have publications in peer reviewed scientific journals.

Labour market:

1. Advise the Government of the Republic of Armenia to set priority dimensions for innovative research.
2. Admission should be planned according to the labour market needs and priorities.

Salzburg Principle II

⁵¹ “Salzburg Principles: State of Arts in the Republic of Armenia”, PDAREC Conference Proceedings, Volume 3, Issue 1, 2015, pp. 15-22 (*retrieved from: www.anqa.am*)

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 necessary for research, - complying with the needs of the labour market thus gaining a financial support from the market.
2. Develop an institutional policy for research clearly focused on research alignment to institution's strategic aims: - ensure research topic alignment with the institution's strategic aims and overall trends (could be verified by a relevant body).
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, master's degree and doctoral programmes.

Salzburg Principle III

Creating collaborative environment:

1. Eliminate absolute deviations of doctoral programs between different institutions (e.g. by benchmarking) thus leaving room for enhanced cooperation.

Quality assurance:

1. Set quality assurance mechanisms for assessing doctoral programmes and enhancement of their effectiveness and efficiency.
2. The QA process must be present in all the phases of doctoral education. The responsibilities of each level should be clearly defined for each phase.

Salzburg Principle IV

Early stage researchers: Increase involvement of doctoral candidates to research oriented activities.

Rights:

1. Clearly formulate formal rights and responsibilities of doctoral candidates (e.g. by tripartite agreement).
2. Develop doctoral program handbook with detail description of learning objectives and

plans of achievement in line with policy of an institution.

Engagement:

1. Increase motivation of doctoral candidates to be engaged in institution's governance.

Salzburg Principle V

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.

Salzburg Principle VI

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 accessible and available for all the stakeholders.

Research environment:

1. Provide doctoral candidates an opportunity to work in different research environments by collaborating with research related institutions at regional, national and international level, as well as with governments and business sector.

Salzburg Principle VII

Duration:

1. Take into consideration the impact of various factors while setting the length of doctoral studies.
2. Adopt a flexible approach to the timeframe of doctoral programmes (providing midterm progress reports).

3. Allocate sufficient time for the thesis writing and organizational issues.
4. Give an opportunity for a supervisor and a doctoral candidate to develop an individual plan for the PhD student which should be clearly set forth in the policy.

Salzburg Principle VIII

Transferable skills:

1. Promote the development of research-oriented transferable skills starting from master's degree programs.

Interdisciplinarity:

1. Develop open and flexible curricula to undertake research based on interdisciplinary approach.

Salzburg Principle IX

Mobility:

1. Adopt mobility supportive approach (international, interdisciplinary, intersectoral).
2. Ensure sufficient financial resources for mobility.

Salzburg Principle X

Financing:

1. Develop a research strategy/policy for finding additional sources of financing
2. 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.

3. Provide doctoral candidates with decent salary. As it was stated above, the major issue for the HEIs is the lack of appropriate financing; universities use it as a main reference point while deriving other sizeable problems.

4.2 For institutions

Support needs: what are institutions' expectations?

Data to be taken from the interviews.

Example of an interview :

1. Does your university provide Cycle 3 Programs?

If Not, explain why.

If yes, continue the questionnaire

2. What are the objectives of your Cycles 3 programs? What are their positioning in the university's strategies?

3. How is Cycle 3 Program articulated with ... :

- with Master Programs of your university?

- with research strategies and activities

4. Describe how Cycle 3 is organized (from recruitment to Degree awarding)

In your Cycle 3 programs :

- do you meet any difficulty to recruit students ?students?

- do you meet any difficulty to recruit and motivate professors with accurate competencies?

- explain any other difficulties or challenges you do meet

5. Is there any follow up system of the PHD graduates?

6. Can you explain if there are any mechanisms (internal or external) to guarantee quality assurance of Cycle 3 programs?

ON THE FOUNDATION'S DOCTORAL SCHOLARSHIP

"FRENCH UNIVERSITY IN ARMENIA"

Faculties: Law - Marketing - Management

Duration: 3 years, from September 2017

Language of writing and thesis defense: French

Place of the thesis: UFAR, Armenia

Place of defense: France

Organization of the PhD:

1. The PhD student is enrolled at the Jean-Moulin Lyon 3 University or another French partner university under the supervision of a French thesis supervisor. UFAR designates a referent hereinafter called co-director, whose mission is the day-to-day supervision of the doctoral student.

2. The doctoral student is officially attached to the research institute of his thesis supervisor. He makes and publishes his research, benefits from all the scientific resources thus made available by the French partner university.

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3. The doctoral student travels to the French partner university for almost 2 months a year, continuously, to work with his thesis supervisor, to participate in the research and publication work of the institute and to the doctoral school of attachment.

4. The rest of the time the doctoral student works on his doctoral problem at all times at UFAR. He is also integrated into the teaching process, as a teacher, but also participates in projects.

5. For the activities mentioned in point 4, the doctoral student is under the general direction of the UFAR administration and the direct management of the faculty member (dean) of the faculty concerned.

Amount of the grant:

6. The doctoral student receives an annual scholarship of approximately AMD 2.2 million (depending on the funding mobilized on his thesis subject) and paid monthly.

7. The fellowship aims to ensure the full-time presence of the doctoral student at UFAR in order to provide him with sufficient time to work on his thesis subject and to complete it within 3 years.

8. The scholarship is provided by external funds allocated by partner organizations.

9. The organization offering the scholarship may, with the agreement of UFAR, co-operate with the doctoral student during the period of preparation of the thesis, including by proposing to him / her separate research remaining nevertheless within the framework of the subject and An internship in the organization.

The doctoral student's obligations:

10. Finish and support the thesis in 3 years,

11. Undertake, during the period of the thesis, to be permanently present at UFAR, supporting the pedagogical and research activity of the Chair,

12. Undertake to produce and publish the results of its research, in addition to the thesis,

13. Cooperate with its French supervisor and co-director of UFAR,

14. Teach about 60 hours in the second and third year of his thesis at UFAR, for which UFAR will pay a complementary fee to the monthly amount of the award,

15. Undertake to pay the annual doctoral enrollment fees in the partner French university (approximately 400 euros),

16. Committed to teaching at UFAR for 3 academic years from the date of the defense of his thesis,

17. UFAR and the doctoral student will sign a contract mentioning the rights and obligations of the parties.

The obligations of UFAR:

18. UFAR provides doctoral students with a dedicated office,
19. UFAR organizes the attachment of doctoral students to the partner university in France, professional support in the process of preparing the thesis.
20. UFAR is responsible for a lump sum of 2000 € per year allocated to the student to cover his travel and accommodation expenses for his stay of 2 consecutive months in France.

4.3 For PhD Students

Data to be taken from the interviews.

1. What were the rationales for you to start a Phd in your country?
2. Is the information related to PhD programs :
 - clear
 - easily accessible
 - transparent
3. Do you feel you have enough support from your professors? from the academic staff ?
4. What are your expectations after your PhD?
5. What would you suggest to improve Doctorate studies in your university/country?

4.4 For the socio-economic world

1. Is there a need for PhD graduates in your socio economic sector? (precise which sector)
2. Are the PhD graduated well adapted to your needs?
3. Are you associated to Cycle 3 programs? Would you like to be more involved in the training/research activities?
4. Precise the positive and negative aspects of Cycle 3, from your perspective

5 Chapter 4 – Good practice examples (2-4 pp)

The examples may concern, among others:

- IQA or EQA best practices
- collaboration between HEIs
- collaboration between HEIs and the QA authority
- use of specific international or European Guidelines

6 Any other comment or useful information?

Please complete this section if you want to mention any peculiarity regarding your system or if you have the feeling that some information is missing in the questionnaire.