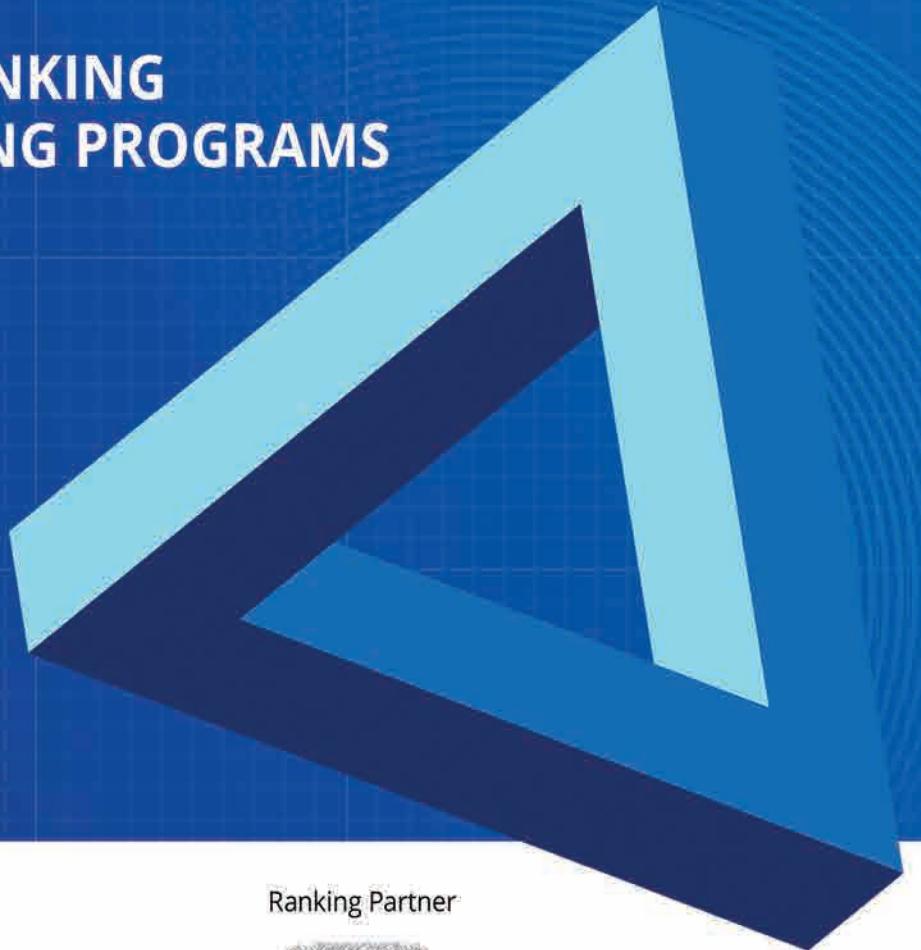


FIRST EDITION

# Engirank

NEXT GENERATION  
EUROPEAN RANKING  
OF ENGINEERING PROGRAMS

2023



Ranking Organizers

**Perspektywy**  
Perspektywy Education Foundation

**f r s e**  
Foundation for the Development  
of the Education System

Ranking Partner



[engirank.eu](http://engirank.eu)



# European Ranking of Engineering Programs 2023



Scientists study the world  
as it is,  
engineers create the world  
that never has been

Theodore von Kármán

*Project executed by*

Perspektywy Education Foundation (Poland)

*in partnership with*

Foundation for the Development of the Education System FRSE  
(Poland's National Agency for the Erasmus+ Programme  
and the European Solidarity Corps)

*and supporting partner*  
Elsevier



*Project executed by Perspektywy Education Foundation (Poland)  
in partnership with Foundation for the Development of the  
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## Abbreviations of ranking indicators used in the report

<b>ACC</b>	- Academic-Corporate Collaboration
<b>ACCR</b>	- Accreditations
<b>CHE</b>	- Chemical Engineering
<b>CIT</b>	- Citations
<b>CIV</b>	- Civil Engineering
<b>EEI</b>	- Electrical, Electronic, Information Engineering
<b>ENV</b>	- Environmental Engineering
<b>EUNI</b>	- European university
<b>FUND</b>	- Research and Innovation Funding
<b>FWCI-C</b>	- Change of Impact
<b>IC</b>	- International Collaboration
<b>MAT</b>	- Materials Engineering
<b>MEC</b>	- Mechanical Engineering
<b>MED</b>	- Medical Engineering
<b>PAT</b>	- Patents
<b>PCIT</b>	- Patent-Citation Count per Scholarly Output
<b>PUB</b>	- Publications
<b>SDG 3</b>	- Good health and well-being
<b>SDG 6</b>	- Clean water and sanitation
<b>SDG 9</b>	- Innovation and infrastructure
<b>SDG 11</b>	- Sustainable cities and communities
<b>SMI</b>	- Inbound student mobility
<b>SMO</b>	- Outbound student mobility
<b>SIN</b>	- Student internships
<b>TOP-10</b>	- Publications in Top 10% Journals



**Waldemar Siwinski**  
Founder,  
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President,  
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on Academic Ranking  
and Excellence

## Why EngiRank?

We are proud to present the first edition of the **European Ranking of Engineering Programs EngiRank**, to its name we added the phrase **NEXT GENERATION**. Each of these words is important and requires further explanation. Why is a new Ranking needed? Why is it European? Why does it apply to Engineering Studies? And why did we feel it was appropriate to use the words **NEXT GENERATION**?

According to the analysis by IREG Observatory on Academic Ranking and Excellence, at least 100 solid university rankings are published every year; these are - international, regional, national, disciplinary (by subject), impact rankings, business school rankings and others. At the same time, we observe a growing number of opinions critical of rankings, especially the global rankings of the Big-4 group (THE, QS, USNews, ARWU). Why then, are we proposing a new ranking?

The answer is, in short: because it is needed. Students of technical faculties need it when planning to study or go for an internship abroad, European companies need it as well as the international academy. EngiRank is a voice in the discourse on the future of European industry and, indirectly, of international rankings. We are convinced that their future belongs to regional rankings "by subject".

Just a few years ago, it seemed that globalization, including scientific cooperation and academic exchange, would have no borders. The volcanic eruption in Iceland, ongoing global climate changes, then the pandemic and the war in Ukraine painfully showed us that something had come to an end when it comes to an optimistic approach to the future... The argument that global rankings will help someone choose studies in any country in the world loses its appeal. To think a high school graduate from Azerbaijan will consider studying in Argentina - it's absurd. We have learned the hard way what long "supply chains" can mean, and why it is important to ensure that in critical situations these chains are as short as possible and as European as possible.

Our ranking is European, it covers 27 European Union member states (therefore it does not include Great Britain, Switzerland, and Norway). Therefore, it was possible to construct a ranking relying on indicators unique for the EU countries, based, among others, on university's participation in the Erasmus+ and Horizon programs. Evaluating universities in countries with similar legal systems, similar cultural origins, universities that take part in joint research programs (European Research Council) and academic cooperation initiatives (consortiums of European universities) guarantees a much better presentation of their strengths and weaknesses than while relying on such defective indicator as student-to-faculty ratio.

All European countries need top-class engineers, this is a need of utmost urgency! Only in the IT area in Europe there is a shortage of almost 2 million engineers... Globalization has indeed taken a turn for the worse, but global technological competition has not slowed down, in this field those count who run faster. Engineering education plays a key role in ensuring the sustainable development of Europe, it is essential in creating innovative technologies and educating creative engineers who can use science to solve problems, but who also are aware of the social consequences of their actions. To meet these challenges in the era of internationalization of industry and labor market, best practices in engineering education need to be identified and promoted. This is what EngiRank is for. Its publication has been preceded by several years of consultations and seminars with representatives of the European industry.

  
**The future  
of international  
rankings belongs  
to regional rankings  
"by subject"**

And finally, why NEXT GENERATION, or what is innovative about EngiRank?

**First.** The combination of the regional ranking with the "by subject" ranking is innovative. There already are some regional rankings – but they are to more than "extracts" from the overall THE or QS rankings - there are also global rankings in disciplines, in the case of QS and THE they rely again on a limited set of data collected for the main rankings. To use data in individual disciplines on a regional basis, and in relation to universities operating in a specific region, has not yet been done! EngiRank inaugurates this new, forward-looking approach.

**Second.** For the first time, we are publishing a ranking with emphasis on "by subject". We are publishing seven of them, all related to the "Engineering & Technology". The quality of these "by subjects" rankings constitute the "interdisciplinarity" criterion, which is included in the institutional university ranking with a high weight of 21 percent. A university to be included in the institutional EngiRank, it had to appear in at least three "by subject" rankings.

**Third.** EngiRank is a PRO BONO ranking, it has not been made to make money but with public benefit in mind. Critics of global rankings focus on allegations that universities are "forced" to scrupulously collect data, data that ranking organizations then "privatize", and include in packages sold to universities. EngiRank, however, uses only external data (exogenous) and does not offer any related database services. We are principled in this matter, in line with the mission of the Perspektywy Education Foundation, which is a not-for-profit organization, with a 25 years' tradition.

**Four.** Due to the goals of EngiRank and its strictly defined area of education and research, the ranking focuses on criteria and indicators related to relations between academia and industry. Five indicators try to capture and highlight universities that not only conduct research but are able to do it in cooperation with the industry, and to effectively implement the results in Hi Tech companies. This approach has never been seen in the rankings before!

**Five.** Into the ranking we introduced a dynamic citation impact change index (FWCI), a novelty in academic rankings. Instead of considering only the static state of citations in the four-year period immediately preceding the publication of the ranking, we refer to the result in the preceding four-year period, which gives an opportunity to distinguish universities that have made the greatest progress in research.

**Six.** A pioneering in the world of rankings is the inclusion in the "by subject" rankings, with a significant weight of 10 percent, accreditations of engineering programs by the ENAEE (European Network for Accreditation of Engineering Education). This clearly demonstrates the advantages of a regional approach to rankings!

**Seven.** EngiRank is published in absolute transparency, in the best possible form. Each ranking user has access to all indicators and can independently check the correctness of calculations. There also is a procedure for quick fixing errors should such be reported after the ranking publication.

All ranking results, including options for convenient sorting by universities, countries, disciplines, criteria and indicators will be available on the EngiRank website [www.engirank.eu](http://www.engirank.eu)

Comments and suggestions regarding EngiRank 2023 will be used when preparing the next edition of the ranking next year.

Waldemar Siwiński

## Ranking of the Next Generation

**University and field of study rankings are a permanent element of the education market verification mechanism and a valuable source of information for stakeholders: students, researchers, entrepreneurs, and industry interested in business- education cooperation. They also serve as a reference for higher education authorities.**



Paweł Poszytek  
Director General,  
Foundation for the  
Development of the  
Education System

Director,  
National Agency of the  
Erasmus+ Programme  
and the European  
Solidarity Corps

The prime purpose of the **EngiRank - European Ranking of Engineering Programs 2023** is to help prospective students and students with the choice of a field of study and institution in Europe which will give the best chances of finding a satisfactory job after graduation. It will also be helpful during study abroad and in finding an internship under the Erasmus+ Program.

To meet this objective, in the EngiRank ranking, there are as many as four indicators that refer directly to the Erasmus+ Program, i.e. two indicators concerning student mobility, one indicator concerning student internships, or participation in academic cooperation initiatives, in this case in the European University Alliances.

In addition to the indicators such as the number of publications or citations, the ranking assesses the university's innovativeness and cooperation with enterprises, measured, among others, by the extent of research funding obtained from external sources, the number of patents, and the number of scientific publications prepared with authors from outside the university.

Cooperation between universities and business plays a particularly important role in the case of technical universities. It is the driving force behind a good modern economy based on knowledge transfer, innovative education system, interdisciplinary scientific research, publication potential and investment in young researchers.

The importance of this cooperation is reflected in the European Commission's report **The state of university-business cooperation\***). The report points to the need for cooperation between authorities, universities, and the business environment to create strategies and mechanisms to support cooperation, as well as to create an organizational culture in which it could develop in a sustainable manner.

**Engineering  
education plays  
a key role  
in ensuring the  
sustainable  
development  
of Europe**

Engineering education plays a key role in ensuring the sustainable development of Europe, making the continent greener, more digital, more resilient to future crisis, but also more aware of the social consequences of the actions taken.

Engineers are vital for the future of Europe, they are needed to keep Europe's industry globally competitive. The ranking will help industry find best engineering graduates, it will help students make educational choices for best university or best program to study or do research.

The significance and legitimacy of the new generation rankings, such as EngiRank, cannot be overestimated, as it is modelled on the objective metric data and the Multi-Attribute Value Theory. According to this theory, it is possible to estimate the value, or the aggregated score, of each higher education institution (as well as of the relevant disciplines) considering the impacts of individual criteria as measured by corresponding indicators, and thus free from subjective assessments or opinions.

EngiRank has been created not to make money, but **pro bono** with the public benefit in mind, and in accordance with the missions of the **Perspektywy Education Foundation** and the **Foundation for the Development of the Education System**. EngiRank has been published in the best possible form of transparency. Users of the ranking have an open access to all indicators and can independently check the correctness of the calculations. There is also a procedure for quick error corrections should there be any reported after the ranking is published.

**Paweł Poszytek, PhD, DSc**

\*) European Commission, Directorate-General for Education, Youth, Sport and Culture,  
Meerman, A., Galan Muros, V., Davey, T. et al., The state of university-business cooperation  
in Europe – Final report, Publications Office, 2018, <https://data.europa.eu/doi/10.2766/676478>



1.

## Assumptions and Methodology



## Assumptions

Engineering education plays a key role in securing sustainable development of Europe, it is vital in creating innovative technologies and educating creative engineers capable of using science to solve problems but also aware of the social consequences of their actions. To meet these challenges in the age of growing development of the industry, labor market and education, we need a tool to compare the quality of engineering and technology programs offered by the European universities. Rankings of universities and programs have become accepted form of comparing and assessment understood by a broad range of stakeholders.

The European Rankings of Engineering Programmes *EngiRank* fills a gap regarding current and trustworthy information on engineering education, as well as research and innovation, in European universities and other higher education institutions (HEIs) with strong technical profile.

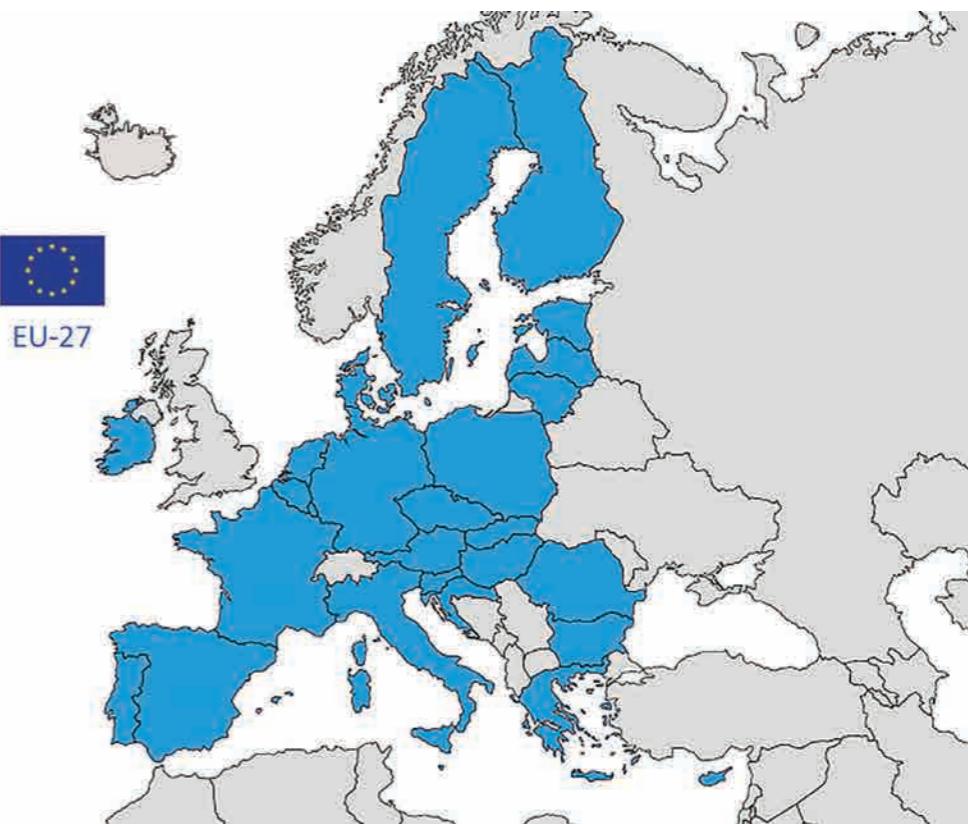
Our primary concern in designing *EngiRank* was the highest reliability of the rankings. The geographical scope of *EngiRank* covers all 27 member countries of the European Union. One of the reasons for this coverage of the rankings is related to the right of EU citizens to study in other member states under the same conditions as nationals; the exercise of this right is additionally supported by the Erasmus+ mobility programmes. Intensified student mobility brings about demands for information on the quality of European HEIs. Furthermore, consortia of institutions from various member states can apply for research and innovation funding to the Horizon Europe programmes and the recently launched European Universities initiative develops long-term cooperation between the European HEIs. These actions level the playing field for HEIs within the European Union and make comparing those institutions more meaningful.

Another factor considered essential for the *EngiRank* credibility is the quality and reliability of data. The rankings are based only on trustworthy external databases containing information on European HEIs that is collected in a unified way, such as the bibliometric database Scopus, EPO Worldwide Patent Statistical Database (PATSTAT), information on participations in the European Commission's initiatives (Community Research and Development Information Service – CORDIS, information on mobilities within Erasmus+ programmes, participation in the European universities alliances), databases of programmes accredited by quality assurance agencies. No information necessary to compile the rankings were obtained directly from HEIs.

The *EngiRank* has been initiated and prepared by the Warsaw based Perspektywy Education Foundation. The main partner of the project is the Foundation for the Development of the Education System – FRSE (Poland's national agency for the Erasmus + Program and the European Solidarity Corps). Its supporting partner is Elsevier. The *EngiRank* is primarily addressed to the following groups:

- **Prospective students and their parents** – it will help in choosing a field of study and institution in Europe that, after graduation, will give best chances of finding a satisfactory job. It will also be helpful in study abroad and finding internship under the Erasmus + program,
- **Employers, including European Hi Tech industry** – will help in looking for talented graduates of technology institutions,
- **University management** – ranking will help monitor reforms and improve the quality of teaching.

*EngiRank* includes 225 HEIs from all over European Union:



Austria	- 4
Belgium	- 4
Bulgaria	- 4
Croatia	- 2
Cyprus	- 3
Czechia	- 10
Denmark	- 2
Estonia	- 1
Finland	- 3
France	- 57
Germany	- 31
Greece	- 7
Hungary	- 5
Ireland	- 3
Italy	- 16
Latvia	- 3
Lithuania	- 2
Luxembourg	- 1
Malta	- 1
Netherlands	- 4
Poland	- 22
Portugal	- 7
Romania	- 10
Slovakia	- 4
Slovenia	- 2
Spain	- 10
Sweden	- 7

## Methodology

*EngiRank* Board decided to reduce diversification of HEIs included in the rankings in order to avoid comparing unmatchable institutions and increase relevance of the rankings.

### Entry requirements

The **ENTRY CRITERIA for institutional ranking include a qualitative condition:**

- The institutions considered to be classified in the *EngiRank* had been checked against the European Engineering Education Database (EEED) run by ENGINEERS EUROPE, a federation of professional engineering associations from European Higher Education Area (EHEA) countries;

**and quantitative conditions:**

- The HEIs with a significant share of research output in engineering and technology – at least 30% of publications from last 5 years (2018-2022) that are indexed in the Scopus database – were examined. However, the institutions with majority of publications in medical and health sciences or in social sciences between 2018 and 2022 were not considered as HEIs with strong technical profile and they are not listed in *EngiRank*;

The **subject ranking** satisfying the qualitative condition and both quantitative conditions: share of publications in engineering and technology not less than 30% and a number of publications in a discipline not less than a threshold value.

- The threshold numbers of publications in main engineering disciplines from the last 5 full years that are indexed in the Scopus database are as follows:
  - chemical engineering – 200
  - civil engineering – 100
  - electrical engineering, electronic engineering, information engineering – 200
  - environmental engineering – 100
  - materials engineering – 250
  - mechanical engineering – 200
  - medical engineering – 100.

The classification of disciplines adopted in *EngiRank* corresponds to the OECD Fields of Research and Development (FORD), both on the level of 1-digit major fields (i.e. 2. Engineering and technology, 3. Medical and health sciences, 5. Social sciences) and on the level of 2-digit categories (2.1 Civil engineering; 2.2 Electrical engineering, electronic engineering, information engineering etc.).

The **institutional ranking** within *EngiRank* includes HEIs which are classified in at least three subject rankings.

Only in exceptional cases, in order to include leading engineering-profile HEIs from all EU27 countries in the *EngiRank* institutional ranking, the threshold of E&T publications share was lowered (and if outcomes of two leading institutions were very close, we decided to include both of them in the rankings). That applies to Ireland, Croatia, Malta and Flanders.

## Innovative approach

Our particular concern in designing *EngiRank* was the degree of the institutions' commitment to their economic and social missions. To reflect transfer and application of academic knowledge by HEIs we included the indicators measuring collaboration between academia and industry researchers, use of research output in successful patent applications, as well the very patent activity of HEIs, students internships and contribution to sustainable development goals – where appropriate – into the rankings.

*EngiRank* is a composition of different categories of indicators. We believe that the scale of institution's activities matters: research and innovation exhibits increasing returns to scale, and the larger the magnitude of HEI's operations, the more opportunities for students and academic staff. Thus indicators of size, measuring volume of research output, amount of research and innovation funding, number of patents or number of publications assigned to the selected sustainable development goals, play an important role in the rankings.

Inclusion of the subject rankings scores into the institutional ranking reflects returns to scope and benefits of interdisciplinarity.

Then we have the conventional efficiency indicators expressed in relative terms, such as citations per publication, share of publication in the top 10% journals, number of patent citations received on average by a publication, percentage of publications that are co-authored by industry researchers or foreign researchers.

Introducing a dynamic indicator, change in citation impact, is a kind of novelty in the universe of HEIs' rankings.

Last, we included qualitative indicators representing engineering degree programmes accreditations and membership in a European university alliance. These indicators are closely related to the European Higher Education Area (EHEA) and clearly illustrate the advantages of a regional approach to academic rankings.

## EngiRank INSTITUTIONAL

The institutional ranking encompasses five criteria composed of 20 indicators. The most important criteria, according to their weights, are **Research** (28%) and **Innovation** (27%) – together they constitute 55% of the ranking. The third criterion, **Contribution to SDG 9**, recognizes institution's effort to make headway toward the sustainable development goal 9 - the weight of this single indicator criterion is 5%. The next criterion is **Internationalization**, with the weight equal to 19%, and the last one is **Interdisciplinarity** (weight of 21%), that links the institutional ranking with the subject rankings.

### RESEARCH (28%)

The criterion composed of four indicators originating from the Scopus bibliometric database. **Publications** is the indicator representing the institution's research output in absolute terms. Then **Citations** and **Publications in Top 10% Journals** are indicators expressed in relative terms. The last one, **Change of Impact**, is a dynamic indicator that reflects a change in the citation impact. More detailed information on each indicator is given below.

- **Publications (PUB)**: number of publications from the years 2018-2022 in the field *Engineering and technology* (FORD classification) in the Scopus database which are affiliated with the institution. Source: Scopus/SciVal (10%)
- **Publications in Top 10% Journals (TOP-10)**: percentage of the institution's publications published in the top 10% journals by CiteScore in the field *Engineering and technology* in the years 2018-2022. Source: Scopus/SciVal (6%)
- **Citations (CIT)**: ratio of the number of citations received by the institution's publications from the years 2018-2022 in the field *Engineering and technology* indexed in the Scopus database to the number of these publications. Source: Scopus/SciVal (6%)
- **Change of Impact (FWCI-C)**: dynamic indicator calculated as the ratio of field-weighted citation impact (FWCI) for the institution's publications from the years 2018-2022 to FWCI for the publications from the years 2013-2017 in the field *Engineering and technology*. Source: Scopus/SciVal (6%)

### INNOVATION (27%)

The criterion composed of four indicators. First, **Research and Innovation Funding** and **Patents** are expressed in absolute terms and refer to the European frameworks of research and innovation funding and patent granting, respectively. The Scopus bibliographic database was the source for calculating the remaining two indicators: **Patent-Citation Count per Scholarly Output** and **Academic-Corporate Collaboration**. Both are expressed in relative terms. More detailed information on the indicators is given below.

- **Research and Innovation Funding (FUND)**: value of grants awarded to the institution within the EU framework programmes funding research and innovation between 2018 and 2022. Source: CORDIS (10%)
- **Patents (PAT)**: number of patents granted to the institution by the European Patent Office in 2018-2022. Source: EPO-PATSTAT (6%)
- **Patent-Citation Count per Scholarly Output (PCIT)**: average number of patent citations received per scholarly outputs published by the institution in the field *Engineering and technology* in 2018-2022. Source: Scopus/SciVal (6%)
- **Academic-Corporate Collaboration (ACC)**: percentage of publications in the field *Engineering and technology* published between 2018 and 2022 that are co-authored by researchers affiliated to an institution outside academia. Source: Scopus/SciVal (5%)

### PATSTAT

The European Patent Office's Worldwide Patent Statistical Database – **PATSTAT** is the most prominent patent database that has become a standard in the field of patent intelligence and statistics. The PATSTAT product line consists of two individual databases:

- **PATSTAT Global**, containing bibliographical data relating to more than 100 million patent documents from leading industrialised and developing countries,
- **PATSTAT EP Register**, containing bibliographic and legal event data on published European and Euro-PCT patent applications.

The databases are available as a bulk data set or via PATSTAT Online, which is a web-based interface. PATSTAT Online allows to run queries in the databases, conduct statistical analyses, visualise the data and download it for offline use.

## CONTRIBUTION TO SDG (5%)

The single indicator criterion. The indicator measures institution's contribution to sustainable development goal 9 with the number of publications assigned to SDG 9 and to the field *Engineering and technology*.

- **SDG-9:** number of publications from 2018-2022 assigned simultaneously to the United Nations *Sustainable Development Goal 9: Industry, innovation and infrastructure* and to the field *Engineering and technology* (FORD classification). Source: Scopus/SciVal (5%)

## INTERNATIONALIZATION (19%)

The criterion composed of five indicators. The **International Collaboration** indicator is derived from the Scopus bibliographic database. The remaining indicators refer to the scale of students' mobility within the Erasmus+ programme and to the institution's participation in a European university alliance. More detailed information on each indicator is given below.

- **International Collaboration (IC):** percentage of the institution's publications in the field *Engineering and technology* in the years 2018-2022 that have co-authors from multiple countries. Source: Scopus/SciVal (10%)
- **Outbound student mobility (SMO):** number of institution's students undertaking studies abroad within the Erasmus+ programme in 2018-2020. Source: Erasmus+ (2%)
- **Inbound student mobility (SMI):** number of foreign students undertaking studies in the institution within the Erasmus+ programme in 2018-2020. Source: Erasmus+ (2%)
- **Student internships (SIN):** number of institution's students undertaking internships abroad within the Erasmus+ programme in 2018-2020. Source: Erasmus+ (1%)
- **Partnership in a European university alliance (EUNI):** binary indicator showing whether the university is a full member of any European university alliance as of 3.07.2023. Source: Erasmus+ (4%)

## EUROPEAN UNIVERSITIES

The **European Universities alliances** are a flagship initiative of the European strategy for universities. European Universities develop and implement an integrated long-term joint strategy for education with, where possible, links to research and innovation, for the benefit of their students, staff and society. Beyond cooperation between higher education institutions, European Universities alliances foster collaboration with other partners, including civil society, and local and regional authorities with the aim to bring education and innovation closer together through joint activities. Currently, there are 50 European Universities alliances, involving more than 430 higher education institutions.

## INTERDISCIPLINARITY (21%)

This criterion identifies universities conducting high-level research in many fields of engineering and technology, which makes it easier for them to create future-oriented, interdisciplinary programs for the High-Tech industry. The criterion combines institutional rankings with subject rankings and rewards institutions classified in a larger number of disciplines and obtaining higher scores in these rankings. Seven "by subject" rankings are taken into account.

- **Chemical Engineering (CHE):** scores received in CHE subject ranking. Source: EngiRank by subject (3%)
- **Civil Engineering (CIV):** scores received in CIV subject ranking. Source: EngiRank by subject (3%)
- **Electrical Engineering, Electronic Engineering, Information Engineering (EEI):** scores received in EEI subject ranking. Source: EngiRank by subject (3%)
- **Environmental Engineering (ENV):** scores received in ENV subject ranking. Source: EngiRank by subject (3%)
- **Materials Engineering (MAT):** scores received in MAT subject ranking. Source: EngiRank by subject (3%)
- **Mechanical Engineering (MEC):** scores received in MEC subject ranking. Source: EngiRank by subject (3%)
- **Medical Engineering (MED):** scores received in MED subject ranking. Source: EngiRank by subject (3%).

## EngiRank BY SUBJECT

The EngiRank 2023 rankings in the following disciplines:

- **Chemical Engineering**
- **Electrical Engineering, Electronic Engineering, Information Engineering**
- **Materials Engineering**
- **Mechanical Engineering**

are based on three criteria: **Research** (64%), **Innovation** (26%) and **Teaching Quality** (10%).

Then we addressed the potential and expected contribution of HEIs' activities in the remaining disciplines to the particular sustainable development goals (SDGs):

- **Civil Engineering** – SDG 11: Sustainable cities and communities
- **Environmental Engineering** – SDG 6: Clean water and sanitation
- **Medical Engineering** – SDG 3: Good health and well-being.

Thus the additional criterion, **Contribution to SDGs** (5%), was added for each of the above disciplines, and simultaneously the weights of other criteria were cut: **Research** - to 60%, and **Innovation** - to 25%.

Every indicator in the subject rankings refers strictly to a given discipline. Some indicators in the institutional ranking and in the rankings by subject are based on the same metrics, differing only in the scope of publications or grants considered. Although such indicators from the rankings by subject are indirectly included in the institutional ranking (via the *Interdisciplinarity* criterion) that shouldn't be considered a duplication of the indicators. Note that some HEIs are not classified in all the subject rankings in particular, approximately only half of HEIs listed in the institutional ranking are classified in the medical engineering ranking).

Besides, even in case of HEIs classified in all the rankings by subject there are publications and grants not covered by the subject rankings indicators, like the ones in general engineering; nuclear energy and engineering; control and systems engineering; safety, risk, reliability and quality; media technology; bioengineering; other miscellaneous engineering. They are counted in the institutional ranking only.

## RESEARCH (60%/64%)

The criterion composed of four indicators originating from the Scopus bibliographic database. Publications is the indicator representing the institution's research output in absolute terms. Then Citations and Publications in Top 10% Journals are indicators expressed in relative terms. The last one, Change of Impact, is a dynamic indicator that reflects a change in the citation impact. More detailed information on each indicator is given below.

- **Publications (PUB):** number of publications from the years 2018-2022 in the relevant discipline in the Scopus database which are affiliated with the institution. Source: Scopus/SciVal (15%/16%)
- **Publications in Top 10% Journals (TOP-10):** percentage of the institution's publications published in the top 10% journals by CiteScore in the relevant discipline in the years 2018-2022. Source: Scopus/SciVal (15%/16%)
- **Citations (CIT):** ratio of the number of citations received by the institution's publications from the years 2018-2022 in the relevant discipline indexed in the Scopus database to the number of these publications. Source: Scopus/SciVal (15%/16%)
- **Change of Impact (FWCI-C):** dynamic indicator calculated as the ratio of field-weighted citation impact (FWCI) for the institution's publications from the years 2018-2022 to FWCI for the publications from the years 2013-2017 in the relevant discipline. Source: Scopus/SciVal (15%/16%)

## CONTRIBUTION TO SDGs (0%/5%)

The single indicator criterion. The indicator measures institution's contribution to selected SDGs in defined disciplines by the number of publications.

- **SDG-3: Good health and well-being (medical engineering only):** number of publications from 2018-2022 assigned simultaneously to the United Nations Sustainable Development Goal 3: Good health and well-being and to medical engineering (FORD category 2.6). *Source: Scopus/Scival (5%)*
- **SDG-6: Clean water and sanitation (environmental engineering only):** number of publications from 2018-2022 assigned simultaneously to the United Nations Sustainable Development Goal 6: Clean water and sanitation and to environmental engineering (FORD category 2.7). *Source: Scopus/Scival (5%)*
- **SDG-11: Sustainable cities and communities (civil engineering only):** number of publications from 2018-2022 assigned simultaneously to the United Nations Sustainable Development Goal 11: Sustainable cities and communities and to civil engineering (FORD category 2.1). *Source: Scopus/Scival (5%)*

### SDGs

The **Sustainable Development Goals (SDGs)** are a collection of seventeen interlinked objectives adopted in 2015 by the 193 countries of the United Nations General Assembly (UNGA) as a part of the 2030 Development Agenda titled "Transforming our world: the 2030 Agenda for Sustainable Development." The SDGs emphasize the interconnected environmental, social and economic aspects of sustainable development by putting sustainability at their center and serve as a "shared blueprint for peace and prosperity for people and the planet, now and into the future." The UNGA resolution of 6 July 2017 identified 8-12 specific targets for each goal and provided between one and four indicators used to measure progress toward reaching each target.

The EngiRank recognises the potential and expected contribution of HEIs with strong technical profile to achieving SDG 9: Industry, innovation and infrastructure. Similarly, activities of HEIs in certain engineering and technology disciplines can support implementation of particular SDGs:

- Civil Engineering – SDG 11: Sustainable cities and communities,
- Environmental Engineering – SDG 6: Clean water and sanitation,
- Medical Engineering – SDG 3: Good health and well-being.

The indicators' weights in particular subject rankings are summarised in the table below.

EngiRank BY SUBJECTS	RESEARCH				INNOVATION		TEACH	SDG		
	Publications	Publications in Top 10% Journals	Citations	Change of Impact	Academic-Corporate Collaboration	Research and Innovation Funding	Accreditations	SDG 3: Good health and well-being	SDG 6: Clean water and sanitation	SDG 11: Sustainable cities and communities
Chemical Engineering	16%	16%	16%	16%	16%	10%	10%	-	-	-
Civil Engineering	15%	15%	15%	15%	15%	10%	10%	-	-	5%
Electrical, Electronic and Information Engineering	16%	16%	16%	16%	16%	10%	10%	-	-	-
Environmental Engineering	15%	15%	15%	15%	15%	10%	10%	-	5%	-
Materials Engineering	16%	16%	16%	16%	16%	10%	10%	-	-	-
Mechanical Engineering	16%	16%	16%	16%	16%	10%	10%	-	-	-
Medical Engineering	15%	15%	15%	15%	15%	10%	10%	5%	-	-

## TEACHING QUALITY (10%)

The single indicator criterion. The indicator is measured by the number of the degree programmes accredited by ENAEE authorised agencies or by ABET (more information on ENAEE and ABET in the box below).

- **Accreditations (ACC):** number of engineering degree programs related to the relevant discipline accredited by the agency authorized by the European Network for Accreditation of Engineering Education (ENAEE) or by the Accreditation Board for Engineering and Technology (ABET) as of 30.06.2023. *Source: databases of EUR-ACE labelled programmes (ENAEE authorised) and of ABET accredited programmes (10%)*

### ACREDITATIONS

The **European Network for Accreditation of Engineering Education (ENAEE)** is a non-profit organization that gathers accreditation and quality assurance agencies from various countries (mostly EU) and builds a pan-European framework for the accreditation of engineering education programmes. ENAEE has established the EUR-ACE (European Accredited Engineer) label, although it does not accredit directly engineering degree programmes itself. After positive evaluation of policies and procedures followed by member accreditation and quality assurance agencies, ENAEE authorizes them to award the EUR-ACE label to the engineering degree programmes accredited by these agencies. Currently, 15 agencies are authorized by ENAEE; they signed a Mutual Recognition Agreement, known as the EUR-ACE Accord.

The **Accreditation Board for Engineering and Technology (ABET)** is a non-governmental organization established in 1932 in the United States (originally as the Engineers' Council for Professional Development). Currently, there are 4564 post-secondary education programmes in applied and natural sciences, computing, engineering and engineering technology accredited by ABET, that are distributed over 895 institutions in 40 countries.

## INNOVATION (25%/26%)

The criterion composed of two indicators. The Scopus bibliometric database was the source for calculating the **Academic-Corporate Collaboration** indicator. The values for the **Research and Innovation Funding** are based on information from the CORDIS database.

- **Academic-Corporate Collaboration (ACC):** percentage of publications in the relevant discipline published between 2018 and 2022 that are co-authored by researchers affiliated to an institution outside academia. *Source: Scopus/SciVal (15%/16%)*
- **Research and Innovation Funding (FUND):** value of grants awarded to the university within the EU framework programmes funding research and innovation between 2018 and 2022 to finance research projects in the relevant discipline. *Source: CORDIS database (10%)*

### CORDIS

The **Community Research and Development Information Service (CORDIS)** is the European Commission's principal and official service for delivering information on projects funded by the European Union's framework programmes for research and innovation, from the First Framework Programme (1984-1987, budget €3.8bn) to Horizon Europe (2021-2027, budget €95.5bn). CORDIS has a single search service that allows to perform simple searches (by term), combine them with filters that apply to selected content collections as well as edit queries to use advanced search syntax (with Boolean operators). The heart of the CORDIS repository is the public information on the projects that is derived from the grant agreements once they have been signed and includes i.a. the project's objectives, topics, dates, funding amounts and participants. Total number of projects in the repository is 125.962 and their cost exceeds €350bn.

The subject rankings list the following number of HEIs:

- Chemical Engineering – 167
- Civil Engineering – 145
- Electrical, Electronic and Information Engineering – 177
- Environmental Engineering – 178
- Materials Engineering – 191
- Mechanical Engineering – 169
- Medical Engineering – 91.

## Method of calculation

The *EngiRank* rankings are modelled on the basis on the *Multi-Attribute Value Theory*. According to the theory, it was assumed - firstly - that it is possible to estimate the value, or the aggregate score, of each HEI (as well as the disciplines under consideration) taking into account impacts of the individual criteria as measured by corresponding indicators. Secondly, it was assumed that if the criteria are not equally important, then bringing them to comparability is possible by weighting the corresponding indicators with appropriate coefficients. Thirdly, the additivity of weighted criteria was assumed meaning that the final score is the linear combination of partial scores. Moreover, the indicators with an asymmetric distribution are generally subject to the transformation (square root or cube root) to reduce skewness of the distribution.

The partial scores for every indicator are calculated with reference to the leading institution. The score of 100 is assigned to the HEI with the highest indicator value and for the other institutions a proportional distance to the leader is calculated. The partnership in a European university alliance is a specific binary indicator corresponding - each of 92 universities listed in the institutional ranking that is a member of any European university alliance is assigned a score of 100.

Partial scores for all the indicators obtained by the HEI – both in the subject rankings and in the institutional ranking – are added using appropriate weights. Then the HEIs are ranked according to the weighted sum of scores in the descending order. The leading institution is assigned the final score of 100, and the subsequent institutions receive scores that are equal to the ratio of their weighted sum of partial scores to the one for the leader (in percentage terms). Position of HEIs in a ranking is determined using a discrimination threshold of 1% pt. of the final score. It means that institutions with final scores differing by less than 1% pt. occupy the same *ex aequo* position in the ranking.

Warsaw – Brussels  
17 November, 2023



2.

## EngiRank 2023 Institutional Ranking

INDICATOR	DATA SOURCE	Data Sources
Research and innovation funding	CORDIS: <a href="https://cordis.europa.eu">https://cordis.europa.eu</a>	
Patents	EPO PATSTAT: <a href="https://www.epo.org/patstat">https://www.epo.org/patstat</a>	
European universities alliances	List of alliances: <a href="https://education.ec.europa.eu/education-levels/higher-education/european-universities-initiative/map">https://education.ec.europa.eu/education-levels/higher-education/european-universities-initiative/map</a>	
EUR-ACE labelled programmes	ENAE database: <a href="https://eurace.enaee.eu">https://eurace.enaee.eu</a>	
ABET-accredited programmes	ABET-Accredited Program Search tool: <a href="https://amspub.abet.org/aps/">https://amspub.abet.org/aps/</a>	
HEIs running engineering programmes	European Engineering Education Database: <a href="https://www.engineerseurope.com/eedd-database">https://www.engineerseurope.com/eedd-database</a>	
Bibliometric indicators	Scival: <a href="https://www.scival.com">https://www.scival.com</a>	

The methodology of the European Ranking of Engineering Programs "EngiRank Institutional 2023" can be found on page 13.

2023	European Ranking of Engineering Programs			EngiRank	RESEARCH 28%				INNOVATION 27%				SDG 5%	INTERNATIONALIZATION 19%					INTERDISCIPLINARITY 21%					
					Publications	Publications in Top 10% Journals	Citations	Change of Impact	Research and Innovation Funding	Patents	Patent-Citation Count	Academic-Corporate Collaboration		SDG 9	International Collaboration	Inbound Student Mobility	Outbound Student Mobility	Student internships	European university	CHE	CIV	EEI	ENV	MAT
	Rank	Institution	Country	Overall Score	10%	6%	6%	6%	10%	6%	6%	5%	5%	10%	2%	2%	1%	4%	3%	3%	3%	3%	3%	3%
1	Technical University of Denmark	Denmark	100,00	84,85	76,73	90,30	67,90	100,00	69,45	53,52	80,29	77,35	89,06	58,01	35,82	8,95	100	100,00	99,81	98,68	100,00	98,42	100,00	94,44
2	Delft University of Technology	Netherlands	97,72	100,00	68,44	82,97	66,38	97,63	53,99	48,72	67,42	82,06	85,04	49,98	58,13	58,45	100	97,19	100,00	100,00	90,60	100,00	99,45	73,82
3	KU Leuven	Belgium	94,73	81,63	58,26	87,65	65,26	90,58	100,00	47,27	61,03	68,54	88,60	27,85	34,29	44,35	100	93,92	91,25	89,09	76,74	97,24	95,14	100,00
4	Technical University of Munich	Germany	93,58	93,46	58,53	79,09	65,26	84,72	75,86	44,12	77,81	82,91	65,16	76,45	94,18	65,66	100	81,60	81,99	95,98	80,23	91,03	90,52	88,15
5=	Polytechnic University of Milan	Italy	91,45	95,69	47,01	73,32	68,17	81,61	75,56	28,77	64,36	100,00	66,20	92,53	100,00	46,04	100	82,04	86,44	94,34	82,77	86,76	92,77	70,63
5=	Ghent University	Belgium	90,60	73,48	56,82	88,89	65,72	78,82	94,64	45,48	52,08	57,92	87,25	76,91	79,41	68,43	100	84,53	80,07	83,04	72,73	88,96	82,07	83,49
7=	Eindhoven University of Technology	Netherlands	90,41	71,81	71,03	84,28	65,83	82,87	53,40	64,65	89,53	48,50	76,30	38,62	36,39	27,12	100	94,55	89,16	95,79	84,66	97,48	91,63	90,91
7=	Karlsruhe Institute of Technology	Germany	89,52	88,51	62,95	83,00	64,56	74,27	93,69	36,64	70,40	72,98	65,27	42,79	54,26	32,39	100	87,80	76,28	82,53	90,18	96,46	88,81	78,50
7=	RWTH Aachen University	Germany	89,46	91,31	56,20	78,38	66,56	76,98	67,28	38,26	77,71	91,39	56,37	50,59	71,63	47,44	100	87,83	85,65	90,09	89,75	92,48	92,53	75,49
10=	KTH Royal Institute of Technology	Sweden	89,10	83,68	68,74	85,06	65,94	75,83	0,00	44,44	78,01	74,53	89,75	69,71	48,70	41,72	100	84,89	86,43	98,28	86,88	95,29	95,11	91,96
10=	Aalto University	Finland	88,50	69,60	69,72	86,32	66,56	69,71	42,38	46,24	79,51	60,79	93,75	64,23	43,24	20,01	100	90,15	83,25	93,34	84,20	93,27	92,52	80,24
12	Chalmers University of Technology	Sweden	87,53	69,45	67,06	87,62	70,50	82,41	0,00	51,68	96,90	68,41	80,63	57,25	39,72	29,93	100	82,39	87,50	96,81	85,27	93,49	98,57	78,73
13=	Friedrich-Alexander University Erlangen-Nürnberg	Germany	83,70	73,56	62,75	82,50	66,76	58,29	69,10	54,78	67,65	69,18	60,27	39,58	64,47	50,34	100	74,06	73,57	84,02	82,27	90,60	83,10	81,15
13=	Polytechnic University of Turin	Italy	83,41	82,72	41,52	73,60	70,41	70,36	54,56	33,03	59,61	82,73	61,92	59,84	71,03	33,71	100	79,45	92,04	89,00	76,36	84,75	96,64	70,12
13=	University of the Basque Country	Spain	82,98	62,83	75,45	88,66	67,07	46,88	49,57	35,83	72,31	59,86	76,10	73,99	96,32	47,52	100	80,53	80,21	82,93	78,81	90,88	87,61	71,89
13=	Technische Universität Dresden	Germany	82,80	77,16	56,15	80,49	65,74	59,59	81,84	41,31	64,50	61,98	63,13	44,70	59,70	52,75	100	78,30	74,84	75,61	74,52	90,73	82,48	78,12
13=	University of Twente	Netherlands	82,71	61,03	62,24	79,27	67,05	79,01	43,31	40,84	69,97	54,15	82,96	42,06	41,46	44,35	100	77,69	69,13	87,10	75,65	89,15	86,60	76,10
18=	Polytechnic University of Catalonia	Spain	82,29	74,05	57,91	72,63	64,10	61,75	61,13	34,30	56,11	59,57	77,95	85,02	81,05	36,21	100	78,35	78,03	86,37	74,72	82,42	82,41	65,37
18=	Polytechnic University of Valencia	Spain	81,54	65,84	60,15	74,81	66,45	61,53	60,67	34,82	55,40	59,42	69,71	99,69	81,75	52,95	100	75,88	80,92	89,02	77,48	75,81	88,14	66,86
20=	Technical University of Berlin	Germany	80,34	68,81	52,04	83,30	67,26	60,50	67,28	37,54	67,39	64,30	61,07	47,28	54,41	31,36	100	83,76	75,92	83,38	80,77	77,95	78,20	74,26
20=	Vienna University of Technology	Austria	79,72	66,13	45,79	71,47	65,98	63,74	65,36	39,93	77,67	57,82	77,76	52,01	31,63	30,77	100	73,25	68,12	79,46	74,75	82,54	80,62	64,54
22=	Université Grenoble Alpes	France	79,19	83,73	57,36	76,45	65,18	51,16	84,53	37,69	70,52	52,34	77,42	57,98	71,59	22,25	0	71,18	71,00	89,25	78,15	90,38	79,41	74,85
22=	Trinity College Dublin	Ireland	78,54	43,71	60,62	92,44	67,99	59,77	54,56	36,50	58,69	40,09	93,42	60,83	55,87	37,00	100	69,79	62,53	75,28	70,11	80,47	86,49	71,35
22=	University College Dublin	Ireland	78,44	49,49	54,95	85,79	69,39	47,88	50,25	51,73	61,02	46,77	93,56	67,95	56,91	36,61	100	69,24	85,04	80,80	68,30	67,30	78,84	63,31
25=	Aalborg University	Denmark	78,17	72,72	61,75	88,97	64,09	64,09	32,88	29,50	70,03	57,87	95,17	27,39	21,68	48,28	0	81,98	89,64	98,25	82,71	82,22	88,18	61,99
25=	Technical University of Madrid	Spain	77,79	65,35	52,63	70,20	70,05	62,29	46,65	27,11	53,54	57,46	63,01	69,75	93,51	41,55	100	65,53	79,69	96,84	85,10	80,87	82,78</td	

2023	European Ranking of Engineering Programs			Engirank	RESEARCH 28%				INNOVATION 27%				SDG 5%	INTERNATIONALIZATION 19%					INTERDISCIPLINARITY 21%					
					Publications	Publications in Top 10% Journals	Citations	Change of Impact	Research and Innovation Funding	Patents	Patent-Citation Count	Academic-Corporate Collaboration		SDG 9	International Collaboration	Inbound Student Mobility	Outbound Student Mobility	Student internships	European university	CHE	CIV	EEI	ENV	MAT
	Institution	Country	Overall Score		10%	6%	6%	6%	10%	6%	6%	5%	5%	10%	2%	2%	1%	4%	3%	3%	3%	3%	3%	3%
53=	CentraleSupélec	France	64,27	57,32	49,69	76,03	70,39	28,77	27,28	33,63	74,34	36,17	78,39	24,42	34,82	22,58	0	69,17	71,19	84,08	63,58	64,85	79,03	62,36
53=	University of Calabria	Italy	64,23	44,76	58,49	86,37	66,01	28,26	29,39	36,16	39,66	41,53	65,72	27,11	34,79	44,35	100	66,56	55,78	70,50	63,68	72,19	65,60	52,36
53=	University of Cyprus	Cyprus	64,03	32,90	61,16	77,49	62,00	50,06	17,19	27,72	50,75	22,33	92,37	37,35	37,64	40,21	100	54,88	67,41	76,10	58,57	72,39	57,78	-
53=	Arts et Métiers ParisTech	France	63,62	48,31	55,21	73,55	69,80	30,86	31,23	33,97	76,67	54,37	76,70	7,01	13,24	8,95	0	65,98	75,47	69,38	56,11	80,70	82,40	57,67
53=	Technical University of Braunschweig	Germany	63,57	52,03	36,90	69,13	67,58	47,28	44,19	61,50	70,62	54,69	47,39	23,80	36,06	31,01	0	67,37	68,55	67,76	62,31	72,33	74,16	49,12
53=	Université Gustave Eiffel	France	63,40	50,98	64,87	77,44	70,49	34,73	37,03	25,32	58,96	40,09	69,50	11,13	26,34	13,76	0	65,03	85,32	78,98	70,01	70,03	80,92	51,15
59=	Tallinn University of Technology	Estonia	63,19	40,75	30,83	67,99	74,55	48,39	27,28	19,64	41,99	45,37	89,23	54,38	29,40	39,20	100	58,57	70,43	62,60	54,73	67,54	60,88	-
59=	University of Bremen	Germany	62,49	45,22	41,11	70,50	65,46	43,46	24,79	32,60	60,57	46,39	59,57	37,21	50,13	38,26	100	69,66	-	63,22	61,13	74,11	66,04	58,59
59=	Université de Pau et des Pays de l'Adour	France	62,49	24,43	70,44	84,10	66,10	22,26	35,75	49,73	100,00	18,44	86,78	25,40	42,48	26,72	100	75,46	69,65	-	73,18	78,05	-	-
59=	Czech Technical University in Prague	Czech Republic	62,44	62,11	31,92	55,28	61,17	44,18	52,80	19,95	42,26	49,51	52,52	60,34	41,34	33,71	100	46,61	62,70	61,53	52,33	64,11	61,45	51,27
59=	Johannes Kepler University Linz	Austria	62,23	39,08	43,05	68,43	64,94	36,88	17,19	41,85	85,68	34,51	67,97	30,59	24,37	17,90	100	61,52	-	73,77	56,53	72,19	69,52	70,69
64=	Hamburg University of Technology	Germany	62,18	38,54	41,33	67,61	69,59	36,68	34,37	46,41	69,46	33,56	50,53	23,97	25,11	10,80	100	60,72	61,82	68,10	61,23	65,71	73,98	59,10
64=	École nationale supérieure de chimie de Montpellier	France	61,88	32,46	100,00	95,50	70,84	12,50	52,19	45,55	45,72	19,53	84,10	5,27	15,53	26,17	100	80,68	-	-	71,46	77,42	-	68,67
64=	Gdańsk University of Technology	Poland	61,66	49,60	47,08	73,37	75,60	27,23	40,41	25,01	27,56	38,44	55,23	45,67	34,75	31,24	100	62,84	66,07	70,60	53,44	65,15	65,93	60,62
64=	École centrale de Lyon	France	61,44	43,13	51,54	70,00	68,92	37,63	48,88	21,17	71,81	30,82	71,05	17,17	25,64	45,32	0	61,07	65,35	71,84	67,91	73,06	78,87	49,33
64=	Universite de Mons	Belgium	61,26	29,30	66,06	80,19	59,03	30,12	29,39	0,00	80,61	22,33	98,95	27,31	29,93	31,47	100	73,15	-	69,71	61,36	79,46	69,73	-
69=	Sant'Anna School of Advanced Studies	Italy	60,99	30,39	44,40	79,61	67,96	49,47	41,42	71,47	71,01	30,05	70,61	4,39	2,21	23,68	100	-	-	74,97	-	71,25	67,44	57,54
69=	Kaunas University of Technology	Lithuania	60,76	34,34	38,57	70,29	100,00	27,04	31,23	31,29	24,32	33,21	68,60	42,92	36,33	64,04	100	54,54	57,31	70,34	56,66	65,69	63,05	43,19
69=	Université Polytechnique Hauts-de-France	France	60,34	36,24	50,14	73,82	72,02	18,75	31,23	34,92	67,87	27,72	91,91	14,76	26,34	45,72	100	61,47	-	70,96	56,20	70,48	70,20	-
69=	TU Dortmund University	Germany	60,29	46,93	48,73	72,00	60,99	34,36	52,80	42,01	63,76	47,95	51,62	28,90	45,31	27,79	0	73,83	58,24	60,00	57,06	63,82	64,92	58,32
69=	University of Patras	Greece	60,20	46,54	37,12	78,35	71,15	60,61	21,65	26,67	39,63	48,01	55,55	28,90	40,66	62,60	0	63,93	59,04	67,01	63,25	66,46	70,83	58,44
69=	École normale supérieure Paris-Saclay	France	60,07	31,81	61,37	69,25	68,78	28,64	43,31	33,06	67,65	25,17	68,82	6,03	3,49	13,49	100	53,82	80,89	63,64	55,03	71,00	65,37	-
69=	Warsaw University of Technology	Poland	60,04	65,71	32,60	58,63	62,04	33,60	24,79	26,38	40,10	53,72	38,48	53,51	41,90	22,74	100	63,13	58,87	64,72	60,85	65,95	72,77	54,77
69=	Institut national des sciences appliquées de Rennes	France	60,02	47,24	57,13	75,55	68,31	18,18	31,23	40,75	53,14	26,31	82,44	16,73	32,69	17,70	0	67,81	53,33	75,43	62,83	75,82	66,12	58,26
77=	Budapest University of Technology and Economics	Hungary	59,78	53,14	35,58	64,47	69,63	35,39	0,00	29,71	50,09	48,56	50,33	62,17	50,47	37,78	100	58,18	53,11	67,12	56,18	65,99	61,75	53,46
77=	Wrocław University of Science and Technology	Poland	59,15	59,85	33,97	61,71	70,17	26,64	24,79	27,03	35,30	47,64	44,19	47,30	35,89	37,78	100	74,26	58,61	67,77	57,42	64,28	60,84	51,70
79=	University of Jaén	Spain	57,85	33,28</																				

2023	European Ranking of Engineering Programs			EngiRank	RESEARCH 28%				INNOVATION 27%				SDG 5%	INTERNATIONALIZATION 19%					INTERDISCIPLINARITY 21%						
					Publications	Publications in Top 10% Journals	Citations	Change of Impact	Research and Innovation Funding	Patents	Patent-Citation Count	Academic-Corporate Collaboration		SDG 9	International Collaboration	Inbound Student Mobility	Outbound Student Mobility	Student internships	European university	CHE	CIV	EEI	ENV	MAT	MEC
	Institution	Country	Overall Score		10%	6%	6%	6%	10%	6%	6%	5%	5%	10%	2%	2%	1%	4%	3%	3%	3%	3%	3%	3%	3%
107=	Mälardalen University	Sweden	51,97		24,20	61,82	84,57	63,03	24,71	0,00	0,00	89,45	31,67	78,58	23,66	18,33	2,70	0	63,79	81,02	72,10	72,69	-	81,63	-
107=	University of Wuppertal	Germany	51,95		28,69	59,13	78,27	58,01	31,97	27,28	52,14	66,61	25,52	54,20	17,78	26,98	38,07	0	58,46	-	59,62	63,03	70,49	65,04	-
107=	Université de technologie de Compiègne	France	51,95		29,33	50,48	70,45	62,25	6,96	35,75	29,81	53,12	28,14	74,46	15,54	44,33	36,61	0	55,46	58,54	56,50	50,71	62,32	60,70	46,66
107=	Chemnitz University of Technology	Germany	51,93		40,59	36,02	65,15	64,67	40,59	29,39	37,90	68,48	42,16	50,66	24,59	27,30	25,03	0	58,09	-	65,14	-	70,71	66,87	50,61
107=	Université de Limoges	France	51,73		28,61	35,42	59,33	65,33	29,81	48,88	37,61	65,01	18,76	76,11	20,98	30,89	42,41	100	-	-	63,94	-	67,23	-	44,68
107=	University of Kassel	Germany	51,69		30,78	37,97	72,71	75,12	28,78	48,16	14,23	57,16	34,42	50,62	33,14	37,97	37,40	0	61,08	54,14	55,66	52,65	64,16	74,17	-
107=	University of Chemistry and Technology, Prague	Czech Republic	51,45		38,96	60,99	80,98	68,75	27,16	17,19	26,07	45,57	33,99	56,83	34,93	21,79	23,99	0	67,32	-	-	59,40	73,16	65,89	69,42
107=	Public University of Navarre	Spain	51,37		26,50	60,20	75,53	71,72	21,11	27,28	21,35	42,28	23,23	67,13	28,08	39,94	28,69	100	51,84	-	69,64	51,47	64,05	-	-
107=	University of Latvia	Latvia	51,25		29,35	24,48	59,15	74,35	31,13	32,88	33,48	38,60	20,83	69,76	52,66	39,57	25,60	100	44,42	-	48,54	50,15	53,58	43,82	-
107=	École nationale supérieure de mécanique et des microtechniques de Besançon	France	51,22		33,28	56,89	73,51	72,75	9,55	31,23	18,61	48,13	24,58	77,29	5,66	11,14	24,29	0	58,17	62,93	67,39	61,95	57,64	69,94	-
107=	University of Siegen	Germany	51,17		32,25	69,26	82,97	64,08	30,31	21,65	19,22	50,73	28,96	67,71	16,01	16,44	11,13	0	60,33	50,56	60,26	-	79,00	66,50	-
107=	Université d'Artois	France	51,04		28,93	72,82	75,16	68,83	15,88	29,39	21,49	42,42	20,55	87,18	18,89	25,02	20,38	0	64,47	57,39	-	52,99	66,17	62,28	-
119=	ENSTA Bretagne	France	50,64		33,56	48,22	71,15	67,70	0,00	17,19	28,24	62,56	26,97	82,64	8,52	17,24	42,50	0	60,75	68,69	62,13	47,43	69,00	67,78	-
119=	Technical University of Cartagena	Spain	50,58		26,32	52,59	70,94	71,03	19,06	21,65	19,27	35,90	23,85	51,62	39,63	32,54	25,46	100	53,81	44,75	61,71	45,70	54,98	62,17	-
119=	Ilmenau University of Technology	Germany	50,40		37,69	31,78	60,05	64,95	22,35	46,65	41,90	67,93	30,73	52,53	15,88	12,48	19,65	0	53,27	-	61,65	54,18	57,14	63,77	56,36
119=	University of Kaiserslautern	Germany	50,30		39,26	35,38	64,49	63,50	30,41	37,03	29,47	68,85	39,94	45,28	17,90	19,43	17,70	0	56,10	37,99	71,37	46,91	67,28	64,53	-
119=	Universidad de Burgos	Spain	50,21		22,03	65,16	76,65	77,18	29,06	0,00	19,93	40,12	22,72	61,98	27,23	49,37	20,55	100	59,93	60,66	-	49,91	75,43	-	-
119=	University of Split	Croatia	50,01		28,92	37,80	72,60	70,82	12,26	17,19	0,00	50,34	23,73	63,16	43,19	37,25	37,97	100	57,97	51,71	57,27	48,77	51,42	56,31	-
119=	Université de technologie de Troyes	France	49,80		23,10	53,44	69,08	61,31	12,08	37,03	45,17	40,89	25,63	77,17	12,49	35,69	39,76	100	-	-	63,56	-	61,02	64,68	-
119=	University of Malta	Malta	49,69		23,95	21,56	73,22	66,22	30,63	24,79	40,92	35,55	21,11	86,80	54,44	47,59	45,16	100	-	-	46,97	48,21	51,54	-	-
127=	University of Beira Interior	Portugal	49,55		31,52	37,59	80,61	66,00	16,54	0,00	27,80	23,69	31,67	59,86	33,75	28,98	26,99	100	55,39	51,56	54,67	53,45	53,16	50,00	-
127=	Technical University of Cluj-Napoca	Romania	49,26		41,02	14,09	53,88	75,63	28,68	17,19	18,50	35,95	39,35	44,33	24,59	25,16	40,30	100	42,42	47,41	57,56	41,00	51,69	48,65	37,61
127=	École nationale d'ingénieurs de Brest	France	49,09		32,85	49,04	71,62	67,74	0,00	0,00	28,84	62,67	26,31	82,09	9,36	15,91	25,17	0	60,40	69,02	61,44	47,17	68,50	67,93	-
127=	Riga Technical University	Latvia	48,92		38,17	16,91	55,89	68,08	26,85	24,79	18,63	30,63	40,88	52,73	47,86	32,51	59,43	100	48,59	45,06	44,20	42,62	49,97	43,37	-
127=	Technical University of Crete	Greece	48,85		24,29	47,37	79,20	66,50	37,46	0,00	25,53	37,02	23,85	66,64	11,32	14,39	31,47	100	54,57	53,28	65,14	58,35	-	-	-
127=	Universität der Bundeswehr München	Germany	48,83		30,48	31,45	61,97	68,19	38,44	21,65	26,15	85,42	24,93	45,83	5,27	7,32	15,03	0	55,51	52,46	64,49	44,90	71,69	70,54	-
133=	Slovak University of Technology	Slovakia	47,97		44,75	21,68	52,13	64,63																	

2023	<b>European Ranking of Engineering Programs</b>			<b>EngiRank</b>	RESEARCH 28%				INNOVATION 27%				<b>SDG 5%</b>	INTERNATIONALIZATION 19%					INTERDISCIPLINARITY 21%						
					Publications	Publications in Top 10% Journals	Citations	Change of Impact	Research and Innovation Funding	Patents	Patent-Citation Count	Academic-Corporate Collaboration		SDG 9	International Collaboration	Inbound Student Mobility	Outbound Student Mobility	Student internships	European university	CHE	CIV	EEI	ENV	MAT	MEC
	Institution	Country	Overall score		10%	6%	6%	6%	10%	6%	6%	5%	5%	10%	2%	2%	1%	4%	3%	3%	3%	3%	3%	3%	3%
152=	University Institute of Architecture of Reggio Calabria	Italy	41,63		26,86	34,78	73,31	65,22	20,45	17,19	34,13	40,30	26,86	40,71	11,23	18,79	30,53	0	-	49,79	65,04	50,62	53,35	54,53	-
152=	Polytechnic Institute of Porto	Portugal	41,12		36,67	27,60	69,08	59,14	0,00	17,19	0,00	25,76	41,38	53,06	43,29	28,94	33,38	0	44,05	39,41	62,97	46,29	54,55	43,05	37,30
154=	University of Bergamo	Italy	40,42		23,67	46,83	68,41	65,34	15,90	27,28	0,00	51,85	34,51	45,04	31,32	53,40	28,56	0	53,75	53,72	-	-	52,05	57,18	-
154=	Institut supérieur de l'aéronautique et de l'espace	France	40,39		24,53	40,54	57,12	71,40	15,84	0,00	23,71	95,54	19,53	51,95	22,97	21,45	23,37	0	-	-	65,33	-	67,56	68,08	-
154=	École nationale d'ingénieurs de Saint-Étienne	France	40,31		22,17	67,60	69,77	63,73	0,00	29,39	0,00	80,43	20,12	64,28	4,62	0,00	0,00	0	-	57,55	-	-	67,82	76,08	-
154=	University of Sannio	Italy	39,53		25,01	46,88	73,20	66,17	14,68	0,00	0,00	50,85	20,41	49,17	20,52	19,05	28,18	0	-	53,66	67,15	51,20	48,33	56,05	-
158=	Technical University of Liberec	Czech Republic	39,31		29,34	21,30	61,73	75,87	13,62	38,22	21,07	28,46	30,82	60,08	35,36	23,92	28,69	0	45,52	-	32,35	-	51,50	36,45	-
158=	Lublin University of Technology	Poland	38,93		41,39	23,47	64,07	69,37	0,00	0,00	0,00	11,41	36,89	54,50	47,34	18,06	52,54	0	47,57	48,68	49,08	38,79	47,68	48,92	27,23
158=	University of Zilina	Slovakia	38,93		44,97	8,27	48,26	64,65	13,46	21,65	7,96	22,89	52,78	50,18	27,89	28,30	35,39	0	36,54	41,53	46,12	37,42	41,94	40,32	-
158=	Military University of Technology Warsaw	Poland	38,76		36,92	24,54	54,72	62,52	19,74	27,28	19,40	38,64	27,93	27,09	10,84	17,79	12,66	0	49,37	40,52	54,47	38,44	54,87	50,22	-
162=	Tomas Bata University in Zlin	Czech Republic	38,29		27,88	27,27	64,51	69,66	16,50	24,79	22,34	27,45	26,64	51,53	31,18	31,01	35,39	0	46,77	-	37,33	-	55,60	45,23	-
162=	Gh. Asachi Technical University	Romania	38,29		39,20	10,96	53,19	69,16	0,00	0,00	0,00	27,94	41,10	39,32	22,17	23,72	34,35	100	46,25	-	38,93	38,77	44,44	41,92	35,97
162=	Rzeszów University of Technology	Poland	38,14		34,47	21,31	63,14	73,85	12,36	17,19	25,38	16,78	38,98	29,25	23,07	21,96	16,64	0	55,24	35,05	55,58	38,54	46,48	46,25	-
165=	University of Miskolc	Hungary	37,10		24,84	22,09	56,07	73,81	14,88	0,00	22,50	46,58	28,76	46,75	23,02	15,05	20,38	0	48,32	40,06	-	50,83	49,78	48,19	-
165=	Opole University of Technology	Poland	36,95		28,42	39,86	66,17	72,05	0,00	0,00	0,00	17,63	30,35	50,94	28,61	17,86	11,45	0	49,32	37,95	54,49	43,99	53,15	53,54	-
165=	Częstochowa University of Technology	Poland	36,53		36,03	17,56	59,53	68,60	16,94	0,00	0,00	15,37	35,84	45,76	37,87	14,72	14,78	0	41,79	38,78	51,49	48,02	45,33	44,98	-
168	Helmut-Schmidt-University	Germany	35,61		21,31	28,24	54,01	65,65	0,00	40,41	37,43	77,96	25,40	38,08	7,87	10,47	2,70	0	-	-	50,94	50,69	-	53,99	-
169=	Technical University of Sofia	Bulgaria	34,24		38,20	3,61	36,12	72,43	19,31	0,00	0,00	13,83	32,22	28,59	25,28	16,59	41,19	100	31,69	-	46,26	34,42	39,80	37,18	-
169=	Óbuda University	Hungary	34,18		26,23	16,48	61,03	78,97	15,00	0,00	0,00	31,19	23,60	62,82	32,46	21,57	19,65	0	-	-	53,51	48,86	54,87	-	-
169=	Higher Institute of Engineering of Lisbon	Portugal	34,06		21,87	40,94	70,68	67,47	0,00	17,19	16,33	26,45	19,67	38,24	37,81	30,18	24,73	0	-	54,75	42,81	43,65	50,35	-	-
169=	Białystok University of Technology	Poland	33,93		32,02	20,67	57,78	69,68	0,00	17,19	0,00	11,66	24,46	35,35	50,00	27,78	23,68	0	35,58	50,90	50,63	39,79	45,10	46,85	-
173=	Bydgoszcz University of Science and Technology	Poland	32,81		25,06	21,90	64,16	74,89	0,00	0,00	17,50	38,29	24,58	39,53	12,57	16,81	21,08	0	43,88	32,37	53,04	33,61	46,39	-	-
173=	University of Zielona Gora	Poland	32,73		24,37	27,00	63,76	67,48	16,36	0,00	0,00	16,78	27,29	52,78	21,83	17,65	15,97	0	40,95	-	51,73	39,34	45,24	-	-
173=	École nationale supérieure d'électrotechnique, d'électronique, d'informatique, d'hydraulique et des télécommunications	France	32,34		20,35	17,98	50,12	67,02	0,00	0,00	24,88	63,56	12,81	74,34	0,00	2,70	10,80	0	-	-	52,39	37,14	41,63	-	-
176	Dunarea de Jos University of Galati	Romania	31,48		27,68	7,92	52,49	68,27	15,45	0,00	22,35	27,64	24,58	35,66	20,78	19,36	30,41	0	37,79	-	36,88	32,92	37,69	41,85	-
177=	University of Craiova	Romania	25,89		24,44	11,31	45,99	77,57	0,00	0,00	23,20	15,28	19,97	25,79	20,36	20,52	31,01	0	-	-	36,31	37,40	35,85	30,61	-
177=	Kielce University of Technology	Poland	25,52		25,77	11,56	49,68	53,14	0,00	17,19	0,00	14,49</													

## Abbreviations of ranking indicators used in the report

<b>ACC</b>	- Academic-Corporate Collaboration
<b>ACCR</b>	- Accreditations
<b>CHE</b>	- Chemical Engineering
<b>CIT</b>	- Citations
<b>CIV</b>	- Civil Engineering
<b>EEI</b>	- Electrical, Electronic, Information Engineering
<b>ENV</b>	- Environmental Engineering
<b>EUNI</b>	- European university
<b>FUND</b>	- Research and Innovation Funding
<b>FWCI-C</b>	- Change of Impact
<b>IC</b>	- International Collaboration
<b>MAT</b>	- Materials Engineering
<b>MEC</b>	- Mechanical Engineering
<b>MED</b>	- Medical Engineering
<b>PAT</b>	- Patents
<b>PCIT</b>	- Patent-Citation Count per Scholarly Output
<b>PUB</b>	- Publications
<b>SDG 3</b>	- Good health and well-being
<b>SDG 6</b>	- Clean water and sanitation
<b>SDG 9</b>	- Innovation and infrastructure
<b>SDG 11</b>	- Sustainable cities and communities
<b>SMI</b>	- Inbound student mobility
<b>SMO</b>	- Outbound student mobility
<b>SIN</b>	- Student internships
<b>TOP-10</b>	- Publications in Top 10% Journals



## EngiRank 2023 by Subject

Chemical Engineering .....	30
Civil Engineering.....	34
Electrical, Electronic & Information Engineering .....	38
Environmental Engineering.....	42
Materials Engineering.....	46
Mechanical Engineering .....	50
Medical Engineering.....	54

**TOP-10** - Publications in Top 10% Journals

The methodology of the European Ranking of Engineering Programs "EngiRank 2023 by Subject" can be found on page 15.

2023	Institution	Country	Overall Score	RESEARCH 64%				INNOVATION 26%			TEACHING		
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	16%	16%	16%
				16%	16%	16%	16%	16%	10%	10%	16%	16%	16%
1	Technical University of Denmark	Denmark	100,00	88,16	77,29	70,93	52,24	68,91	84,97	0,00			
2	Delft University of Technology	Netherlands	97,19	85,93	70,14	69,95	52,89	57,69	100,00	0,00			
3=	Eindhoven University of Technology	Netherlands	94,55	70,14	82,22	70,72	53,55	70,14	66,40	0,00			
3=	KU Leuven	Belgium	93,92	85,44	58,18	70,91	50,61	43,08	98,89	25,00			
5=	Aalto University	Finland	90,15	64,24	77,35	69,76	58,66	66,95	53,13	0,00			
5=	Lappeenranta University of Technology	Finland	90,02	43,25	74,01	79,05	67,86	44,70	47,26	50,00			
7=	RWTH Aachen University	Germany	87,83	100,00	59,98	63,01	54,38	53,30	47,98	0,00			
7=	Karlsruhe Institute of Technology	Germany	87,80	93,39	69,43	63,19	56,02	55,06	37,51	0,00			
9=	IMT Atlantique	France	85,42	23,54	93,48	100,00	100,00	31,81	0,00	3,13			
9=	KTH Royal Institute of Technology	Sweden	84,89	79,00	70,54	67,17	54,51	60,07	27,68	0,00			
9=	Ghent University	Belgium	84,53	73,39	56,03	69,41	53,58	44,27	55,68	25,00			
12	Technical University of Berlin	Germany	83,76	72,88	60,38	68,01	51,37	52,05	62,85	0,00			
13=	Chalmers University of Technology	Sweden	82,39	68,34	68,25	64,85	56,63	80,26	0,00	0,00			
13=	Polytechnic University of Milan	Italy	82,04	94,21	47,74	57,25	51,18	49,31	59,54	0,00			
13=	Aalborg University	Denmark	81,98	57,52	72,87	73,64	53,04	52,88	42,74	0,00			
13=	Technical University of Munich	Germany	81,60	88,65	67,64	63,30	55,46	60,02	0,00	0,00			
17=	University of Stuttgart	Germany	80,69	70,65	45,93	53,00	58,64	61,18	67,09	0,00			
17=	École nationale supérieure de chimie de Montpellier	France	80,68	46,59	87,00	74,41	58,70	37,12	19,00	25,00			
17=	University of the Basque Country	Spain	80,53	72,62	69,83	69,97	54,23	51,04	20,82	0,00			
20=	Polytechnic University of Turin	Italy	79,45	76,16	42,54	61,87	58,19	44,15	69,35	0,00			
20=	Graz University of Technology	Austria	78,57	53,17	57,96	58,57	57,75	95,16	0,00	0,00			
22=	Polytechnic University of Catalonia	Spain	78,35	62,62	51,51	59,74	56,45	42,27	78,66	0,00			
22=	Technische Universität Dresden	Germany	78,30	70,86	56,26	62,26	55,29	46,86	48,04	0,00			
22=	University of Twente	Netherlands	77,69	62,30	56,29	61,25	51,04	56,37	50,81	0,00			
25=	École nationale supérieure d'ingénieurs de Caen	France	76,93	29,91	100,00	73,80	54,32	50,07	0,00	12,50			
25=	Institut national des sciences appliquées de Toulouse	France	76,27	38,17	88,88	61,99	53,42	42,38	45,36	0,00			
27=	Polytechnic University of Valencia	Spain	75,88	70,92	67,68	63,49	49,70	44,17	0,00	25,00			
27=	Université catholique de Louvain	Belgium	75,56	39,66	48,19	69,65	54,29	38,54	58,39	37,50			
27=	Université de Pau et des Pays de l'Adour	France	75,46	31,32	58,55	55,91	48,45	100,00	0,00	25,00			
27=	Bordeaux INP	France	75,32	47,25	82,04	62,10	53,22	47,10	0,00	28,13			
27=	National Technical University of Athens	Greece	75,01	50,83	43,37	65,43	59,39	36,08	84,63	0,00			
32=	Wrocław University of Science and Technology	Poland	74,26	58,86	34,24	47,92	59,00	22,03	32,63	100,00			
32=	Friedrich-Alexander University Erlangen-Nürnberg	Germany	74,06	79,64	59,46	63,14	54,26	47,63	0,00	0,00			
32=	Université de Lorraine	France	73,88	71,85	60,29	61,68	58,01	42,97	13,72	0,00			
32=	TU Dortmund University	Germany	73,83	56,97	48,59	56,58	51,65	57,03	51,77	0,00			
32=	Luleå University of Technology	Sweden	73,71	48,16	45,68	57,81	56,02	73,48	34,46	0,00			
37=	Vienna University of Technology	Austria	73,25	58,38	45,73	55,20	54,57	64,55	35,75	0,00			
37=	Université de Mons	Belgium	73,15	30,22	72,16	64,05	53,19	72,93	0,00	12,50			
37=	École nationale supérieure de chimie de Paris	France	73,00	29,73	94,83	71,20	58,01	45,98	0,00	0,00			
37=	École supérieure de chimie physique électronique de Lyon	France	72,94	26,86	80,25	64,50	56,55	55,75	0,00	25,00			
37=	Leibniz University Hannover	Germany	72,57	55,14	41,50	58,83	54,77	54,88	52,62	0,00			
42=	École centrale de Nantes	France	71,93	30,98	65,76	81,03	60,70	54,94	0,00	3,13			
42=	Lodz University of Technology	Poland	71,54	52,40	27,26	55,46	68,17	27,98	0,00	100,00			
42=	University of Aveiro	Portugal	71,47	66,52	54,81	66,28	52,95	26,40	42,42	0,00			
42=	University of Leoben	Austria	71,43	36,76	50,87	57,25	76,89	71,53	0,00	0,00			
42=	Université Grenoble Alpes	France	71,18	71,19	62,53	59,81	51,54	47,23	0,00	0,00			
47=	École des mines Paris	France	70,87	31,71	74,93	64,17	60,80	59,43	0,00	0,00			
47=	University of Salerno	Italy	70,86	60,83	38,18	68,21	54,26	38,27	0,00	50,00			
47=	Technische Universität Darmstadt	Germany	70,57	63,97	65,59	56,58	51,52	52,13	0,00	0,00			
47=	Université de Lyon	France	70,25	68,04	58,27	56,48	50,30	55,39	0,00	0,00			
47=	Brno University of Technology	Czech Republic	70,11	57,16	52,59	55,42	76,05	30,25	26,28	0,00			

Position of HEIs is determined by threshold of 1% pt. Institutions with final score differing by less than 1% pt. occupy ex aequo position.

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%			TEACHING	
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	16%	16%

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%		TEACHING	
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	16%
				16%	16%	16%	16%	16%	10%	10%	16%
103=	Budapest University of Technology and Economics	Hungary	58,18	51,62	38,52	55,83	50,23	42,70	0,00	0,00	58,18
103=	École nationale supérieure de mécanique et des microtechniques de Besançon	France	58,17	25,84	56,42	56,43	66,73	33,46	0,00	0,00	58,17
103=	Chemnitz University of Technology	Germany	58,09	40,64	32,79	49,24	53,38	62,48	0,00	0,00	58,09
103=	University of Split	Croatia	57,97	27,66	38,78	66,37	83,15	22,11	0,00	0,00	57,97
103=	Universidad Carlos III de Madrid	Spain	57,55	35,34	61,46	56,01	59,03	24,47	0,00	0,00	57,55
103=	Silesian University of Technology	Poland	57,52	57,33	41,69	49,47	55,73	31,99	0,00	0,00	57,52
103=	University of Luxembourg	Luxembourg	57,18	23,54	45,89	59,27	52,57	53,54	0,00	0,00	57,18
110=	University of Minho	Portugal	56,75	60,20	36,89	61,39	55,56	19,00	0,00	0,00	56,75
110=	University of Maribor	Slovenia	56,55	39,46	37,50	58,19	48,30	25,69	36,91	0,00	56,55
110=	University of L'Aquila	Italy	56,12	40,70	27,57	60,71	52,99	29,09	31,07	0,00	56,12
110=	University of Kaiserslautern	Germany	56,10	45,35	32,96	49,04	54,39	48,60	0,00	0,00	56,10
114=	Universität der Bundeswehr München	Germany	55,51	29,41	33,75	53,03	51,16	60,61	0,00	0,00	55,51
114=	Université de technologie de Compiègne	France	55,46	30,80	50,13	59,60	51,43	35,78	0,00	0,00	55,46
114=	University of Beira Interior	Portugal	55,39	34,56	35,87	62,92	60,94	15,32	28,53	0,00	55,39
114=	Rzeszów University of Technology	Poland	55,24	35,03	16,88	49,82	65,91	12,34	0,00	75,00	55,24
114=	University of Cyprus	Cyprus	54,88	25,94	47,58	65,01	51,49	35,35	0,00	0,00	54,88
114=	Technical University of Crete	Greece	54,57	23,42	44,63	71,02	62,42	22,60	0,00	0,00	54,57
114=	Kaunas University of Technology	Lithuania	54,54	35,30	45,73	58,87	69,07	15,00	0,00	0,00	54,54
114=	École nationale supérieure de mécanique et d'aérotechnique	France	54,51	25,15	56,58	44,47	47,05	48,62	0,00	3,13	54,51
122=	École normale supérieure Paris-Saclay	France	53,82	28,09	43,55	57,11	54,57	37,69	0,00	0,00	53,82
122=	Technical University of Cartagena	Spain	53,81	26,20	48,01	54,03	57,71	35,00	0,00	0,00	53,81
122=	University of Bergamo	Italy	53,75	26,66	46,37	53,84	49,45	44,40	0,00	0,00	53,75
122=	Ilmenau University of Technology	Germany	53,27	31,84	26,48	46,74	47,72	49,89	25,72	0,00	53,27
122=	University of Cassino and Southern Lazio	Italy	52,97	26,15	38,56	60,65	55,20	36,97	0,00	0,00	52,97
127=	Poznań University of Technology	Poland	52,22	53,93	22,34	52,25	63,26	22,67	0,00	0,00	52,22
127=	Paderborn University	Germany	51,94	36,02	39,92	49,31	55,19	32,87	0,00	0,00	51,94
127=	Public University of Navarre	Spain	51,84	26,56	53,40	56,03	51,16	25,73	0,00	0,00	51,84
127=	Polytechnic University of Bari	Italy	51,62	35,03	30,31	57,47	54,24	34,91	0,00	0,00	51,62
127=	Cracow University of Technology	Poland	51,59	40,34	41,67	46,74	59,13	23,96	0,00	0,00	51,59
127=	University Politehnica of Bucharest	Romania	51,53	46,64	16,66	55,53	61,32	31,43	0,00	0,00	51,53
133	University of Salento	Italy	50,97	36,32	37,13	65,98	51,05	18,82	0,00	0,00	50,97
134=	West Pomeranian University of Technology	Poland	49,74	41,30	22,09	56,88	65,86	18,13	0,00	0,00	49,74
134=	Roma Tre University	Italy	49,67	32,22	29,49	68,65	48,51	25,10	0,00	0,00	49,67
134=	Military University of Technology Warsaw	Poland	49,37	26,15	19,97	47,64	75,89	33,06	0,00	0,00	49,37
134=	Opole University of Technology	Poland	49,32	27,85	43,10	55,71	60,35	15,52	0,00	0,00	49,32
134=	VŠB - Technical University of Ostrava	Czech Republic	48,97	43,40	24,99	44,37	62,94	25,39	0,00	0,00	48,97
139=	Riga Technical University	Latvia	48,59	33,17	22,26	43,11	58,99	24,38	28,18	0,00	48,59
139=	University of Miskolc	Hungary	48,32	32,47	18,31	42,28	68,90	36,46	0,00	0,00	48,32
141=	Lublin University of Technology	Poland	47,57	32,59	19,06	56,74	68,18	18,76	0,00	0,00	47,57
141=	Slovak University of Technology	Slovakia	47,04	43,65	20,26	44,59	51,80	32,85	0,00	0,00	47,04
141=	Tomas Bata University in Zlín	Czech Republic	46,77	31,32	27,84	49,15	59,86	23,90	0,00	0,00	46,77
141=	Czech Technical University in Prague	Czech Republic	46,61	44,90	27,09	41,60	52,33	25,47	0,00	0,00	46,61
145=	University of Pannonia	Hungary	46,54	29,95	28,34	50,34	39,20	43,29	0,00	0,00	46,54
145=	Gh. Asachi Technical University	Romania	46,25	33,97	20,40	54,19	63,36	18,00	0,00	0,00	46,25
145=	Politehnica University of Timisoara	Romania	45,96	24,33	18,30	49,75	60,81	35,54	0,00	0,00	45,96
145=	University of Pardubice	Czech Republic	45,74	29,41	42,46	46,77	48,38	20,79	0,00	0,00	45,74
149=	Technical University of Liberec	Czech Republic	45,52	37,52	14,71	46,70	63,54	24,44	0,00	0,00	45,52
149=	International Hellenic University	Greece	44,70	24,22	25,69	55,35	50,08	28,22	0,00	0,00	44,70

Position of HEIs is determined by threshold of 1% pt. Institutions with final score differing by less than 1% pt. occupy ex aequo position.

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%		TEACHING	
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	16%
				16%	16%	16%	16%	16%	10%	10%	16%
151=	University of Latvia	Latvia	44,42	27,41	21,31	50,75	60,61	22,30	0,00	0,00	44,42
151=	Polytechnic Institute of Porto	Portugal	44,05	37,05	13,72	49,74	48,25	16,50	0,00	25,00	44,05
151=	Bydgoszcz University of Science and Technology	Poland	43,								

2023	Institution	Country	Overall score	RESEARCH 64%		INNOVATION 26%		TEACHING		SDG									
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	SDG 11	16%	16%	16%	16%	16%	10%	10%	5%
1=	Delft University of Technology	Netherlands	100,00	100,00	50,75	70,10	45,81	55,50	100,00	0,00	88,73								
1=	Technical University of Denmark	Denmark	99,81	71,62	68,41	76,72	45,31	86,11	81,08	0,00	46,11								
3=	Polytechnic University of Turin	Italy	92,04	76,00	38,65	63,06	49,36	40,74	74,09	66,67	70,40								
3=	KU Leuven	Belgium	91,25	60,00	54,38	75,39	43,46	53,27	68,84	50,00	48,16								
5=	Aalborg University	Denmark	89,64	57,17	59,44	81,87	46,45	67,95	75,98	0,00	34,57								
5=	Eindhoven University of Technology	Netherlands	89,16	53,51	69,16	82,97	44,36	67,09	60,79	0,00	46,30								
7	Chalmers University of Technology	Sweden	87,50	51,26	57,31	74,85	48,92	79,25	62,01	0,00	39,55								
8=	Polytechnic University of Milan	Italy	86,44	96,25	31,25	58,33	46,79	46,24	74,21	0,00	100,00								
8=	KTH Royal Institute of Technology	Sweden	86,43	54,00	54,74	70,49	42,03	68,86	83,83	0,00	46,87								
8=	RWTH Aachen University	Germany	85,65	63,57	45,28	65,82	47,96	89,07	51,60	0,00	36,79								
11=	Université Gustave Eiffel	France	85,32	65,57	46,32	67,85	45,51	67,59	48,98	18,75	57,02								
11=	University College Dublin	Ireland	85,04	38,08	44,40	72,59	51,16	69,84	61,04	41,67	33,80								
13	Aalto University	Finland	83,25	51,58	51,64	65,78	44,03	74,91	73,97	0,00	33,27								
14=	Technical University of Munich	Germany	81,99	62,78	39,83	65,17	46,62	60,89	74,80	0,00	53,69								
14=	Mälardalen University	Sweden	81,02	23,04	100,00	96,09	38,62	57,07	27,39	0,00	17,79								
16=	Polytechnic University of Valencia	Spain	80,92	56,96	36,20	55,53	47,16	35,49	66,28	66,67	55,77								
16=	École normale supérieure Paris-Saclay	France	80,89	24,44	63,67	54,46	51,57	100,00	61,36	0,00	10,27								
16=	University of the Basque Country	Spain	80,21	37,11	48,67	65,60	45,24	97,33	46,50	0,00	31,93								
16=	Ghent University	Belgium	80,07	65,93	41,58	69,79	49,14	39,89	49,17	33,33	41,08								
20	Technical University of Madrid	Spain	79,69	65,73	34,86	51,68	52,80	38,15	55,43	50,00	59,73								
21=	Lappeenranta University of Technology	Finland	78,25	27,80	65,75	100,00	63,56	47,29	29,80	0,00	9,37								
21=	Polytechnic University of Catalonia	Spain	78,03	68,15	39,31	54,93	46,92	41,95	64,96	16,67	62,46								
23=	École des Ponts ParisTech	France	77,17	38,73	45,44	71,76	52,01	88,06	26,91	0,00	26,84								
23=	Karlsruhe Institute of Technology	Germany	76,28	57,83	32,76	71,90	42,13	58,17	67,79	0,00	33,54								
25=	Technical University of Berlin	Germany	75,92	47,01	42,43	76,59	50,37	52,67	53,00	0,00	39,77								
25=	Arts et Métiers ParisTech	France	75,47	35,08	61,17	67,57	51,41	78,28	28,71	0,00	9,37								
25=	Institut national des sciences appliquées de Toulouse	France	75,21	32,12	73,34	68,87	42,99	93,18	0,00	0,00	12,58								
28=	Technische Universität Dresden	Germany	74,84	53,32	39,86	63,46	57,83	50,42	54,24	0,00	36,31								
28=	University of Oulu	Finland	74,77	29,48	50,67	82,17	57,82	58,61	44,84	0,00	12,58								
28=	Institut national des sciences appliquées Lyon	France	74,64	34,99	67,04	70,21	41,17	63,08	25,19	16,67	23,71								
31=	École des mines Paris	France	73,73	23,61	65,52	75,02	46,85	80,53	19,89	0,00	11,09								
31=	University of Minho	Portugal	73,59	64,43	39,82	58,96	46,77	34,81	63,45	0,00	62,46								
31=	Friedrich-Alexander University Erlangen-Nürnberg	Germany	73,57	24,57	64,22	73,17	48,63	55,89	55,72	0,00	12,58								
31=	Luleå University of Technology	Sweden	73,52	39,32	38,72	62,14	56,27	72,70	45,50	0,00	24,44								
31=	IMT Mines Albi	France	73,29	19,28	87,13	69,04	40,55	87,25	0,00	0,00	10,27								
36=	National Technical University of Athens	Greece	72,27	59,75	26,26	59,10	46,30	34,48	85,50	0,00	58,54								
36=	École centrale de Nantes	France	72,23	32,79	44,13	56,56	42,80	67,32	59,36	18,75	19,66								
38=	CentraleSupélec	France	71,19	25,63	46,42	85,75	46,30	86,12	0,00	0,00	22,96								
38=	Université Grenoble Alpes	France	71,00	41,38	46,84	64,07	40,18	66,38	39,95	0,00	34,82								
38=	Tallinn University of Technology	Estonia	70,43	29,20	34,00	62,54	46,95	52,58	93,04	0,00	22,18								
41=	Conservatoire national des arts et métiers	France	69,84	23,04	55,32	70,96	41,96	75,00	0,00	33,33	11,09								
41=	Silesian University of Technology	Poland	69,75	47,36	34,41	57,58	47,26	48,81	32,77	33,33	37,02								
41=	Université de Pau et des Pays de l'Adour	France	69,65	18,66	61,60	75,46	50,46	70,44	0,00	16,67	11,09								
41=	University of Twente	Netherlands	69,13	37,77	46,45	68,77	48,29	40,65	53,45	0,00	35,07								
41=	École nationale d'ingénieurs de Brest	France	69,02	22,01	59,07	87,62	50,74	67,40	0,00	0,00	5,93								
46=	ENSTA Bretagne	France	68,69	22,68	56,37	86,86	50,44	67,71	0,00	2,08	5,93								
46=	Technical University of Braunschweig	Germany	68,55	42,05	29,38	59,18	61,13	56,56	43,38</										

2023	Engirank	Civil Engineering	Institution	Country	Overall score	RESEARCH 64%		INNOVATION 26%		TEACHING		SDG	
						PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	SDG 11
						16%	16%	16%	16%	16%	10%	10%	5%
104=	Budapest University of Technology and Economics	Hungary	53,11	46,87	26,74	52,46	59,27	22,38	0,00	0,00	43,57		
104=	University of Maribor	Slovenia	53,09	26,89	34,88	59,26	44,21	25,53	36,18	0,00	21,78		
104=	VŠB - Technical University of Ostrava	Czech Republic	52,89	30,64	17,64	47,34	60,17	34,23	39,06	0,00	15,69		
104=	University of L'Aquila	Italy	52,89	35,51	35,24	63,40	52,00	22,33	0,00	0,00	38,42		
104=	Universität der Bundeswehr München	Germany	52,46	25,11	22,70	45,43	66,72	54,70	0,00	0,00	14,52		
104=	Brandenburg University of Technology	Germany	52,40	21,32	25,68	41,47	57,88	32,21	51,90	0,00	18,27		
104=	Cyprus University of Technology	Cyprus	52,13	19,10	36,11	67,27	42,84	20,75	41,14	0,00	13,90		
111=	University of Split	Croatia	51,71	28,39	22,41	59,00	61,13	39,49	0,00	0,00	17,79		
111=	University of Beira Interior	Portugal	51,56	25,95	35,22	71,48	55,26	0,00	31,49	0,00	20,54		
111=	Politehnica University of Timisoara	Romania	51,30	24,37	22,19	51,29	68,81	39,85	0,00	0,00	24,44		
111=	Białystok University of Technology	Poland	50,90	26,58	24,51	57,90	61,24	14,91	0,00	33,33	16,77		
111=	Cyprus International University	Cyprus	50,74	19,53	26,64	61,95	100,00	0,00	0,00	0,00	12,58		
116=	University of Siegen	Germany	50,56	20,77	39,28	64,12	57,59	27,00	0,00	0,00	8,38		
116=	Roma Tre University	Italy	50,34	37,46	30,05	59,49	37,53	29,93	0,00	0,00	48,53		
116=	Transilvania University of Brasov	Romania	49,80	18,58	19,64	44,83	59,01	30,18	0,00	50,00	8,38		
116=	University Institute of Architecture of Reggio Calabria	Italy	49,79	29,93	18,91	50,32	52,32	22,94	34,32	0,00	33,01		
120=	Università degli Studi Niccolò Cusano	Italy	48,88	19,10	45,39	73,63	38,11	20,75	0,00	0,00	22,58		
120=	Vilnius Gediminas Technical University	Lithuania	48,71	36,88	30,17	58,20	49,04	18,62	0,00	0,00	32,74		
120=	Lublin University of Technology	Poland	48,68	37,24	45,61	62,17	50,39	0,00	0,00	0,00	24,80		
120=	IHE Delft Institute for Water Education	Netherlands	48,05	20,28	26,54	59,81	37,13	51,71	0,00	0,00	16,77		
124=	Technical University of Cluj-Napoca	Romania	47,41	21,16	16,81	50,33	60,20	18,73	38,85	0,00	15,69		
124=	Széchenyi István University	Hungary	46,89	18,75	9,63	42,70	69,71	36,61	20,02	0,00	16,24		
126=	Cracow University of Technology	Poland	46,30	44,28	26,50	45,80	46,42	15,51	0,00	0,00	45,73		
126=	Slovak University of Technology	Slovakia	45,73	33,14	17,14	45,23	47,16	20,72	30,03	0,00	23,71		
128=	Riga Technical University	Latvia	45,06	26,58	21,84	51,12	37,77	25,83	28,71	0,00	18,75		
128=	Technical University of Cartagena	Spain	44,75	23,47	32,13	49,94	44,67	0,00	27,24	16,67	23,34		
130=	Polytechnic Institute of Leiria	Portugal	42,58	21,01	22,18	63,57	40,46	0,00	0,00	33,33	26,18		
130=	University of West Bohemia	Czech Republic	42,50	18,31	23,59	35,87	46,84	37,51	17,98	0,00	11,09		
130=	University Politehnica of Bucharest	Romania	42,30	18,58	18,55	54,35	36,04	21,34	37,07	0,00	10,27		
130=	Università Iuav di Venezia	Italy	42,04	30,75	27,47	45,76	37,57	22,33	0,00	0,00	36,06		
134=	University of Zilina	Slovakia	41,53	39,53	2,65	40,00	45,70	22,42	17,53	0,00	35,32		
134=	Polytechnic Institute of Coimbra	Portugal	41,26	20,28	31,11	56,08	39,54	19,54	0,00	0,00	18,27		
136=	Military University of Technology Warsaw	Poland	40,52	21,16	23,54	45,92	55,77	18,73	0,00	0,00	13,26		
136=	University of Miskolc	Hungary	40,06	19,62	13,70	39,58	56,62	35,00	0,00	0,00	9,37		
138=	Polytechnic Institute of Porto	Portugal	39,41	27,98	23,56	59,29	23,94	24,54	0,00	0,00	16,77		
138=	Częstochowa University of Technology	Poland	38,78	27,50	22,89	61,00	44,43	0,00	0,00	0,00	19,21		
140=	University of Kaiserslautern	Germany	37,99	26,14	18,18	41,39	36,65	30,33	0,00	0,00	18,75		
140=	Opole University of Technology	Poland	37,95	23,82	27,21	45,55	41,15	16,64	0,00	0,00	13,26		
142=	Technical University of Kosice	Slovakia	36,94	31,92	10,35	40,27	53,81	0,00	17,50	0,00	19,66		
142=	Kielce University of Technology	Poland	36,39	25,17	13,66	40,20	44,25	22,27	0,00	0,00	20,11		
144	Rzeszów University of Technology	Poland	35,05	27,92	15,93	47,05	49,34	0,00	0,00	0,00	19,21		
145	Bydgoszcz University of Science and Technology	Poland	32,37	19,10	18,57	45,73	46,64	0,00	0,00	0,00	16,24		

Position of HEIs is determined by threshold of 1% pt. Institutions with final score differing by less than 1% pt. occupy ex aequo position.

## Engineer - proud creator

**The meaning of engineering.** There are various ways to define the profession of engineering. I would like to refer here to the 1828 definition from England describing engineering as an art in steering the forces of nature for the benefit of a human. In other words, an engineer is someone who designs something with the idea that what he designed and implemented works and even brings benefit.

The word "engineer" comes from the Latin *ingeniator*. It describes a person who can invent something, is smart and has an open mind. Once, people who were responsible for construction of war machines and fortifications were called engineers. It was a military engineering. With the time engineering skills had been used for other than military purposes like construction of dams, roads and bridges, it became known as civil engineering. At first the job of engineers had been limited to transforming of what was on and in the earth: roads, forts, mines. With the emergence of the industrial revolution and steam engines mechanical and electrical engineers appeared. The number of engineering specialties has since greatly increased.

Engineering, in our contemporary meaning, emerged when the geometry and math replaced intuition in the process of designing. Mathematics forms the base of both science and engineering. Scientists, researchers use it to generalize their findings while engineer use mathematics to rationalize the designing process.

**The task of an engineer differs from the task of a researcher.** A researcher has to operate within strict laws of science, an engineer aware of the limitations defined by science but using his intelligence, imagination and experience has to predict what cannot be fully calculated or counted. Because not everything can be counted, therefore we speak of the "art of engineering" which is something different from the scientific knowledge. A scientist describes what already exists, while an engineer creates something that does not yet exist.

The Industrial Revolution had not been the work of scientists but the work of artisans and engineers, the result not of their knowledge but intuition. First, the steam engine had been built and only after that the principles of thermodynamics that stood behind were understood. Even today it often happens that the achievements of technology precede scientific theories explaining them.

The important aspect of being an engineer is the ability to predict social consequences of his activity. Also important, both in science and engineering, is the ethical aspect. The significant difference here is that while a scientist who

comes up with a wrong theory may be criticized or ridiculed, an engineer who builds a faulty bridge that can collapse, brings about a disaster that may kill people.

Engineers also think a different way; more than others, they pay attention not just to the very idea of the proposed solution but to its practical side and effectiveness. The way an engineer thinks is to design something, to build it and then test if it works. Inventing something abstract, that does not bring about some benefit is contrary to the art of engineering.

**Engineering education.** The characteristics of the engineering profession, briefly outlined above, cause the teaching in the universities of technology to differ in many aspects from the teaching done in many other disciplines. Like in the case of the medical studies, a strongly profiled group of candidates choose studies in technology.

A good engineering education pays attention to the development of student's personality. It creates a person who will understand the consequences of the actions he is taking, will be aware that he acts within a social framework, and understands that there is neither technology for the sake of technology nor production for the sake of production. Let us bear in mind that the great engineers, the founders of modern technology were also humanists who understood the consequences of their activity. They were able to link pragmatism with imagination and phantasy. After all, in order to create, one must first imagine. Creation is not a heartless process that can be performed by computers. If that was so, we would long be eliminated!

The contemporary engineering studies evaluate fast in the direction of broad specialization, following general understanding that a young person must be prepared to change profession several times in his or hers life span.

The aim of studies in engineering is not solely the transfer of knowledge in certain subjects, mostly sciences, but also (or equally) to provide students with the feeling and understanding of what constitutes the "raison d'être" of their professional group. The society expects **engineers to be able to provide safe functioning of the technological infrastructure essential for life and growth.**

The key word describing engineer's role is "responsibility"; responsibility understood as an ability to predict the effects of actions taken and to prevent the possible negative consequences. For that, in spite of similarities, there are important differences between education in science and engineering.

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%		TEACHING	
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	
1	Delft University of Technology	Netherlands	100,00	88,63	78,96	71,11	56,64	62,75	100,00	0,00	
2=	Technical University of Denmark	Denmark	98,68	73,93	76,38	79,79	61,58	65,52	92,54	0,00	
2=	KTH Royal Institute of Technology	Sweden	98,28	77,55	86,68	77,37	52,42	69,58	79,60	0,00	
2=	Aalborg University	Denmark	98,25	100,00	83,17	90,96	49,09	56,14	54,21	0,00	
5=	Technical University of Madrid	Spain	96,84	64,21	74,39	68,13	58,18	47,31	63,20	88,89	
5=	Chalmers University of Technology	Sweden	96,81	65,45	73,09	81,54	55,39	83,81	76,63	0,00	
5=	Technical University of Munich	Germany	95,98	84,24	65,51	72,74	54,35	70,91	89,50	0,00	
8	Eindhoven University of Technology	Netherlands	95,79	70,22	66,53	69,88	56,44	82,63	91,49	0,00	
9=	Polytechnic University of Milan	Italy	94,34	86,31	65,83	75,63	61,22	65,72	67,30	0,00	
9=	Aalto University	Finland	93,34	69,91	80,51	81,85	56,39	62,63	66,05	0,00	
11=	RWTH Aachen University	Germany	90,09	77,04	50,42	68,51	53,97	83,98	71,96	0,00	
11=	Université Grenoble Alpes	France	89,25	91,12	46,11	66,89	57,91	65,31	49,10	27,78	
11=	KU Leuven	Belgium	89,09	75,55	40,30	72,76	54,58	54,62	89,71	33,33	
14=	Polytechnic University of Valencia	Spain	89,02	60,16	76,79	70,61	55,93	56,85	64,29	22,22	
14=	Polytechnic University of Turin	Italy	89,00	84,96	46,40	66,19	56,97	55,25	58,85	44,44	
14=	Universidad Carlos III de Madrid	Spain	88,32	53,01	76,74	68,29	50,40	59,49	57,18	44,44	
17=	University of Oulu	Finland	87,43	49,74	66,51	92,74	59,01	57,76	67,14	0,00	
17=	University of Twente	Netherlands	87,10	52,22	60,74	69,55	54,66	74,37	87,66	0,00	
19	Polytechnic University of Catalonia	Spain	86,37	74,70	75,30	66,51	49,84	48,75	65,99	11,11	
20=	Institut polytechnique de Grenoble	France	84,13	59,73	64,62	72,55	56,85	55,48	38,08	33,33	
20=	CentraleSupélec	France	84,08	74,61	76,62	78,84	59,76	54,88	14,31	0,00	
20=	Friedrich-Alexander University Erlangen-Nürnberg	Germany	84,02	68,74	55,79	70,44	58,47	67,58	51,81	0,00	
20=	University of Luxembourg	Luxembourg	83,72	39,16	100,00	83,40	51,80	46,49	50,07	0,00	
20=	Technical University of Berlin	Germany	83,38	64,87	52,89	72,41	57,74	64,21	61,71	0,00	
25=	Ghent University	Belgium	83,04	60,77	34,75	75,56	57,95	41,53	75,91	50,00	
25=	University of the Basque Country	Spain	82,93	47,24	76,83	74,96	55,72	65,43	45,83	0,00	
25=	École des mines Paris	France	82,64	24,36	98,73	85,54	60,94	60,13	28,61	0,00	
25=	Karlsruhe Institute of Technology	Germany	82,53	75,48	42,62	68,28	51,99	63,46	72,46	0,00	
25=	EURECOM	France	82,23	24,45	78,41	88,93	53,71	67,59	52,45	0,00	
30=	University of Salerno	Italy	81,52	44,10	72,83	80,51	54,87	42,87	31,82	44,44	
30=	AGH University of Science and Technology	Poland	81,38	62,64	42,48	59,96	67,17	33,31	33,87	88,89	
30=	University College Dublin	Ireland	80,80	50,36	52,49	76,44	55,78	51,38	40,95	44,44	
30=	Lappeenranta University of Technology	Finland	80,79	33,69	86,31	77,53	63,43	45,40	14,59	38,89	
30=	Institut national des sciences appliquées Lyon	France	80,53	53,31	54,71	66,72	55,39	62,17	29,81	44,44	
35=	University of Stuttgart	Germany	79,57	66,31	43,84	59,03	55,29	65,58	71,39	0,00	
35=	Vienna University of Technology	Austria	79,46	66,17	39,16	63,26	55,80	70,63	62,68	0,00	
35=	Bordeaux INP	France	78,99	40,72	45,61	58,22	53,96	75,40	36,40	56,94	
35=	Université Gustave Eiffel	France	78,98	47,98	68,45	69,54	58,24	39,40	42,99	34,72	
35=	Conservatoire national des arts et métiers	France	78,87	39,05	54,47	60,42	53,62	47,53	22,61	100,00	
35=	Mid Sweden University	Sweden	78,57	22,34	83,23	100,00	62,87	45,65	26,22	0,00	
41=	National Technical University of Athens	Greece	78,15	52,11	53,33	74,70	57,95	48,67	67,12	0,00	
41=	Graz University of Technology	Austria	77,63	49,06	44,24	55,93	55,38	88,79	52,96	0,00	
43=	Luleå University of Technology	Sweden	76,98	37,17	70,15	85,80	47,40	54,01	46,76	0,00	
43=	University of Cyprus	Cyprus	76,10	35,73	79,26	72,99	47,89	50,96	53,21	0,00	
45=	Technische Universität Dresden	Germany	75,61	69,68	36,41	61,29	52,95	65,45	51,55	0,00	
45=	Institut national des sciences appliquées de Rennes	France	75,43	50,36	52,07	61,95	57,01	53,10	18,39	50,00	
45=	Trinity College Dublin	Ireland	75,28	37,34	50,03	77,28	57,80	55,88	61,26	0,00	
45=	Sant'Anna School of Advanced Studies	Italy	74,97	31,59	58,69	68,27	51,45	65,56	63,65	0,00	
45=	Leibniz University Hannover	Germany	74,88	53,75	37,23	58,74	57,50	66,23	49,75	16,67	
45=	Université catholique de Louvain	Belgium	74,65	37,54	59,32	65,48	51,97	51,27	49,65	27,78	

Position of HEIs is determined by threshold of 1% pt. Institutions with final score differing by less than 1% pt. occupy ex aequo position.

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%		TEACHING	
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	
51=	Silesian University of Technology	Poland	74,12	54,27	52,80	62,66	64,26	30,08	20,75	55,56	
51=	Johannes Kepler University Linz	Austria	73,77	42,74	45,47	63,85	58,78	77,08	35,78	0,00	
51=	Université de Lorraine	France	73,24	53,27	66,23	71,26	57,82	34,18	29,31	11,11	
54=	University of Piraeus	Greece	73,10	20,75	68,03	98,47	58,85	38,85	35,99	0,00	
54=	Lodz University of Technology	Poland	73,02	47,01	38,54	54,16	63,60	24,25	27,26	100,00	
54=	Université de technologie de Belfort Montbéliard	France	72,55	30,84	76,71	85,73	67,21	37,88	10,80	0,00	
54=	École polytechnique	France	72,50	33,63	38,61	55,48	57,23	100,00	31,99	0,00	
54=	University of Jaén	Spain	72,47	33,47	81,29	80,					

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%		TEACHING
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR
103=	École normale supérieure Paris-Saclay	France	63,64	32,46	60,13	64,33	57,23	40,04	21,58	0,00
103=	Université de technologie de Troyes	France	63,56	20,90	62,15	66,41	52,62	34,50	15,88	33,33
103=	University of Leoben	Austria	63,25	21,06	33,63	57,10	53,77	79,39	33,74	0,00
103=	University of Bremen	Germany	63,22	41,32	33,69	59,16	56,33	48,19	43,54	0,00
103=	University of Ljubljana	Slovenia	63,15	41,13	29,90	62,82	59,01	43,82	46,24	0,00
103=	Université de Toulon	France	62,99	32,66	41,44	60,74	59,85	70,25	0,00	0,00
103=	Polytechnic Institute of Porto	Portugal	62,97	31,59	62,42	78,23	50,40	21,35	0,00	33,33
110=	Tallinn University of Technology	Estonia	62,60	48,05	34,82	59,97	61,40	33,13	41,45	0,00
110=	ENSTA Bretagne	France	62,13	38,28	53,43	62,61	57,65	48,49	0,00	1,39
110=	Institut national des sciences appliquées de Toulouse	France	62,09	23,60	57,37	61,77	56,33	62,06	0,00	0,00
110=	Technische Hochschule Ingolstadt	Germany	61,81	20,90	30,47	57,20	58,82	66,80	24,60	16,67
110=	Technical University of Cartagena	Spain	61,71	27,14	63,60	68,78	56,29	31,15	20,11	0,00
110=	Ilmenau University of Technology	Germany	61,65	46,95	29,96	52,35	55,63	59,98	23,10	0,00
116=	Czech Technical University in Prague	Czech Republic	61,53	59,16	34,69	51,10	53,63	33,38	42,90	0,00
116=	University of Minho	Portugal	61,53	37,54	51,01	72,72	49,30	27,16	33,70	0,00
116=	Institut national polytechnique de Toulouse	France	61,44	35,43	47,09	52,23	49,26	61,90	15,81	4,17
116=	École nationale d'ingénieurs de Brest	France	61,44	37,88	52,32	62,77	57,38	48,06	0,00	0,00
116=	Cyprus University of Technology	Cyprus	61,20	22,81	42,97	61,66	62,40	49,98	28,13	0,00
116=	Clausthal University of Technology	Germany	60,87	20,70	42,26	63,63	70,43	49,27	15,57	0,00
122=	École centrale de Marseille	France	60,35	22,48	58,99	54,58	48,61	48,11	32,32	1,39
122=	University of Siegen	Germany	60,26	29,20	34,98	56,96	57,23	51,66	37,45	0,00
122=	University Politehnica of Bucharest	Romania	60,26	69,76	16,85	43,04	60,19	36,73	31,87	11,11
122=	VŠB – Technical University of Ostrava	Czech Republic	60,04	43,68	43,25	53,55	59,79	29,76	35,96	0,00
122=	TU Dortmund University	Germany	60,00	38,30	27,58	52,32	55,17	58,78	32,29	0,00
122=	Technological University Dublin	Ireland	59,87	22,34	49,08	64,53	61,99	22,82	16,35	33,33
122=	University of Wuppertal	Germany	59,62	27,61	31,43	52,08	51,30	61,93	42,23	0,00
122=	Université de Poitiers	France	59,44	28,49	58,38	56,97	55,77	43,84	10,51	0,00
130	Otto von Guericke University Magdeburg	Germany	59,13	36,15	36,68	50,93	48,18	62,29	23,12	0,00
131=	Technical University of Cluj-Napoca	Romania	57,56	45,74	21,12	47,65	60,38	40,57	31,45	11,11
131=	Université de Haute-Alsace	France	57,41	23,42	33,99	71,92	67,23	44,89	0,00	0,00
131=	University of Split	Croatia	57,27	22,48	30,55	62,28	83,13	42,43	0,00	0,00
131=	Poznań University of Technology	Poland	56,81	45,44	35,85	56,89	56,64	31,74	19,81	0,00
135=	Université de technologie de Compiègne	France	56,50	21,61	61,58	61,96	49,95	42,54	0,00	0,00
135=	Transilvania University of Brasov	Romania	55,76	21,66	29,52	54,60	62,72	31,14	16,92	38,89
135=	University of Kassel	Germany	55,66	28,07	27,02	57,96	55,24	43,55	35,60	0,00
135=	Rzeszów University of Technology	Poland	55,58	30,28	28,46	60,93	89,21	14,58	16,48	0,00
139=	West Pomeranian University of Technology	Poland	55,20	28,94	31,79	62,30	70,80	29,22	14,58	0,00
139=	University of Beira Interior	Portugal	54,67	32,63	45,52	79,45	53,25	15,63	0,00	5,56
139=	École nationale supérieure d'ingénieurs de Caen	France	54,51	25,43	39,51	57,98	55,71	43,69	0,00	11,11
139=	Opole University of Technology	Poland	54,49	31,08	61,19	57,94	62,55	16,41	0,00	0,00
139=	Military University of Technology Warsaw	Poland	54,47	43,44	30,19	47,15	49,70	31,60	20,97	22,22
144=	Óbuda University	Hungary	53,51	26,95	31,53	60,76	66,55	26,76	20,01	0,00
144=	Slovak University of Technology	Slovakia	53,40	39,70	24,32	49,10	63,66	36,89	17,47	0,00
144=	Bydgoszcz University of Science and Technology	Poland	53,04	20,80	34,46	55,15	70,20	42,46	0,00	0,00
147=	École nationale supérieure d'électrotechnique, d'électronique, d'informatique, d'hydraulique et des télécommunications	France	52,39	32,13	18,05	45,19	56,13	54,97	0,00	22,22
147=	Politehnica University of Timisoara	Romania	51,99	35,58	25,66	55,71	59,92	41,78	0,00	0,00
147=	ESIEE	France	51,92	22,10	39,25	62,71	56,95	36,48	0,00	1,39
147=	University of Zielona Gora	Poland	51,73	26,26	57,91	64,38	55,38	0,00	21,83	0,00
147=	Czestochowa University of Technology	Poland	51,49	36,06	17,61	62,14	71,06	15,81	0,00	22,22

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%		TEACHING
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	
				16%	16%	16%	16%	16%	10%	
152=	Vilnius Gediminas Technical University	Lithuania	51,12	26,87	29,51	65,11	72,27	9,49	18,82	0,00
152=	Helmut-Schmidt-University	Germany	50,94	24,09	19,27	51,36	58,72	60,79	0,00	0,00
152=	Bialystok University of Technology	Poland	50,63	30,98	23,31	52,79	62,90	8,23	0,00	55,56
152=	Cracow University of Technology	Poland	50,38	33,05	48,26	59,99	55,16	15,43	0,00	0,00
152=	Brandenburg University of Technology	Germany	50,15	26,50	29,56	48,78	52,42	45,11	13,66	0,00
157=	Lublin University of Technology	Poland	49,08	46,23	22,42	50,73	49,72	9,55	0,00	44,44
157=	University of West Bohemia	Czech Republic	48,97	41,21	15,05	46,67	64,56	23,15	24,55	0,00
157=	Gdynia Maritime University	Poland	48,79	26,18	40,40	55,89	62,00	13,77	11,14	0,00
157=	University of Latvia	Latvia	48,54	25,56	22,01	50,31	60,43	28,21	28,24	0,00
161=	University of Western Macedonia	Greece	47,17	23,73	36,87	65,89	47,87	24,02	0,00	0,00
161=	University of Malta	Malta	46,97	23,96	11,13	53,77	59,66	31,92	27,36	0,00
161=	Technical University of Sofia	Bulgaria	46,26	58,54	2,33	32,49	61,14	11,52	23,42	22,22
164	University of Zilina	Slovakia	46,12	45,70	16,83	41,31	58,57	26,75	7,68	0,00
165=	Riga Technical University	Latvia	44,20	40,00	12,31	42,43	54,07	22,08	24,01	0,00
165=	Technical University of Kosice	Slovakia	44,00	43,61	14,28	44,15	53,93	11,69	16,72	11,11
167=	Stefan Cel Mare University	Romania	42,94	21,56	26,35	57,76	58,23	16,72	0,00	0,00
167=	Higher Institute of Engineering of Lisbon	Portugal	42,81	22,81	27,62	57,32	56,50	15,80	0,00	0,00
169	Kielce University of Technology	Poland	40,39	24,58	13,22	47,04	70,37	14,67	0,00	0,00
170	Gh. Asachi Technical University	Romania	38,93	40,40	5,22	35,78	55,59	26,77	0,00	0,00
171=	University of Pitesti	Romania	37,57	25,22	6,70	45,84	65,97	14,29	0,00	0,00
171=	Tomas Bata University in Zlin	Czech Republic	37,33	21,41	27,88	46,00	61,69	0,00	0,00	0,00
171=	Dunarea de Jos University of Galati	Romania	36,88	21,26	14,14	51,03	58,63	0,00	16,12	0,00
174	University of Craiova	Romania	36,31	28,15	6,05	37,31	65,53	15,69	0,00	0,00
175=	"Angel Kanchev" University of Ruse	Bulgaria	32,96	24,66	5,25	36,80	71,92	0,00	0,00	0,00
175=	Technical University of Liberec	Czech Republic	32,35	23,51	21,20	36,39	54,97	0,00	0,00	0,00
175=	Technical University of Varna	Bulgaria	32,25	25,68	0,81	33,00	62,11	14,04	0,00	0,00

*Position of HEIs is determined by threshold of 1% pt. Institutions with final score differing by less than 1% pt. occupy ex aequo position.*

2023	Institution	Country	Overall score	RESEARCH 64%								INNOVATION 26%		TEACHING		SDG				
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	SDG 11	16%	16%	16%	16%	16%	16%	10%	10%	5%
				16%	16%	16%	16%	16%	16%	10%	10%	16%	16%	16%	16%	16%	16%	10%	10%	5%
1	Technical University of Denmark	Denmark	100,00	99,35	62,81	80,11	46,04	72,31	100,00	0,00	80,06									
2=	Delft University of Technology	Netherlands	90,60	100,00	48,31	72,44	40,30	58,39	87,82	0,00	100,00									
2=	Karlsruhe Institute of Technology	Germany	90,18	80,88	70,38	84,60	44,46	62,90	73,91	0,00	50,64									
2=	RWTH Aachen University	Germany	89,75	78,57	61,15	74,39	39,00	89,20	74,59	0,00	46,23									
5	KTH Royal Institute of Technology	Sweden	86,88	75,68	66,03	81,39	44,58	60,22	65,51	0,00	68,56									
6=	Chalmers University of Technology	Sweden	85,27	71,33	60,69	84,33	47,68	66,92	64,06	0,00	40,30									
6=	Technical University of Madrid	Spain	85,10	67,51	41,35	64,57	43,52	44,79	56,57	100,00	60,62									
6=	Eindhoven University of Technology	Netherlands	84,66	59,16	68,74	87,66	47,56	64,17	71,65	0,00	27,74									
9	Aalto University	Finland	84,20	71,85	63,49	78,39	45,93	65,97	50,65	0,00	68,56									
10=	Polytechnic University of Milan	Italy	82,77	83,04	42,99	68,26	40,94	66,87	76,48	0,00	67,94									
10=	Aalborg University	Denmark	82,71	90,83	44,42	78,21	44,85	50,73	68,31	0,00	62,70									
10=	Friedrich-Alexander University Erlangen-Nürnberg	Germany	82,27	50,89	74,19	90,43	46,73	61,40	57,45	0,00	34,59									
13=	Lappeenranta University of Technology	Finland	81,75	49,01	65,43	89,36	56,75	52,67	41,19	11,11	69,18									
13=	Graz University of Technology	Austria	81,36	39,05	69,65	70,19	45,50	97,75	56,19	0,00	29,24									
13=	Technical University of Berlin	Germany	80,77	60,94	61,16	88,24	45,10	52,08	60,23	0,00	56,99									
16	Technical University of Munich	Germany	80,23	76,77	45,31	75,28	40,40	60,46	69,79	0,00	58,47									
17=	University of the Basque Country	Spain	78,81	62,86	60,74	79,70	41,47	63,87	42,48	11,11	40,30									
17=	Université Grenoble Alpes	France	78,15	57,92	66,98	71,54	43,29	62,67	50,15	11,11	34,59									
19=	Polytechnic University of Valencia	Spain	77,48	65,31	49,37	66,98	48,26	48,97	53,36	22,22	67,30									
19=	KU Leuven	Belgium	76,74	64,05	50,58	88,20	39,01	41,23	70,21	0,00	55,47									
21=	Luleå University of Technology	Sweden	76,42	47,97	54,94	76,81	48,95	64,61	53,11	0,00	54,69									
21=	Polytechnic University of Turin	Italy	76,36	74,79	38,74	69,24	47,90	44,67	68,87	0,00	76,24									
21=	University of Twente	Netherlands	75,65	49,01	64,66	78,46	40,29	53,28	58,84	0,00	55,47									
21=	Brno University of Technology	Czech Republic	75,58	51,01	68,88	76,83	67,23	29,89	41,87	0,00	64,05									
25=	National Technical University of Athens	Greece	75,15	67,35	33,83	75,09	48,40	41,33	77,81	0,00	69,80									
25=	Université de Lorraine	France	74,83	56,82	66,16	77,85	47,66	37,95	39,19	16,67	48,04									
25=	Vienna University of Technology	Austria	74,75	47,23	51,46	65,68	42,72	82,09	55,12	0,00	40,30									
25=	Polytechnic University of Catalonia	Spain	74,72	68,00	46,86	68,97	44,81	43,32	59,52	0,00	82,69									
25=	Technische Universität Dresden	Germany	74,52	53,96	58,82	77,88	41,77	54,60	50,36	0,00	53,11									
30=	École polytechnique	France	73,71	41,98	29,25	89,07	50,77	95,16	20,39	0,00	44,34									
30=	University of Stuttgart	Germany	73,58	55,07	51,62	63,25	42,20	68,94	59,27	0,00	40,30									
30=	University of Leoben	Austria	73,20	31,66	58,17	69,06	50,30	89,66	38,84	0,00	22,65									
30=	Université de Pau et des Pays de l'Adour	France	73,18	32,64	55,90	72,88	39,23	98,73	25,93	11,11	24,46									
30=	Freiberg University of Mining and Technology	Germany	72,84	29,76	83,88	76,41	51,27	56,13	33,18	0,00	33,33									
30=	Ghent University	Belgium	72,73	63,29	40,46	72,46	37,64	41,26	71,25	0,00	82,69									
36=	Mälardalen University	Sweden	72,69	26,65	87,31	96,93	46,61	53,27	16,59	0,00	24,46									
36=	Institut national des sciences appliquées Lyon	France	72,63	43,16	73,81	81,31	45,23	56,96	14,28	11,11	36,98									
36=	Technische Universität Darmstadt	Germany	71,92	47,32	64,70	73,58	42,17	58,83	49,50	0,00	20,67									
39=	École nationale supérieure de chimie de Montpellier	France	71,46	26,57	100,00	78,15	41,86	61,09	9,11	0,00	32,03									
39=	University of Zagreb	Croatia	70,51	65,27	27,95	64,21	49,59	62,09	44,78	0,00	63,38									
41=	University of Oulu	Finland	70,28	32,19	42,66	82,83	58,73	54,70	56,58	0,00	30,66									
41=	Trinity College Dublin	Ireland	70,11	35,16	58,09	90,97	51,86	46,16	32,89	0,00	42,37									
41=	Université Gustave Eiffel	France	70,01	46,20	59,82	85,39	50,22	43,45	31,73	1,39	32,03									
41=	Clausthal University of Technology	Germany	69,40	27,19	49,82	67,27	52,64													

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%		TEACHING	SDG
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	SDG 11
				16%	16%	16%	16%	16%	10%	10%	5%
102= Institut national polytechnique de Toulouse	France	54,88	29,19	46,82	57,70	37,34	46,72	23,24	4,17	39,22	
102= Tallinn University of Technology	Estonia	54,73	48,02	23,16	56,95	44,81	41,80	35,25	0,00	30,66	
102= Roma Tre University	Italy	54,62	35,34	35,39	72,25	41,81	40,16	22,25	0,00	24,46	
102= Universidad Carlos III de Madrid	Spain	54,38	34,62	51,72	63,79	43,20	30,08	22,94	0,00	24,46	
102= Polytechnic University of Bari	Italy	54,29	40,26	22,73	65,07	44,61	43,73	21,52	0,00	47,14	
102= Ilmenau University of Technology	Germany	54,18	25,77	35,12	72,36	38,63	59,16	17,76	0,00	9,25	
102= University of L'Aquila	Italy	53,95	35,04	45,49	64,86	40,68	27,52	28,51	0,00	36,98	
102= University of Piraeus	Greece	53,91	23,48	31,17	73,30	58,30	29,04	31,91	0,00	24,46	
110= Università degli Studi Niccolò Cusano	Italy	53,79	21,04	49,91	74,31	44,47	37,42	17,59	0,00	16,01	
110= University of Beira Interior	Portugal	53,45	36,67	40,16	81,71	47,79	21,47	10,95	0,00	22,65	
110= Gdańsk University of Technology	Poland	53,44	52,78	25,56	58,26	44,68	26,89	20,31	0,00	62,70	
110= Université d'Artois	France	52,99	25,61	58,97	65,32	48,14	34,37	0,00	0,00	24,46	
114= University of Kassel	Germany	52,65	32,70	35,02	68,86	42,17	34,05	21,46	0,00	35,81	
114= Otto von Guericke University Magdeburg	Germany	52,53	27,11	47,59	60,46	38,64	61,60	0,00	0,00	9,25	
114= Czech Technical University in Prague	Czech Republic	52,33	38,62	30,46	49,04	46,06	35,31	44,87	0,00	24,46	
114= Poznań University of Technology	Poland	52,16	45,75	29,92	58,34	41,00	17,21	24,47	22,22	40,30	
114= IMT Atlantique	France	51,86	24,01	47,92	61,74	45,74	46,38	0,00	1,39	26,15	
114= Hellenic Mediterranean University	Greece	51,77	20,54	23,28	70,46	45,17	54,21	16,68	0,00	30,66	
120= Université de Bretagne Sud	France	51,62	31,06	34,99	58,44	44,02	45,69	19,87	0,00	20,67	
120= Public University of Navarre	Spain	51,47	25,45	48,35	64,23	51,42	21,88	25,45	0,00	16,01	
120= University of Sannio	Italy	51,20	28,17	37,13	63,10	42,83	44,19	16,26	0,00	18,49	
120= Université de Haute-Alsace	France	51,18	26,96	45,61	64,23	43,88	32,65	4,98	0,00	47,14	
120= University of Miskolc	Hungary	50,83	23,92	32,18	57,89	58,66	36,80	18,86	0,00	26,15	
120= Université de technologie de Compiègne	France	50,71	22,01	46,87	65,99	40,20	39,99	8,82	0,00	27,74	
120= Helmut-Schmidt-University	Germany	50,69	20,84	39,57	57,05	44,54	68,10	0,00	0,00	0,00	
120= University Institute of Architecture of Reggio Calabria	Italy	50,62	31,13	22,80	64,90	48,65	37,94	21,96	0,00	29,24	
128= University of Latvia	Latvia	50,15	21,73	29,91	69,23	54,00	25,63	26,87	0,00	27,74	
128= University of Salento	Italy	50,10	36,50	29,94	70,13	38,58	30,50	15,34	0,00	34,59	
128= Universidad de Burgos	Spain	49,91	20,84	40,98	71,05	52,10	18,89	27,57	0,00	13,07	
128= University Politehnica of Bucharest	Romania	49,16	50,10	14,92	46,04	41,92	33,33	35,70	0,00	39,22	
132= Óbuda University	Hungary	48,86	23,92	4,29	70,99	100,00	16,46	0,00	0,00	18,49	
132= University of Split	Croatia	48,77	45,75	16,43	60,41	62,15	28,54	0,00	0,00	24,46	
132= Université de Toulon	France	48,32	26,88	24,63	59,72	43,85	56,72	0,00	0,00	22,65	
132= University of Malta	Malta	48,21	24,78	18,99	61,66	63,70	22,47	30,55	0,00	20,67	
132= University of Maribor	Slovenia	48,13	37,52	40,12	60,52	35,20	25,70	13,82	0,00	30,66	
132= Częstochowa University of Technology	Poland	48,02	43,83	15,65	61,22	47,41	8,98	18,72	0,00	85,23	
138= ENSTA Bretagne	France	47,43	28,98	37,29	57,57	42,25	42,96	0,00	1,39	16,01	
138= École nationale d'ingénieurs de Brest	France	47,17	28,02	37,52	58,34	42,76	42,14	0,00	0,00	16,01	
138= Lodz University of Technology	Poland	47,01	44,59	28,09	51,94	43,65	15,29	22,60	0,00	44,34	
138= University of Kaiserslautern	Germany	46,91	20,64	40,34	51,06	37,73	42,65	13,48	0,00	34,59	
142= Polytechnic Institute of Porto	Portugal	46,29	38,99	24,22	63,89	41,30	20,19	0,00	11,11	42,37	
142= University of West Bohemia	Czech Republic	46,26	20,74	31,39	56,53	62,03	26,84	14,13	0,00	9,25	
142= Technical University of Cartagena	Spain	45,70	29,48	35,33	66,09	44,89	0,00	20,38	11,11	32,03	
142= Slovak University of Technology	Slovakia	45,40	24,95	24,66	57,49	61,01	15,78	25,35	0,00	16,01	
146= International Hellenic University	Greece	45,09	22,94	18,66	56,39	43,43	42,03	12,77	0,00	38,12	
146= Cracow University of Technology	Poland	44,95	40,62	30,51	52,57	41,46	9,69	18,10	0,00	51,47	
146= Universität der Bundeswehr München	Germany	44,90	21,14	31,59	51,39	42,05	37,24	24,08	0,00	13,07	
149= Opole University of Technology	Poland	43,99	31,53	33,34	59,26	45,99	17,66	0,00	0,00	35,81	
149= West Pomeranian University of Technology	Poland	43,74	30,59	19,68	61,64	50,51	12,87	15,27	0,00	39,22	
149= Higher Institute of Engineering of Lisbon	Portugal	43,65	23,12	31,00	63,00	47,18	29,49	0,00	0,00	13,07	
149= Vilnius Gediminas Technical University	Lithuania	43,04	38,94	13,76	70,25	39,10	10,11	15,80	0,00	38,12	

Position of HEIs is determined by threshold of 1% pt. Institutions with final score differing by less than 1% pt. occupy ex aequo position.

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%		TEACHING	SDG
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	SDG 11
				16%	16%	16%	16%	16%	10%	10%	5%
153= Riga Technical University	Latvia	42,62	45,10	10,26	44,18	38,79					

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%			TEACHING				
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	16%	16%	16%	16%	16%
1	Delft University of Technology	Netherlands	100,00	92,51	81,61	72,39	66,24	43,44	92,74	0,00					
2=	Technical University of Denmark	Denmark	98,42	84,23	71,64	70,22	71,09	47,94	100,00	0,00					
2=	Eindhoven University of Technology	Netherlands	97,48	72,80	79,91	76,25	71,84	57,70	72,32	0,00					
4=	KU Leuven	Belgium	97,24	84,13	63,40	73,90	68,16	40,13	91,81	25,00					
4=	Karlsruhe Institute of Technology	Germany	96,46	98,69	72,58	72,68	67,54	41,44	74,51	0,00					
6	KTH Royal Institute of Technology	Sweden	95,29	87,44	69,06	71,48	73,40	48,66	71,39	0,00					
7=	Chalmers University of Technology	Sweden	93,49	68,35	68,21	73,02	74,01	57,28	74,14	0,00					
7=	Aalto University	Finland	93,27	73,39	73,04	73,52	74,54	51,73	64,13	0,00					
9	RWTH Aachen University	Germany	92,48	95,15	65,29	66,57	70,62	40,15	72,37	0,00					
10=	Technical University of Munich	Germany	91,03	82,59	70,58	69,05	63,34	41,37	80,14	0,00					
10=	University of the Basque Country	Spain	90,88	75,11	82,86	75,53	70,37	41,70	49,32	0,00					
10=	Technische Universität Dresden	Germany	90,73	91,11	66,68	72,72	72,90	35,79	58,50	0,00					
10=	Friedrich-Alexander University Erlangen-Nürnberg	Germany	90,60	85,87	70,77	71,47	69,79	37,59	63,57	0,00					
10=	Université Grenoble Alpes	France	90,38	100,00	57,07	63,42	67,66	46,05	39,16	25,00					
15=	University of Twente	Netherlands	89,15	64,30	74,02	69,01	69,72	45,67	74,40	0,00					
15=	Ghent University	Belgium	88,96	77,80	57,88	76,25	70,07	34,17	58,59	25,00					
17=	Polytechnic University of Milan	Italy	86,76	91,78	47,43	60,75	70,24	36,83	83,67	0,00					
17=	Technische Universität Darmstadt	Germany	86,28	68,17	74,96	67,44	72,09	34,16	64,80	0,00					
19=	University of Leoben	Austria	85,11	60,11	61,59	63,65	67,83	60,00	62,87	0,00					
19=	Polytechnic University of Turin	Italy	84,75	81,27	44,28	65,41	76,91	37,39	73,16	0,00					
21=	Graz University of Technology	Austria	83,99	58,77	61,43	63,04	69,48	54,20	65,48	0,00					
21=	Bordeaux INP	France	83,71	50,82	93,06	65,74	67,54	44,12	0,00	40,63					
21=	AGH University of Science and Technology	Poland	83,39	72,33	35,43	52,28	73,56	21,59	44,28	100,00					
24=	Vienna University of Technology	Austria	82,54	75,43	53,05	60,57	67,32	50,17	56,49	0,00					
24=	Polytechnic University of Catalonia	Spain	82,42	77,14	62,09	63,16	68,59	35,35	56,01	0,00					
24=	Aalborg University	Denmark	82,22	45,09	54,90	74,82	83,81	44,99	59,04	0,00					
27=	Technical University of Madrid	Spain	80,87	62,42	58,70	59,02	73,82	33,09	51,64	25,00					
27=	Université catholique de Louvain	Belgium	80,81	40,32	70,63	76,15	65,33	42,86	50,50	12,50					
27=	Université de Lyon	France	80,71	79,30	71,00	59,91	66,67	41,77	0,00	25,00					
27=	Arts et Métiers ParisTech	France	80,70	59,55	67,51	63,46	73,84	49,31	32,89	0,00					
27=	Conservatoire national des arts et métiers	France	80,49	37,49	57,77	62,95	70,61	56,83	26,33	50,00					
27=	Trinity College Dublin	Ireland	80,47	51,53	63,84	81,48	67,04	35,04	54,95	0,00					
33=	Luleå University of Technology	Sweden	79,62	47,13	58,85	70,29	78,50	49,42	40,94	0,00					
33=	Universite de Mons	Belgium	79,46	35,98	75,72	67,87	65,64	60,60	24,75	12,50					
33=	Institut national des sciences appliquées de Toulouse	France	79,46	45,35	87,45	64,91	67,27	44,22	31,83	0,00					
33=	Institut national des sciences appliquées Lyon	France	79,11	64,71	65,66	57,46	65,73	44,41	22,48	25,00					
33=	University of Siegen	Germany	79,00	34,73	89,31	76,02	79,96	30,16	27,18	0,00					
33=	University of Stuttgart	Germany	78,91	66,97	54,89	61,29	68,82	40,38	55,13	0,00					
39=	Université de Pau et des Pays de l'Adour	France	78,05	26,21	83,38	77,01	68,32	56,91	18,25	0,00					
39=	Leibniz University Hannover	Germany	78,04	62,57	54,71	61,94	73,88	48,97	33,83	0,00					
39=	Technical University of Berlin	Germany	77,95	65,48	57,72	71,31	72,05	35,77	32,78	0,00					
39=	Institut polytechnique de Grenoble	France	77,84	54,25	58,37	63,24	61,38	46,29	24,65	37,50					
39=	École nationale supérieure de chimie de Montpellier	France	77,42	44,20	100,00	75,14	73,10	28,20	0,00	0,00					
39=	National Technical University of Athens	Greece	77,18	47,89	42,60	62,87	78,64	38,58	78,47	0,00					
39=	University of Aveiro	Portugal	77,18	67,37	58,45	68,34	74,54	20,07	49,40	0,00					
46=	University of Bayreuth	Germany	76,87	47,25	73,48	71,42	67,74	35,05	37,48	0,00					
46=	University of Luxembourg	Luxembourg	76,36	33,31	76,38	72,45	62,81	39,56	50,73	0,00					
46=	Université de Lorraine	France	76,19	74,34	63,11	62,57	71,03	34,91	15,32	0,00					
49=	Universidad Carlos III de Madrid	Spain	75,84	46,89	54,30	60,35	80,80	35,90	57,37	0,00					
49=	Institut national des sciences appliquées de Rennes	France	75,82	51,34	64,68	63,04	73,48	29,64	25,92	25,00					
49=	Polytechnic University of Valencia	Spain	75,81	59,20	56,68	64,53	68,26	35,51	47,66	0,00					
49=	Universidad de Burgos	Spain	75,43	24,29	84,96	64,51	89,21	30,48	30,28	0,00					

Position of HEIs is determined by threshold of 1% pt. Institutions with final score differing by less than 1% pt. occupy ex aequo position.

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%			TEACHING	
PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	16%	16%	16%	16%	16%	10%


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2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%		TEACHING	
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	16%
				16%	16%	16%	16%	16%	10%	10%	
107=	École des Ponts ParisTech	France	65,17	27,08	49,85	73,16	74,22	45,58	0,00	0,00	
107=	Gdańsk University of Technology	Poland	65,15	54,65	49,72	65,21	82,44	17,78	0,00	0,00	
107=	École nationale supérieure d'ingénieurs de Caen	France	65,11	37,79	72,49	55,55	61,12	34,87	0,00	12,50	
107=	CentraleSupélec	France	64,85	46,73	43,25	61,31	72,44	44,82	0,00	0,00	
107=	Institut national des sciences appliquées de Rouen Normandie	France	64,68	33,53	71,08	60,23	66,59	36,44	0,00	0,00	
107=	University of Ljubljana	Slovenia	64,58	56,42	29,68	55,43	74,10	23,16	45,91	0,00	
107=	Université de Toulon	France	64,49	34,78	52,43	59,52	73,79	46,55	0,00	0,00	
107=	Roma Tre University	Italy	64,46	37,62	47,32	64,91	67,82	28,60	33,12	0,00	
107=	Wrocław University of Science and Technology	Poland	64,28	66,72	35,46	53,07	74,54	22,35	22,49	0,00	
116=	University of Kassel	Germany	64,16	32,92	42,98	56,77	71,10	33,95	44,79	0,00	
116=	Czech Technical University in Prague	Czech Republic	64,11	63,47	32,84	47,84	67,82	27,36	41,91	0,00	
116=	Hellenic Mediterranean University	Greece	64,09	21,03	46,82	74,51	72,47	33,20	27,82	0,00	
116=	Public University of Navarre	Spain	64,05	25,68	51,52	61,37	85,18	29,63	19,01	0,00	
116=	Polytechnic University of Bari	Italy	63,99	40,08	40,07	58,21	73,67	28,56	39,05	0,00	
116=	TU Dortmund University	Germany	63,82	46,18	47,33	55,54	65,82	30,94	29,59	0,00	
116=	IMT Nord Europe	France	63,77	21,78	66,83	62,36	67,81	27,76	0,00	28,13	
116=	Université de technologie de Belfort Montbéliard	France	63,62	39,68	54,66	60,24	71,74	30,16	11,24	0,00	
116=	École des mines de Saint-Étienne	France	63,49	25,83	65,44	64,64	59,27	47,78	0,00	0,00	
125=	Institut d'optique Graduate School	France	62,65	28,47	36,72	50,12	65,69	61,01	27,95	0,00	
125=	Poznań University of Technology	Poland	62,53	51,99	33,27	57,45	69,64	15,39	0,00	50,00	
125=	Paderborn University	Germany	62,52	41,79	48,72	50,59	59,53	21,70	58,55	0,00	
125=	Université de technologie de Compiègne	France	62,32	26,72	62,98	65,07	69,39	33,94	0,00	0,00	
129=	Institut national des sciences appliquées Centre Val de Loire	France	61,58	20,95	47,16	54,93	86,37	45,63	0,00	0,00	
129=	Freiberg University of Mining and Technology	Germany	61,16	45,93	45,54	54,21	70,98	36,65	0,00	0,00	
129=	Université de technologie de Troyes	France	61,02	24,95	60,30	56,97	62,84	24,24	0,00	37,50	
129=	University of Zagreb	Croatia	60,76	52,55	12,42	51,07	85,91	26,58	36,97	0,00	
133=	VŠB - Technical University of Ostrava	Czech Republic	60,47	53,04	32,20	47,39	74,97	29,62	21,18	0,00	
133=	Technological University Dublin	Ireland	59,96	21,48	51,17	68,17	77,20	16,25	22,49	0,00	
133=	University of Naples Parthenope	Italy	59,57	22,33	51,91	70,18	74,08	28,19	0,00	0,00	
136=	University of Cassino and Southern Lazio	Italy	59,27	27,43	38,25	71,12	78,15	30,52	0,00	0,00	
136=	University of Jaén	Spain	58,91	26,96	56,52	63,24	76,78	20,47	0,00	0,00	
138=	University Politehnica of Bucharest	Romania	57,99	70,55	11,18	46,00	69,35	25,95	27,41	0,00	
138=	École nationale supérieure de mécanique et des microtechniques de Besançon	France	57,64	35,03	46,66	55,12	75,52	26,37	0,00	0,00	
138=	Otto von Guericke University Magdeburg	Germany	57,36	36,73	36,92	56,76	70,01	37,12	0,00	0,00	
138=	University of Maribor	Slovenia	57,22	36,05	34,61	61,73	72,76	18,12	21,95	0,00	
138=	Ilmenau University of Technology	Germany	57,14	41,35	41,06	54,01	66,45	33,78	0,00	0,00	
138=	École centrale de Marseille	France	57,01	36,51	50,47	52,04	62,70	32,42	0,00	3,13	
144=	University of West Bohemia	Czech Republic	56,18	33,67	29,96	52,35	76,29	26,43	22,34	0,00	
144=	Brandenburg University of Technology	Germany	55,92	27,61	43,29	58,03	63,69	38,97	0,00	0,00	
144=	Cyprus University of Technology	Cyprus	55,70	20,37	38,98	51,27	74,54	33,19	19,72	0,00	
144=	Tomas Bata University in Zlín	Czech Republic	55,60	32,70	31,46	57,72	74,09	19,97	22,94	0,00	
144=	University of Pardubice	Czech Republic	55,29	30,09	47,52	50,26	74,54	26,58	0,00	0,00	
149=	Technical University of Cartagena	Spain	54,98	23,38	50,88	56,39	65,37	31,67	0,00	0,00	
149=	Military University of Technology Warsaw	Poland	54,87	45,93	25,76	48,12	62,73	27,93	26,84	0,00	
149=	Óbuda University	Hungary	54,87	20,49	39,31	58,69	87,88	20,87	0,00	0,00	
149=	Polytechnic Institute of Porto	Portugal	54,55	27,02	47,41	70,41	63,99	17,09	0,00	0,00	

Position of HEIs is determined by threshold of 1% pt. Institutions with final score differing by less than 1% pt. occupy ex aequo position.

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%		TEACHING	
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	16%
				16%	16%	16%	16%	16%	10%	10%	
153=	University of Latvia	Latvia	53,58	38,36	25,72	47,54	71,26	20,85	29,07	0,00	
153=	University Institute of Architecture of Reggio Calabria	Italy	53,35	21,30	36,38	61,73	68,73	32,79	0,00	0,00	
153=	University of Beira Interior	Portugal	53,16	26,42	37,08	60,87	81,03	14,77	0,00	0,00	
153=	Opole University of Technology	Poland	53,15	29,31	37,67	57,80	83,42	11,91	0,00	0,00	
153=	Slovak University of Technology	Slovakia	52,96	48,09	23,08	41,27	67,01	23,80	25,73	0,00	
153=	Jan Dlugosz University in Czestochowa	Poland	52,81	24,53	37,11	60,73	67,00	29,35	0,00	0,00	
159=	Vilnius Gediminas Technical University	Lithuania	52,13	29,80	31,70	51,69	92,55	10,15	0,00		

Engi rank			Mechanical Engineering			Overall score	RESEARCH 64%				INNOVATION 26%		TEACHING			
2023	Institution	Country	PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	16%	16%	16%	16%	16%	10%	10%
1=	Technical University of Denmark	Denmark	100,00	75,87	85,36	72,43	55,51	73,47	86,58	0,00						
1=	Delft University of Technology	Netherlands	99,45	100,00	67,81	68,04	57,43	58,66	100,00	0,00						
3	Chalmers University of Technology	Sweden	98,57	67,65	66,74	69,81	61,06	100,00	72,87	0,00						
4	Polytechnic University of Turin	Italy	96,64	86,55	44,65	58,33	63,34	52,82	75,28	80,00						
5=	KU Leuven	Belgium	95,14	69,31	73,22	73,49	54,52	62,00	82,37	20,00						
5=	KTH Royal Institute of Technology	Sweden	95,11	76,22	69,50	68,76	59,38	79,54	68,76	0,00						
7=	Polytechnic University of Milan	Italy	92,77	95,09	56,33	62,75	58,46	61,12	84,57	0,00						
7=	RWTH Aachen University	Germany	92,53	91,99	52,78	60,39	60,24	74,55	73,08	0,00						
7=	Aalto University	Finland	92,52	59,96	81,12	72,22	61,07	78,19	52,83	0,00						
10	Eindhoven University of Technology	Netherlands	91,63	59,66	80,10	69,37	54,29	77,28	65,87	0,00						
11=	Technical University of Munich	Germany	90,52	89,95	45,41	56,67	58,86	81,11	72,38	0,00						
11=	IMT Atlantique	France	89,74	22,48	100,00	100,00	100,00	49,96	0,00	2,50						
13=	Karlsruhe Institute of Technology	Germany	88,81	83,72	52,14	63,15	56,27	69,24	72,98	0,00						
13=	Aalborg University	Denmark	88,18	59,85	78,52	74,26	59,43	61,82	53,80	0,00						
13=	Polytechnic University of Valencia	Spain	88,14	51,64	67,30	63,38	58,06	64,46	59,98	40,00						
13=	University of Leoben	Austria	87,87	42,62	90,80	65,02	59,46	85,67	36,22	0,00						
17=	Lappeenranta University of Technology	Finland	87,65	40,83	76,91	77,04	72,79	49,31	27,48	50,00						
17=	University of the Basque Country	Spain	87,61	47,21	84,81	73,25	59,87	73,59	42,19	0,00						
19=	University of Twente	Netherlands	86,60	55,87	63,14	63,19	58,66	71,87	77,11	0,00						
19=	Trinity College Dublin	Ireland	86,49	32,51	89,82	84,96	59,38	56,92	59,01	0,00						
19=	École des mines Paris	France	85,95	35,36	93,05	73,31	62,50	80,08	22,23	0,00						
22=	Luleå University of Technology	Sweden	84,51	45,63	57,54	62,37	63,17	89,71	54,03	0,00						
22=	Conservatoire national des arts et métiers	France	84,31	31,72	71,13	58,87	56,36	70,81	0,00	100,00						
22=	Graz University of Technology	Austria	84,05	49,24	53,98	52,74	59,84	98,09	58,24	0,00						
22=	Université de Lorraine	France	83,86	60,85	79,38	63,25	59,72	52,43	44,15	10,00						
26=	Institut national des sciences appliquées Lyon	France	83,49	55,93	74,02	57,23	53,43	72,40	35,90	20,00						
26=	Friedrich-Alexander University Erlangen-Nürnberg	Germany	83,10	61,48	56,19	62,62	60,50	66,39	62,59	0,00						
26=	Technical University of Madrid	Spain	82,78	56,67	63,86	60,99	57,47	51,89	66,57	20,00						
26=	Universidad Carlos III de Madrid	Spain	82,66	40,26	80,05	58,12	63,89	48,89	45,27	40,00						
30=	Technische Universität Dresden	Germany	82,48	63,22	54,86	65,57	57,98	69,12	52,78	0,00						
30=	Polytechnic University of Catalonia	Spain	82,41	59,85	76,70	64,79	57,75	54,93	47,07	0,00						
30=	Arts et Métiers ParisTech	France	82,40	59,69	67,44	61,31	59,67	65,75	47,24	0,00						
30=	Ghent University	Belgium	82,07	56,41	69,87	66,87	54,90	54,25	53,58	10,00						
30=	Mälardalen University	Sweden	81,63	28,87	80,35	72,32	49,57	90,63	29,52	0,00						
35=	Université Gustave Eiffel	France	80,92	48,49	74,39	62,58	60,87	57,40	31,11	22,50						
35=	Vienna University of Technology	Austria	80,62	56,71	57,95	56,66	55,10	78,32	50,01	0,00						
35=	Technische Universität Darmstadt	Germany	80,48	60,12	59,72	58,16	55,84	65,48	57,72	0,00						
35=	Université de Lyon	France	80,36	60,71	74,04	58,25	55,11	74,32	0,00	20,00						
35=	University of Stuttgart	Germany	80,16	73,41	35,30	50,84	60,21	76,16	61,06	0,00						
35=	École centrale de Nantes	France	80,13	42,62	56,25	69,09	62,61	65,68	37,81	22,50						
41=	Université catholique de Louvain	Belgium	79,72	31,18	80,68	71,45	51,21	55,29	37,87	30,00						
41=	Université Grenoble Alpes	France	79,41	61,35	71,69	64,31	55,53	62,46	25,00	0,00						
41=	CentraleSupélec	France	79,03	44,41	67,53	65,51	54,91	82,77	22,76	0,00						
41=	École centrale de Lyon	France	78,87	47,74	59,43	56,42	59,22	78,01	42,09	2,50						
41=	University College Dublin	Ireland	78,84	38,49	75,15	80,25	54,95	53,45	42,06	0,00						
46=	Technical University of Berlin	Germany	78,20	65,93	42,97	61,20	53,39	62,75	63,49	0,00						
46=	Institut national des sciences appliquées de Toulouse	France	77,71	35,18	81,32	62,17	60,62	72,39	19,48	0,00						
46=	École polytechnique	France	77,48	35,68	48,08	61,89	55,45	92,90	46,22	0,00						
46=	Bordeaux INP	France	77,48	35,27	74,14	58,86	61,41	59,57	21,37	32,50						
46=	University of Luxembourg	Luxembourg	77,39	30,60	78,45	71,02	61,59	53,71	43,43	0,00						

Position of HEIs is determined by threshold of 1% pt. Institutions with final score differing by less than 1% pt. occupy ex aequo position.

Engi rank			Mechanical Engineering			Overall score	RESEARCH 64%				INNOVATION 26%		TEACHING		
2023	Institution	Country	PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	16%	16%	16%	16%	16%	10%


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2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%			TEACHING			
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	16%	16%	16%	16%
				16%	16%	16%	16%	16%	10%	10%	16%	16%	16%	16%
100= University of Calabria	Italy	65,60	39,14	49,70	62,98	58,74	39,09	17,97	20,00					
100= University of Bayreuth	Germany	65,42	26,19	68,04	67,29	47,49	49,94	21,85	0,00					
100= École normale supérieure Paris-Saclay	France	65,37	32,15	65,17	56,00	57,89	61,22	0,00	0,00					
100= Freiberg University of Mining and Technology	Germany	65,27	34,82	68,50	54,37	61,19	53,13	0,00	0,00					
100= Technische Hochschule Ingolstadt	Germany	65,25	22,05	22,83	51,37	69,29	82,79	27,75	10,00					
100= University of Wuppertal	Germany	65,04	24,62	47,98	57,77	64,37	63,34	20,74	0,00					
100= Polytechnic University of Bari	Italy	64,97	40,80	48,04	60,53	59,01	40,29	35,36	0,00					
100= TU Dortmund University	Germany	64,92	45,04	37,72	51,05	55,53	67,62	21,76	0,00					
100= Université de technologie de Troyes	France	64,68	23,71	74,23	62,91	51,97	37,98	0,00	30,00					
100= Silesian University of Technology	Poland	64,66	52,11	38,62	43,35	47,91	38,64	38,17	40,00					
110= University of Kaiserslautern	Germany	64,53	39,65	35,29	50,28	54,55	65,98	17,10	20,00					
110= Roma Tre University	Italy	64,05	36,90	46,65	61,12	51,14	48,80	35,69	0,00					
110= Université de Toulon	France	64,01	22,43	60,10	56,44	60,87	66,91	0,00	0,00					
110= École centrale de Marseille	France	63,82	28,87	67,03	54,27	53,61	60,62	0,00	2,50					
110= Ilmenau University of Technology	Germany	63,77	34,06	30,69	48,75	62,04	72,14	28,92	0,00					
115= University of Minho	Portugal	63,40	51,27	46,00	61,08	57,42	26,18	35,63	0,00					
115= Kaunas University of Technology	Lithuania	63,05	28,17	48,23	55,14	93,15	23,82	22,84	0,00					
115= West Pomeranian University of Technology	Poland	62,45	26,63	40,46	62,67	71,69	33,81	0,00	40,00					
118= Université d'Artois	France	62,28	20,72	67,74	59,71	56,94	45,80	13,81	0,00					
118= Technical University of Cartagena	Spain	62,17	23,79	80,43	57,10	60,25	25,23	19,64	0,00					
118= Budapest University of Technology and Economics	Hungary	61,75	50,45	43,61	54,50	56,10	34,69	28,78	0,00					
118= Brandenburg University of Technology	Germany	61,55	28,69	42,32	55,19	60,16	70,18	0,00	0,00					
118= Czech Technical University in Prague	Czech Republic	61,45	52,19	38,50	46,00	56,04	34,98	45,40	0,00					
123= Tallinn University of Technology	Estonia	60,88	37,10	33,92	56,90	72,45	30,27	36,91	0,00					
123= Wrocław University of Science and Technology	Poland	60,84	48,05	48,23	49,15	56,98	35,33	25,29	0,00					
123= Université de technologie de Compiègne	France	60,70	29,09	59,70	53,28	49,87	61,04	0,00	0,00					
126= University of Cassino and Southern Lazio	Italy	59,85	33,31	34,50	61,48	67,57	52,55	0,00	0,00					
126= University of L'Aquila	Italy	59,68	35,39	43,70	60,58	55,98	37,93	24,26	0,00					
128= Transilvania University of Brasov	Romania	58,49	22,10	20,38	53,13	64,75	27,16	0,00	90,00					
128= Poznań University of Technology	Poland	58,35	43,35	32,98	53,00	62,90	33,20	28,36	0,00					
128= Paderborn University	Germany	58,26	32,89	40,68	47,25	52,08	57,71	19,48	0,00					
128= VŠB – Technical University of Ostrava	Czech Republic	57,85	38,60	28,25	43,93	59,10	50,98	32,40	0,00					
128= University of Cyprus	Cyprus	57,78	23,17	59,18	52,91	56,05	28,97	32,83	0,00					
133= University of Bergamo	Italy	57,18	28,02	44,36	54,10	55,87	44,16	18,83	0,00					
133= University of Split	Croatia	56,31	27,22	37,71	61,76	76,81	31,19	0,00	0,00					
135= University of Sannio	Italy	56,05	21,62	51,60	61,03	53,28	46,05	0,00	0,00					
135= University of Salento	Italy	56,03	30,71	54,79	65,33	53,35	29,32	0,00	0,00					
135= University Politehnica of Bucharest	Romania	55,19	49,35	12,26	35,64	61,75	47,89	36,99	0,00					
138= University Institute of Architecture of Reggio Calabria	Italy	54,53	23,17	32,80	57,16	69,25	44,88	0,00	0,00					
138= Helmut-Schmidt-University	Germany	53,99	22,43	28,91	45,65	59,79	68,23	0,00	0,00					
138= University of Maribor	Slovenia	53,68	28,94	59,84	59,43	54,76	20,74	0,00	0,00					
138= Opole University of Technology	Poland	53,54	28,43	57,77	61,56	60,45	14,93	0,00	0,00					
142= Cracow University of Technology	Poland	53,22	36,39	46,25	47,92	53,48	24,75	20,84	0,00					
143= University of West Bohemia	Czech Republic	51,10	33,74	20,50	35,92	66,07	43,57	21,05	0,00					
143= Vilnius Gediminas Technical University	Lithuania	50,28	23,12	37,94	57,13	56,63	22,48	19,57	0,00					
143= Military University of Technology Warsaw	Poland	50,22	28,36	26,65	47,31	56,06	25,93	0,00	40,00					
146= University of Beira Interior	Portugal	50,00	31,35	31,15	61,25	61,79	16,58	0,00	10,00					
146= Politehnica University of Timisoara	Romania	49,77	25,95	25,00	45,44	69,33	41,70	0,00	0,00					
148= Lublin University of Technology	Poland	48,92	36,07	32,66	53,63	64,90	16,64	0,00	0,00					
148= Technical University of Cluj-Napoca	Romania	48,65	42,22	14,60	36,74	59,41	36,93	20,57	0,00					
148= University of Miskolc	Hungary	48,19	28,36	16,18	40,19	62,95	40,99	19,48	0,00					

Position of HEIs is determined by threshold of 1% pt. Institutions with final score differing by less than 1% pt. occupy ex aequo position.

2023	Institution	Country	Overall score	RESEARCH 64%				INNOVATION 26%			TEACHING		
PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	16%	16%	16%	16%			
16%	16%	16%	16%	16%	10%	10%	16%	16%	16%	16%			




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2023	Institution	Country	Overall score	RESEARCH 64%			INNOVATION 26%		TEACHING	SDG	
				PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	SDG 11
				16%	16%	16%	16%	16%	10%	10%	5%
1	KU Leuven	Belgium	100,00	100,00	54,68	82,99	79,94	65,85	96,64	50,00	100,00
2	Technical University of Denmark	Denmark	94,44	76,28	78,69	92,07	68,68	79,80	100,00	0,00	71,33
3	KTH Royal Institute of Technology	Sweden	91,96	72,06	95,14	100,00	84,18	64,93	51,09	0,00	68,40
4	Eindhoven University of Technology	Netherlands	90,91	76,78	69,84	86,85	76,42	95,98	49,08	0,00	87,53
5	Technical University of Munich	Germany	88,15	97,79	70,26	71,52	69,13	76,81	52,81	0,00	98,53
6	Ghent University	Belgium	83,49	74,98	46,88	93,23	75,86	65,91	71,06	0,00	76,09
7=	Friedrich-Alexander University Erlangen-Nürnberg	Germany	81,15	93,63	65,57	79,12	71,82	77,48	0,00	0,00	89,83
7=	Aalto University	Finland	80,24	61,47	84,55	75,49	71,63	70,01	49,84	0,00	49,56
9=	Chalmers University of Technology	Sweden	78,73	54,13	70,81	84,83	63,73	84,75	44,91	0,00	50,73
9=	Karlsruhe Institute of Technology	Germany	78,50	66,88	66,27	79,46	68,24	69,96	51,28	0,00	56,71
9=	Technische Universität Dresden	Germany	78,12	77,67	63,88	78,25	74,30	60,24	43,09	0,00	56,71
12=	University of Twente	Netherlands	76,10	83,82	66,09	78,34	69,38	62,41	0,00	0,00	94,59
12=	RWTH Aachen University	Germany	75,49	93,08	55,70	75,82	70,13	64,65	0,00	0,00	87,19
14=	Université Grenoble Alpes	France	74,85	74,57	68,41	76,75	58,40	52,92	19,65	25,00	72,95
14=	Technical University of Berlin	Germany	74,26	53,18	62,32	78,06	64,91	66,83	63,93	0,00	42,58
14=	Technische Universität Darmstadt	Germany	74,19	50,62	66,21	67,48	78,38	67,83	59,75	0,00	34,20
17	Delft University of Technology	Netherlands	73,82	84,94	64,37	82,55	64,82	57,16	0,00	0,00	77,99
18=	Université de Lyon	France	72,60	73,53	52,69	68,61	68,89	52,20	0,00	50,00	72,95
18=	University of the Basque Country	Spain	71,89	52,53	72,82	82,66	72,07	61,76	17,06	0,00	50,15
18=	AGH University of Science and Technology	Poland	71,63	44,97	43,16	64,34	75,73	43,29	23,02	100,00	45,24
21=	Trinity College Dublin	Ireland	71,35	57,14	58,51	90,96	75,25	54,46	17,10	0,00	58,24
21=	University of Aveiro	Portugal	71,26	55,93	53,71	72,79	76,43	46,41	65,34	0,00	53,53
21=	Johannes Kepler University Linz	Austria	70,69	31,12	54,42	67,70	73,38	100,00	38,58	0,00	34,20
21=	Polytechnic University of Milan	Italy	70,63	94,17	38,25	68,13	69,29	49,68	16,90	0,00	97,93
25=	Polytechnic University of Turin	Italy	70,12	73,42	37,58	79,72	69,03	48,41	41,71	0,00	74,54
25=	Institut national des sciences appliquées Lyon	France	69,95	60,28	47,14	68,17	74,77	54,89	0,00	50,00	63,98
25=	University of Chemistry and Technology, Prague	Czech Republic	69,42	31,25	89,35	84,30	70,05	46,42	37,51	0,00	32,44
25=	Brno University of Technology	Czech Republic	69,29	47,56	60,42	66,49	70,72	51,04	69,51	0,00	41,89
29=	University of Minho	Portugal	68,99	76,45	56,92	84,49	65,25	43,28	0,00	0,00	85,84
29=	École nationale supérieure de chimie de Montpellier	France	68,67	32,47	100,00	81,99	74,30	52,88	0,00	0,00	35,04
31=	Graz University of Technology	Austria	67,64	50,62	52,71	70,02	67,23	69,03	34,35	0,00	46,52
31=	Polytechnic University of Valencia	Spain	66,86	54,92	49,14	69,69	80,22	45,76	37,57	0,00	57,74
31=	Leibniz University Hannover	Germany	66,77	48,72	38,85	69,86	75,59	70,47	41,40	0,00	37,46
34=	Institut polytechnique de Grenoble	France	66,60	42,82	72,74	89,46	76,37	52,49	0,00	0,00	26,49
34=	Université catholique de Louvain	Belgium	66,31	44,20	31,19	72,02	74,26	54,93	23,98	50,00	45,88
34=	University of Stuttgart	Germany	66,11	53,26	50,51	67,53	60,61	62,12	50,50	0,00	37,46
34=	University of Bayreuth	Germany	65,60	40,14	92,00	93,09	68,11	36,15	0,00	0,00	24,18
38=	Polytechnic University of Catalonia	Spain	65,37	64,27	49,44	70,08	61,33	53,42	27,36	0,00	58,74
38=	Bordeaux INP	France	65,22	43,42	76,88	87,56	73,73	36,60	0,00	6,25	39,74
38=	Vienna University of Technology	Austria	64,54	50,02	49,36	69,57	66,18	67,40	26,83	0,00	35,04
41=	Technical University of Madrid	Spain	63,43	49,68	32,03	64,86	71,72	56,93	0,00	50,00	53,53
41=	University College Dublin	Ireland	63,31	58,84	30,45	68,82	65,26	49,32	0,00	50,00	59,23
41=	Université de Lorraine	France	62,60	58,40	55,05	78,33	67,56	43,03	0,00	0,00	59,23
41=	University of Ljubljana	Slovenia	62,56	56,08	32,99	57,78	71,15	50,43	46,83	0,00	66,67
45=	CentraleSupélec	France	62,36	42,52	55,56	72,00	77,26	61,04	0,00	0,00	37,46
45=	Aalborg University	Denmark	61,99	57,59	29,80	58,69	69,07	80,46	0,00	0,00	70,09
47=	Gdańsk University of Technology	Poland	60,62	30,84	41,55	76,04	73,74	59,51	31,54	0,00	27,57
47=	Luleå University of Technology	Sweden	60,54	34,14	52,29	74,99	76,17	65,84	0,00	0,00	24,18
49=	Hamburg University of Technology	Germany	59,10	42,01	42,92	64,25	68,97	72,44	0,00	0,00	40,47
49=	Universidad Carlos III de Madrid	Spain	58,98	34,01	46,98	64,31	80,75	46,73	28,10	0,00	35,87
49=	University of Bremen	Germany	58,59	35,37	56,60	69,72	65,99	66,14	0,00	0,00	22,94
49=	Otto von Guericke University Magdeburg	Germany	58,55	55,62	41,53	53,83	70,51	48,10	16,74	0,00	61,65
49=	University of Patras	Greece	58,44	38,94	34,75	82,45	98,97	28,86	0,00	0,00	50,15
49=	TU Dortmund University	Germany	58,32	31,12	66,33	61,17	55,02	78,02	0,00	0,00	25,36
49=	Institut national des sciences appliquées de Rennes	France	58,26	34,39	65,46	73,90	83,79	32,68	0,00	0,00	28,61

Position of HEIs is determined by threshold of 1% pt. Institutions with final score differing by less than 1% pt. occupy ex aequo position.

2023	Institution	Country	Overall score	RESEARCH 64%			INNOVATION 26%		TEACHING	SDG	
PUB	TOP-10	CIT	FWCI-C	ACC	FUND	ACCR	SDG 11				
				16%	16%	16%	16%	16%	10%	10%	5%





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## Abbreviations of ranking indicators used in the report

**ACC** - Academic-Corporate Collaboration

**ACCR** - Accreditations

**CHE** - Chemical Engineering

**CIT** - Citations

**CIV** - Civil Engineering

**EEI** - Electrical, Electronic, Information Engineering

**ENV** - Environmental Engineering

**EUNI** - European university

**FUND** - Research and Innovation Funding

**FWCI-C** - Change of Impact

**IC** - International Collaboration

**MAT** - Materials Engineering

**MEC** - Mechanical Engineering

**MED** - Medical Engineering

**PAT** - Patents

**PCIT** - Patent-Citation Count per Scholarly Output

**PUB** - Publications

**SDG 3** - Good health and well-being

**SDG 6** - Clean water and sanitation

**SDG 9** - Innovation and infrastructure

**SDG 11** - Sustainable cities and communities

**SMI** - Inbound student mobility

**SMO** - Outbound student mobility

**SIN** - Student internships

**TOP-10** - Publications in Top 10% Journals

**Engi**rank

4.

## EngiRank by Criteria subrankings

**Research**..... 58

**Innovation** ..... 58

**Contribution to SDG** ..... 59

**Internationalization** ..... 59

**Interdisciplinarity** ..... 60

EngiRank by Criteria subrankings refer to EngiRank Institutional 2023.  
For a description of the indicators, see "Methodology" on page 13.

Engirank		TOP-50		Research			
2023	Institution	Country	Score	PUB	TOP-10	CIT	FWCI-C
				10%	6%	6%	6%
1	Delft University of Technology	NL	100,00	100,00	68,44	82,97	66,38
2	Technical University of Denmark	DK	97,89	84,85	76,73	90,30	67,90
3=	KTH Royal Institute of Technology	SE	93,43	83,68	68,74	85,06	65,94
3=	Technical University of Munich	DE	93,29	93,46	58,53	79,09	65,26
3=	Karlsruhe Institute of Technology	DE	93,12	88,51	62,95	83,00	64,56
6	RWTH Aachen University	DE	91,90	91,31	56,20	78,38	66,56
7=	Polytechnic University of Milan	IT	90,51	95,69	47,01	73,32	68,17
7=	KU Leuven	BE	90,31	81,63	58,26	87,65	65,26
9=	Chalmers University of Technology	SE	88,68	69,45	67,06	87,62	70,50
9=	Eindhoven University of Technology	NL	88,65	71,81	71,03	84,28	65,83
9=	Aalto University	FI	88,07	69,60	69,72	86,32	66,56
9=	Université Grenoble Alpes	FR	88,05	83,73	57,36	76,45	65,18
13=	Aalborg University	DK	87,40	72,72	61,75	88,97	64,09
13=	University of the Basque Country	ES	87,37	62,83	75,45	88,66	67,07
13=	Friedrich-Alexander University Erlangen-Nürnberg	DE	87,03	73,56	62,75	82,50	66,76
13=	Ghent University	BE	86,85	73,48	56,82	88,89	65,72
17	Technische Universität Dresden	DE	86,09	77,16	56,15	80,49	65,74
18=	Polytechnic University of Turin	IT	84,12	82,72	41,52	73,60	70,41
18=	École nationale supérieure de chimie de Montpellier	FR	83,35	32,46	100,00	95,50	70,84
20=	Polytechnic University of Catalonia	ES	82,73	74,05	57,91	72,63	64,10
20=	Université de Lorraine	FR	82,59	66,52	59,93	77,18	69,55
20=	Technical University of Berlin	DE	82,53	68,81	52,04	83,30	67,26
20=	Université de Lyon	FR	81,76	66,91	66,58	73,60	62,62
24=	Polytechnic University of Valencia	ES	80,93	65,84	60,15	74,81	66,45
24=	University of Twente	NL	80,71	61,03	62,24	79,27	67,05
26	University of Aveiro	PT	79,92	59,72	56,40	80,51	70,81
27=	Technical University of Madrid	ES	78,50	65,35	52,63	70,20	70,05
27=	Technische Universität Darmstadt	DE	78,29	62,41	58,49	73,34	65,13
27=	University of Minho	PT	77,54	62,49	48,63	79,10	66,22
30=	Université Gustave Eiffel	FR	77,45	50,98	64,87	77,44	70,49
30=	Lappeenranta University of Technology	FI	77,25	38,85	69,15	90,28	72,81
32=	Trinity College Dublin	IE	76,45	43,71	60,62	92,44	67,99
32=	Vienna University of Technology	AT	76,33	66,13	45,79	71,47	65,98
32=	University College Dublin	IE	76,11	49,49	54,95	85,79	69,39
32=	University of Stuttgart	DE	75,95	69,60	42,57	67,28	66,15
32=	CentraleSupélec	FR	75,86	57,32	49,69	76,03	70,39
32=	National Technical University of Athens	GR	75,84	57,17	47,35	79,64	69,28
32=	Institut national des sciences appliquées Lyon	FR	75,70	55,78	60,65	72,63	64,81
39=	University of Salerno	IT	74,42	51,66	47,51	85,29	67,22
39=	Bordeaux INP	FR	74,26	44,06	72,10	74,77	65,18
39=	University of Calabria	IT	74,25	44,76	58,49	86,37	66,01
39=	Leibniz University Hannover	DE	74,15	57,99	44,50	73,71	70,23
39=	Graz University of Technology	AT	73,96	54,98	49,26	73,21	70,25
39=	Institut national des sciences appliquées de Toulouse	FR	73,84	36,10	80,71	77,91	65,12
39=	Institut polytechnique de Grenoble	FR	73,76	51,03	58,02	75,57	64,92
46=	University of Oulu	FI	73,34	47,07	48,40	84,17	70,96
46=	Luleå University of Technology	SE	73,25	45,15	55,58	81,45	69,33
46=	University of Jaén	ES	73,18	33,28	67,96	82,84	75,06
46=	AGH University of Science and Technology	PL	73,14	62,95	42,96	65,92	67,40
46=	Institut national des sciences appliquées de Rennes	FR	72,76	47,24	57,13	75,55	68,31
46=	Arts et Métiers ParisTech	FR	72,59	48,31	55,21	73,55	69,80
46=	Gdańsk University of Technology	PL	72,50	49,60	47,08	73,37	75,60

Engirank		TOP-50		Innovation			
2023	Institution	Country	Score	FUND	PAT	PCIT	ACC
				10%	6%	6%	5%
1	Technical University of Denmark	DK	100,00	100,00	69,45	53,52	80,29
2	KU Leuven	BE	97,91	90,58	100,00	47,27	61,03
3	Eindhoven University of Technology	NL	92,77	82,87	53,40	64,65	89,53
4	Technical University of Munich	DE	91,44	84,72	75,86	44,12	77,81
5	Delft University of Technology	NL	90,20	97,63	53,99	48,72	67,42
6=	Ghent University	BE	88,32	78,82	94,64	45,48	52,08
6=	Karlsruhe Institute of Technology	DE	87,72	74,27	93,69	36,64	70,40
8	RWTH Aachen University	DE	83,74	76,98	67,28	38,26	77,71
9	Polytechnic University of Milan	IT	82,45	81,61	75,56	28,77	64,36
10	University of Stuttgart	DE	79,80	69,18	67,28	41,05	73,06
11=	Friedrich-Alexander University Erlangen-Nürnberg	DE	77,80	58,29	69,10	54,78	67,65
11=	Vienna University of Technology	AT	77,48	63,74	65,36	39,93	77,67
11=	Technische Universität Dresden	DE	77,47	59,59	81,84	41,31	64,50
11=	University of Twente	NL	76,89	79,01	43,31	40,84	69,97
15=	Aalto University	FI	76,02	69,71	42,38	46,24	79,51
15=	Chalmers University of Technology	SE	75,67	82,41	0,00	51,68	96,90
17	Université Grenoble Alpes	FR	74,68	51,16	84,53	37,69	70,52
18=	École polytechnique	FR	73,55	39,83	61,58	58,99	90,35
18=	Technical University of Berlin	DE	73,43	60,50	67,28	37,54	67,39
18=	Graz University of Technology	AT	72,64	56,27	39,35	43,16	99,26
21=	Polytechnic University of Turin	IT	71,39	70,36	54,56	33,03	59,61
21=	Sant'Anna School of Advanced Studies	IT	71,38	49,47	41,42	71,47	71,01
21=	University of Oulu	FI	70,43	59,67	40,41	51,40	71,84
24=	Technische Universität Darmstadt	DE	69,49	57,10	60,21	37,76	65,54
24=	Polytechnic University of Catalonia	ES	68,75	61,75	61,13	34,30	56,11
24=	Polytechnic University of Valencia	ES	68,50	61,53	60,67	34,82	55,40
27=	Technical University of Braunschweig	DE	68,25	47,28	44,19	61,50	70,62
27=	Leibniz University Hannover	DE	67,82	47,97	50,25	52,34	71,13
29	Trinity College Dublin	IE	67,20	59,77	54,56	36,50	58,69
30=	KTH Royal Institute of Technology	SE	66,14	75,83	0,00	44,44	78,01
30=	University College Dublin	IE	65,25	47,88	50,25	51,73	61,02
32	Aalborg University	DK	63,82	64,09	32,88	29,50	70,03
33=	University of the Basque Country						

2023	Institution	Country	Score	TOP-50								
				CHE	CIV	EEI	ENV	MAT	MEC	MED	3%	
1	Technical University of Denmark	DK	100,00	100,00	99,81	98,68	100,00	98,42	100,00	94,44		
2	Delft University of Technology	NL	95,62	97,19	100,00	100,00	90,60	100,00	99,45	73,82		
3=	Eindhoven University of Technology	NL	93,18	94,55	89,16	95,79	84,66	97,48	91,63	90,91		
3=	KU Leuven	BE	93,06	93,92	91,25	89,09	76,74	97,24	95,14	100,00		
3=	KTH Royal Institute of Technology	SE	92,40	84,89	86,43	98,28	86,88	95,29	95,11	91,96		
6=	Chalmers University of Technology	SE	90,08	82,39	87,50	96,81	85,27	93,49	98,57	78,73		
6=	Aalto University	FI	89,24	90,15	83,25	93,34	84,20	93,27	92,52	80,24		
8=	RWTH Aachen University	DE	88,79	87,83	85,65	90,09	89,75	92,48	92,53	75,49		
8=	Technical University of Munich	DE	88,16	81,60	81,99	95,98	80,23	91,03	90,52	88,15		
10=	Karlsruhe Institute of Technology	DE	86,87	87,80	76,28	82,53	90,18	96,46	88,81	78,50		
10=	Polytechnic University of Milan	IT	86,17	82,04	86,44	94,34	82,77	86,76	92,77	70,63		
12=	Polytechnic University of Turin	IT	85,10	79,45	92,04	89,00	76,36	84,75	96,64	70,12		
12=	Aalborg University	DK	84,61	81,98	89,64	98,25	82,71	82,22	88,18	61,99		
14=	Ghent University	BE	83,15	84,53	80,07	83,04	72,73	88,96	82,07	83,49		
14=	University of the Basque Country	ES	82,86	80,53	80,21	82,93	78,81	90,88	87,61	71,89		
14=	Friedrich-Alexander University Erlangen-Nürnberg	DE	82,27	74,06	73,57	84,02	82,27	90,60	83,10	81,15		
17=	University of Twente	NL	81,21	77,69	69,13	87,10	75,65	89,15	86,60	76,10		
17=	Technische Universität Dresden	DE	80,22	78,30	74,84	75,61	74,52	90,73	82,48	78,12		
19=	Technical University of Berlin	DE	80,17	83,76	75,92	83,38	80,77	77,95	78,20	74,26		
19=	Technical University of Madrid	ES	80,17	65,53	79,69	96,84	85,10	80,87	82,78	63,43		
19=	Université Grenoble Alpes	FR	80,16	71,18	71,00	89,25	78,15	90,38	79,41	74,85		
19=	Polytechnic University of Valencia	ES	80,15	75,88	80,92	89,02	77,48	75,81	88,14	66,86		
19=	Polytechnic University of Catalonia	ES	79,22	78,35	78,03	86,37	74,72	82,42	82,41	65,37		
24	Graz University of Technology	AT	78,22	78,57	67,51	77,63	81,36	83,99	84,05	67,64		
25=	University of Stuttgart	DE	76,05	80,69	66,76	79,57	73,58	78,91	80,16	66,11		
25=	Luleå University of Technology	SE	75,98	73,71	73,52	76,98	76,42	79,62	84,51	60,54		
25=	Institut national des sciences appliquées Lyon	FR	75,91	64,43	74,64	80,53	72,63	79,11	83,49	69,95		
25=	Vienna University of Technology	AT	75,69	73,25	68,12	79,46	74,75	82,54	80,62	64,54		
29=	Technische Universität Darmstadt	DE	74,87	70,57	62,58	71,60	71,92	86,28	80,48	74,19		
29=	Trinity College Dublin	IE	74,64	69,79	62,53	75,28	70,11	80,47	86,49	71,35		
29=	University College Dublin	IE	74,18	69,24	85,04	80,80	68,30	67,30	78,84	63,31		
29=	Bordeaux INP	FR	73,98	75,32	68,39	78,99	62,34	83,71	77,48	65,22		
29=	Université de Lorraine	FR	73,93	73,88	66,50	73,24	74,83	76,19	83,86	62,60		
34=	Université catholique de Louvain	BE	73,00	75,56	62,95	74,65	64,69	80,81	79,72	66,31		
34=	Université de Lyon	FR	72,75	70,25	65,52	68,19	65,31	80,71	80,36	72,60		
34=	National Technical University of Athens	GR	72,56	75,01	72,27	78,15	75,15	77,18	74,98	48,93		
34=	Université Gustave Eiffel	FR	72,53	65,03	85,32	78,98	70,01	70,03	80,92	51,15		
34=	University of Oulu	FI	72,38	67,32	74,77	87,43	70,28	70,58	77,08	52,97		
34=	Leibniz University Hannover	DE	72,36	72,57	63,70	74,88	68,76	78,04	75,55	66,77		
40=	CentraleSupélec	FR	71,49	69,17	71,19	84,08	63,58	64,85	79,03	62,36		
40=	University of Aveiro	PT	71,13	71,47	63,11	69,73	68,90	77,18	70,13	71,26		
40=	Institut polytechnique de Grenoble	FR	71,06	61,33	65,66	84,13	61,96	77,84	73,72	66,60		
40=	AGH University of Science and Technology	PL	70,84	61,48	58,30	81,38	64,31	83,39	69,26	71,63		
40=	Lappeenranta University of Technology	FI	70,74	90,02	78,25	80,79	81,75	70,61	87,65	-		
40=	Arts et Métiers ParisTech	FR	70,54	65,98	75,47	69,38	56,11	80,70	82,40	57,67		
46=	Brno University of Technology	CZ	69,77	70,11	64,27	66,39	75,58	66,15	70,55	69,29		
46=	Universidad Carlos III de Madrid	ES	69,60	57,55	63,46	88,32	54,38	75,84	82,66	58,98		
48=	École centrale de Lyon	FR	67,61	61,07	65,35	71,84	67,91	73,06	78,87	49,33		
48=	University of Salerno	IT	67,40	70,86	54,20	81,52	60,75	67,25	75,93	55,49		
48=	Technical University of Braunschweig	DE	66,77	67,37	68,55	67,76	62,31	72,33	74,16	49,12		

5.

EngiRank 2023  
Country rankings

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia,  
Denmark, Estonia, Finland, France, Germany,  
Greece, Hungary, Ireland ..... 62

Italy, Latvia, Lithuania, Luxembourg, Malta,  
Netherlands, Poland, Portugal , Romania,  
Slovakia, Slovenia, Spain , Sweden ..... 63

EngiRank 2023 Country rankings refer to EngiRank Institutional 2023

2023		Austria	Engirank	Overall score
1	Vienna University of Technology	79,72		
2	Graz University of Technology	77,51		
3	University of Leoben	69,04		
4	Johannes Kepler University Linz	62,23		

2023		Finland	Engirank	Overall score
1	Aalto University	88,50		
2	University of Oulu	76,69		
3	Lappeenranta University of Technology	69,86		

2023		Italy	Engirank	Overall score
1	Polytechnic University of Milan	91,45		
2	Polytechnic University of Turin	83,41		
3	University of Salerno	67,39		
4	University of Calabria	64,23		
5	Sant'Anna School of Advanced Studies	60,99		
6	University of L'Aquila	56,47		
7	University of Naples Parthenope	54,15		
8	University of Salento	54,00		
9	Roma Tre University	53,10		
10	Polytechnic University of Bari	52,35		

2023		Portugal	Engirank	Overall score
1	University of Aveiro	72,55		
2	University of Minho	70,27		
3	University of Beira Interior	49,55		
4	Polytechnic Institute of Porto	41,12		
5	Higher Institute of Engineering of Lisbon	34,06		

2023		Belgium	Engirank	Overall score
1	KU Leuven	94,73		
2	Ghent University	90,60		
3	Université catholique de Louvain	74,07		
4	Université de Mons	61,26		

2023		France	Engirank	Overall score
1	Université Grenoble Alpes	79,19		
2	Université de Lorraine	77,33		
3	École polytechnique	70,83		
4	Institut polytechnique de Grenoble	70,61		
5	Université de Lyon	68,51		
6	Institut national des sciences appliquées Lyon	66,92		
7	Institut national des sciences appliquées de Toulouse	66,56		
8	Bordeaux INP	65,55		
9	CentraleSupélec	64,27		
10	Arts et Métiers ParisTech	63,62		

2023		Latvia	Engirank	Overall score
1	University of Latvia	51,25		
2	Riga Technical University	48,92		

2023		Romania	Engirank	Overall score
1	University Politehnica of Bucharest	52,36		
2	Technical University of Cluj-Napoca	49,26		
3	Transilvania University of Brasov	46,24		
4	Politehnica University of Timisoara	44,49		
5	Gh. Asachi Technical University	38,29		
6	Dunarea de Jos University of Galati	31,48		
7	University of Craiova	25,89		

2023		Bulgaria	Engirank	Overall score
1	Technical University of Sofia	34,24		

2023		Croatia	Engirank	Overall score
1	University of Zagreb	65,32		
2	University of Split	50,01		

2023		Cyprus	Engirank	Overall score
1	University of Cyprus	64,03		
2	Cyprus University of Technology	45,28		

2023		Czechia	Engirank	Overall score
1	Brno University of Technology	67,90		
2	Czech Technical University in Prague	62,44		
3	VŠB – Technical University of Ostrava	56,67		
4	University of Chemistry and Technology, Prague	51,45		
5	University of West Bohemia	46,11		
6	Technical University of Liberec	39,31		
7	Tomas Bata University in Zlin	38,29		

2023		Denmark	Engirank	Overall score
1	Technical University of Denmark	100,00		
2	Aalborg University	78,17		

2023		Estonia	Engirank	Overall score
1	Tallinn University of Technology	63,19		

2023		Greece	Engirank	Overall score
1	National Technical University of Athens	70,28		
2	University of Patras	60,20		
3	Technical University of Crete	48,85		

2023		Hungary	Engirank	Overall score
1	Budapest University of Technology and Economics	59,78		
2	University of Miskolc	37,10		
3	Óbuda University	34,18		

2023		Ireland	Engirank	Overall score
1	Trinity College Dublin	78,54		
2	University College Dublin	78,44		

2023		Netherlands	Engirank	
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## 6.

### Leaders

<b>Technical University of Denmark - DTU (Denmark)</b> .....	<b>66</b>
<b>Delft University of Technology - TU Delft (Netherlands)</b> ...	<b>69</b>
<b>KU Leuven (Belgium)</b> .....	<b>72</b>
<b>Technical University of Munich (Germany)</b> .....	<b>74</b>
<b>Polytechnic University of Milan (Italy)</b> .....	<b>74</b>
<b>Ghent University (Belgium)</b> .....	<b>75</b>
<b>Eindhoven University of Technology (Netherlands)</b> .....	<b>75</b>
<b>Karlsruhe Institute of Technology (Germany)</b> .....	<b>76</b>
<b>RWTH Aachen University (Germany)</b> .....	<b>76</b>
<b>KTH Royal Institute of Technology (Sweden)</b> .....	<b>77</b>
<b>Aalto University (Finland)</b> .....	<b>77</b>



## Technical University of Denmark – DTU (Denmark)

# Innovation Ecosystem

Existing for almost 200 years, the Technical University of Denmark presents itself as a university where people think, talk and work together on solutions to create a sustainable world of the future.

DTU is a modern university, oriented towards the future and change, and proudly refers to its roots. The founder of the university was the father of electromagnetism, **Hans Christian Ørsted**. His goal was to create a university that would serve society by finding solutions to existing problems and responding to challenges. The path to this goal led through technical and natural sciences.

Today, DTU prides itself on being a research-based, business-oriented university of technology and on international, multidisciplinary cooperation implemented at the intersection of university, social policy and industry. How does it look in practice?

### The basis of university work: innovative research

DTU's research work is focused primarily on innovation – and innovation is in its DNA. However, this is not looking for solutions for the sake of research satisfaction alone; the goal of all activities undertaken at DTU by scientists, doctoral students and students is **the social utility of the research projects**. Hence the synergy of academic and applied research declared by DTU. The university emphasizes: *We help students and employees translate inventions and discoveries into enterprising businesses, and we engage in innovative collaborations with society as a whole.*

DTU's modus operandi is based on multi-level cooperation between the university and business. For this, commercialization agreements are concluded with companies – based on these agreements, entrepreneurs can draw on the results of research conducted at the

university, as well as use inventions registered by DTU. A special unit (**DTU's tech transfer**) has a full database of technologies, patents, and inventions from the DTU portfolio. Another form of cooperation with business is strategic cooperation and "ordered" research at DTU aimed at developing new technologies that can be used commercially. **The DTU Skylab** unit was established to help companies develop their business.

Commercialization of DTU research has resulted in the university involvement in **over 1,200 commercialization projects**. They are implemented both for startups and corporations with an established market position.

Scientific and didactic work is supported by DTU's specialized infrastructure, which includes: highly advanced technologies and equipment (e.g. NMR spectroscopy and state-of-the-art measurement equipment at **The DTU NMR Center**), research facilities (e.g. **Dana IV** research vessel, versatile and multi-purpose), competence centers (e.g. **The 3D Imaging Center, 3DIM**, i.e. a competence center in the field of X-ray and neutron imaging) and laboratories (e.g. Industrial dosimetry services, **The High Dose Reference Laboratory**); experimental halls (e.g. **PowerLabDK**, i.e. an experimental electric power platform) or rich databases (e.g. **Computerome**, one of the largest HPC clusters in Scandinavia dealing with research in the field of natural sciences; Computerome has 20 PB of memory, over 31,000 cores and a library containing over 3,000 different applications).

### Student: an important element of the ecosystem

Education at DTU is based not only on lectures, but also on exercises and project work by students. Students are a part of an innovative community, and their research should have a chance of commercialization. That's why DTU has the **Center for Entrepreneurship in Technology**, which develops practice-oriented DTU study programs and courses in entrepreneurship. These programs and courses are conducted in close cooperation with the business sector.

One of the courses offered to second-cycle students at DTU is the Innovation in Engineering training.

#### DTU in numbers

- 10 410 FTE students (source: THE)
- 1351 staff (source: THE)
- 3 Nobel Prize winners
- 5 campuses
- 17 doctoral schools

**Engineering  
programs  
must prioritize  
sustainability**



We are delighted to be named Europe's best university in the new EngiRank of the engineering programs in Europe. The position reflects our strategic focus on offering top-quality engineering education, delivering excellent research and being the business community's preferred partner. EngiRank provides some interesting new perspectives on the European higher engineering education landscape. Because it focuses on the EU countries and thus can rely on EU data sources such as CORDIS and Erasmus+, the ranking provides new insights into research and innovation funding as well as student mobility.

At DTU, we emphasize that the **engineering programs must prioritize sustainability**. This is a mandatory part of the education in all DTU's fields of study - regardless of whether you want to be an environmental engineer, a wind turbine engineer or an IT engineer. The students must consider sustainability in all tasks and products they work with during their studies at DTU. They will also be impressed upon that technology and natural science must be connected with a broader understanding of societal conditions, equality and ethics.

Engineers have an important role to play in the green transition by creating solution to mitigate the climate crisis – the most severe threat to our planet. Engineers have a unique ability to develop and implement innovative technologies, so it is not enough to have a single mandatory sustainability course – it must permeate all corners of our educations.

But it is also crucial that business is involved. The technical universities' green focus would not have much effect if it was not also in demand in the business world. And it does.

I hear from Danish companies that it is extremely important that engineers have a deep understanding of sustainability, because virtually all industries are working these years to ensure that their production and solutions wear out less on our planet. It is therefore imperative for future engineers that they can think in terms of sustainable solutions. The practical experience combined with the green way of thinking also means that our engineers are sought after and get to work quickly.

**Prof. Rasmus Larsen**  
Provost, DTU Executive Vice President



## Innovation Ecosystem

Students implement this module work for one semester in multidisciplinary teams, learn in practice, what the process of innovative solutions looks like.

### The six principles that students master in this process are:

- Be iterative • Be creative
- Be relevant • Be at ease
- Be inclusive • Be inquisitive

DTU has one of the most developed innovation and entrepreneurship ecosystems among technical universities in Europe. New ideas and inventions are taken outside classrooms and research laboratories into the real world, where, new jobs are created, problems are solved in response to challenges in society.

### Internationalization

Presence in university networks, including alliances of European Universities (EuroTech Universities, EuroTeQ Engineering University, Nordic Five Tech), alliances established as part of bilateral cooperation with the best universities in the world (including Nanyang Technological University, Singapore; Cornell University, USA), joint

implementation of projects in teams of scientists, PhD students and students, joint study programs, joint postdoctoral programs, joint research initiatives, etc. – is how DTU pursues one of its main goals, which is to use complementary competences in the area of education, innovation and research. Strategic international alliances support DTU's mission of being useful to Danish society, and fit into the university's ambitions to maintain a high position and recognition and constantly stimulate DTU's development.

\*\*\*

The latest folder presenting facts and figures about DTU opens with a quote from the university's president, **prof. Anders O. Bjarklev**: *During times of stormy weather technology continues to give us hope.* This allusion to the times of crisis we are witnessing today rightly draws attention to technical universities. An approach based on the belief that technological progress will be wisely used, based on values such as those raised, among others, at DTU: social utility, respect for multiculturalism and interdisciplinary cooperation can bring truly good changes in the world. ■

### DTU News

One of the activities supporting students' innovation in the field of climate-related challenges is the Green Challenge conference at DTU, held at DTU Skylab, accompanied by a competition for student projects relating directly to the UN Sustainable Development Goals. The jury in the competition consists not only of DTU employees, but also representatives of the world of business and politics. This year's competition was won by Victor Ryle Tamstorf, a second-cycle student of Design and Innovation at DTU - his project related to Goal No. 6 (ensuring the availability and sustainable management of water and sanitation for all). Victor received 30,000 Danish crowns for his idea.

Victor's project is a small disinfection unit (using the electrochlorination method, so the device requires salt, chlorine and electricity to operate) used to purify rainwater.

For Viktor Ryle Tamstorf, the project primarily aims to change the situation of people who do not have access to clean drinking water. The project is aimed at people who would otherwise have to drink contaminated water. However, this solution can also be used in EU countries where there is very little groundwater - says Victor.

### Trivia

DTU was founded on the model of the French university École Polytechnique and the first seat of the Danish university was located on the estate of its founding father, Hans Christian Ørsted, in the heart of Copenhagen. Ørsted's goal was to educate young men at DTU to work in industry, but this became possible only in the 1870s (earlier education was theoretical in nature), and only at the turn of the 19th and 20th centuries did the university reach an international level of excellence until finally, in the first decades of the 20th century, engineers from DTU gained international recognition in the fields of structural engineering, shipbuilding and electrical engineering.



#2

## Delft University of Technology – TU Delft (Netherlands)

### Engineering leaders change the future

**Delft University of Technology is the oldest and largest Dutch public technical university, established in 1842 by King William II. Impact for a better society is the motto of the university.**

Delft University of Technology contributes to solution of global challenges by educating new generations of socially responsible engineers and expanding the frontiers of the engineering sciences. **Its mission is to perform world-class research by combining science, engineering and design in a socially responsible manner;** develop and enhance the expertise of tomorrow's engineering leaders and educate professional, high-level and responsible engineers throughout their careers. The university helps to develop and deliver technology-driven, innovative solutions to societal problems through collaborations with leading national and international partners.

The university's primary tasks – academic research and teaching, and knowledge transfer are carried out by eight faculties at TU Delft: Architecture and Environment; Civil

Engineering and Geosciences; Electrical Engineering; Mathematics and Computer Science; Industrial Design Engineering; Aerospace Engineering; Technology Policy and Management; Applied Sciences; Mechanical, Maritime and Material Engineering.

Delft University of Technology has always been an entrepreneurial university. Over the last 180 years, many inventions and ground-breaking research found its way from the laboratory to society. Delft University of Technology stimulates entrepreneurship in a number of ways: by investing in start-ups, by offering education programs focused on entrepreneurship and by coaching starting companies, among others with the incubator YES!Delft.

### Important scientific contribution

TU Delft researchers developed many new technologies used today, including **Glare**, a **Fibre Metal Laminate** used in Airbus A380 skin and Vision in Product Design design method. **Cees Dekker's lab** at TU Delft demonstrated in 1998 the first transistor made out of

## Engineering leaders change the future



single nanotube molecule. TU Delft was a precursor of **Open design concept**.

In architecture, TU Delft is famous for **Traditionalist School in Dutch architecture**. TU Delft was a home to many prominent microbiologists including **Martinus Beijerinck**, who in 1898 discovered viruses while working at TU Delft, and **Albert Kluyver**, father of comparative microbiology, which resulted in the creation of so-called **Delft School of Microbiology**.

TU Delft is in the process of raising its international profile in several areas, some of them relatively new. This is to be achieved by clustering research capacity – either physically or virtually – in a number of university-wide institutes: **TU Delft Institutes**.

**TU Delft AgTech Institute** promotes research and innovation in AgriFood technology. The virtual **TU Delft Bioengineering Institute** strengthens the campus-wide collaboration of scientists working in, with or for biology. **Climate Institute** takes actions to limit climate change. **TU Delft Institute for Computational Science and Engineering** is rapidly developing field that brings together applied mathematics, engineering and (social) science. **DelftRail Institute** is initiated to ensure a sustainable, robust and future proof railway system. **Design for Values Institute** is a design approach aimed at integrating values in all stages of the

### TU Delft News

Researchers at Delft University of Technology, led by assistant professor Richard Norte, have unveiled a remarkable new material with potential to impact the world of material science: amorphous silicon carbide (a-SiC).

Beyond its exceptional strength, this material demonstrates mechanical properties crucial for vibration isolation on a microchip. Amorphous silicon carbide is therefore particularly suitable for making ultra-sensitive microchip sensors.

The range of potential applications is vast. From ultra-sensitive microchip sensors and advanced solar cells, to pioneering space exploration and DNA sequencing technologies. The advantages of this material's strength combined with its scalability make it exceptionally promising.



### TU Delft in numbers

21 262 FTE students (source: THE)

1337 staff (source: THE)

3 Nobel Prize winners associated with TU Delft: Jacobus van 't Hoff – chemistry; Simon van der Meer – physics; Heike Kamerlingh Onnes - physics

### Trivia

On its campus, TU Delft has a wide range of research facilities. These facilities are unique in the Netherlands and are used to conduct research for business and industry. They range from wind tunnels, a chip facility, high-voltage laboratory and nuclear reactor to serious gaming and product evaluation. Some of facilities are: **Reactor Institute Delft**, **Holland Proton Therapy Centre**, **QuTech research center for Quantum Computing and Quantum Internet**, **Laboratory Aircraft Citation II (PH-LAB)**.

design process. **Dutch Optics Centre** aims at boosting the optics industry by increasing utilisation of science through joint R&D. **e-Refinery** develops electrochemical conversion technology for the sustainable production of chemicals and fuels. These are examples of just a few of the many TU Delft Institutes.

Research works are also led at **QuTech** which is a mission-driven research institute of Delft University of Technology (TU Delft) and the Netherlands Organisation for Applied Scientific Research (TNO). Here researchers work on a new technology with world-changing potential. Its goal is to develop scalable prototypes of a quantum computer and an inherently safe quantum



internet, based on the fundamental laws of quantum mechanics: *We believe that quantum technology can be a game changer in many social and economic sectors, including health, agriculture, climate and safety.*

### Initiatives solving society issues

**Delft Research Initiatives** aim to make an important scientific contribution to solving issues facing society that relate to four themes - **Delft Energy Initiative**, **Delft Global Initiative**, **Delft Health Initiative** and **Delft Deltas, Infrastructures & Mobility Initiative**.

The Delft Energy Initiative DEI is TU Delft's scientific community on sustainable, affordable, reliable, and inclusive energy. 1000 researchers, supported by an even larger army of PhD and other students work on technology, methods, principles, insight, and solutions for the energy system of the future. The DEI serves as a catalyst between research, society, industry, and businesses in order to accelerate the energy transition. DEI consists of 4 main cross-faculty energy institutes: **Wind Energy**, **Urban Energy**, **PowerWeb** and **e-Refinery**.

Global Initiative's research focuses on pressing global challenges in the developing world with the aim to have impact and improve people's lives. Delft Health Initiative brings together researchers involved in health research and innovation, in order to focus TU Delft expertise and to contribute to pioneering health technologies within relevant national and international research programs.

Delft Deltas, Infrastructures & Mobility Initiative is working on integrated solutions for urgent social issues related to vital infrastructural facilities for water safety and smart mobility; issues inherent in the natural and built environment.

### Talent development

TU Delft is brimming with talent driven by a passion for technology and the ambition to make a difference in the world. Since 1925, **Delft University Fund** has supported TU Delft by contributing to research, education, talent development and entrepreneurship. With donations from alumni, students, foundations and companies, the university helps talented students and scientists to realize their ambitions and make an impact on society.

**Making the world a better place**



*Technology is very important to address major societal problems, whether it is energy transition, digitalization, sustainable medical care or climate change. These problems require engineers, scientific breakthroughs and technologies. TU Delft does this together with other universities, with social sciences and medical sciences.*

*I think that this approach, making the world a better place together, translates into our position. A ranking position should never be a goal by itself, but it is nice to see when the efforts that you put into doing a good job translate into a high position.*

*We perform world-class research by combining science, engineering and design in a socially responsible manner. To make this possible you need ambitious students, top scientists and supporters, top facilities, and top partners. That's what so nice about rankings, a high position makes finding good partners easier because they create exposure and the outside world sees that. Partners want to collaborate with us more easily or come and work for us.*

*I appreciate the EngiRank initiative to set up a European ranking for Engineering Programs. I believe that subject rankings are more relevant for our university than world university rankings as they compare universities with similar profiles and missions with each other. The focus on Europe as a geographical area might prove valuable when it opens up the opportunity to go a bit deeper than the conventional rankings.*

**Prof. Tim van der Hagen**  
President of the Board and Rector of TU Delft

Thanks to a financial contribution, ambitious students are given the opportunity to deepen their knowledge and broaden their horizons. Every year, Delft University Fund presents various awards to students and alumni, such as the **TU Delft Best Graduate Award**, **the Alumnus of the Year and the Professor of Excellence Award**. These awards ensure that outstanding talent receives the attention they deserve and provide an inspiration for future engineers. ■



## KU Leuven (Belgium) Community of Minds

Deriving its traditions from one of the oldest European universities (Katholieke Universiteit te Leuven, founded in 1425), today's Flemish KU Leuven boasts of being the most innovative European university (Reuters classification 2016 and 2019).

KU Leuven's innovativeness is proven by the **Patents** indicator in EngiRank 2023 – KU Leuven obtained the highest result in this indicator among all classified universities.

KU Leuven proudly proclaims: *Over the past five decades, KU Leuven Research & Development (LRD) has launched a myriad of innovative technologies in society and the commercial market, allowing companies to create products that improve people's lives. LRD helps researchers to best leverage the societal and economic potential of their research and has developed a solid tradition of creating spin-off companies, securing and licensing intellectual property, and collaborating with industry. [...] In 2022, 144 patents were granted and a license-income of 150 million euro was obtained by KU Leuven.*

### Religion does not limit

Although the university has its roots in the Catholic tradition, today it presents itself as a modern university, rising above divisions. KU Leuven declares that it accepts and supports various religious and philosophical beliefs. This is proven, for example, by the existence of the KU Leuven Lifestance Network, a network of international representatives of many religious and non-religious Lifestance groups active in and around Leuven and its university. Activities undertaken by the KU Leuven

### DTU in numbers

- 49435 FTE students (source: THE)
- 1325 staff (source: THE)
- 270 traineeships
- 3 Award Nobel Prize winners
- 144 patents were

### KU Leuven News

The ERC-2023 Starting Grants competition awarded funding for 400 projects, including 4 conducted by young researchers from KU Leuven. One of the awarded projects is X-PECT conducted by Prof. Elke Debroye from the Faculty of Chemistry at KU Leuven. The researcher's goal is to design materials that will enable the use of more sensitive X-ray detectors and thus lead to the use of lower doses of surgical radiation. Thanks to the developed solution, it will be possible to reduce the harmfulness of radiation, which is used in many imaging methods and therefore poses a health risk to diagnosed patients.

### Rankings are important

We are ranked 42 in the Times Higher Education World University Rankings. We are also advancing in other rankings such as QS and Shanghai.

Not everyone likes me to talk about that. However, whatever your opinion, rankings are important in terms of their effects. They influence the choices of students and researchers. They determine who you speak to and who speaks to you.

Prof. Luc Sels  
Rector of KU Leuven

speech during the opening of the Academic Year 2023-2024



Lifestance Network included, for example, the creation of a multi-denominational cookbook with recipes from different cultures, monthly meditation practices conducted by representatives of various faiths, and aid actions and support for refugees from Ukraine.

### Learning beyond borders

KU Leuven's religious openness results from deeper motives - a modern university has no chance of achieving an international position and recognition if it does not dare to make internationalization the litmus test of its capabilities. At KU Leuven, this focus on internationalization can be felt almost at every step -for example when browsing the university's website, where the vast majority of subpages contain content related to the university's internationalization: internationalization of research, education, and international academic and business cooperation.

### Trivia

In the 1960s, in the wake of the years-long conflict between the two ethno-linguistic groups forming the common Belgian state (Flemish and Walloon), e.g. dispute over the status of the Catholic University of Louvain located in the Flemish part of Brabant. Flemish students then demanded, among other things, removal of all lectures in French from the timetable. Demonstrations by professors and students took place under the slogan Walenbuiten! (Down with the Walloons!), and after the parliamentary elections in 1968, it was decided to resolve the dispute over the University of Louvain by establishing two sister universities: Katholieke Universiteit Leuven with Dutch as the language of instruction and the French-speaking Université Catholique de Louvain (which moved to a new location). Today, these two sister universities cooperate in the areas of education, research, and organization.

This approach is best illustrated by the 48% of PhD degrees awarded in the academic year 2021/2022 at KU Leuven that were awarded to foreigners, brought to the university in accordance with the approach to actively recruit young research talents, offering them individualized education taking into account non-academic skills (e.g. entrepreneurship, effective communication).

The last inaugural lecture by Rector Luc Sels, titled *An international university also benefits its own region*, was devoted to internationalization and the challenges associated with it. He said among others: *Science pushes boundaries. Science also knows no boundaries. Or, more accurately, it should know no boundaries. However, it is increasingly subject to boundaries in a world of rapid geopolitical change that is also divided into haves and have-nots in terms of scientific capacity.*

### Community of minds

The Belgian university proudly boasts of the number of 138 ERC grants received since 2007, 1st place in the Horizon Europe program and 1st place in the **Marie Curie Doctoral Networks** in Horizon Europe in 2022 (KU Leuven participates in 25 of the 149 awarded total projects – 13 coordinated!). The latest success in the field of academic cooperation is the ERC Synergy Grant for VIB-KU Leuven was awarded by the ERC in October 2023, for the considerable amount of EUR 10 million.

KU Leuven is not just a place on a map, but is a community of minds where the development of academic entrepreneurs of tomorrow is supported, should be considered a hit.



**PROF.  
THOMAS F. HOFMANN**  
President



## TECHNICAL UNIVERSITY OF MUNICH Germany

President: **prof. Thomas F. Hofmann**  
(scientific field: Food Chemistry and Molecular Sensory Science)

The university, founded in 1868, prides itself that from the beginning of its existence it has set one goal: finding solutions to the main challenges facing society as civilization progresses.

TUM is the only German technical university that, since 2006 has continuously held the title of University of Excellence - Exzellenzuniversität (status granted by the German government as part of the Excellence Strategy).

The university focuses on innovation, it reorganizes internal structures, transforming them into more dynamic, change-oriented. TUM wants to function as a modern scientific ENTERPRISE. Hence, instead of faculties, schools were established whose activities are linked by integrative research institutes operating at the intersection of scientific disciplines.

**TUM in numbers:** 35 506 FTE students, 800 staff (source: THE); 18 Nobel Prize winners (9 in chemistry, 6 in physics, 2 in medicine and 1 in literature – Thomas Mann); 24 Leibniz Prize winners; 200 ERC grants.

[www.tum.de](http://www.tum.de)



**PROF.  
RIK VAN DE WALLE**  
Rector



## GHENT UNIVERSITY Belgium

Rector: **prof. Rik Van de Walle**  
(scientific field: Engineering)

The university has existed since 1817 and presents itself as a pluralistic university, unrelated to any religion or ideology. Ghent University's motto: *we are a haven for bold thinkers*.

Being among the 100 best universities in the world since 2014, it was the first European university to start providing education as part of the Incheon Global Campus in South Korea at the invitation of the Korean government, i.e. an international university campus to which 10 prestigious universities from around the world were invited to educate global leaders in education, economics, industry, culture and art.

Ghent University Global Campus offers three bachelor's degree programs in life sciences: environmental technology, food technology and molecular biotechnology.

**Ghent University in numbers:** 41 487 FTE students, 1103 staff (source: THE); 2 Nobel Prize winners (1 in literature, 1 in medicine); 140 ERC projects assigned.

[www.ugent.be](http://www.ugent.be)



**PROF.  
DONATELLA SCIUTO**  
Rector



## POLYTECHNIC UNIVERSITY OF MILAN Italy

Rector: **prof. Donatella Sciuto**  
(scientific field: Computer Architectures and Operating Systems)

The Polytechnic University of Milan is the first technical university established in Italy (in 1863, originally as a Higher Technical Institute).

The university runs the Girls@POLIMI project, which aims to support girls determined to study STEM fields. As part of the project, 25 students are awarded scholarships of EUR 8,000 per year (the scholarship can be received for up to three years) and a special mentoring and training program. Prizes are awarded to girls who decide to study the following fields: aeronautical and space engineering; automation; electrical engineering; electronics; computer engineering; mechanics; industrial production engineering. The project is financed by 12 corporations (including Hitachi Energy, Gruppo Autostrade per l'Italia, Mediobanca) as well as PUM itself and the PUM alumni association. Other gender-specific activities of PUM conducted for high school students include: TechCamp@POLIMI, Coding Girls, STEM in the City.

Another interesting PUM project is VIVIPolimi conducted on campuses in Milan. Campus spaces are being rebuilt to create relaxation, work/study and social meeting zones.

**PUM in numbers:** 38 978 FTE students, 1517 staff (source: THE); 291 traineeships; 1 Nobel Prize winner (Giulio Natta, Nobel Prize in Chemistry in 1963).

[www.polimi.it](http://www.polimi.it)



**PROF.  
SILVIA LENAERTS**  
Rector



## EINDHOVEN UNIVERSITY OF TECHNOLOGY Netherlands

Rector: **prof. Silvia Lenaerts** (scientific field: Chemistry)

A very young university founded in 1956, established in cooperation of local administration, industry and academia, it combines scientific curiosity with craft skills. The Eindhoven University of Technology campus is located in the center of one of the most powerful technology centers in the world: Brainport Eindhoven, hence the university's close cooperation with the advanced technology industry.

The university prides itself on educating engineers of the future. Teaching is conducted in the Challenge Based Learning system, it is based on the principle of searching for solutions to existing (and derived directly from the world of industry and social life) challenges (such as sustainable energy, cities of the future, models data to predict group behavior). Working in such a system involves actively acquiring knowledge and skills often in interdisciplinary student groups. There are units on campus such as Innovation Space (a well-equipped institution where an inspiring environment of students, trainers, mentors, startupers and scientists work together on solutions to social challenges) and the Student Sport Center (open 7 days a week for students, corporate employees, lecturers).

Kornelis Antonie "Kees" Schouhamer Immink, a Dutch engineer, entrepreneur and scientist who co-invented CDs, DVDs and Blu-Ray discs, studied at TU/e.

**Eindhoven University of Technology in numbers:** 10 611 FTE students, 496 staff (source: THE); 1 Nobel Prize winner in chemistry in 1952.

[www.tue.nl](http://www.tue.nl)

[www.EngiRank.eu](http://www.EngiRank.eu)



**KIT**  
Karlsruhe Institute of Technology

**#7**

**PROF. OLIVER KRAFT**  
President

[www.kit.edu](http://www.kit.edu)

## KARLSRUHE INSTITUTE OF TECHNOLOGY Germany

President: **prof. Oliver Kraft**  
(scientific field: Materials Science)

The oldest German technical university (founded in 1825). Since 2019, it has been one of the 11 universities of excellence (Exzellenzuniversität) in Germany. Karlsruhe Institute of Technology won the competition thanks to the concept The Research University in the Helmholtz Association I Living the Change. The assumptions presented in the competition emphasized the strengthening of research in the full scope, from basic research to applications and the way to achieve this goal included the creation of 100 new professorial positions, intensive dialogue with society and offering credible career paths to young scientists.

The university's graduates include, among others: Józef Zawadzki, rector of the Warsaw University of Technology (1937-1939).

**Karlsruhe Institute of Technology in numbers:** 21 448 FTE students, 1046 staff (source: THE); 9 research centers; 6 Nobel Prize winners.



**KTH**  
VETENSKAP OCH KONST

**#10**

**PROF. ANDERS SÖDERHOLM**  
President

[www.kth.se](http://www.kth.se)

## KTH ROYAL INSTITUTE OF TECHNOLOGY Sweden

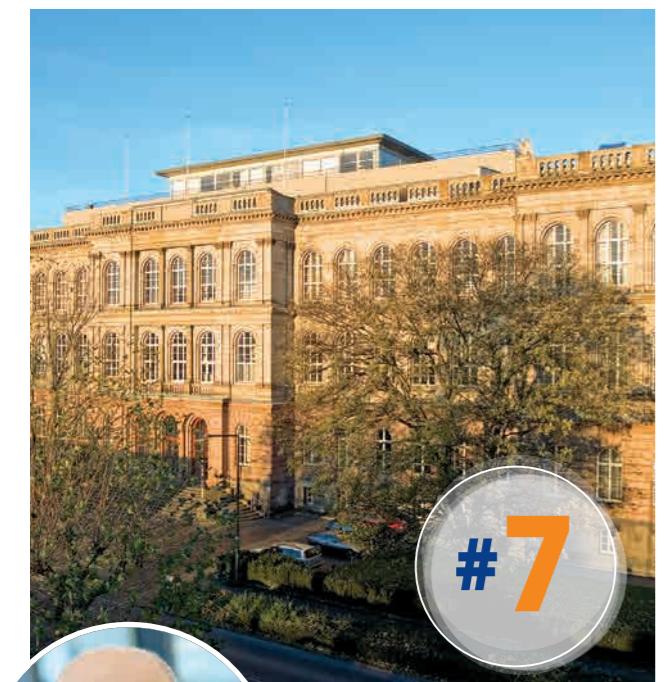
President: **prof. Anders Söderholm**  
(scientific field: Business Administration)

The university, founded in 1827, is today the largest technical university in Sweden. The university belongs to the network of European Universities – to the Unite! consortium. Education is provided within the schools: Architecture and the Built Environment; Electrical Engineering and Computer Science; Engineering Sciences; Engineering Sciences in Chemistry, Biotechnology and Health; Industrial Engineering and Management.

KTH is working with industry and society in the pursuit of sustainable solutions to some of humanity's greatest challenges: climate change, future energy supply, urbanization and quality of life for the rapidly-growing elderly population. KTH is addressing these with world leading, high-impact research and education in natural sciences and all branches of engineering, as well as in architecture, industrial management, urban planning, history and philosophy.

One of the university's outstanding researchers was Hannes Alfvén, winner of the Nobel Prize in Physics in 1970.

**KTH Royal Institute of Technology in numbers:** 13 269 FTE students, 835 staff (source: THE); 2 Nobel Prize winners.



**#7**

**PROF. ULRICH RÜDIGER**  
Rector

[www.rwth-aachen.de](http://www.rwth-aachen.de)

## RWTH AACHEN UNIVERSITY Germany

Rector: **prof. Ulrich Rüdiger** (scientific field: Physics)

Founded in 1870. Currently the largest technical university in Germany. RWTH Aachen University belongs to the German universities of excellence (Exzellenzuniversität), and the funds obtained thanks to the program were intended, among others, for the expansion of the campus – it is to be developed in close cooperation with industry and is to constitute one of the largest research parks in Europe.

The university prides itself on creating a multinational community of knowledge – this is facilitated by both the university's location (close to the German border with Belgium and the Netherlands) and the university's close ties with the world's largest research and industrial partners. The size of research conducted at RWTH Aachen University is demonstrated by, for example, the amount of EUR 487.7 million spent on (mostly) commissioned research under external financing.

The key research areas identified by the university are: Computational Science & Engineering; Energy, Chemical & Process Engineering; Information & Communication Technology; Material Science & Engineering; Medical Science & Technology; Molecular Science & Engineering; Mobility & Transport Engineering; Production Engineering.

**RWTH Aachen University in numbers:** 34 914 FTE students, 806 staff (source: THE);



**A**  
Aalto University

**#10**

**PROF. ILKKA NIEMELÄ**  
President

[www.aalto.fi](http://www.aalto.fi)

## AALTO UNIVERSITY Finland

Rector: **prof. Ilkka Niemelä** (scientific field: Computer Science)

Very young (started in 2010) university, which was created by the merger of the Helsinki School of Economics, Helsinki University of Technology and the University of Art and Design Helsinki. Aalto University was established as a priority project in the Finnish university renewal. The idea was to create a new innovative university merging science and technology, design and art, and business and economics.

Long-term purpose Aalto University is to excel and make breakthroughs in and across science, art, technology and business. Aalto University's purpose is to shape a sustainable future.

Internationalization is an integral part of all activities, services and operational policies at Aalto University. It plays a significant role in enabling the university to continue to develop towards a world-class university. In 2023, Aalto University was ranked 47th in THE internationalization criterion in THE ranking. Aalto University has professors from over 40 countries.

The university operates the Open University Aalto University, which offers individual courses (in the field of business, technology, languages and art and design) for everyone regardless of origin or age. Until June 2024, Ukrainian citizens can use the offer of the Aalto Open University for free.

**Aalto University in numbers:** 14 427 FTE students, 707 staff (source: THE).



**"Perspektywy" Education Foundation** (*Fundacja Edukacyjna „Perspektywy”* – in Polish) is an independent, non-profit organization established (1998) to promote and support education. Its Board consists of present and former rectors and outstanding public figures interested in the development of higher education in Poland and globally.

"Perspektywy" publishes annually university ranking of Polish universities [www.ranking.perspektywy.org](http://www.ranking.perspektywy.org), and ranking of the best secondary schools in the country and Ranking of MBA Programs in Poland [www.mba.pl](http://www.mba.pl). These rankings are recognized as the most popular and reliable educational rankings in Poland.

"Perspektywy" with the Conference of Rectors of Academic Schools in Poland (CRASP) runs a joint program "Study in Poland" promoting Polish universities abroad and helping universities attract international students. [www.studyinpoland.pl](http://www.studyinpoland.pl)

"Perspektywy" runs popular projects promoting participation of women in the STEM education and encouraging young women to enroll into studies in new technologies:

Perspektywy Women in Tech Summit [www.womenintechsummit.pl](http://www.womenintechsummit.pl).

IT for SHE [www.itforshe.pl](http://www.itforshe.pl)

"Perspektywy" due to its experience and competence in the area of higher education organizes prestigious international conferences and its members are invited as experts in Poland and abroad.



**THE FOUNDATION FOR THE DEVELOPMENT OF THE EDUCATION SYSTEM** is the only institution in Poland with such extensive experience in managing educational programmes, especially EU programmes. FRSE's reputation has resulted in it being entrusted with the responsibilities of the Polish National Agency for the Erasmus+ Programme and the European Solidarity Corps.

Among the programmes and initiatives managed by the Foundation are:

**Erasmus+ • eTwinning • Eurodesk • Europass • Eurydice • WorldSkills • EPALE**

In addition, FRSE supports cooperation with eastern countries through the Polish-Lithuanian Youth Exchange Fund and the SALTO Eastern Europe and Caucasus Resource Centre. Since 2016, it has also managed the Polish-Ukrainian Youth Exchange Council. FRSE was also the operator of the European Economic Area (EEA) Scholarship and Training Fund.

- Until 2016, FRSE acted as the Contact Point for the SCIEX Scholarship Fund in Poland.
- From 2014 to 2023, FRSE implemented the Operational Programme Knowledge Education Development, which is the successor to the Operational Programme Human Capital.
- In 2018, FRSE became the National Agency of the European Solidarity Corps, a programme dedicated to volunteering, and the operator of the EEA-funded Education programme.
- The Foundation for the Development of the Education System has been nominated by the Ministry of National Education to be the coordinating institution for Poland's preparation for the EuroSkills and Worldskills competitions. With its acceptance into the WorldSkills community in October 2018, just after a promising start at the 2018 European competition, FRSE began organising qualifiers for the next editions.

### EuroSkills Gdańsk 2023

The Foundation for the Development of the Education System was the organiser of the 8th edition of EuroSkills – the European Championships for Young Professionals, which took place in Gdańsk between 5-9 September 2023, for the first time in Poland. This largest professional skills competition on the Old Continent brought together:

- 576 qualified young professionals under the age of 25 • 572 experts • representatives from 32 countries
- the Polish national team won 13 medals.

A total of 335 medals were handed out in 43 skills during the competition, and 88 business partners joined in organising the event. The Polish team won:

- 3 gold medals • 1 silver medal • 3 bronze medals • 6 Medallions for Excellence.

The EuroSkills Gdańsk 2023 competition was the largest international event in which the Foundation for the Development of the Education System was honoured to participate.

### European Universities

The European Universities Initiative, implemented under the Erasmus+ programme, is a revolutionary project that aims to modernise European higher education. Key tenets of the initiative are the potential to increase the competitiveness of European universities, improve the quality of education, promote student and faculty mobility, support innovation and research, and strengthen social and cultural cohesion.

European Universities are an important step towards a more competitive and united European higher education system. They are an innovative response to the challenges of the 21st century and an excellent example of international cooperation. Behind this initiative is the idea of creating a long-term strategy in the field of education in which students, doctoral students and professors can use the resources of participating universities, allowing them to choose where and what they study through a flexible curriculum.

**The project can be implemented under one of two 'pathways':**

**Track 1:** Deepening existing transnational cooperation (continuation of cooperation within existing alliances and the possibility of expanding them to new actors).

**Track 2:** New transnational cooperation (creation of new alliances).

To participate in the European Universities project, an application is required to the EACEA via the Funding & Tenders Opportunities portal. The Foundation for the Development of the Education System organises Conferences of European Universities. Its purpose is to exchange experience, undertake joint initiatives leading to the development of long-term, structural, sustainable and systemic cooperation in education, research and innovation across Europe. Another activity is the organisation of a competition to award the most committed Polish universities working in international university partnerships.

## FRSE Publishing

The Foundation for the Development of the Education System also has its own publishing house, which publishes more than 30 titles a year. In addition, it issues guides, reports, monographs and examples of good practice – all titles are free to download at [czytelnia.frse.org.pl](http://czytelnia.frse.org.pl)

It is possible to subscribe to the Publisher's publications and to send free materials to schools, universities or NGOs interested in our offer. In addition, the Publishing House can help organise an educational conference, training course or workshop and supports such initiatives with publications from its reading room.

## InnHUB Innovation Centres

Erasmus+ InnHUBs are cross-sectoral innovation hubs whose main aim is to promote European education programmes and bring Erasmus+ offers closer together with universities, local authorities, vocational training centres, schools and businesses. Currently, Erasmus+ InnHUB innovation centers are operating in cities such as Kraków, Katowice, Poznań, Gdańsk, Wrocław, Opole and Łódź.

In addition, the InnHUB centres support Action 2 of the Erasmus+ programme, which raises awareness about cooperation opportunities for organisations and institutions such as schools, universities or NGOs and businesses.

The activities of InnHUB establishments are not only limited to content-related support – they are also involved in educational events and, with their activity, increase the level of innovation of projects implemented under the Erasmus+ programme.

[www.frse.org.pl/about-the-foundation](http://www.frse.org.pl/about-the-foundation)

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