

ROUND TABLE ON MOTIVATING STAFF WITH ACCOUNTABILITY FOR NUCLEAR SECURITY

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A nuclear safety point of view

- What is ENSTTI?
- Some personal experience in motivating teams on nuclear safety missions
- Trustable accountability for nuclear safety: Education, training and managerial challenges
- Safety / Security: similarities and differences

STRENGTHENING EXPERTISE IN NUCLEAR SAFETY, SECURITY AND RADIATION PROTECTION TO SUPPORT REGULATORY SYSTEMS

enstti

Managing Director: Didier Louvat



enstti basics

- A 2010 initiative of European Technical Safety Organizations to mutualise and optimize the training of their professionals
- Vocational training and tutoring on assessment in nuclear security, nuclear safety and radiation protection
- Calls on European TSOs' expertise to maximize the transmission of knowledge, practical experience and culture
- A curriculum structured in learning pathways for assessors and inspectors
- In the order of 1000 trainees per year worldwide

Members: Belgium (Bel V), France (IRSN), Lithuania (LEI)
Contributor TSO's: Germany (GRS), Czech Republic (CVR), Finland (VTT), Slovakia (VUJE), Ukraine (SSTC), Italy (ENEA), Spain (Tecnatom, CIEMAT)
Cooperation with ETSO: Japan (NRA), Russia (SEC NRS), Switzerland (PSI)
Cooperation with NRA's: Belgium (FANC), France (ASN), Spain (CSN), Finland (STUK), Slovakia (UJD)



ENSTTI training organisation

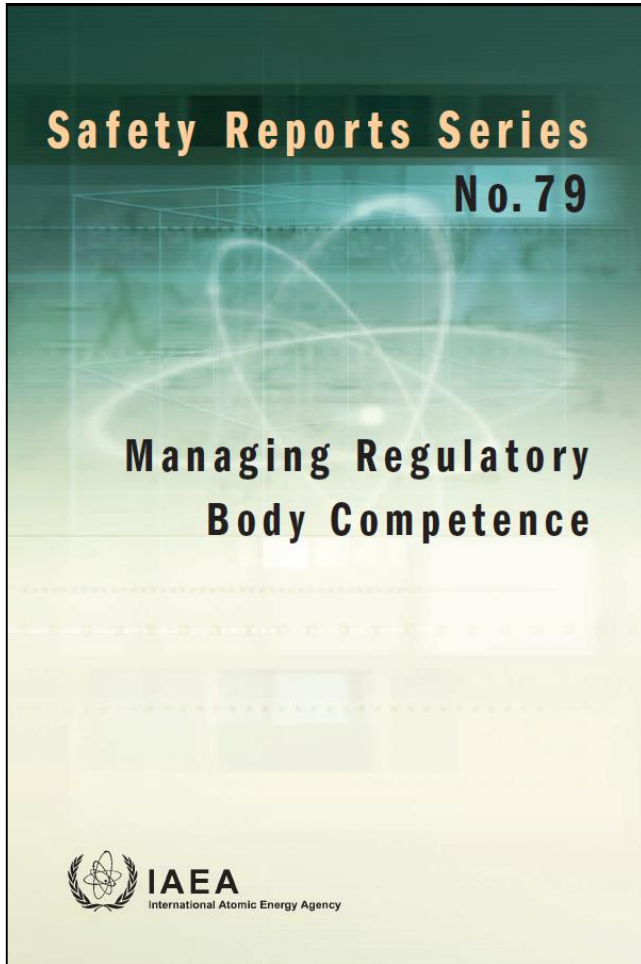
Training in the EU (in English)

- Paris, France (main office)
- Brussels, Belgium
- Madrid, Spain
- Roma, Italy
- Rez, Czech Rep.
- Tarvna, Slovak Rep.
- Espoo, Finland
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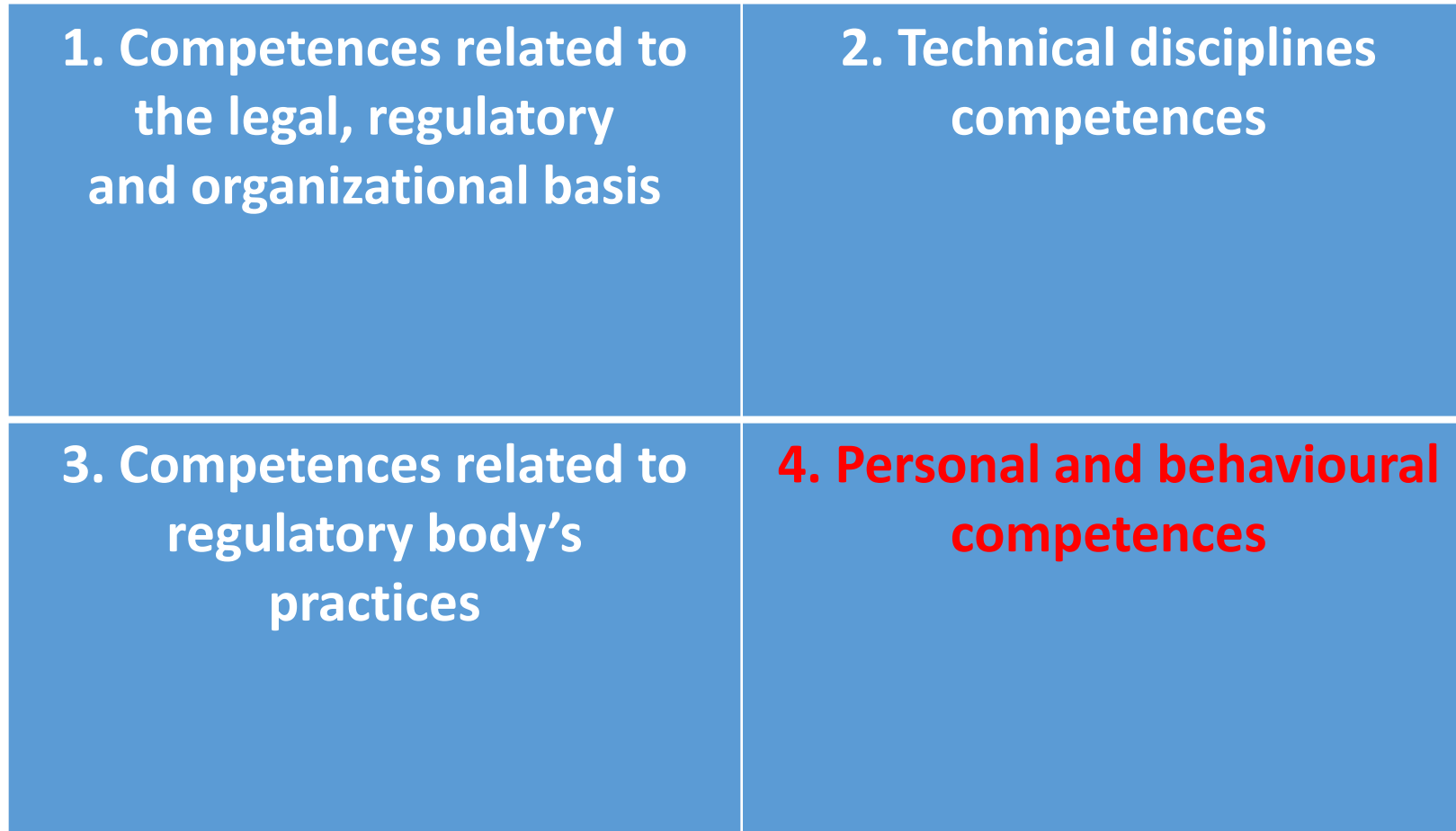
Training outside the EU

- Asia, Singapore (in English)
- Africa, Rabat, Morocco (in French)
- Africa, Pretoria, South Africa (in English)
- Middle East, Cairo, Egypt (in English)
- Latin America, Mexico (In Spanish)
- Latin America, Rio, Brazil (In Spanish)
- Europe, Kiev, Ukraine (In Russian)
- Europe, Belarus, Minsk (In Russian)
- Central Asia, Dushanbe, Tajikistan (in Russian)

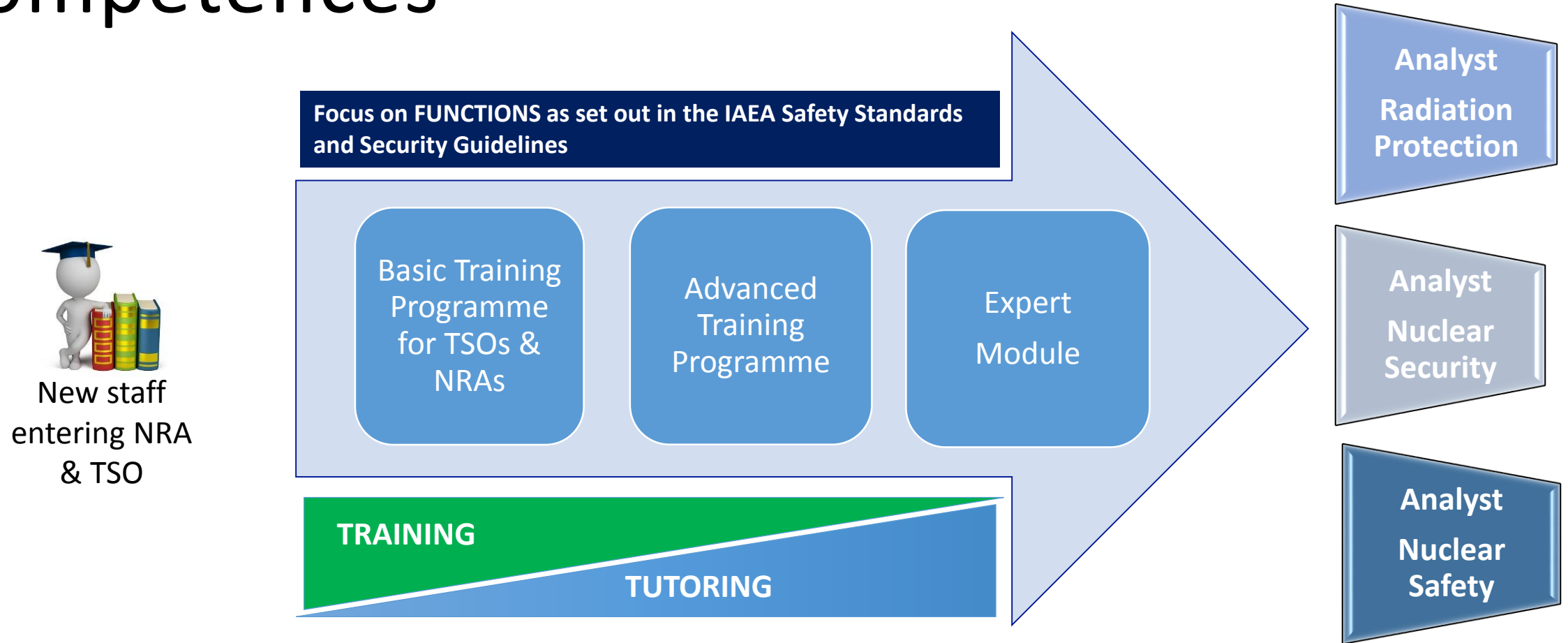
IAEA reference documents



The SARCoN quadrant



Approach to build-up & strengthen competences



Advanced training

Regulatory Functions

- The legal and regulatory basis for nuclear and radiation safety
- Basic safety related aspects & regulatory oversight on NPP operation
- Application of nuclear safety concepts in the development of regulation and guidance
- Oversight of safety culture
- Management system for safety organisation
- Nuclear safety Leadership

Advanced training

Nuclear Security

- Assessment of Nuclear Security programme
- EXTREME-External Threat Response Management Exercise
- Accounting, control and safeguard of radioactive and nuclear materials

More information on www.enstti.eu

Some personal experience in motivating teams on nuclear safety challenges (1)

2003: creation of IRSN as a new public establishment for research and expertise in Nuclear Safety, Radiation Protection and Nuclear Security in support to the competent regulatory authorities

Motivation aspects were central to a successful start of the new Institute

- Negotiating an attractive statutory environment (incl budget & salaries)
- Providing a sense of mission for the experts and researchers, following the loss of previous institutional values and image (Ministry, Atomic Energy Commission): « **Enhancing Nuclear Safety** » as a new **mission statement** for IRSN, defined with in depth staff participation
- Providing **explicit ethical guidance** for performing the Institute's missions
- **Peer recognition for experts** (statutory « senior experts », encouragement to mobility to IAEA etc..)
- Development of a formal KM program, and of an « Internal university »

By the end of the decade, a strong capital of public trust in the Institute had been built up, based on staff motivation, and encouraging motivation.

Some personal experience in motivating teams on nuclear safety challenges (2)

2011: IRSN and its experts confronted to Fukushima-Daïchi events

- Real time analysis of the events, based on Tepco automated data fed into severe accident nuclear safety modeling tools
- Radiological support to French rescue workers helping with tsunami victims, to French (and EU) residents in Japan, and to affected french companies
- Proposing an innovative approach to mitigate the risk of prolonged cooling loss in NPP's
- High mediatic exposure for IRSN experts and managers, with the trust capital in balance.

Motivation aspects were central to keep staff going « in prolonged overdrive »:

- **Recognition** for individual experts, and for the Institute as a whole (moral and financial)
- Operational implementation of research results on severe accident phenomena: **research & expertise together**
- **Resource allocation**
- **Full engagement and risk sharing throughout the line of management**
- Some frustration from technical staff members not involved in the high visibility operations

Some personal experience in motivating teams on nuclear safety challenges (3)

2017: contributing to IAEA's project in developing a « Leadership for safety pilot school » for nuclear safety managers in its member states (from regulatory organisations and from licensee organisations)

- Leading the international expert group set up by IAEA to develop the curriculum
- Participating in the experimental implementation of the training course, mainly based on IAEA standard requirements, and « case studies »

Motivation was essential to run this high visibility project in a short time frame

- **Team spirit** in the IAEA expert group: individual involvement of personal experience in the writing of the case studies; mock presentation of the course in front of IAEA young recruits
- Delivering the first course in front of a multinational group of managers: **creating a collective mind-set to learn from each other.**

Some lessons learnt

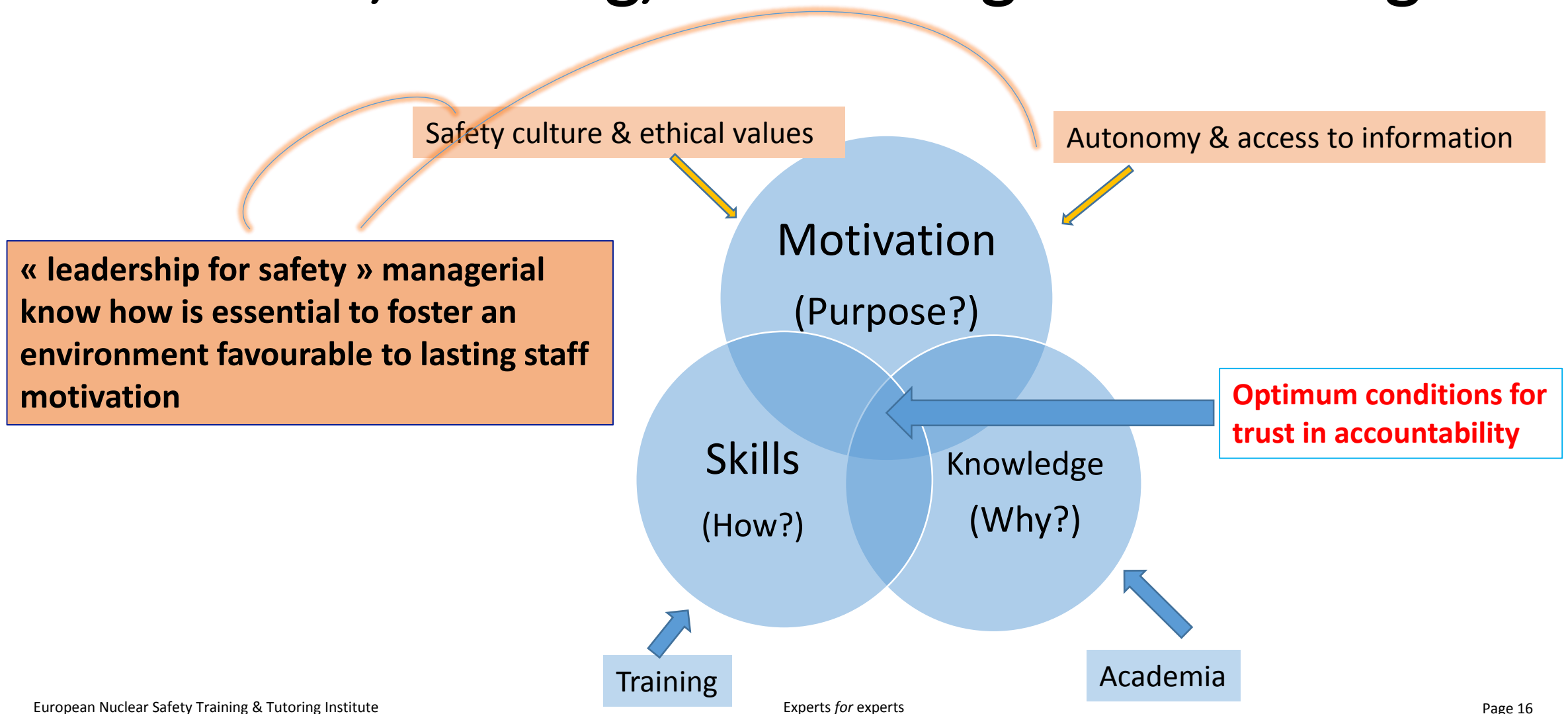
- **Ethics**: « Mission for Society » and « Work Processes » must be in coherence, and demonstrated as such on a day-to-day basis (values, resources, accountability, recognition) to ensure lasting motivation
- **Management**: leadership for safety is key for motivating staff, as well as other actors or stakeholders involved in nuclear safety accountability
- **Training and education** in soft (non-technical) skills and competencies are essential, but are too often under-valued, or even unavailable

Trustable accountability for Nuclear Safety ?

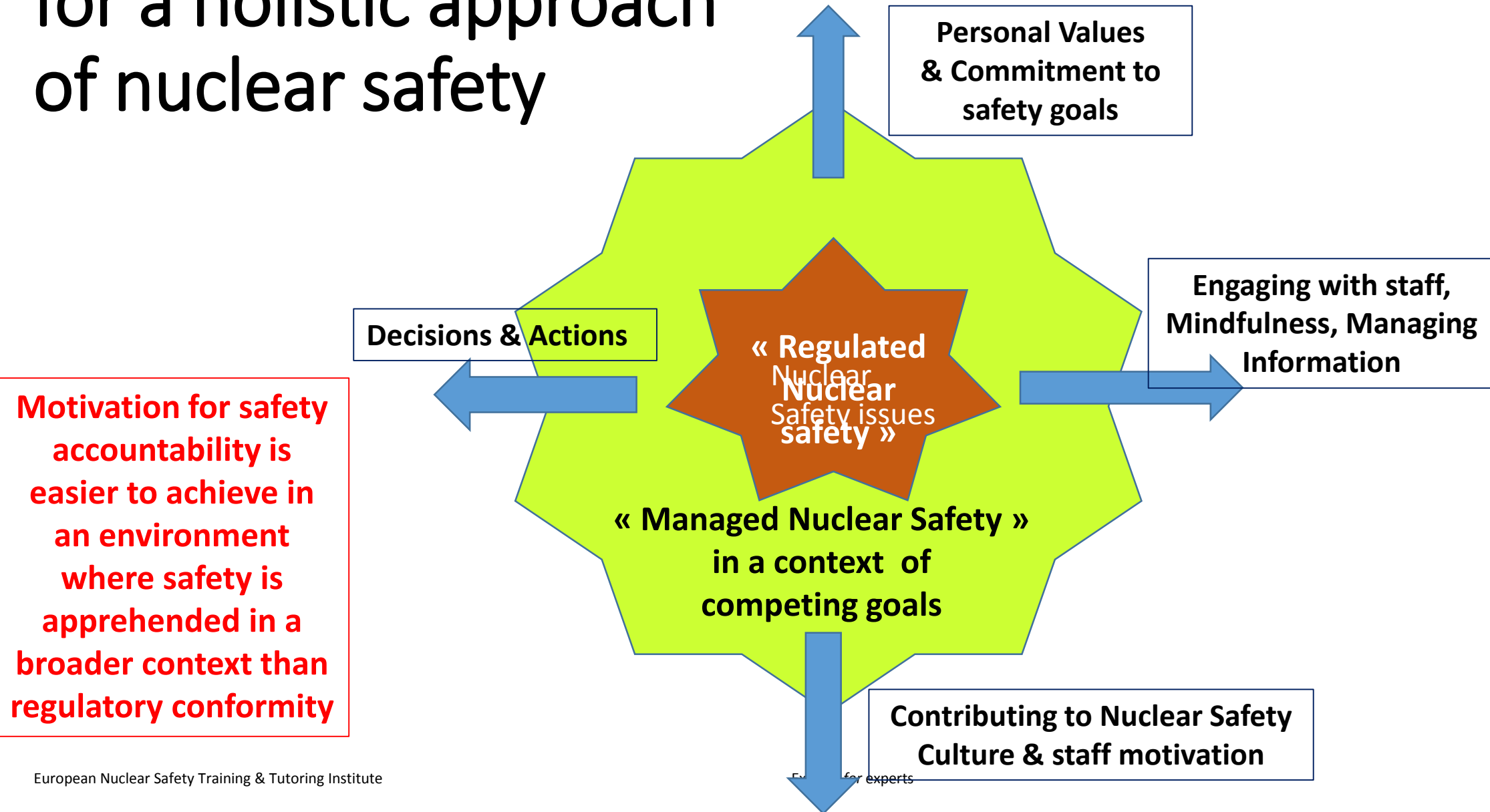
At the end of the day, this is what is expected by all stakeholders (the public, neighbours, investors, clients,...) from nuclear operators and public authorities which supervise their activities.

How is staff motivation related to such corporate accountability? And how to encourage it in practice?

Trustable accountability for Nuclear Safety: Education, training, and managerial challenges



Leadership for safety: a recent management concept for a holistic approach of nuclear safety



Safety / Security: similarities and differences (1)

Many aspects are common to Safety and Security accountability motivation issues. Nuclear Safety and Security are related and complementary. However...

- Nuclear Security rests on a shared responsibility between nuclear operators and state security agencies & forces: **different cultures and missions have to co-operate and respect each other, under different management systems**
- There are strong protection requirements for nuclear security related information: **ways must be found to create a sense of adequate access to security work processes information, without compromising sensitive information**
- A frequent preference for resource based security requirements over performance based requirements, which are commonly used for safety: **this may impact differently the « autonomy » factor of staff motivation**

Safety / Security: similarities and differences (2)

- Safety aims to protect against technology's side effects or failures, freak natural events, and human or organisational mishaps.
- Security aims to protect against presupposed (State authorities define the reference threat) or suspected malevolent intentions to do harm, from outside of from within the organisation.

It often requires more managerial efforts to reconcile Security missions with the Organisation's societal objectives than it does for safety. And therefore to ensure similar staff motivation levels.

To sum up ...

- Staff motivation is a key feature of a trustable nuclear safety accountability of nuclear operators as well as of safety authorities.
- Motivating staff with accountability for nuclear safety is facilitated by:
 - Establishing and promoting **strong ethical links** between operational safety missions and the overall societal ambition of the Organisation
 - Ensuring that managers are able to exercise good **leadership for safety**, by implementing safety missions with a holistic approach and with adequate involvement of their staff
 - Providing **education and training opportunities** which not only develop the technical skills, but also reflect the above
- The same probably applies to the field of security, however there are specificities which should be recognised and taken into account rather than brushed aside.

Thank you for your attention