



NARSIS Workshop

Training on Probabilistic Safety Assessment for Nuclear Facilities

September 2-5, 2019, Warsaw, Poland



Public Acceptance Human Factors

Jessica Johnson, FORATOM



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About FORATOM



Who we are

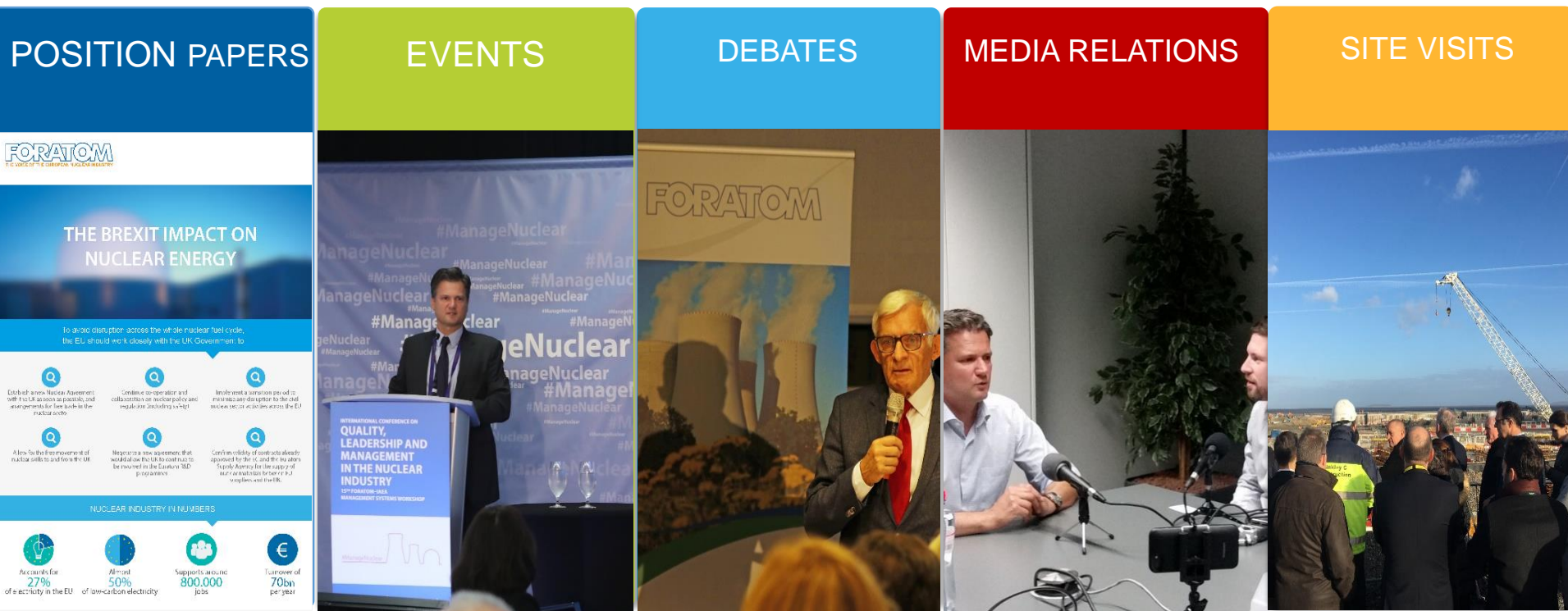
FORATOM acts as the voice of the European nuclear industry in energy policy discussions with EU Institutions and other key stakeholders.





What we do

FORATOM provides information and expertise on the role of nuclear energy





Key topics

EU Energy Policy:

- Economics of nuclear
- EU energy mix
- Euratom Treaty
- Security of energy supply
- Sustainability
- Special projects - Brexit

Nuclear technology

- Innovation, R&D
- Nuclear safety*
- Nuclear transport
- Supply chain
- Waste disposal

Communication:

- Nuclear advocacy
- Perception of nuclear energy
- Promotion of nuclear energy
- Public opinion

Legal aspects



Membership

The membership of **FORATOM** is made up of 15 national nuclear associations representing more than 3,000 companies.

Belgium

Bulgaria

Finland

France

Hungary

Italy

Netherlands

Romania

Slovakia

Slovenia

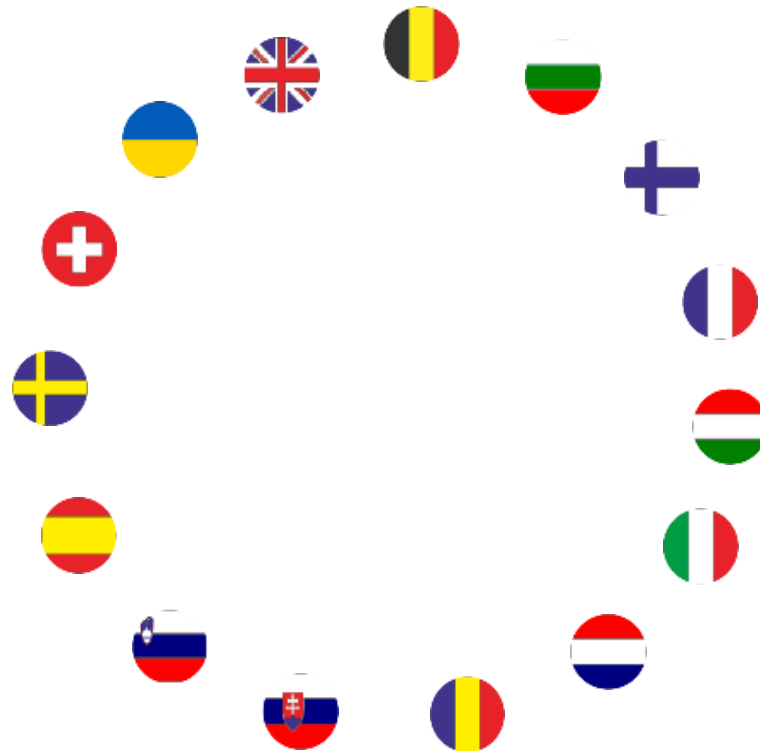
Spain

Sweden

Switzerland

Ukraine

United Kingdom



CEZ (Czech Republic) and PGE EJ 1 (Poland) are Corporate Members



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Nuclear in the EU



What does nuclear contribute to the EU's economy?



126

NUCLEAR REACTORS
IN OPERATION
IN THE EU

100

€ BILLION/YEAR

1.1 million

JOBS

26%

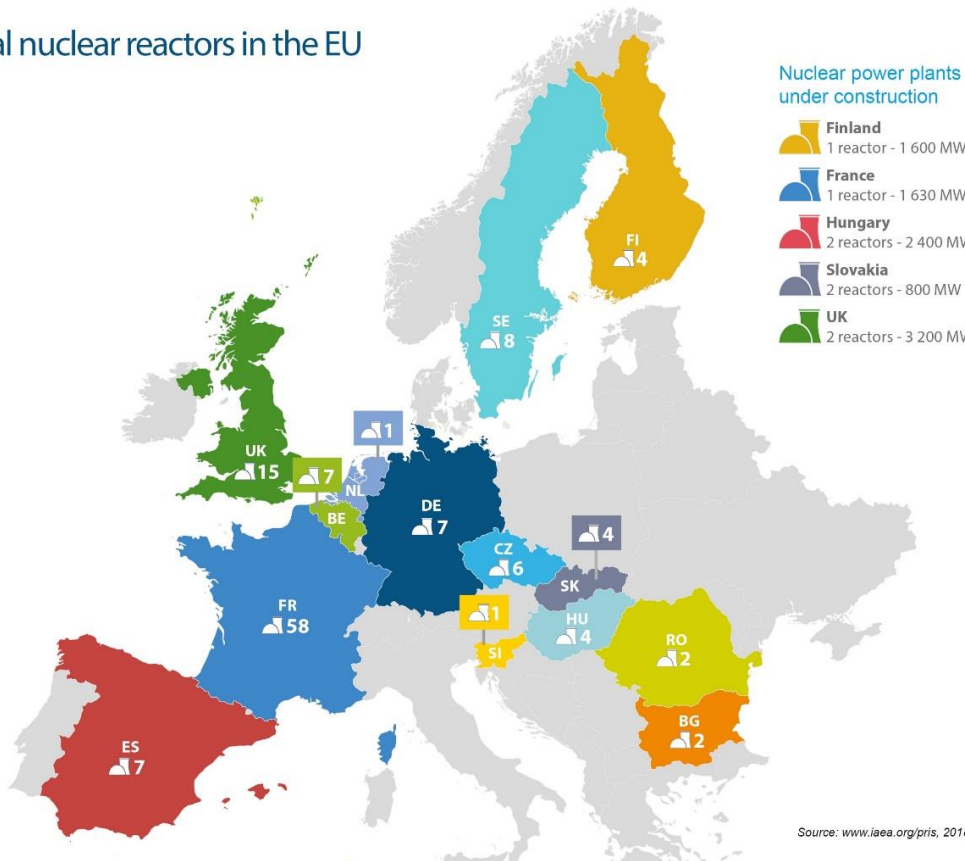
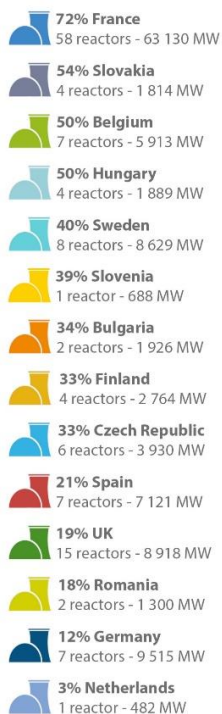
EU ELECTRICITY
PRODUCTION



Nuclear energy in the EU

126 Operational nuclear reactors in the EU

Nuclear share of electricity



ELECTRICITY PRODUCTION

26%



LOW-CARBON ELECTRICITY

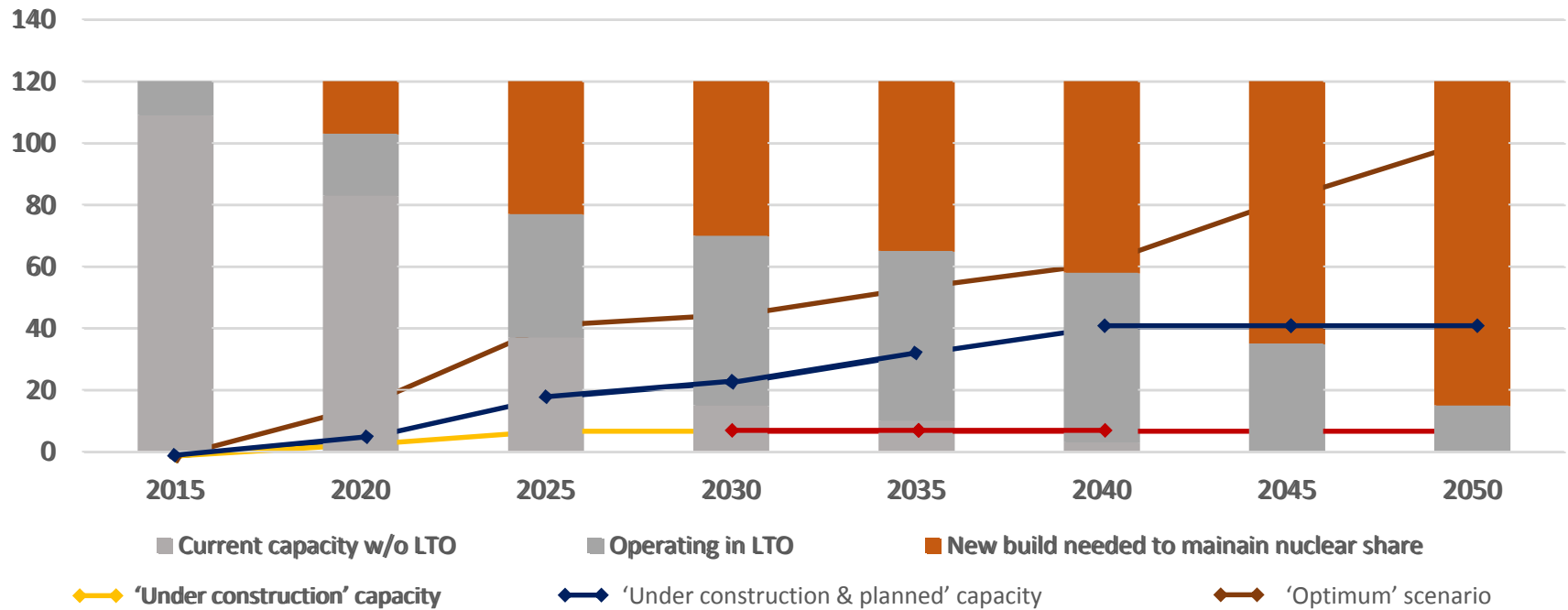
50%





Future of nuclear in the EU

Nuclear capacity (GW)



*Source: PINC, European Commission, 2017
 Estimated investment needs in LTO (until 2050): EUR 46,9 billion



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Public opinion



Public opinion

“The public is against nuclear – and so EU legislation should be too”



But is this true?





Ideology is gradually taking a back seat

Climate
change

Biodiversity

Raw materials

IPCC

IEA

Union of
Concerned
Scientists



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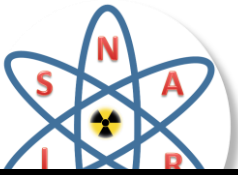


The power of television



US: Madam Secretary





Netherlands: Comedian



Let's look, on a basic level, at what a nuclear power station is:



HBO: Chernobyl





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Handling “human factors”



Risk perception

- **Public opposition to nuclear in the 1970's:**
 - PSAs and expert advice not deemed trustworthy
 - Need a shift in communication to achieve a balanced and proportionate response to risk



Risk perception



- **Mundane**
- **Underestimated**



- **Widely reported**
- **Overestimated**

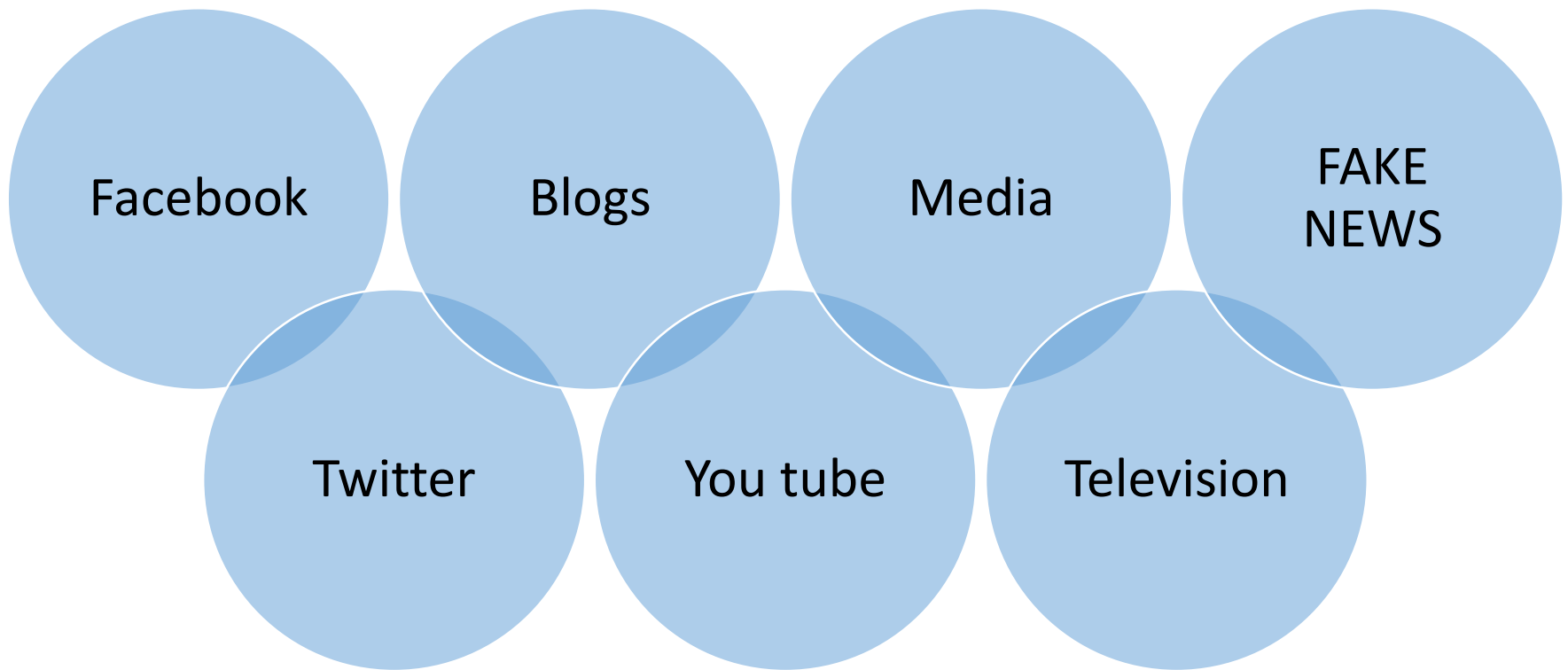


Risk perception

- **Communication often too focused on facts**
 - Take into account emotion-based communication
 - Compare it with a familiar risk to give them something comparable



Communications – Information overload





Communication basics

- **Part of a broader communication plan:**
 - Continuous dialogue with local stakeholders on:**
 - Benefits to them
 - Allowing them to raise concerns
 - Targeted and relevant information on Probabilistic Safety Assessment (when needed)**
 - Crisis communications**



Audience

➤ **Know your audience**



Spokesperson

➤ **Who are people most likely to connect with?**



Relevance

- **Focus on what is most relevant to them and put it into perspective**



KISS

➤ **Keep It Short & Simple**



Dialogue

- **Allow them to raise their concerns and try to answer all questions as far as possible**



Cardinal rules

- **Accept and involve the public as a partner.**
- **Listen to the public's concerns.**
- **Be honest, frank and open (gain trust).**
- **Work with other credible sources.**
- **Meet the needs of the media.**