

Last developments in the Belgian disposal programme for low and medium short-lived waste

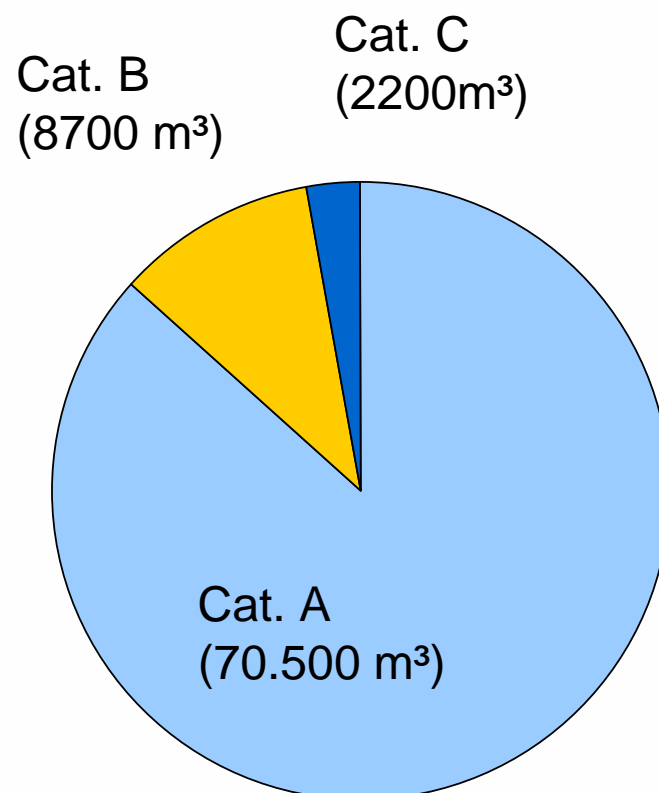
Jean-Paul Boyazis,
ONDRAF-NIRAS – Brussels (Belgium)



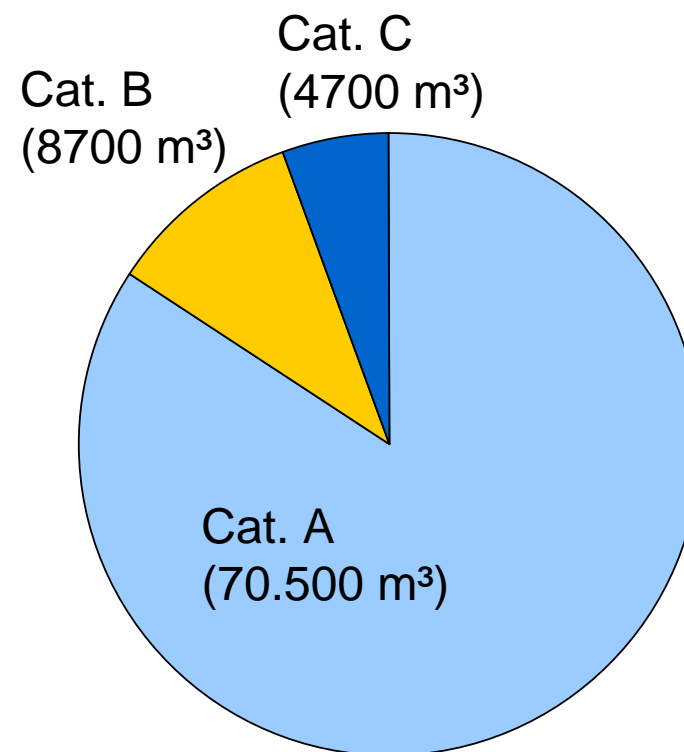
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Conditioned waste volumes to be managed

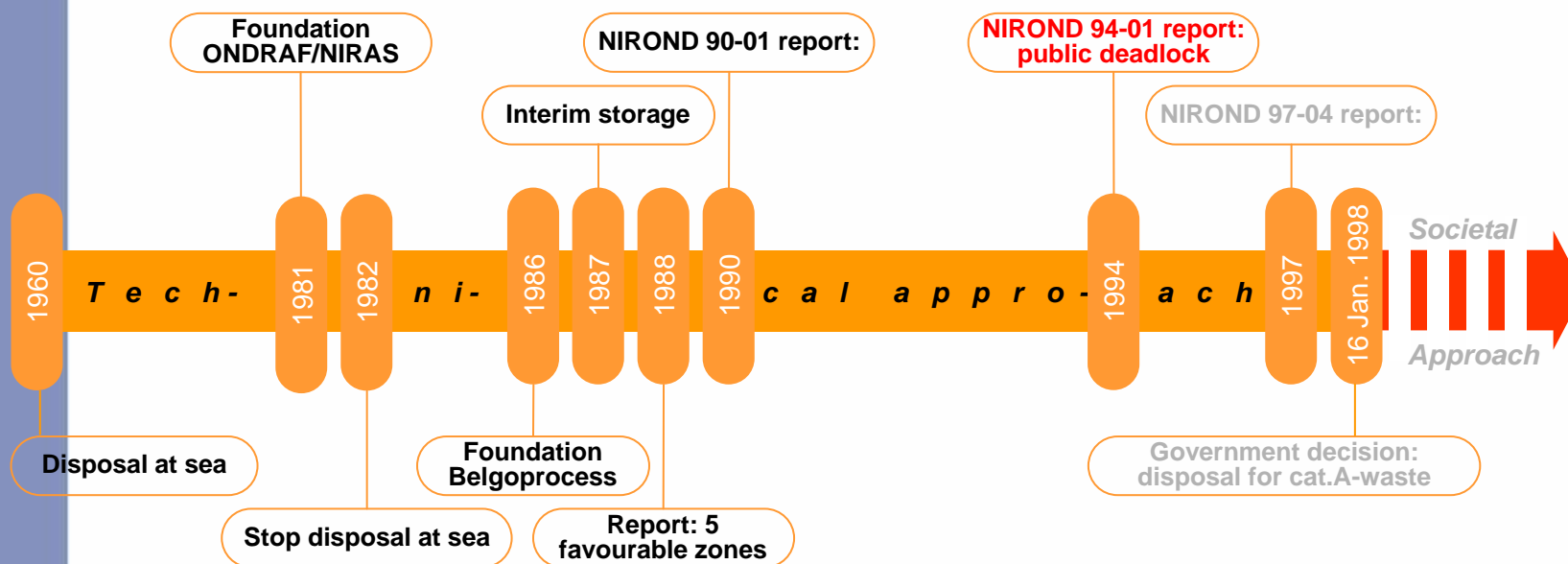
**Closed cycle
(reprocessing option)**



**Open cycle
(non-reprocessing option)**



Long-term management of category A waste: short historical reminder

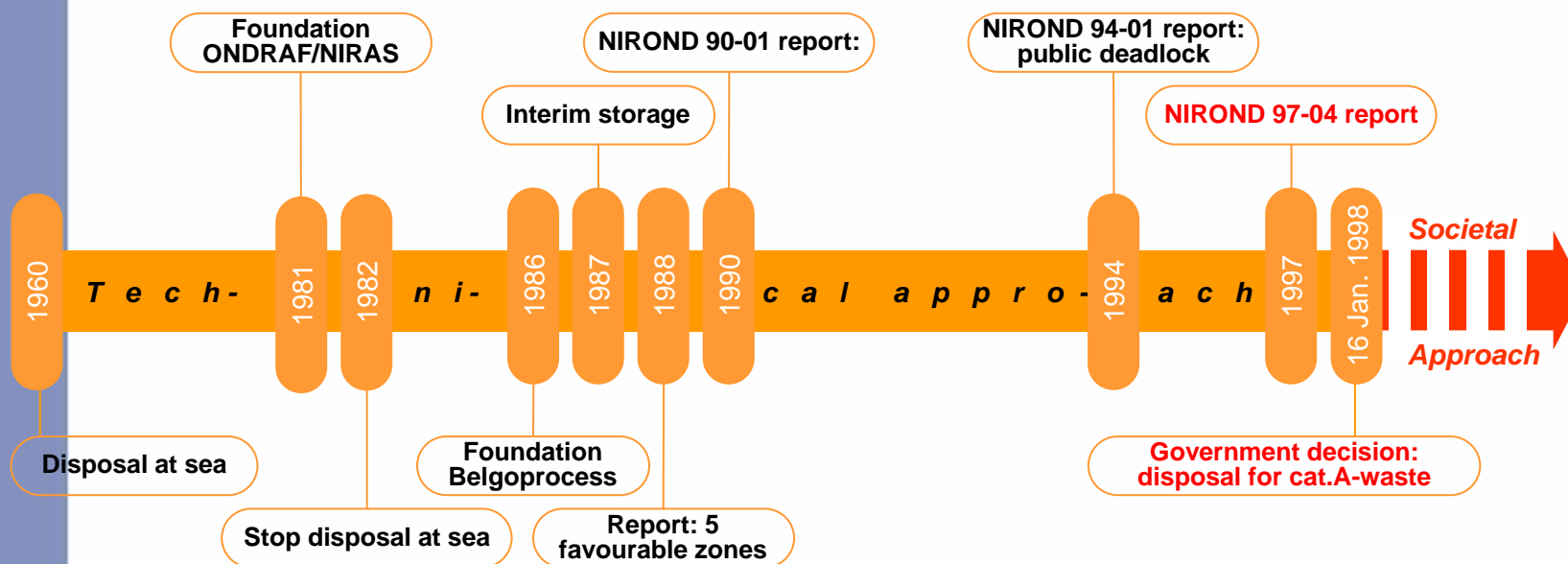


NIROND 94-04: Autopsy of a failure

- Surface disposal is a realistic solution in Belgium
- Based on bibliographical survey: selection of 98 zones potentially suitable for surface disposal
- The NIROND 94-04 report unanimously rejected : **public deadlock**
- The working method applied in the past by ONDRAF-NIRAS:
 - carefully worked out by its **experts** (no problems once it had been proven that the chosen site was one of the best possible choices from a technical point of view) but
 - **pure scientific, objective, rational and...naive approach**
 - **no dialogue** with the affected populations
- Gradually, the agency realized that the **social dimension** was missing in its model



Long-term management of category A waste: a new dimension



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The government decision on January 16, 1998

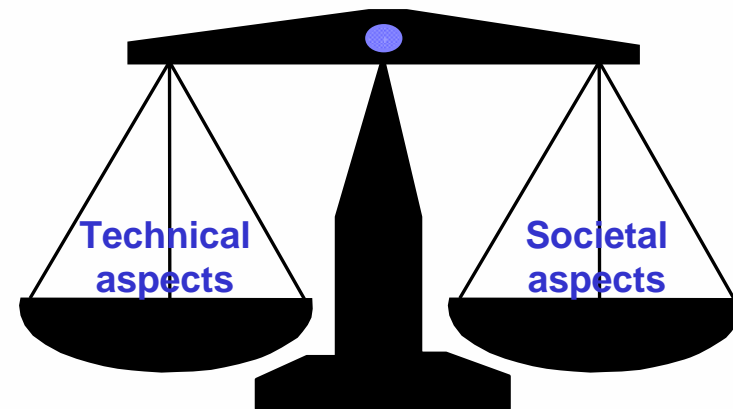
- The Belgian federal government opted for a **final** or **potentially final** solution for the long-term management of short-lived low-level waste (the prolonged interim storage option was abandoned)
- The government also wanted this solution to be implemented in a **progressive**, **flexible** and **reversible**
- New missions to ONDRAF-NIRAS:
 - to allow the government to make the necessary technical and economic choice between **surface disposal** and **deep geological disposal**
 - to **develop methods**, including management and dialogue structures, necessary to **integrate a repository project at local level**
 - to limit its investigations to the **four existing nuclear zones** in Belgium, namely Doel, Fleurus, Mol–Dessel, and Tihange, and to the municipalities interested in preliminary field studies



A new method for dialogue: the Local Partnership Concept

An attempt to address the cat A waste disposal siting issue through both technical research and concept development and **interaction with the local stakeholders**

(Concept developed by Department of Social and Political Sciences (PSW) of the university of Antwerp (UIA) and the research group SEED (Socio-Economic Environment Development) of the university of Luxemburg (FUL))



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Key features of a local partnership

- To bring the decision-making process closer to the public, and to lower the threshold for active participation
- Involvement of all stakeholders at early stage in decision making process
- A collective decision-making in a democratic environment is always a process of negotiation
- The partnership should have its seat at the heart of the community concerned (gives the partnership a “face”)



The local partnership as a non-profit organisation

- Discussing in depth the pro's and con's of a low-level nuclear waste repository is not easy to do through **public hearings** with several hundred people attending: need of an adapted organisational structure
- This is why the local partnerships were set up as non-profit organisations of local **volunteers** willing to discuss **whether and under which circumstances they can possibly accept a repository**, with the mandate to work out an **integrated pre-proposal** of a repository, integrated in a **broader added value** project designed to fit the specific environment **supported by the local population**
- In order to allow the partnership to work **independently**, each partnership receives an annual budget from ONDRAF-NIRAS (250.000 EUR per partnership)



A representative democracy at micro level

- Participation through **representation**
- Different interests, opinions and values are thereby **weighted** one against the other
- This **weighting** of interests must be done **by the stakeholders** and not for them
- Other elements than technical or safety aspects such as the **socioeconomic context** of the community concerned, the **values, fears, interests** and, why not, **emotions** of different stakeholders all play a part in the decision-making process

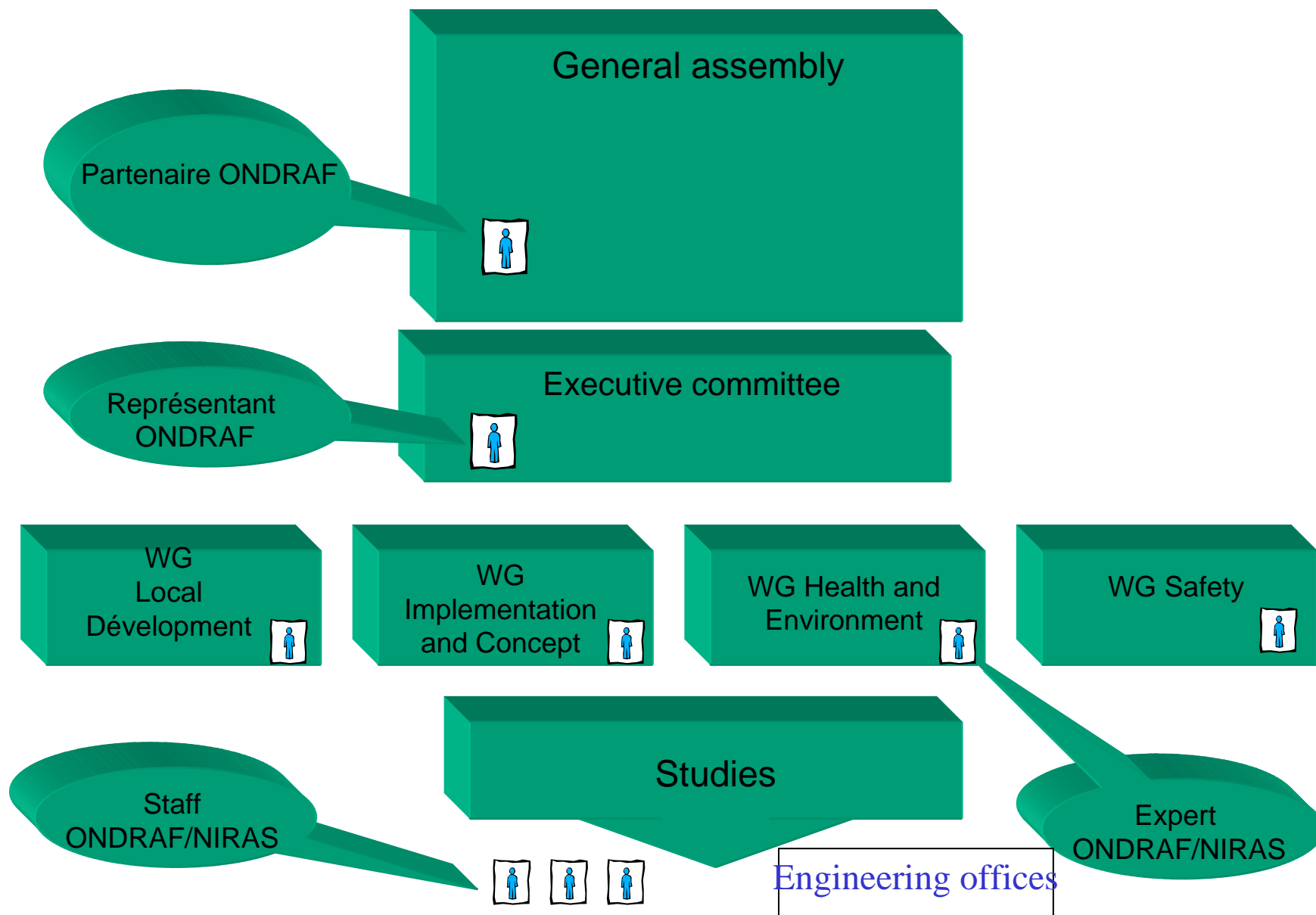


Partnership organisation

- The *general assembly* decides on the main course and sets out the beacons for the actual discussions
- The *executive committee* is in charge of the day-to-day management (co-ordination of working group activities, decision making on budget spending and the supervision of the project co-ordinators)
- Several *working groups*, composed of both representatives of the organizations that founded the partnership, as well as individual citizens, were all different aspects of the implantation are being discussed: technical aspects, such as siting and design, environment and health, safety assessment as well as on social aspects (local development)
- Two full time *project co-ordinators* take care of administrative and communication tasks and support the working groups both logistically and scientifically
- *Independent experts* are invited to participate in the debate



O/N within the partnership



Mutual project development

- A partnership is **not a field office** from ONDRAF-NIRAS
- ONDRAF-NIRAS participates as the **only non-local partner** amongst a multitude of local stakeholders.
- Through **dialogue**, all interested parties are invited to express their interests, concerns, fears and values, to listen to the views of other parties and to come to terms on what this particular group of citizens, in this particular community, at this particular point in time defines as a **common goal**
- The members of the working groups can **discuss** with the ONDRAF-NIRAS experts directly and/or invite other experts, whose opinion they consider relevant



Mutual project development

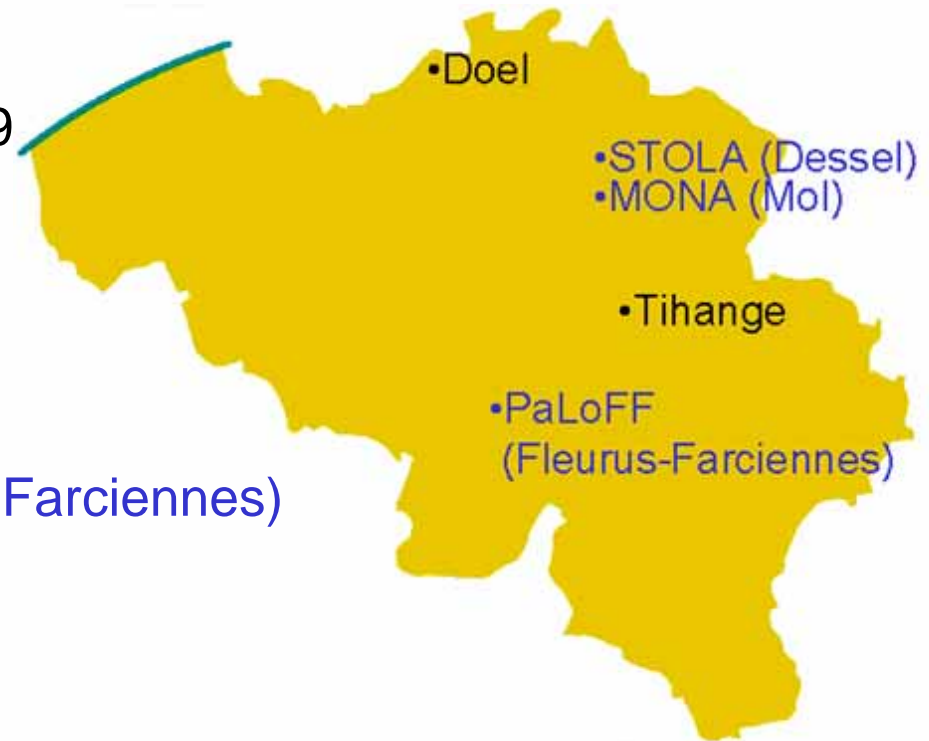
- By entering into direct dialogue with the local community, the concept-designers have an opportunity to **better explain** all the aspects of such a project to the local stakeholders
- Questions, reactions and suggestions from the public, requires ONDRAF/NIRAS to **rethink** many aspects of the initial concept or project
- The partnership does not only **decide** (or at least advises to the community council) on **every details** of the repository concept and where it should (or should not) be implanted...
- Through the partnership, the local community can also decide on what they consider to be the **necessary conditions** (technically, environmentally, aesthetically, socially, etc.) for such a repository



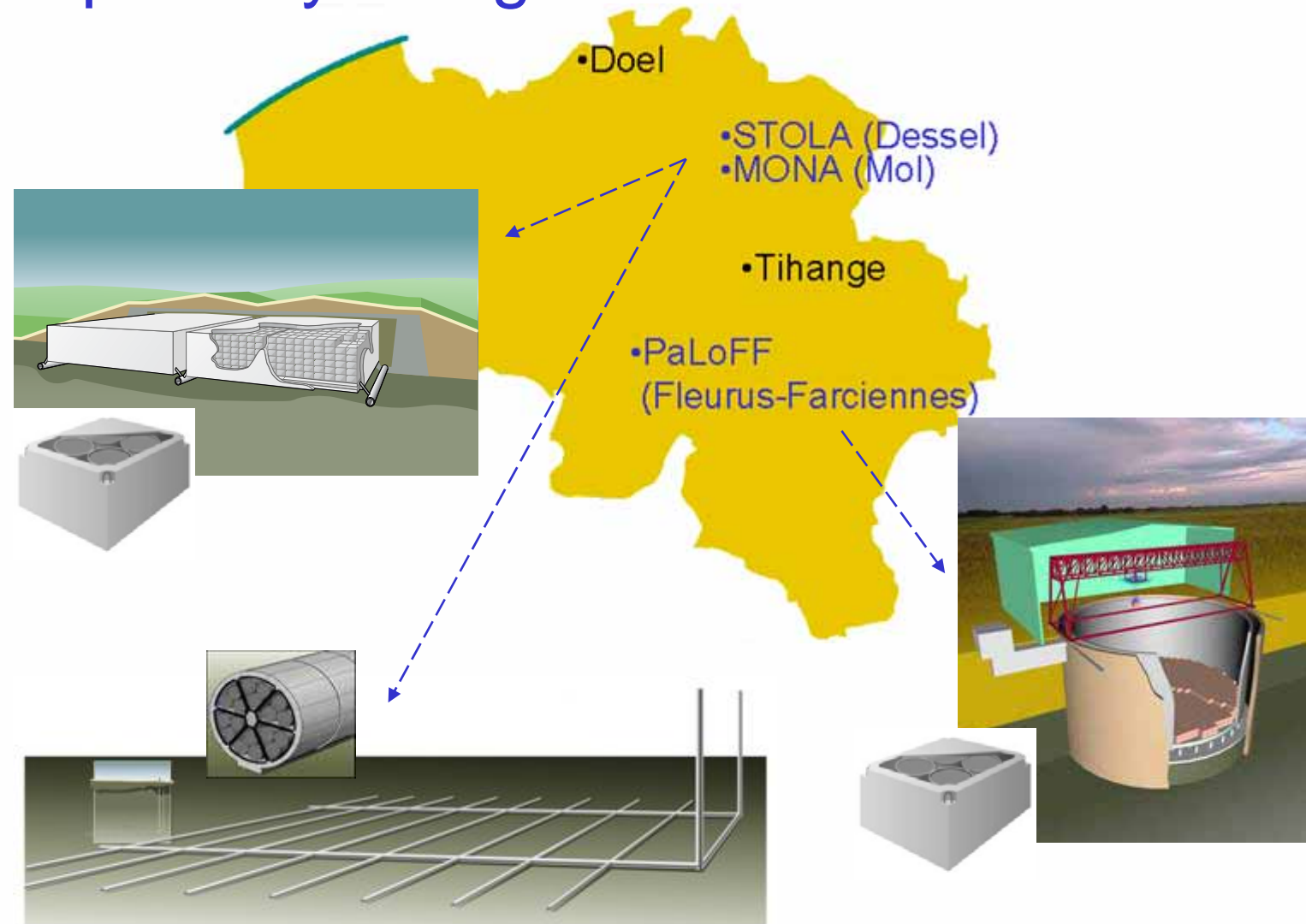
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At local level: 3 partnerships

- STOLA (Dessel)
 - September 1999
- MONA (Mol)
 - February 2000
- PaLoFF (Fleurus-Farciennes)
 - February 2003



The Local Partnership Concept : repository designs



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Last developments

STOLA:

- 23/09/2004: report approved by General Assembly (unanimously)
- 05/11/2004: report presented to Dessel council
- 27/01/2005: report approved by council (unanimously) + STORA principles
- 27/04/2005: creation of STORA

MONA:

- 19/01/2005: report approved by General Assembly (majority)
- 27/01/2005: report presented to Mol council
- 25/04/2005: report approved by council (majority)
- 24/11/2005: creation of new MONA

PaLoFF:

- 21/12/2005: report approved by General Assembly (majority)
- 23/02/2006: report rejected by Fleurus council. Partnership is stopped



Government decision on 23 June 2006

- In May 2006, ONDRAF/NIRAS submitted his **final report** to the federal government. This report contains all the information necessary to take the political decision regarding the follow-up of the program with full knowledge of the facts
- This report put an end to the activities linked to the development of integrated pre-projects by the local partnerships
- On the base of this final report the council of ministers took on 23 June 2006 the decision to **dispose of the low and medium active short-lived waste in a surface disposal installation based on the technical concept developed by the partnership STOLA, on the territory of the municipality Dessel**



Decision marks transition to new stage

- Starting the **detailed studies** (approximately 5 years) in which the **licence application** files that are necessary to start the construction of the repository will actually be prepared.
- Concrete implementation of the **local conditions** will be discussed with all stakeholders in the next stage of the decision-making process.
- All parties involved should reach a **final agreement** fixing the rights and obligations of all the parties (conditional candidature become definitive)
- **Continuity of the participation process** will be ensured not only with the selected municipality of **Dessel** but with the municipality of **Mol** as well



Additional informations

- Construction phase will take 4 to 5 years (2012 – 2015 or 2016) including the period for bringing the installation into operation. The repository could thus become **operational** in **2016** at the earliest
- **Operational stage**, i.e. filling the repository, will take about **thirty years** and will be followed by the final covering and closure of the repository, and a **monitoring phase** (institutional control) of a few **hundred years**
- Total cost of the **pre-project phase** (1998 – 2006) is approximately **20 MEUR₂₀₀₆**, of whom **2,8MEUR₂₀₀₆** for the working of the partnerships
- Cost estimation for the **detailed studies** (2007 – 2011) varies between **65 and 85 MEUR₂₀₀₆**
- **Cost estimation for the disposal** from the beginning of the construction to the end of the period of institutional control varies between **360 and 510 MEUR₂₀₀₆**



Lessons drawn so far

- Participative and co-decision making is a **dynamic process** and means a **permanent dialogue** on how to realise a project
- **Close interaction** with local stakeholders is an absolute necessity
- **Continuity** of approach is vital
- Mutual **learning**, mutual **understanding**
- **Respect, transparency, openness, ability to listen** are key elements
- Demanding and **time consuming** process
- The real question is not one of acceptance but of **integrating a repository project in the social and cultural context** of a specific place

