**INPUT to Beacon Work Package 2 -** Collection and compilation of existing data and available models

All participants in Beacon Work Package 2 are required (and others are more than welcome) to provide input to Beacon WP2 - Collection and compilation of existing data and available models, in accordance with the WP2 description (attached as a whole).

This input is the basis for a majority of the work in the Beacon Project in WPs 3-5, and it is crucial to have it available early in the project. All partners have time/budget in WP2 to do this (see the attached WP2-description) and time reported after the project start date is eligible.

Some points from the WP2 description below:

* A substantial database of knowledge on issues potentially relevant to bentonite mechanical evolution is **available from earlier and ongoing laboratory and Underground Research Laboratory (URL) experiments,** complemented in some cases by modelling studies.
* However, many such experiments / studies were not primarily focused on the mechanical evolution of repository bentonite barrier material, and therefore a large part of the existing database **needs to be re-evaluated** to extract important information directly relevant to bentonite mechanical evolution, to compile the qualitative and quantitative observations and to develop the conceptual understanding. This will be done as a joint effort between WMOs, experimentalists and modellers, all with previous experience in the field, in this Beacon work package.
* The key objective of Beacon WP2 is therefore to **collect such relevant information as produced from past and ongoing projects** that provide knowledge relevant to understanding bentonite mechanical evolution in a repository context, **and to process it** to a level where it can be useful as input to the other Beacon work packages.

Work Package 2-leader Simon Norris sends these guidelines:

* The input is to be provided in the template below
* Providing input is mandatory for all participants in WP2 (a template could contain data from more than one partner though)
* A minimum of 4 pages on each experiment is expected, pictures are welcome and helpful.
* An example is provided. A filled out template from Andra is attached, thank you very much, Jean.
* In terms of which existing / past projects should be reported on via completed templates we say "the more the merrier", noting the context of the project is bentonite mechanical evolution. If in doubt, you are encouraged to complete a template (and if we receive more than one for any one project, this is non-problematic and is something WP2 can handle).
* The responses should include references (published, in prep and 'grey'); identifying a contact person for further information would be helpful
* This input is very welcome soon, preferably even before the Kaunas workshop if you have time and possibility to fill out the template, but **31st July** at the very latest.
* It would also be helpful to receive feedback from those of you who have undertaken work on Beacon-related subject material as to pitfalls to be aware of, lessons learned and a position in consideration of "If I were to do this (precedent) project again, this is what I'd do differently".

Please send the filled out templates to [beacon@skb.se](mailto:beacon@skb.se) **before 31st of July 2017**

Thank you very much and Good luck!

Simon, Mary and Patrik

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| **Project Acronym** | **Location** | **Type**  URL/mock up/lab-test |
| **Lead organiser** | **Start date** | **End date** |
| **Main partners involved in the project** | **Characteristics of swelling clay** | **Water Saturation**  Artificial/natural |
| **Instrumentation** | **Main elements related to homogenization** | **Interfaces with other material** |
| **Modelling**  Yes/no:  Groups/Codes : | **Main processes studied**  T  H  M  Swelling pressure  Gas transfer  Other | **Reference concept if pertinent** |
| **Main objectives of the experiment or modelling study** | | |
| **General description** | | |
| **Main learning points concerning bentonite homogenization / mechanical evolution and relevance for the project** | | |
| **How could this work inform a new experimental or modelling study in BEACON?** | | |
| **References (ideally with web links)** | | |
| **Recommendations for BEACON project** | | |