

Nuclear energy – conceptual view to the man made energy source

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- **History working package:**
 - HoNESt project has collected and processed historical data from more than 20 countries in Europe and beyond. The focus is on the interaction between nuclear industry and civil society.
- **Key tasks:**
 - The data has been stored in the data bank and processed into short country reports which are now available at the HoNESt website.
- **Collaboration:**
 - This project has required close collaboration between researchers from several countries. There is also intensive collaboration between historians and social scientists.



2. Findings

- **Nuclear drama:**
- Nuclear energy has been a very different source of energy from the beginning.
- Its roots are in the scientific and technological findings that were done during the first part of the 20th century.
- During the war, nuclear energy became a part of the military-industrial complex (The Manhattan Project)
- After the war and until 1953 nuclear energy was sealed from the civil society. Military control over nuclear energy and nuclear applications turned nuclear energy into authoritarian technology. It was controlled, managed and governed by non-democratic institutions and organizations.
- This pattern continued in the Soviet Union and in the Eastern Europe until early 1990's, but discontinued in the western world. However, the drama between civilian and military has persisted and shaped the engagement and perception of nuclear energy.



- **Nuclear energy is simultaneously local, national and transnational.**
- Planning and deciding on where the nuclear power stations will be built has created tensions.
- Nuclear risks and opportunities have been weighted against each other.
- Nationally nuclear power projects are mega-size industrial projects that spark employment, investments and promises of better future.
- Nuclear power stations, fuel chains and nuclear waste management is governed by transnational organizations. Regulations apply to nuclear units around the world. This process has required diplomatic skills, long hours in negotiations and politics of sanctions and persuasion.
- There is no pattern that would apply to all nations, because nuclear histories are different and shaped by local, national and transnational experience.



- **Nuclear power generates tensions:**
- Nuclear power is risky and dangerous. Management of risks is negotiated according to political and social traditions.
- Nuclear accidents spark rapid and often radical engagement in nuclear affairs.
- Political systems has learned to react quickly and swiftly. The experience from TMI, Chernobyl and Fukushima has shown how the delays in reactions increase tensions.
- Anti-nuclear movements have difficulties in dealing with risks. Proactive reactions are measured against economic gains. Reactive actions come often too late.



5. Perception

- The perception of nuclear energy has changed over time: From enthusiasm to sceptism and into rejection.
- Perceptions are divided according to social status (politicians, business leaders, social critics, activists)
- Perceptions are also divided according to gender (male/female)
- Perceptions are influenced by media: Energy policy (self-dependency, climate change, economic benefits)
- Perceptions are determined by generations: Pre-war generation prefers nuclear energy, post-war generation rejects nuclear energy and post-industrial generation neglects nuclear energy.
- Perceptions are influenced by the time-factor: Long duration of nuclear energy blurs perspectives: Nuclear power stations operate almost 100 years and nuclear waste will be around more than 100 000 years.

