



Annual report

2022

Engineer the future
for everyone



24%

of young people who have seen our campaign have become more interested in choosing a degree in engineering, IT and science.

Together we make a difference

We reach 60,000 children and young people every year.

Since 2014, young people's interest in an education in engineering, IT and science has increased by

87%

The proportion of young people who choose and complete an education in technology and science does not meet the needs of companies. As we move towards 2030, annual youth cohorts are set to decrease by 10%, and this will only intensify competition over the young.

It is crucial that more children and young people see the light in technology and science. We must start early, introducing children and young people to the opportunities in science and technology at a young age. We must arouse their curiosity and interest, making science subjects feel relevant to their own lives. Engineer the Future has been doing this since 2014 – and we know that our efforts work.

Gearing up your membership contributions with funding from foundations, 2022 has seen us able to invest DKK 18 million in advancing science tuition and increasing motivation for technology and science in both primary and secondary school education and via campaigns in relation to study selection.

We are well on our way

Through initiatives such as the Science Cup, Book an Expert and Engineering Day, we reach around 60,000 children and young people throughout Denmark every year.

Since 2017, we have been working to establish engineering as a method in primary school. An external evaluation shows that engineering makes students better at science subjects. It strengthens their creativity and innovation skills, and we know that this contributes to their choosing an education in engineering, IT and science later in life. Since 2014,

young people's interest in education in engineering, IT and science has increased by 87%

“For everyone” – our new study selection campaign – gives 24% of the young people who see it a greater desire to choose a degree in engineering, IT and science. The campaign shows young people that “we also need your way of thinking” in the development of the technological solutions that will form the framework around our lives and opportunities.

Your contribution is invaluable

On average, every day a class somewhere in Denmark has a visit by a role model through Book an Expert or the Science Cup. In other words, your contribution directly helps open the eyes of children and young people to technology and science, so that they can see that there is room for them too.

In fact, more than 50% of high school students who have had a visit from an expert say they have become more interested in pursuing a career in engineering, IT or science could be something for them. More young people end up applying for such programmes; in 2021, 18% more young people were admitted to engineering, IT and science programmes than in 2014.

We are closer to the goal

We are both happy and proud of the great support we receive from the alliance's partners, external collaborators, teachers and foundations. So many of us working together every day to get closer to our goal means reach and real impact. Together we make a significant difference.

Thank you for working with us.

Ghita Wolf Andreasen,
Director, Engineer the Future

Engineer the Future is a powerful alliance of ambitious companies, universities, educational programmes, and organisations. Together, we provide all children and young people opportunities to be part of a sustainable world. For their own sake, for the future and for society.

A powerful alliance



Welcome to our new partners in 2022.



Our achievements 2022

| Activity | Reach | Effect |
|---|---|---|
| Engineering | <p>Approx. 60,000 students have worked with engineering in 2022.</p> <p>In 2022, we passed the 1000 mark for number of teachers trained in engineering.</p> | <p>71% of students learn new things about the subject.</p> <p>61% of students become more motivated to participate in the subject.</p> |
| Students meet role models – Book an expert and the Science Cup | <p>On average, there is a class that meets a role model through Book an Expert every day of the year.</p> | <p>More than 50% of young people in high school who meet a role model from Book an Expert become more interested in finding out whether a STEM education could be for them.</p> |
| Study selection campaigns | <p>A minimum of 55% of the youth target group (aged 15-24) have seen the campaign, of which more than half are women.</p> | <p>24% of the young people who have seen the campaign say that it has made them more interested in studying engineering, IT or science.</p> |

| Since 2014 |
|--|
| <p>Enrolment in STEM programs has increased by 18% from 2014 - 2021.</p> <p>In 2021, around 2,000 more young people completed a STEM education than in 2014. An increase of 52%.</p> |

We are there

- from starting school to choice of study

Job shadowing

A guide that makes work placements easy.

The Science Cup

An inventor competition for high school students.

Book an expert

People working in engineering, IT and sciences share their knowledge with the next generation.

Engineering in School, Engineering in High School & Engineering Day

Students solve technological problems in a concrete, authentic context.

Study selection campaigns & Career learning

Inspiring young people to choose an engineering, IT or science education.

1st to 3rd grade

4th to 6th grade

7th to 10th grade

High school

Young people
/adults

Engineering in school

Engineering is a teaching method where students have to solve a concrete problem through various sub-processes that are inspired by the way engineers work.

With engineering:

- Students work with a relevant, authentic problem
- Students work on the basis of inquiry
- Students work practically to construct a prototype
- Students develop their science competences

The external mid-term evaluation of Engineering in School from 2022 shows that:

71% of students learn new things about the subject.

61% of students become more motivated to participate in the subject.

Approx. 60,000 students have worked with engineering in 2022.

In 2022, we passed the 1000 mark for number of teachers trained in engineering.

9 out of 10 teachers believe that engineering stimulates students' creativity and innovation skills.



Book an expert

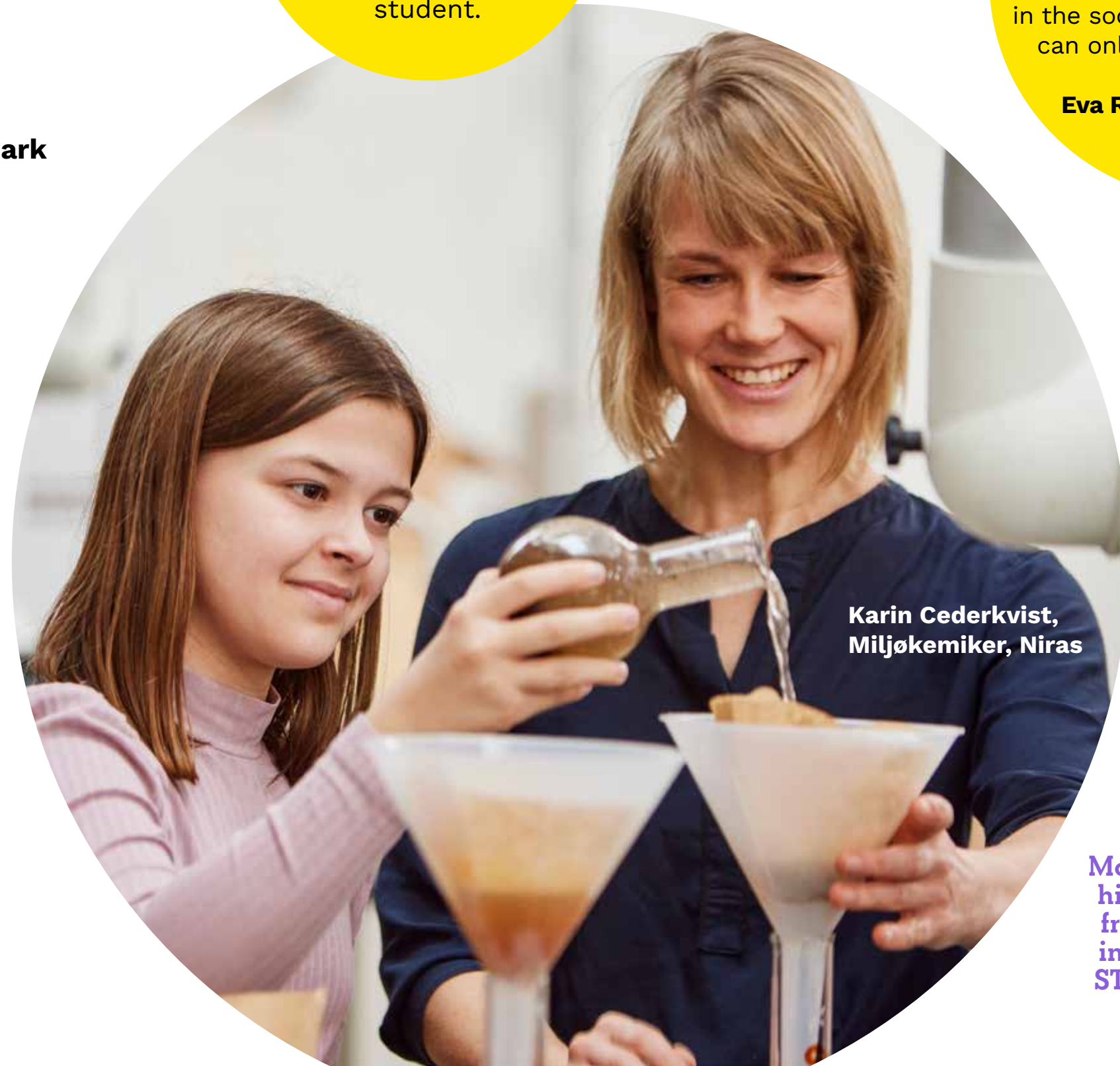
Role models ignite the science spark in children and young people.

More than **75%** of students in 4th to 7th grade experienced a greater understanding of what science can be used for.

Become part of Book an expert

With Book an Expert, you get the opportunity to communicate your professional passion to the next generation. Time commitment is flexible.

As an expert, you attend an online communication course before you meet the students. If you want to know more about Book an Expert and maybe sign up for the programme, click here: [Become an expert](#)



Karin Cederkvist,
Miljøkemiker, Niras

“The visit from the expert gave me a good idea of what technology and science are and can be used for.”

2nd-year high school student.



“We have an obligation to be involved, because Denmark has a great need for development and training in engineering, IT and science. There are challenges in the society of the future that can only be solved by clever minds.”

Eva Rindom, CEO, Atkins Denmark



“We want the students to discover that it is a cool industry, since many of them are otherwise not exposed to the technical world.”

Urs Nielsen, Expert and conveyor of enthusiasm, Siemens



“It is important to use your own stories when you’re on a visit, because my own reflections following a visit are something I use in my working life. I bring both myself and my expertise into play, and I use various communication tools to create awareness and engagement.”

Torben Kenneth Hansen, Senior Lead Specialist, Ørsted A/S

More than **50%** of young people in high school who meet a role model from Book an Expert become more interested in finding out whether a STEM education could be for them.

Why we are part of the alliance



COWI

Thea Mathilde Larsen, Acoustic Consultant, Environment and People, COWI in Denmark

“It’s incredibly affirming to be part of Book an Expert. One of the coolest things is getting the students to see all the exciting and interesting things in my work. Breaking it down into something concrete that the students relate to and creating a connection with the world we all live in.

As an expert, I’ve become more aware about communicating my profession to other professional groups who don’t know very much about sound – and this helps me build connections between the various disciplines, which is also part of my daily work. So I’m getting better at cross-disciplinary collaboration.

I signed up for Book an Expert because it was an opportunity to get out and try something new – the chance to help create change in students.”

Henrik Winther, Executive Vice President, COWI in Denmark

“We are happy to be able to help put engineering on the agenda in Danish schools. Especially because we’re facing a time when we’ll be short of manpower if we don’t do something active to get more hands on deck.

That’s why it’s important that we as a company take responsibility and do our part to inspire more children and young people to take a STEM education.

We have so many colleagues who are passionate about their profession, and with ‘Book an Expert’, we get the opportunity to pass that passion on to the next generations.”



The Science Cup – Innovation in Practice

The Science Cup is a nationwide inventor competition for 2nd-year high school students. The purpose of the Science Cup is to create greater motivation for science subjects by showing students that engineering, IT and science skills can be used in real-life problem solving.

Taking part in the Science Cup means students bringing their science skills to the table and working with innovation and product development to solve a real-life problem that consumers or companies need help

with. The Science Cup culminates in a series of events where students present their inventions and receive feedback from a panel of judges.

Be part of the Science Cup

There are several options for participating in the Science Cup when you are an alliance partner:

Host a company visit: Visits last about half a day. Students meet a STEM employee who can tell them about how the company works

with innovation and product development.

Become a judge: As a member of the judging panel at a Science Cup event, you help give students a really positive science experience, showing how their school project has relevance and interest in the outside world.

You can find more information about the Science Cup and how you can be part of it here: [The Science Cup](#)

We participated in the Science Cup 2022





24%

of young people who see the campaign become more interested in choosing a degree in engineering, IT or science.

"I really liked 'For everyone'. It was actually what made me choose my education. The idea that you can help to do something about it. It's not just down to men to develop things."
Amal, studying biotechnology at Absalon

Engineer the future for everyone

34%

of young people who have seen the campaign answer that "the campaign has made me want to know more about education in engineering, IT or science"

Diversity and community

Our study selection campaign encourages young people to become part of the community that organises the world for everyone.

The message is: "We also need your way of thinking so we can develop good solutions for everyone"

On young people's terms

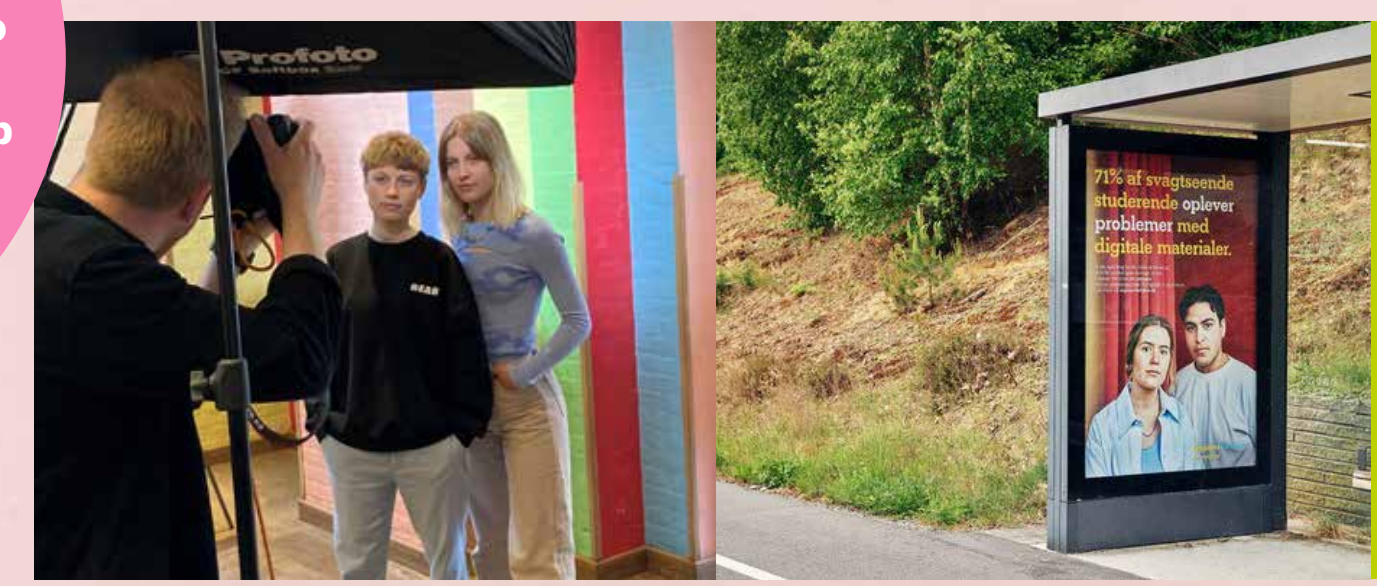
The basis for the campaign was a large analytical study from Epinion carried out for Engineer the Future, combined with qualitative insights from Fremtidsfabrik.

We maintained close collaboration with young people from our youth panel throughout the campaign's development and have carried out thorough tests with young people across the country.

Dialogue with experts

The campaign is based on real challenges, which have been collected and fact-checked by experts and organisations such as the Cancer Society, Sex and Society and the Consumer Council Think (Forbrugerrådet Tænk).

The specific cases have been tested and selected in collaboration with young people.



Authentic material

All the young people on the campaign's posters are students on engineering, IT or science programmes.

“It is absolutely crucial for the future development of green technology that we build bridges and create strong collaboration between educational programmes and companies.”



Lars D. Christoffersen, Dean of bachelor programmes and study environment, DTU

Laura Klitgaard
Chairman, Engineer the Future and IDA



Stine Gry Roland, Project Vice President, Strategy, Public Affairs, & Communications, Novo Nordisk



“It is absolutely central to Danish production that children and young people are interested in and improve their skills in technology and science. It is a prerequisite for ensuring a robust food-chain of talent that can develop the innovative and sustainable production technologies of the future.”

Mikkel Harder
Deputy Director, DI



Engineer the Future Board of Directors

In 2023, four new members have been appointed to Engineer the Future’s board: **Stine Gry Roland, Hans Ubbe Ebbesen, Maria Vinther Fenger and Lars D. Christoffersen**. The whole board contributes considerable expertise to our crucial shared agenda – that all children and young people can see themselves in technology and science, and that more young people apply for education in engineering, IT and science.

Per Hessel-lund Lauritsen
Head of Research, Siemens Gamesa



Henrik Garver
Director, FRI (Danish Association of Consulting Engineers)



“Teaching in STEM subjects in both compulsory education and high schools must be interesting and tangible in order to motivate students. As a board member of Engineer the Future, I am particularly concerned that the students see how the knowledge they acquire from STEM tuition can be used in reality.”



Maria Vinther Fenger, Director People and Culture, Liftra

Jesper Toubøl
Vice President Operations, LEGO



Hans Ubbe Ebbesen Head of Global Employer Branding Maersk



“I am looking forward to contributing to Engineer the Future’s important work and the collaboration with the rest of the board. Inspiring and developing the diversity of our children and young people is a matter close to my heart.”

In 2023 and the years ahead

... we want to create a place for all children and young people in technology and science. For the benefit of the individual and society as a whole.

That's why we particularly emphasise

That our efforts, both new and ongoing, help ensure that teaching in primary and secondary school is for everyone regardless of background.

That children and young people must be involved in the development of our efforts, so they experience greater co-determination and motivation for technology and science.

That our study selection campaign inspires more women in particular to choose an engineering, IT or science education.

We can do all this because we are a powerful alliance of technologically strong companies, educational programmes and organisations that all pull together.

We look forward to a continuing collaboration.



Engineer the future for everyone

Thank you to our contributors

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