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Qualifications for the labor market. Sectoral qualifications frameworks as new tools for competence management

QANTUS Project: SQF for the environmental science in the context of development of Qualifications Frameworks in Ukraine

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Structure

Section 1 – National Qualifications Framework (Ukraine);

Section 2 –Tempus project QANTUS as pilot project for development of Qualifications Frameworks in Ukraine

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Section 1

National Qualifications Framework (Ukraine)

NQF development (history)

Development - main documents

- ***The Cabinet of Ministers of Ukraine***

- Order of 27.08.2010 № 1727 “On the certain issues of the development of National Qualifications Framework”;

- Decree of 29.12.2010 № 1225 “Establishment of inter-ministerial working group for development and implementation of National Qualifications Framework”;

- ***The Ministry of Education and Science of Ukraine***

- Order of 03.11.2010 № 1054 “Establishment of working groups for development of National Qualifications Framework”

Approval

- ***The Cabinet of Ministers of Ukraine***

Decree of 23.11.2011 № 1341
“On approval of the National Qualifications Framework”

NQF development (main factors)

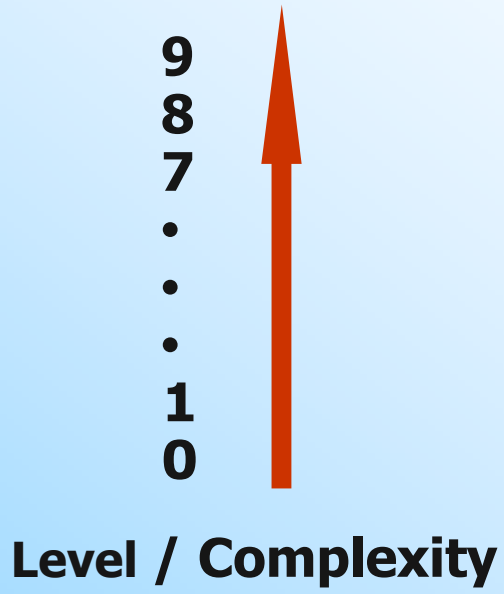
- The European Qualifications Framework for Lifelong Learning / **EQF for LLL**;
- The Framework for Qualifications of the European Higher Education Area / **QF for the EHEA**;
- National system of education and training;
- National qualifications system

NQF of Ukraine covers educational and professional qualifications

NQF structure (1)

- Definitions;
- Descriptors of qualification levels;

- 10 levels (from 0 to 9);
- Each level is described by
  - 4 basic descriptors *and*
  - general descriptor of the level



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Descriptors

EQF for LLL	QF for EHEA	NQF of Ukraine
▪ Knowledge; ▪ Skills (cognitive and practical); ▪ Competence (responsibility & autonomy)	▪ Knowledge and understanding; ▪ Applying knowledge and understanding; ▪ Making judgements; ▪ Communication; ▪ Learning skills	▪ Knowledge; ▪ Skills (cognitive and practical); ▪ Communication; ▪ Autonomy & responsibility + ▪ “Generalized” competence

NQF structure (2)

Descriptors of qualification levels (fragment)

Рівень	Знання	Уміння	Комунікація	Автономність і відповідальність
7	*Здатність розв'язувати складні задачі та проблеми у певній галузі професійної діяльності або у процесі навчання, що передбачає проведення досліджень та/або здійснення інновацій і характеризується невизначеністю умов і вимог*			
	Спеціалізовані концептуальні знання, набуті у процесі навчання та/або професійної діяльності на рівні новітніх досягнень, які є основою для оригінального мислення таінноваційної діяльності, зокрема в контексті дослідницької роботи	Розв'язання складних задач і проблем, що потребує оновлення та інтеграції знань, часто в умовах неповної/недостатньої інформації та суперечливих вимог	Зрозуміле і недвозначне донесення власних висновків, а також знань та пояснень, що їх обґрунтовують, до фахівців і нефахівців, зокрема до осіб, які навчаються	Прийняття рішень у складних і непередбачуваних умовах, що потребує застосування нових підходів та прогнозування

- NQF contains descriptors of levels;
- NQF doesn't contain qualifications;
- NQF doesn't describe procedures of development, approval and registration of qualifications

NQF – “Generalized” competencies

Level 6

Ability to solve complex specialized tasks and practical problems in field of work or study that requires use of theories and methods of corresponding science and are characterized by complexity and indeterminacy of conditions

Level 7

Ability to solve complex tasks and problems in field of work or study that requires research and / or innovations and are characterized by indeterminacy of conditions and requirements

Level 8

Ability to solve complex problems in field of work and / or research and innovations that requires deep reconsideration of existing and creation of new knowledge and / or professional practice

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Levels comparison

EQF for LLL	QF for EHEA		NQF of Ukraine	
			Level 0	
Level 1			Level 1	
Level 2			Level 2	
Level 3			Level 3	
Level 4			Level 4	
Level 5	Short cycle		Level 5	Junior Bachelor
Level 6	First cycle		Level 6	Bachelor
Level 7	Second cycle		Level 7	Master
Level 8	Third cycle		Level 8	PhD
			Level 9	Doctor of sciences

INTENTION

The Law on Higher Education (1)

- Took force in September 2014;
- New structure of HE degrees;
- Correspondence of HE degrees to NQF levels:

	ECTS credits	NQF level
Junior bachelor	120	5
Bachelor	180 – 240	6
Master (professional)	90 – 120	7
Master (scientific)	120	7
PhD		8
Doctor of sciences		9

The Law on Higher Education (2)

- New structure of fields of HE and study programmes classification;
- 3 definitions and 3 levels of specification:
  - Field of knowledge (like ISCED-F 2013 “Narrow field”);
  - *Speciality* (like ISCED-F 2013 “Detailed field”);
  - “Educational” / Study programme
- Defines the role and strucure of HE standards:
  - for each detailed field of education;
  - for each HE degree;
  - must include lists of competencies and LOs;
  - must correspond to the NQF;
- New classification of education is expected

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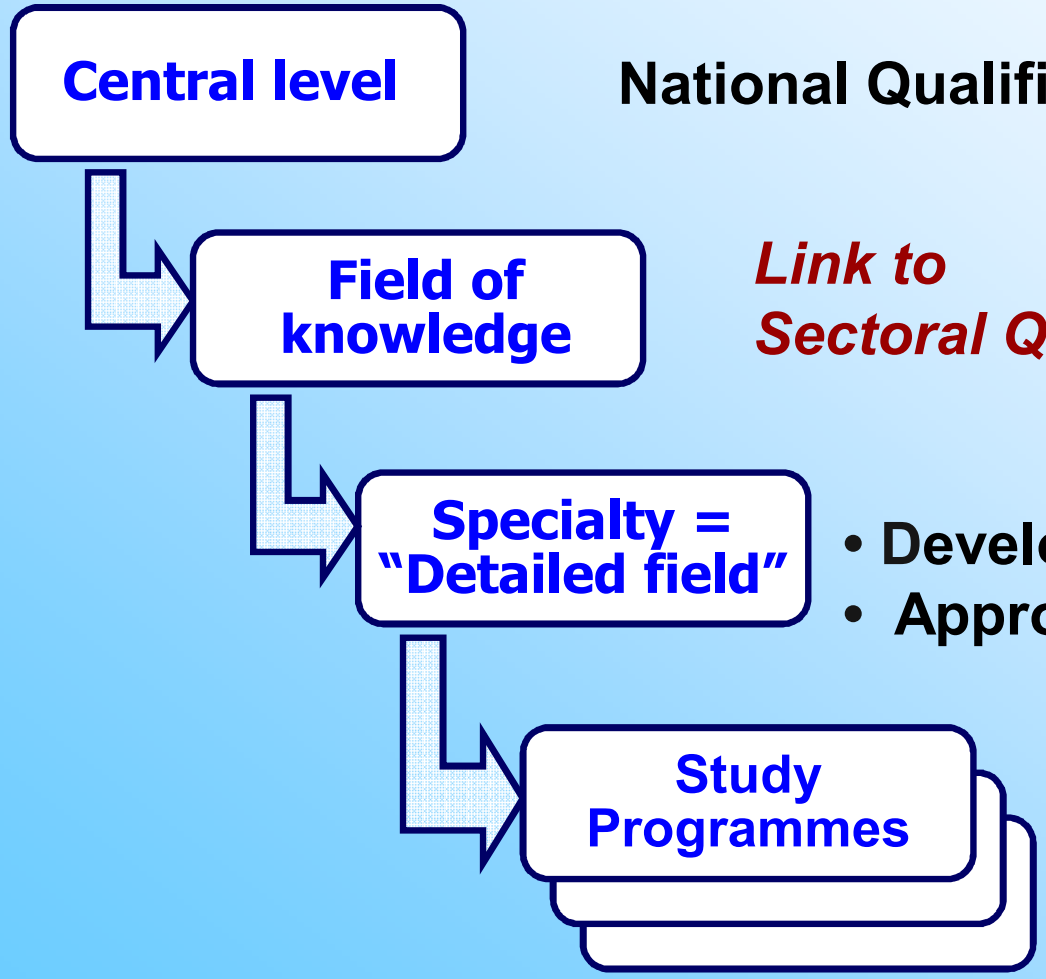
Defining Competencies and LOs



National Qualifications Framework

Link to Sectoral Qualifications Framework

HE Standards

- Developing on national level
- Approval by the Ministry

University level

New Law and qualifications

- **HE Qualifications (educational)** :
  - are based on educational standards;
  - have to be awarded by HEIs
- **Professional qualifications:**
  - are based on professional / occupational standards;
  - have to be awarded by labour sector

HE qualification has to be written down in Diploma **obligatory**

Name of HE qualification includes
- name of degree *and*
- name of detailed field (or field of knowledge)

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Section 2

Tempus project QANTUS as pilot project for development of Qualifications Frameworks in Ukraine

What is the QANTUS?

Tempus Project

544524-TEMPUS-1-2013-1-PL-TEMPUS-SMHES
"Qualifications Framework for Environmental Science at Ukrainian Universities“ – QANTUS

Dates: 01.12.2013 – 01.12.2016

Specific project objectives are:

1. Analyses of existing standards and methodologies of Qualifications Frameworks development;
2. Qualifications Framework for Environmental Science for Ukrainian Universities;
3. Training courses on developing and implementing new study programmes

QANTUS partnership (1)

- Project is coordinated by Warsaw University of Life Sciences SGGW;
- 7 EU Universities;
- 7 Ukrainian Higher Educational Institutions;
- Ministry of Education and Science of Ukraine;
- *Research and professional institutions:*

EU

- Association for European Life Science Universities;
- International Relations Officers' Network of ELSU Association

Ukraine

- Institute of Innovative Technologies and Educational Content;
- Science and Methodology Centre for Agricultural Education;
- Institute of Ecology of the Carpathians, NASU;
- Odessa Region State Department of Environmental Protection

QANTUS partnership (2)

EU Partner Universities:

- Warsaw University of Life Sciences - SGGW, Poland;
- Jagiellonian University, Poland;
- University of Natural Resources and Life Sciences, Vienna, Austria
- University of Lleida, Spain;
- University of Genova, Italy
- University of Pavia, Italy
- University of Koblenz-Landau, Germany

QANTUS partnership (3)

Ukrainian Partner Universities:

- Odessa National Maritime Academy;
- Odessa State Environmental University;
- Kharkiv National University;
- National University of Life and Environmental Sciences of Ukraine;
- Lviv National Agrarian University;
- Bila Tserkva National Agrarian University;
- Uman National University of Horticulture

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Methodology

The following factors have to be assessed and taken into account:

- Existing standards and methodologies of SQF development;
- Existing national system of professional qualifications;
- Existing occupational standards related to environment and environment protection;
- Employers opinion;
- National system of educational qualifications

QF for Environmental Science: approach (1)

Basic questions

- For what Sector / Field?
  Field of education? ….. a basis for HE standards
  Sector of occupations? …. links to standards of occupations
- Who and how will apply QF?
- How many levels and which levels should be described?
- Which descriptors should be used?

Current conditions

- The NQF is approved and covers 2 types of qualifications: educational and professional;

Education

- The new structure of educational qualifications is established and linked to NQF;
- Award of educational qualifications is obligatory and must be based on HE standards;

Labour market

- Many kinds of jobs are described by “characteristics”; duties and relevant knowledge & skills are defined but characteristics do not correspond to the NQF;
- Professional / occupational standards in most cases do not correspond to the NQF.

QF for Environmental Science: approach (2)

Basic points

- QF is developed for universities;
- QF has to correspond to the Law on Higher Education;
- QF has to correspond to the NQF;
- QF has to facilitate comparison and recognition of qualifications in field of environment;
- QF has to describe educational qualifications associated with corresponding occupations;
- QF has to correspond to labour market demands;
- QF has to correspond to National classification of education;

QF for Environmental Science: approach (3)

Current vision

- QF must be linked to *Field of knowledge* (ISCED Narrow field of education);
- QF has to describe all possible qualifications in the field of Environmental Science;
- QF has to support developers of HE standards and Study programmes to create specifications of competences and LOs **based on labour market demands**

- Project **outcomes can be a bridge** between HE qualifications and labour market

Classification of Fields of education (Environment)

International Standard Classification of Education – F 2013

Appendix 1: ISCED Fields of Education and Training

Broad field	Narrow field	Detailed field
05 Natural sciences, mathematics and statistics	051 Biological and related sciences	0511 Biology 0512 Biochemistry
	052 Environment	0521 Environmental sciences 0522 Natural environments and wildlife

Draft list of Fields of knowledge and Specialities / Detailed fields (Febr 2015)

27 Fields of knowledge; ~ 100 detailed fields

052 Environment	0521 Ecology 0522 Environmental safety

Matrix for qualifications (1)

Field / Degree	Ecology	Environmental safety	Others Related
Junior bachelor			
Bachelor			
Master (professional)			
Master (scientific)			
PhD			
Doctor of sciences			

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Matrix for qualifications (2)

Field / Degree	Ecology	Environmental safety	Others Related
Junior bachelor			
Bachelor	Bachelor in Ecology	Bachelor in Environmental safety	
Master (professional)	Master in Ecology	Master in Environmental safety	
Master (scientific)	Master in Ecology	Master in Environmental safety	
PhD	PhD in Environment Science		
Doctor of sciences			

QF for Environmental Science (structure)

Degree \ Field	Ecology	Environmental safety	Others Related
Junior bachelor	*Description of level 5 qualifications*		
Bachelor	Description of level 6 qualifications		
Master (professional)	Description of level 7 qualifications		
Master (scientific)			
PhD	Description of level 8 qualifications		
Doctor of sciences	*Description of level 9 qualifications*		

QF for Environmental Science (current vision)

Each level description:

- Has to correspond to the *NQF*;
- Has to correspond to the *QF for LLL* and *QF for EHEA*;
- Has to describe LOs based on
  - Generic competencies;
  - Subject specific competences;

and taking into account

  - Labour market demands (occupational competences);
- Can include references to related occupations / jobs

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QF for Environmental Science (current activities)

- Project is in progress;
- Project team is analyzing now:
  - Existing descriptions of jobs related to environment and environment protection (specifications of professional-oriented competencies are expected);
  - The opinions of employers on expected competencies and LOs;
- The most required generic competencies are defined;
- Draft QF for Environmental Science is expected in 2015

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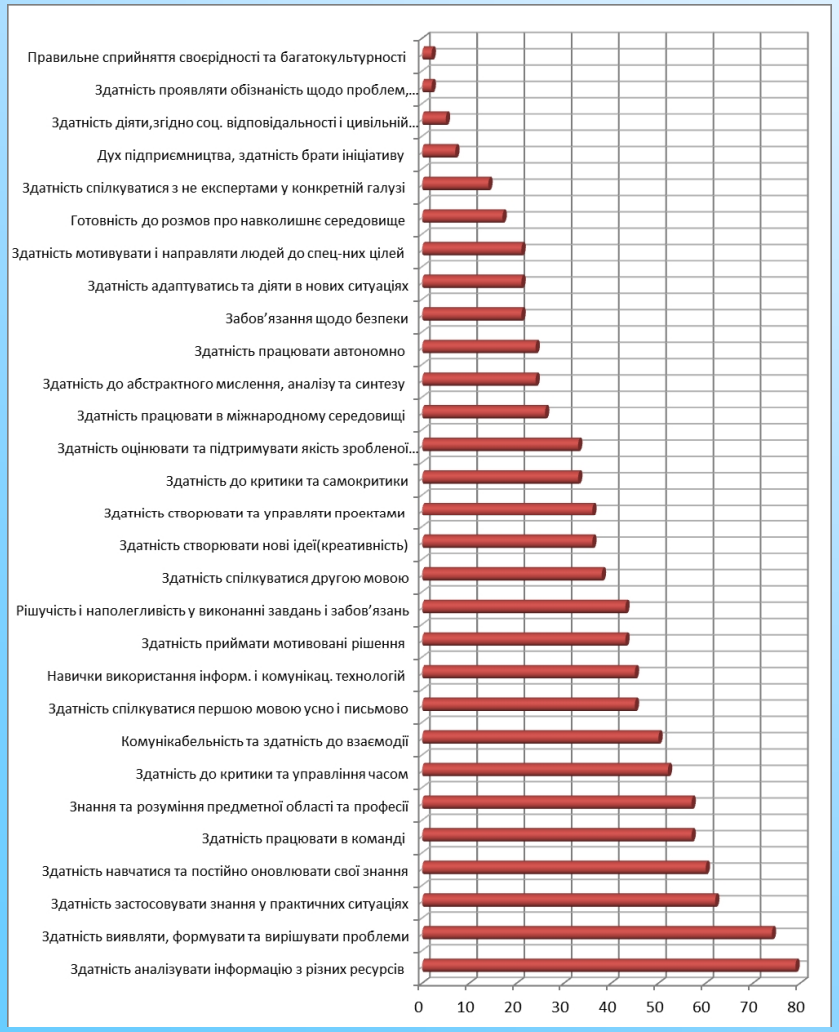
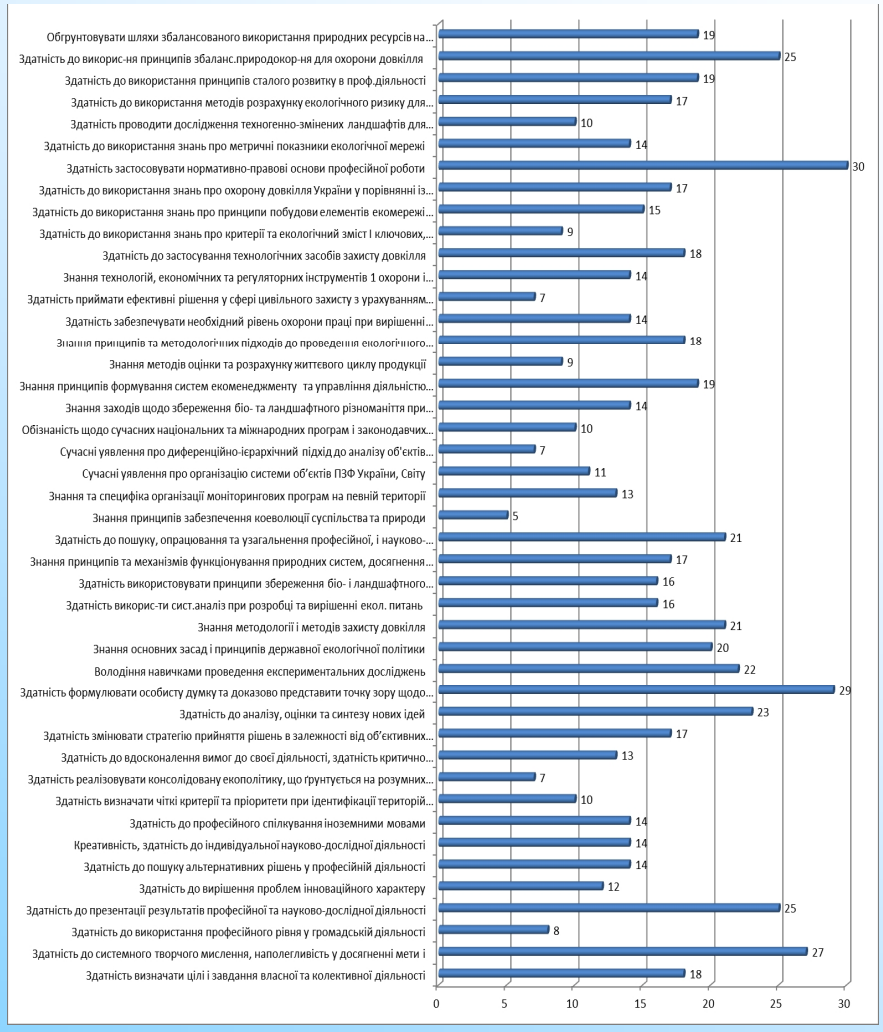
Employers opinion (Ranking of competencies – examples)





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Generic competencies (the most priority - employers opinion)

- Ability to search for, process and analyse information from a variety of sources;
- Ability to identify, pose and resolve problems;
- Ability to apply knowledge in practical situations;
- Capacity to learn and stay up-to-date with learning;
- Ability to work in a team;
- Knowledge and understanding of the subject area and understanding of the profession;
- Ability to be critical and self-critical;
- Ability to plan and manage time;
- Interpersonal and interaction skills;
- Ability to communicate both orally and through the written word in first language;
- Skills in the use of information and communications technologies

Steering Board Contacts

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Thank you!

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