SG39: Perspectives

1) Finalise deliverables

- Deliverable on covariance data to be finalized in 1-2 months. Feedback on covariance analysis expected.
- More on methodology (how to avoid compensations, key issue). New developments in continuous energy cross sections adjustment (AREVA).
  Next version of deliverable by November 2015
- Sensitivity coefficients (MC vs deterministic, other issues)
- Produce report on the status of uncertainties of Am-241 (for critical sphere, criticality-safety issues)

2) New experiments (separate effects) and their analysis:

- **PROTEUS (link between epithermal and fast energy range: k-infinity, void coefficient, reaction rate ratios): U-238, Pu isotopes**
- **Beff experiments (new inelastic information, but need delayed nubar uncertainty). U-238, Pu-239, U-235**
- **Variable adjoint experiments (e.g. SEG) to separate inelastic from absorption effects. Check experiment availability**
- **Neutron leakage experiments (RPI, CALIBAN?) mostly for U-238 and Fe-56 inelastic**
- **Possibly, selected neutron propagation experiments (inelastic, elastic). Mostly Fe, also Na-23**
- **STEK experiments? For now, in standby**

3) Account for new emerging needs:

- **Industry driven (see TerraPower). Others? How to help specific initiatives for data uncertainty reduction**
- **New target uncertainties? If yes, how to cope with them?**
- **Provide feedback to be used in the frame of ND activities towards MA improvement requirements (NSC Expert group, Am-241 issue)**

Starting from CIELO new files (with uncertainties) attempt new adjustment:

- **Selection of integral experiments (old and new ones)**
- **Criteria for reliability (from methodology studies)**
- **A-posteriori covariance data: how to use them in evaluation**
- **Need more complete covariance information (e.g. U-235 data), possibly cross correlations**

- **Schedule? Interest from CIELO?**
- **At present, most benchmarking without detailed sensitivity analysis (?)**