



# Eirik Eide Pettersen

CTO & Co-founder of Seaborg Technologies

**Main product:** Compact Molten Salt Reactor (CMSR)

**Aim:** To develop a carbon-free, cheaper-than-coal and reliable source of energy to combat climate change and energy poverty



- seaborg.co
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## Making nuclear energy inexpensive, sustainable and safe

### The project

#### The idea

Seaborg is developing next-generation molten salt reactors that harbour the benefits of conventional nuclear power while addressing its downsides by relying on the law of physics and chemistry rather than engineered systems. It is cost-competitive with fossil fuels, produces dispatchable low-carbon energy, and is inherently safe.

**“The massive exposure we got thanks to the EIT provided us with a steady stream of top energy industry talent applying for jobs.”**

#### Inspiration

While our society is already emitting too much greenhouse gas, the need for power increases by the day. I want to be part of the solution by providing an affordable, carbon-free source of energy.

#### Unique selling points

Relying on molten salt fuel changes the paradigm of nuclear safety from safety-by-engineering to safety-by-physics. Most importantly, the fluoride fuel salt chemically binds radioactive materials and thus eliminates the radioactivity dispersion mechanisms that have caused past nuclear accidents. The result is a simpler nuclear reactor that is more affordable than the conventional technology, and that can out-compete and displace fossil fuels.

#### Societal impact

Seaborg might improve the lives of billions by powering the growth of developing nations in an environmentally, socially and economically sustainable way.

Supported by:



**EIT labelled programme:** European Master in Nuclear Energy (EMINE)



**Challenge:** Next-generation nuclear power



**Prizes:** Cátedra Argos Award, 2017 IAEA Young Generation Innovation Challenge Winner, 2019 Forbes 30 under 30 Europe – Manufacturing and Industry

### EIT Community support

EIT InnoEnergy provided us with essential knowledge about nuclear energy. They also gave us extensive exposure and press coverage, and now provides us with a steady stream of top talent from the energy industry.

### The nominee

#### Entrepreneurial spirit

I have always wanted to create a positive change in the world, but not specifically as an entrepreneur. However, when Seaborg came about, I knew it was a unique opportunity, so how could I say no?

#### Rewarding moments

The acknowledgement from Forbes Magazine and the resulting widespread attention is a moment I will never forget. To be the first ever recipient of a public grant for nuclear power in Denmark in decades was another incredible milestone.

