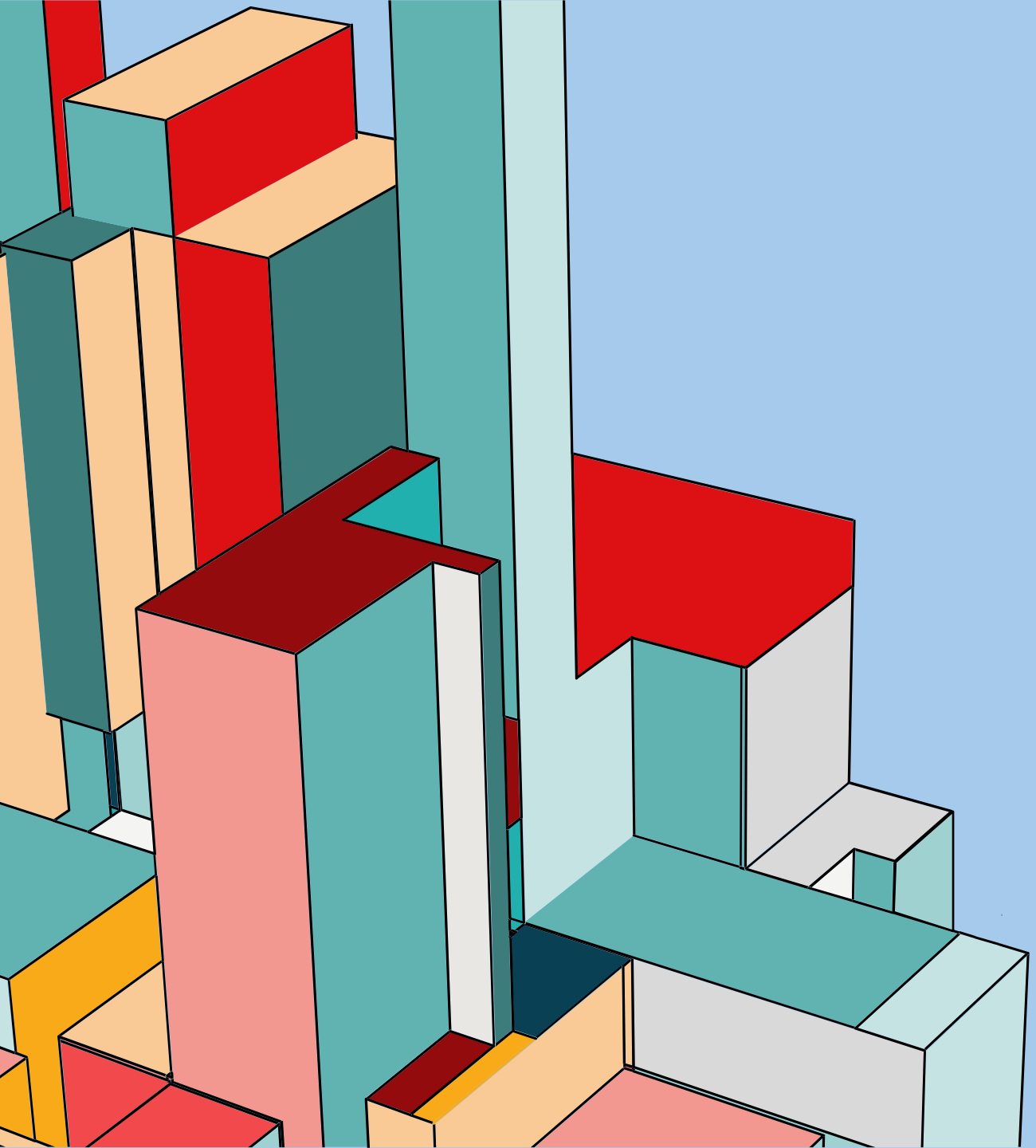


STEM EDUCATION

VUESTRO FUTURO

Talk no. 12, Dec 2025

Being a YP with direction

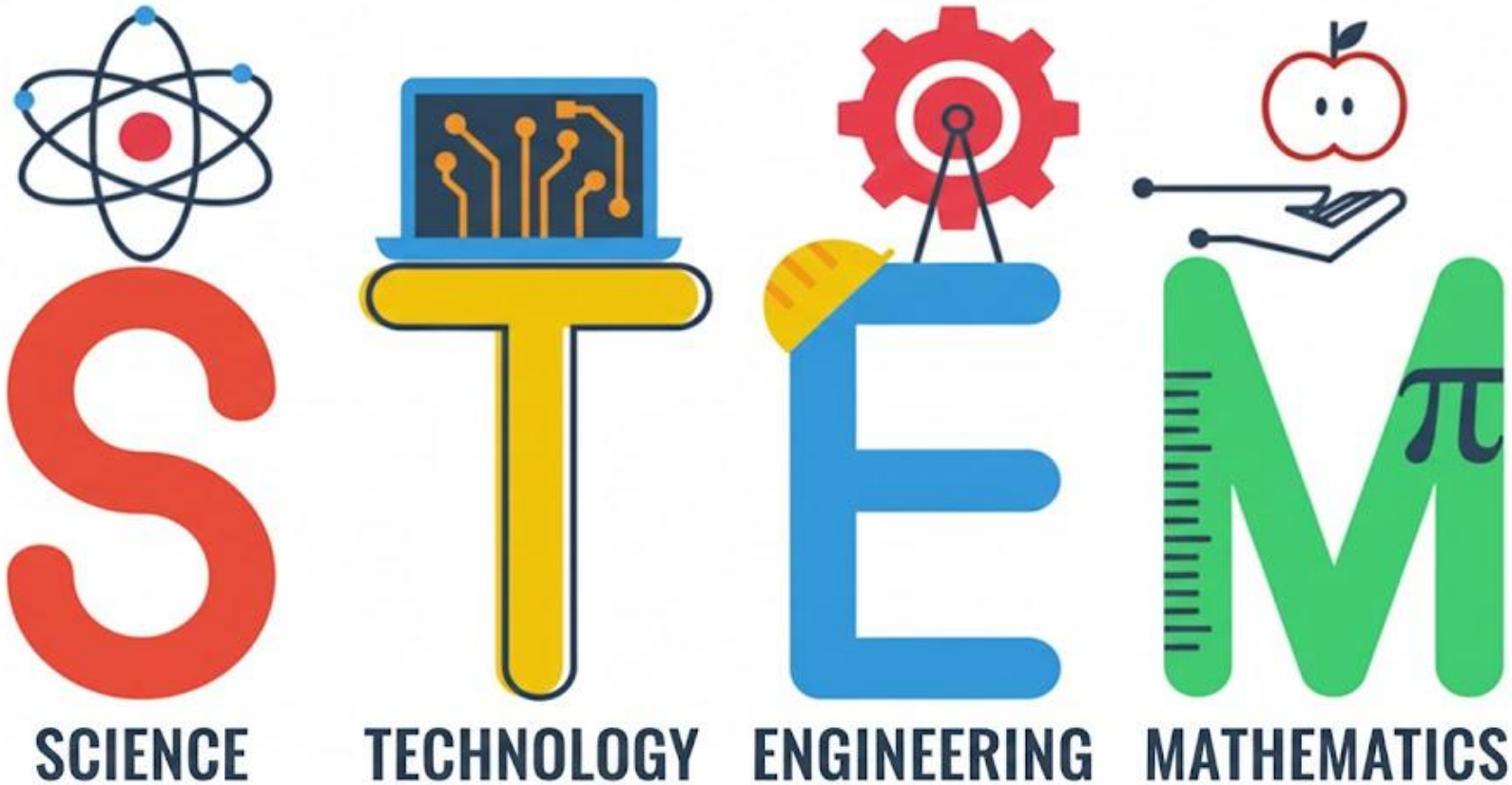
One of the most important things to keep in mind is that:

Your past is not your future;

Your present is the beginning of your future.

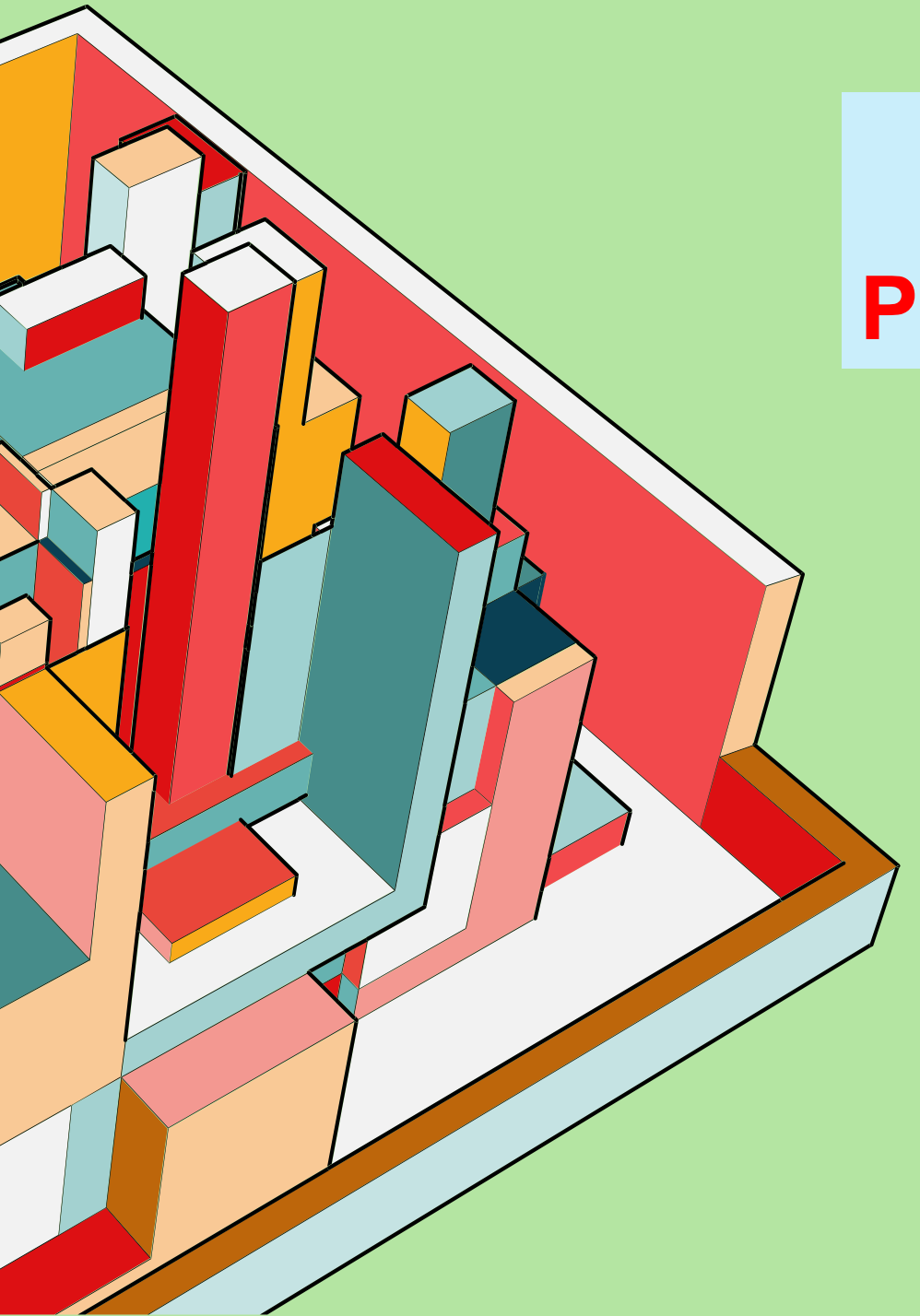
AS A YOUNG PERSON, YOUR MOST VALIABLE ASSET IS TIME

BUT TIME DOES NOT WAIT, IT MARCHES ON INEXORABLY, SO REDEEM THE TIME.


SCIENCE
TECHNOLOGY
ENGINEERING
MATHEMATICS

STEM education is an educational approach that integrates these four disciplines in an interdisciplinary way.

- **STEM education fosters skills such as critical thinking, problem-solving, and innovation.**
- **STEM fields drive economic growth, improve quality of life, and help solve real-world problems in areas like health, energy, and the environment.**



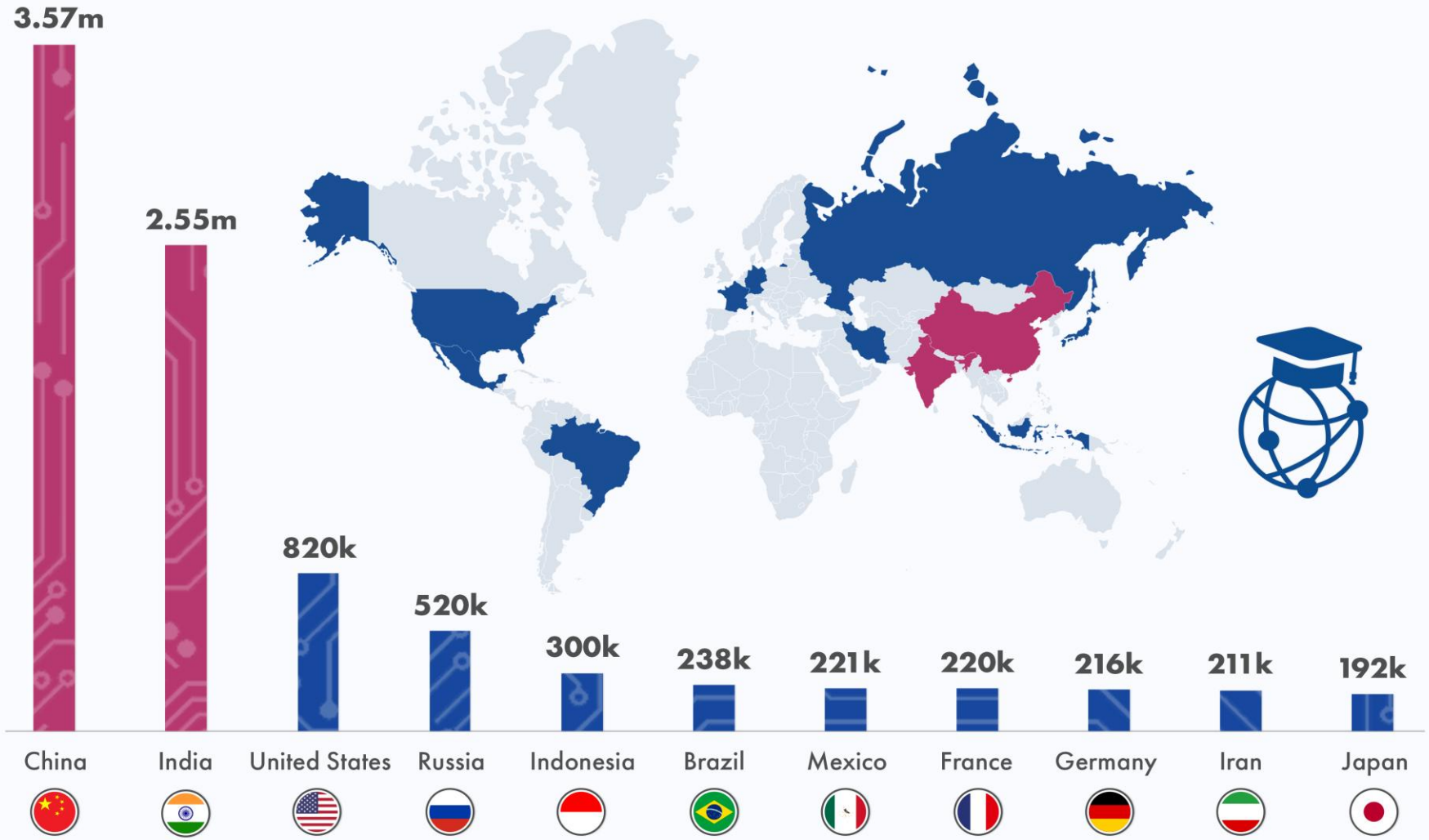
Preparing for the future matters!

- **Focusing on high-demand areas like science, technology, and engineering opens the door to exciting careers and opportunities.**

- **Technology and digital skills are needed everywhere today, so learning them now helps you be ready for your future.**

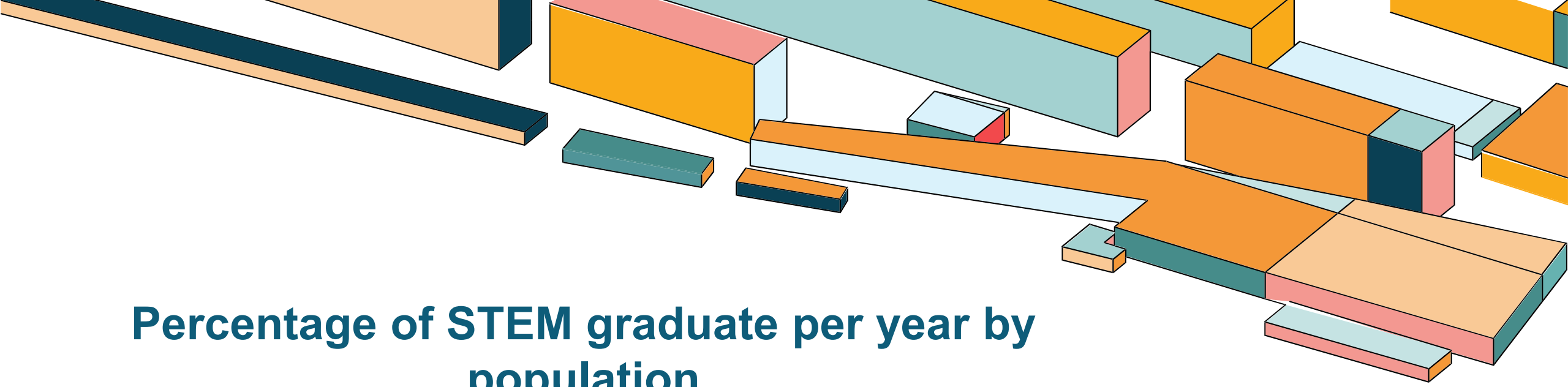
Top Countries by Number of STEM Graduates

Graduates in Science, Technology, Engineering, and Mathematics in 2020



@CSETGeorgetown **Source:** OECD and the statistical yearbooks of Russia, Indonesia, Iran, India, and China

CSET CENTER *for* SECURITY *and* EMERGING TECHNOLOGY



Percentage of STEM graduate per year by population

	China	India	USA	Russia	Indo-nesia	Brazil	Mexico	France	Ger-many	Irán	Japan
Number of Graduates (M)	3.57	2.55	0.82	0.52	0.30	0.24	0.22	0.22	0.22	0.21	0.19
Population (M)	1,416	1,464	347	144	286	213	132	67	84	92	123
% of population	0.25%	0.17%	0.24%	0.36%	0.10%	0.11%	0.17%	0.33%	0.26%	0.23%	0.15%

Advantages of studying a STEM career

- High job demand
- Higher starting salaries
- Financial freedom to travel
- Remote work
- You can find work in different countries, not just your own

Top 5 Salaries In Spain, Portugal, Poland And Ukraine In Computer Science, A Stem Field

	SPAIN	av/month
1	Data Scientist	€ 9,335
2	Software Architect	€ 6,896
3	Cloud Solution Architect	€ 6,042
4	AI Engineer	€ 5,417

	POLAND	av/month
1	Cloud Architect	€ 7,400
2	Soft Developer	€ 4,800
3	Cuyber Security Specialist	€ 4,750
4	Senior Software Engineer	€ 4,700

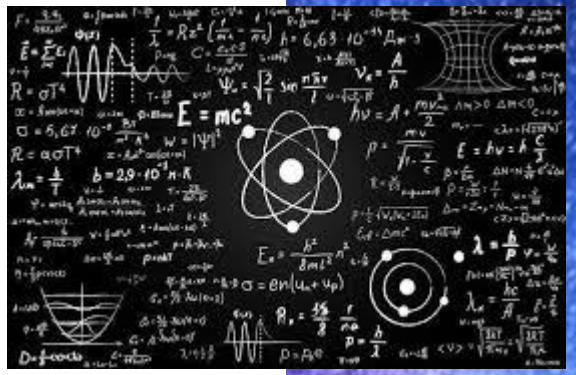
	PORTUGAL	av/month
1	Cloud Architect	€ 9,417
2	AI Reserch Scientist	€ 7,083
3	Data Scientist	€ 4,584
4	DevOps Engineer	€ 3,736

	UKRAINE	av/month
1	Machine Learning Engineer	€ 6,054
2	Cloud Architect	€ 4,986
3	AI Engineer	€ 4,274
4	DevOps Engineer	€ 4,060

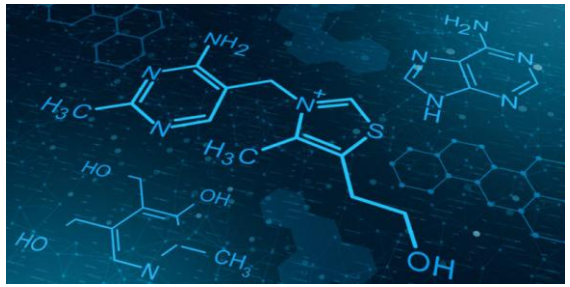
Across the EU, STEM workers with advanced degrees earn roughly 47% more than non-STEM workers with similar education levels.

Women in STEM generally earn significantly more than women in non-STEM roles, with one report showing female STEM workers earning over 50% more than the median for women in other fields

Careers in Physical Sciences



- Astronomy, Astrophysics, Cosmology
- Planetary Sciences
- Data Science
- Environmental Sciences
- Earth Sciences
- Marine Sciences
- Statistics
- Physics
- Geology
- Mathematics
- Nanoscience and Nanotechnology
- Chemistry



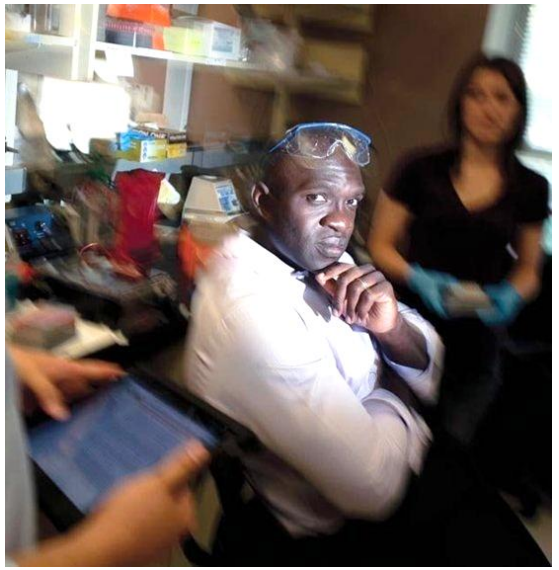
unit		1
deci	tenth	0.1
centi	hundredth	0.01
mili	thousands	0.001
micro	millionth	0.000 001
nano	billionth	0.000 000 001

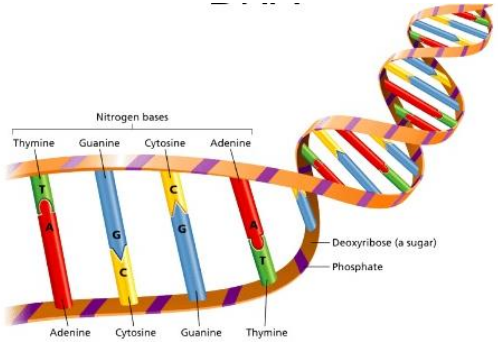
Medicine is considered a field of science, often included in broad definitions of STEM, specifically within the life sciences.

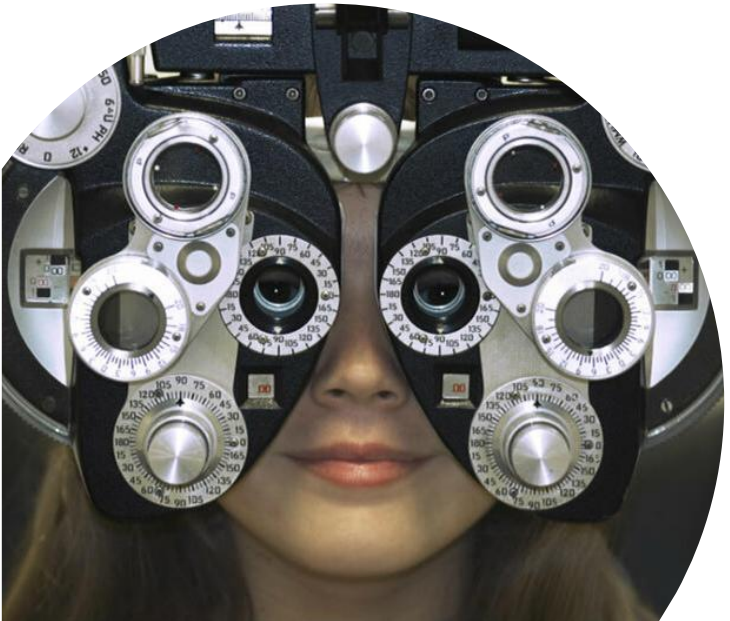
Careers in Life Sciences

The major clusters are:

- Molecular & cellular biology
- Microbiology
- Organismal biology
- Physiology & anatomy
- Ecology
- Applied biological sciences

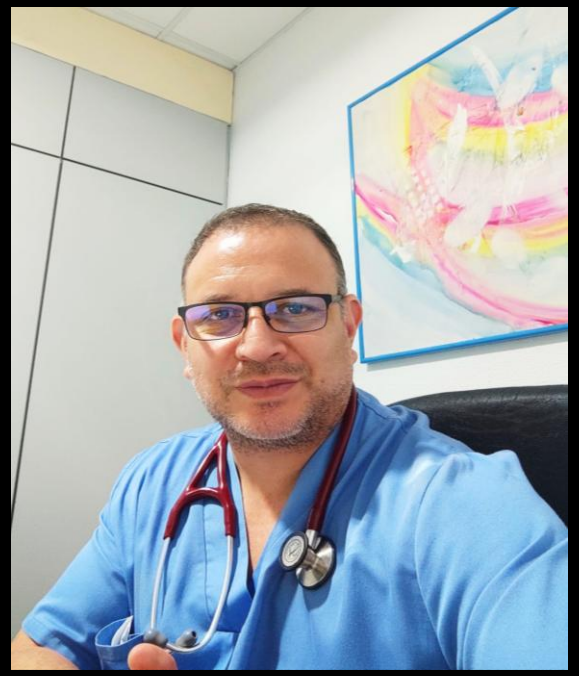






Careers in Medicine, Dentistry and Nursing

- Nuclear Medicine
- Parasitology
- Nephrology
- Pulmonology
- Neurology
- Obstetrics
- Gynecology
- Ophthalmology
- Oncology
- Otolaryngology
- Pediatrics
- Psychology
- Psychiatry
- Nursing
- Radiology
- Allergology
- Anesthesiology
- Cardiology
- Surgery
- Dermatology
- Endocrinology
- Geriatrics
- Hematology
- Immunology
- Family Medicine
- Physical Medicine
- Internal Medicine
- Dentist
- Orthodontist
- Periodontist
- Oral Surgeon
- Endodontist
- Prosthodontist



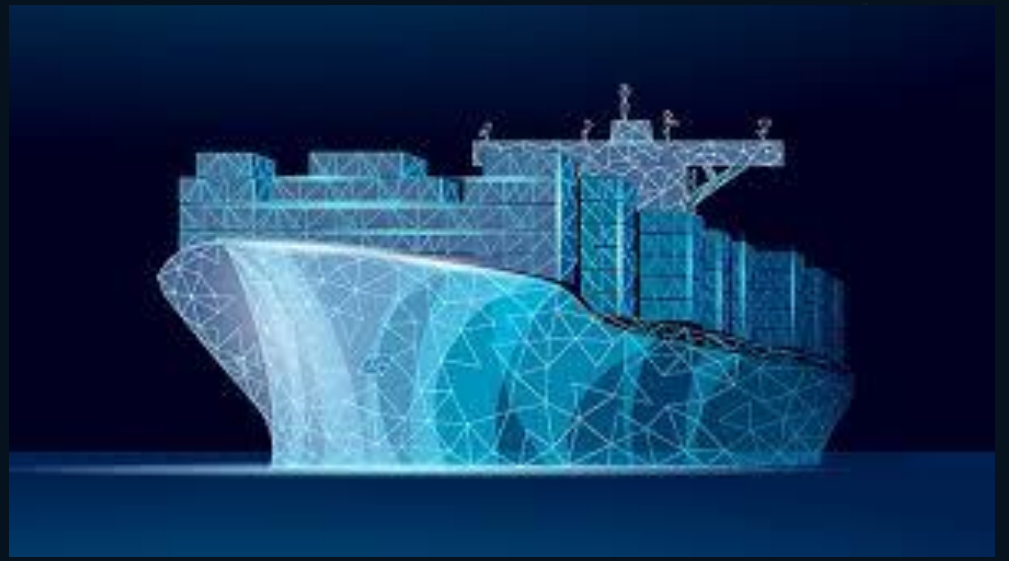
Our Saints in:
Medicine, Dentistry and Nursing

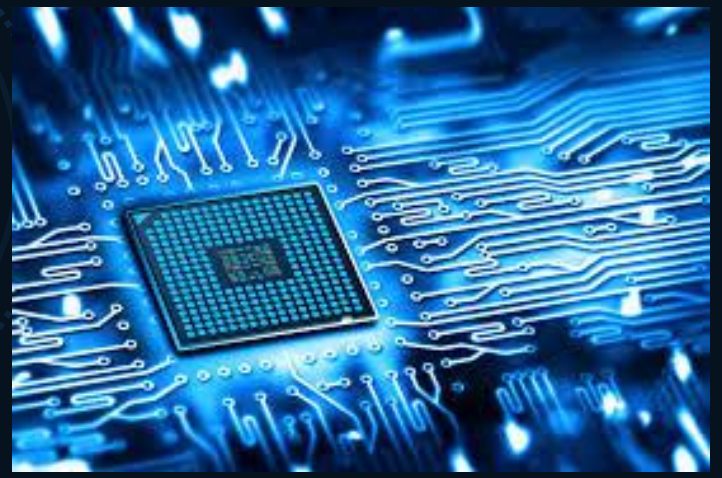
Careers in Computer science

- Major areas:
- Theoretical computer science
- Systems and architecture
- Software engineering
- AI and machine learning
- Cybersecurity
- Data and information sciences
- HCI and graphics
- Specialized emerging fields (quatum computing)

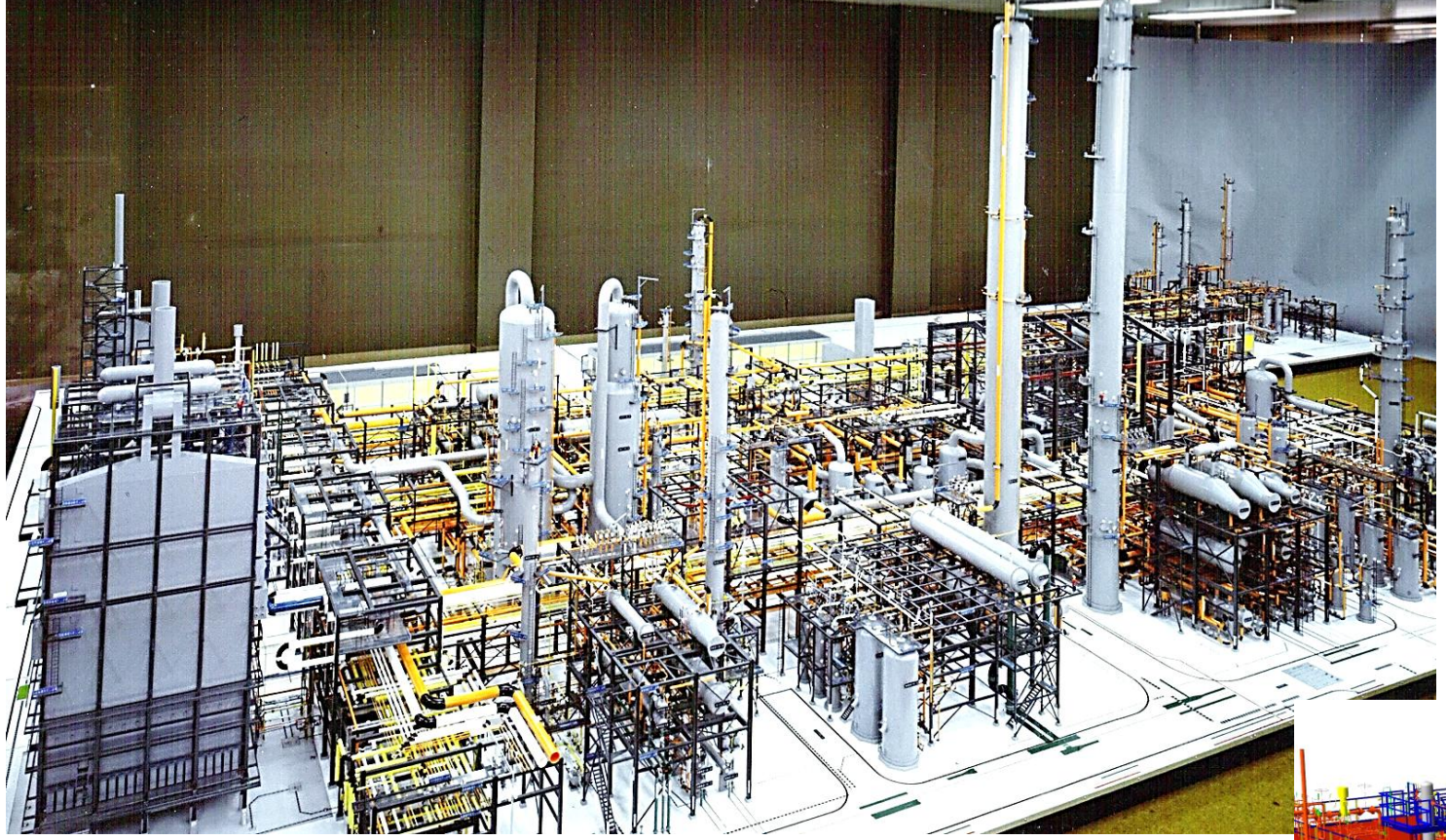
Careers in Engineering and Architecture

- Chemical Engineering
- Mechanical Engineering
- Electrical Engineering
- Civil Engineering
- Marine Engineering
- Industrial Engineering
- Petroleum Engineering
- Agricultural and Food Engineering
- Architecture

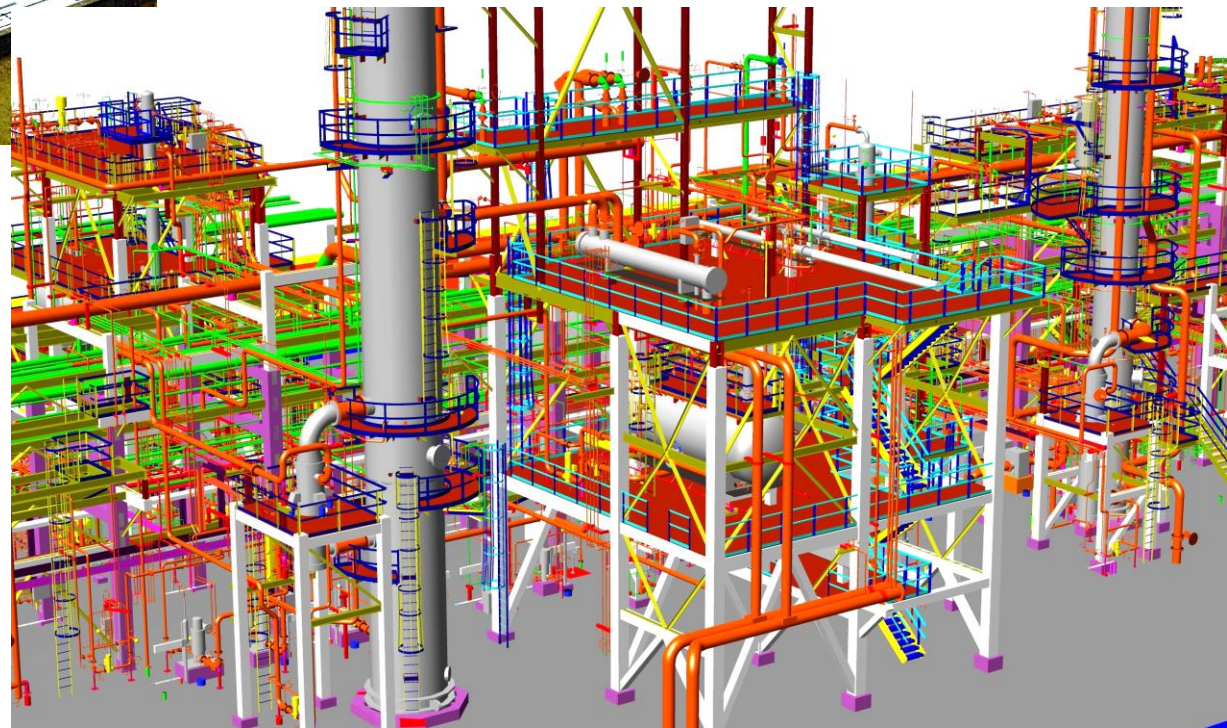




- Electronic Engineering
- Aeronautical Engineering
- Aerospace Engineering
- Environmental Engineering
- Biomedical Engineering



1990’s – physical model



Early 200s’s – computer modeling

Discover Which STEM Career Match you

SCIENCE - CURIOSITY

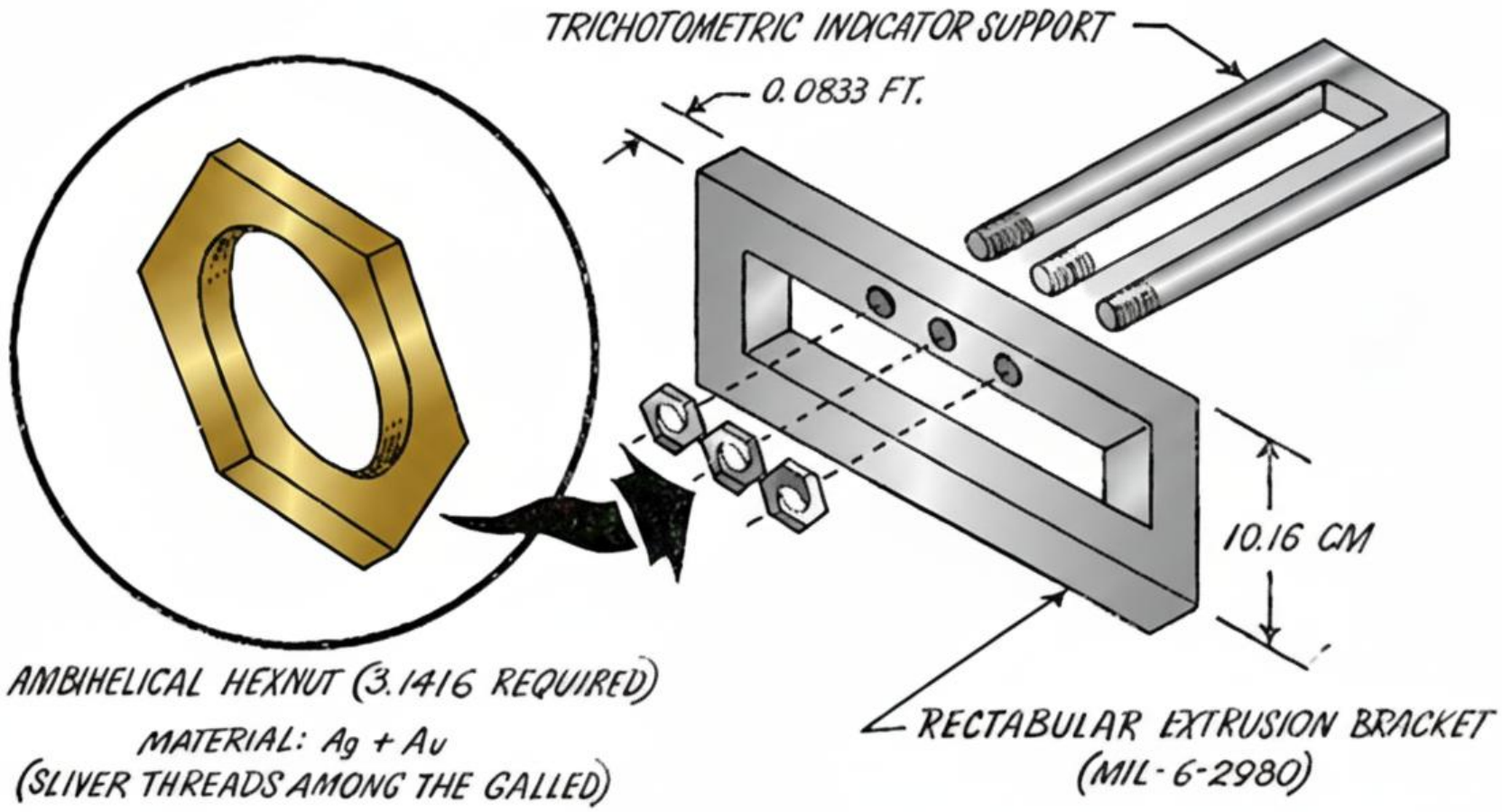
TECHNOLOGY - INNOVATION

ENGINEERING - CREATIVITY

MATHEMATICS – PROBLEM SOLVING

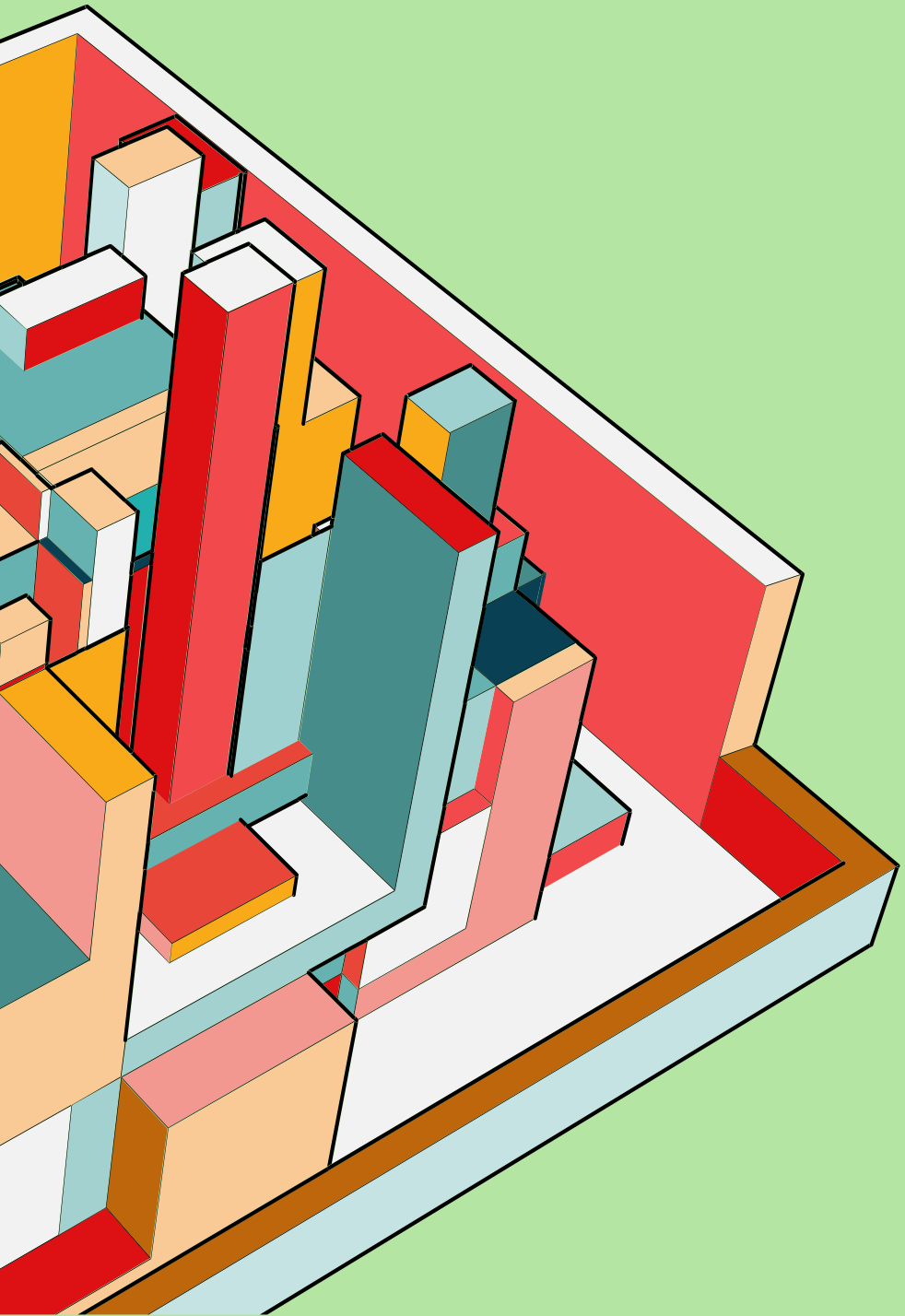
MEDICINE - CARING

Why Rectabular Excrusions Won't Transmogrify



Saints in Europe Educated in STEM
Some are Serving the Lord Full Time &
Others are Contributing Time and Resources

- In neuroscience
- In materials science
- In molecular biology
- In statistics
- In medicine
- In nursing
- In theoretical chemistry
- In computer science
- In logistics
- In Aerospace Engineering
- In mechanical engineering
- In nutrition



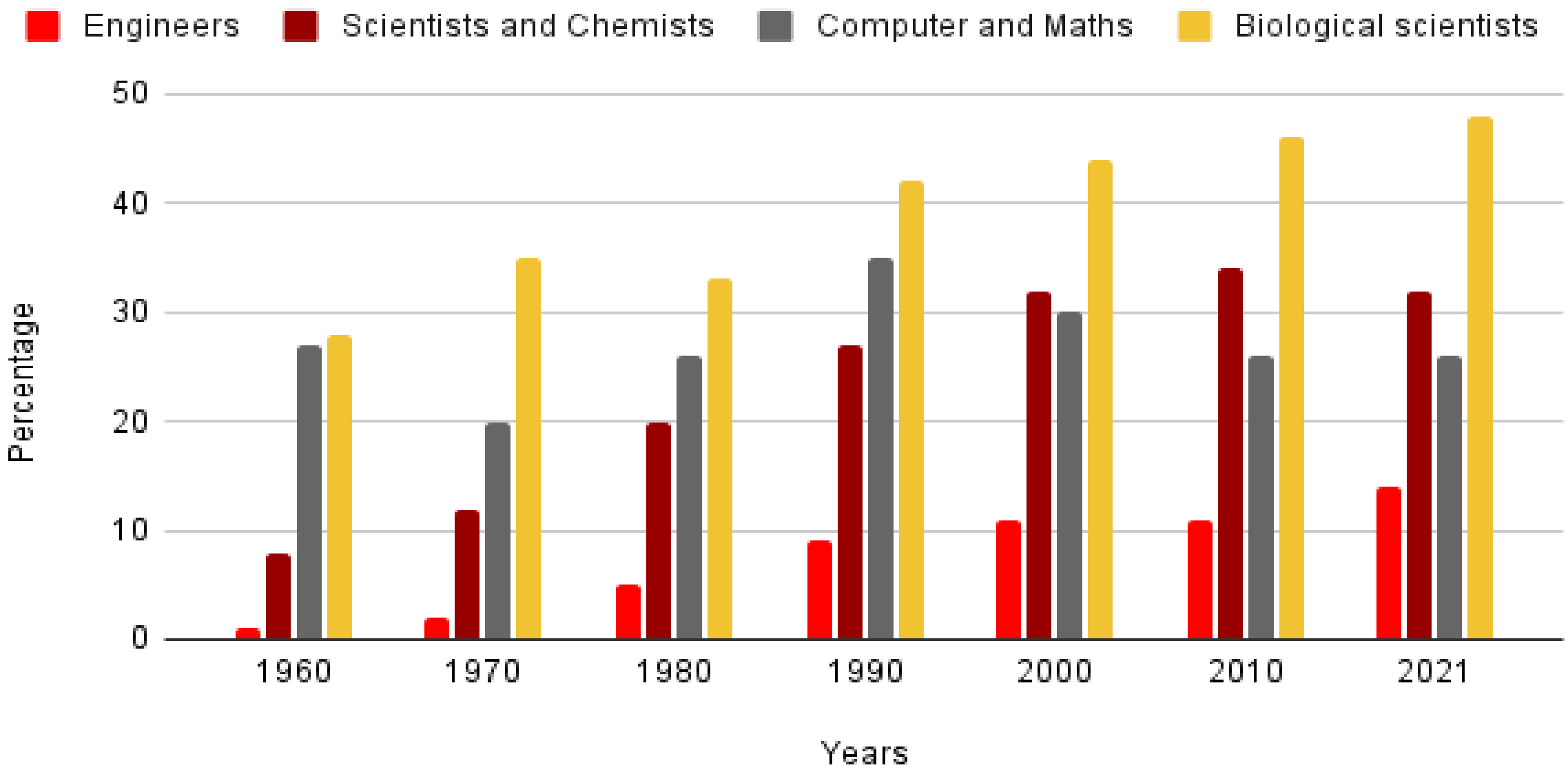
- Europe faces big STEM challenges. There is a shortage of skilled workers and weaker basic skills among students, which affects Europe's competitiveness.
- The EU has launched a STEM Education Strategy to improve STEM learning, attract talent, and encourage more girls to join STEM.
- The gender gap in STEM is still a challenge across the EU.

WOMEN IN STEM IN THE EU

Women in STEM in Europe show strong representation at early education levels, even outnumbering men in some bachelor's degrees

But face significant "leaky pipeline" drop-off in senior roles, especially in ICT and Engineering

Women in STEM fields, 1960 to 2021



In the 60s women accounted for just 1% of the engineering workforce. Is it the same now?

Although the proportion of female graduates with core STEM degrees is continuously rising, there are only approximately:

35%

of female graduates with core STEM

41%

of female scientists and engineers

What holds women back from pursuing careers in STEM fields?

- Lack of female role models in the same field.
- Gender bias and derogatory behaviour in the workplace.
- Unequal growth opportunities with male coworkers.
- Lower wage for the same position.

Studies show that companies with diverse leadership teams, including women, are more innovative and achieve higher financial returns.

Countries with more engineers grow faster, so increasing the number of STEM students—especially women—is key for the future.

IN CONCLUSION

Remember:

It's your future, and what future you have, it has a direct impact on **the future of the Lord's recovery.**

"For young people, the first [thing of importance] is God, and the second … it is education… Be a trained person and use your education for the building work of the Lord."

—Bro. W. Lee—

And lastly…

Surround yourself with companions and saints with experience to encourage you to fulfill your destiny by being **“a vessel unto honor, sanctified, useful to the master, prepared unto every good work”** — 2 Tim. 2:21b

And finally... English!

- All STEM careers need English:
  - Programming commands are in English.
  - Most science and medical articles are in English.
- If you don't learn English, you will not be able to compete.
- About 30% of the hymns sung in young people's meetings in Madrid are in English.
- The Full-time Training in London is in English

SO, WHATEVER YOU STUDY...

STUDY ENGLISH!