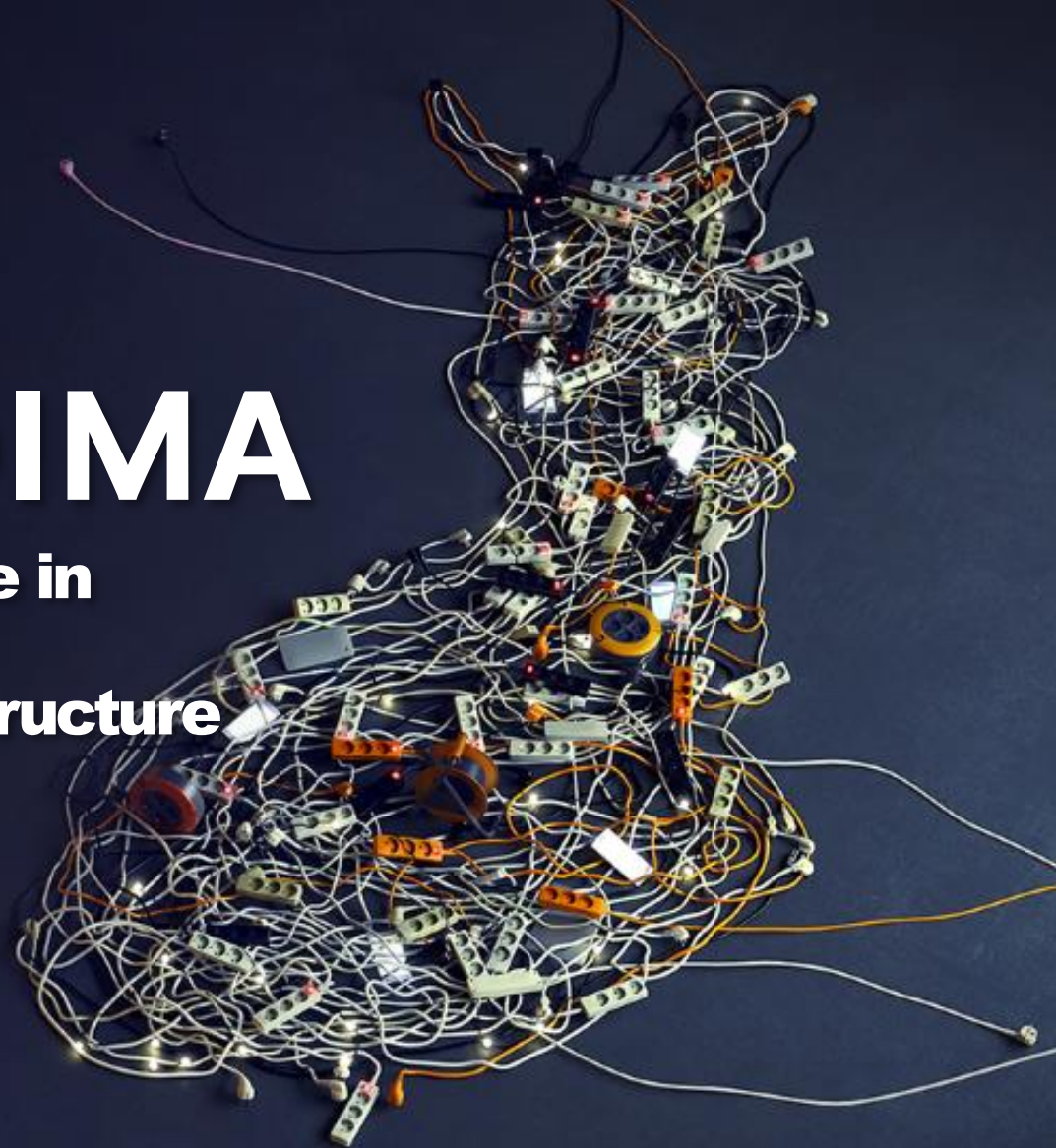


# FENNOVOIMA

## **Fennovoima's experience in capacity building in the sphere of nuclear infrastructure**

AtomExpo Roundtable: Building Nuclear  
Infrastructure as a Key Component for the  
Sustainability of Nuclear Projects

April 15, 2019  
Toni Hemminki  
President and CEO



# FENNOVOIMA

**Fennovoima is a Finnish nuclear power company,**

which produces climate friendly electricity to fill the needs of Finnish households and industry.



**Owners:**

■ **66 %** Voimaosakeyhtiö SF

■ **34 %** RAOS Voima

Size of the investment:

**6.5-7 billion euros** of which  
**1.8-2.7 billion euros** domestic

**We are part of the solution.**



# FENNOVOIMA HANHIKIVI 1

FH1-nuclear power plant will be built



**Pyhäjoki, Finland**



Capacity  
**1200 MW**



**No**  
greenhouse  
gas emission

Third generation  
pressurized water  
reactor

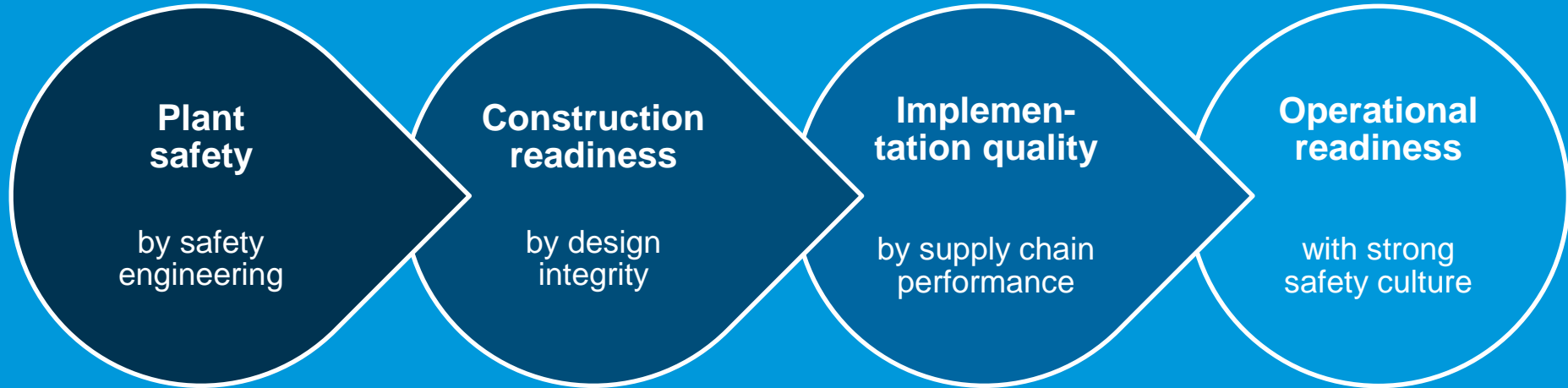
**VVER-1200**

Life time of the  
power plant:  
at least

**60 years**

[fennovoima.com](http://fennovoima.com) | [fennonen.fi/en](http://fennonen.fi/en) | [#fennovoima](https://twitter.com/fennovoima)

# Fennovoima capability phases



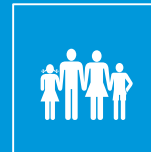
PSAR & FSAR  
Regulations  
Assessment  
Licensing



BD & 3D  
Availability  
Technology  
Specifications



FH1  
Configuration  
Quality  
Lifetime



FV  
Competence  
Organization  
Production

# FH1 – key capabilities to build capacity

Strong nuclear sector experience

Experience on international project management

Safety culture, audits, careful planning and monitoring of qualifications

Documenting, quality and precision

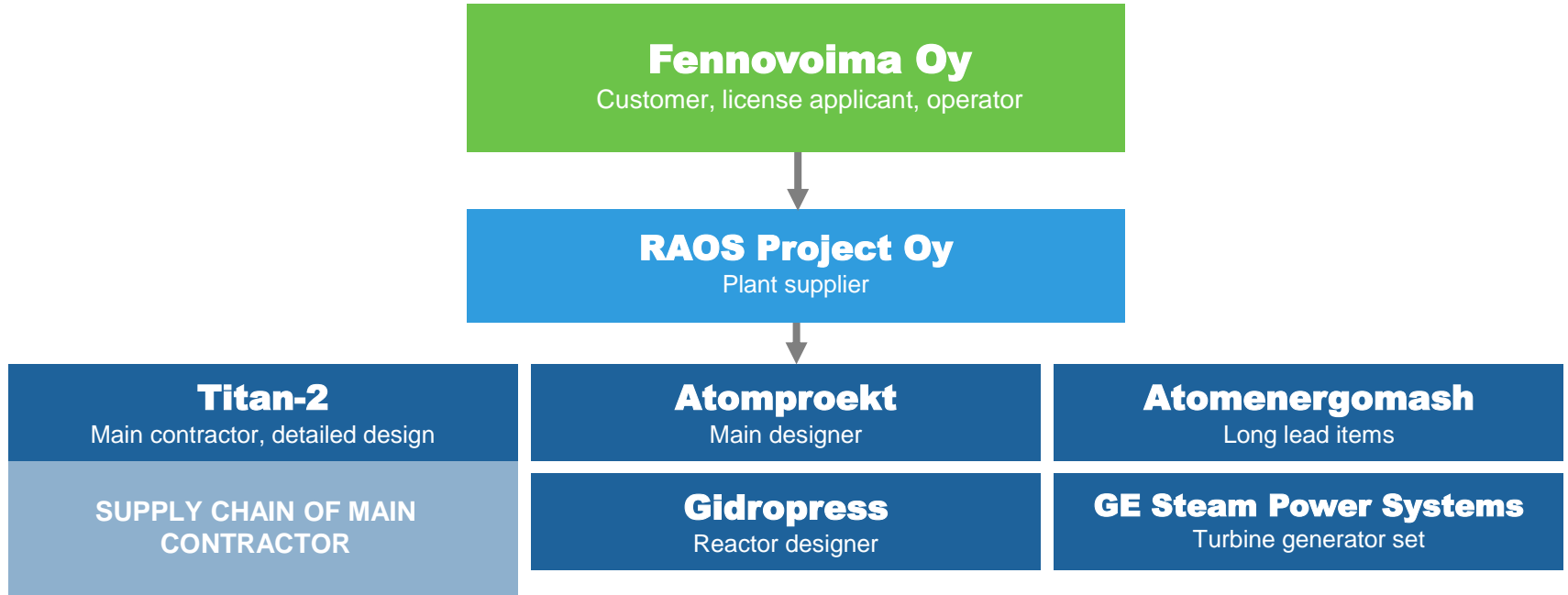
Effective co-operation across supply chain

Experience on cultural differences and language skills

Engaged stakeholders supporting the project

# Capacity through supply chain

FENNOVOIMA



	RAOS, accepted	FENNOVOIMA, accepted	RAOS, in progress	FENNOVOIMA, in progress
Contractors;	740	260	70	10

# HRD and capacity building – challenges and solutions

FENNOVOIMA

## Challenges

Finding competent and qualified employees at the right time

Employee retention (project progress, staff transfer to Pyhäjoki)

Ensuring that the Supplier is ready to deliver the specific technical trainings according to local requirements



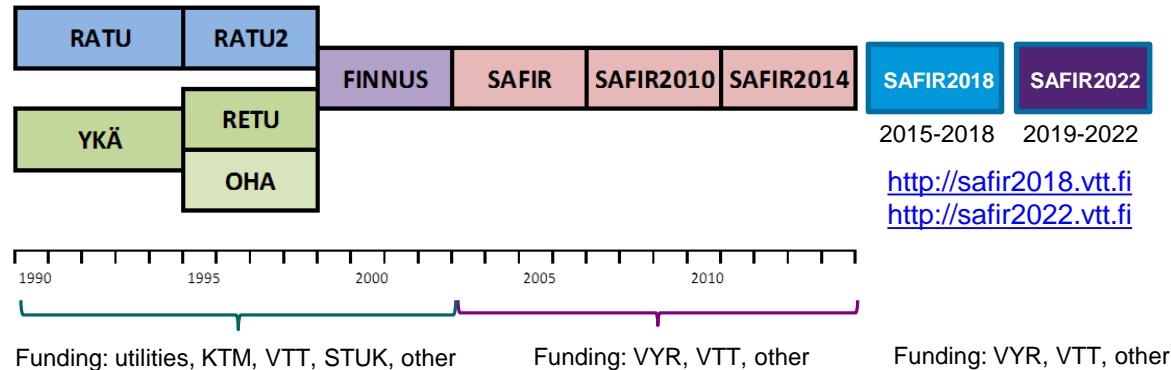
## Solutions

- Proactive resource planning
- Versatile recruitment methods, including networks and social media
- Using external consultants for temporary gaps and needs

- Enabling leadership to drive positive organization development
- Comprehensive wellbeing development, supervisor coaching, mobilization support to employees, etc.

- Active co-operation with the Supplier
- Supplier developing resources and competences to design and implement the trainings + methods, tools and systems

# Long term national approach to build and maintain knowledge and capabilities: Finnish Nuclear Power Plant Safety Research

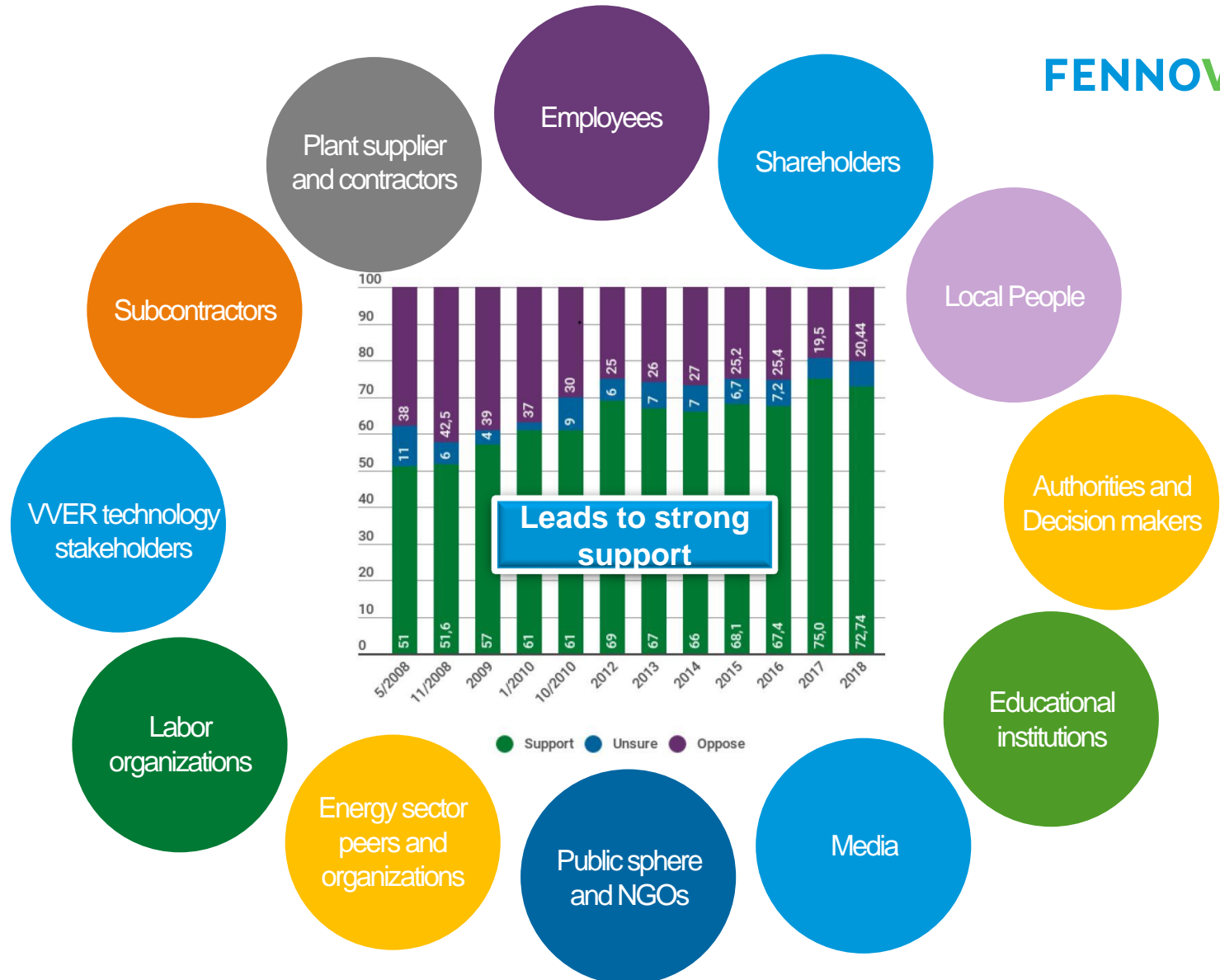


Finnish Nuclear Energy Act: *should new matters related to the safe use of nuclear power plants arise, the authorities possess sufficient technical expertise and other competence required for rapidly determining the significance of the matters.*

- Continuation of national nuclear power plant safety research programmes that have proven their value in maintaining and developing expertise
- The nuclear facility operators pay an annual fee for the Finnish State Nuclear Waste Management Fund (VYR) that finances research projects in SAFIR2022
- The research projects shall be of a high scientific standard and their results shall be published









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