**Introduction**

- Best Medical Belgium S.A.
  - Production of radionuclides:
    - Co-57
    - Ti-201
    - I-123
    - Ge-68
  - With 2 cyclotrons
  - Purification in the chemical zone
  - Contamination of the installations
- Bankruptcy in 2012 ➔ dismantling
  - Need for radiological characterisation
  - Evaluation of future dismantling strategies

**Objectives**

1. Representative sampling of:
   - Contaminated materials
   - Activated materials
2. Measurement of the samples
3. Identification of the radionuclides
   - Quantitative
   - Semi-quantitative
4. Find the origin of the nuclides
   - Link back to the production process
5. Preliminary research of either:
   - Disposal options or
   - Decontamination approach

**Methods**

- **Representative sampling**
  - Contamination:
    - Swipe samples
  - Activated materials:
    - Drill campaign

- **Measurements**
  - 75 samples:
    - 59 swipe samples
    - 16 drill samples
  - Gamma spectroscopy
    - HPGe-detector
    - Apex gamma software
  - Energy & efficiency calibration

**Results**

- 13 identified radionuclides
  - Radionuclide
    - Co-60
    - Zn-65
    - Ge-68/Ge-68
    - Ag-108m
    - Ti-202
    - Ag-110m
    - Ti-204
    - Cd-109
    - Na-22
    - Mn-54
    - Co-57
    - Bi-207
  - Contamination activity range:
    - From $(5 \pm 2) \times 10^2 \text{ Bq/cm}^2$ to $(1.23 \pm 0.06) \times 10^4 \text{ Bq/cm}^2$
  - Activation activity range:
    - From $(3.9 \pm 0.5) \times 10^2$ to $(4.5 \pm 0.2) \times 10^4 \text{ Bq/g}$

**Conclusion**

- 13 radionuclides were found and linked to the original production process
- Hot cells will be decontaminated with:
  - Chemical decontamination
  - Abrasive blasting
- Glove boxes will be dismantled with:
  - Glove tent
- Future of activated components and materials in the hot cells:
  - Category A radioactive wastes