

Work Package 1: Safety Assessment

**EC BELBaR Project Start-up Meeting
Lund, Sweden**

7th – 8th March 2012

**Presented by Lucy Bailey, NDA
RWMD**



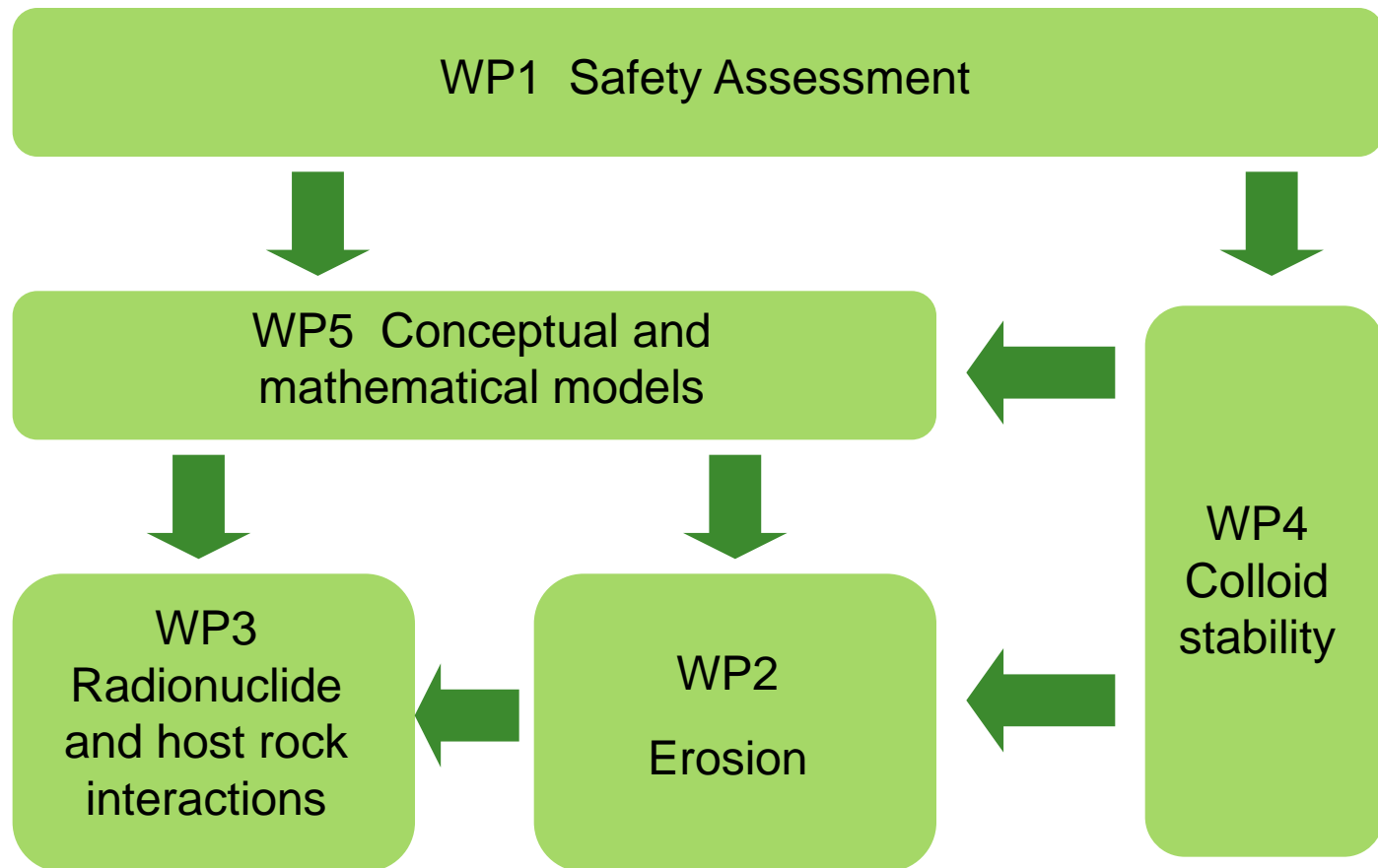
WP 1 Safety Assessment: Who?

- **WP1 Participants**
 - **Czech Republic: NRI**
 - **Finland: POSIVA, VTT, JYU, B+Tech**
 - **Germany: KIT**
 - **Spain: CIEMAT**
 - **Sweden: SKB, ClayTech, KTH**
 - **United Kingdom: NDA RWMD, UNIMAN**
 - **Russia: MSU**
- **Everyone!**

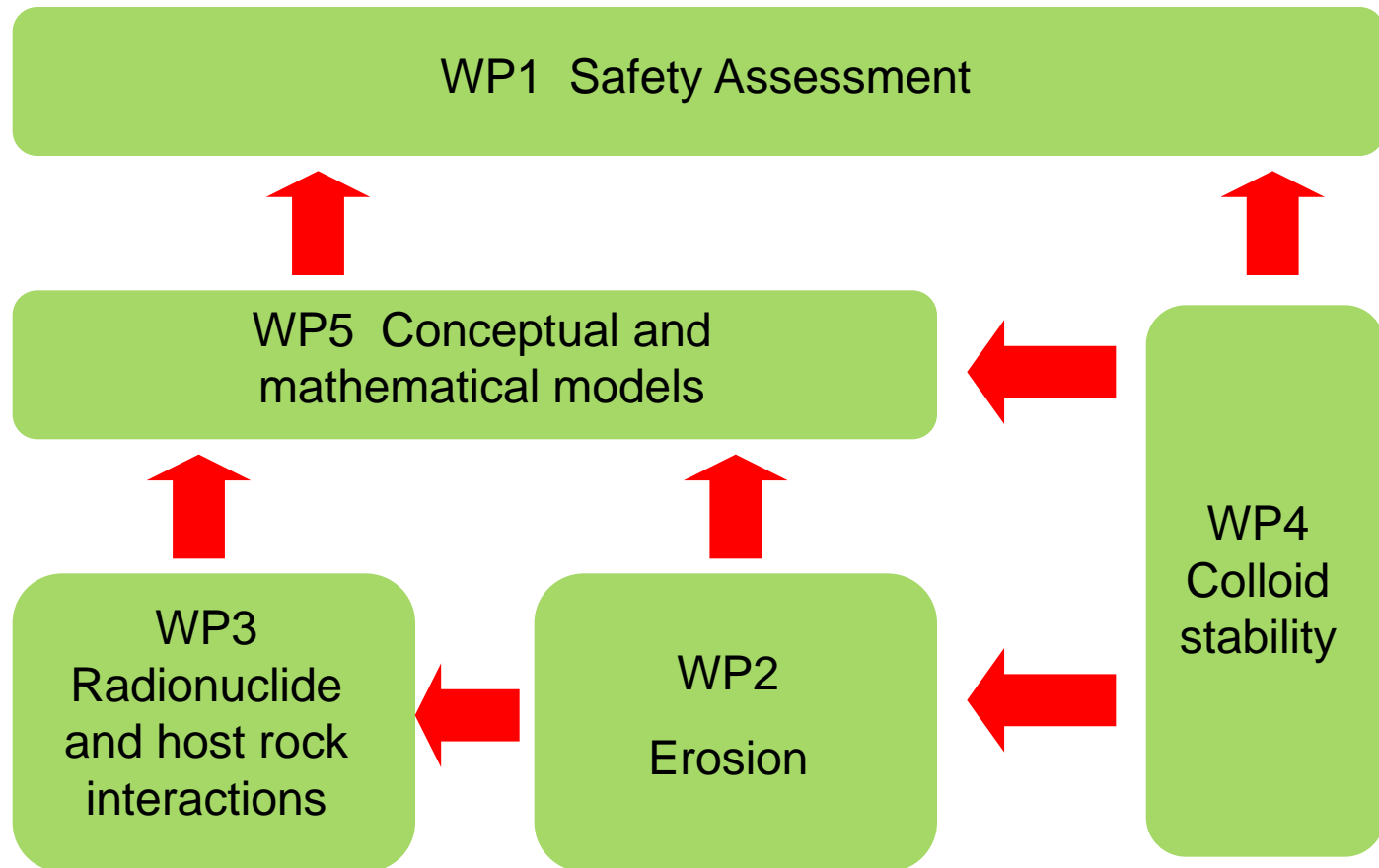
WP 1 Safety Assessment: What?

- **WP1 will:**
 - **Formulate the issues that are important for the long-term safety assessment**
 - **Identify the main uncertainties related to colloids in the safety assessment**
 - **Provide the focus for the research work in BELBaR**
 - **Produce Synthesis Report: Colloids and related issues in the long-term safety case**

BELBaR Project WP Linkages: Information flow at start of project



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WP 1.1 Role at project outset

- **WP 1.1 At project outset**
 - **Produce State of the Art report – Treatment of colloids and related issues in long-term safety assessments for ILW, HLW and spent nuclear fuel**
 - **Identify merits and shortcomings in current treatment of colloids and related issues in safety assessments**
 - **Analyse limitations of previous studies**
 - **Identify different types of uncertainty related to the formation, transport and stability of colloids in the host rock and engineered barriers**
 - **Discuss needs for additional studies and how they can support future safety assessments**
 - **Identify relevance of work in WPs 2 – 5 and the expected benefit to be gained from progressing the work**

WP 1.2 Role throughout project

- **WP 1.2 Throughout the project**
 - **Integrate information produced by this and other WPs, considering implications for current state of the art**
 - **Examine extent to which other WPs' findings provide satisfactory answers to the needs identified at the project outset**
 - **Define scenarios for colloid issues, discuss uncertainties in these scenarios and identify model and data needs for their treatment**
 - **Make recommendations for and propose updated treatment of colloids and related issues in relation to long-term safety assessments, based on integrated project findings, e.g. future safety case needs, design recommendations in relation to colloid issues**

WP1 Deliverables

- **D1.1 – Summary of the current start-of-the-art regarding treatment of colloids and related issues in the long-term safety case (Month 6)**
- **D1.2 – Workshop 1 (Month 9)**
- **D1.3 – Progress report (Month 30)**
- **D1.4 – Synthesis Report: Colloids and related issues in the long-term safety case (Month 45)**

WP1 Current state-of-the-art report

- **Gather information from current programmes (particularly the national waste management organisations, NDA, SKB and Posiva)**
- **Update on progress since relevant EC projects and international collaborative projects (e.g. Colloid Radionuclide Retardation Experiment, CRR and Colloid Formation and Migration project, CFM)**
- **Short timescale to produce this report, we need to agree how best to gather the information as soon as possible!**
- **Aim to hold a workshop in May to progress?**

WP1 Workshop

- **Workshop aims:**
 - **Dissemination of initial findings**
 - **Establishing a network of international specialists with a range of relevant expertise**
 - **Education of participants in history of colloid research, terminology and definitions – special session by invited lecturer**
 - **Transfer of knowledge and collaboration between project participants and to wider scientific community**
- **Workshop will be open to wider scientific community**
- **Workshop proceedings will be published as a deliverable of WP6, ideally in a major peer-reviewed journal**
- **Workshop date needs to be agreed as soon as possible – November/December 2012?**