

# **Thematic Network EEGECS - European Education in Geodetic Engineering, Cartography and Surveying**

Working Group 4

Questionnaire for private and public employers of graduates in **Geodetic Engineering, Cartography and Surveying (GECS)**

**Analysis part 1**

## **Purpose of the questionnaires**

The EEGECS-project aims to facilitate trans-national access to educational resources in Europe and to enable graduates in **Geodetic Engineering, Cartography and Surveying (GECS)** to work

all over Europe. Partners of this project are higher education institutions, professional associations and research centres from 18 European countries.

The objectives of this Questionnaire are:

1. Surveying of skills of GECS graduates demanded by the public and private enterprises.
2. Analysis of branches of industry in which GECS graduates are needed.
3. Promotion of graduates' mobility, of technology transfer, and of research co-operation.
4. Implementation of a network of enterprises disposed to employ GECS students for practical training.
5. Enhancement of co-operation between Universities and the private/public sector.

## **Acknowledgements**

This questionnaire was developed by the members of working group 4, especially by Erwin Heine and Jesus Garcia Latorre. It has been distributed by the active members of the working group more to thousands of companies and institutions. We would like to thank all working group members for the effort undertaken to distribute these questionnaires and gather the information needed, but also would like to take this opportunity to thank the participating companies and institutions for taking their time to fill out and send back these questionnaires.

## **Data protection and legal advice**

It has to be stressed out, that the aspect of data protection has to be considered when using the information provided by the participating companies/institutions. Therefore no personal data will be given away.

The authors of the study/respectively analysis of the questionnaires do not take any legal responsibility for the information provided. We are always open for critics.

## **Target Groups**

The questionnaires have been distributed to:

Private companies offering chartered engineer's services

Public institutions, working in the GECS sector (federal, central, regional or municipal)

Response to the questionnaires has been received from 13 European countries. The results of the analysis will be available to the participating companies/institutions, the working group 4 and to other working groups involved in the project as well as to higher institutions, professional associations and research centres from different European countries. The information provided will be used as a basis for the creation of a network.

## **Remarks to the different questions**

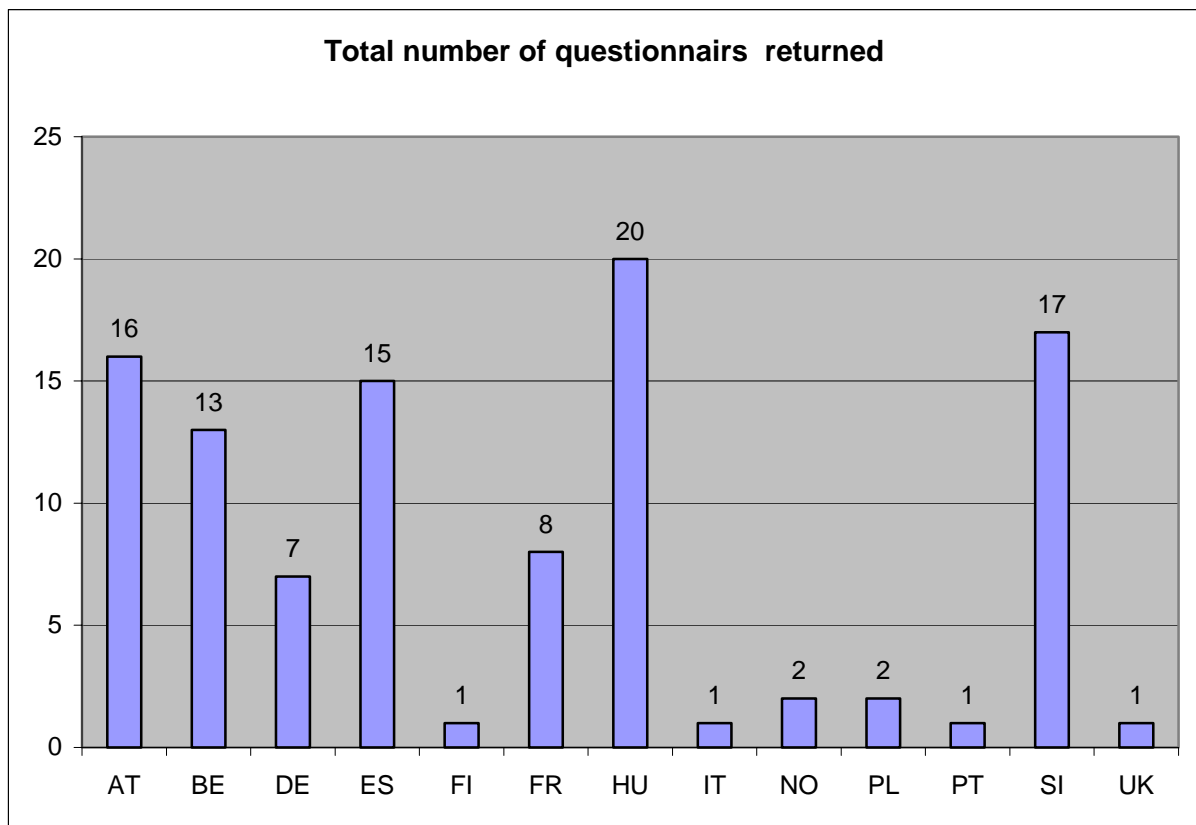
A full version of the questionnaire can be found at the end of this analysis.

Here are some remarks to the different questions:

### ***1.) Company/Institution - General information***

As already mentioned, the personal information provided by the participation companies/institutions will be treated confidential. Only in a second step - and only if the participation company/institution agrees - the contact information will be used in a contact platform. This platform shall enhance mobility across Europe: It shall contain information about companies who are willing to accept students or employees from abroad to work in their company. On the other hand students or job seeking persons shall have the opportunity to find such companies.

As already mentioned before, the response was quite good. A total of 104 questionnaires had been returned.



AT	Austria
BE	Belgium
DE	Germany
ES	Spain
FI	Finland
FR	France
HU	Hungary
IT	Italy
NO	Norway
PL	Poland
PT	Portugal
SI	Slovenia
UK	United Kingdom

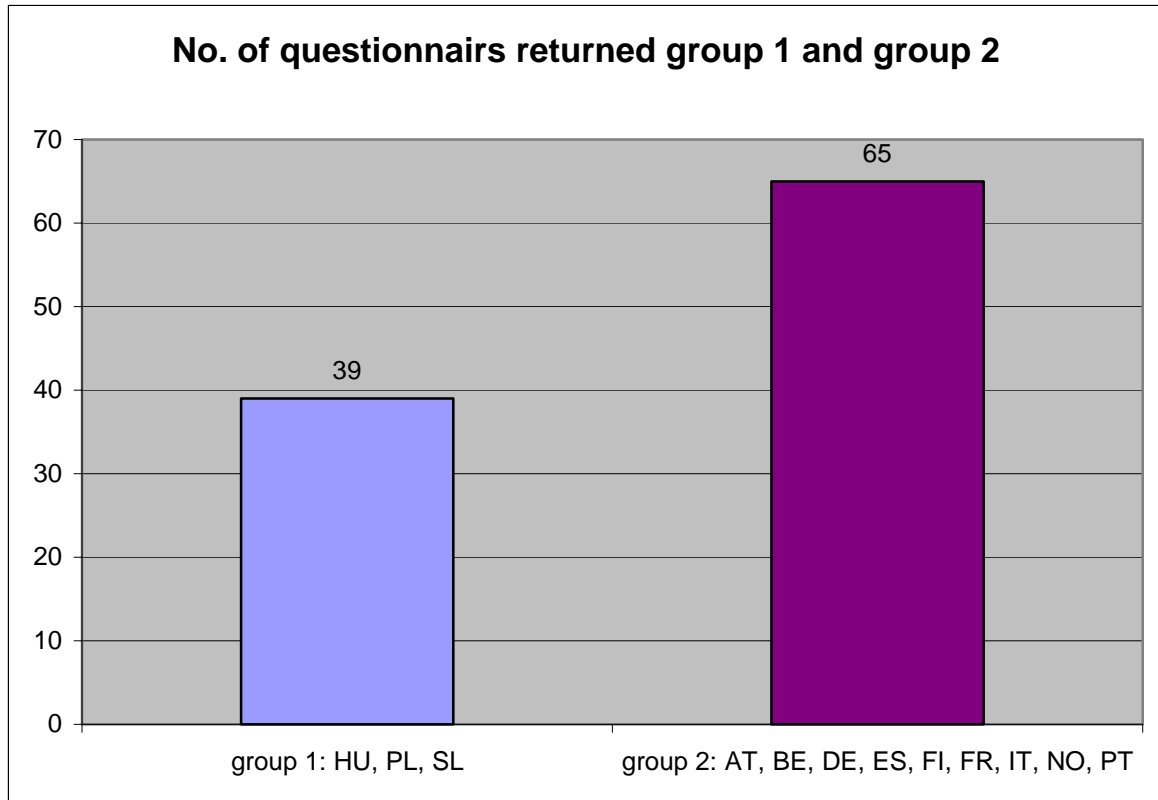
It is an interesting fact, that the response from the “new” European countries (i.e. from Central Europe) was higher than expected.

We grouped two questionnaires by regions: the “new” members of the E.U. (group 1):

*Hungary, Poland, Slovenia*

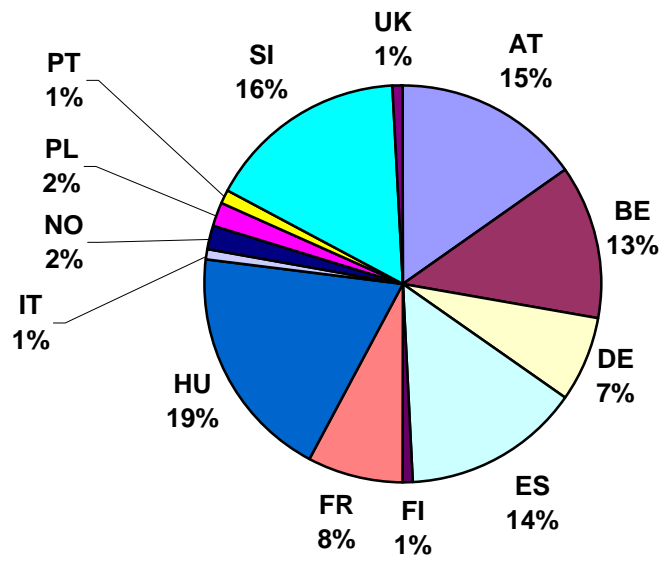
The old E.U. members (group 2):

*Austria, Belgium, Spain, France, Germany, Norway, Finland, Portugal and Italy*



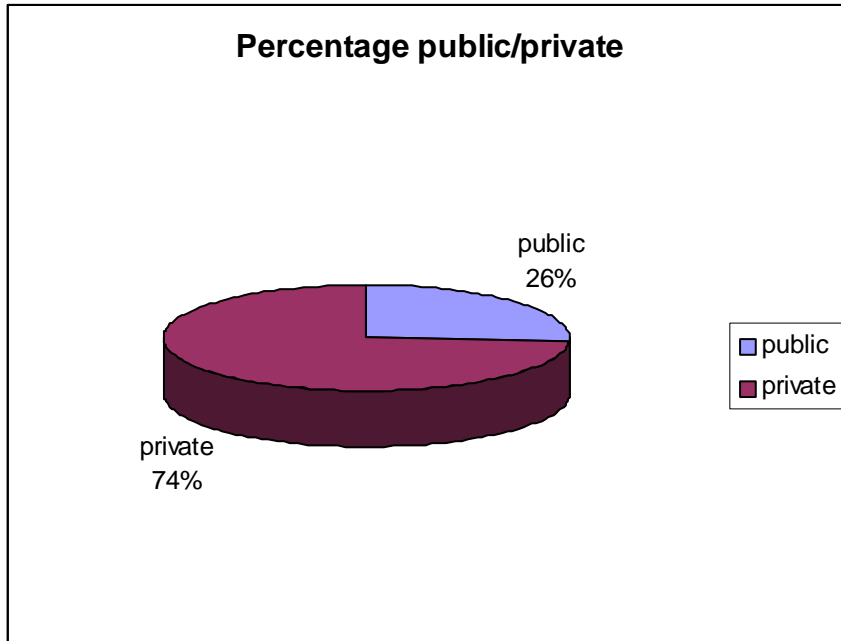
Although the number of countries from group 2 was three times as high as from group 1, almost 40 % of the answers had been received from group 1. A reason for this fact might be a kind of “saturation” on questionnaires, research and studies in group 2, whereas such activities are received with more enthusiasm in group 1. But it also has to be considered, that the number of questionnaires returned, also depends on the effort undertaken by the working group member. Partners from Hungary and Slovenia have been very active in their efforts, which also are reflected by the large percentage of the questionnaires returned.

### % of questionnaires per country



## 2.) *Company private/public sector*

The focus of working group 4 is on the private sector, therefore mostly private companies have been contacted and the feedback also reflects this focus. Nether the less also public institutions have been contacted. About 3/4 of the questionnaires have been filled out by private companies

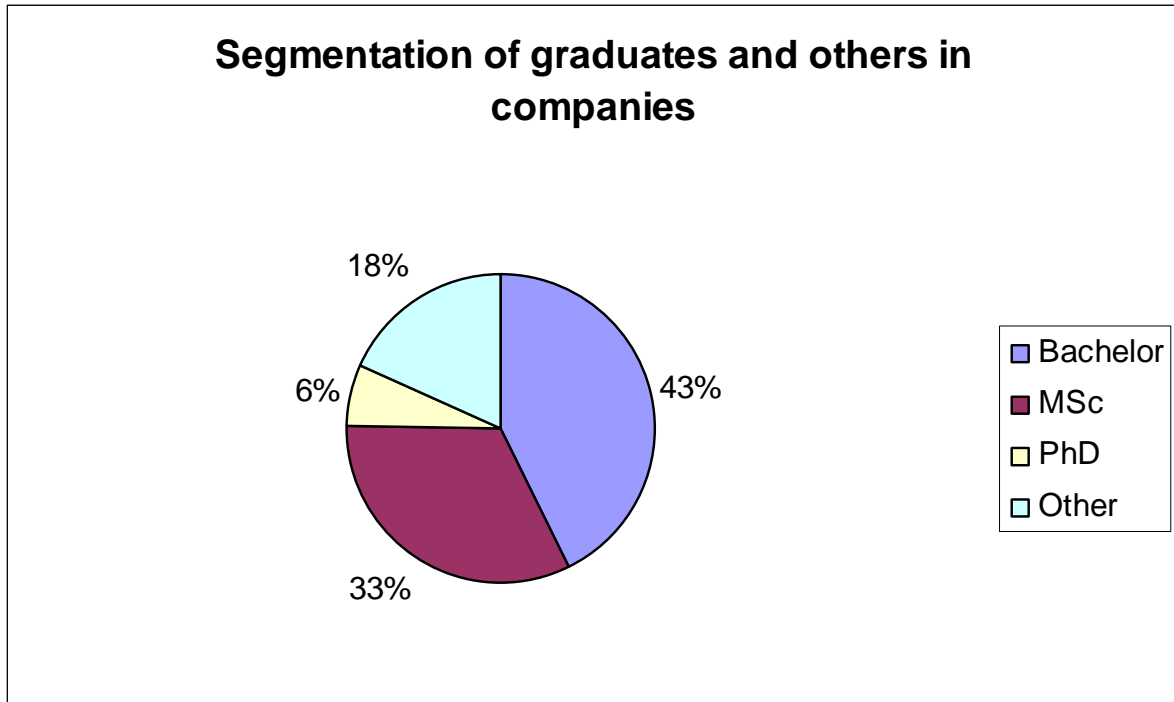


### 3.) Number of GECS employees (graduates/others)

As a matter of fact, the number of graduates working in companies/institutions is almost as high as the number of other employees. It has to be remarked, that in smaller companies employees with higher education such as PHD are also partly active in the area of production, whereas in big companies they are only active in the management sector.

The major part of others is working in the administrative sector of the company/institution.

The segmentation between graduates and others is as follows:



Results come out of the answers of 85 companies/institution while 19 didn't answer to this question. The chart show average percentage of Bachelor, MSc, PhD and other in this companies/institution.

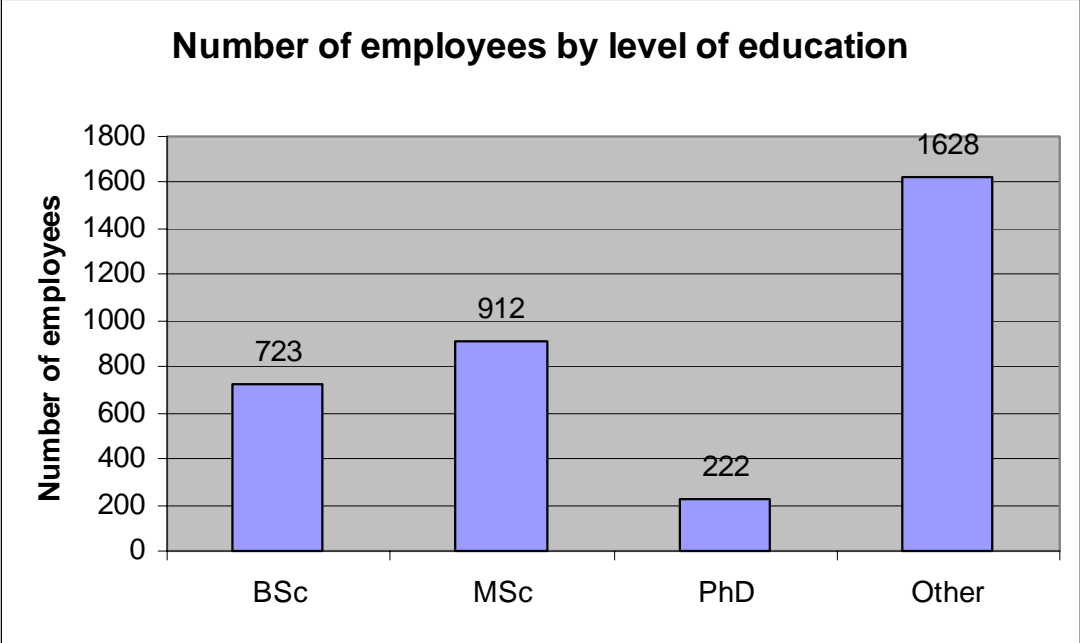
It has to be remarked, that the definition of the different exams sometimes differentiates from country to country. As a benchmark you can say that the duration of the education was used as a basis:

Bachelor Degree (~ 3-4 year education)

Masters Degree (~ 5 year education)

PhD Degree

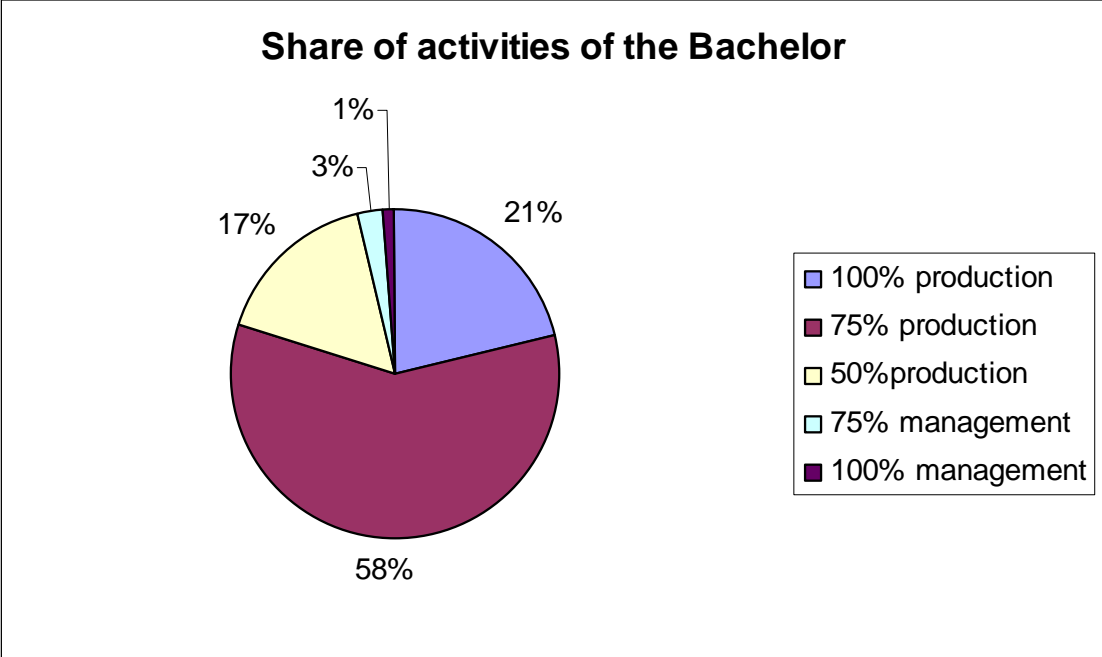
Numbers of Bachelor, MSc, PhD and other in this companies/institution are as follows:



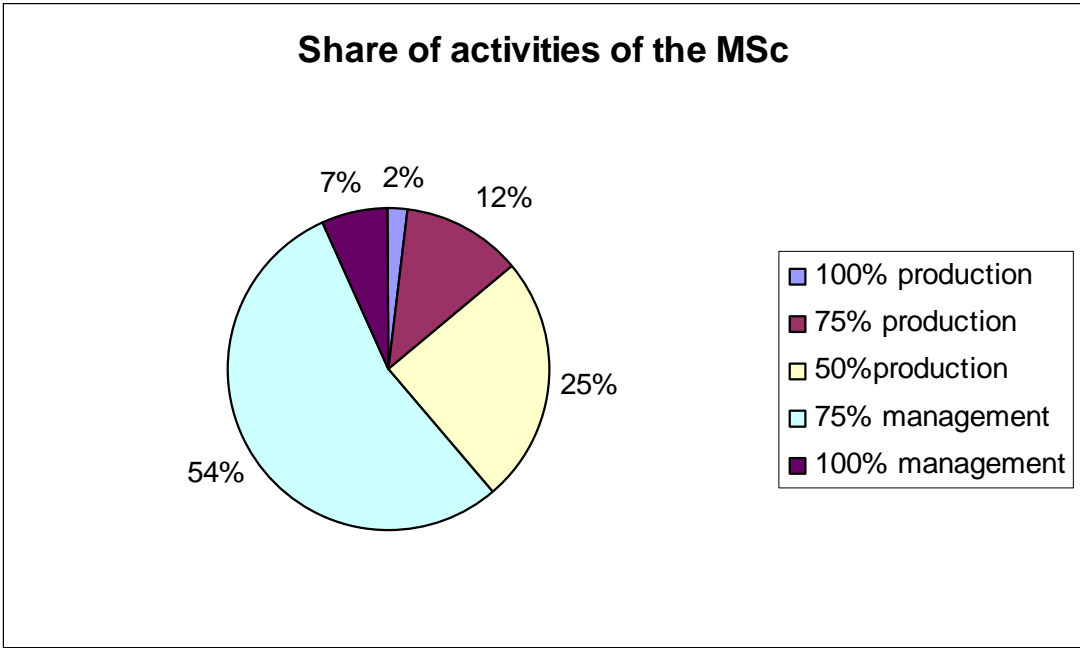
It has to be remarked, that 1095 employees in group others come from one institution, that is BEV from Austria.

**4.) Share of activities**

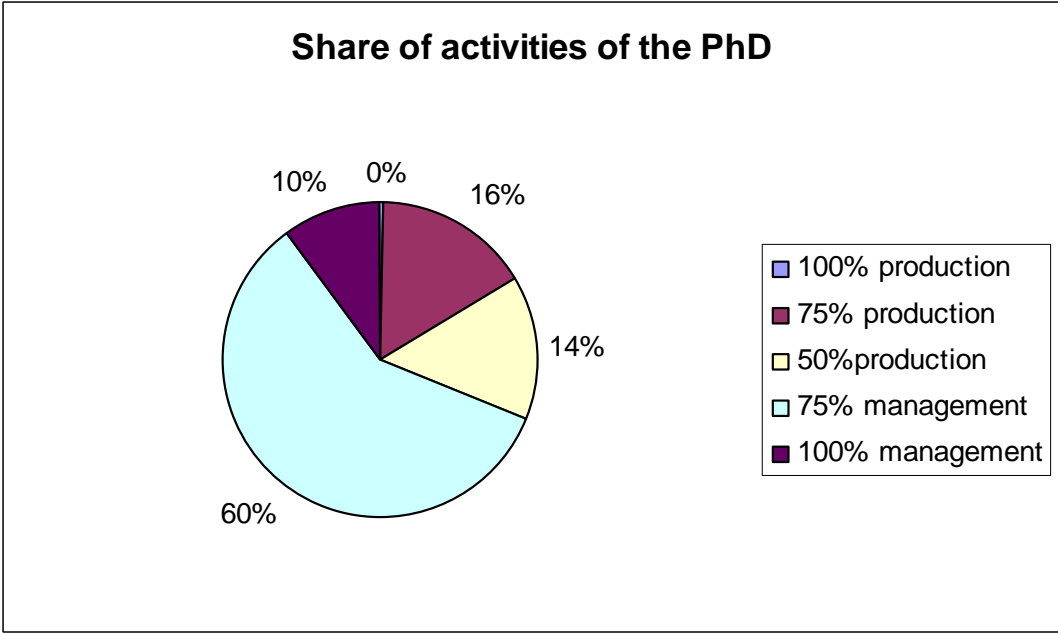
Almost 80% of Bachelors which are employed in the companies work the most in the area of production. Only 4% of Bachelors work in the area of production.



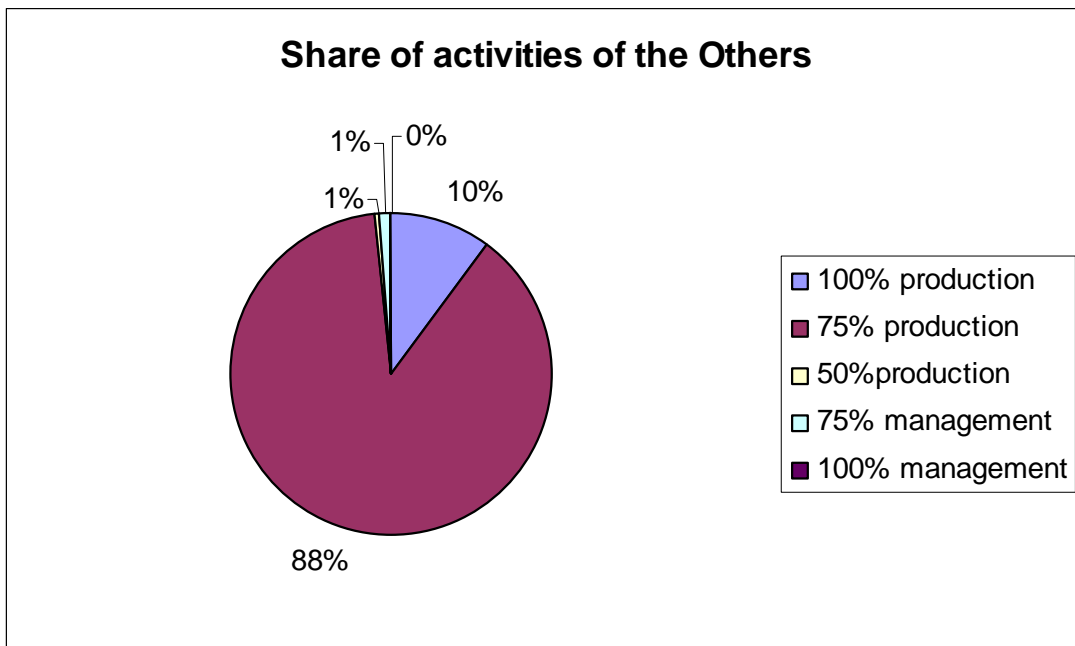
More than 60% of MSc which are employed in the companies work the most in the area of management. Only 14% of Bachelors work in the area of production.



70% of PhD which are employed in the companies work the most in the area of management. Only 16% of Bachelors work in the area of production.

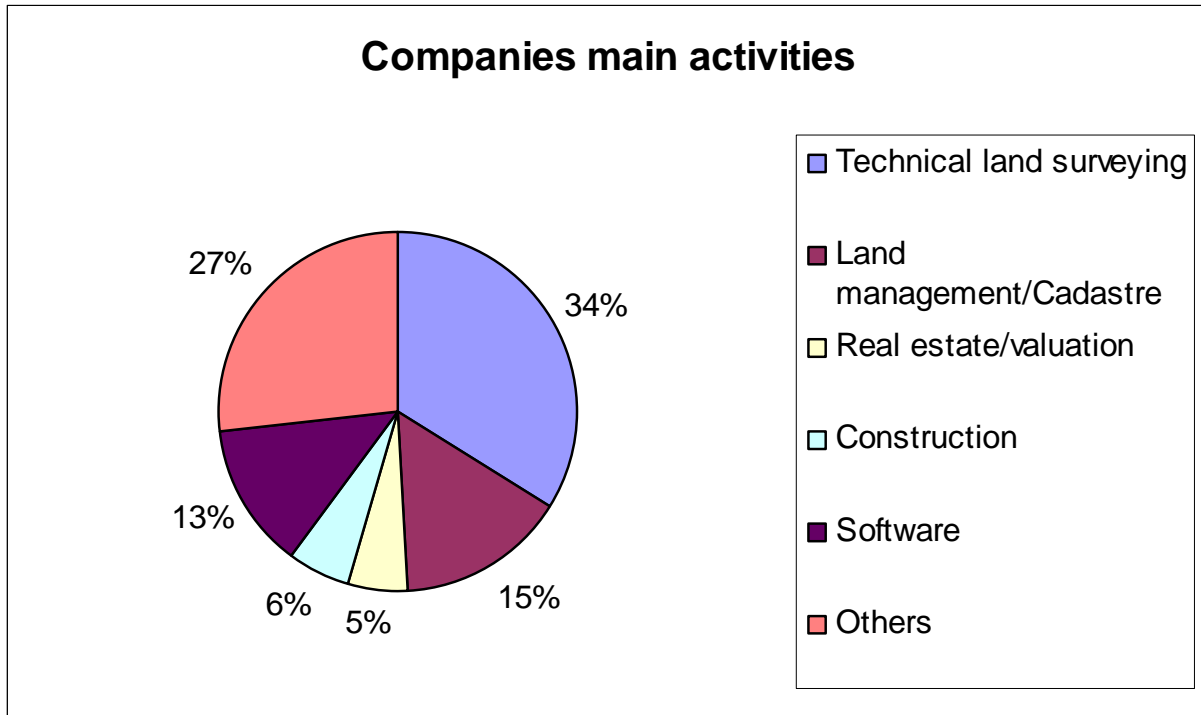


Almost all of other which is employed in observed companies works in the area of production.



We can see that the area of work depend on level of education. Higher educated employees work mainly in the area of management. It has to be remarked, that almost no MSc or PhD work 100% in the production.

## 5.) Main field of company activities

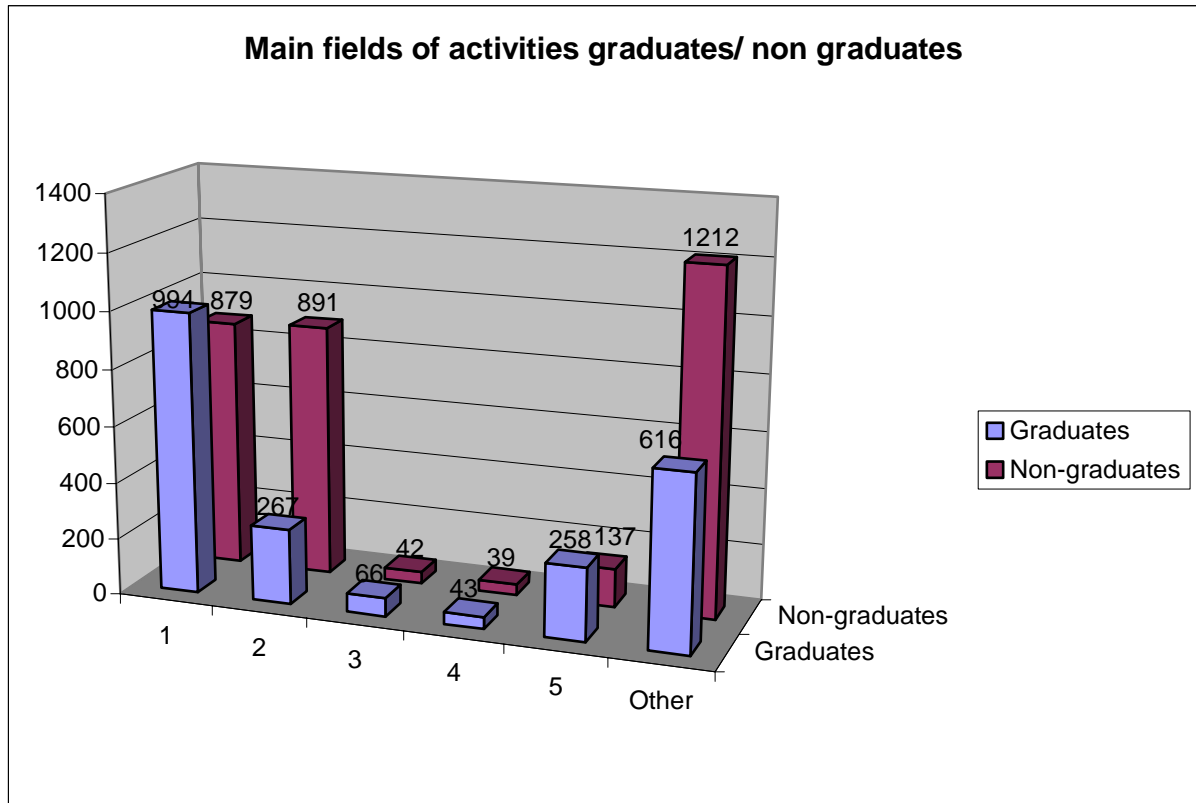


The results of the study show that the major focus of the company's activities is focused on technical land surveying, which takes in average more than one third of the companies recourses.

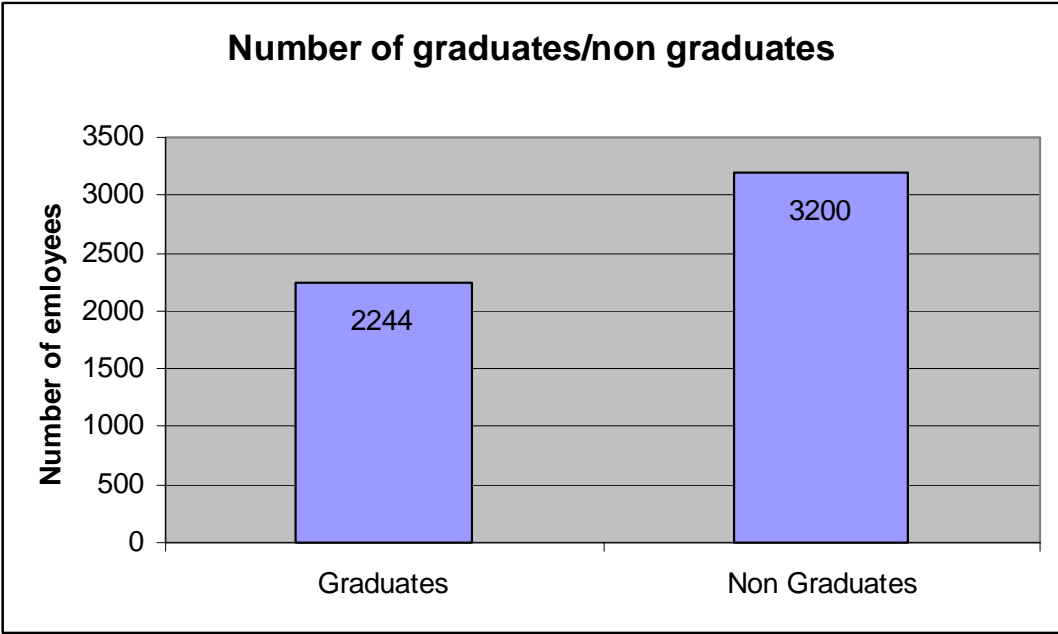
Another 27% flows into other activities, mainly administration, marketing and promotion and management. Land management covers 15% of the company's activities, software development 13% and real estate economics and land valuation and construction are of minor interest.

## 6.) Main field of company activities: graduates/non graduates

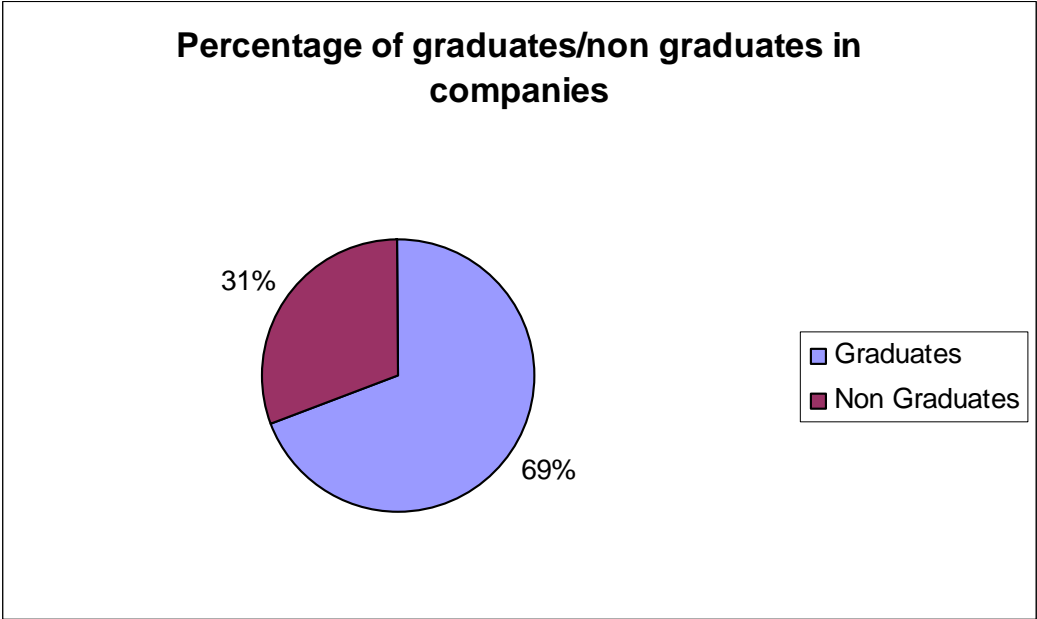
If we compare the number of graduates to non graduates in the different fields of activities it is interesting, that the number of non graduates is only higher in area 2 (land management/cadastré) and in the area "others". It is interesting that the number of non graduates is higher but the percentage of graduates in the companies is almost 70%. The reason is probably that the number of non graduates is high in bigger companies.



Technical land surveying	1
Land management / Cadastre	2
Real estate economics / Land valuation	3
Construction and Cost control	4
Software development	5



The chart shows the number of graduates and non graduates in companies/institution.



The chart shows average percentage of graduates and non graduates in company/institution.