Future of the Hotlab
Hotlab Conference
Idaho Falls, 2013

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Disney Story in 1959: our friend the “ATOM”
A new millennium is arising:

“Nuclear Power 1959”

3 wishes for mankind
First: infinite energy supply

- Shortage of oil is already foreseen in 1975
- 10% atomic energy for houses is foreseen in US in 1975
- Cars, ships and airplanes will have nuclear propulsion soon!
- 1955, Nautilus sub. set sail
A new millennium is arising:

Second wish: Food & Health

- Use of tracers for biological studies and industry
- Uptake by plants to study effectiveness of artificial manure
- Diagnostics of blood circulation
- Therapy of cancer
A new millennium is arising:

Third wish: Peace

- 1955, Genève; Atoms for peace
- Cooperation and coordination between countries
1959 Hotlab Petten: under construction

- Commissioned 1963
- 1.2 m Concrete cells
- 5 heavy hot-cells, 2 combined
- Final Footprint for 30 cells
- Sliding doors in between cells
- Up to 3700 TBq / cell
Petten Hotlab laboratories today

Increasing public awareness by:

- Every day over 24,000 (cancer) patients are treated worldwide from Petten
- Removal of Legacy waste from site to intermediate storage
- Lab refurbishments of primary safety systems:
  - Cell logistics
  - Shielding
  - Confinements
  - Ventilation
Legacy waste treatment

- 1700 vessel of ILW in stock
- Adjusted Infrastructure in Hotlab
- Reduction of disposal cost
- Separation of LLW from ILW
- Neutralize chemical components
- Creating stable storage conditions
Hotlab future

- Focus on sustainable economics of our business (full cost recovery)

- Focus on production of Isotopes
  - Medical; Mo-99, Lu-177, Ir-192 etc.
  - Industrial; Ir-192, neutron transmutation doped (NTD) silicon ingots, etc.

- Focus on Environmental Responsible Operations:
  - Nuclear professionalism of Staff (training)
  - Asset Integrity Management
  - Design of Experiments: => Secured back-end storage
  - Pro-active Risk Assessment
  - Compliance

- Focus on Quality & Operational Excellence:
  - Training of Staff
  - Data driven product quality
  - Track & Trace of manual operations
  - Continues improvement (bottom up)
Future possibilities:

“Synthetic Viewing”

Synthetic Viewing.mp4
Future possibilities:

“High Speed Robot Hand”

High-Speed Robot Hand.m4v
Questions: about the Future?