Leveraging innovations for safeguards applications

The sessions under this theme will build upon insights gained at the 2018 Symposium and 2017 and 2020 Emerging Technologies Workshops organized by the Department of Safeguards, and the research and workshops organized by the broader safeguards community, to bring promising advances into the safeguards realm. Topics of interest include:

- Application of artificial intelligence (AI) and machine learning (ML) for safeguards surveillance information, object identification, processing and analysis, process monitoring and other safeguards applications
- Advancements in data science for improving capabilities for the analysis, integration and visualization of safeguards data from different sources and increasing 'signal to noise' ratio
- Leveraging multi-media, multi-lingual data for identifying safeguards relevant information
- Introduction of distributed ledger technology applications to e.g. transit matching, nuclear material accountancy, and spent fuel disposition
- Advancements in geospatial, space-borne and other sensors, and the coupling of AI/ML with these technologies for e.g. change detection
- The potential of leveraging improved connectivity, speed and bandwidth for data transmission
- The application of robotics and other intelligent automation technologies for safeguards
- Mechanisms for bringing innovation into practice in the safeguards community.