

# PUBLIC PERCEPTION OF NUCLEAR POWER AND RADIOACTIVE WASTE MANAGEMENT

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# NUCLEAR ENERGY & PUBLIC OPINION

- **Would people understand?**

- Previous presentations of Mr. Jiří Marek & others – seem to be too specialized

***However:***

- Clear argumentation
- Useful background for opinion makers & media
- Provides basis for further communication

# BROADER CONTEXT

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- **Public acceptance of radioactive waste disposal:**
  - Impossible to separate from the perception of nuclear energy in general
  - **The same argumentation can be accepted in a different way under different circumstances !!!**
- Problematic communication of nuclear industry in the past (Jiří Marek)  
*BUT ALSO:*
- Changing environment, more scepticism:
  - after Three Mile Island, 1979
  - after Chernobyl, 1986
  - after Fukushima, 2011

# HISTORY – EXAMPLE FROM BERLIN

- **Anders Jackson, former Westinghouse president of Europe**
  - Interview for E15 newspaper
  - Berlin, 2010
  - Government of Angela Merkel reversed German nuclear exit
  - Mr. Jackson took part in discussions with German government & industry
  - **Mr. Jackson expected nuclear new build projects in Germany !!!**

*Everything changed after Fukushima, 2011*

- Government of Angela Merkel reversed its own decision
- **Public opinion** in Germany pressed the government into nuclear exit again

# SOLUTION FOR RADIOACTIVE WASTE

- **Is the problem solved?**

- Swedish concept of 'three barriers' – reliable solution

*BUT:*

- Public scepticism nurtured by uncertainty and problems of specific projects
  - 'No final repository has been built until now'
  - Reports of delays or even corruption

**GAME CHANGER:**

- Projects in Finland and Sweden
- Can clear time framework help? (EU taxonomy)
  - This approach has both strengths and weaknesses




## TRICKY POINTS – 'BURYING UNDERGROUND'

- **Disposal facility for spent fuel & human psychology**
  - 'Burying the waste underground for so long?'
    - Remains radioactive for hundreds of thousands of years
  - 'Can it be really safe?'
    - Difficult to imagine for people who are not experts

### ***HOW TO EXPLAIN THE ISSUE?***

- Natural nuclear reactor in Oklo mine (Gabon)

# TRICKY POINTS – THE NIMBY EFFECT

- **NOT IN MY BACKYARD** phenomenon
    - Well known in other segments of energy as well
      - Wind turbines
      - Energy transmission
    - Where to build disposal facilities?
      - Where is it possible to attain public support?
      - What about the area of nuclear power plants?
    - Additional advantages for people living ‘in the backyard’
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# REALISTIC APPROACH

- **Dana Drábová, State Office for Nuclear Safety**

- Interview for All for Power magazine
- ‘Artificial problem’ created 30-40 years ago
- Relatively low amount of spent nuclear fuel
- Enough time to deal with the issue

*BUT*

- **Necessity to show the public that there is a solution**

- Onkalo disposal facility in Finland – much more than ‘just a dream’
- Other solutions as well ?



# OTHER SOLUTIONS ?

Nuclear waste remains potential energy source of high value

More efficient use of nuclear fuel in next generation reactors

Transformation ('destruction') of nuclear waste by high-intensity lasers

VERY IMPORTANT RESEARCH

It shows that industry & scientists are still working on improvements

- However:

**DISPOSALS OF NUCLEAR WASTE WILL BE NEEDED ANYWAY**

# DYNAMIC INDUSTRY

Nuclear energy sector & industry working on new technologies

Safety is the key objective

Perspective of advanced reactors makes nuclear energy more attractive/acceptable for public

Nuclear research is important not only for energy (healthcare, agriculture)

## *Opportunities:*

Increased awareness of nuclear energy as a pillar of decarbonisation

Nuclear can be perceived as 'energy source for the future' – as well as renewables

# RECENT DEVELOPMENT

- What can **Putin's war on Ukraine** mean for nuclear energy and its public perception?

## *Opportunities:*

- Need to find alternatives to Russian gas & oil
- Need to accelerate nuclear energy development in the free world

## *Threats:*

- Nuclear power plants can become military targets
- Risk of nuclear proliferation (nuclear arms seen as key advantage in the war)

## **NEW CONTEXT FOR EU TAXONOMY**

- Energy security as important as sustainability

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THANK YOU FOR YOU  
ATTENTION

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