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RADIOACTIVE
WASTE REPOSITORY
AUTHORITY

Deep Geological Repository Development in the Czech Republic

Current tasks concerning nuclear energy acceptance

SÚRAO – Radioactive Waste Repository Authority

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Managing Director

NERS 2015, November 11, Praha 2015

Responsibility

Act on the Peaceful Uses of Nuclear Energy and Ionizing Radiation
= Atomic act – 18/1997 Coll.

The main principles of Responsibility:

- **The state guarantees** the safe disposal of all radioactive waste.
- Set up the **Radioactive Waste Repository Authority (RAWRA)** as a state organization - established on 1st June 1997
- **Producers** of radioactive waste are required **to bear all the costs** associated with its management from the time of origin to its disposal.
- The NPP operator is responsible for NPP decommissioning and the processing of RAW prior to its final disposal
- **Nuclear account** - Ministry of Finance, Czech National Bank

Responsible to Deep Geological Repository in the Czech Republic

Direct SNF disposal in a DGR

- **2020** – Two suitable sites = **Two candidate sites**
- **2025** – **Selection of final site** (and alternate)
- 2030 – Construction of URL
- **2065** – **DGR Commissioning**

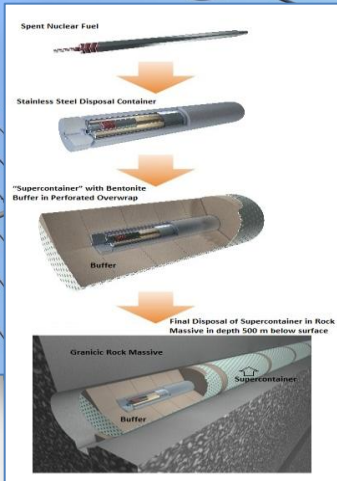
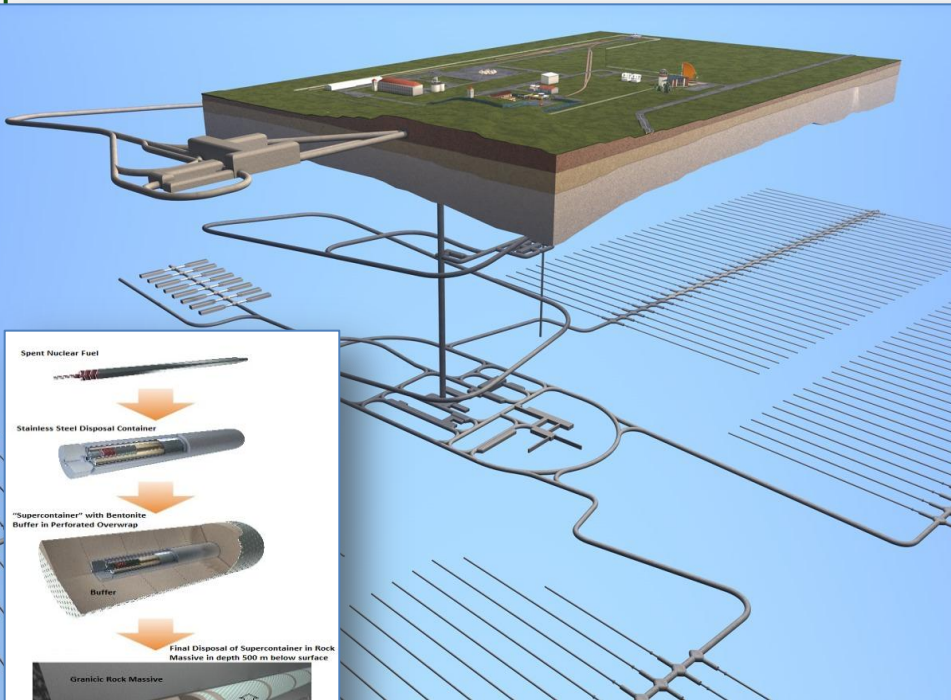
Responsible
solution

To 2050 - time to
reach Responsible
Decision

Geological Disposal of Spent Nuclear Fuel in the Czech Republic

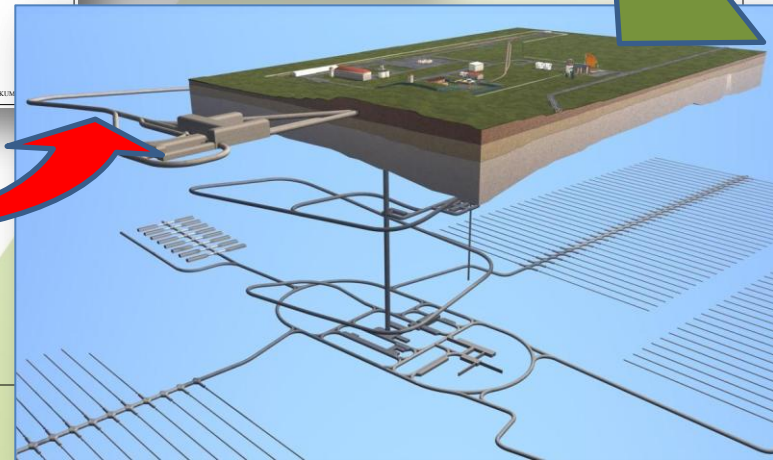
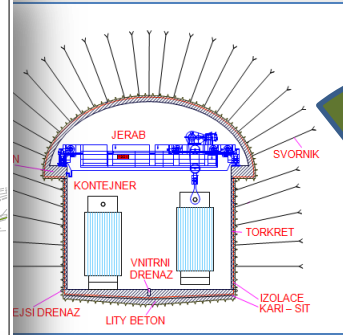
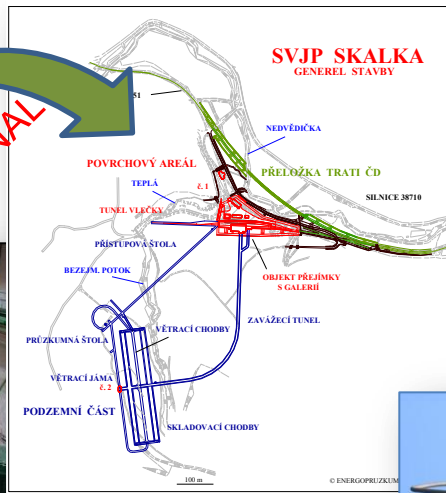
Disposal Concept Reference Design of DGR 2011

- **Direct disposal of spent fuel in steel based canisters in a crystalline host rock**
- Operation period **2065 – 2140**
- **Progressive construction** along SNF emplacement
- **Surface facility** – SNF / HLW reception
- **Encapsulation facility** – in the underground near the Surface facility
- **Disposal of HLW in separate part**



Spent Nuclear Fuel Management

NPP → Storage at NPP sites → Central Interim storage (optional) → DGR 2065



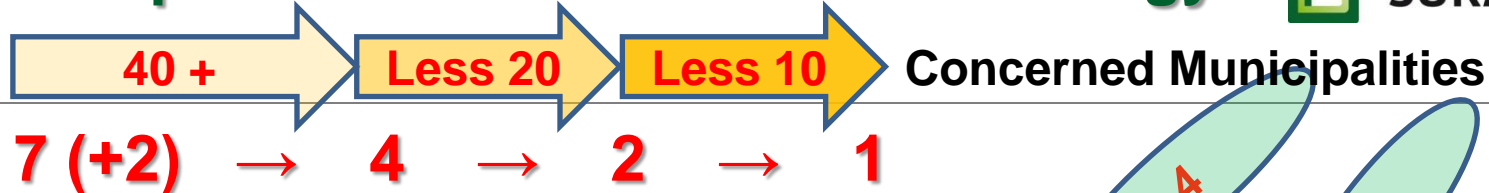
Interim Storage of SNF
CASTOR casks – transport and storage container
440/84 assemblies,
1000/19 assemblies

Transparent DGR Site Selection Strategy

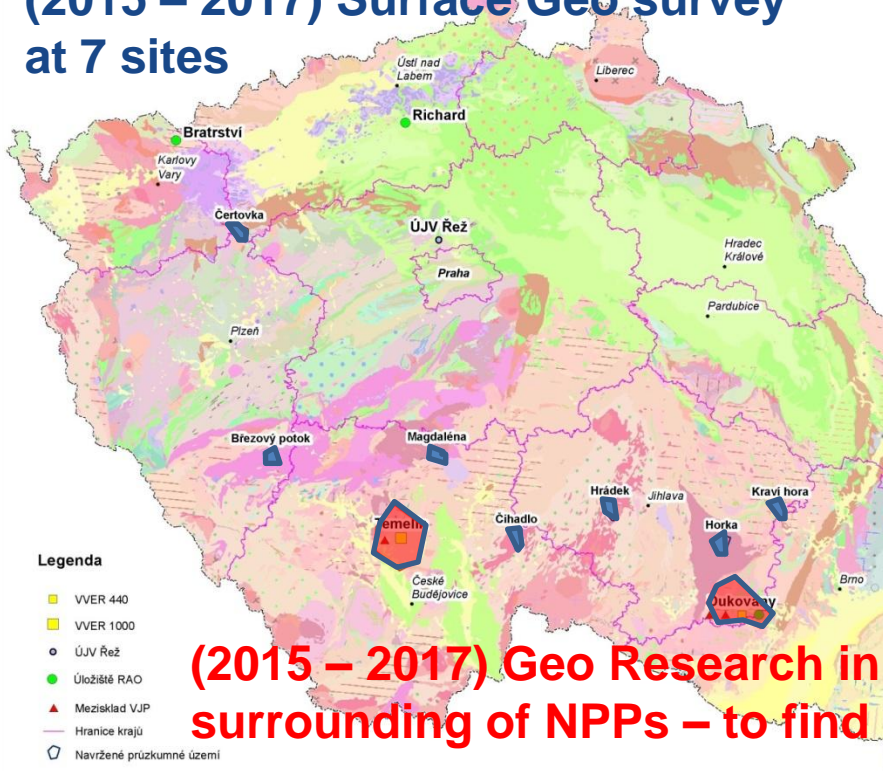


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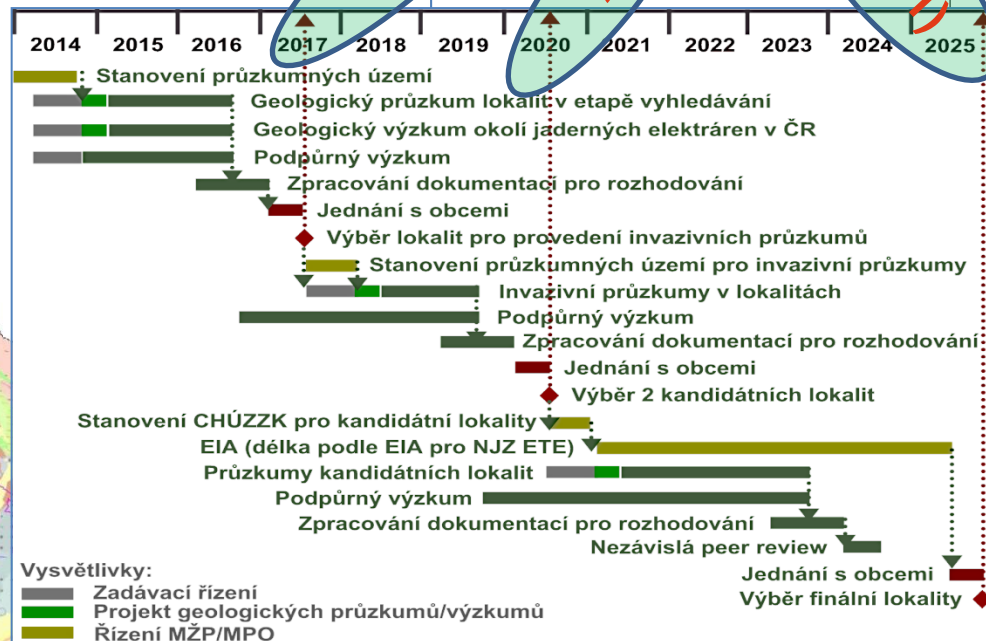
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(2015 – 2017) Surface Geo survey at 7 sites



(2015 – 2017) Geo Research in the surrounding of NPPs – to find (2) new sites



Stages and Activities of DGR Siting

STAGE	ACTIVITIES	No. OF SITES	SCHEDULE
<p>Areas Reduction + Tentative sites selection</p>	<ul style="list-style-type: none"> • Surface geological investigation • Boundary of host rock massive determination • Estimation of faults and fracture zones with deep water circulation • Prefeasibility studies updating • Safety cases - used only generic data • Public opinion poll – on site and regional studies 	<p>7 preselected sites</p>	2013 - 2016
<p>Two Candidate sites selection</p>	<ul style="list-style-type: none"> • Geological investigation using drilling • Boundary of host rock massive in the depth • Preliminary host rock characterisation • Site specific feasibility studies • Preliminary site specific safety cases • Local municipalities statements 	<p>4 potential sites</p>	2017 - 2020
<p>Final site selection</p>	<ul style="list-style-type: none"> • Detail geological investigation (borehole drilling) • Detail host rock characterisation • DGR´s Site specific design • EIA studies • Site specific Safety cases • Local municipalities statement 	<p>2 candidate sites</p>	2020 - 2025



Transparency and Public Acceptance:

Key issues of future success – not only for DGR adaptation but also for all Fuel Cycle

The most important question: How to rich Public acceptance?

Who is Concerned Public? Working Group for Dialogue on DGR

2010 – establishment of WG for Dialogue on a DGR – advisory group

2015 - New WG for Dialogue - a regular part of the Government Energy and Raw Materials Strategy Committee

- **5** delegates of ministries and state organisations – MTI (3), MEnv. (1), SONS (1)
- 2 delegates from concerned local municipalities – in total **14**
- 1 delegate from local NGO – in total **7**
- **2** delegates from CR NGOs
- **2** delegates from both chambers of Parliament
- **1** representative from SÚRAO
- **1** lawyer - delegate nominated by municipalities
- **1** expert nominated from the Sociological Institute of the CR Academy of Sciences
- **1** scientific expert nominated by municipalities

**New WG for Dialogue
34 delegates**



Successful Site Selection – how to do it?

Guarantees and Motivation – never ending discussion in WG for Dialogue

GUARANTEE = clear decision-making process (supported by legislation)

- **Who will decide? (before commencing standard application)**
 - At present SÚRAO only decides and the Government approves SÚRAO's plans
- **How will the issue be decided?**
 - Clear site selection criteria - SURAO has issued the Site Selection Criteria for the First stage of the process
- **Clear role of municipalities concerned**
 - Currently municipalities participate in the standard procedure and can set up conditions only
 - Future – local Public control and information committee

MOTIVATION / ADDED VALUE

- Direct payment into municipality budgets
- Support for local development – local development projects
- Support for regional development – microregional development projects



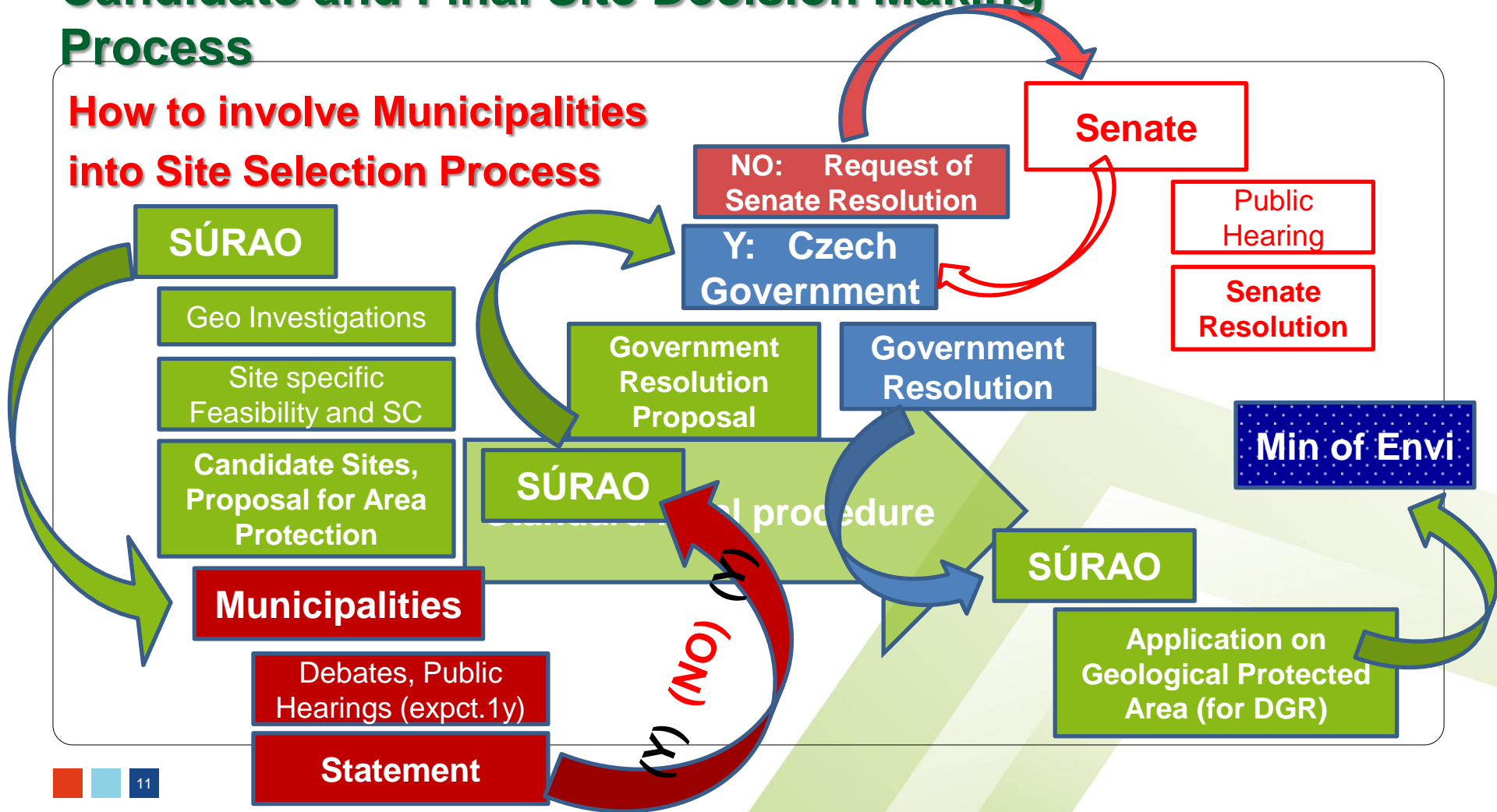
WG Dialogue Proposal: Candidate and Final Site Decision Making Process



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How to involve Municipalities into Site Selection Process





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Thank you for your attention

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