

Nuclear Safety Culture Assessment (NSCA)

**Questionnaire based approach developed by ENEL AREA
TECNICA NUCLEARE and WANO PARIS CENTRE**

Enel: one of the main European nuclear operators

Nuclear assets, new projects and development opportunities

Slovakia

Operational: 4 VVER units, 1896 MW

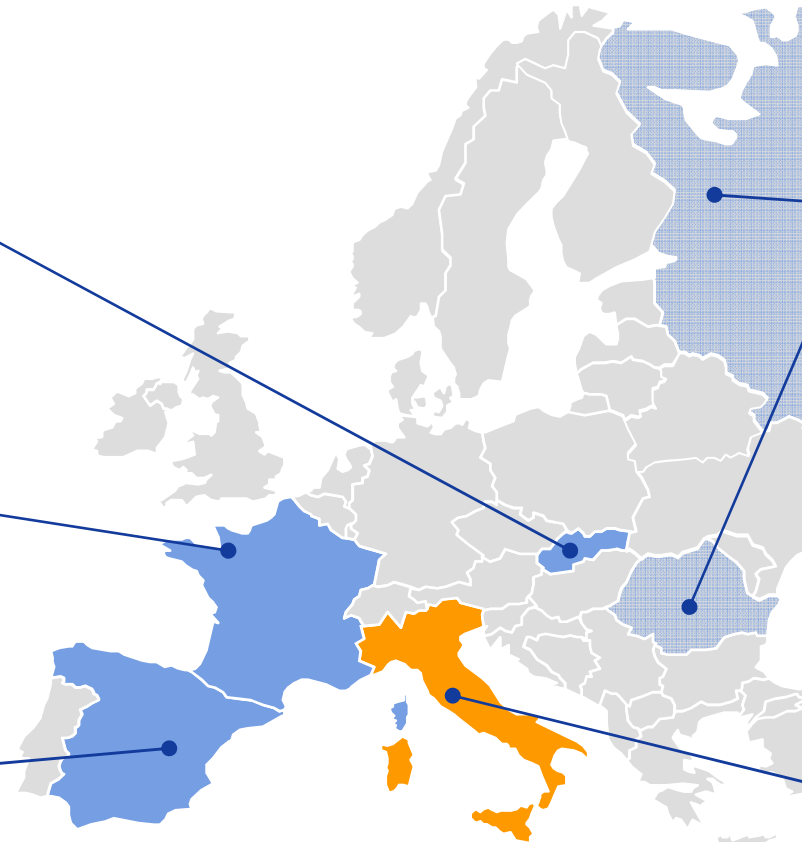
Under construction: 2 VVER units of Mochovce 3&4, 880 MW

France

Under construction: participation in 1 EPR unit in Flamanville, 1.630 MW

Spain

Operational: 7 Units (6 PWR Westinghouse units and 1 BWR GE unit), 3.640 MW



Development of New competences:

•Russia:

- Kaliningrad, 2 X 1117MWe VVER
- Agreement with Rosatom

- Romania:** participation in the consortium led by Nuclearelectrica for the construction of Cernavoda 3&4 (Candu, 1.500 MW)

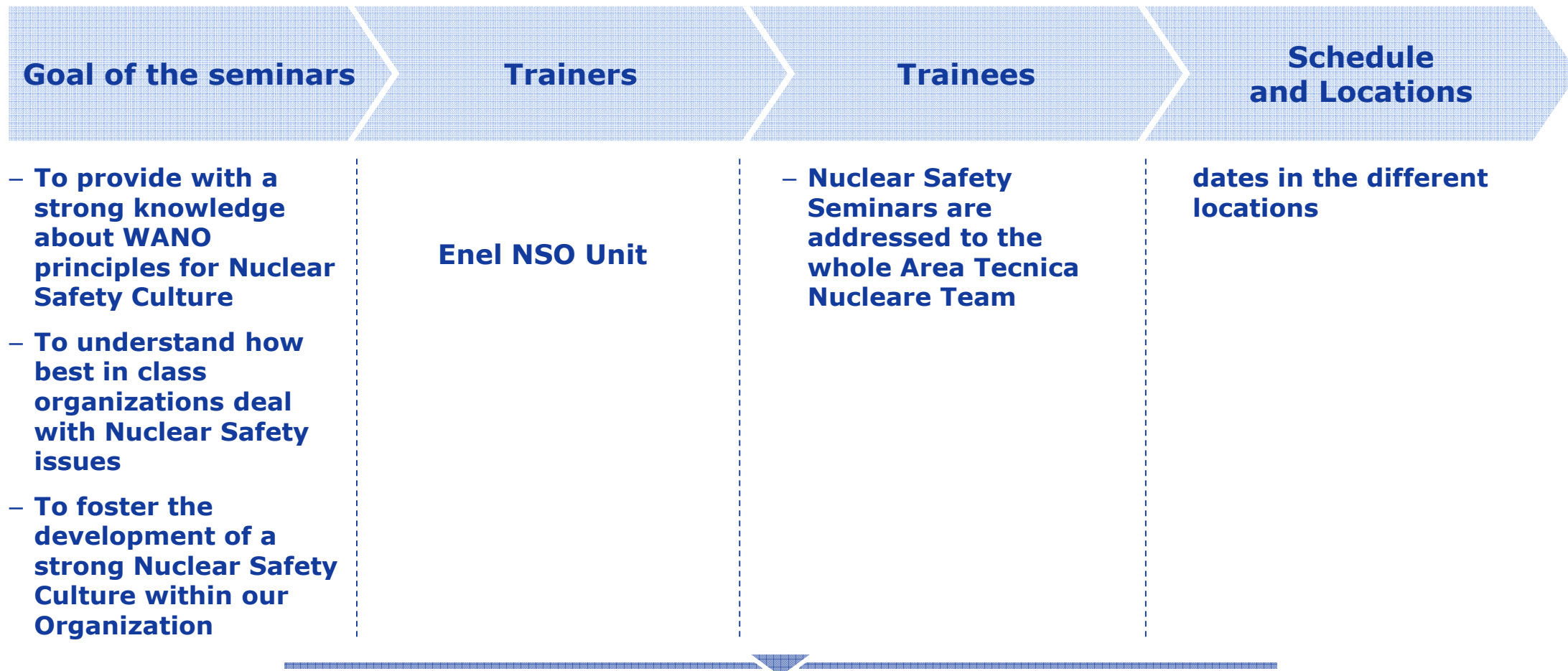
Italian Nuclear Program: agreement with EDF for the joint development of at least 4 EPR units

11 units in operation (5.500 Mwe)
Approximately 38 TWh of energy generation
Involvement in two of the three NPPs under construction in Europe
Further development opportunities in Italy and other countries

Programme for NSCA



Nuclear Safety Culture briefing seminars



Nuclear Safety briefing seminars are the starting point of a path we have to set up together to ensure that Nuclear Safety Culture is perceived as a key point for our development and growth as a Nuclear Organization

Questionnaire

40 questions, with 5 possible answers:

1 = I do not agree at all

2 = Very little agreement

3 = Moderately agree

4 = I agree, but it is not always the case

5 = Strongly agree

Questionnaire Metrics

To each of the **forty questions** there is a **weight** assigned with respect to **one** or **more** of the **eight WANO** Safety Culture **principles**.

Average values are calculated for **each question** using the five possible answer values.

The resulting **matrix of the average values and weights** builds up a picture of the organisational **profile** with respect to the **eight WANO safety culture principles**.

Use of an email “drop box” assures anonymity.

Questionnaire weightings

		WANO principle for a strong Nuclear Safety Culture							
		1	2	3	4	5	6	7	8
Questionnaire	M E D I U M V A L U E	Everyone is personally responsible for nuclear safety	Leaders demonstrate commitment to safety	Trust permeates the organization	Decision-making reflects safety first	Nuclear technology is recognised as special and unique	A questioning attitude is cultivated	Organisational learning is embraced	Nuclear safety undergoes constant examination
1. My line manager always shows by example that Nuclear Safety is the top priority.	4,1		2		1				
2. In my daily work I recognize that I am part of an organization which continuously learns on Safety matters.	4,2							2	
3. I demonstrate intolerance to error likely situations.	4,4	2					1		
4. I feel free to communicate any problem which could put safety at risk without fear of being blamed by my line manager.	4,3			2			1		
5. I have adequate knowledge, training and experience to perform my job.	3,6	2							
6. Roles and responsibilities of each individual in my organization are clear and well defined.	3,0	2							
7. I would know how to behave safely if visiting a Nuclear Power Plant.	3,9	2				1			
8. Nuclear Safety Culture can be improved if each individual brings his own contribution.	4,7	1						1	2
9. It is evident from the uniqueness of nuclear technology why safety has the overriding priority in my organization.	4,4				1	2			
10. I always provide feedback about my work experience (positive or negative) which could be helpful for my colleagues.	4,0			1				2	1



Feedback Workshops and Action Plan issue

Workshops are organised for all ATN staff, with the aim of **analyse NSCA results**, highlight **areas for improvement** and make **concrete action proposals**.

ATN **management** analyse the proposals and **issue an Action Plan**.

The process is **repeated biannually**

Example of workshops output

Area for improvement 3: **TRAINING**

Everybody is aware that Nuclear Safety is the highest priority and that everybody is personally responsible for safety improvements; However, it is clear that many do not know or do not have the skills to know what to do in practice to contribute during their daily work.

- ➔ Consolidate continuous training at all levels of the hierarchy and place learning as a fundamental value and characteristic of our area.
- ➔ Facilitate benchmarking and recycling of operational experience where similar activities are implemented in different company