

**TRADITIONAL INTERNATIONAL NUCLEAR CONFERENCE  
BULGARIAN NUCLEAR ENERGY – NATIONAL, REGIONAL AND WORLD  
ENERGY SECURITY  
07-09 June 2023**

**07/06/2023 – B. Fontana’s intervention: 12h15-12h25 (10’)**

**Topic: “The importance of a strong supply chain meeting the energy challenges”**

Dear esteemed participants,

Good morning.

Thank you to Chairman Manchev and to Stanislav Georgiev for the organisation of this great event and for giving me the opportunity to share with you a few words on Framatome’s vision and actions for a strong supply chain meeting the nuclear energy challenges.

With the increased awareness of the importance of energy independence, we could witness recently all around the world numerous new commitments to maintain existing nuclear fleets or to launch new nuclear projects.

And it is particularly true in Europe! As already mentioned this morning, during the last Nuclear Alliance Meeting organised in Paris, the French Minister Agnès Pannier-Runacher and her counterparts acknowledged that nuclear power might provide up to 150 GW of electricity capacity by 2050.

All this requires a robust and sovereign nuclear supply chain to ensure the production, the installation, the maintenance of products and systems for nuclear power plants.

As a nuclear stakeholder, Framatome is fully engaged in this challenge.

Since more than 60 years, our teams design and provide nuclear steam supply system and nuclear equipment, services, fuel, instrumentation and control, from new builds to long term operation of existing fleet. 18,000 colleagues work every day to support our customers on more than 380 reactors worldwide, to supply a cleaner, safer and more economical low-carbon energy.

Last year, we were happy to launch Framatome Bulgaria, focused on supporting the Kozloduy nuclear power plant and reinforcing our presence in Central and Eastern Europe.

Our first contribution is the overarching priority we give to safety. Nuclear safety, occupational safety are Framatome’s number one priority, and also my personal number one priority. And we also make sure this applies to the supply chain.

Second, our customers want the delivery of projects and services in a timely and competitive manner. To meet this expectation, Framatome is focused on the quality of execution and the performance in delivery.

- we deploy a specific program on quality called Excell in Quality;
- since 2019, we implement a standardisation program for the manufacturing of some of our large components. This program supports quality and aims at costs improvement;
- and we invest 250M€ every year to strengthen the modernisation, the automation and the digitalisation of our factories and tools. We have invested 1B€ in the past 5 years and are currently investing 1 more B€ this year and the next 3 years to secure our capability to deliver the French nuclear program, the exports of EPRs as well as contribute to the French SMR.

Third, our customers count on robust and reliable skills and competencies, which are key for the sustainability of nuclear, so:

- we hire more than 2,000 new colleagues every year;
- we deploy a knowledge management program, advanced trainings, as well as continuous experience on the floor;
- and to support the highest level of skills and expertise, we launched Excellence Centers in welding, robotic, machining, calculation and additive manufacturing. We also created schools and training centers such as an Inspection Academy or the Design School.

Since the beginning of the year, we hire already close to 900 new colleagues and welcome more than 200 trainees.

I want to congratulate the students who are here for their interest to nuclear. You come at the right time. Bulgaria needs you, Europe needs you, and Framatome will be happy to welcome you as trainees here or in our other units - and we promise Bulgaria we will give them back to support the nuclear programs here -.

Fourth, a strong supply chain is able to anticipate needs and prepare the evolutions of nuclear projects.

- So we invest more than 100 M€ per year, in R&D and innovation programs. We also contribute to programs like ITER that was mentioned this morning, ITER where we enjoy a good cooperation with CNNC from China. Back to our innovations, a few examples: Framatome is a leader in the additive manufacturing development in nuclear industry. This is a real game changer to meet customers' expectations on reducing manufacturing lead time and cost and enhancing quality and design. We succeeded to take additive manufacturing technologies to the industrial application level and introduced additive manufactured components in commercial reactors. This year, we created an additive manufacturing Excellence Center to accelerate and enlarge the industrial deployments of these technologies.
- Of course, Framatome also works on the lifetime extension, modernisation and power uprate of the existing nuclear power plants to make the bridge until the new reactors are connected to the grid. Such subjects are currently at the top of the agenda of our customers.
- I also want to mention Cybersecurity: we made the acquisition of companies in North America and in France, and we see a very high interest of our customers on cybersecurity.

Beyond all this, we, at Framatome, work at the robustness and sovereignty of our own supply chain.

Our suppliers' engagement and capability are indeed necessary to our meet customers' needs.

- To ensure a stable supply chain, we pay a particular attention to our suppliers' panel. We want enough suppliers, with the adequate production capability, familiar with the nuclear quality framing and able to comply with the nuclear codes and standards.
- We support our suppliers through a dedicated Supplier Quality Development Team and work together to improve quality. Our objective is to decrease the non conformities by 25% every year and we have achieved this during the past 3 years.
- Finally, we request our suppliers to secure their own supply chain against short or mid term risks.

All these actions require a good coordination to ensure security of supply, performance and compliance of the supply chain.

For the nuclear fuels, Framatome can guarantee a continuous supply through an integrated, robust, sovereign and international fuel supply chain.

- For all types of light water reactors and research reactors, we master and control the entire process, from development and design, including production of zirconium, up to fuel manufacturing and all associated engineering and on-site services.
- With 12 industrial sites dedicated to Fuel located in Europe and North America, we ensure the security of supply, with the possibility of internal back-ups. It also allows a good knowledge of multiple environments, which is also key for licensing.

In the current international context, Framatome has been requested by all the European VVER operating utilities to develop sovereign European fuel solutions. And we are indeed committed to it:

- In the short term, we are setting up our European fuel manufacturing facilities and supply chain operations based on the proven, reliable and efficient incumbent fuel used in the European VVER reactors. This does not require any modification to the reactor or licensing processes and thus allows to ensure the continuity of the utilities' operations. It also contributes to constitute an immediate stock in France of components for the licensed and qualified design.
- In parallel, for the mid-term, we are progressing on the development of 100% European sovereign nuclear fuels with the support and cooperation of European VVER utilities.

Mergers and Acquisitions are also a way to consolidate critical segments and maintain the excellence in the industry.

During the last two years, we acquired several companies to boost our expertise and capabilities, for instance in instrumentation and control, welding activities, engineering services or cybersecurity.

Finally, successful contributions to erection and operation of nuclear power plants implies increased presence near the nuclear power plants, the customers teams and the suppliers.

With now more than 70 sites in 23 countries, Framatome takes into account this expectation as well as increased sovereignty needs. And we continue to create local branches to extend our worldwide presence.

In Central and Eastern Europe specifically, we strengthened our presence in Bulgaria, Czech Republic, Slovakia, Hungary with the acquisition of Evopro Nuclear and Process Automation (NPA) Kft, in Romania and in Slovakia.

In conclusion, this is for Framatome's teams a long and exciting journey of high-performing people and technologies for safe and competitive nuclear power plants worldwide and I thank you for your support. You can count on the engagement and the commitment of Framatome's teams for your generation of safe and low carbon nuclear energy, now and in the future.

And it is of course the case, here, in Bulgaria, to support the nuclear fleet and the new projects, to support the development of talents and students, and also to further develop partnership with Bulgarian companies willing to play a role with us in our supply chain.

I thank you for your attention.