



European Council
of
Civil Engineers

ECCE Standing Committee
on Education & Training

Chairman Prof. Iacint Manoliu

58th ECCE General Assembly
Meeting of the Standing Committee on
Education & Training

Nicosia, 25th October, 2013

Agenda

1. Civil engineering education in Cyprus

(Prof. Panicos PAPADOPOULOS, Dean of the School of Engineering and Applied Sciences, Frederick University Nicosia)

2. Final report on the study: "The impact of the Bologna process in civil engineering education and profession in Europe", Phase I: "Bologna process and the academic world".

(Prof. Iacint MANOLIU)

3. Preliminary report on the study: "The impact of the Bologna process in civil engineering education and profession in Europe", Phase II: "Bologna process and the professional world"

(Prof. Iacint MANOLIU)

4. Brief report on the Second Conference of the EUCEET Association with the theme: "Civil engineering education: are we meeting the needs of the industry and society?" held in Moscow, at the Moscow State University of Civil Engineering (MGSU) on 14th -15th October 2013

(Prof. Iacint MANOLIU)

5. Discussion and decision on the activity plan for 2014

6. Any other business



European Council
of
Civil Engineers

ECCE Standing Committee on Education & Training

Final report **on the study “*The impact of the Bologna process in civil engineering education and profession in Europe*”**

Phase I: *Bologna process and the academic world*

Prof. Iacint Manoliu

**58th ECCE meeting
Nicosia , 25 October 2013**

At the Dubrovnik meeting of the ECCE Standing Committee on Education & Training it was decided to include in the work plan for 2013 the preparation of a study entitled: “*Impact of the Bologna process on civil engineering education and profession in Europe*”.

The Study was planned to be produced in two phases:

Phase I: *Bologna process and the academic world*

Phase II: *Bologna process and the professional world*

For both phases was required the participation of ECCE members for conducting surveys.

Two surveys were proposed for the Phase I:

A. *Survey on the education system*

B. *Survey conducted among academics.*

The results of the two surveys, based on the answers received only from ECCE members were presented and discussed at the 57th ECCE meeting in Lisbon on 31st May 2013.

After the meeting in Lisbon, it was decided to continue the work for the Phase I by involving also members of EUCEET Association and having thus a joint ECCE-EUCEET study on the Bologna Process and the academic world.

The Bologna Process

The Bologna Process

started on 14th June 1999 when Ministers of education
from 29 countries issued

“The Bologna Declaration on the European Higher Education Area”

Main action lines defined in the Bologna Declaration :

- **Adoption of a system of easily readable and comparable degrees**
- **Adoption of a system essentially based on two main cycles, undergraduate and graduate. Access to the second cycle shall require successful completion of first cycles studies, lasting a minimum of three year. The degree awarded after the first cycle shall also be relevant to the European labour market as an appropriate level qualification.**

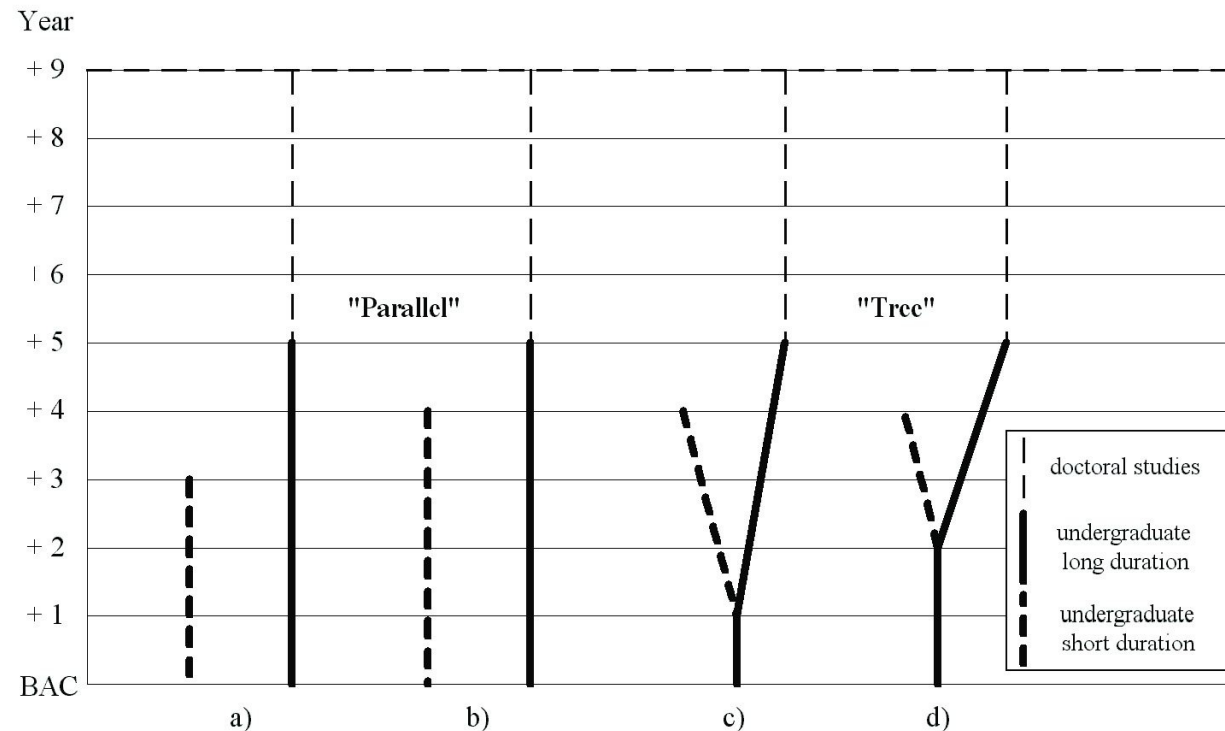
Civil Engineering Education and the Bologna Process

Civil engineering education in Europe in 1999

A rather simple and clear situation.

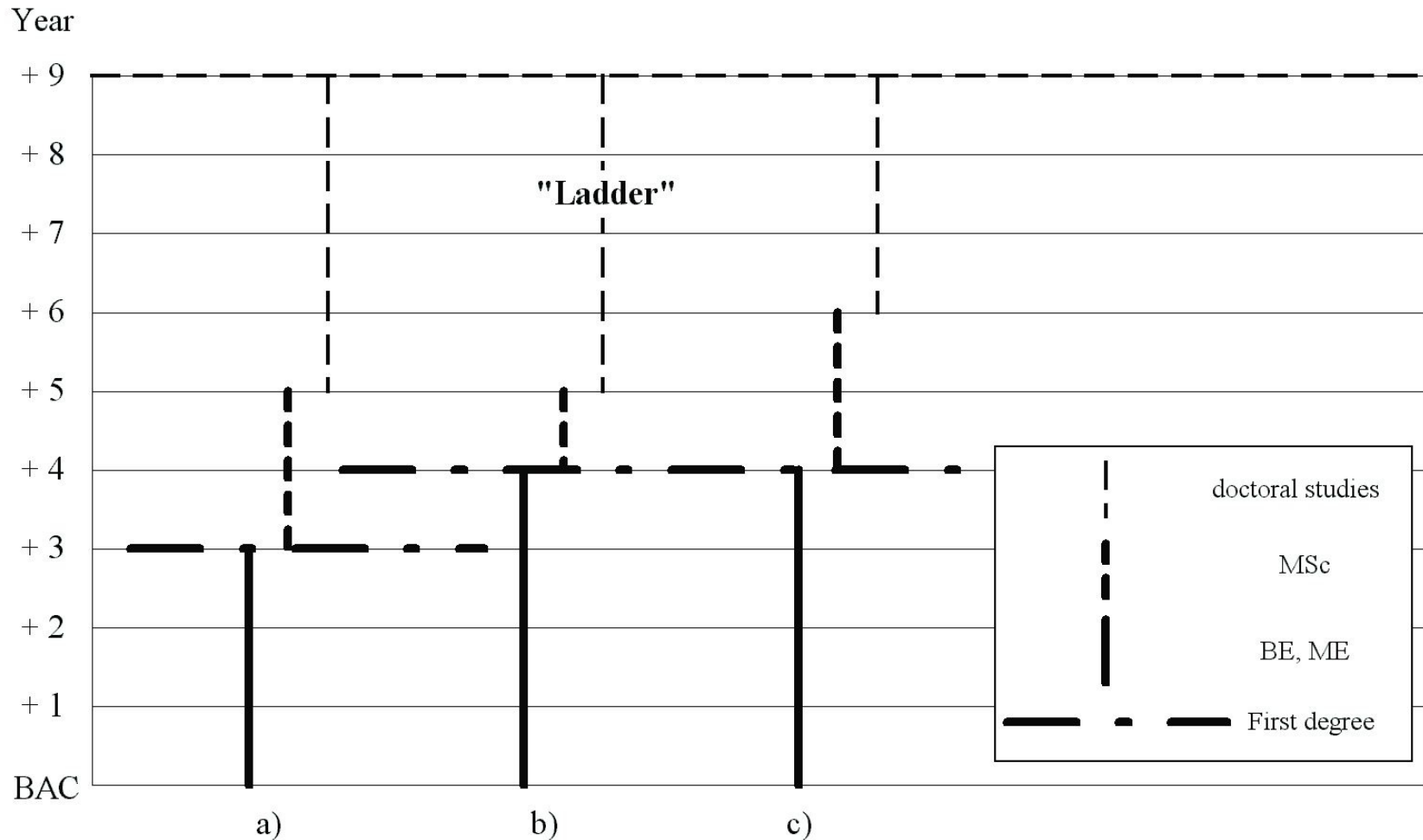
Two basic systems:

The “**continental**” or “**binary**” system, characterized by the coexistence in most European countries, of the two parallel types of engineering education: of **long duration**, of 5 year (exceptionally 6 years) and of **short duration**, of 3... 4 years



Civil engineering education in Europe in 1999

The “*anglo-saxon*” or “*two-tier*” system, with undergraduate courses leading to **Bachelor of Engineering degree** followed by postgraduate studies leading to a **Master of Sciences degree**.



Providers of Civil engineering education in Europe in 1999, belonged to two distinct sectors:

- University sector

(Universities, Technical Universities, Grandes Ecoles)

- Non-university sector

(Fachhochschulen - AT, BE, Hogescholen –NL, BE-Flanders, Engineering

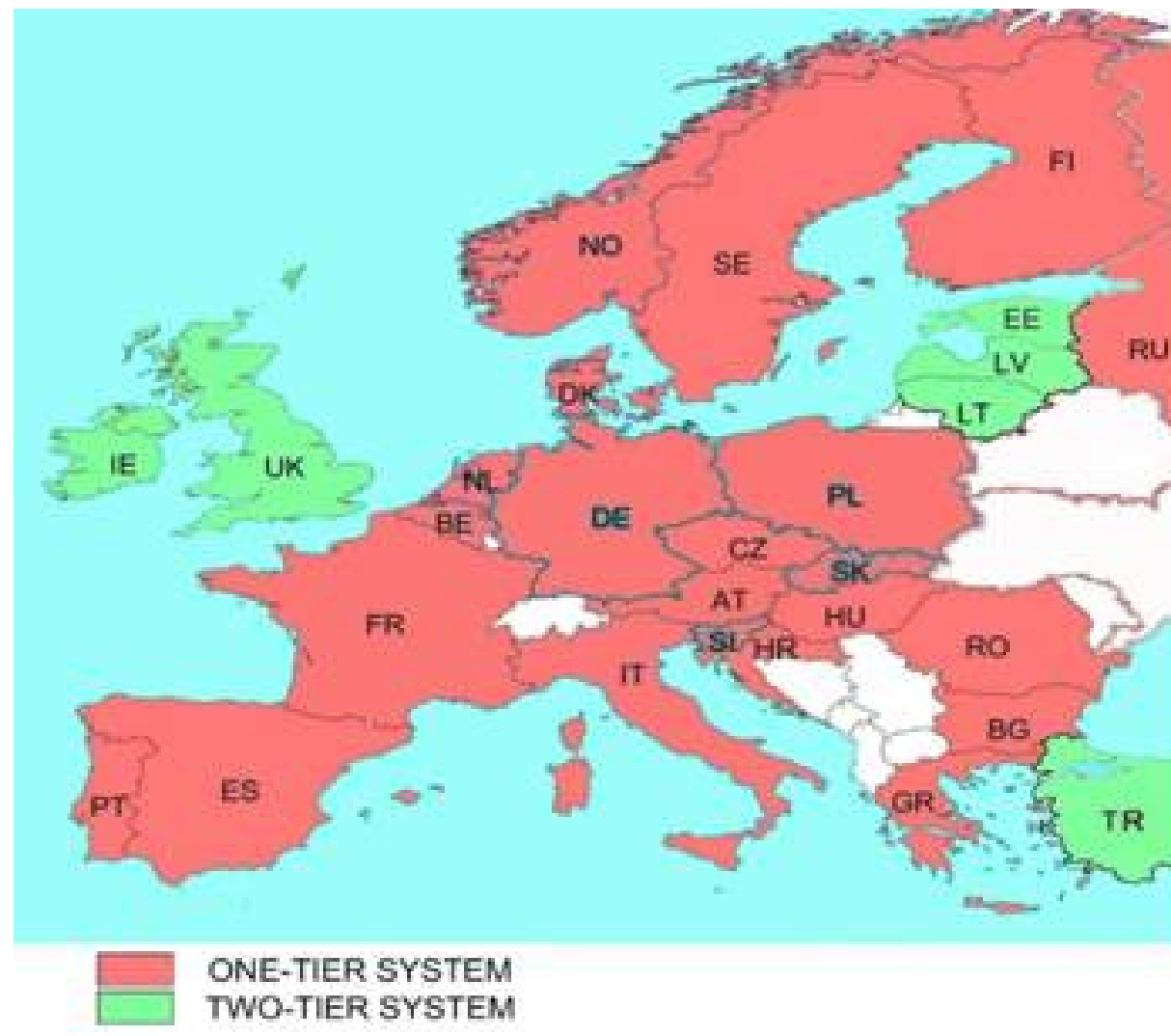
Colleges - DK, Polytechnics - FI, Technological Education Institutes – GR,

Technical Colleges – HU, Polytechnic Institutes – PT, University Colleges –

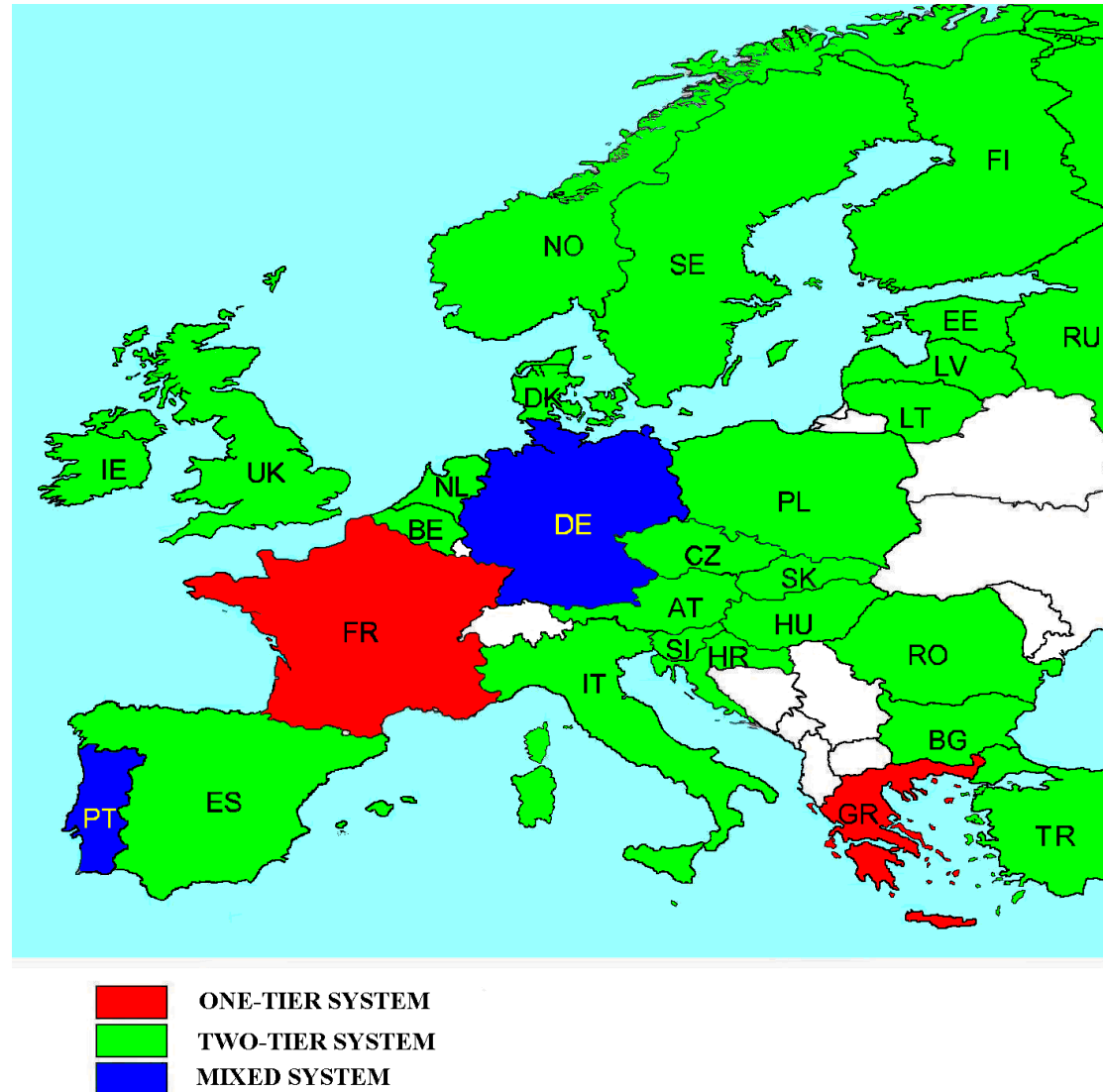
NO, RO, SE, etc.

Institutions aimed to provide short duration, professionally oriented programmes.

Distribution of the system of civil engineering education in the academic year 1999-2000



Distribution of the system of civil engineering education in the university sector in the academic year 2010-2011



Phase I: *Bologna process and the academic world*

Survey on the education system

Survey on the education system

EUCEET-ECCE study

Survey on the education system

Answers were received from 21 countries: BE, BG, CZ, DE, EE, ES, FI, FR, GE, GR, IE, IT, HR, HU, NL, PL, PT, RO, RU, SI, UK, TR

No	Question	BE	BG	CZ	DE	EE	ES	FI	FR	GE	GR	HR	HU	IE	IT	NL	PL	PT	RO	RU	SI	TR	UK
1.	How many education institutions are offering civil engineering programmes in your country	9 ¹	5	4	45	3	X ²	19 ³	87	10	5	5 ⁴	8	5 ⁵ 11 ⁶	7	2	48	34	9	160	2	>100 ~120 ⁸	65
2.	Is there a differentiation among institutions the answer to the 1 st question was referred to YES NO	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>

¹ Please note that the answers do not hold true necessarily for the whole of Belgium since there are slight differences in the French speaking part and in Flanders

² Many, hard to know as the name of the bachelor degree is not uniform. Around 20 will be offering the bachelor (chartered) and around 11 the master of Civil Engineering (four private universities) (chartered)

³ +lower level instit

⁴ There are four faculties of civil engineering and one polytechnic that offer studies of civil engineering.

⁵ Universities

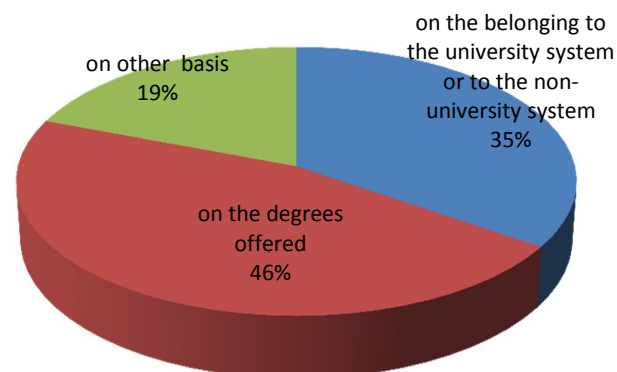
⁶ Universities of applied science

⁷ Many, hard to know as the name of the bachelor degree is not uniform. Around 20 will be offering the bachelor (chartered) and around 11 the master of Civil Engineering (four private universities) (chartered)

⁸ (>90 Civil Engineering departments, evening programmes in >30)

Question 3

If the answer to the previous question is YES, on which basis is made the differentiation?



No	Question	BE	BG	CZ	DE	EE	ES	FI	FR	GE	GR	HR	HU	IE	IT	NL	PL	PT	RO	RU	SI	TR	UK
3.	<ul style="list-style-type: none"> •on the belonging to the university system or to the non-university system •on the degrees offered •on other basis (please, specify) 	<input type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> ³	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ⁴	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ⁶	<input type="checkbox"/>
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ⁵	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Notes:

1) BE, duration of master programme. Orientation to more scientific or more applied approach

2) DE, education with different specification like internationality (European Civil Eng. Management), management and legislation, building and facility management etc

3) EE, Applied oriented (polytechnics) 4-year study does not give the degree.

4) HR, In Croatia we have a binary system for civil engineering education [both university (academic) and vocational (professional) studies] and three cycles [undergraduate, graduate and postgraduate university (academic) programmes and undergraduate and specialist graduate vocational (professional) study programmes]. There are four faculties of civil engineering and one polytechnic that offer studies of civil engineering.

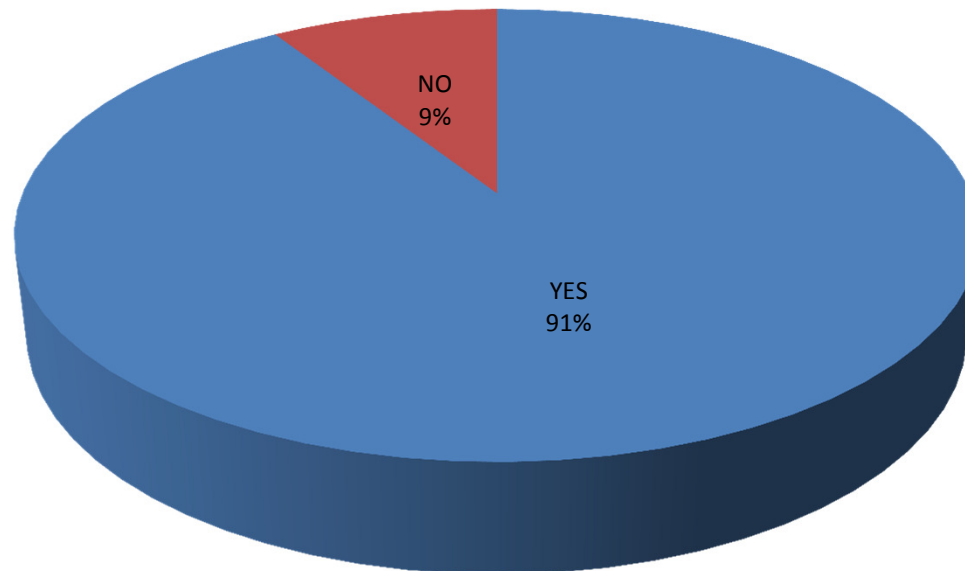
Faculties have the possibility to offer university and vocational study programmes. Polytechnics can offer only vocational programmes. Three Faculties offer both university and vocational study programmes on different levels. One Faculty offers only university study programmes and in the same city the vocational programmes are offered by the Polytechnic.

5) DUT: civil engineering, University of Twente: civil engineering and management

6) TR: (curriculum emphasis)

Question 4

Was the structure of the civil engineering programmes changed as a result of the Bologna reform?



No	Question	BE	BG	CZ	DE	EE	ES	FI	FR	GE	GR	HR	HU	IE	IT	NL	PL	PT	RO	RU	SI	TR	UK
4.	Was the structure of the civil engineering programmes changed as a result of the Bologna reform? YES NO	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>

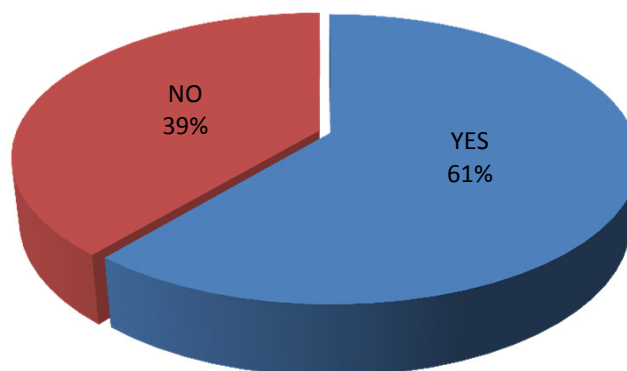
Question 5

If the answer to the previous question is YES, in which academic year started to be implemented in your country the changes induced by Bologna in the structure of the civil engineering programmes?

2002	2003	2004	2005	2005	2005	2005	2006	2007	2009	2010
EE, NL	HU, CZ	CZ	BG, FR, FI	IE	HR	RO	PT	DE , PL	SI	IT, RU, ES

Question 6

Where the changes, to which the previous questions were referred to, introduced simultaneously in all higher education institutions?



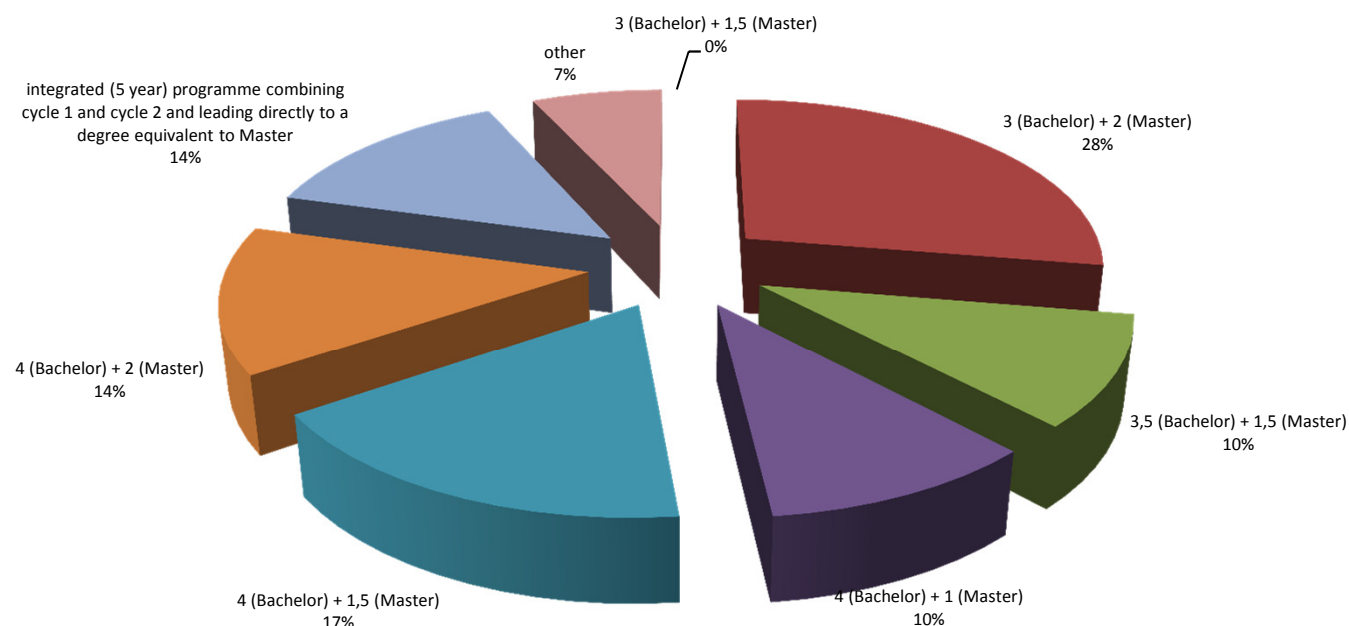
Question 7

If the answer to the previous question is NO, in which academic year was completed the reform of civil engineering programmes?

1999	2002	2004	2005	2009	2010
UK	CZ	BE	HU, FI	PT	DE, PL

Question 8

If, as a result of the Bologna reform, a system in cycles was introduced in your country, which was the system?



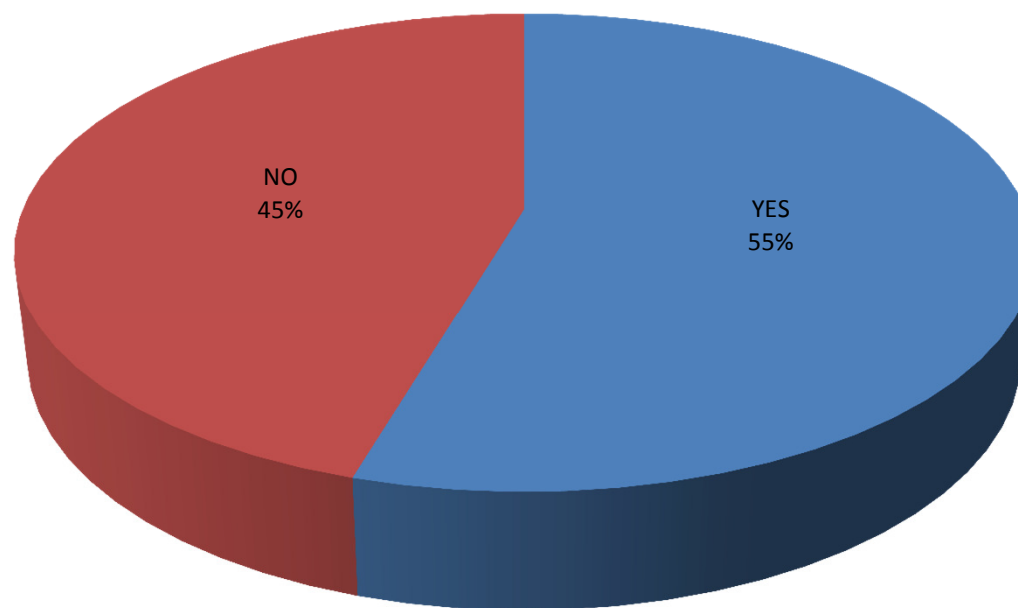
No	Question	BE	BG	CZ	DE	EE	ES	FI	FR	GE	GR	HR	HU	IE	IT	NL	PL	PT	RO	RU	SI	TR	UK
8.	<ul style="list-style-type: none"> 3 (Bachelor) + 1,5 (Master) 3 (Bachelor) + 2 (Master) 3,5 (Bachelor) + 1,5 (Master) 4 (Bachelor) + 1 (Master) 4 (Bachelor) + 1,5 (Master) 4 (Bachelor) + 2 (Master) integrated (5 year) programme combining cycle 1 and cycle 2 and leading directly to a degree equivalent to Master other (please, specify) 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Notes:

- 1) Applied oriented (polytechnics) 4-year study does not give the degree.
- 2) 3 + 2 for technical studies, 3 + 1 for all other studies
- 3) (Unrelated to the Bologna reform, 4+2 cycle system was introduced in all universities in 1981. It was even older in some.)

Question 9

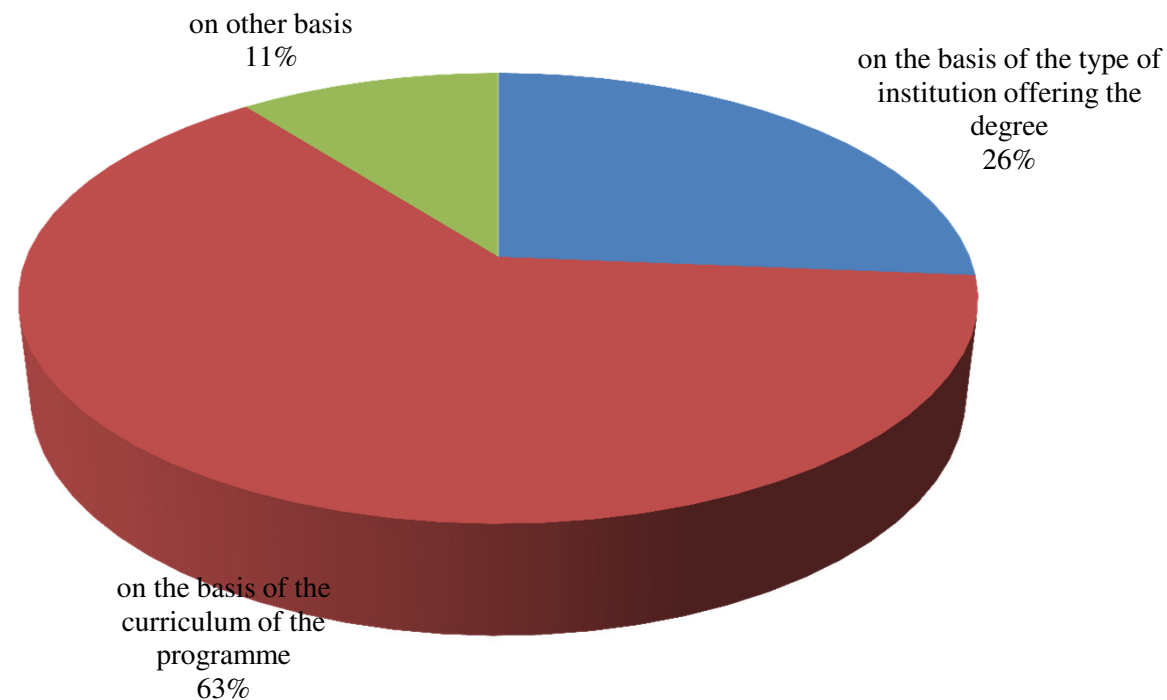
One can speak on the existence in your country of different types of Bachelor programmes, such as “*academic bachelor*” and “*professional bachelor*”?



NO	CZ	DE	EE	GE	GR	HU	IE	IT	IT	PT	RO	TR	
YES	BE	FI	NL	PL	RU	BG	ES	FR	HR	IT	SI	UK	UK

Question 10

If the answer to the previous question is YES, on which basis is made the differentiation?



- on the basis of the type of institution offering the degree: **BE, FI, GE, HR, NL**
- on the basis of the curriculum of the programme : **FR, BG, FI, FR, GE, HR, ES, IT, NL, PL, RU, SI**
- on other basis: **GE, UK**

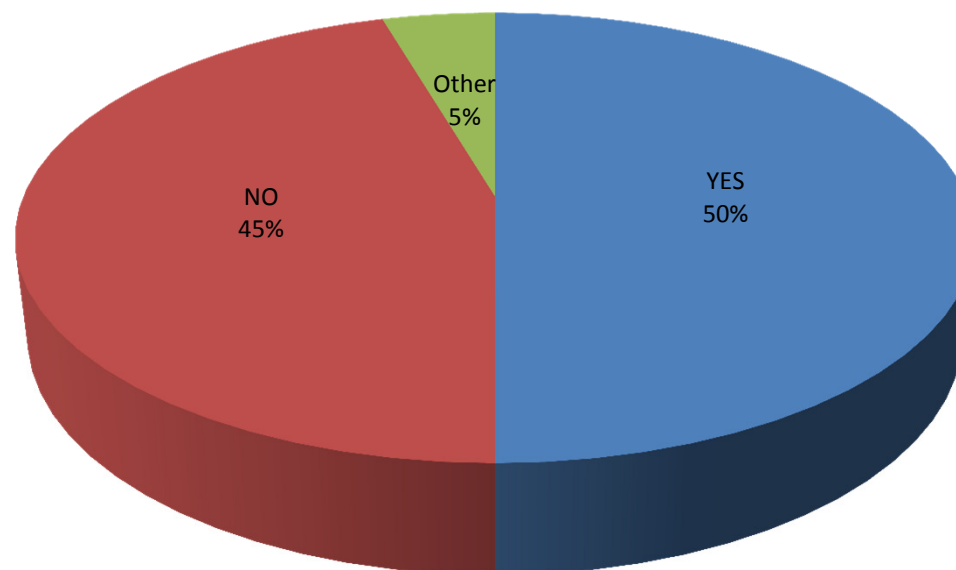
Note:

➤ **HR**, Polytechnics can offer only vocational programmes.

Faculties have the possibility to offer university and vocational study programmes, so at the faculty the differentiation is made on the basis of the curriculum of the programme.

Question 11

One can speak on the existence in your country of different types of Master programmes, such as “*academic master*” and “*professional master*”?



Notes:

DE: differentiation mostly due to different former systems Technical University --- Universities of Applied Sciences (Fachhochschulen (FH))

HR: We have **master of civil engineering** for students that graduate on the university (academic) graduate study programme and **vocational** (professional) **specialist of civil engineering** for students that graduate on the specialist vocational graduate study programme.

Question 12

There is a system of credits used in your country for civil engineering programmes?

YES 100%

Question 13

If the answer to the previous question is YES, which system is used?

ECTS	YES in all cases excepts GR (courses are credited by ECTS and weights counting for the final diploma degree), RU and TR where (credits are given only for lectures + lab, study excluded)
Other	No

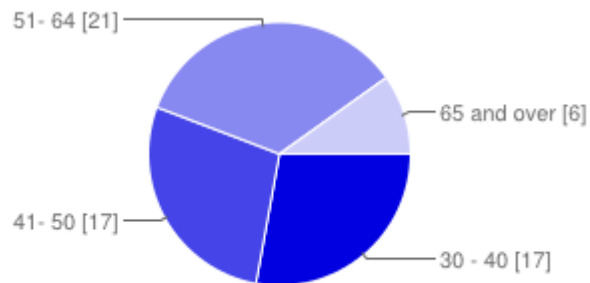
Survey conducted among academics

EUCEET-ECCE study

Survey conducted among academics

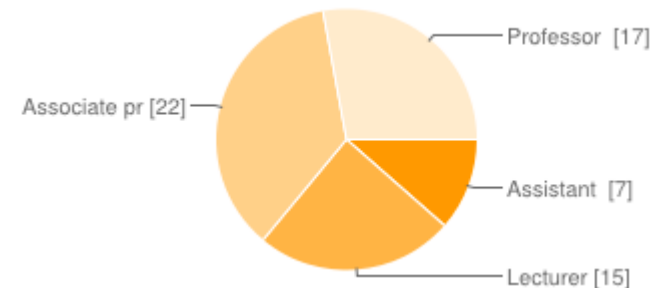
82 answers were from 14 countries: CZ, DE, DK, EE, ES, FI, FR, GE, GR, IE, IT, HR, HU, NL, PL, PT, RO, RU, SI, UK, TR

The age group of respondents



30 - 40	17	28%
41- 50	17	28%
51- 64	21	34%
65 and over	6	10%

Didactic degree of respondents



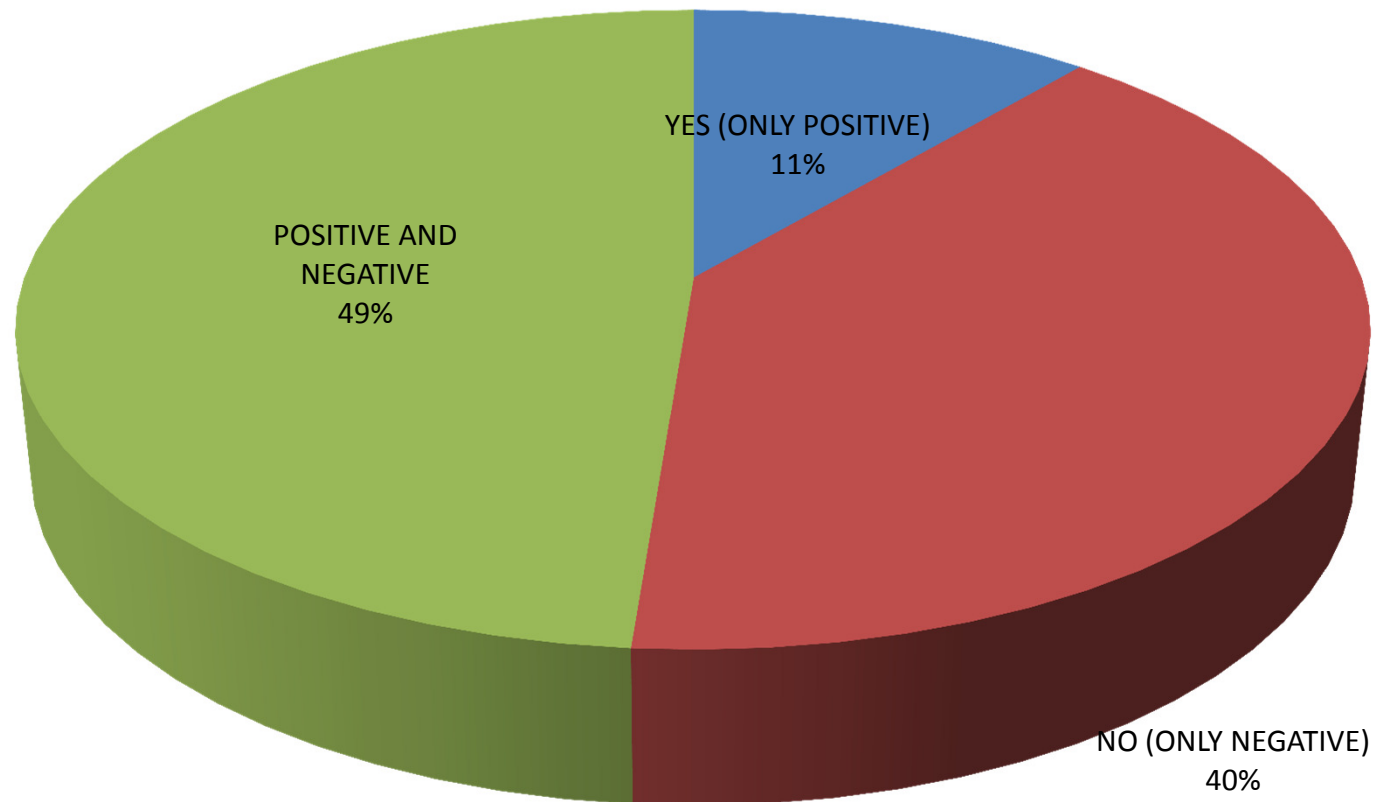
Assistant	7	11%
Lecturer	15	25%
Associate professor (Maître ès Conference)	22	36%
Professor	17	28%

EUCEET-ECCE study

Survey conducted among academics

Question 1

Do you consider that the changes induced by the Bologna process have a positive effect on the civil engineering education in your country?

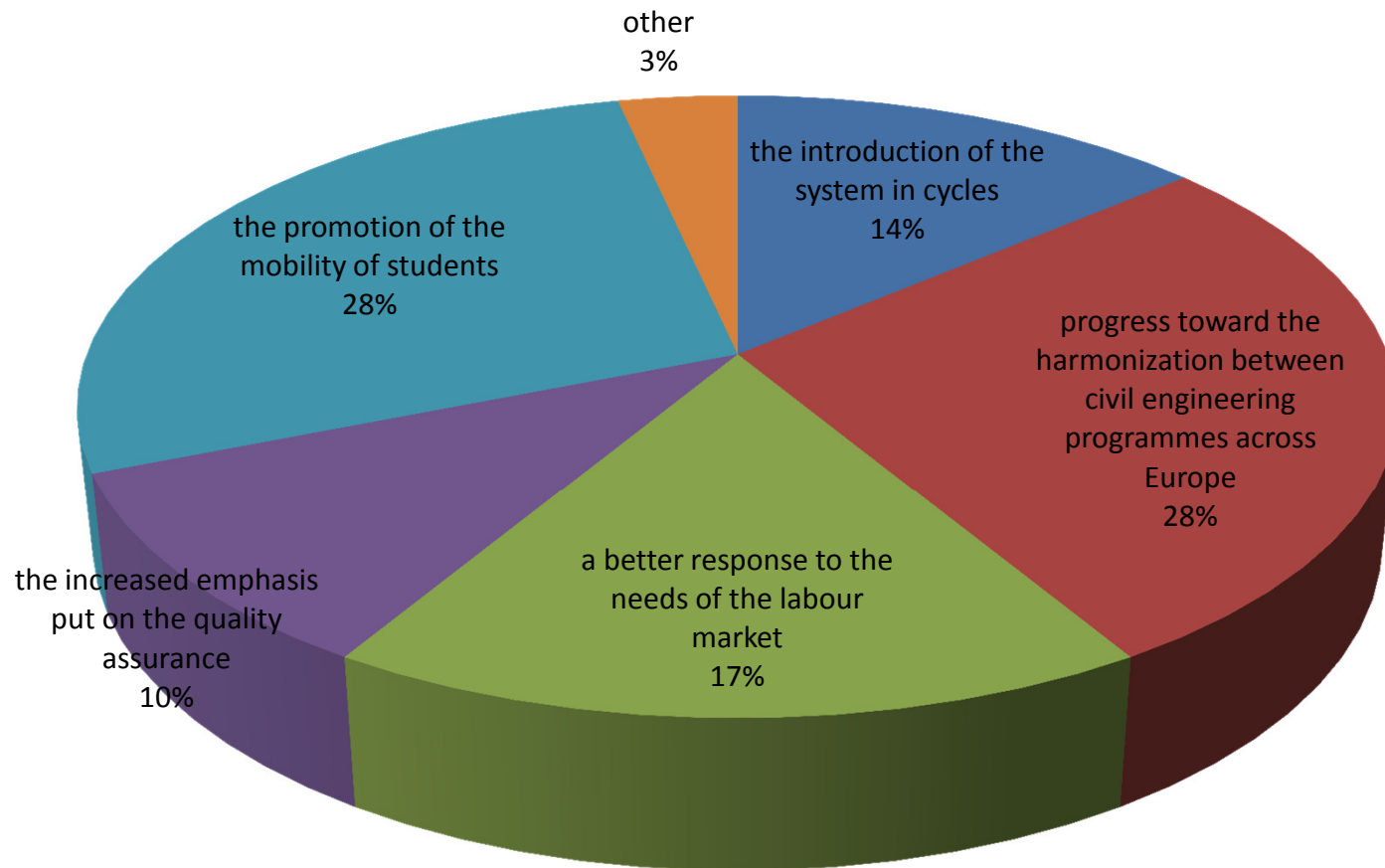


EUCEET-ECCE study

Survey conducted among academics

Question 2

If the answer to the previous question is YES, which are the reasons that caused the positive effect?

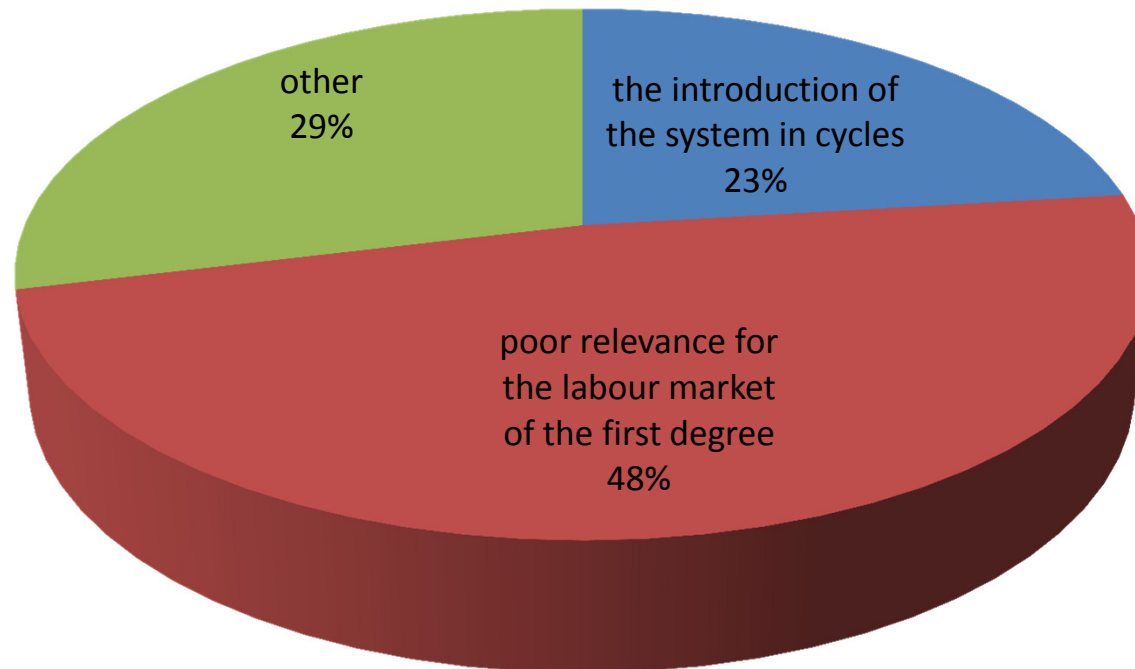


EUCEET-ECCE study

Survey conducted among academics

Question 3

If the answer to the question 1 is NO, which are the reasons that caused the negative effect?

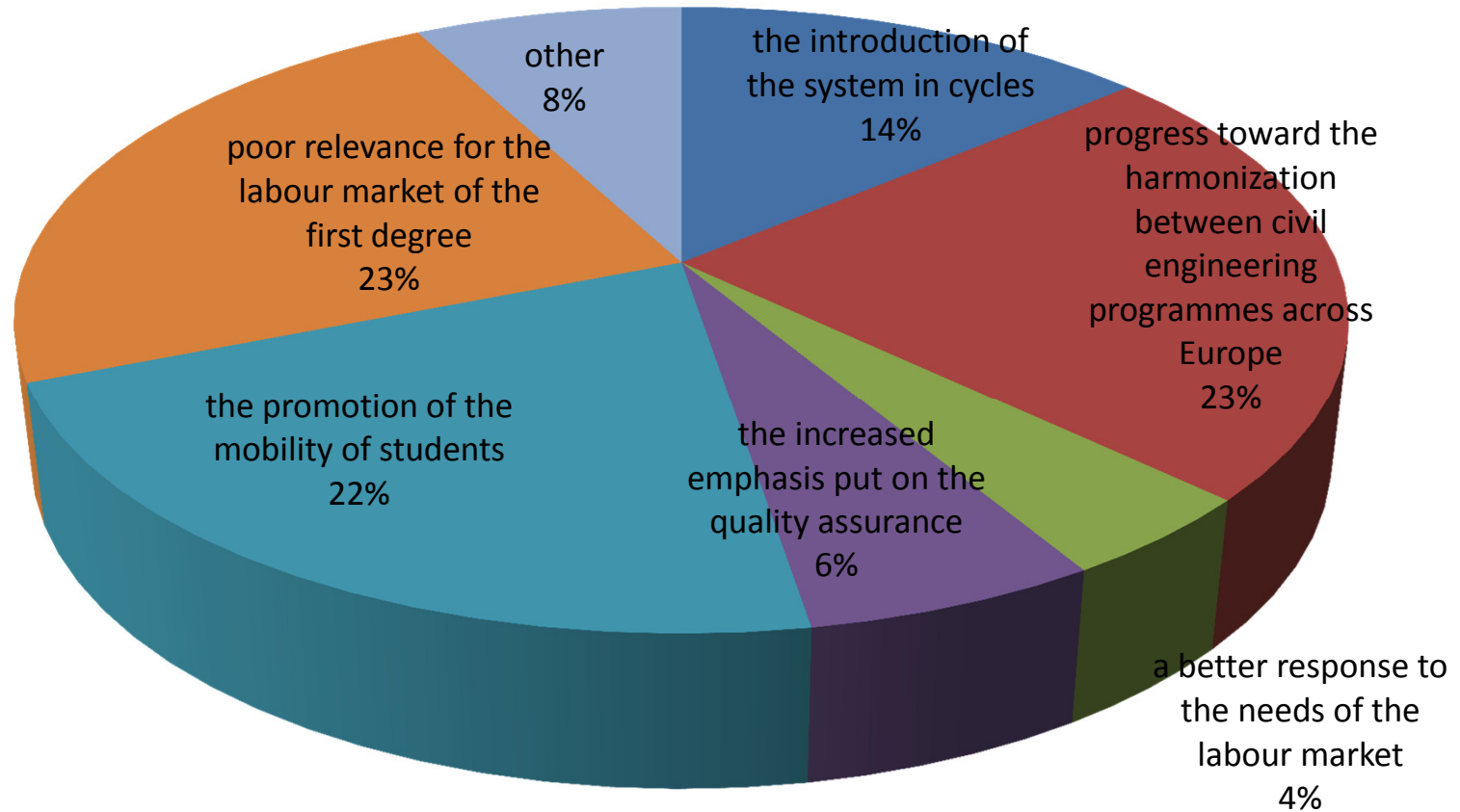


EUCEET-ECCE study

Survey conducted among academics

Question 4

If the answer to the previous question 1 is POSITIVE AND NEGATIVE, which are the reasons of your evaluation?

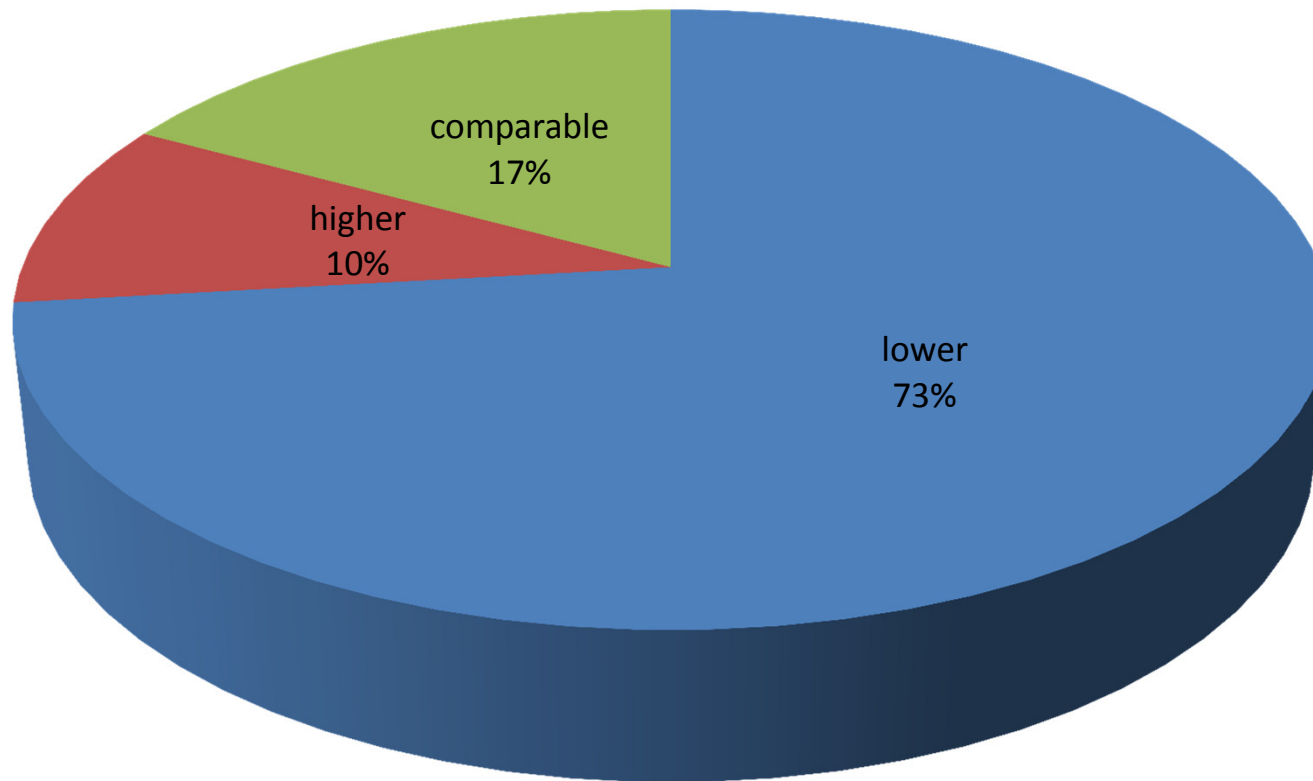


EUCEET-ECCE study

Survey conducted among academics

Question 5

How can be appreciated the level of the graduates of civil engineering programmes in your country in the last 5 years as compared to the one 20-25 years ago?

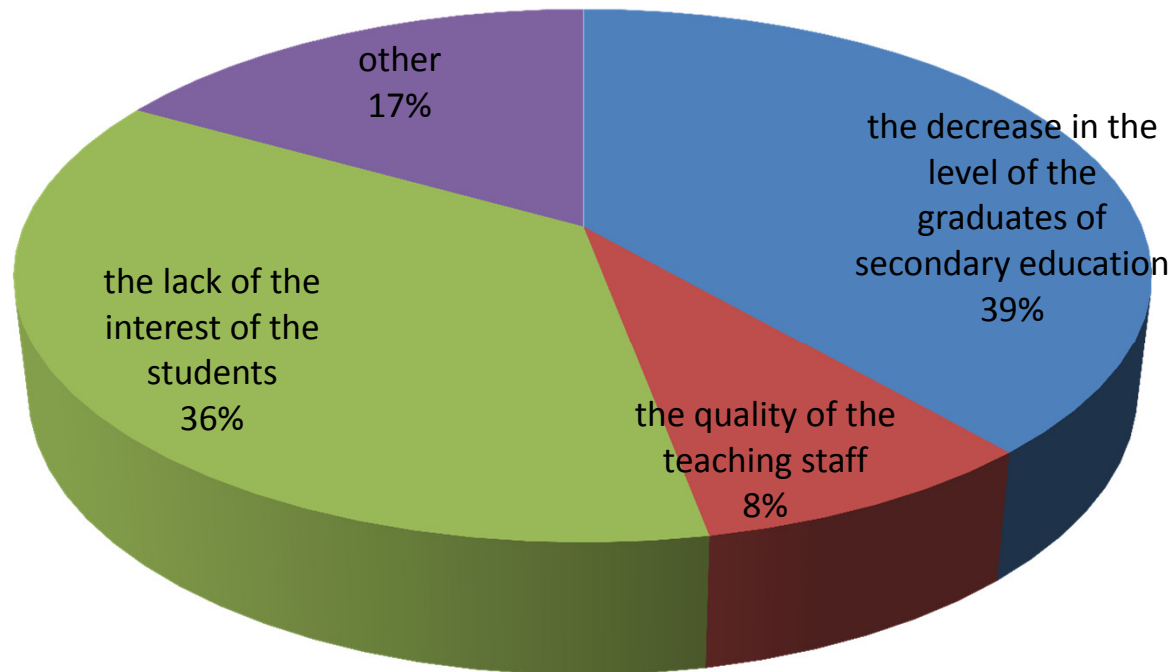


EUCEET-ECCE study

Survey conducted among academics

Question 6

If the answer to the previous question is lower, which are, in your opinion, the reasons for this evaluation? If the answer to the previous question is lower, which are, in your opinion, the reasons for this evaluation?



**Few samples from the comments added
by some respondents to the survey conducted
among academics**

Survey conducted among academics

- In this time of recession with high unemployment rate in Croatia it is difficult to say that the first degree has poor relevance for the labour market. There are jobs in civil engineering that do not require the level of master in civil engineering but if there is a possibility to employ a master or a bachelor for the same salary then it is logical to employ a master.
- The most important difference is that college now looks more like high school and as a consequence the students are less independent and teaching looks more like give them some examples and ground rules for the exam and if they reproduce similar tasks at the exam and/or colloquium that's that. No tricky questions please! And from mind breaking tasks new and improved ideas emerge and students are the best materials for such ideas! Don't suppress that!

Survey conducted among academics

- Structuring high education by study cycles is not good because:
 - 1) sends in the second cycle some disciplines whose knowledge are needed in the first cycle;
 - 2) some disciplines who rely on basic disciplines are studied concurrently with them, not after they. - The survey does not enable to express the negative opinion and to point real threats related to general lowering of education level which was caused by Bologna process. The idea to unify the education could have a positive influence on weak technical universities. In case of “high standard” universities it caused a waste of time and irrelevance of learning programs.
- The newly introduced Bachelor's degree has not been accepted either by public or by employers. Both groups consider Master's degree the only proper degree of a university graduate. (b) Since university funding is mostly based on enrollment, the universities give preference to the number of students over the demands put on the knowledge and skills of the graduates. The Bologna process should be abandoned and reversed.



European Council
of
Civil Engineers

ECCE Standing Committee on Education & Training

Preliminary report on the study “*The impact of the Bologna process in civil engineering education and profession in Europe*”

Phase II: *Bologna process and the professional world*

Prof. Iacint Manoliu

58th ECCE meeting
Nicosia , 25 October 2013

A joint EUCEET-ECCE study undertaken in 2013

***“The impact of the Bologna process on
civil engineering education and profession in Europe”***

Phase II: Bologna process and the professional world

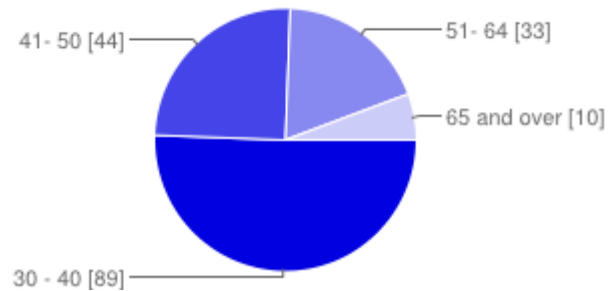
Survey conducted among professionals

EUCEET-ECCE study

Survey conducted among professionals

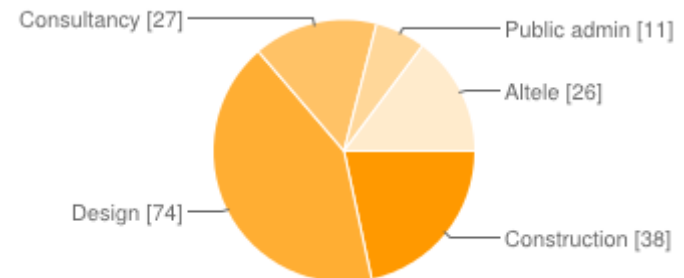
176 answers were received from 8 countries: HR, HU, EE, MT, SR, SI, RO, PL

The age group of respondents



30 - 40	89	51%
41 - 50	44	25%
51 - 64	33	19%
65 and over	10	6%

Didactic degree of respondents



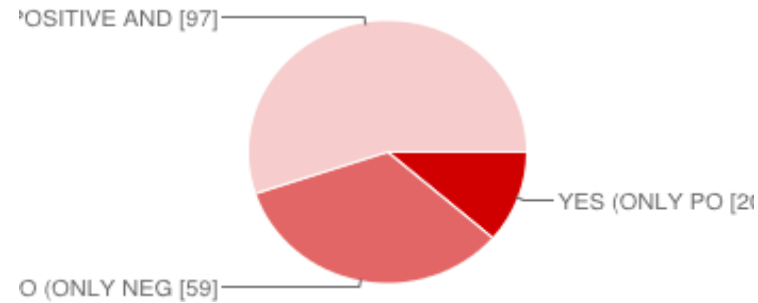
Construction company	38	22%
Design	74	42%
Consultancy	27	15%
Public administration	11	6%
others	26	15%

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Question 1

Do you consider that the changes induced by the Bologna process have a positive effect on the civil engineering education in your country?



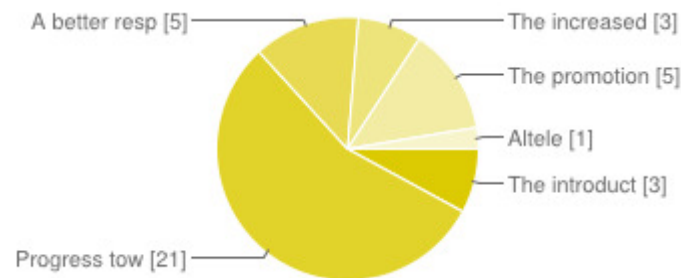
YES (ONLY POSITIVE)	20	11%
NO (ONLY NEGATIVE)	59	34%
POSITIVE AND NEGATIVE	97	55%

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Question 2

If the answer to the previous question is YES, which are the reasons that caused the positive effect?



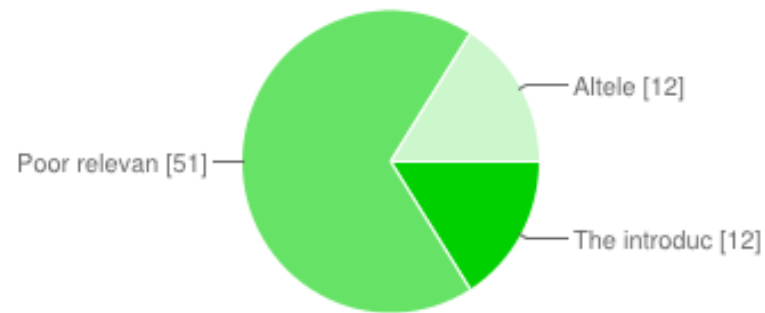
Progress toward the harmonization between civil engineering programmes across Europe	21	55%
A better response to the needs of the labour market	5	13%
The promotion of the mobility of students	5	13%
The introduction of the system in cycles	3	8%
The increased emphasis put on the quality assurance	3	8%
Others	1	3%

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Question 3

If the answer to the question 1 is NO, which are the reasons that caused the negative effect?



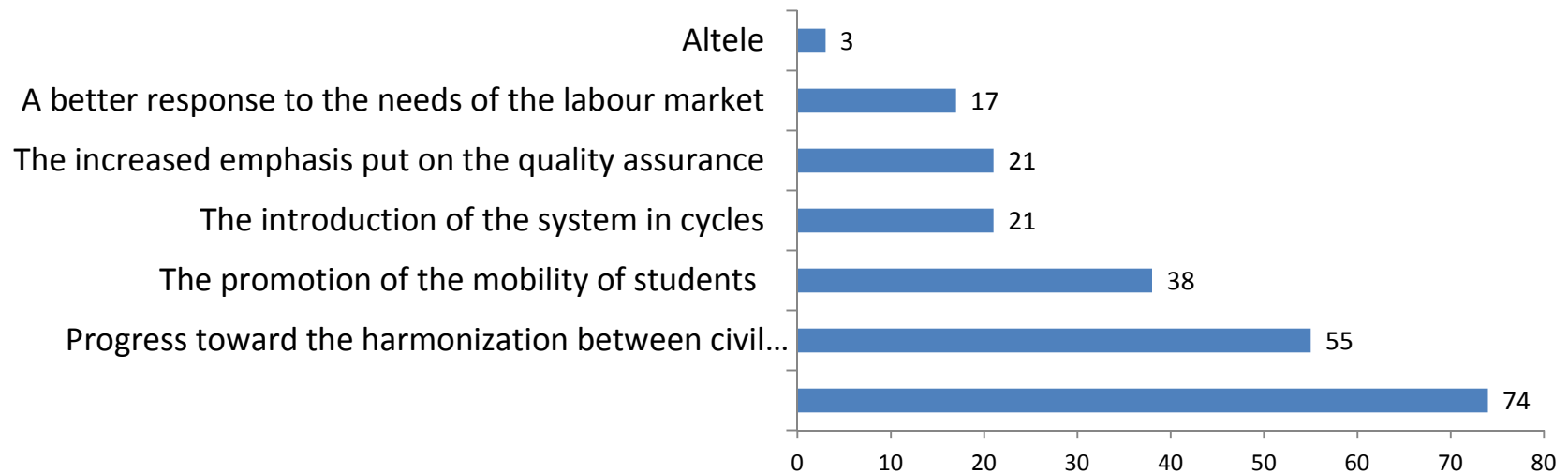
The introduction of the system in cycles	12	16%
Poor relevance for the labour market of the first degree	51	68%
Altele	12	16%

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Question 4

If the answer to the previous question 1 is POSITIVE AND NEGATIVE,
which are the reasons of your evaluation?



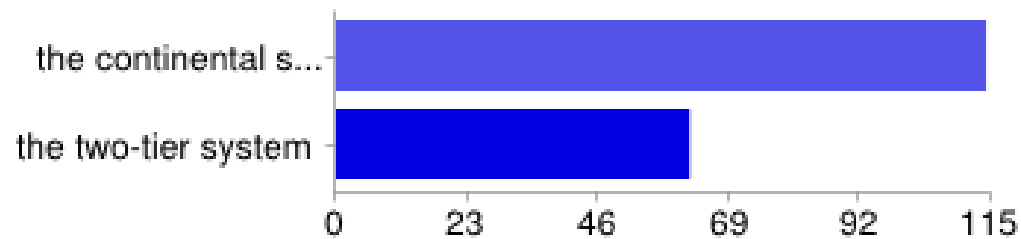
Poor relevance for the labour market of the first degree	74	32%
Progress toward the harmonization between civil engineering programmes across Europe	55	24%
The promotion of the mobility of students	38	17%
The introduction of the system in cycles	21	9%
The increased emphasis put on the quality assurance	21	9%
A better response to the needs of the labour market	17	7%
Others	3	1%

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Question 5

In almost all European countries, the “continental system”, consisting of 5-year integrated programmes more theoretically oriented, run in parallel with the 3 or 3,5 year programme, more oriented toward practical aspects of civil engineering, was replaced by the two-tier system of 3+2, 4+2, 3,5+1,5 type. Which of the two systems is more suitable for the education of civil engineers?



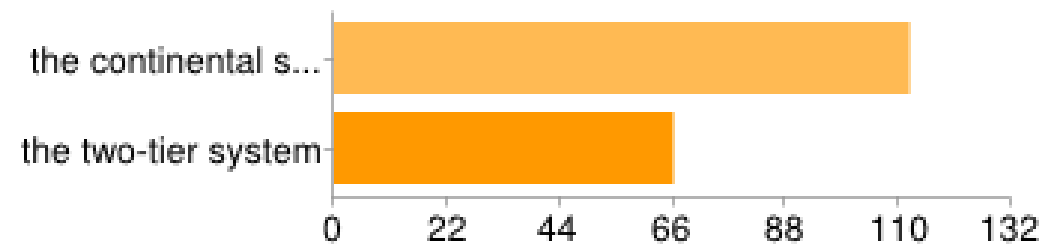
the continental system	114	65%
the two-tier system	62	35%

EUCEET-ECCE study

Survey conducted among professionals

Question 6

With respect to the previous question, which of the two system is more appropriate for the needs of the construction industry?



the continental system	112	63%
the two-tier system	66	37%

EUCEET-ECCE study

Survey conducted among professionals

Question 7

In what follows, is given a list of generic competences
Select from the 12 generic competences 5 you consider to be the most
important for a young graduate of the first cycle.

Capacity for applying knowledge in practice	134	16%
Basic knowledge of the field of study	110	13%
Capacity to learn	104	12%
Ability to work in a team	90	10%
Capacity to adapt to new situations	88	10%
Elementary computing skills (word processing, database, other utilities)	64	7%
Capacity for generating new ideas (creativity)	63	7%
Capacity for analysis and synthesis	62	7%
Critical and self critical abilities	49	6%
Knowledge of a second language	46	5%
Interpersonal skills	29	3%
Oral and written communication in the native languages	23	3%

EUCEET-ECCE study

Survey conducted among professionals

Question 7

In what follows, is given a list of generic competences
Select from the 12 generic competences 5 you consider to be the most
important for a young graduate of the first cycle.



**Few samples from the comments added
by some respondents to the survey conducted
among professionals**

Survey among professionals

- As a professional engineer in the field of structural engineering, and as a doctoral candidate I have some insight to the new system. My opinion is negative because I've been told by my colleagues in the education system that the bar for passing exams is lowered, and they need to keep it that way. This negatively influenced the adoption of basic knowledge by the students who in turn used the flaws of the system to their advantage by "walking through" most basics without actually knowing anything. I wish the system to be back to five-year-cycle (continental system).
- The Bologna process was a good idea for the mobility of students, but it failed, one of the reasons the mobility of the students is not possible. The second is that every university has their own statute for terms of study.

Survey among professionals

- Too many types of degrees! Only two basic are sufficient. Upgrade can be made with mr.sc. and dr.sc. in scientific field and in practical by some extra classes and/or degrees. We need more studies like this one to see what is appropriate education.
- Immediate return to the continental system - 5 years. Dividing the cycle of studying in two parts we are not to develop the ability for analysis and synthesis, creativity in solving unknown problems and in creating new ideas.
- The "continental" system will be reintroduced immediately, before completing destroy the whole civil engineering system. As soon as possible! No further comments!

ACKNOWLEDGEMENTS

The Standing Committee on Education & Training is grateful to the following ECCE members participating to different surveys from:

Bulgaria
Croatia
Czech Republic
Estonia
Georgia
Germany
Hungary
Ireland
Italia
Malta
Poland
Portugal
Romania
Serbia
Slovenia
Turkey
United Kingdom



Brief report

on the **Second Conference of the EUCEET Association**

with the theme:

“Civil engineering education: are we meeting the needs of the industry and society?”

held in Moscow, at the Moscow State University of Civil Engineering (MGSU)

on 14th -15th October 2013

<http://euceet.mgsu.ru/en/>

The Second EUCEET Association Conference took place on 14-15 October 2013 in Moscow, hosted and organized by MGSU (Moscow State University of Civil Engineering).

With more than 30,000 students, MGSU is the largest and strongest civil engineering university from Russia.

The theme of the Conference was “*Civil engineering education: are we meeting the needs of the industry and society?*”.

The Conference was attended by more than 50 participants coming from 12 countries: Belgium, France, Germany, Hungary, Italy, Poland, Romania, Russia, Slovakia, Spain, United Kingdom and Ukraine.

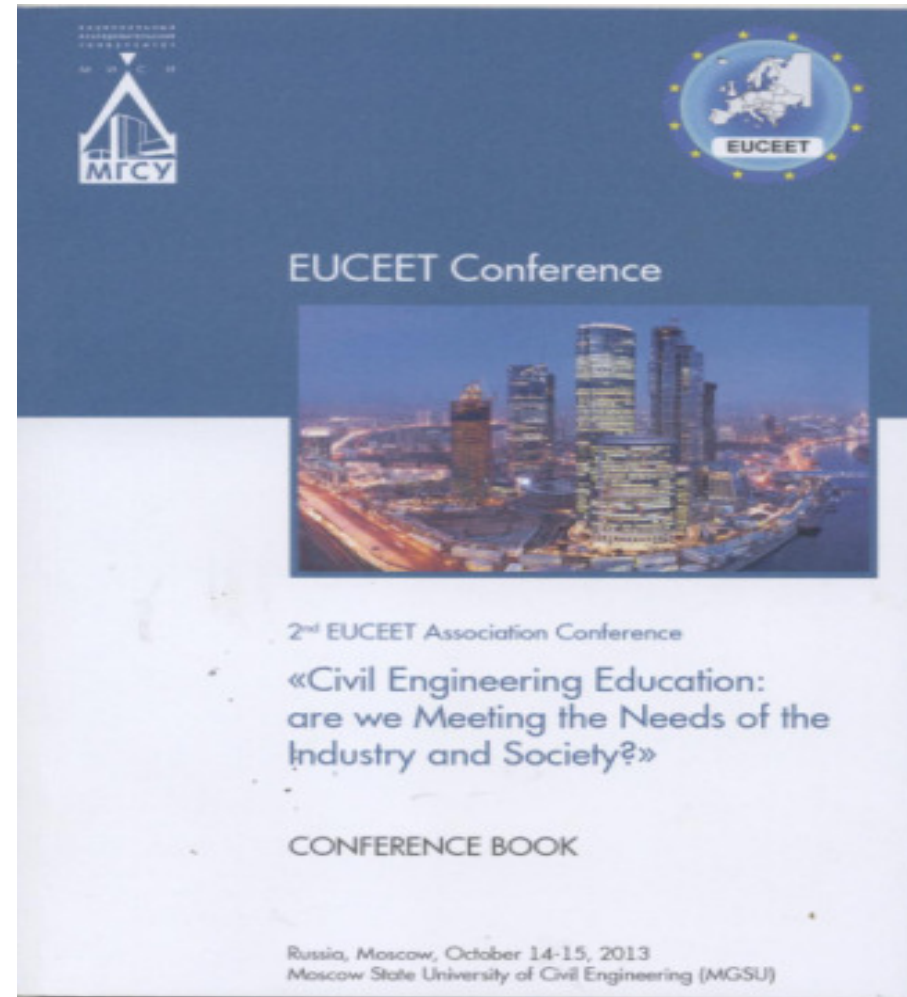
In the programme of the Conference were included 4 key-note lectures:

- **Civil Engineering Education in the Russian Federation**
(Prof. Valery I. Telichenko, MGSU)
- **Next Generation Structural Design: Challenges and Chances in Teaching**
(Prof. Annette Boegle, Hannover University)
- **Inclusive Civil Engineering Curricula**
(Prof. Jean Berlamont, University of Leuven)
- **Civil engineering education – place and role in the European Higher Education Area”**
(Prof. Iacint Manoliu, Technical University of Civil Engineering Bucharest, Romania)

In the four sessions of the Conference were presented 23 papers, among which 13 papers with authors form Russian Federation.

The Proceedings of the Conference comprise 170 pages.

The Conference was followed by the 6th General Assembly of the EUCET Association.



Thank you for your attention