
ENERGY
VAASA
#EnergyVaasa
#WeAreEnergyVaasa

COAST OF POSSIBILITIES

SMART GRID

MARINE SOLUTIONS

SUSTAINABLE ENERGY PRODUCTION

ENERGY EFFICIENCY

DIGITAL SOLUTIONS

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Long traditions

The Wickström brothers start their engine factory in Vaasa

1906

War in Finland forced Wärtsilä and Strömberg to move manufacturing to the Western part of Finland. War reparations 1944-1952 increased the efficiency of production

1938–1952

Strömberg generators and transformers to Vaasa

Wärtsilä starts to manufacture diesel engines in Vaasa

1954

Oy Strömberg Ab

ABB

Vacon starts to manufacture frequency converters

1993

Increased environmental awareness & legislation after 2000 has changed the energy sector

Lot of business for EnergyVaasa companies

2000

5,000 jobs

1880

Beginning of energy technology

1940

Strengths:
Know-how and efficient production

1988

Strömberg becomes a part of ABB

Spin-offs like VEO, Vacon and VAMP

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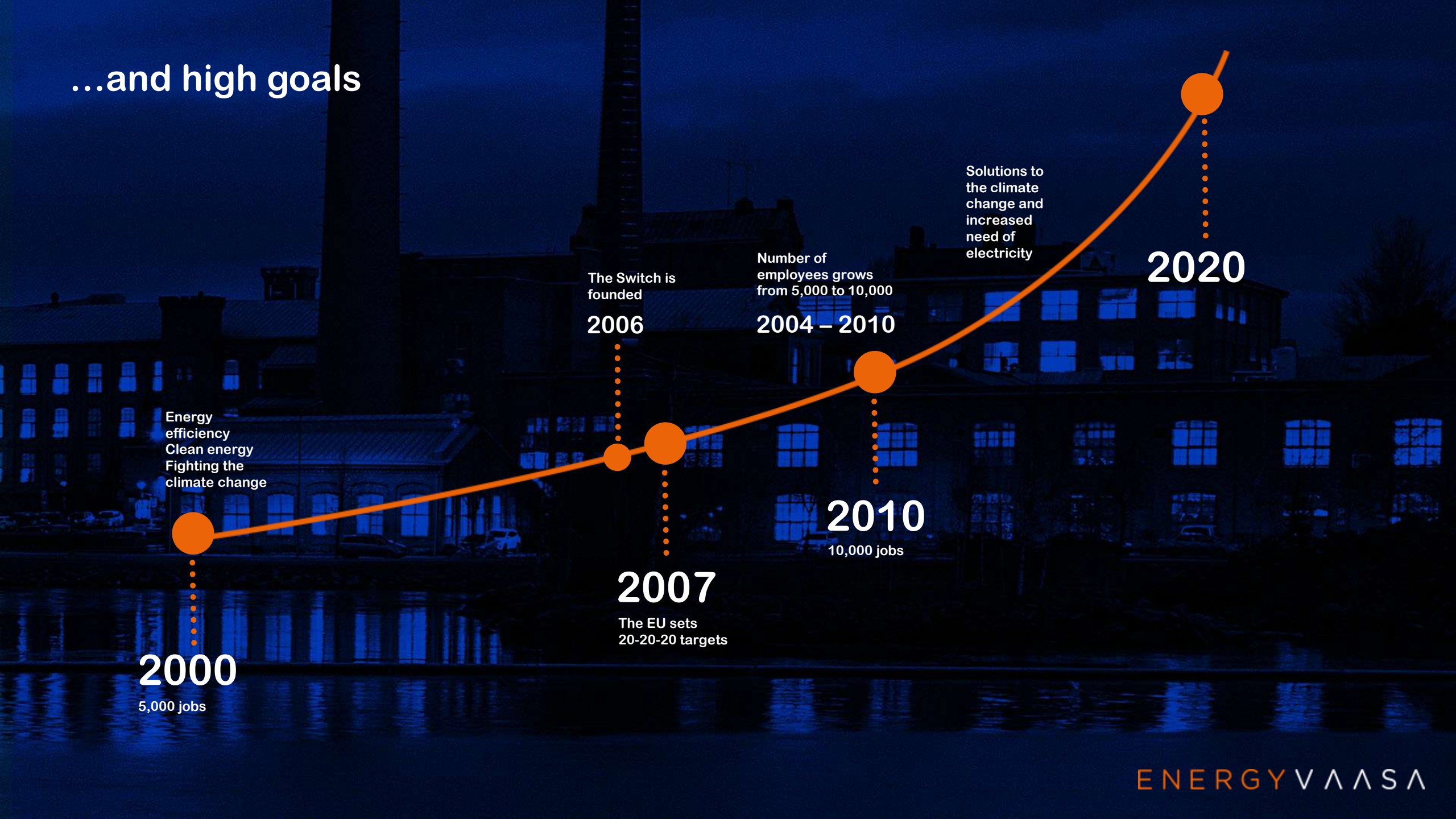
…and high goals



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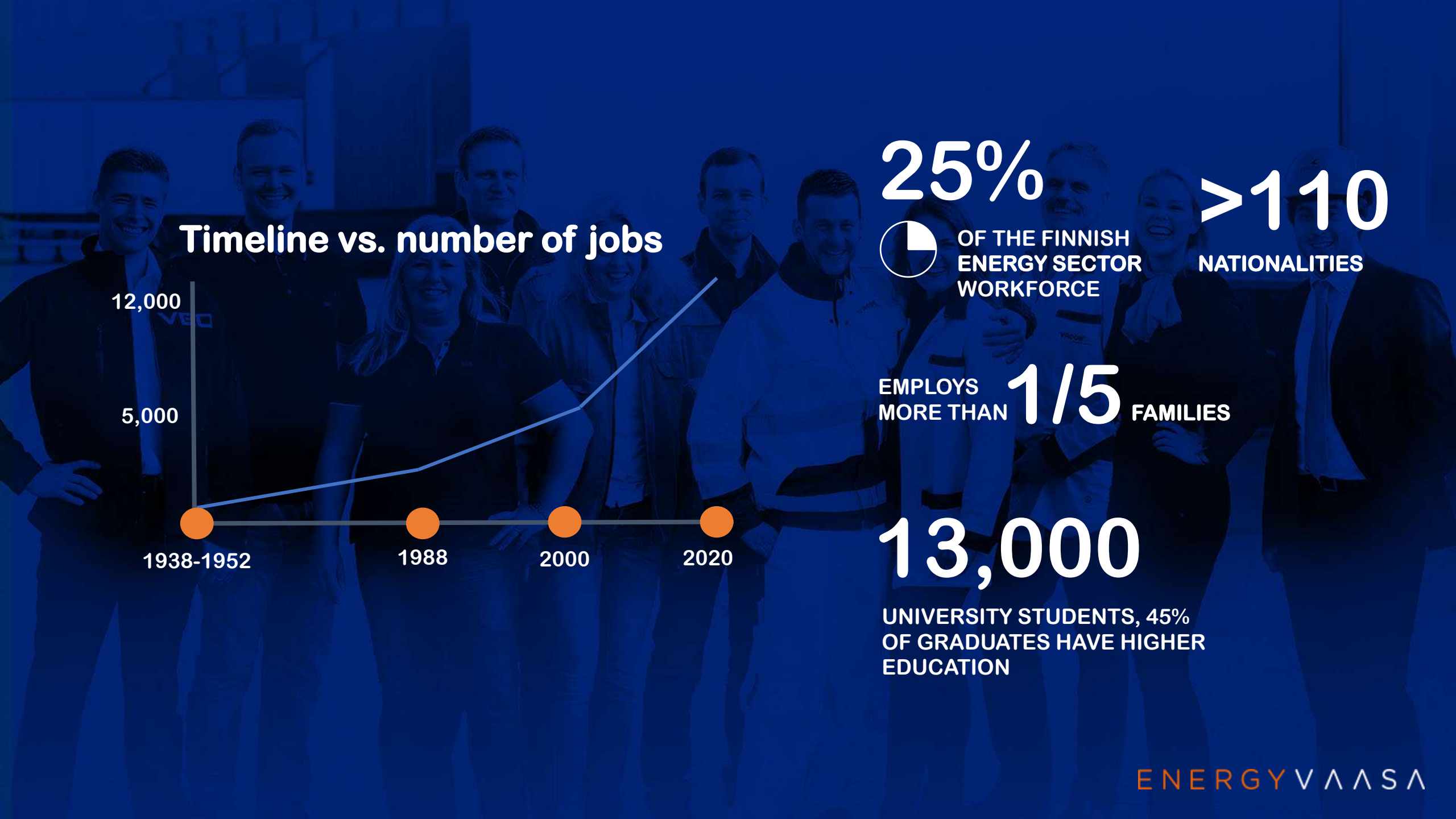

25%

OF THE FINNISH ENERGY SECTOR WORKFORCE

>110

NATIONALITIES

EMPLOYS MORE THAN **1/5** FAMILIES

13,000

UNIVERSITY STUDENTS, 45% OF GRADUATES HAVE HIGHER EDUCATION

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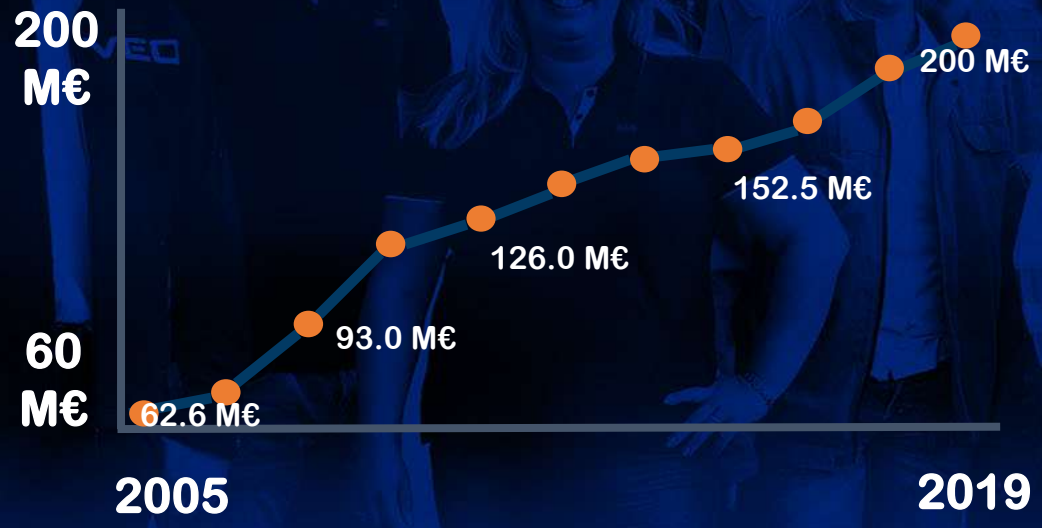
R&D Investments



Most green patents in the Nordics

>60%

More than 90% of the Finnish R&D in electrical and automation solutions

80%

of R&D is privately funded

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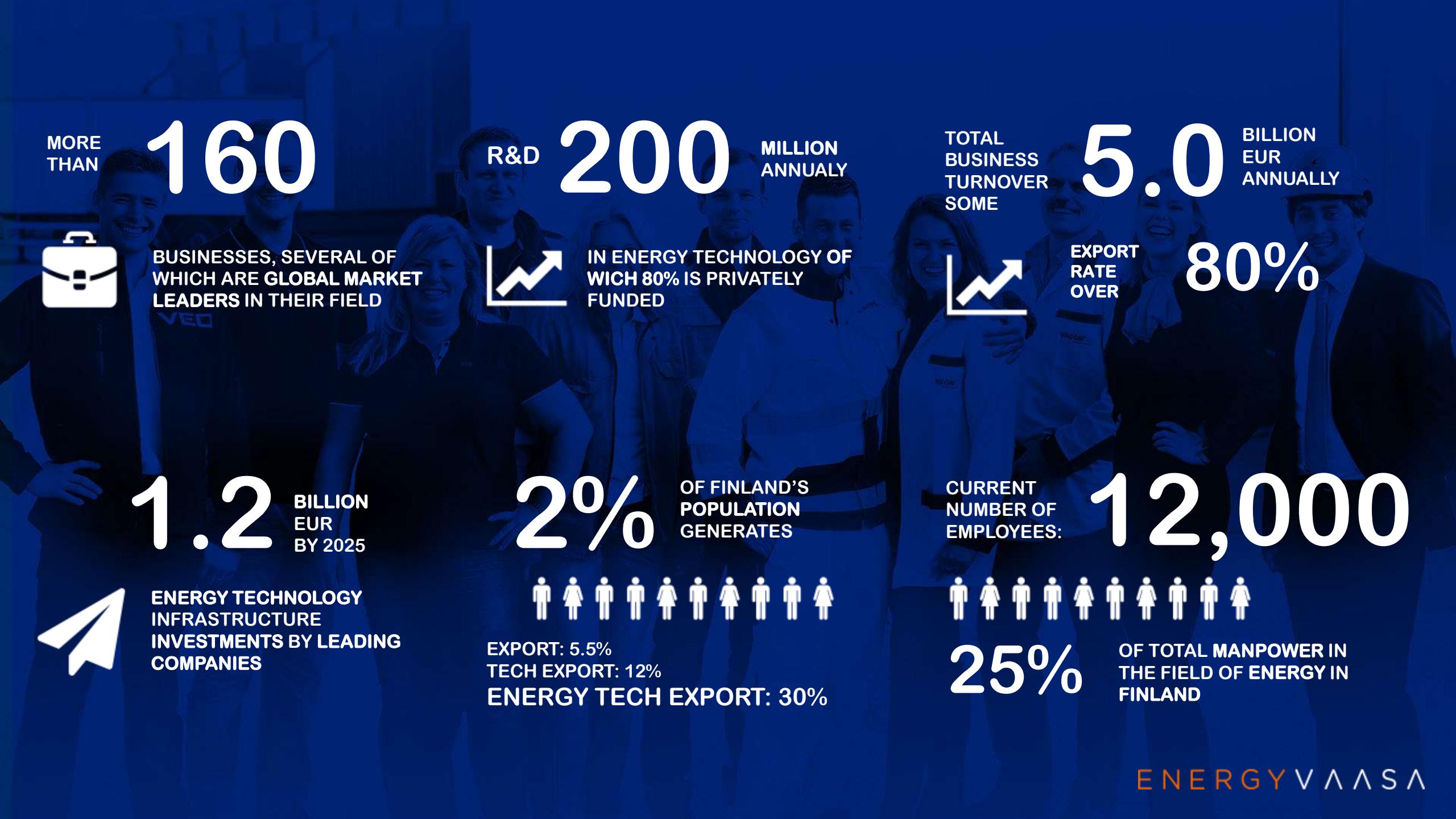

MORE THAN **160**

BUSINESSES, SEVERAL OF WHICH ARE **GLOBAL MARKET LEADERS** IN THEIR FIELD

R&D **200** MILLION ANNUALY

IN ENERGY TECHNOLOGY **OF WICH 80%** IS PRIVATELY FUNDED

TOTAL BUSINESS TURNOVER SOME **5.0** BILLION EUR ANNUALLY

EXPORT RATE OVER **80%**

1.2 BILLION EUR BY 2025

ENERGY TECHNOLOGY INFRASTRUCTURE INVESTMENTS BY LEADING COMPANIES

2% OF FINLAND'S **POPULATION** GENERATES

EXPORT: 5.5%
TECH EXPORT: 12%
ENERGY TECH EXPORT: 30%

CURRENT NUMBER OF EMPLOYEES: **12,000**

25% OF TOTAL **MANPOWER** IN THE FIELD OF **ENERGY** IN **FINLAND**

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World Leader in Electrical and Automation Technology

- 100% of countries have EnergyVaasa technology in their electrical network systems
- More than 90% of Finland's electrical and automation development takes place in the Vaasa region
- The region provides the world's finest technology to all corners of the world

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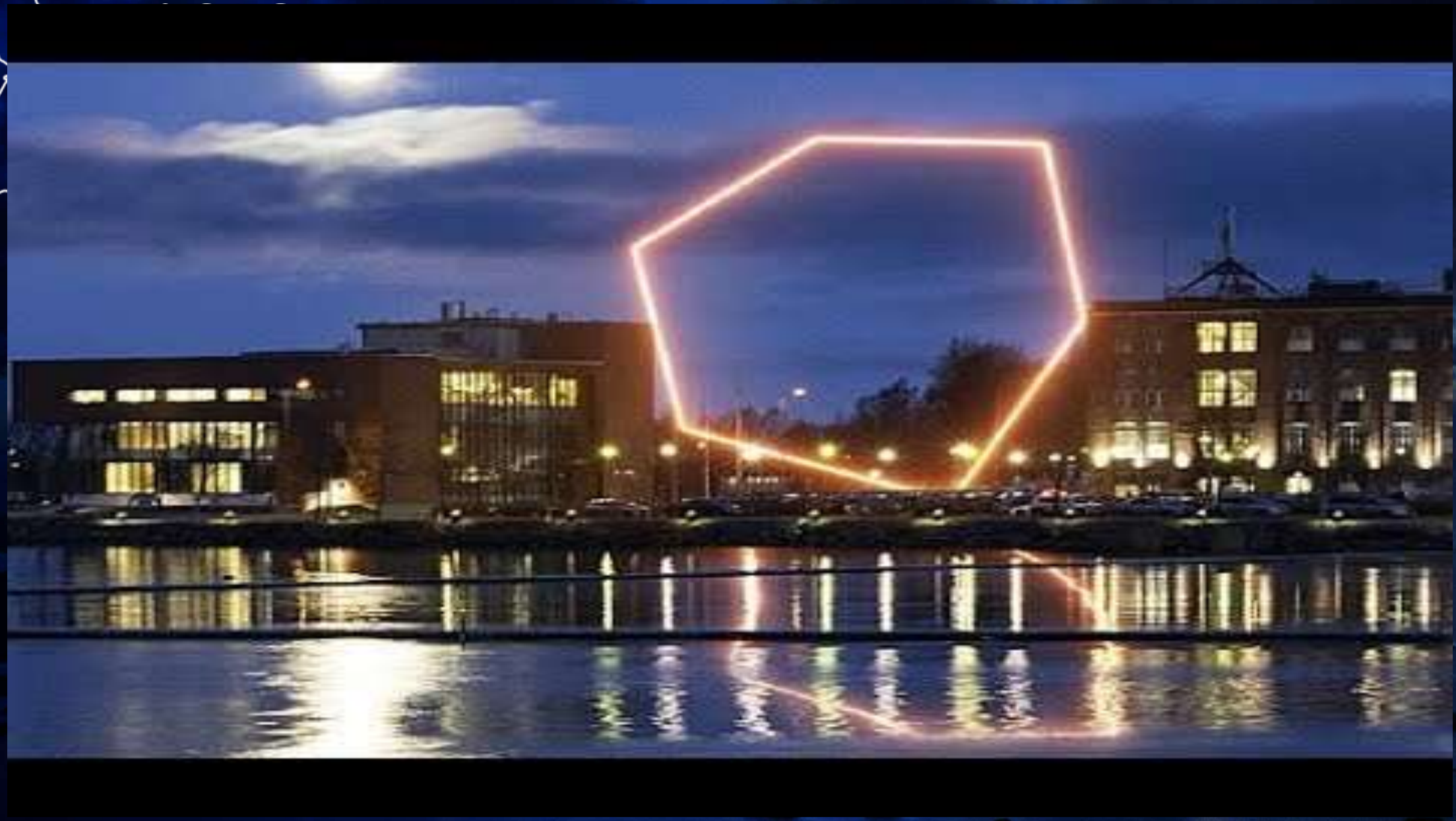
EnergyVaasa Co-Creation



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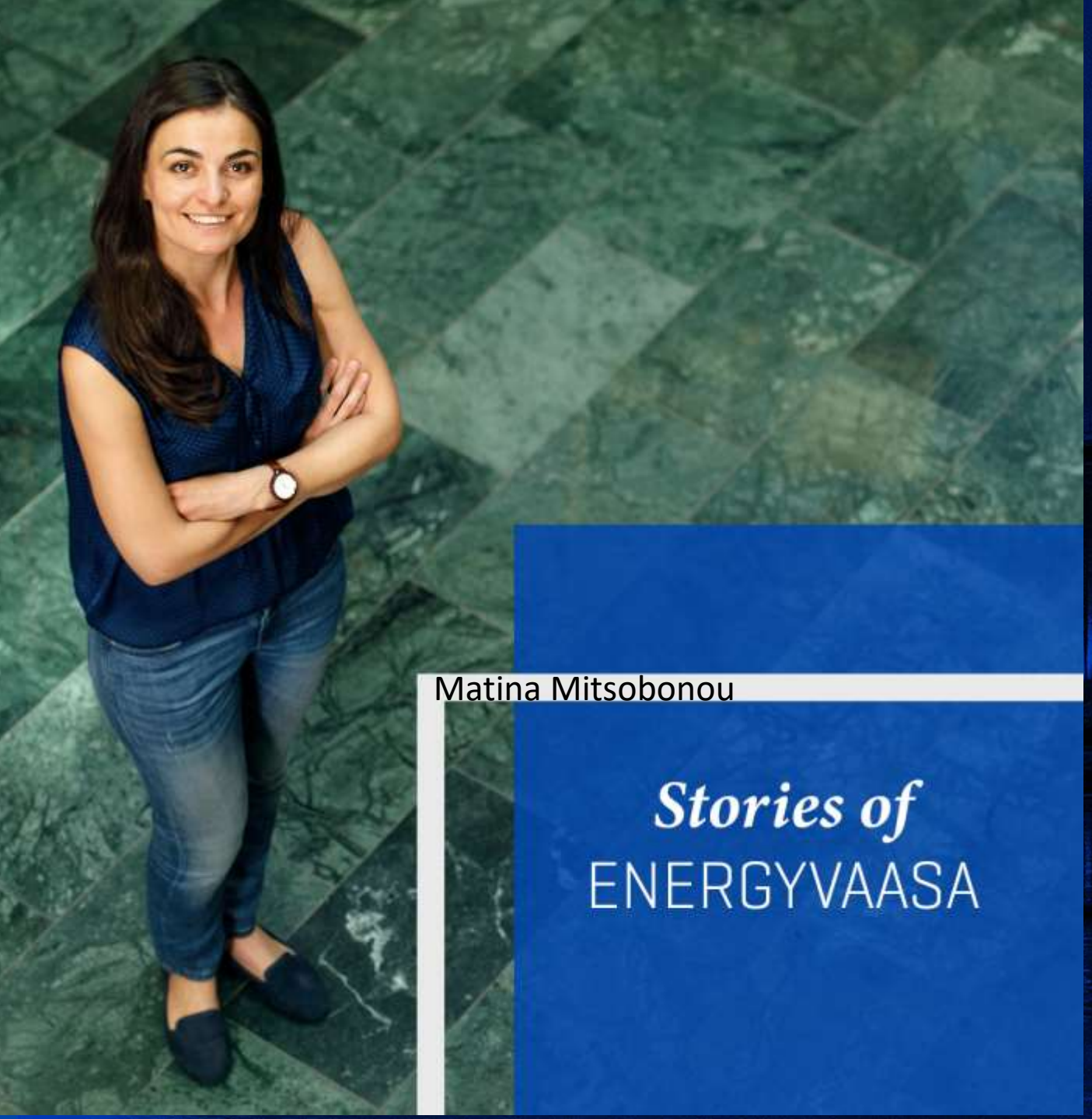

Matina Mitsobonou

"... getting to know the energy sector is thrilling. I'm very excited to part of all of this - the innovative ideas that we see here can hopefully be part of saving the world in the future,"

As a development engineer, Heino is for example, making sure that Vaasan Sähkö’s products and services are as green and customer friendly as possible.

Paula Gonzalez,

“I’m developing an application that will help the man on the street to become even more environmentally friendly. It feels fantastic knowing that my coding can contribute to something so meaningful”.

“I can’t say I’m saving the world myself, but I’m making sure that my colleagues who do are fit for fight…

with team-building exercises are important building stones when we support our world savers.”

Wärtsilä's visions of a Smart Marine Ecosystem and a 100% renewable energy future.

Wärtsilä´s investment in the #SmartTechnologyHub in Vaasa is an essential part of how to turn these bold visions into reality

Khuram Shahzad at Danfoss Drives is currently working on marine hybridisation solutions making, for example, Wasaline’s new ferry as climate and customer friendly as possible.

Khuram Shahzad

ENERGY VAASA | THE NORDIC HUB FOR ENERGY TECHNOLOGY

Wind and **Solar** power | **Education** | Distributed **energy** solutions | **Hydro** power plants | Waste to energy | **Geo** thermal energy | Regional energy **production** | **Frequency** converters | Energy efficiency | Smart **grid** | **Marine** solutions | Power **distribution** | Energy and **buildings** | Planning and **Project** management | **Finance** | **Sub-contracting**

GLOBAL BY NATURE

SUSTAINABLE

ECONOMICALLY IMPORTANT

HIGHLY TECNOLOGICAL

SOCIALLY RESPONSIBLE

SMART