



trendence
research » strategies » careers

trendence Graduate Barometer 2011 - Engineering Edition

Partner report prepared for

Madrid - Universidad Politécnica de Madrid



trendence |
Graduate Barometer | **2011**

Contents

- 1. General information / methodology**
2. Education and university evaluation
3. Career
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Methodology: trendence Graduate Barometer - European Edition

Global Information

Method:	Online-questionnaire
Field phase:	September 2010 to January 2011
Participation:	Invitations via careers service email; anonymity assured; prize draw & donation
Analysis:	Data analysis with statistical tools; MRS and ESOMAR codes and ISO 20252 observed
Student groups:	Europe sample and various sub-groups analyzed, including students from Spain and Madrid - Universidad Politécnica de Madrid
Media coverage:	FAZ 06/2011

Response

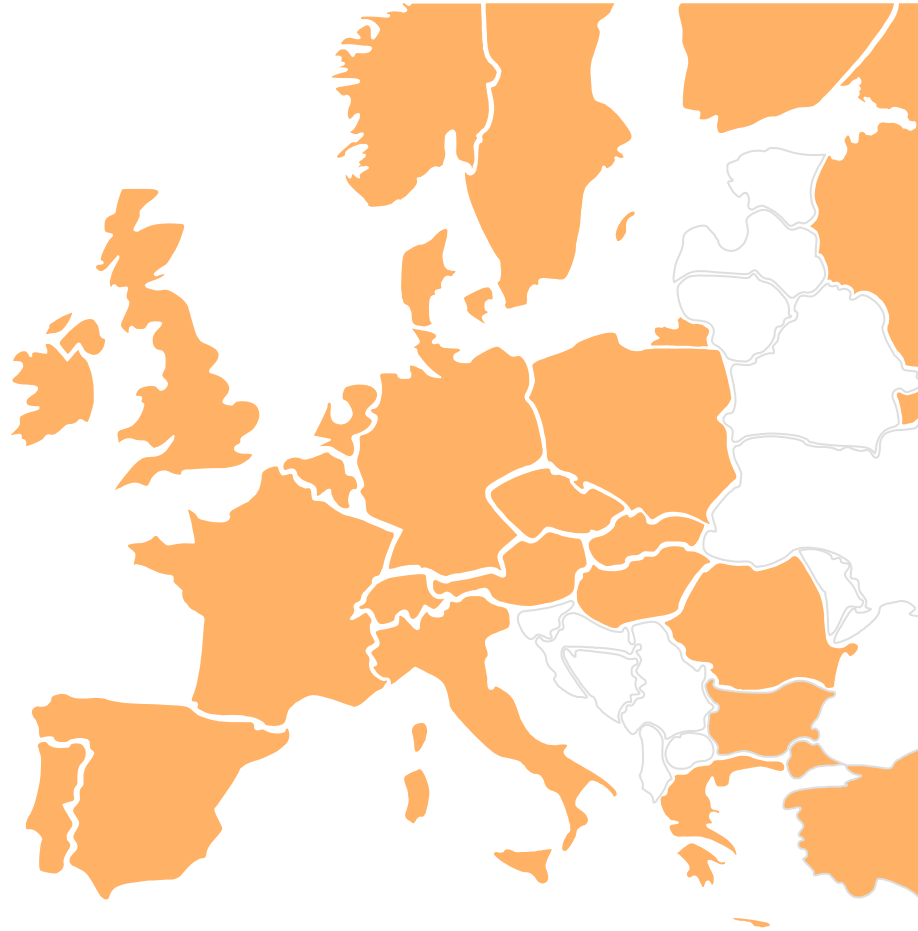
	GBE 2009	GBE 2010	GBE 2011
Participating universities	779	859	1,077
Respondents	196,019	219,790	310,945

USPs

USPs of the trendence Graduate Barometer 2011:

- » The trendence Graduate Barometer has grown to be the largest survey on career, education and employer topics in Europe. 1,077 institutions in 24 countries took part and 310,000 students answered the survey.
- » The survey was conducted in the following countries: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.
- » The students were asked about their preferences and expectations in their future career, their satisfaction with their university, and the attractiveness of future employers.
- » The main target group for the survey was business/economics and engineering/IT/natural science students, however, we are of course interested in hearing the opinions of all students. Therefore we have three editions of the trendence Graduate Barometer Partner Report: business, engineering and total (including students of all fields of study).

trendence Graduate Barometer 2011: participation

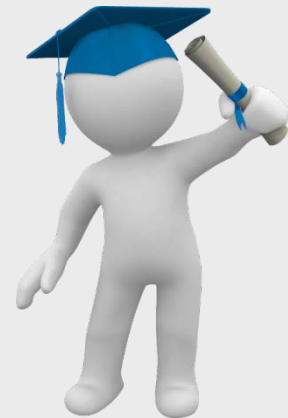


trendence Graduate Barometer 2011: participation (cont.)

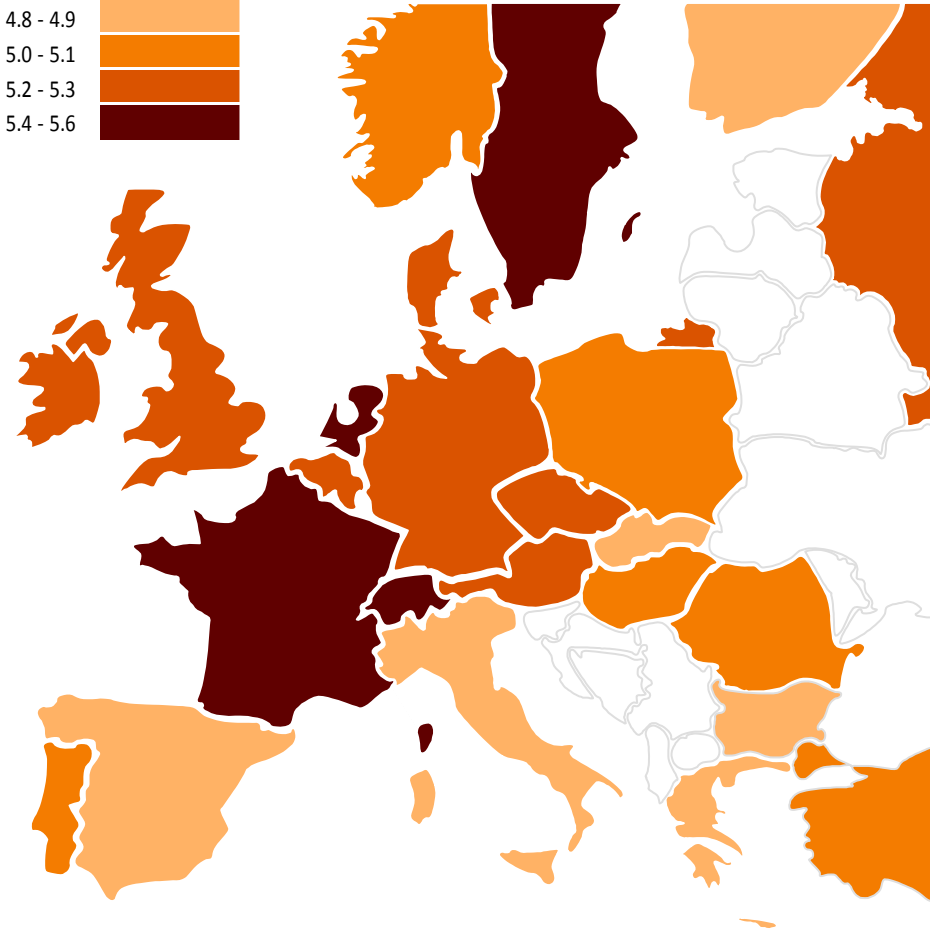
Country	Answers	Country	Answers
Austria	3.423	Netherlands	1.488
Belgium	2.915	Norway	331
Bulgaria	1.850	Poland	6.169
Czech Republic	3.906	Portugal	4.629
Denmark	944	Romania	2.049
Finland	4.358	Russia	2.300
France	13.539	Slovakia	8.450
Germany	18.028	Spain	22.882
Greece	694	Sweden	1127
Hungary	9.209	Switzerland	3.245
Ireland	1.459	Turkey	2450
Italy	9.593	United Kingdom	3.818
		Total	128.856
		Madrid - Universidad Politécnica de Madrid	2977

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Evaluation of university performance in Europe

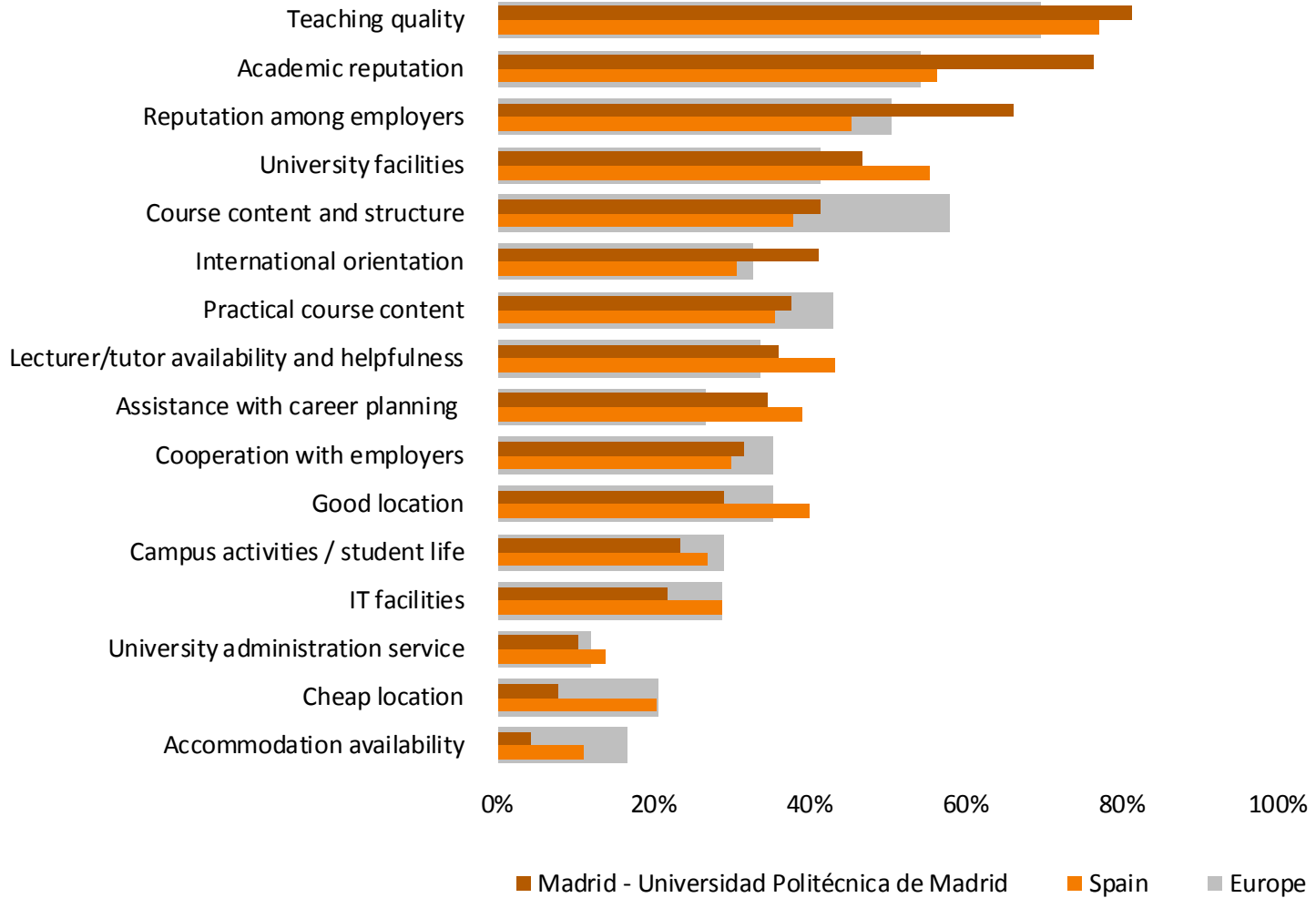


Evaluation of university performance in Europe (cont.)

Country	Satisfaction
Europe	5,1
Austria	5,2
Belgium	5,3
Bulgaria	4,9
Czech Republic	5,2
Denmark	5,3
Finland	4,8
France	5,4
Germany	5,2
Greece	4,9
Hungary	5,0
Ireland	5,2
Italy	4,9

Country	Satisfaction
Netherlands	5,5
Norway	5,0
Poland	5,1
Portugal	5,1
Romania	5,0
Russia	5,2
Slovakia	4,9
Spain	4,8
Sweden	5,5
Switzerland	5,6
Turkey	5,1
United Kingdom	5,2
Madrid - Universidad Politécnica de Madrid	4,9

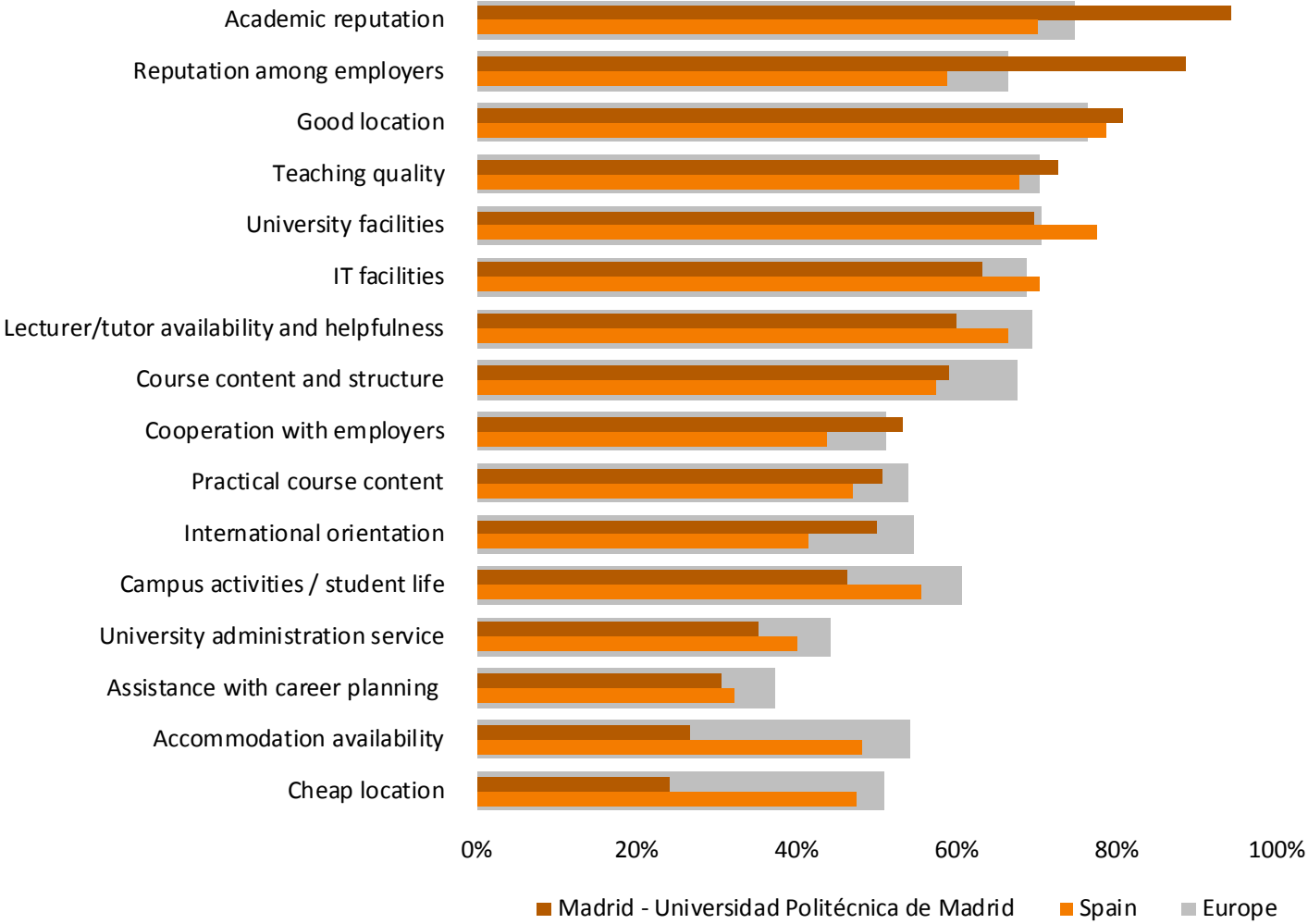
Important factors when choosing a university course



Important factors when choosing a university course (cont.)

Important factors	Madrid - Universidad Politécnica de Madrid	Spain	Europe
Teaching quality	81,1%	77,0%	69,6%
Academic reputation	76,2%	56,3%	54,2%
Reputation among employers	66,0%	45,4%	50,4%
University facilities	46,7%	55,3%	41,4%
Course content and structure	41,4%	37,9%	57,9%
International orientation	41,2%	30,6%	32,7%
Practical course content	37,6%	35,5%	43,0%
Lecturer/tutor availability and helpfulness	36,0%	43,3%	33,7%
Assistance with career planning	34,7%	39,1%	26,7%
Cooperation with employers	31,6%	30,0%	35,4%
Good location	29,0%	40,0%	35,3%
Campus activities / student life	23,4%	27,0%	28,9%
IT facilities	21,8%	28,8%	28,7%
University administration service	10,3%	13,8%	12,0%
Cheap location	7,9%	20,3%	20,5%
Accommodation availability	4,2%	11,1%	16,7%

Evaluation of university performance

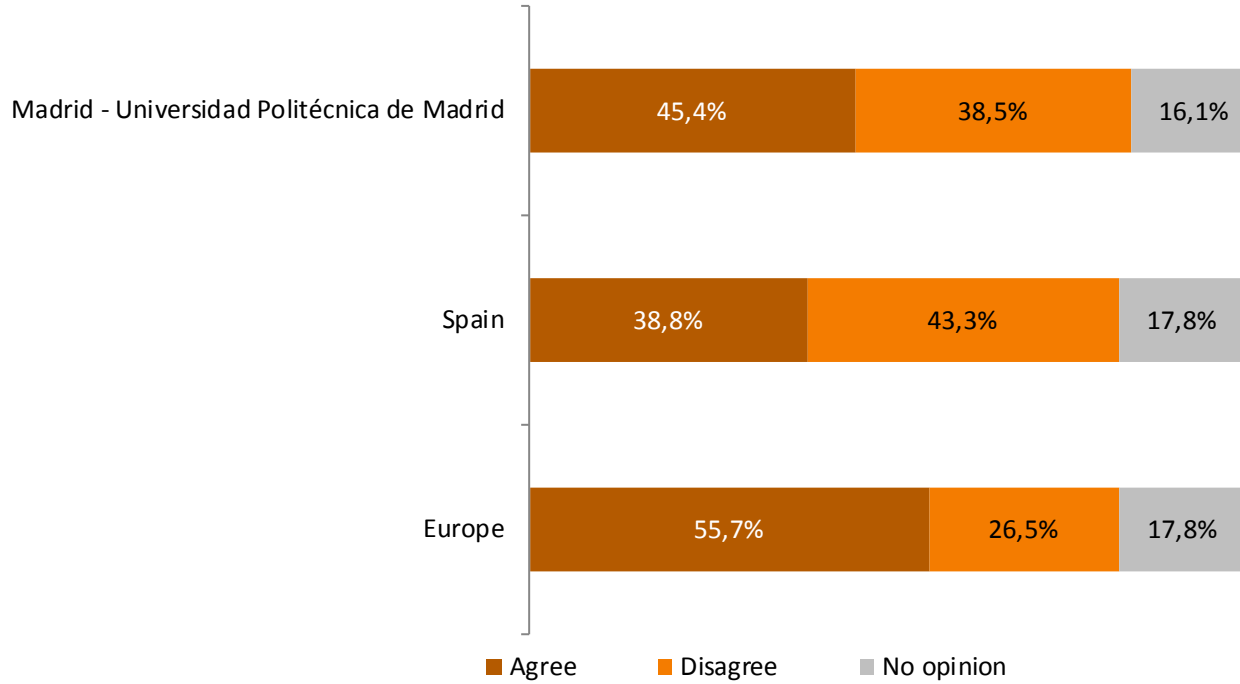


Evaluation of university performance (cont.)

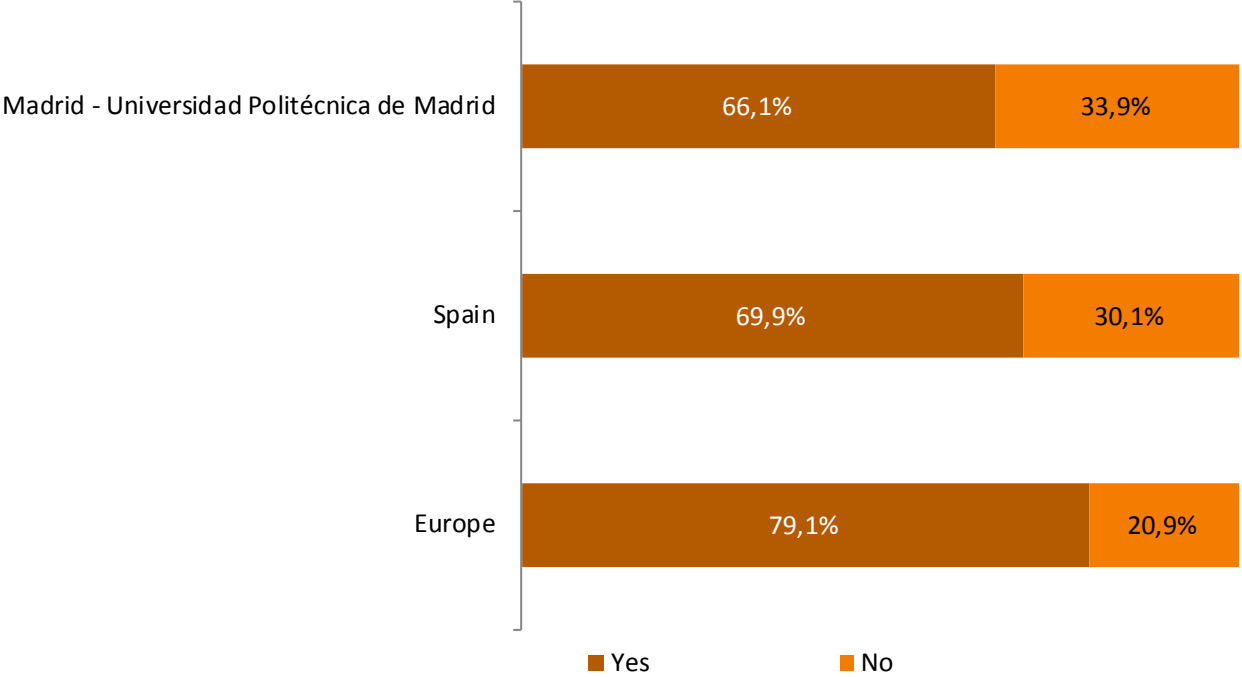
Satisfaction	Madrid - Universidad Politécnica de Madrid	Spain	Europe
Academic reputation	94,2%	70,1%	74,6%
Reputation among employers	88,5%	58,7%	66,4%
Good location	80,6%	78,6%	76,2%
Teaching quality	72,5%	67,7%	70,3%
University facilities	69,5%	77,5%	70,6%
IT facilities	63,2%	70,4%	68,6%
Lecturer/tutor availability and helpfulness	59,9%	66,3%	69,3%
Course content and structure	59,0%	57,4%	67,5%
Cooperation with employers	53,3%	43,8%	51,1%
Practical course content	50,7%	46,9%	53,8%
International orientation	50,0%	41,5%	54,7%
Campus activities / student life	46,3%	55,6%	60,6%
University administration service	35,3%	40,0%	44,3%
Assistance with career planning	30,6%	32,1%	37,3%
Accommodation availability	26,6%	48,2%	54,1%
Cheap location	24,0%	47,4%	51,0%

Opinion

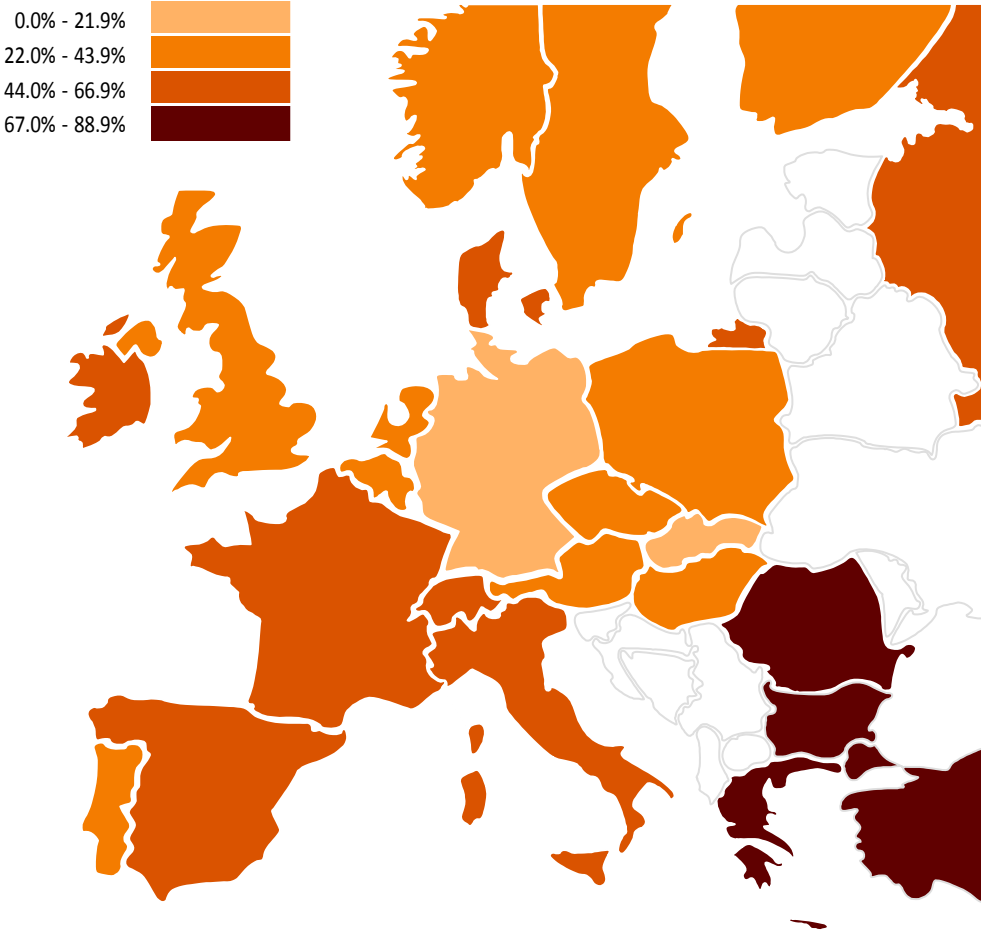
My university course provides me with the skills necessary for the labour market.



Use of university careers fair



Interest in studying a master course abroad

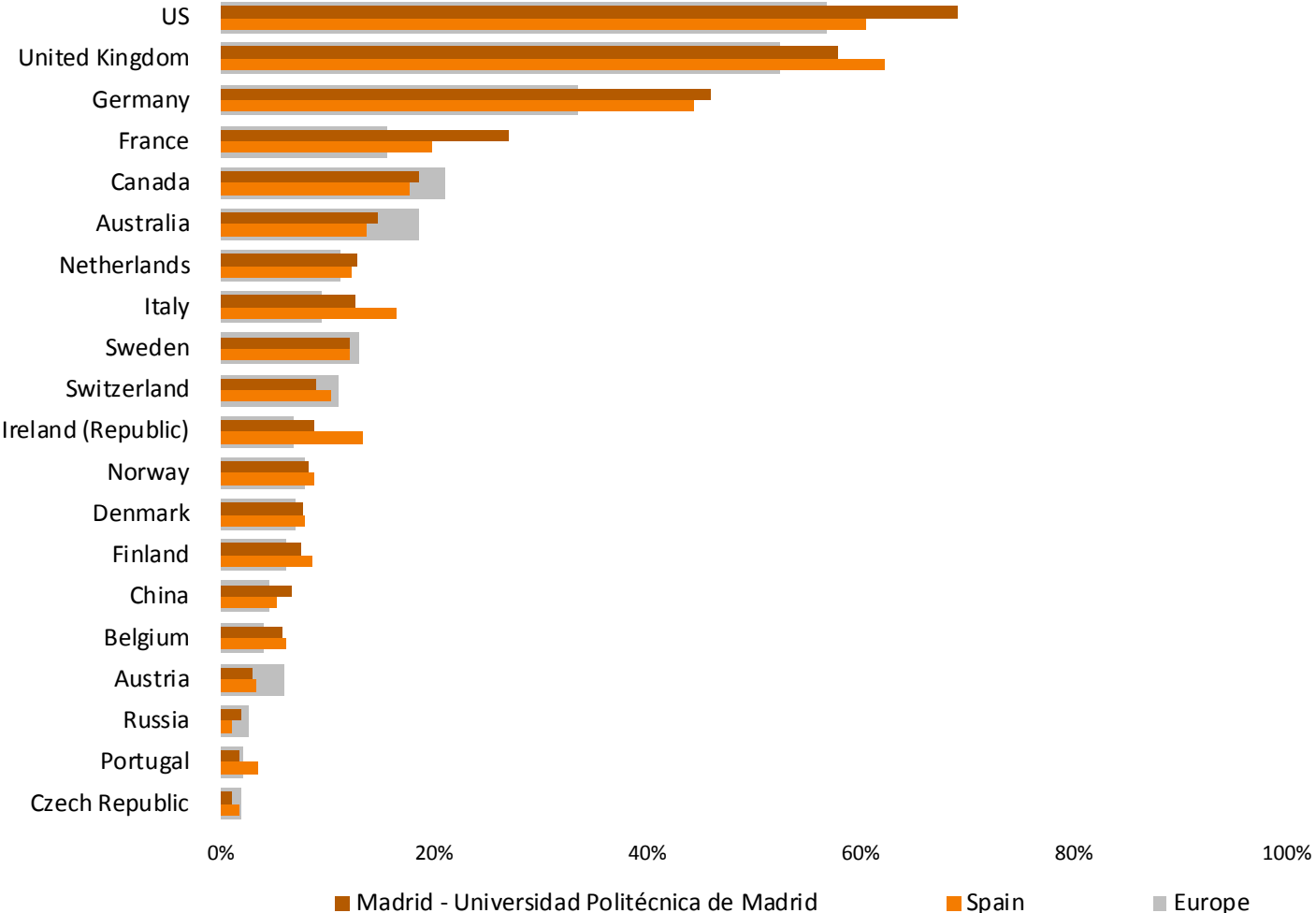


Interest in studying a master course abroad (cont.)

Country	%
Europe	50,5%
Austria	42,6%
Belgium	35,3%
Bulgaria	70,2%
Czech Republic	27,3%
Denmark	53,3%
Finland	30,2%
France	47,6%
Germany	0,0%
Greece	76,9%
Hungary	41,0%
Ireland	44,7%
Italy	54,8%

Country	%
Netherlands	34,9%
Norway	36,0%
Poland	39,7%
Portugal	43,9%
Romania	70,5%
Russia	64,8%
Slovakia	19,8%
Spain	60,1%
Sweden	43,4%
Switzerland	44,5%
Turkey	88,5%
United Kingdom	38,9%
Madrid - Universidad Politécnica de Madrid	69,7%

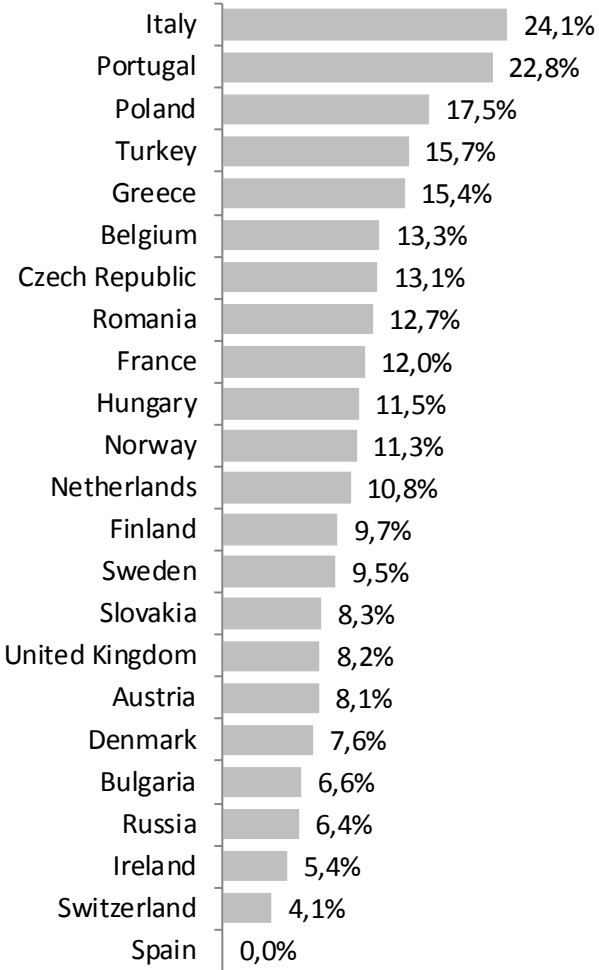
Desired master course destination



Desired master course destination (cont.)

Master course destination	Madrid - Universidad Politécnica de Madrid	Spain	Europe
US	69,1%	60,4%	56,8%
United Kingdom	57,9%	62,2%	52,4%
Germany	46,0%	44,4%	33,5%
France	26,9%	19,8%	15,6%
Canada	18,6%	17,7%	21,0%
Australia	14,8%	13,6%	18,5%
Netherlands	12,7%	12,2%	11,2%
Italy	12,6%	16,4%	9,4%
Sweden	12,0%	12,0%	12,9%
Switzerland	9,0%	10,4%	11,0%
Ireland (Republic)	8,7%	13,3%	6,8%
Norway	8,2%	8,7%	7,9%
Denmark	7,7%	7,9%	7,0%
Finland	7,5%	8,5%	6,2%
China	6,7%	5,3%	4,5%
Belgium	5,8%	6,2%	4,1%
Austria	2,9%	3,4%	5,9%
Russia	1,9%	1,0%	2,7%
Portugal	1,8%	3,5%	2,1%
Czech Republic	1,1%	1,7%	2,0%

Students wanting to study a master course in Spain



Question: Where would you like to study this master degree?

This question has not been asked in Germany.

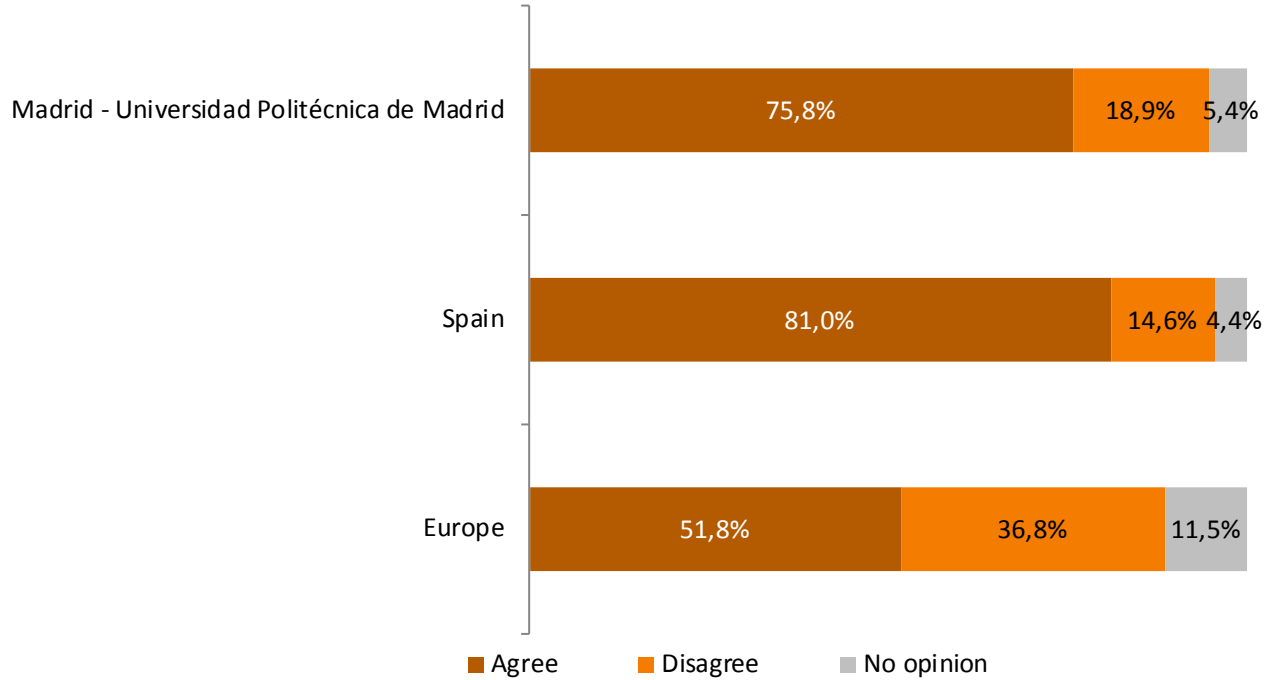
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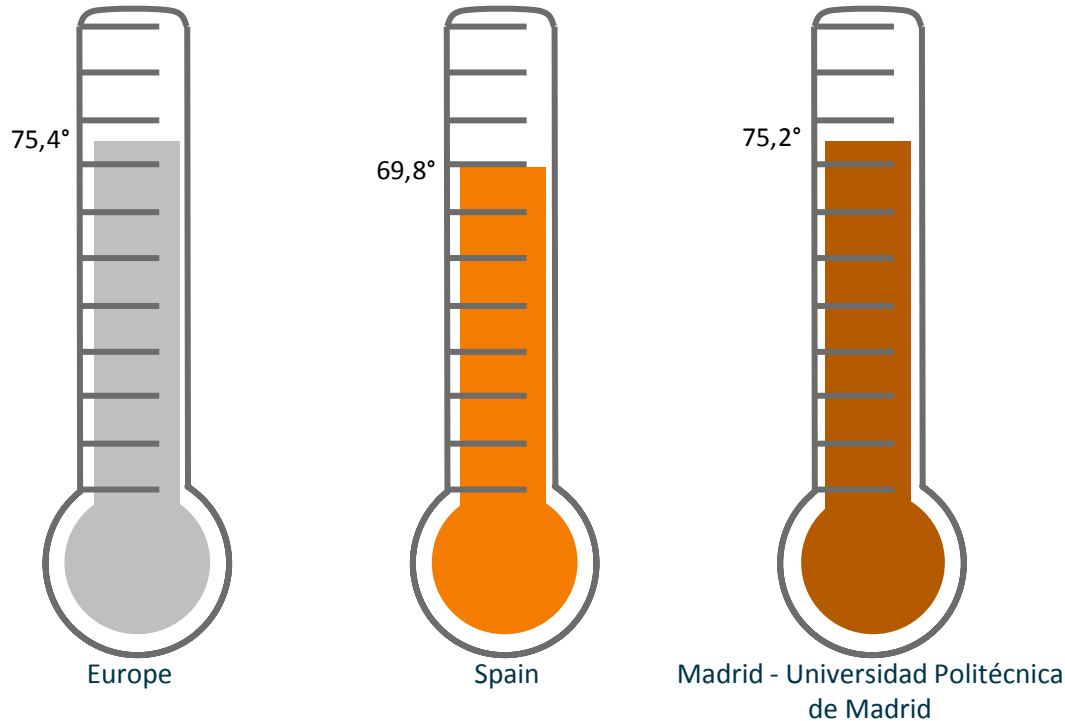


Opinion

I am worried about my future career



Optimism indicator

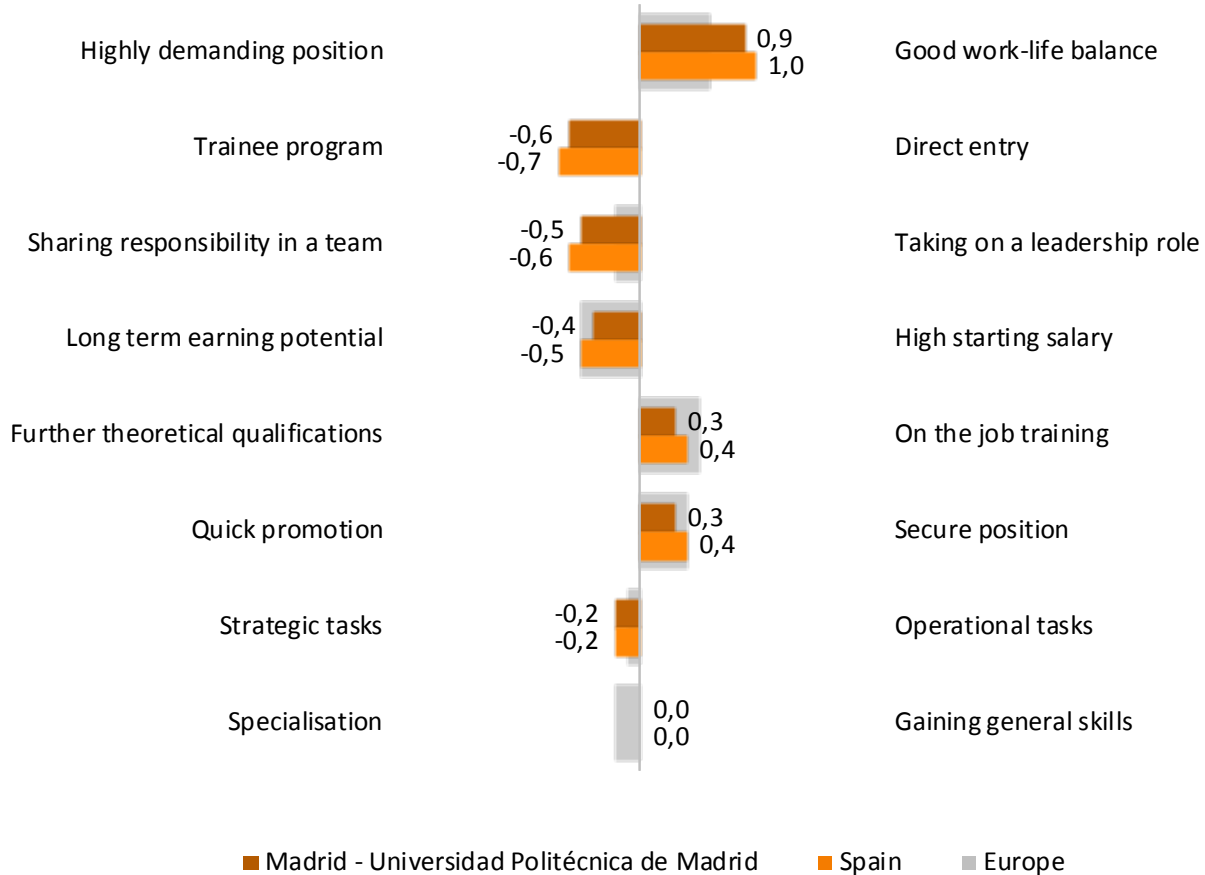


Question: How many APPLICATIONS do you expect to send (did you send) to find your first professional position?

Question: How many MONTHS do you expect to need (did you require) to find your first professional position?

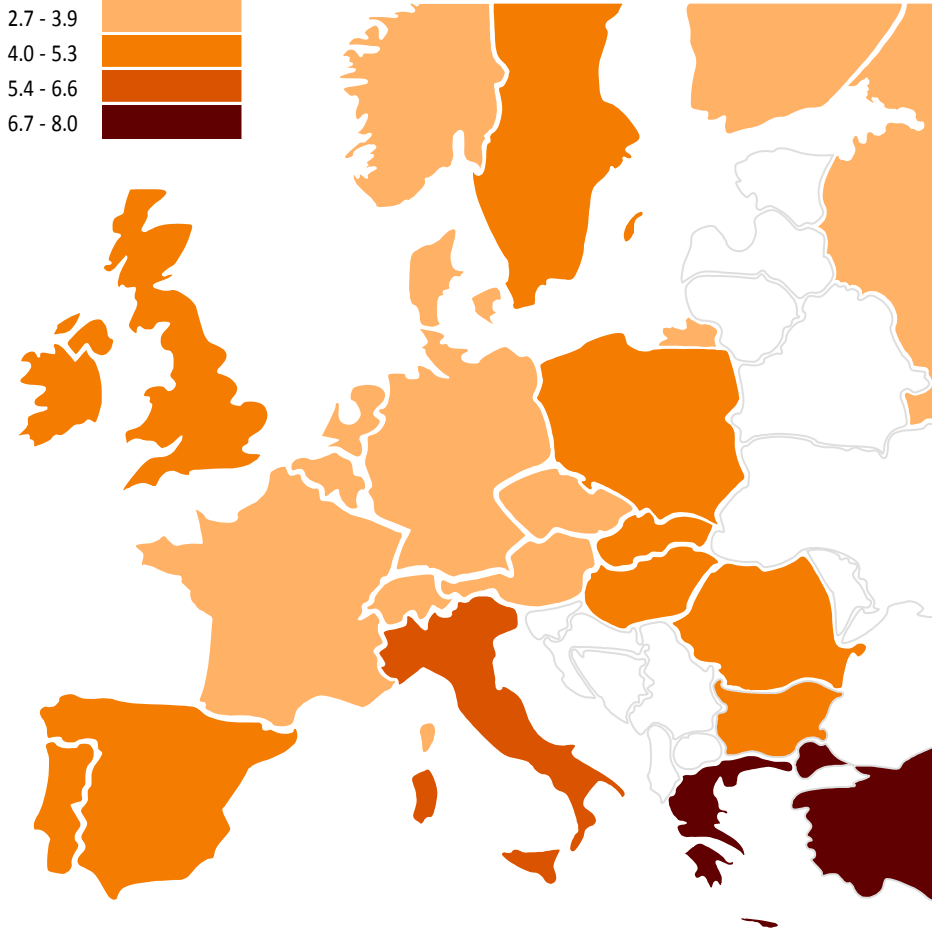
The trendence Optimism Index is an indicator for graduate confidence in relation to their job prospects. It has been calculated from two parameters, which have been chosen yearly as part of the evaluation of the job application process. 1) Number of anticipated applications. 2) Length of time it takes to get a job. The highest possible mark of 100 symbolises an "overheating" of the market: in such a market every graduate would find a position within the shortest of time and with minimal effort.

Career priorities



Job application process

Estimated timeframe to find first position



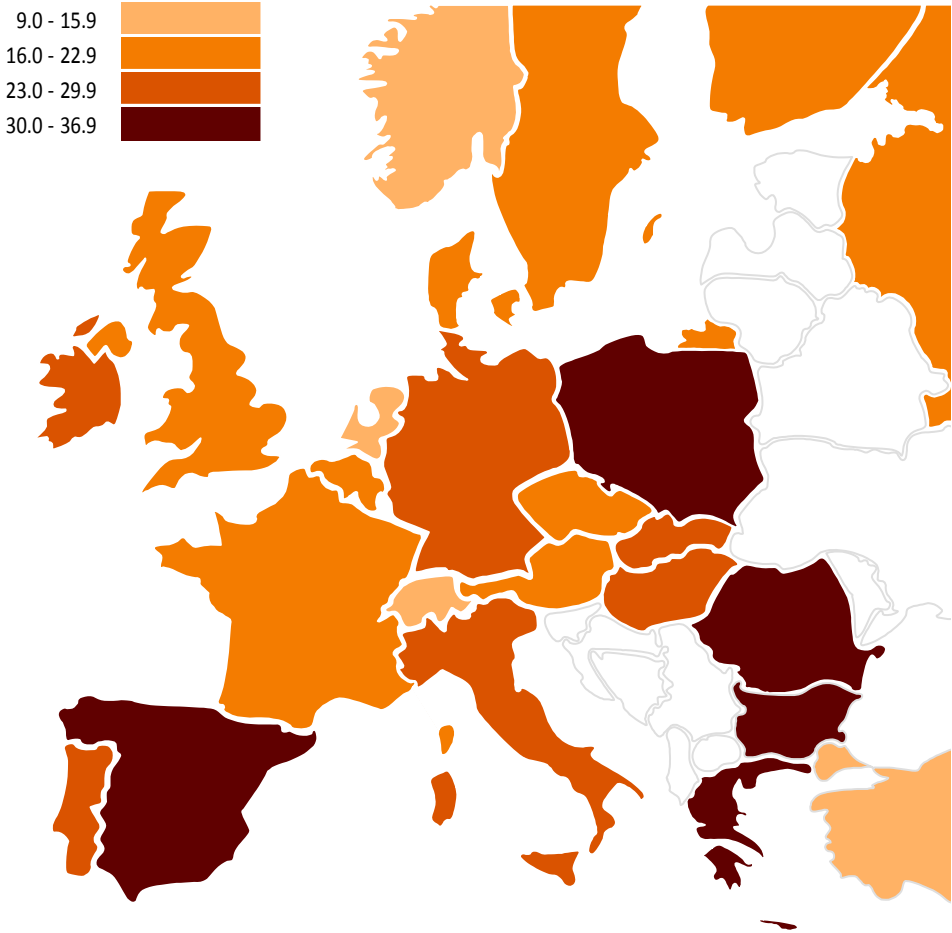
Job application process

Estimated timeframe to find first position (cont.)

Country	Months	Country	Months
Europe	4,5	Netherlands	3,4
Austria	3,1	Norway	3,1
Belgium	3,3	Poland	5,1
Bulgaria	4,1	Portugal	4,2
Czech Republic	3,7	Romania	4,7
Denmark	3,9	Russia	2,8
Finland	3,7	Slovakia	4,6
France	2,7	Spain	5,0
Germany	3,6	Sweden	4,0
Greece	7,7	Switzerland	3,2
Hungary	4,7	Turkey	8,0
Ireland	5,1	United Kingdom	4,7
Italy	6,3	Madrid - Universidad Politécnica de Madrid	3,9

Job application process

Estimated number of applications to find first position



Job application process

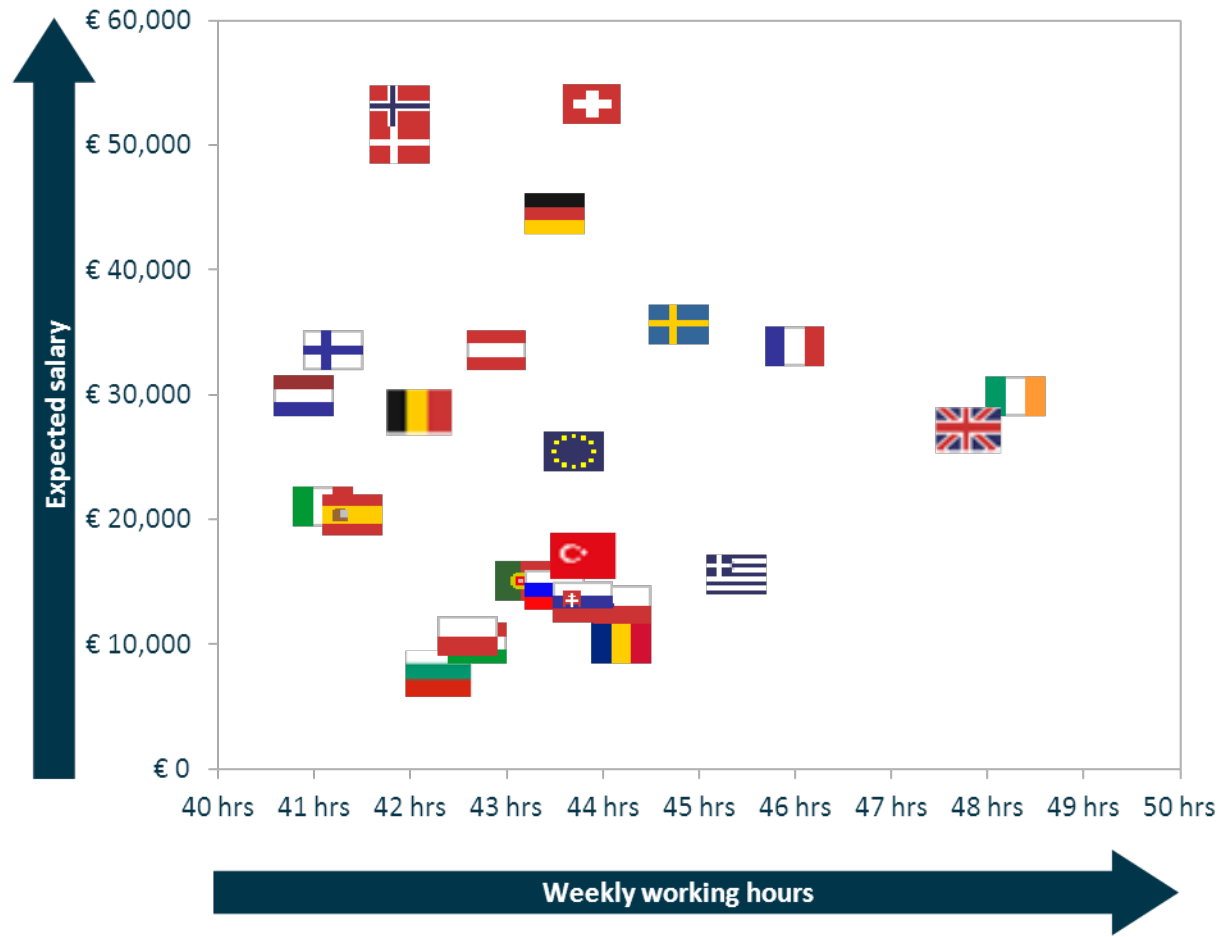
Estimated number of applications to find first position (cont.)

Country	Number of applications
Europe	24,6
Austria	20,3
Belgium	16,1
Bulgaria	30,1
Czech Republic	18,9
Denmark	22,6
Finland	20,3
France	20,7
Germany	23,2
Greece	31,8
Hungary	27,8
Ireland	27,6
Italy	24,6

Country	Number of applications
Netherlands	10,3
Norway	11,4
Poland	36,0
Portugal	25,0
Romania	33,8
Russia	16,2
Slovakia	26,0
Spain	30,2
Sweden	20,2
Switzerland	15,8
Turkey	9,0
United Kingdom	21,7
Madrid - Universidad Politécnica de Madrid	25,4

Expectations of first position

Expected gross annual salary / expected working hours relationship in Europe

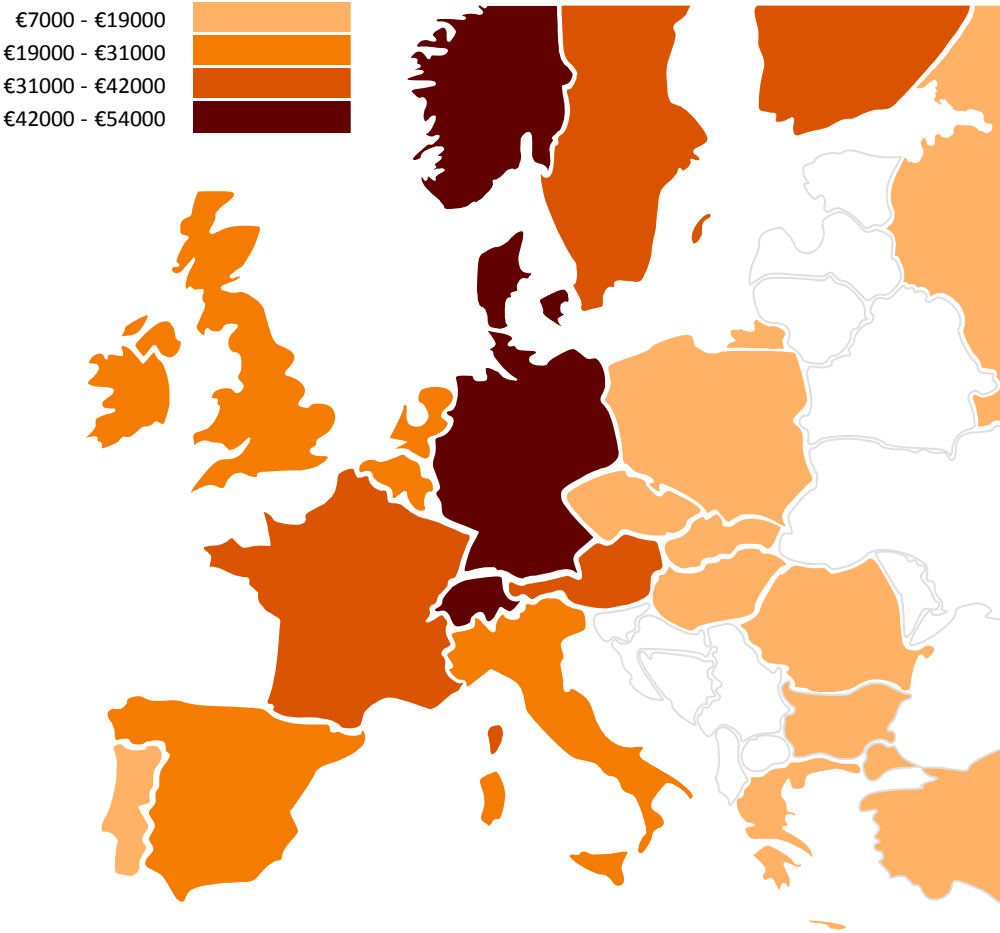


Question: How much do you expect to earn per year (gross income, including bonus) in your first professional position after graduation?

Question: How many hours are you prepared to work per week in your first professional position after graduation?

Expectations of first position

Expected gross annual salary



Question: How much do you expect to earn per year (gross income, including bonus) in your first professional position after graduation?

Expectations of first position

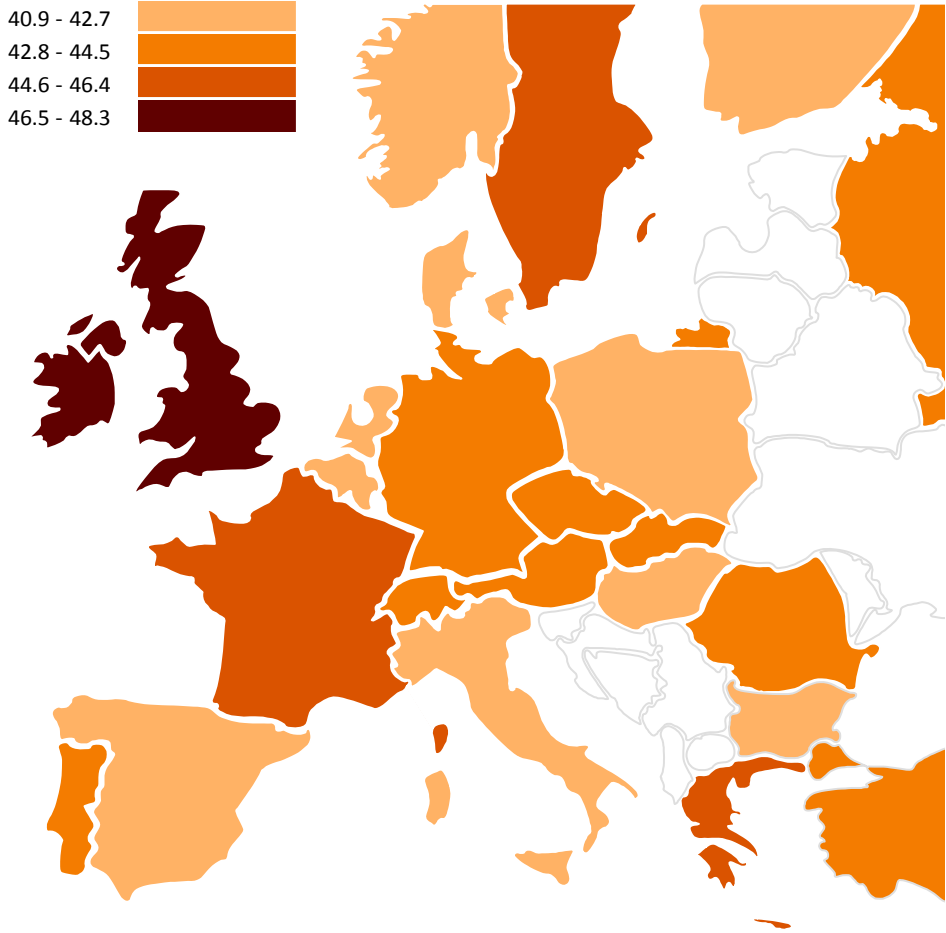
Expected gross annual salary (cont.)

Country	Expected income (Euros)
Europe	25.251,4 €
Austria	33.388,1 €
Belgium	28.540,5 €
Bulgaria	7.552,5 €
Czech Republic	12.938,0 €
Denmark	49.942,0 €
Finland	33.402,2 €
France	33.711,3 €
Germany	44.342,6 €
Greece	15.423,5 €
Hungary	9.950,7 €
Ireland	29.743,3 €
Italy	20.863,7 €

Country	Expected income (Euros)
Netherlands	29.766,3 €
Norway	52.956,9 €
Poland	10.542,1 €
Portugal	14.952,6 €
Romania	9.869,1 €
Russia	14.223,7 €
Slovakia	13.237,1 €
Spain	20.202,8 €
Sweden	35.415,7 €
Switzerland	53.114,7 €
Turkey	17.009,9 €
United Kingdom	27.056,6 €
Madrid - Universidad Politécnica de Madrid	23.108,9 €

Expectations of first position

Expected working hours



Question: How many hours are you prepared to work per week in your first professional position after graduation?

Expectations of first position

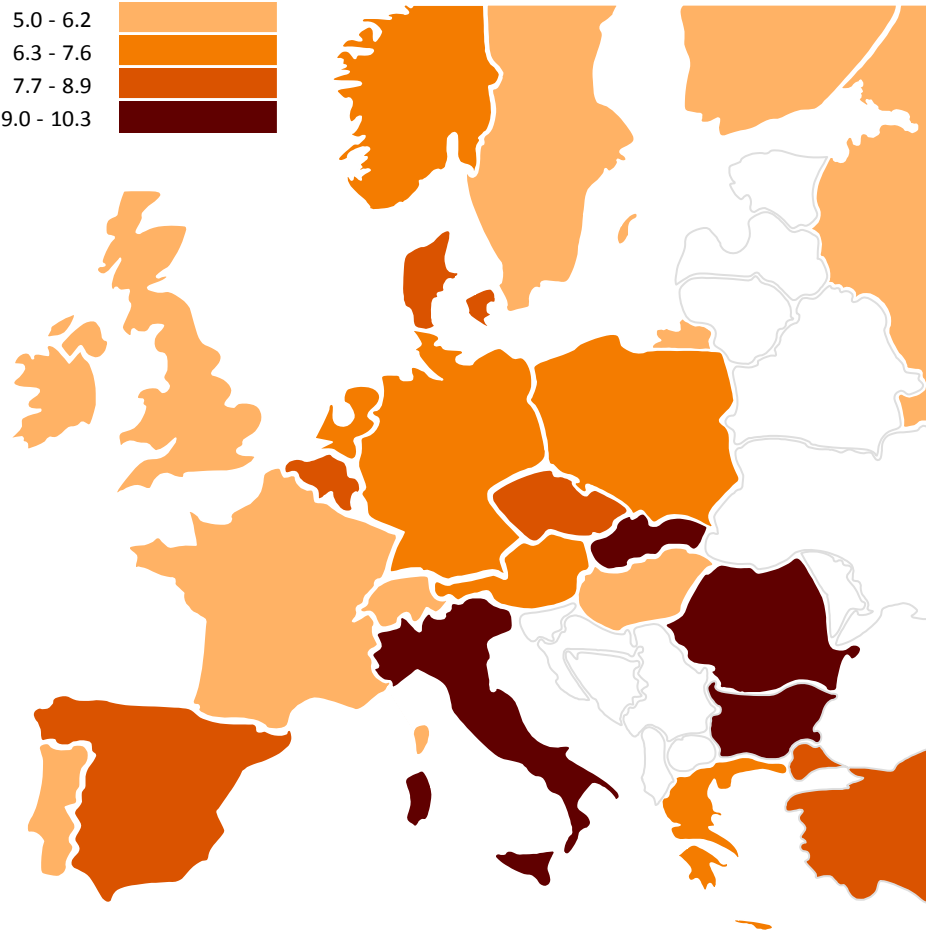
Expected working hours (cont.)

Country	Working hours
Europe	43,7
Austria	42,9
Belgium	42,1
Bulgaria	42,3
Czech Republic	44,2
Denmark	41,9
Finland	41,2
France	46,0
Germany	43,5
Greece	45,4
Hungary	42,7
Ireland	48,3
Italy	41,1

Country	Working hours
Netherlands	40,9
Norway	41,9
Poland	42,6
Portugal	43,2
Romania	44,2
Russia	43,5
Slovakia	43,8
Spain	41,4
Sweden	44,8
Switzerland	43,9
Turkey	43,8
United Kingdom	47,8
Madrid - Universidad Politécnica de Madrid	41,2

Expectations of first position

Expected time in first position



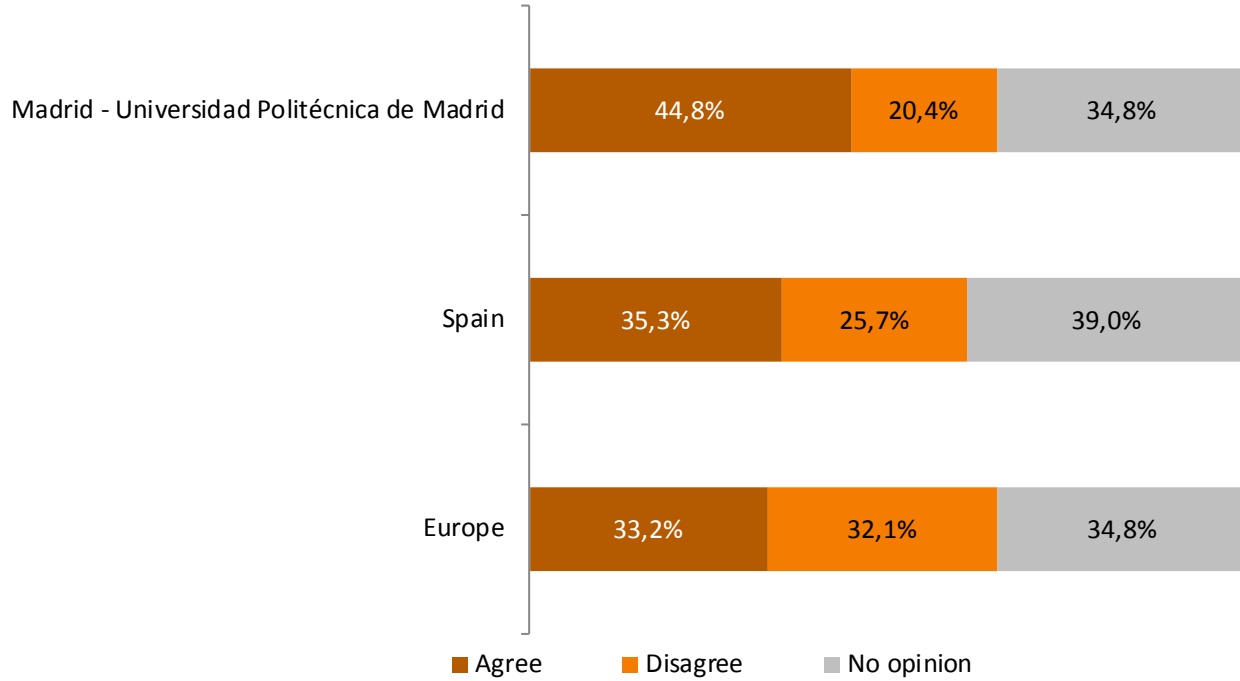
Expectations of first position

Expected time in first position (cont.)

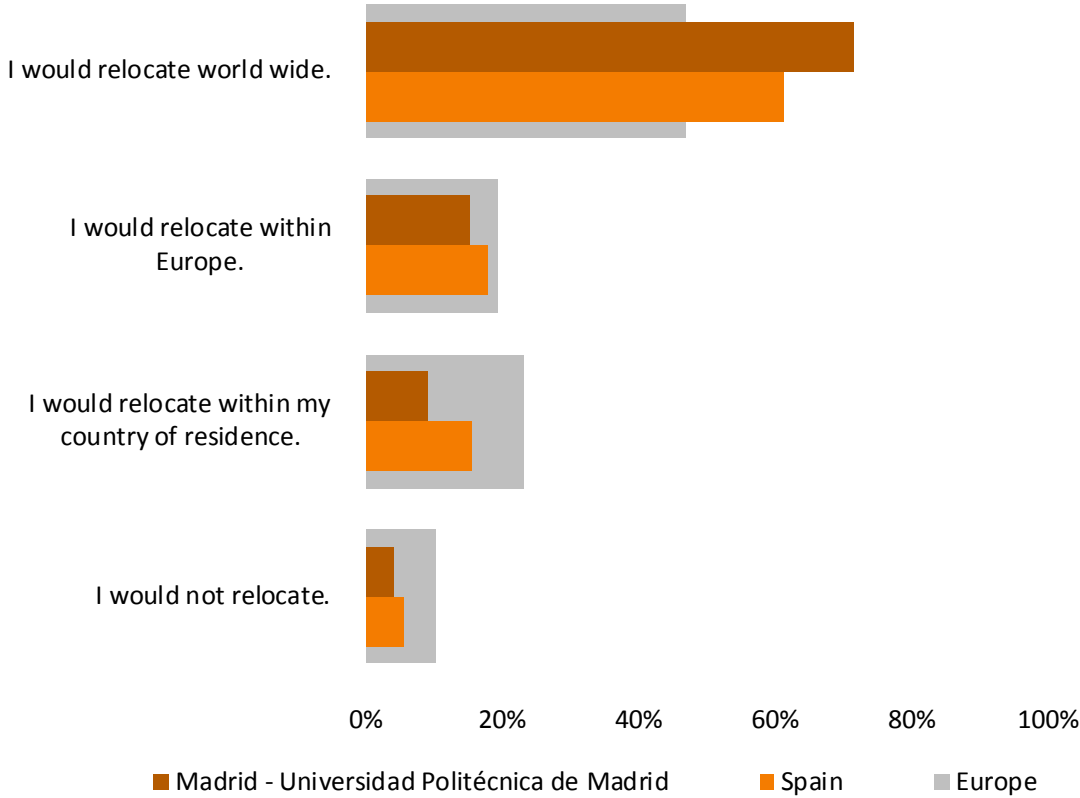
Country	Years	Country	Years
Europe	7,1	Netherlands	7,2
Austria	6,6	Norway	7,1
Belgium	8,9	Poland	7,5
Bulgaria	10,3	Portugal	6,2
Czech Republic	8,4	Romania	9,3
Denmark	7,9	Russia	5,2
Finland	5,7	Slovakia	9,2
France	5,2	Spain	7,9
Germany	6,8	Sweden	5,1
Greece	7,5	Switzerland	5,0
Hungary	5,0	Turkey	7,7
Ireland	5,3	United Kingdom	5,5
Italy	9,5	Madrid - Universidad Politécnica de Madrid	6,3

Opinion

After graduating I will leave my country to find a professional position abroad



Mobility – willingness to relocate

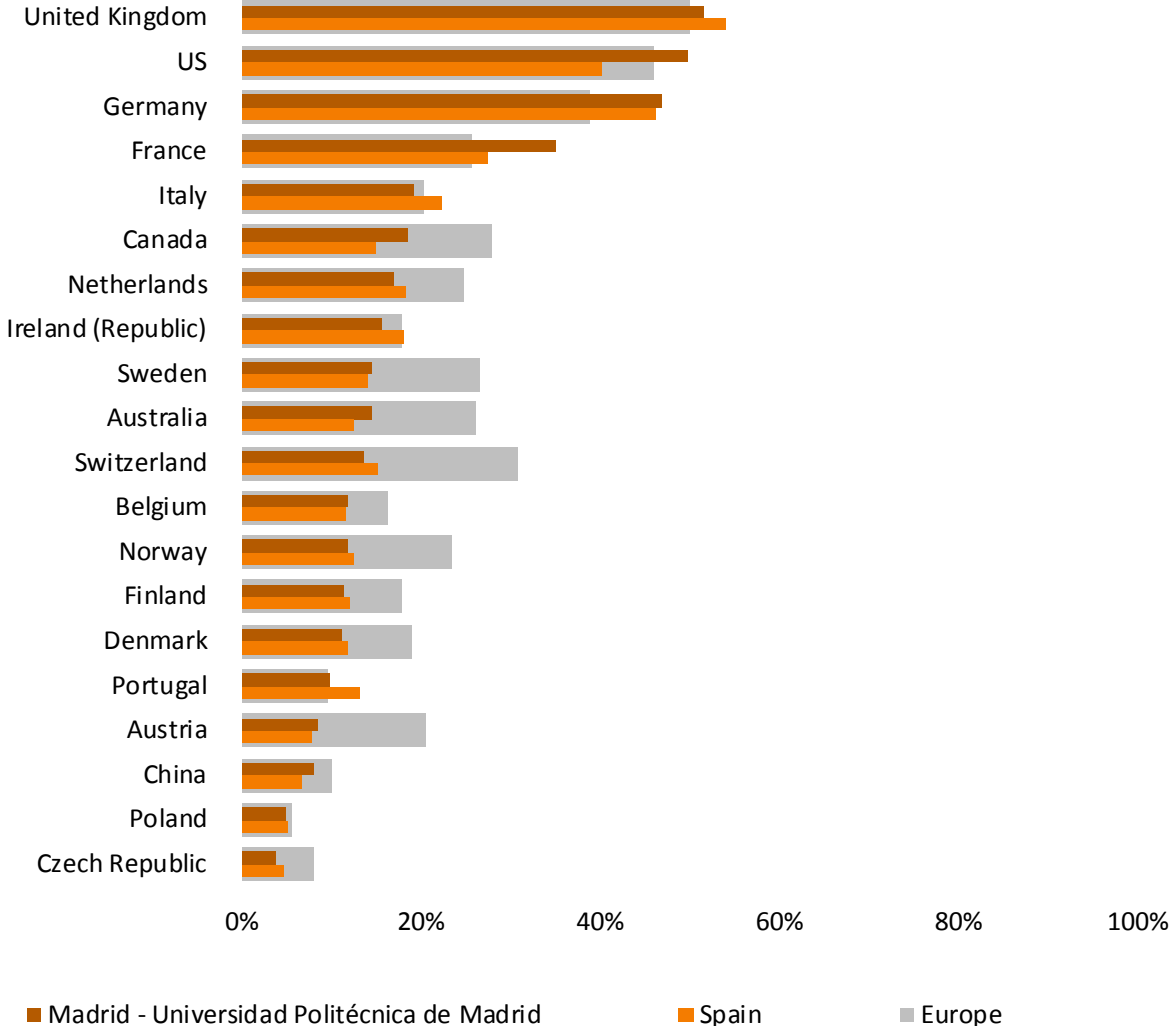


Question: Imagine you received an attractive job offer. To what extent would you relocate?

Mobility – willingness to relocate (cont.)

Mobility	Madrid - Universidad Politécnica de Madrid	Spain	Europe
I would relocate world wide.	71,3%	61,1%	46,8%
I would relocate within Europe.	15,4%	17,9%	19,5%
I would relocate within my country of residence.	9,2%	15,5%	23,3%
I would not relocate.	4,1%	5,5%	10,3%

Mobility – emigration destination



Question: Which foreign countries would you be most likely to move to for your first professional position after graduation?

Mobility – emigration destination (cont.)

Emigration destination	Madrid - Universidad Politécnica de Madrid	Spain	Europe
United Kingdom	51,4%	53,9%	49,9%
US	49,7%	40,2%	46,0%
Germany	46,8%	46,2%	38,8%
France	35,1%	27,5%	25,7%
Italy	19,1%	22,2%	20,2%
Canada	18,5%	15,0%	27,8%
Netherlands	16,9%	18,2%	24,8%
Ireland (Republic)	15,7%	18,0%	17,9%
Sweden	14,4%	14,1%	26,6%
Australia	14,4%	12,4%	26,0%
Switzerland	13,6%	15,2%	30,8%
Belgium	11,9%	11,6%	16,2%
Norway	11,8%	12,6%	23,5%
Finland	11,3%	12,1%	17,8%
Denmark	11,2%	11,9%	18,9%
Portugal	9,9%	13,2%	9,5%
Austria	8,4%	7,8%	20,5%
China	8,0%	6,8%	10,1%
Poland	5,0%	5,1%	5,5%
Czech Republic	3,7%	4,6%	8,0%

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Who are the most attractive employers in Europe?

Rang 2011	Employer	Europe
1	Google	10,21%
2	Microsoft	8,62%
3	IBM	6,12%
4	Apple	6,07%
5	BMW	5,52%
6	Volkswagen Group	5,24%
7	Siemens	4,63%
8	EADS	4,05%
9	Intel	3,70%
10	Daimler/ Mercedes-Benz	3,63%

Who are the most attractive employers in Spain?

Rang 2011 Employer		Spain
1	Google	16,6%
2	Iberdrola	11,1%
3	Acciona	10,6%
4	Apple	10,1%
5	Microsoft	9,3%
6	Ferrovial	7,0%
7	Repsol	6,7%
8	Indra	5,9%
9	Endesa (Enel)	5,2%
10	AENA	5,1%

Who are the most attractive employers at your university?

Rang 2011 Employer		Madrid - Universidad Politécnica de Madrid
1	Google	17,5%
2	Apple	13,8%
3	EADS	13,3%
4	Acciona	12,5%
5	Ferrovial	11,3%
6	Indra	11,1%
7	AENA	10,8%
8	Iberdrola	8,8%
9	Microsoft	8,6%
10	Repsol	8,2%

Who are the most active employers in Spain?

Rang	2011 Employer	Spain
1	Iberdrola	12,4%
2	Repsol	11,1%
3	Indra	10,9%
4	Telefónica (O2)	10,8%
5	Acciona	10,7%
6	Vodafone	10,6%
7	Accenture	10,3%
8	Microsoft	9,6%
9	Ferrovial	8,7%
10	Google	8,0%

Who are the most active employers at your university?

Rang 2011 Employer		Madrid - Universidad Politécnica de Madrid
1	Accenture	19,1%
2	EADS	16,7%
3	AENA	16,1%
3	Indra	16,1%
5	Ferrovial	12,6%
5	Telefónica (O2)	12,6%
7	Acciona	11,3%
8	Vodafone	10,3%
9	Repsol	9,2%
10	Iberia	7,9%

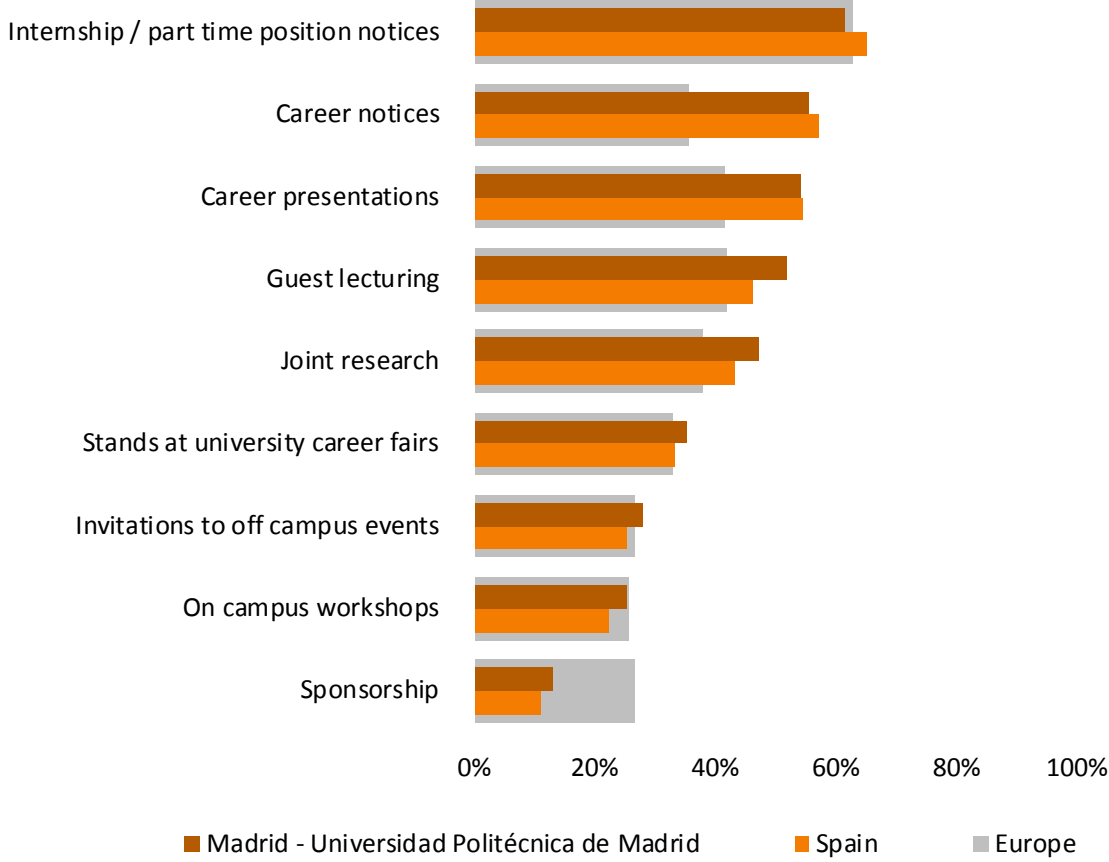
General communication channels used



General communication channels used (cont.)

General communications channels	Madrid - Universidad Politécnica de Madrid	Spain	Europe
Advice from friends / acquaintances / university personnel	79,0%	75,6%	73,0%
Employer internet site	63,8%	62,2%	70,1%
Career website / job search website	60,0%	64,8%	60,6%
University notice boards	45,2%	39,7%	30,2%
Employer presentation/event at the university	41,5%	35,8%	42,7%
Career fairs	38,3%	28,5%	38,5%
Position advertisements in newspapers / magazines	33,7%	40,8%	42,9%
Personally contacting the employer	31,1%	34,4%	32,0%
University career centre	24,1%	26,5%	26,3%
Work experience with the employer	19,9%	19,4%	44,2%
Information day / event at the employer	18,8%	15,6%	22,2%
Careers publications	6,6%	6,9%	22,2%

Most appealing campus marketing activities



Most appealing campus marketing activities (cont.)

Campus marketing activities	Madrid - Universidad Politécnica de Madrid	Spain	Europe
Internship / part time position notices	61,3%	65,0%	62,9%
Career notices	55,5%	57,1%	35,7%
Career presentations	54,1%	54,5%	41,5%
Guest lecturing	51,9%	46,3%	41,9%
Joint research	47,1%	43,2%	38,0%
Stands at university career fairs	35,1%	33,2%	32,8%
Invitations to off campus events	28,0%	25,3%	26,8%
On campus workshops	25,4%	22,4%	25,7%
Sponsorship	12,9%	11,1%	26,7%

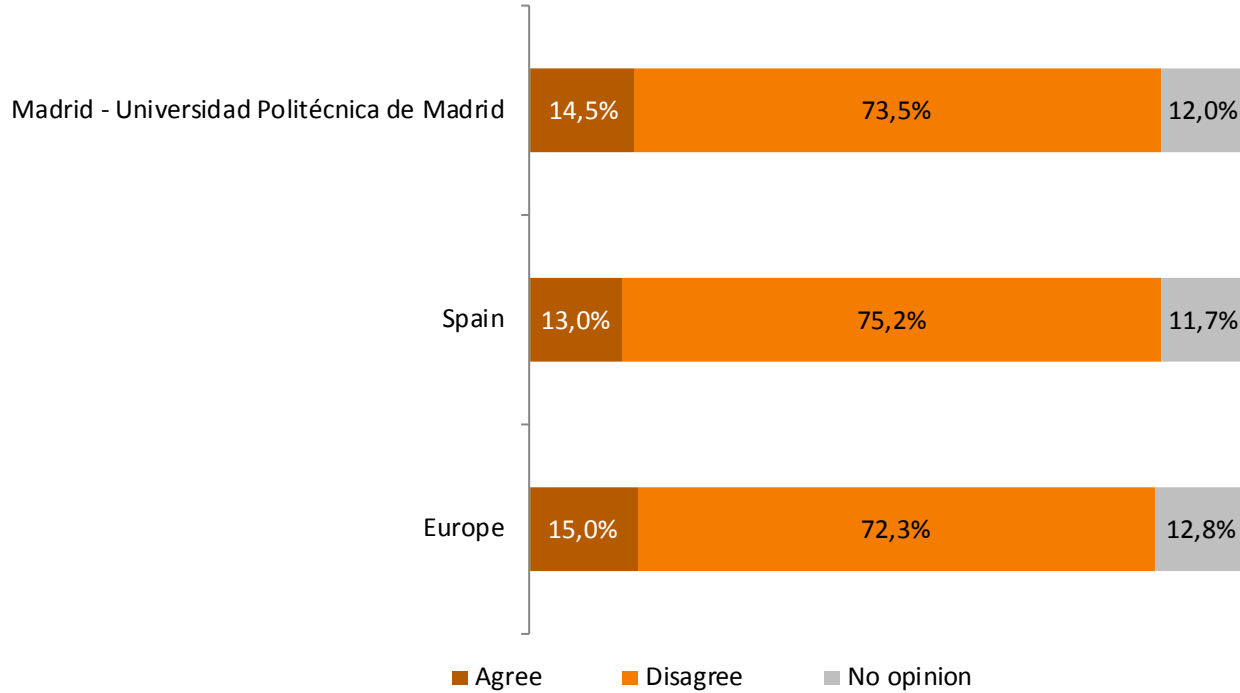
Contents

1. General information / methodology
2. Education and university evaluation
3. Career
4. Focus on Top Employers 2011
5. **Profile**



Opinion

Students should pay for their tertiary education



Profile

Age and gender

Age	Years
Europe	22,7
Spain	23,1
Madrid - Universidad Politécnica de Madrid	22,6

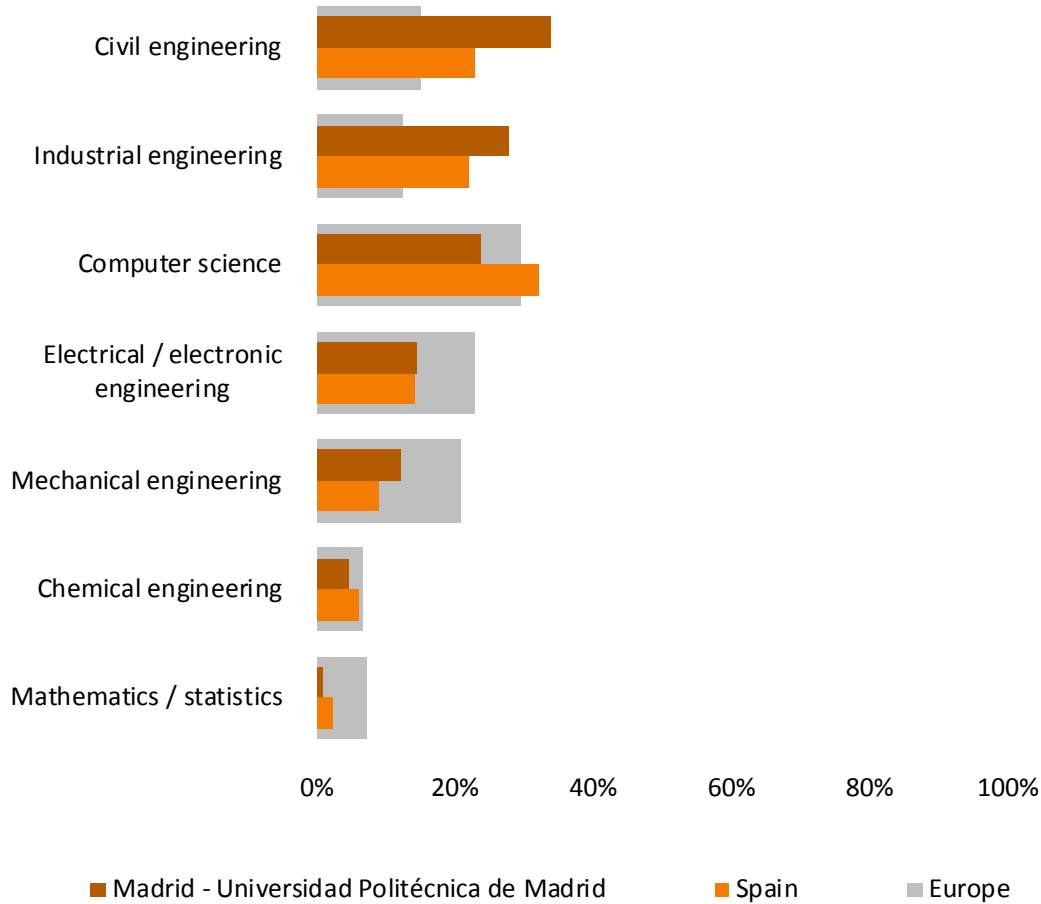
Country	Male	Female
Europe	68,0%	32,0%
Austria	64,9%	35,1%
Belgium	73,3%	26,7%
Bulgaria	53,9%	46,1%
Czech Republic	61,1%	38,9%
Denmark	63,4%	36,6%
Finland	66,4%	33,6%
France	71,5%	28,5%
Germany	81,7%	18,3%
Greece	60,7%	39,3%
Hungary	69,6%	30,4%
Ireland (Republic)	63,2%	36,8%
Italy	67,0%	33,0%
Netherlands	68,8%	31,2%
Norway	79,9%	20,1%
Poland	68,6%	31,4%
Portugal	70,5%	29,5%
Romania	64,3%	35,7%
Russia	59,8%	40,2%
Slovakia	73,6%	26,4%
Spain	67,5%	32,5%
Sweden	67,6%	32,4%
Switzerland	74,6%	25,4%
Turkey	71,0%	29,0%
United Kingdom	57,1%	42,9%
Madrid - Universidad Politécnica de Madrid	68,1%	31,9%

Question: How old are you?

Question: You are... (a man / a woman?)

Profile (cont.)

Subjects



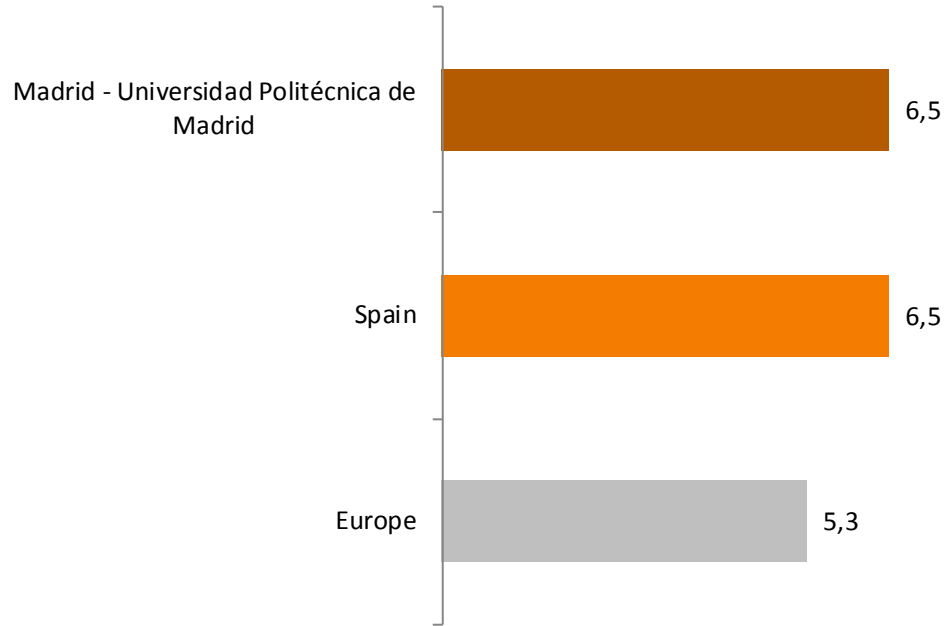
Profile (cont.)

Subjects (cont.)

Subjects	Madrid - Universidad Politécnica de Madrid	Spain	Europe
Civil engineering	33,9%	23,0%	15,1%
Industrial engineering	27,7%	22,1%	12,4%
Computer science	23,7%	32,1%	29,6%
Electrical / electronic engineering	14,5%	14,3%	22,9%
Mechanical engineering	12,3%	9,1%	20,9%
Chemical engineering	4,7%	6,2%	6,7%
Mathematics / statistics	1,0%	2,4%	7,3%

Profile (cont.)

Length of education

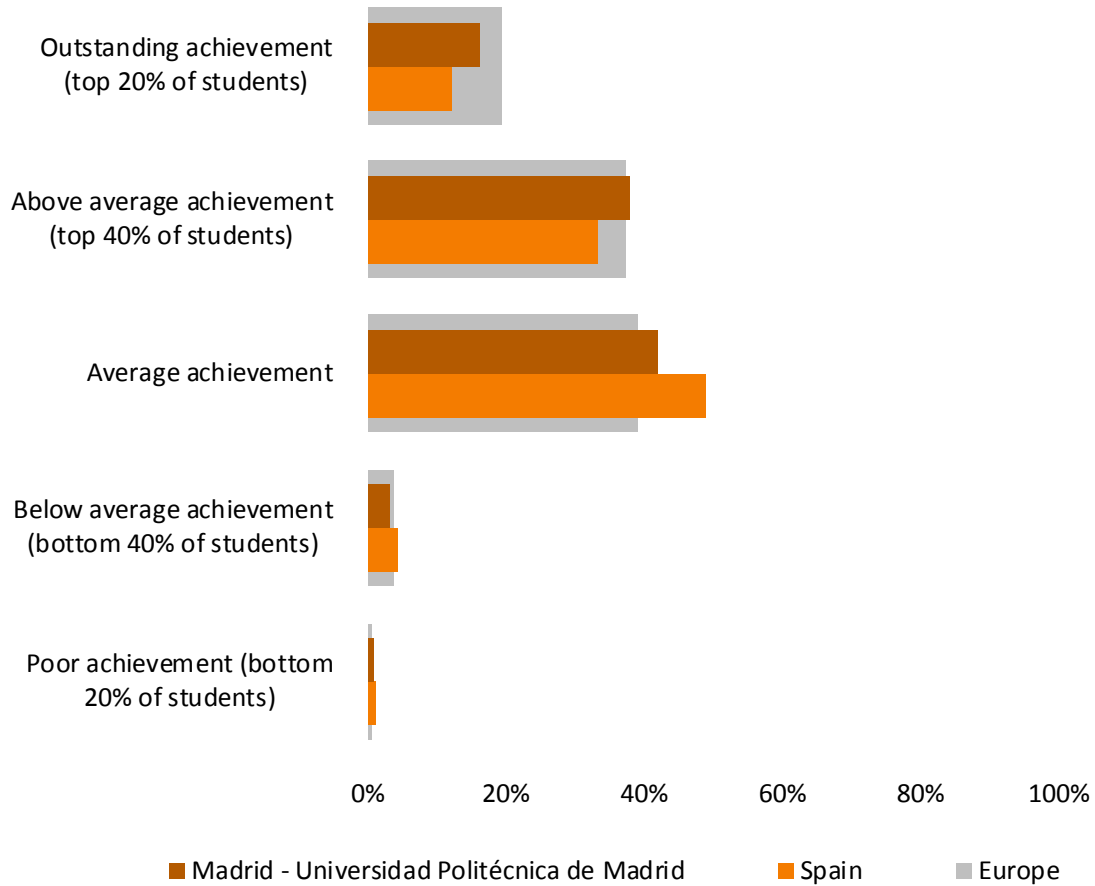


Question: When did you start studying your first course at university?

Question: When do you expect to start your first professional position after graduation?

Profile (cont.)

Academic achievement



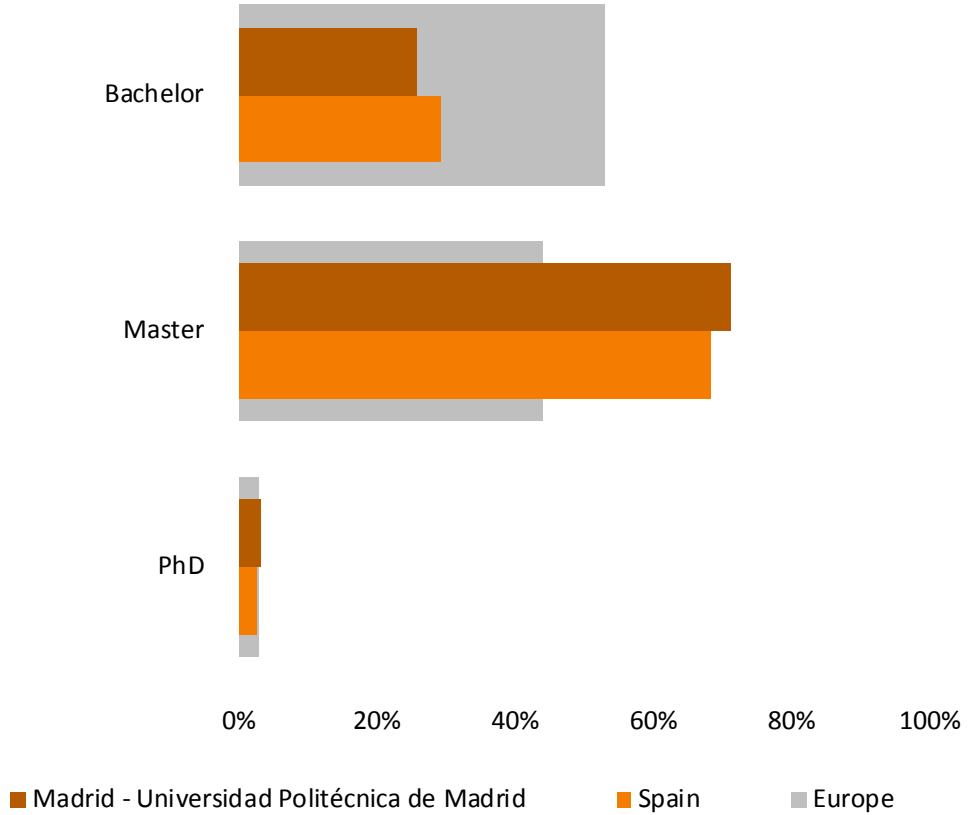
Profile (cont.)

Academic achievement (cont.)

Academic achievement	Madrid - Universidad Politécnica de Madrid	Spain	Europe
Outstanding achievement (top 20% of students)	16,2%	12,3%	19,3%
Above average achievement (top 40% of students)	37,9%	33,3%	37,4%
Average achievement	41,8%	48,8%	39,0%
Below average achievement (bottom 40% of students)	3,1%	4,5%	3,7%
Poor achievement (bottom 20% of students)	1,0%	1,1%	0,7%

Profile (cont.)

Course type

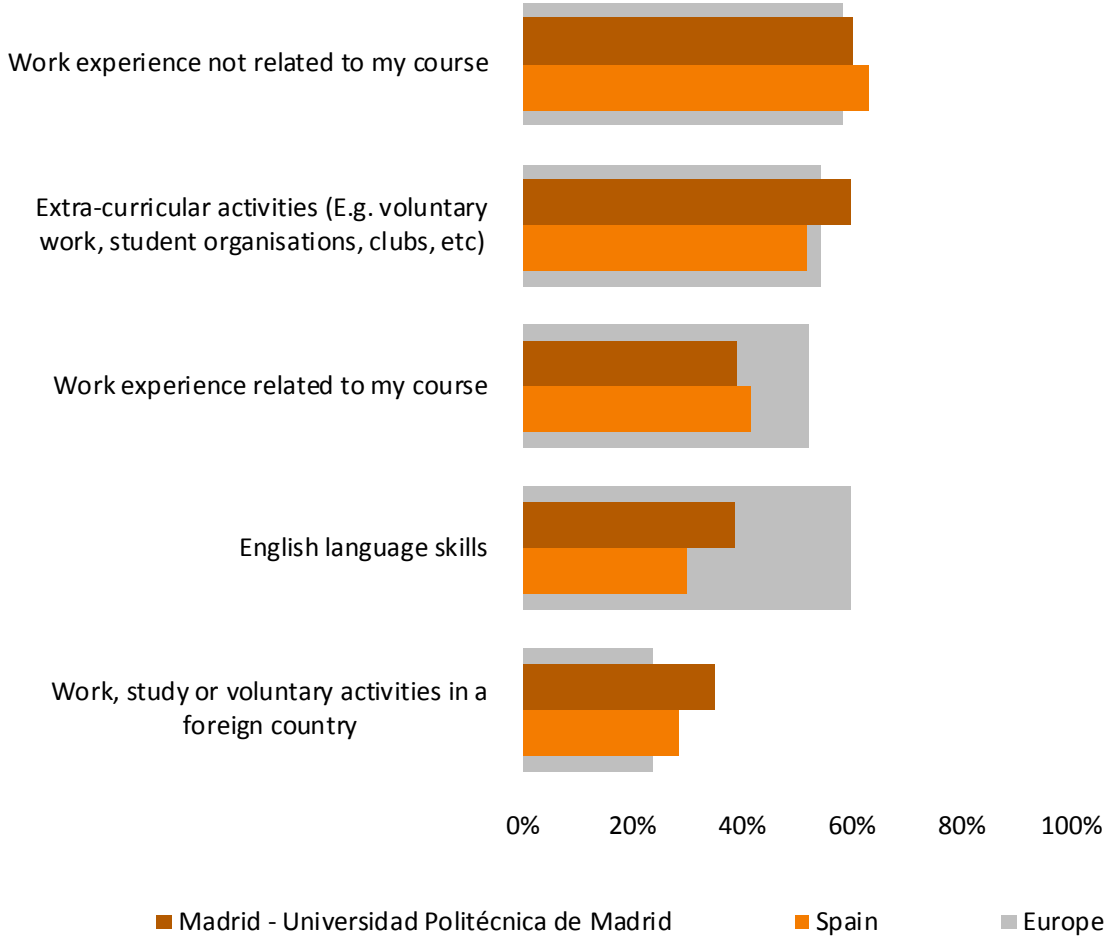


Profile (cont.)

Course type (cont.)

Course type	Madrid - Universidad Politécnica de Madrid	Spain	Europe
Bachelor	25,8%	29,1%	52,9%
Master	71,0%	68,3%	44,1%
PhD	3,2%	2,6%	2,9%

Experiences and advanced english skills



Question: What experience s(of at least 3 months length) do you have?

Question: Do you speak English at a HIGHLY ADVANCED LEVEL? In this sense 'highly advanced level' means that you can speak, write and understand the language without any difficulties. I.e. You are fluent, have a large vocabulary and make very few grammatical errors.

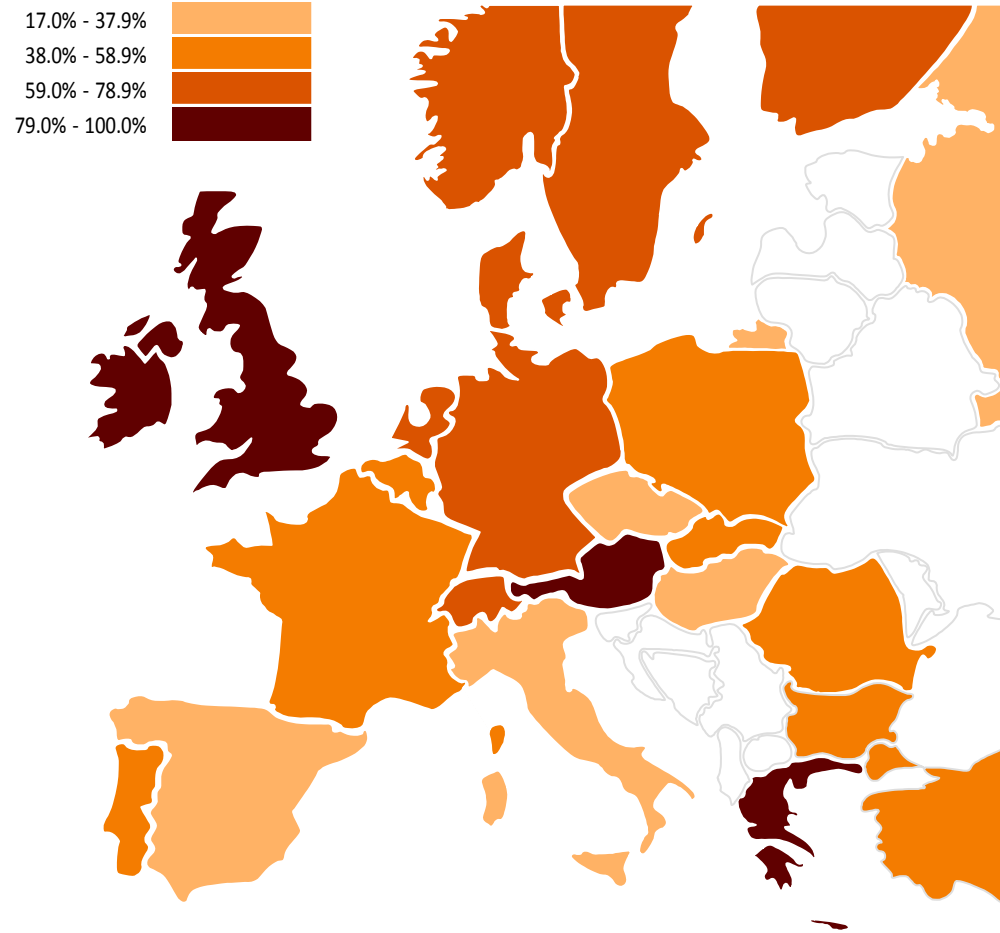
Experiences and advanced english skills (cont.)

Experiences	Madrid - Universidad Politécnica de Madrid	Spain	Europe
Work experience not related to my course	60,1%	62,8%	58,4%
Extra-curricular activities (E.g. voluntary work, student organisations, clubs, etc)	59,6%	51,8%	54,1%
Work experience related to my course	38,8%	41,6%	51,9%
English language skills	38,6%	29,7%	59,7%
Work, study or voluntary activities in a foreign country	35,0%	28,5%	23,5%

Question: What experience s(of at least 3 months length) do you have?

Question: Do you speak English at a HIGHLY ADVANCED LEVEL? In this sense 'highly advanced level' means that you can speak, write and understand the language without any difficulties. I.e. You are fluent, have a large vocabulary and make very few grammatical errors.

Advanced english skills in Europe



Question: Do you speak English at a HIGHLY ADVANCED LEVEL? In this sense 'highly advanced level' means that you can speak, write and understand the language without any difficulties. I.e. You are fluent, have a large vocabulary and make very few grammatical errors.

Advanced english skills in Europe (cont.)

Country	%	Country	%
Europe	59,7%	Netherlands	59,9%
Austria	80,5%	Norway	75,0%
Belgium	50,6%	Poland	53,3%
Bulgaria	39,7%	Portugal	56,9%
Czech Republic	29,4%	Romania	46,9%
Denmark	77,7%	Russia	24,8%
Finland	72,7%	Slovakia	53,4%
France	48,9%	Spain	29,7%
Germany	67,1%	Sweden	69,2%
Greece	82,8%	Switzerland	66,4%
Hungary	17,1%	Turkey	42,3%
Ireland	100,0%	United Kingdom	100,0%
Italy	30,2%	Madrid - Universidad Politécnica de Madrid	38,6%

Question: Do you speak English at a HIGHLY ADVANCED LEVEL? In this sense 'highly advanced level' means that you can speak, write and understand the language without any difficulties. I.e. You are fluent, have a large vocabulary and make very few grammatical errors.

For enquiries please contact:

Ulrike Heyne
Research Manager

Phone: +49 30 2592988-306

Fax: +49 30 2592988-901

Ulrike.Heyne@trendence.com

trendence Institut GmbH
Markgrafenstrasse 62
10969 Berlin, Germany