



IAEA

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Atoms for Peace and Development

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SENIOR SAFETY AND SECURITY REGULATORS' MEETING

September 28, 2023

Challenges of Public Communication on Nuclear and Radiation Safety and Security

Karim Peltonen, Director, STUK, Finland

Nuclear in Finland

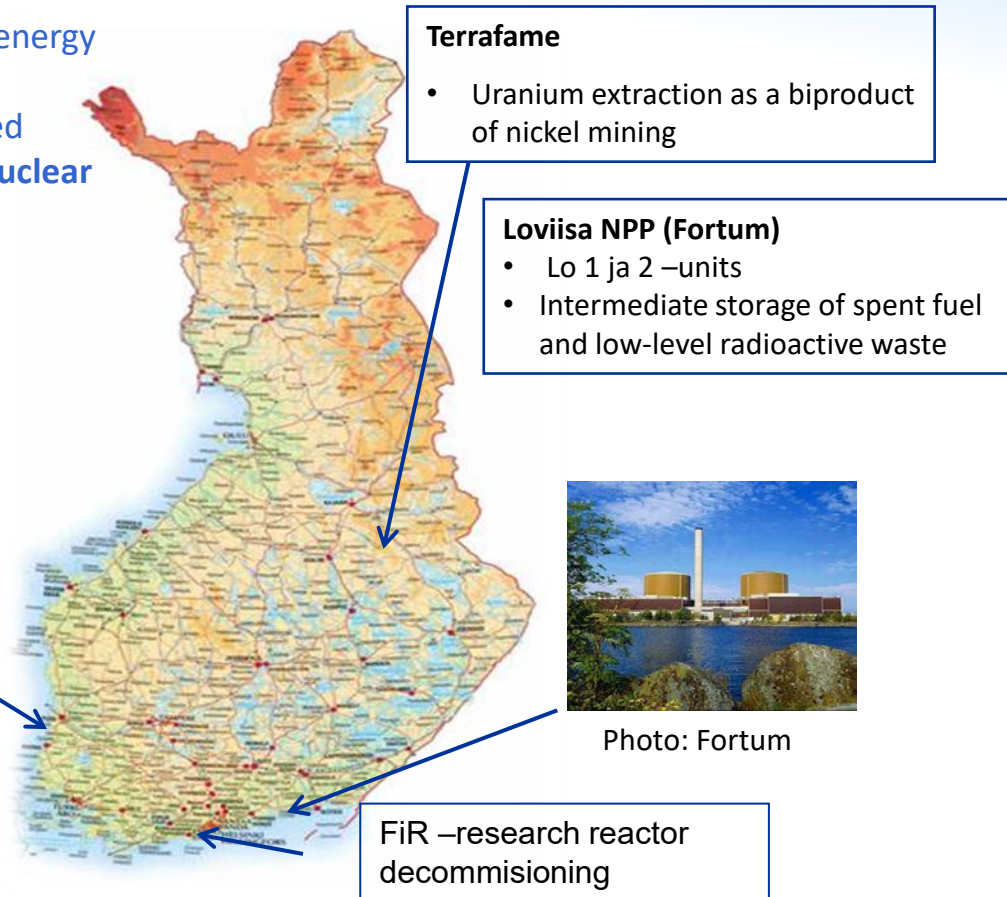
- Political and economical interest towards nuclear energy is high
- Increase in the use nuclear energy is to be expected
- **A very strong societal acceptance for the use of nuclear energy!**



Olkiluoto (TVO ja Posiva)

- OL 1 ja 2 –units
- OL3 unit, test phase
- Posiva – Geological repository for spent nuclear fuel

Photo: TVO



Communication Environment Today



- The strong transformation of the information environment has gained increasing momentum **from crises that have taken place in recent years**, such as the COVID-19 pandemic and an armed conflict situation. The complexity of crises is increasing.
- In recent years, the role of **social media** as a channel for accessing information has strengthened further, and conventional media has lost its position, although its position remains strong in Finland. Media consumption has changed the fastest and strongest in the youngest age groups.
- The **use of media and the way in which information is interpreted** have become fragmented and the **target groups of communications have become more diversified**. The segregation of information environments has been fuelled by the accelerating polarisation of society. Finland is becoming more diverse.
- The **publishing rhythm** of the media has accelerated even more.

Source: Government Communications Guidelines 2023

Communication Environment Today

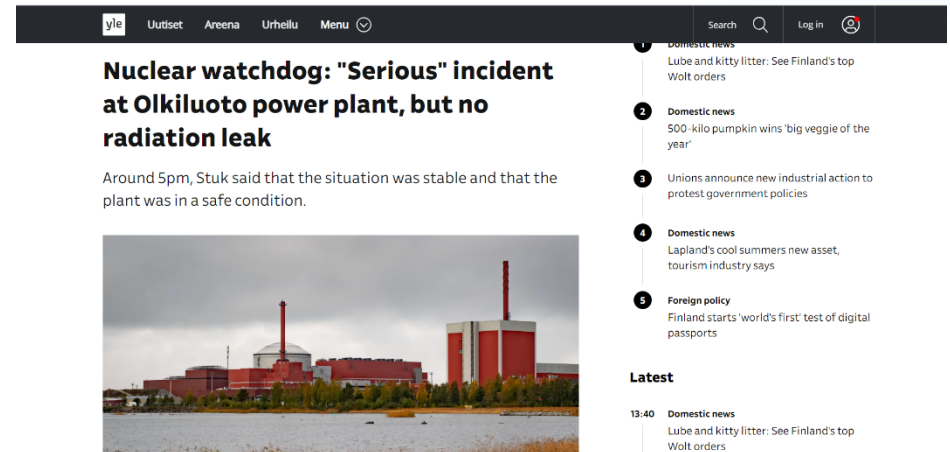


- In addition to conventional government announcements, **multi-channel communication** is needed, allowing content to be customized and targeted at different audiences.
- Continuously evolving **artificial intelligence** is likely to change the communication environment significantly in the coming years and also open up new opportunities for the authorities to communicate.
- **Opinions and beliefs** circulating online challenge fact-based communication by the authorities.
- **Hostile actors** seek to influence the functioning of people and society by taking advantage of the information environment undergoing a transformation.
- As a field, communication is **constantly evolving**, and the role of communication experts as in-house consultants, strategists and coaches is becoming increasingly emphasized. Communication needs are not limited to office hours.
- The rapid change in the operating environment requires communication experts to have the **ability to renew and to maintain continuous competence**.

Source: Government Communications Guidelines 2023

Responding to an Emergency

- **Olkiluoto 2 – Plant Emergency 12.12.2020**
- Flow of information and the resulting uniform situational picture
- Speed of communications
- Full emergency response
 - Multi-channel and multi-language in 24/7 –mode
- Challenges
 - Citizens' trust in the authorities
 - Secrecy
 - Suspicion of the ability to handle a serious accident
 - Terminology, concepts
- Lessons learned
 - Extensive survey on citizen's perceptions



Source: Yle



Responding to an Event Abroad

Lost radiation source in Australia

According to the Australian Fire and Emergency Service, the Cesium-137 isotope contained in the capsule may cause radiation burns and other long-term health risks, such as cancer.

- **Could a similar situation happen in Finland?**
 - Reacting with a blog post.
 - Basic messages:
 - STUK knows the exact number of radiation sources in use in Finland.
 - Popularization: If you stand five metres from the radiation source for an hour, the amount of radiation corresponds to a flight from Helsinki to the Canary Islands.

Ulkomaat | Australia

Australiassa etsitään epätoivoisesti pienen pientä radioaktiivista kapselia

Australiassa etsitään yhä maantiekuljetuksessa kadonnutta radioaktiivista kapselia, joka voi pahimmassa tapauksessa aiheuttaa löytäjälleen pitkäaikaisia terveysriskejä. Kapseli on ollut kadoksissa mahdollisesti jo kaksi viikkoa.



Elina Saarihahti HS

31.1. 19:59 | Päivitetty 31.1. 21:01

AUSTRALIAN viranomaiset jatkavat epätoivoista etsintäänsä pienen radioaktiivisen kapselin löytämiseksi 1 400 kilometrin pituiselta matkalta.

Länsi-Australian Newmanista Perthiin kuljetetun kapselin uskotaan pudonneen useamman vaunun autokuljetuksesta jo viikkoja sitten.

Viranomaiset ja asiantuntijat ovat ilmaisseet huolensa siitä, että joku voisi

Source: HS 31 January 2023

Proactively Communicating on Minor Incidents

Tritium observations made at the Olkiluoto power plant waste final disposal facility

- Is there a danger to people or the environment?
- Difficulty in understanding the final disposal of low, intermediate and high activity waste.
 - Reaction: expert opinions, blog post, online news, social media.
 - Basic messages:
 - No prohibition of use has been imposed on the waste cave.
 - No tritium has been released into the environment.
 - Information on tritium as a radioactive substance
- In the news, the disposal of various radioactive waste types, VLJ cave vs. Posiva.

TVO: Olkiluodon radioaktiivinen tritium-päästö valtion pienjätteiden välivarastotilassa

Säteilyturvakeskuksen asiantuntijan mukaan luolan vuotovesistä havaittiin toukokuussa poikkeavaa tritiumaktiivisuutta.

[Jaa](#)
[Tallenna](#)
[Kommentoi](#)



Matala-aktiivisen jätteen loppusijoituslaitos Olkiluodossa. Keski- ja matala-aktiiviset ydinjätteet loppusijoitetaan kalliopeirään noin 60 metrin syvyyteen. KUVA: RAINE LEHTORANTA

STT
3.2.824

TEOLLISUUDEN Voiman (TVO) ydinvoimalaitosjätelaulassa on havaittu radioaktiivinen päästö. Asiasta uutisoi Länsi-Suomi -lehti. Lehden mukaan päästön lähde ei ole tarkalleen saatu toistaiseksi selvitettyä.

Säteilyturvakeskuksen (Stuk) asiantuntija Kai Hämäläisen mukaan luolan vuotovesistä havaittiin viime toukokuussa poikkeava mittaustulos. Kyse oli kohonneesta tritiumaktiivisuudesta. Tritium on vedyn radioaktiivinen isotooppi.

Source: Satakunnan kansa 3 February 2023

Responding to a Conflict Abroad

Challenges at Chornobyl and at the Zaporizhzhia nuclear power plant

- Is there a danger to people or the environment?
 - Timely communication is key
 - Continuous response, all channels
 - Multiple basic messages.
 - A possible radiation accident in Ukraine will not cause a radiation hazard situation in Finland.
 - Basic messages for the whole state administration
 - Empathy in government communications
 - Citizens' concerns lead to the hoarding of iodine tablets and the need for information on the construction of radiation shelters.

Venäjän hyökkäys

Venäjä on vallannut kaksi ydinvoimalaa Ukrainassa – joukot voivat aiheuttaa ydinonnettomuuden, mutta todennäköisesti teolla on toinen tavoite

Zaporizžjan voimalan alueella syttyi tulituksen takia tulipalo, ja Tšernobylin voimalassa on sähkökatko. Venäjän sotilaat estävät Tšernobylin työntekijöitä lähtemästä voimalasta.



Venäjä jälkeä kuva

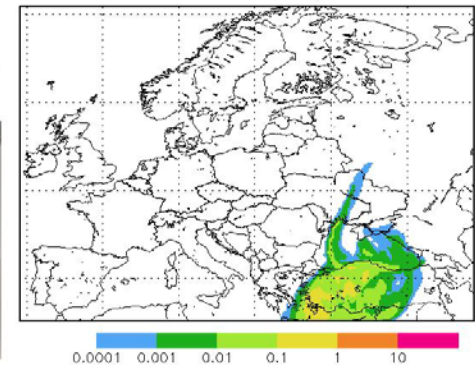
VIIV 11.3.2



Jodix-tabletit ovat vain hätätilanteisiin valmistuksessa on lähes tuhankertainen määrä jodia ihmisen päivänannoksen verrattuna. Kuva: Petteri Sopanen / Yle

JOHANNES BLOM

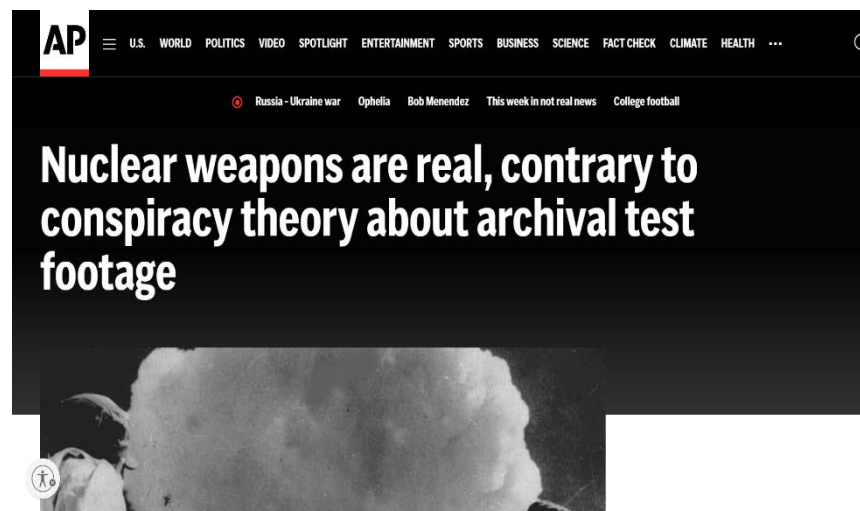
2.3.2022 9:45



Source: YLE 11 February 2022, 2 March 2023, 6 June 2023

Challenges concerning radiation and nuclear topics

- Illimited access to information
- Rapid transfer of news
- Invisibility of radiation
 - Human fear for unknown
- Complicated technical or physical topics
 - Terminology and concepts
- Radiation leaves space for imagination
- Analogies to Covid19
- Dis- and misinformation require fruitful soil
 - Trust and confidence of the population



Lessons learned – case Finland and STUK



Situational awareness

- Constant monitoring of the events
- Identification of incidents or news with escalation potential
- Up-to-date situational awareness on substantial issues

Rapid response

- Filling the gap
- Train and prepare your organization and experts

Strategic prevention through daily work

- Build trust and credibility among stakeholders
- Monitor your reputation
- Proactivity and openness – transparency
- Coordinate with stakeholders

Public trust is your primary asset!

During incidents focus on citizens sense of security

- Uncertains vs. "lost souls"



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In editorial and social media, attention is paid to the topics of nuclear power, nuclear weapons, nuclear fuel, nuclear waste, etc., which are among the main concerns of citizens. However, the

real radiation hazard comes to Finns from radon and solar UV radiation.



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Thank you!

