

FUTURE OF NUCLEAR: VISION, COLLABORATION, INNOVATION - PERSPECTIVES FROM YGN

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Nuclear, as every large domain of activity, constantly faces challenges and needs to reinvent itself adapting to the world and its needs. Like civil, space and aviation industry, nuclear industry is a huge complex machine that takes time, effort and budget to progress.

Just to mention a few issues, the nuclear sector is currently dealing with:

- the **positioning of nuclear in the climate-aware world**, as it is not clear to the public, as well as to the decisionmakers on national and international level, that this source of energy is a safe, essential and powerful long-term component of the environmental mitigation and adaptation.
- the internal challenges of the nuclear industry, among them optimisation and harmonisation of processes, cost reduction, pursuing of development and innovation
- the issue of competitiveness – can nuclear be or become a domain attracting, forming, and retaining best talents?

Each of those issues is an enormous challenge on its own and it requires holistic and harmonious approach from all the stakeholders looking towards the future. These stakeholders can be united if they share a common vision, for example, striving to ensure accessible, affordable energy and essential services for the development and well-being of the low-carbon world. Finding the common vision motivates the collaboration between the industry, academia, IGOs, NGOs. Working together creates the ground and stimulation of innovation, research and development which is essential to address technical and organisational challenges of nuclear. Innovating enables fulfilling the vision.

The triangle of vision, collaboration and innovation is a set of interdependent factors of transformation in nuclear.

But how does it relate to the communities of young professionals in Europe? The European Nuclear Society Young Generation Network (or ENS-YGN in short) together with national nuclear societies (or YGNs) supports nuclear science and industry in creating the sector of tomorrow. Volunteering our time and effort to lead, sustain, animate the societies, we translate the vision into simple words and actions, as well as share it with our peers and general public, we foster collaboration in a thousand different ways, and we nurture young people towards innovation.

But what is ENS-YGN? It is a Europe-wide community assembling all the young members of nuclear societies. Currently we have 21 member Young Generation Networks. We exist because $1+1>2$, together we are stronger.

How do we contribute to this triangle enabling the successful future of nuclear?

Firstly, we **translate the vision** of the nuclear sector to make it understandable and relatable by society, by popularising knowledge among the general public and young people. We go where those people are - to schools, bars, social media, we reach them through approachable TV and streaming emissions. We react to the hot topics and hot trends to smuggle some nuclear knowledge and change the attitudes.

Apart from that, a huge chunk of our activity is to share the vision where it is not well understood and taken into account, for instance in the high level circles of decision making and activism related to climate change fight and environmental protection. With support of numerous wonderful people, we act on behalf of Nuclear for Climate network, a community of 150 organizations around the world. Since 2015 we mobilize the nuclear world to show their colors at the UN Conference of Parties. From the position papers, through official and unofficial COP side events and collaboration with country representations, all the way to creative activist actions waking the attention and curiosity, we work to give nuclear its rightful place among all the necessary solutions contributing to fight against climate change. This year's COP will take place in Egypt and together with a team of volunteers from 7 countries, we prepare to once again show that nuclear has to be a part of the climate talks.

Finally, we share the vision with our peers, students, youth to let them see the big picture of their future career, which could be enriched by much more rewarding foundations than money. We encourage them to embark on the journey building the future of nuclear by sharing our stories, experiences, knowledge.

Following, we **foster collaboration** between people and organisations. Together with YGNs we create and support relations between early career professionals by means of the engaged, passionate communities for more holistic, cross-professional and cross-national development of the future experts. One of the great examples is bi-annual conference European, Nuclear Young Generation Network (ENYGF), the next edition taking place 8-12/05 in Krakow, Poland, featuring scientific sessions, workshops, mentoring program, technical tours. And last but not least, countless occasions for passionate conversations with peers, senior experts and high-level figures of our nuclear world.

But the informal relations and network created during interactions is only the beginning. In scope of formal and informal collaborations, supporting communication of educational and scientific opportunities, recruitments, building an information network facilitating the connection between the employer and the workforce also beyond the national borders is another huge mission of YGNs.

Collaboration between people is supported by collaboration between communities, which is actually a primary objective of the ENS-YGN. 3 times a year, representatives of 21 YGNs as well as observer organisations meet at a Core Committee Meeting for knowledge and experience sharing reunion in one of the member countries. The meeting features discovering local nuclear industry and science during technical tours.

The collaboration does not only focus on young people. ENS-YGN promotes dialogue and cooperation between the generations too. Each year, a senior colleague is elected by the Core Committee and awarded with Jan Runermark prize for his exceptional support to the YGN community and young people in general.

Finally, YGNs nurture youth towards innovative and independent thinking. Themselves using innovative ways to communicate, like TikTok or streaming platforms, the local communities show to young people that nuclear can be cool, waking curiosity and providing a dynamic workplace full of new ideas. From webinars about the latest nuclear startups, to the innovation contests, and scientific contribution prizes, they encourage best talents to join and push nuclear to excellence.

In conclusion, ensuring the successful future of nuclear requires a wide-scale dedication and effort of people of different profiles and levels of experience. ENS-YGN and its hard-working member communities give their share by educating, inspiring, and empowering early career professionals to identify and approach the issues that nuclear power is facing, but most of all to act according to greater vision, collaborate and innovate.