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“Study profile and occupational condition of PhDs”

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- ❖ *AlmaLaurea's Consortium general purpose*
- ❖ *AlmaLaurea's surveys on PhD programmes*
- ❖ *Some evidence from the PhDs study profile*
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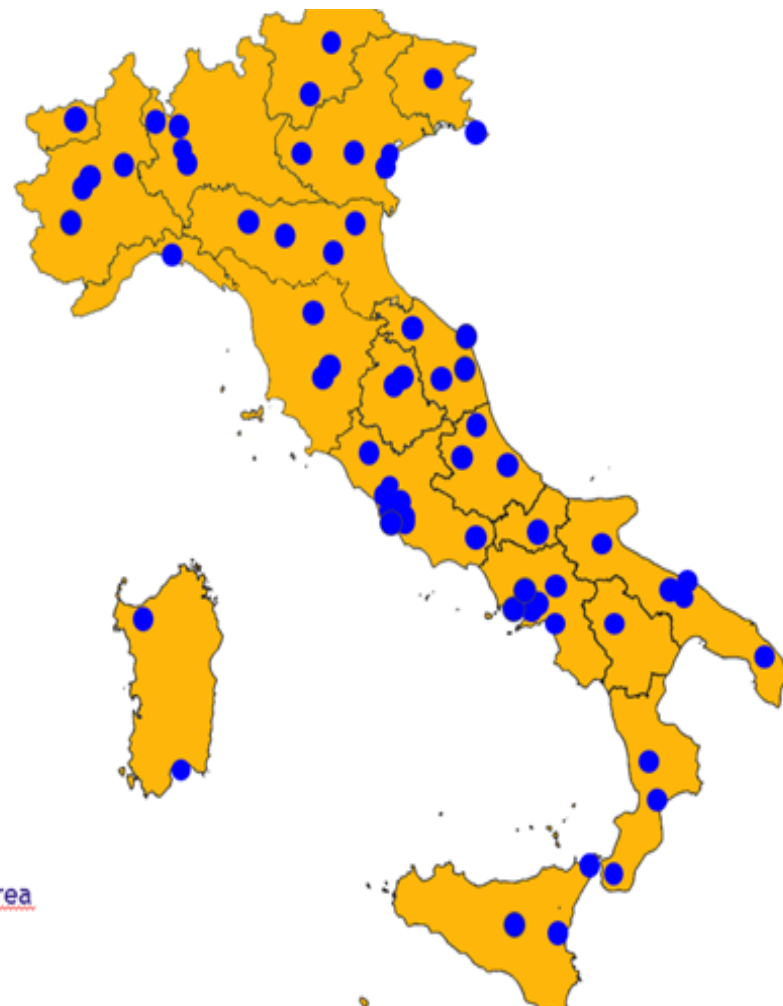


*AlmaLaurea Consortium
general purpose*

- AlmaLaurea is an Inter-university not for profit Consortium, founded in 1994 at the University of Bologna, whose main goal is to investigate annually on a regular basis the study profile and the occupational condition of graduates in Italian universities
- It is a bottom up initiative which involves, nowadays, 75 Italian Universities and about 90% of graduates in Italy
- Since 2015 AlmaLaurea is part of the National Statistical System (SISTAN), the network of public and private units that can provide official statistical information in Italy
- Since 2017 AlmaLaurea became a recognized research institution
- The collected data are employed for quality assessment and certification procedures both at the level of single universities and the level of the National Agency for Evaluation of University and Research (ANVUR)

AlmaLaurea

is an Inter-university not for profit Consortium, founded in Italy in 1994, at the University of Bologna. It is a *bottom up* initiative which involves, nowadays, **75 Universities** and about **90% of graduates in Italy**



• Universities in AlmaLaurea

Since 2015 AlmaLaurea is in the SISIAN system, the network of units that can provide official statistical information in Italy

- The available stock of graduates curricula, which is part of AlmaLaurea database, amounts today to 3 millions cvs
- In 2005, the Consortium created a new placement service company: AlmaLaurea Ltd
- AlmaLaurea collects and makes available online the graduates' cvs to facilitate the matching between supply and demand of qualified jobs. Evaluates companies' professional needs and carries out staff search & selection through AlmaLaurea Ltd
- AlmaLaurea is considered a best practice in Europe, also thanks to the high statistical standards achieved.
- AlmaLaurea surveys provide fundamental information also for the counselling services for high school graduates and for the access of graduates to the labour markets.

■ The AlmaLaurea model is based on three pillars:

- ✓ an **annual survey** (census survey) on the **graduates' profile** (*internal effectiveness of the HEIs*)
[data in aggregate form]
- ✓ an **annual survey** (census survey) on the **graduates' occupational condition** at 1, 3 and 5 years after graduation
(external effectiveness of the HEIs)
[data in aggregate form]
- ✓ an **online database** with about 3 million cvs, a powerful tool aiming at improving the match between supply of and demand for graduates.

In fact, AlmaLaurea supplies **services to companies and firms**:
online based recruitment services, ad hoc human capital selection,
employer branding *[in full respect of the privacy law]*



*AlmaLaurea surveys on
PhD programmes*

AlmaLaurea's surveys on PhDs' profile and occupational condition involve more and more universities: in 2014, 12 universities took part to the project. Nowadays, 37 universities are involved in AlmaLaurea's PhD project.



• Universities in AlmaLaurea



It surveys, every year through a census survey, the **Profile** and the **Occupational condition** of PhDs 1 year after the end of the PhD, providing the member Universities with reliable documented data and to favour decision-making processes and activities planning.



It monitors PhD students' educational path and assess the **internal effectiveness of PhDs courses**, allowing comparison between different universities, faculties/schools and courses.



It assess the **external effectiveness of PhDs courses** by monitoring **PhDs employability**.



It collects and makes available **online PhD CVs** so to encourage the match between supply of and demand for qualified labour.



It allows an **effective use of human resources** through a steady update of data regarding the career of university graduates and PhDs.



It assesses the **needs and professional profiles** sought after by Italian and foreign public and private **companies** and it carries out search and recruitment of personnel.



An integrated system: data collection methods (inputs and outputs)

PhDs



93.5%
at the end
of PhD

Questionnaire
CVs

4,000
every year



CVs for
enterprises

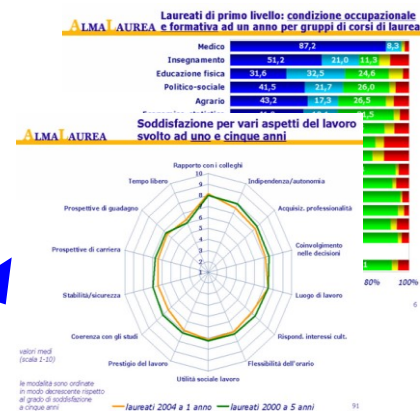


90% dei laureati in Italia

Certification

100%

1 year
after graduation



Statistics for
Quality Assurance

Universities'
administrative data

*Some evidence from the
PhDs' study profile*



- PhDs' census survey
- 24 AlmaLaurea member universities



- Continuous survey
- Web interviews (CAWI)
- At the end of the course of study



Report 2019

- 4,094 PhDs in 2018
- 24 Universities
- Response rate: 93.5%

■ PhDs' profile:

- ❑ Personal information and social background
- ❑ Before the PhD
- ❑ Study conditions
- ❑ Structured training activities
- ❑ Study and research abroad
- ❑ Research activity and publications
- ❑ Teaching activity
- ❑ Assessment of PhD experience
- ❑ Future prospects

Microdata
transferred to
each single
University

Consult data through an online query system.

Compare data according to each university, PhD's field, PhD course, PhD cycle, gender.



Personal information, social background and previous academic performances

PHDS AND
SECOND
LEVEL
GRADUATES
2018

Gender: female



Foreign citizens



At least one parent with a
university degree

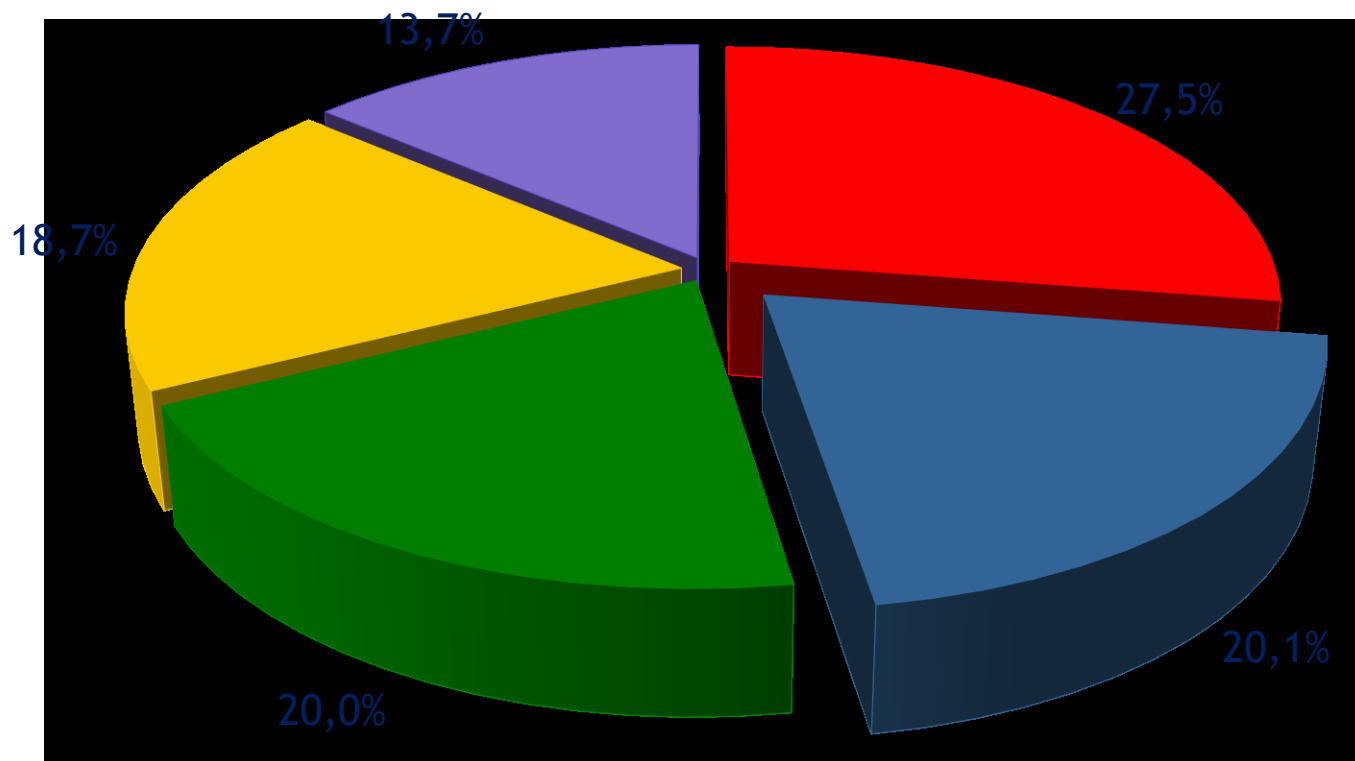


Graduation mark of 110 cum
laude



percentage
values

PHDS 2018

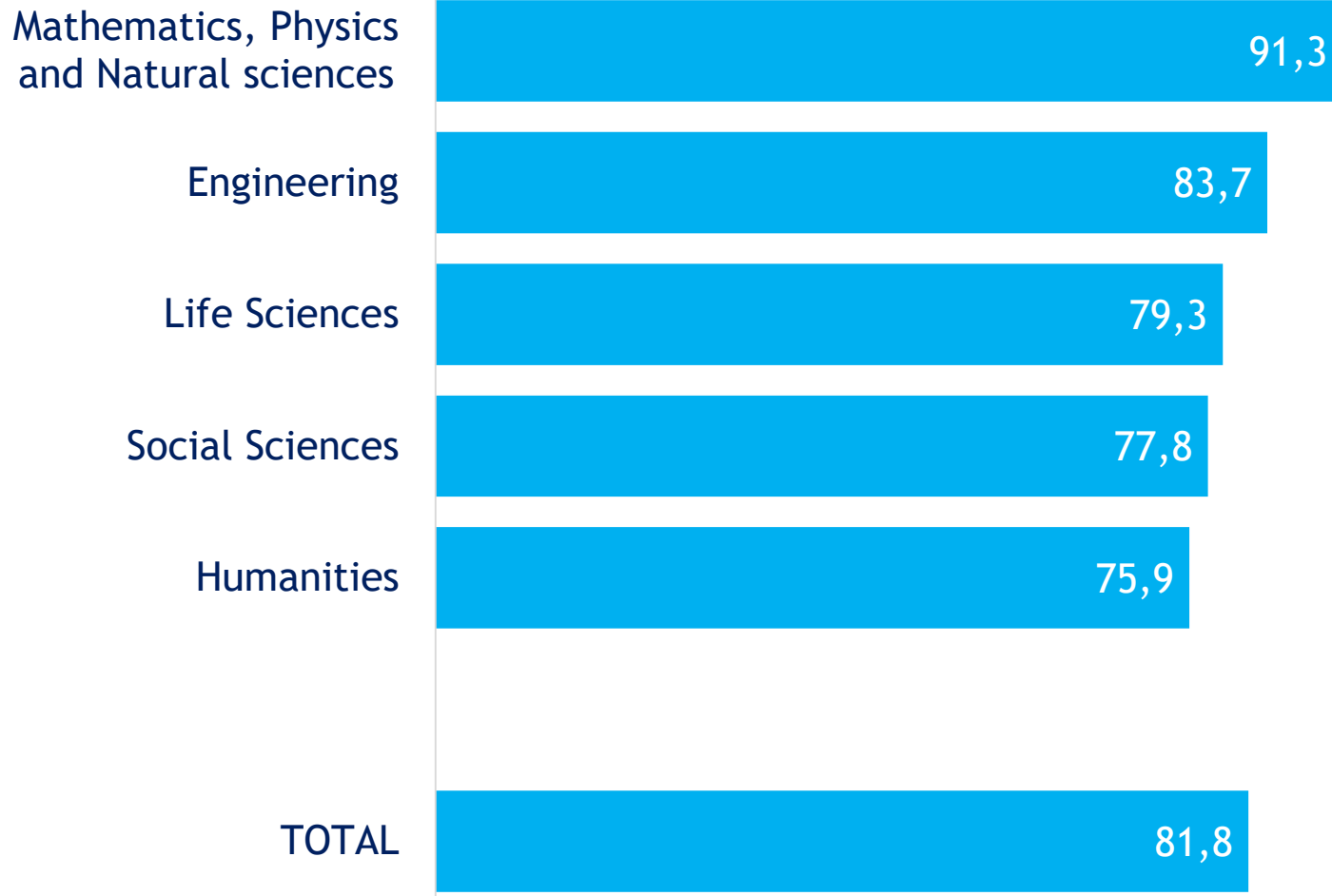


- Life sciences
- Engineering
- Matemáticas, Phisics, and Natural Sciences
- Humanities
- Social Sciences



Funding received by PhDs

PHDS 2018

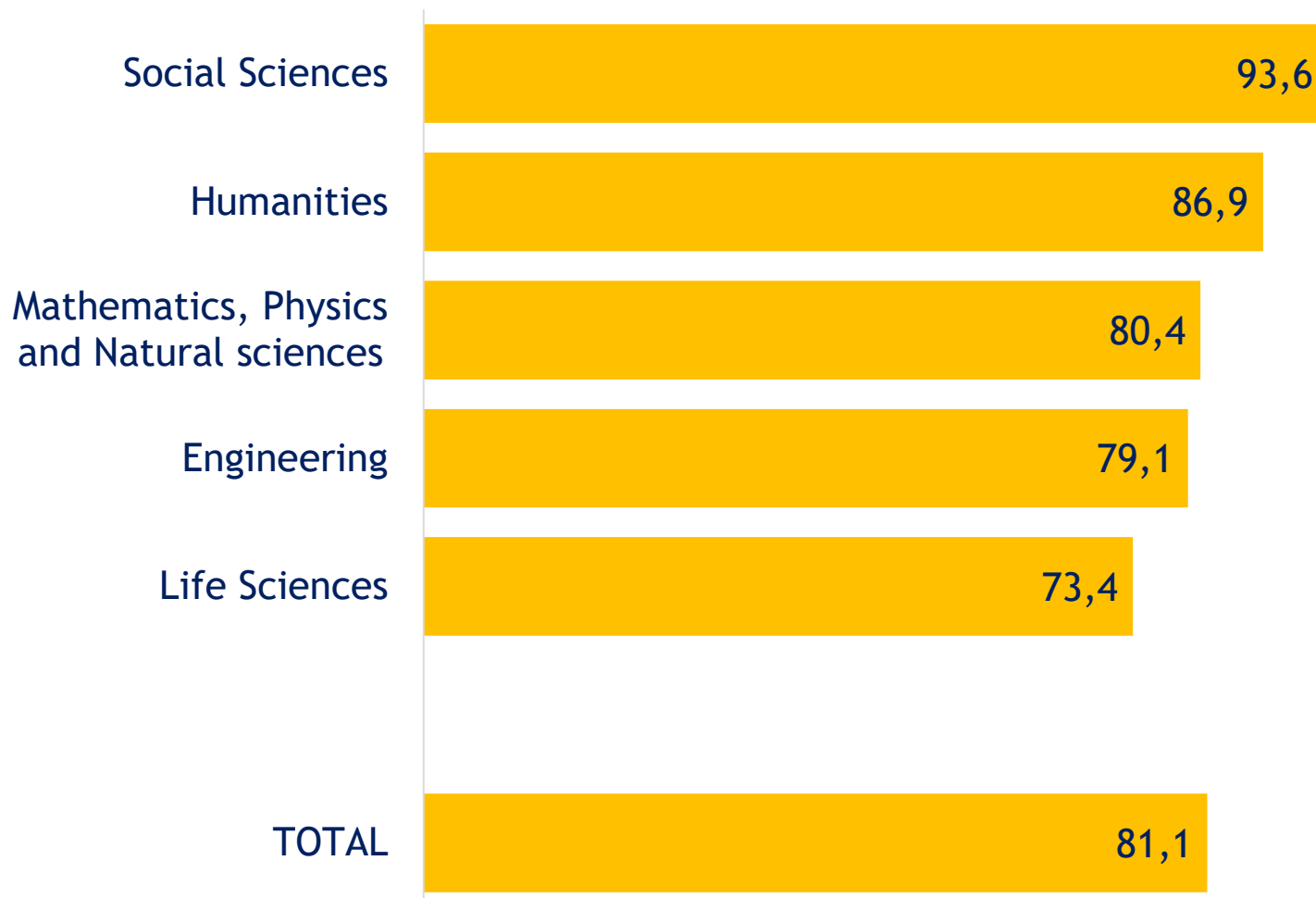


percentage
values



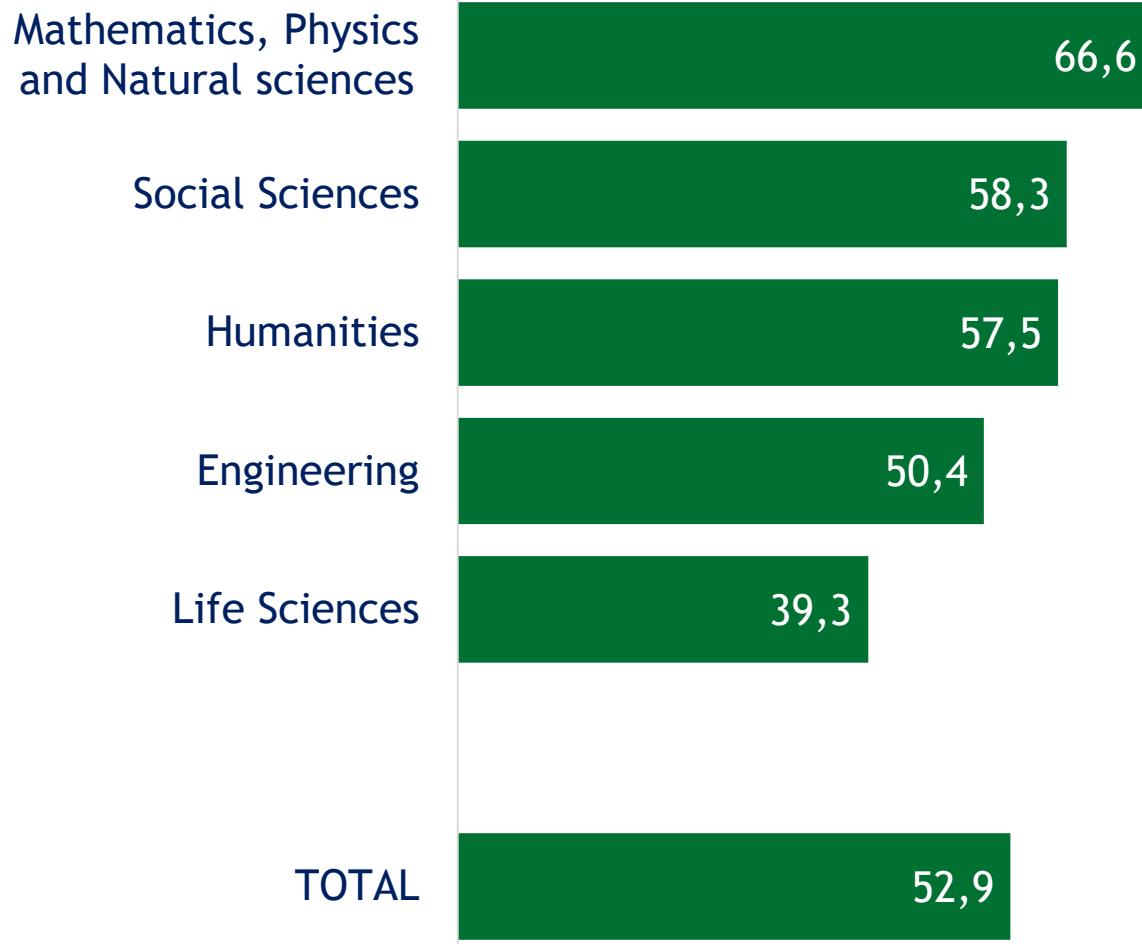
Took part in a structured educational activity (e.g., courses, classes, seminars, laboratory classes)

PHDS 2018



percentage
values

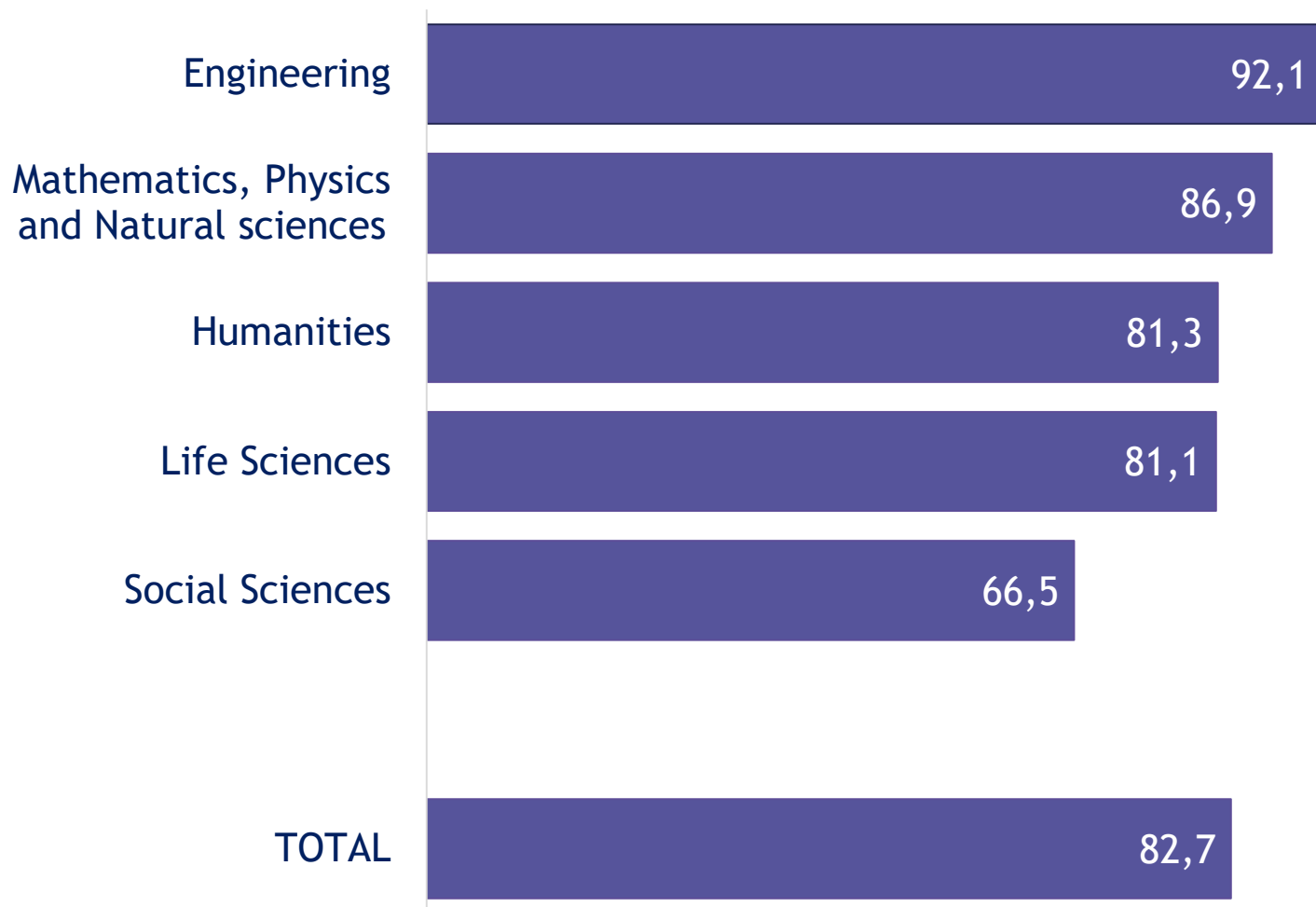
PHDS 2018

percentage
values



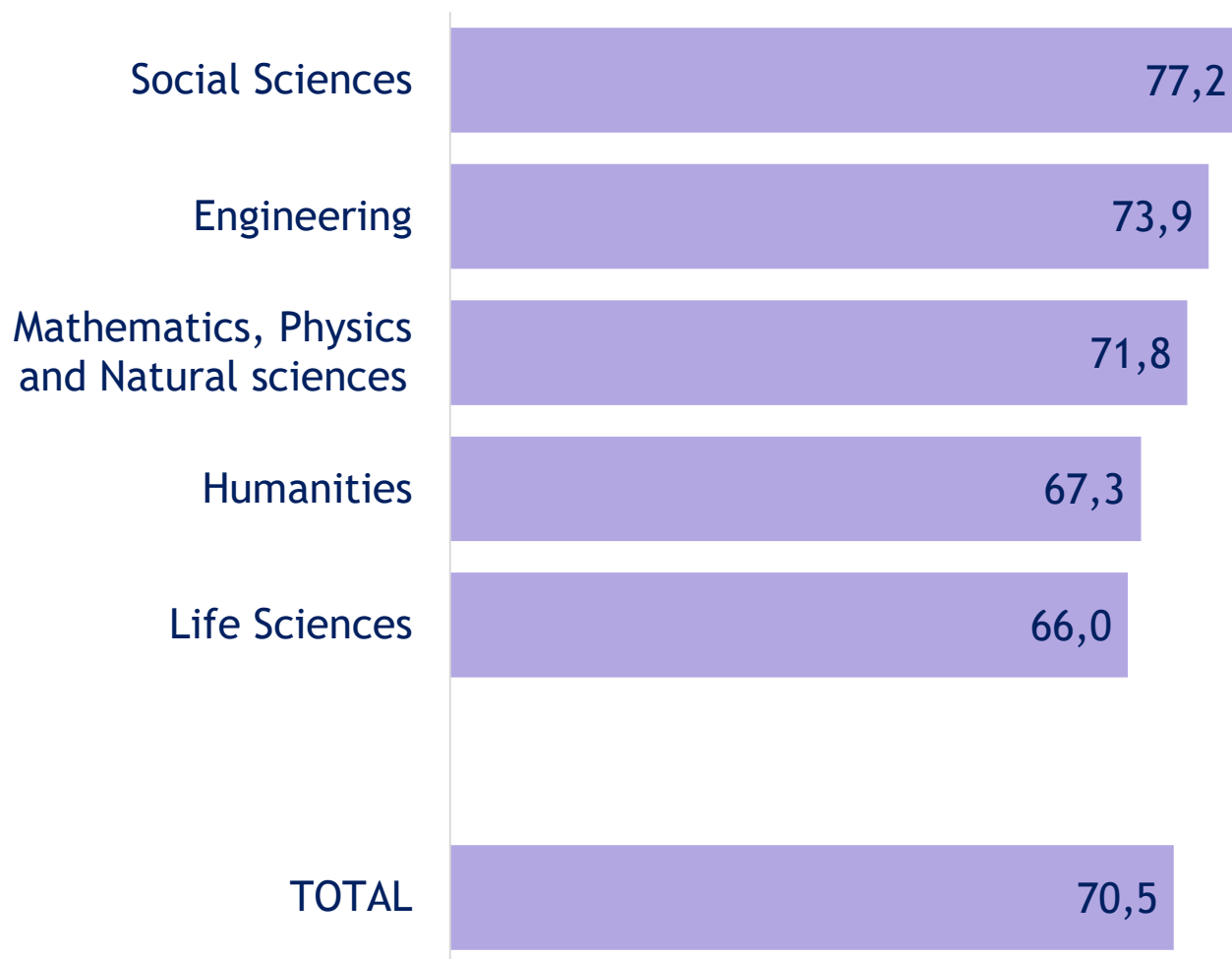
Publications (at least one)

PHDS 2018

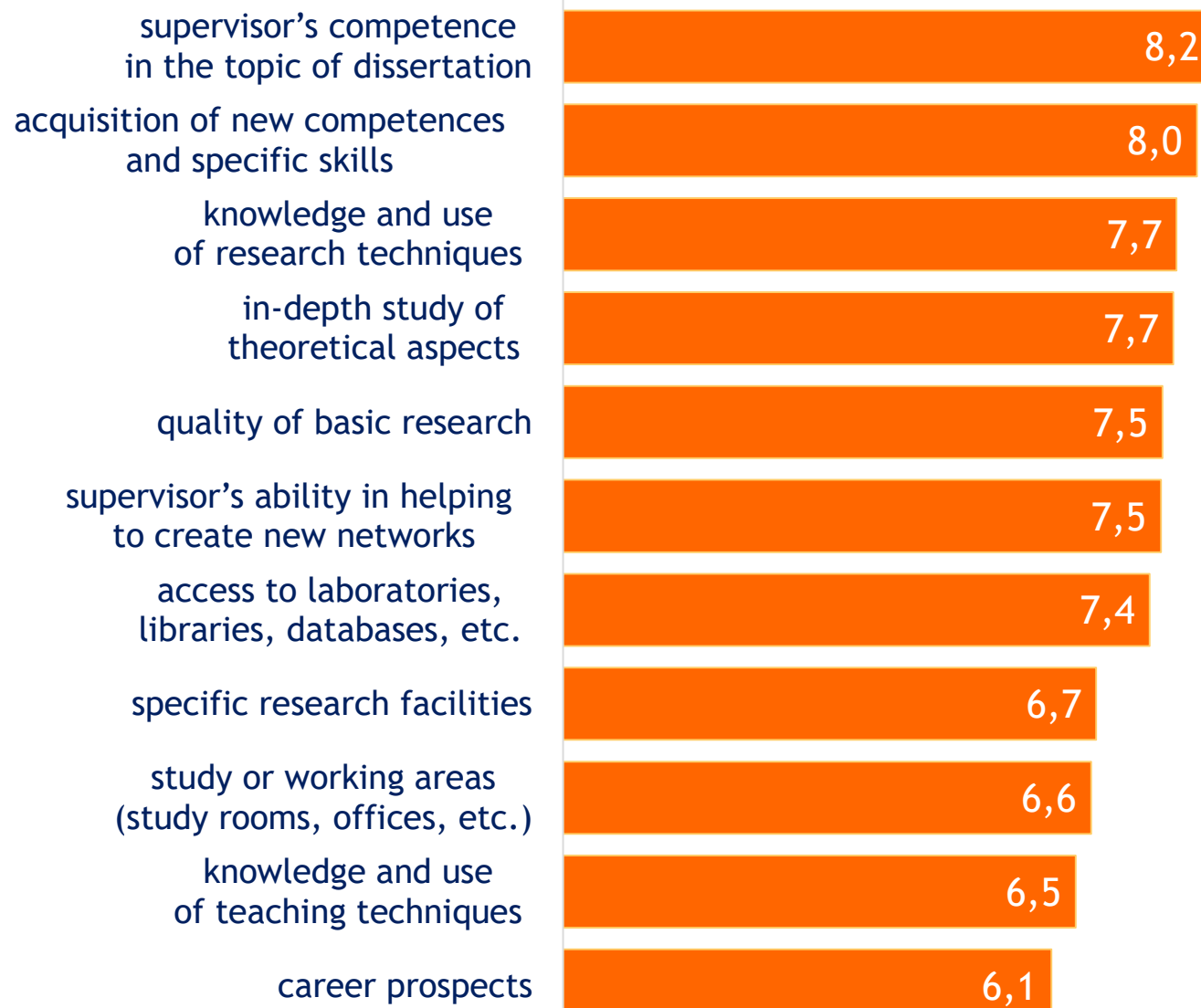


percentage
values

PHDS 2018

percentage
values

PHDS 2018



means (0-10)

PHDS 2018

percentage
values

*Some evidence from the
PhDs' occupational condition*



- PhDs' census survey
- 32 AlmaLaurea member universities



- Two reference periods each year
- Computer-Assisted Web Interviewing (CAWI) and Computer-Assisted Telephone Interviewing (CATI)
- At 1 year from graduation



Report 2019

- 5,500 PhDs of 2017
- 32 Universities
- Response rate: 56.8%

■ PhDs' occupational condition:

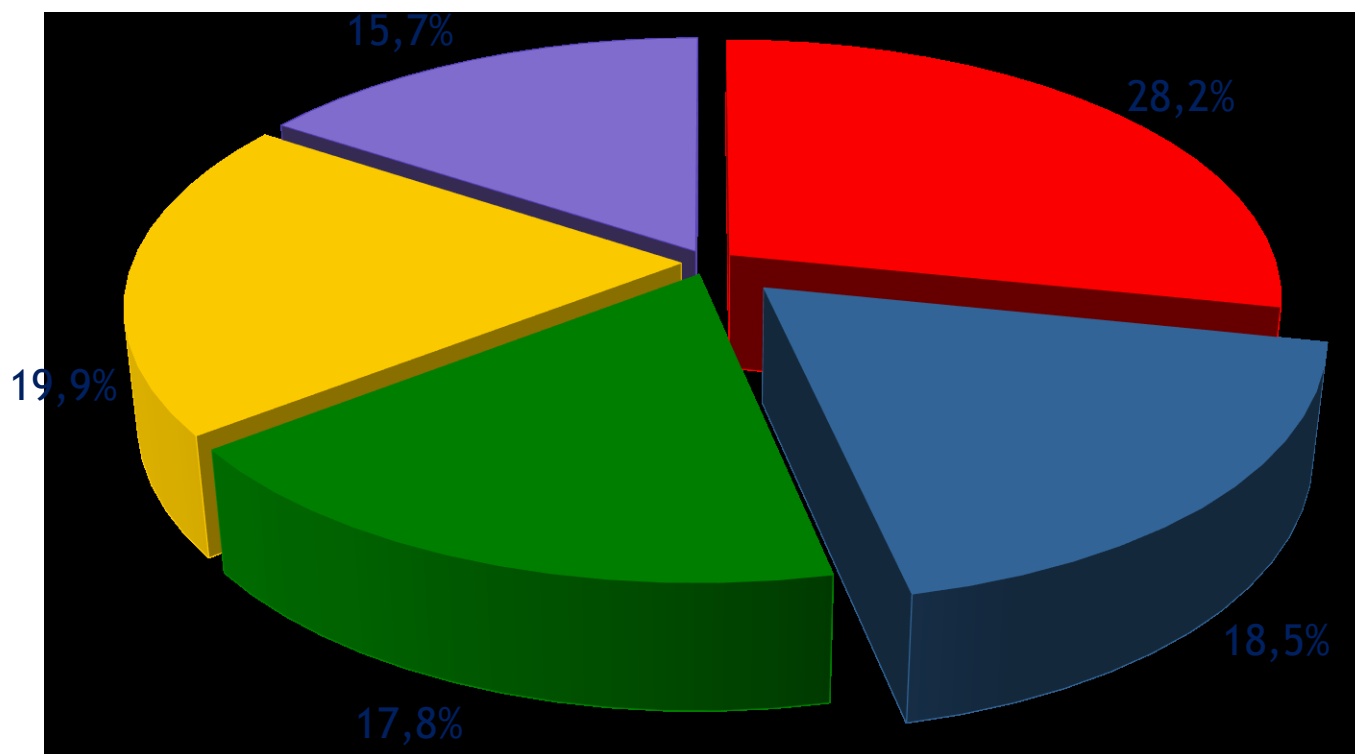
- ❑ Personal information
- ❑ Post-doctorate activities
- ❑ Employment status
- ❑ Time of entry in the labour markets
- ❑ Current Job characteristics
- ❑ Company characteristics
- ❑ Salaries
- ❑ Need for and use of a degree in the current job
- ❑ Degree effectiveness and satisfaction with the current job
- ❑ Job search
- ❑ Assessment of PhD experience

Microdata
transferred to
each single
University

Consult data through an online query system.

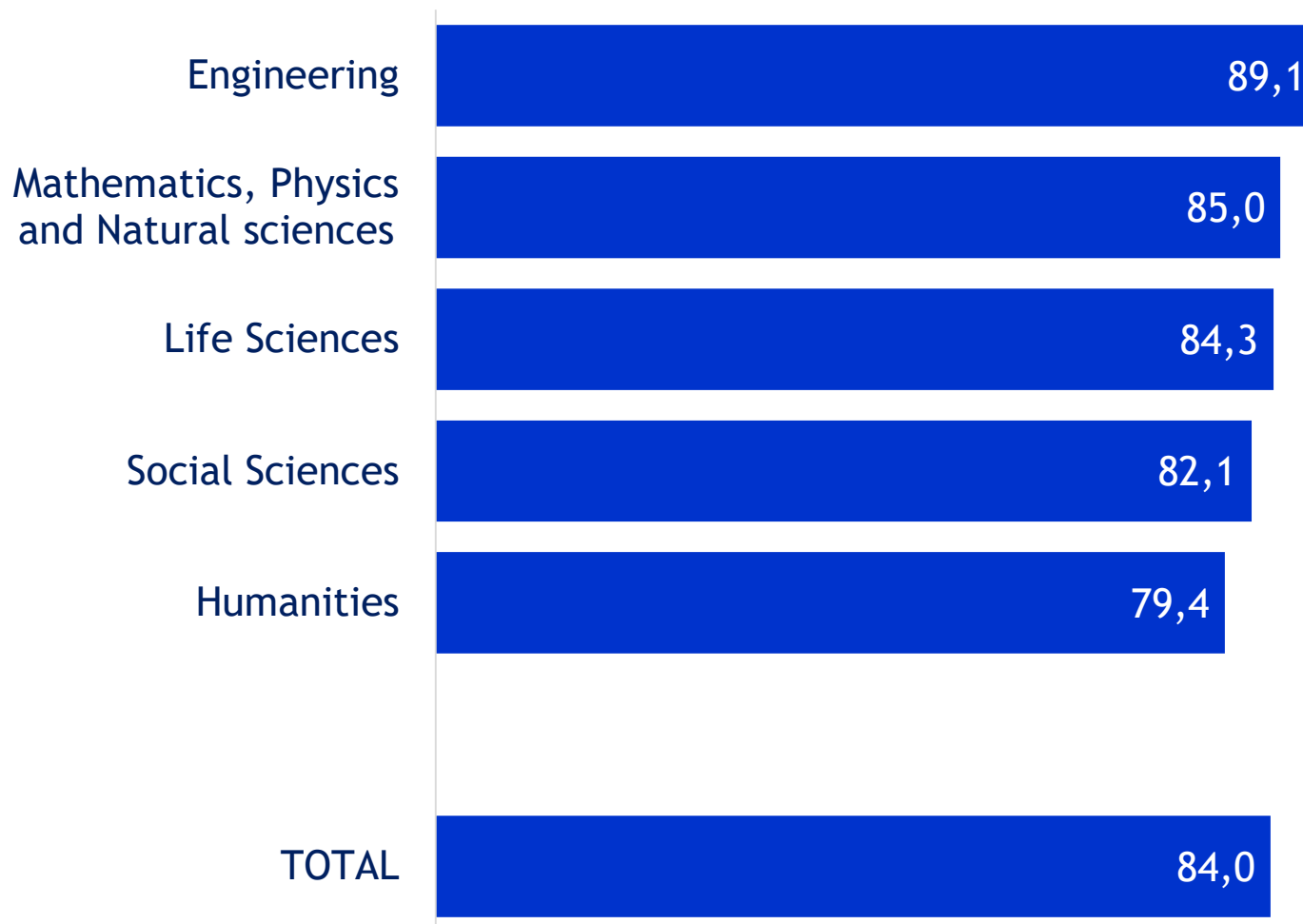
Compare data according to each university, field of the PhD, PhD course, PhD cycle, gender.

PHDS 2017

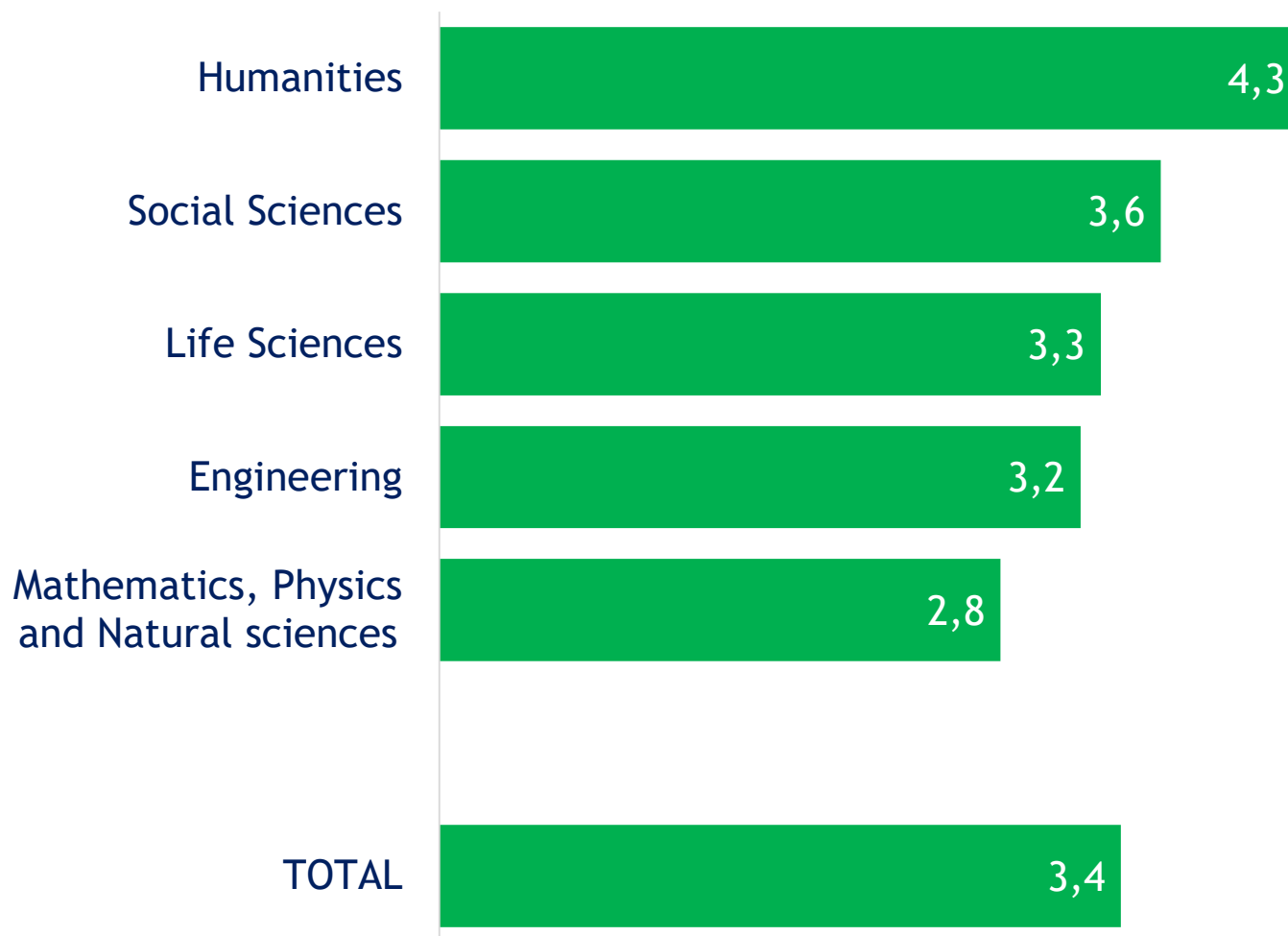


- Life sciences
- Engineering
- Mathematics, Physics, and Natural Sciences
- Humanities
- Social Sciences

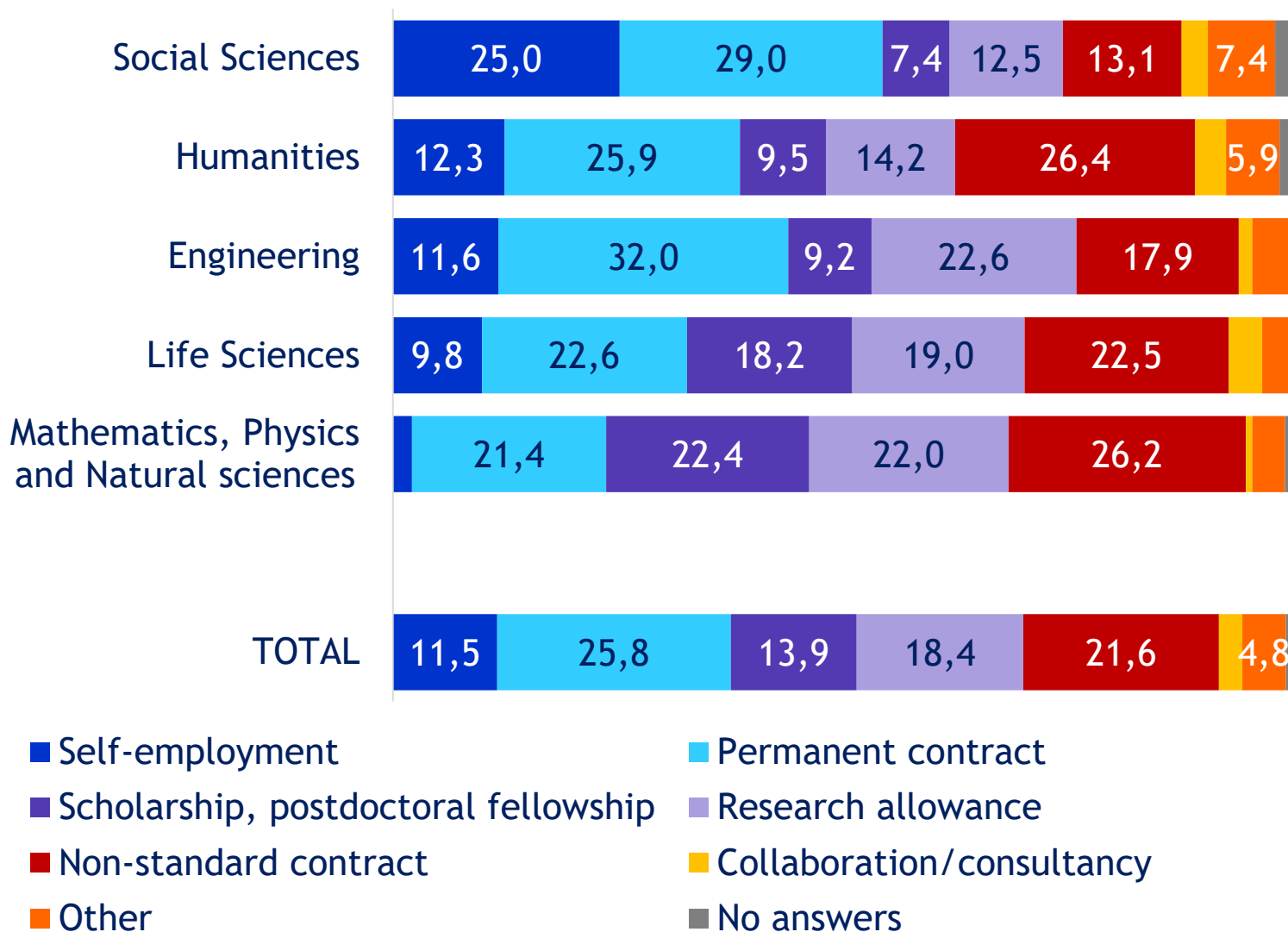
PHDS 2017

percentage
values

PHDS 2017

means,
in month

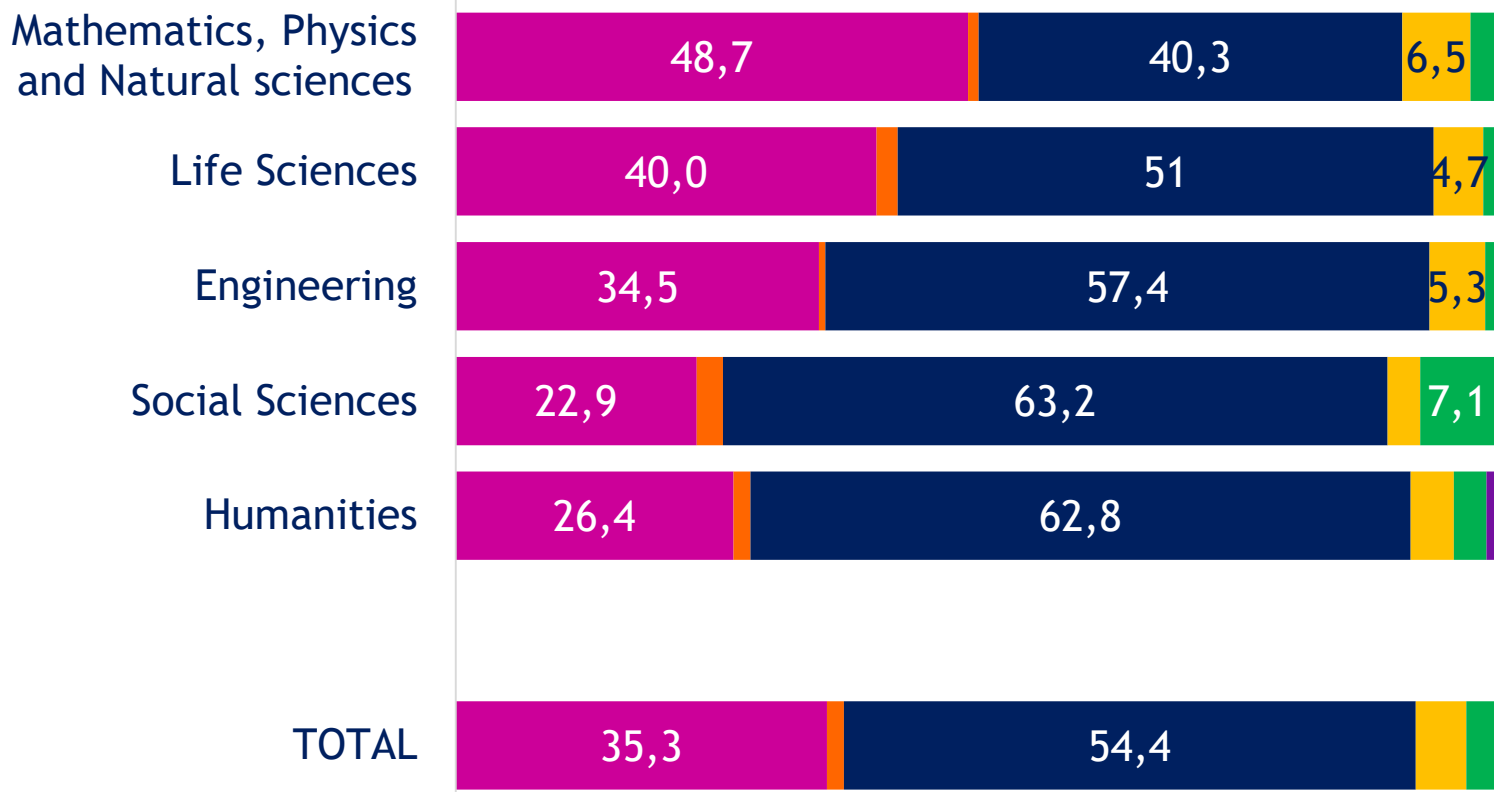
PHDS 2017



percentage values

PHDS 2017

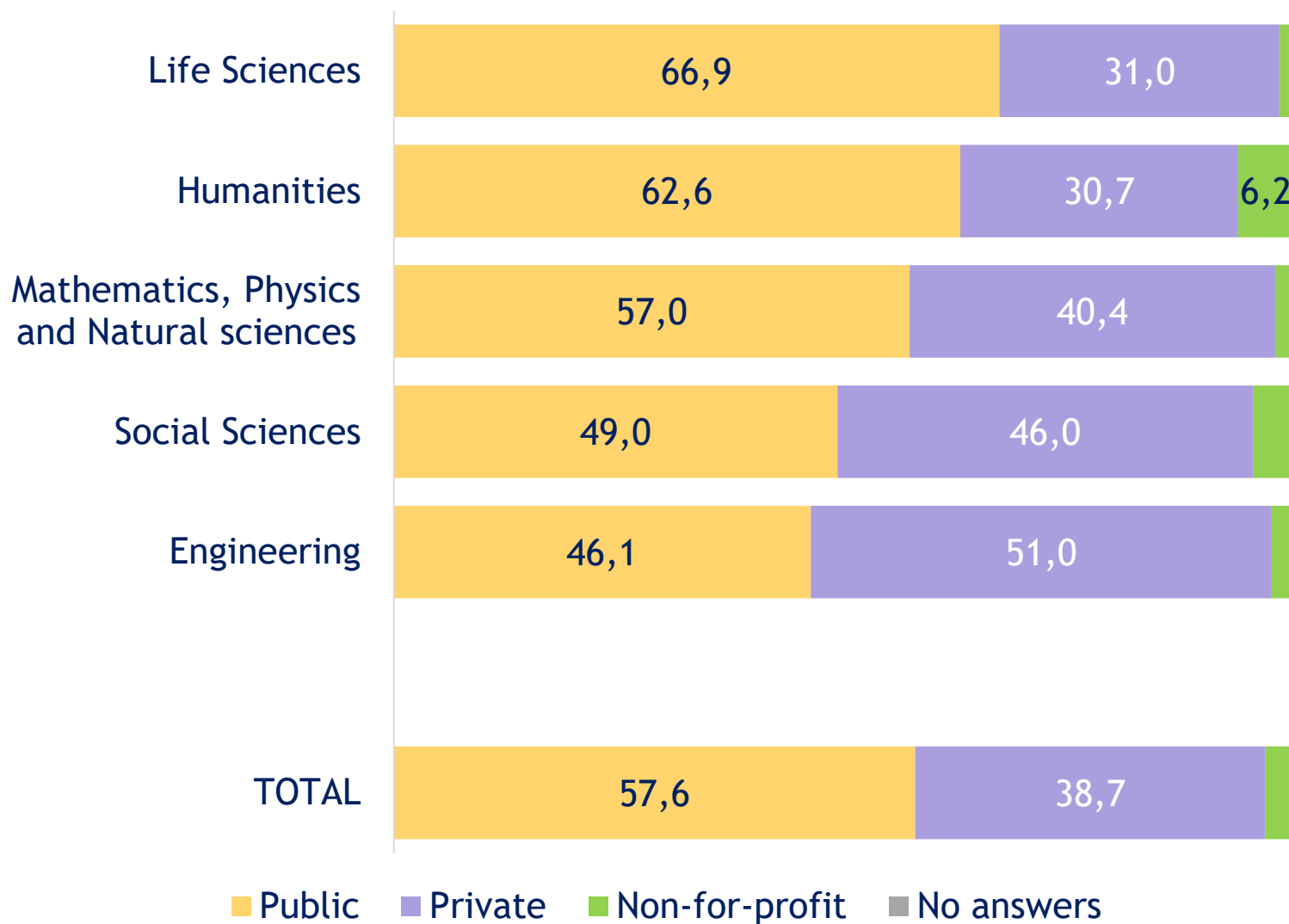
No answers
not reported



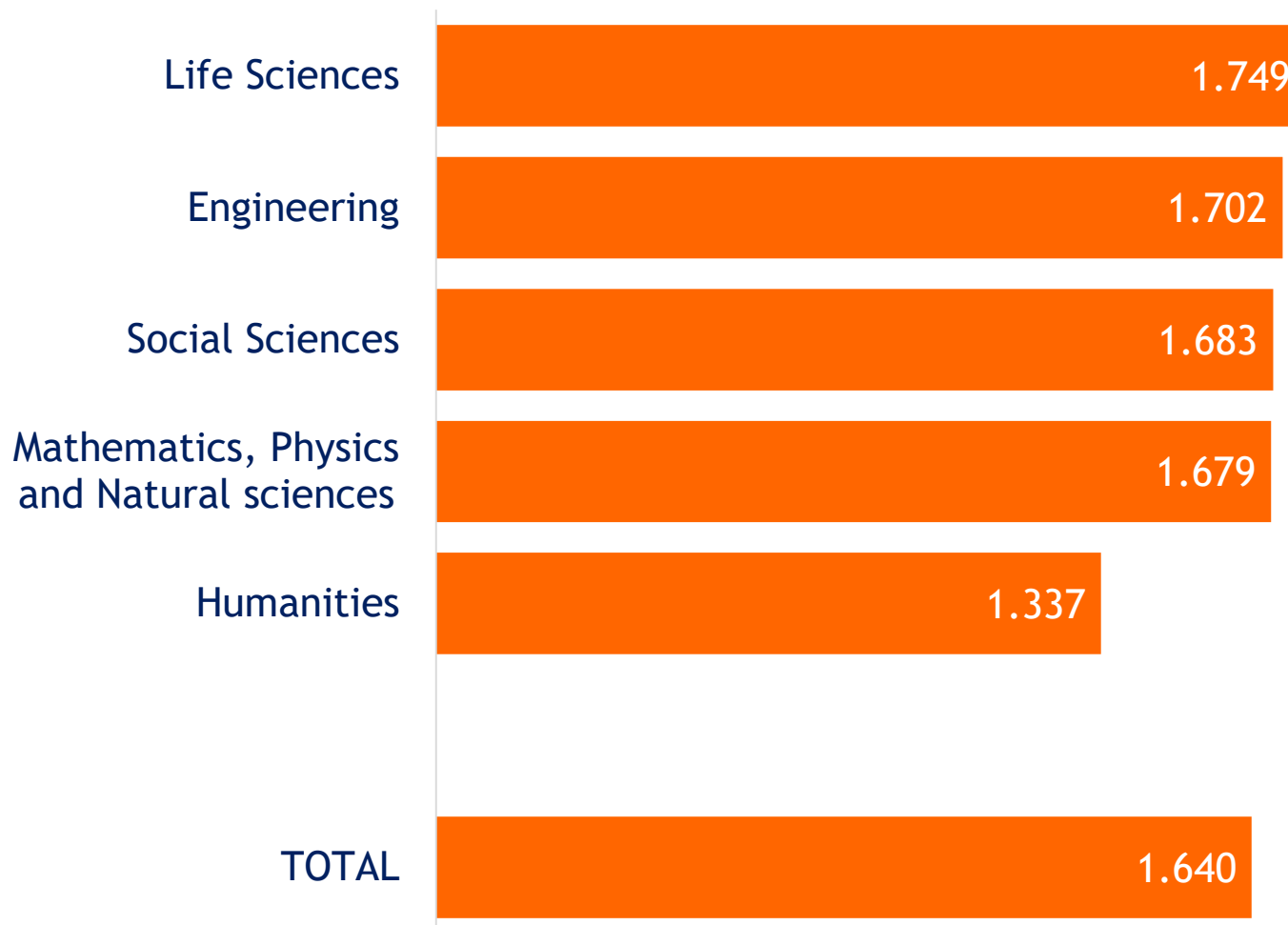
- Post-doctoral researchers
- Managing directors and chief executives
- Intellectual, scientific and highly specialized professions
- Technical professions
- Executive clerks
- Low-skilled professions

percentage
values

PHDS 2017



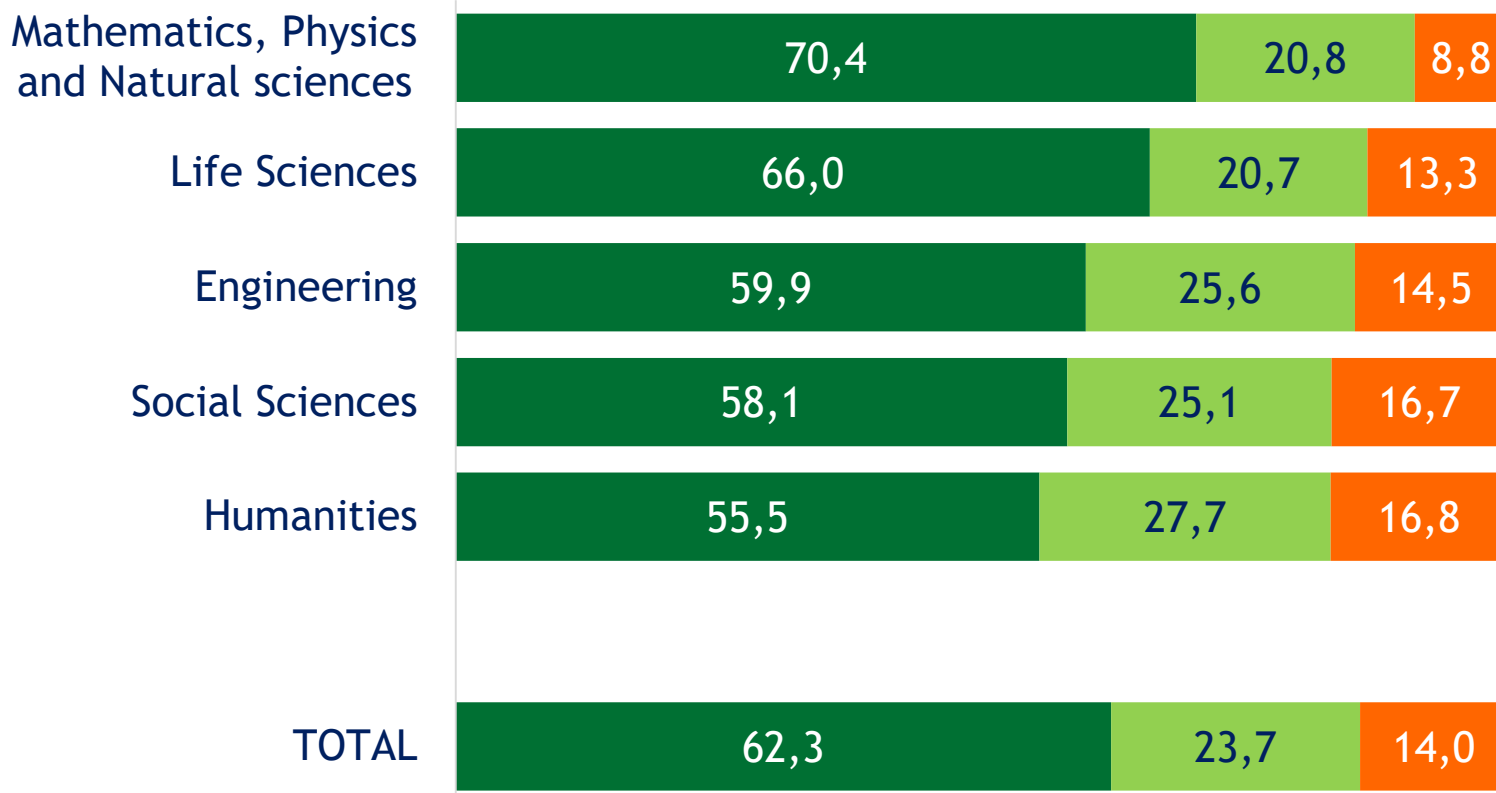
PHDS 2017



means, in euro

PHDS 2017

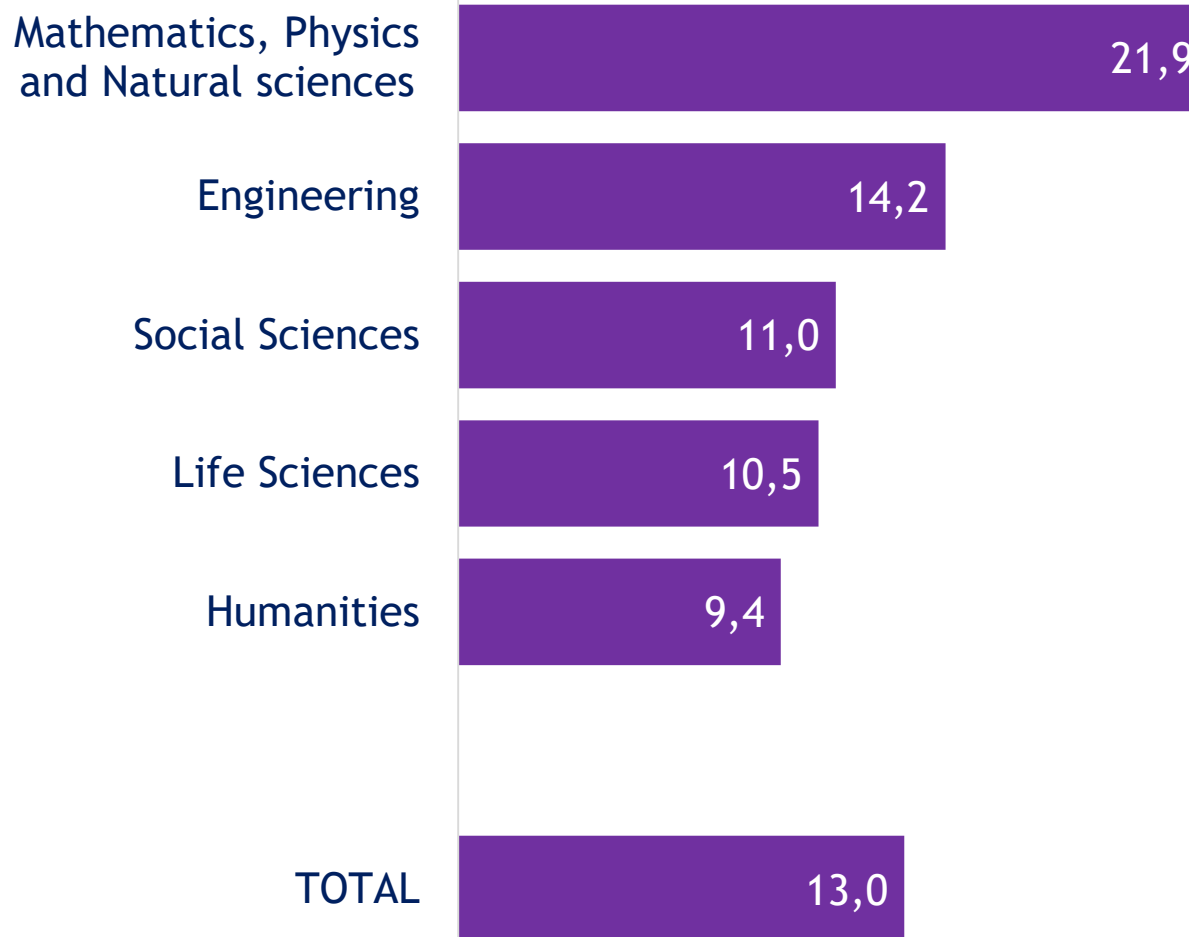
* it combines the use of the skills acquired at university and the necessity of the PhD qualification for the job activity



■ Very effective/effective
 ■ Fairly effective
 ■ Not very effective/ineffective

percentage values

PHDS 2017

percentage
values

Concluding comments

- This evidence brings us to think about the environment in which PhDs activities are carried out
- PhDs represent the highest level of human capital accumulation. However, labour markets in Italy are not yet able to give an appropriate value to PhDs as well as to lower degrees: perhaps both companies and universities are not yet fully able to realise their potential
- This has a high impact on the overall economic system especially when speaking about strategies like Industry 4.0, smart development and sustainable development
- What needs to be done? More investment in:
 - higher education system
 - R&D
 - young education and graduate studies in an internationalized setting

- Deep structural transformations are at work, sometimes ascribed to the s.c. “VUCA world” (VOLATILITY, UNCERTAINTY, COMPLEXITY, AMBIGUITY)
- Of course a primary need for smart innovation is the capability to extend the coverage of the surveys, increasing the universities involved and expanding the study over the lifecycle of PhDs
- New linkages between university and industry, in particular, and the private sector, overall (e.g., Coursera, Minerva project), are deeply modifying at the global level all the three main tasks of universities (research, teaching, third mission)
- This brings about new inter-sectoral interactions and strong co-competition with the private sector and the international dimension has a crucial role in this transformation

- Among weaknesses and threats the following have to be stressed:
 - Mono disciplinary approach and over specialization in the study profile
 - Reduction in incentives to enter PhD studies
- Reinforcing the recognition that a PhD is an employed person is important, following the definition of Amartya Sen (1975) - production, income and recognition as key dimensions of employment
- Therefore the distinction between *Early Stage Researcher* (ESR) and *Experienced Researcher* as well as the definition of an employment contract can be helpful in fostering the self/social perception that a PhD position implies an employed status

- Among strength and opportunities the following have to be stressed:
 - academic role of PhDs coupled with a more general relevance for the economic and social system
 - In this framework the inter-sectoral and international mobility becomes crucial assets

- These can foster encouraging “inter-sectoral and international mobility through the collaborations with a wide network of Italian and European partner organisations in both the academic and non-academic sectors” (Invite project)

- And stressing the goal of training “a new generation of researchers in a wide range of disciplines and to provide them with the ability to establish professional collaborations with academic institutions and/or the private sector at the Italian and European levels” (Invite project)

- All this brings to the conclusion that the Invite Project is indeed a best practice in Europe



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