



Bátaapáti Repository - Evolution of the Safety Case

Martin Goldsworthy, Peter Molnar, Gyula Danko (Golder Associates)
Zoltan Nagy, Ferenc Frigyesi (PURAM)

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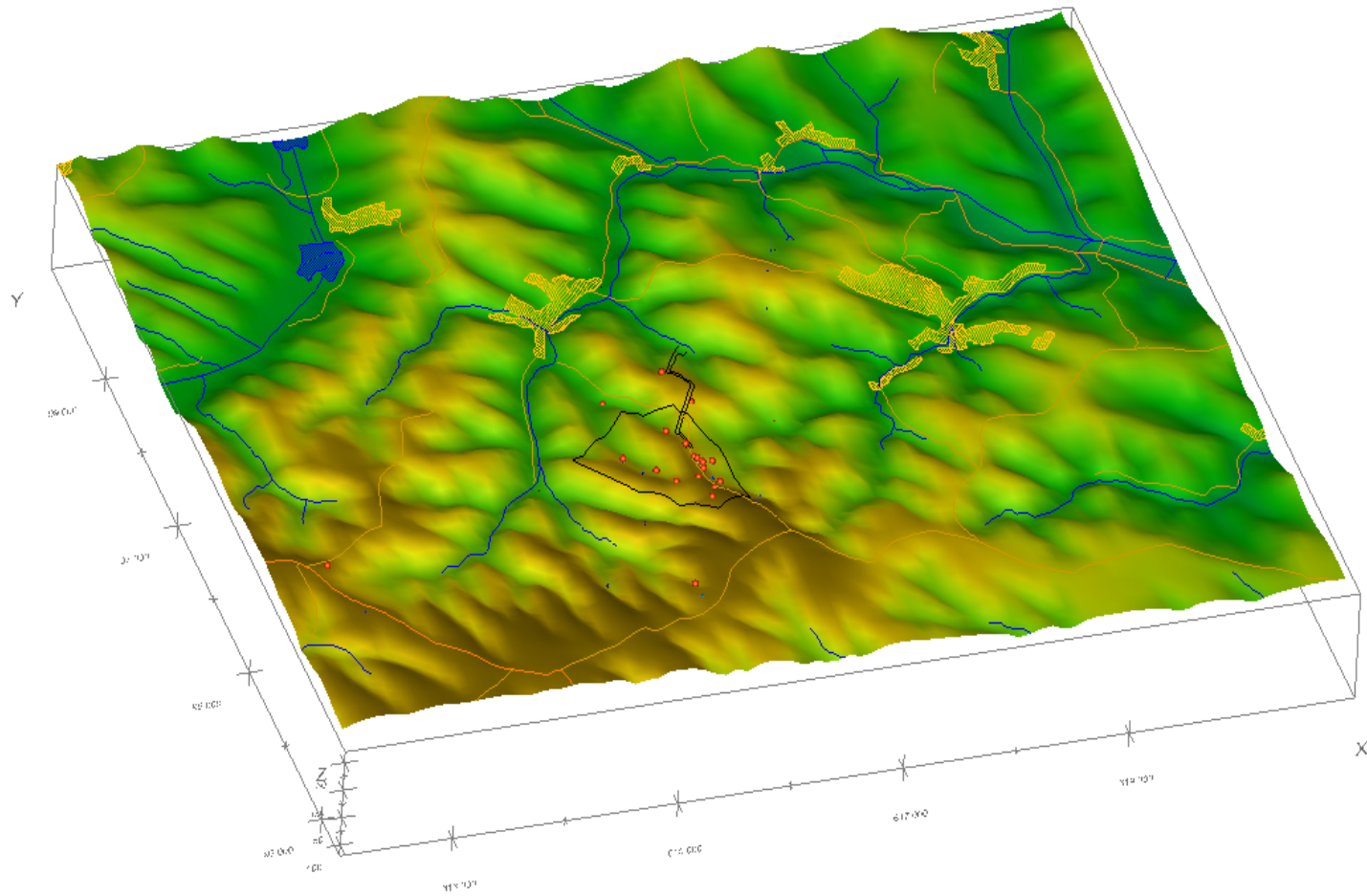


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The site and the surroundings





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Evolution 1980 - 1995

Safety strategy

Siting and design strategy

Management strategy

Assessment strategy

Assessment basis

System concept

Scientific and technical understanding

Methods, models, computer codes and database

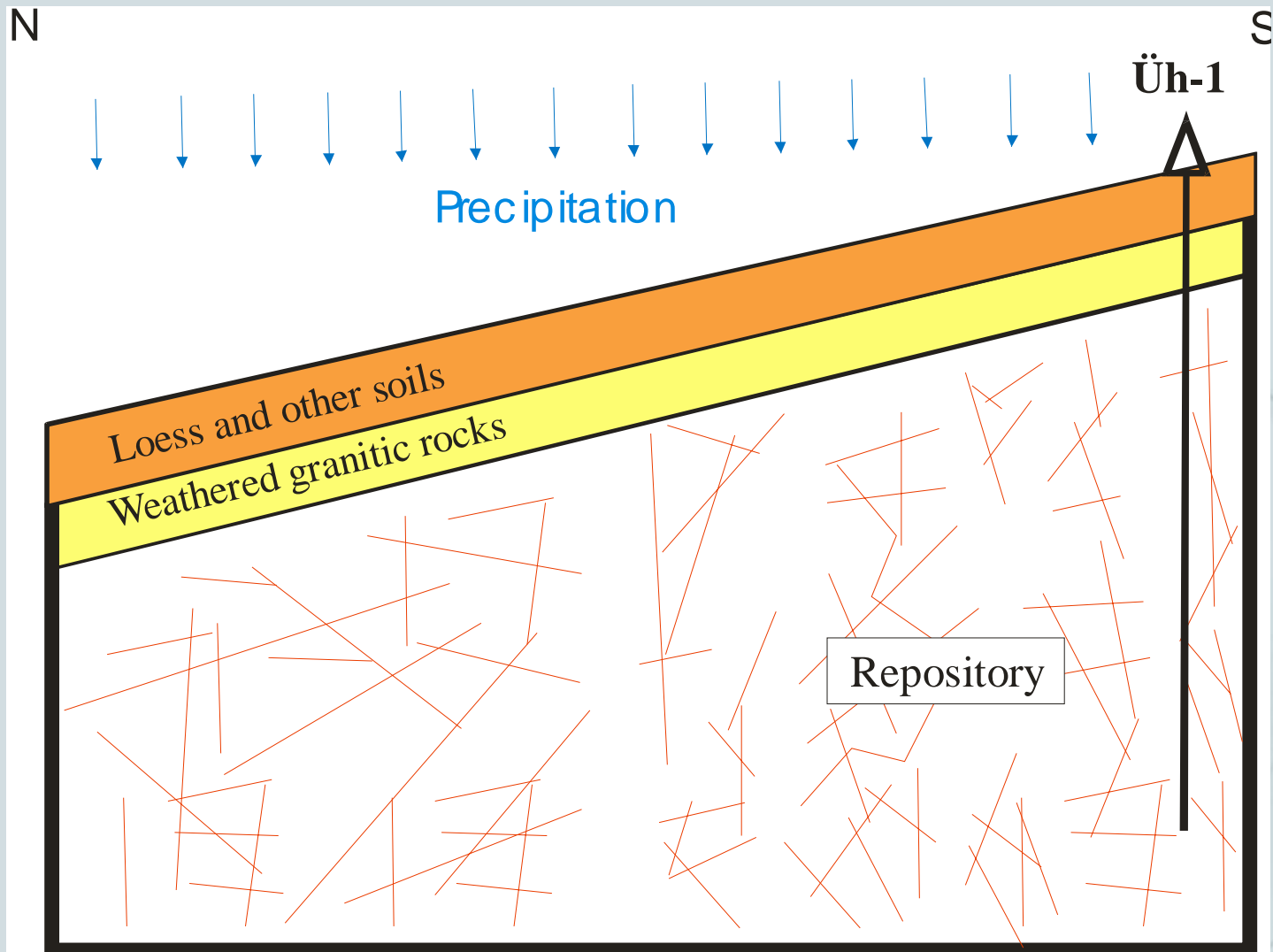
Evidence, analyses and arguments

- **Surface or deep; screening processes; public acceptance**
- **Paks NPP; HAEC National project**



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Initial phase (1996)





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Evolution 1996 - 2000

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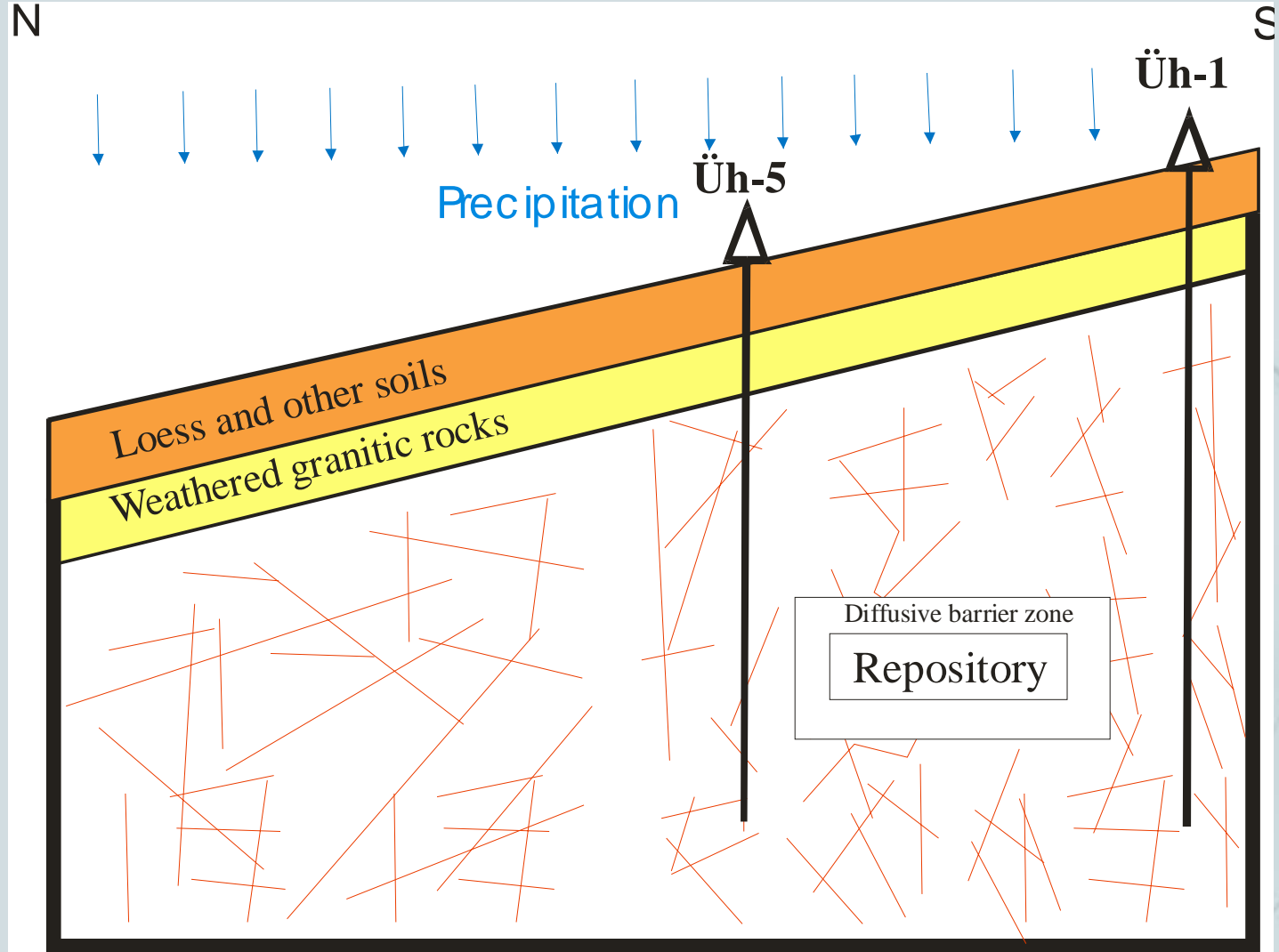
Evidence, analyses and arguments

- **Deep repository in Bataapati area**
- **Atomic law; PURAM**
- **Decree on geological suitability; decree on radiation protection requirements; WATRP peer review**
- **Cement stabilization, overpacks for higher activity waste, bentonite in backfill**
- **Generic fractured crystalline rock**
- **Borehole nearby, geological data collection**
- **Likely downward flow; safety analyses: fracture flow, diffusive barrier**



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Site selection phase (1999)





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Evolution 2001 - 2004

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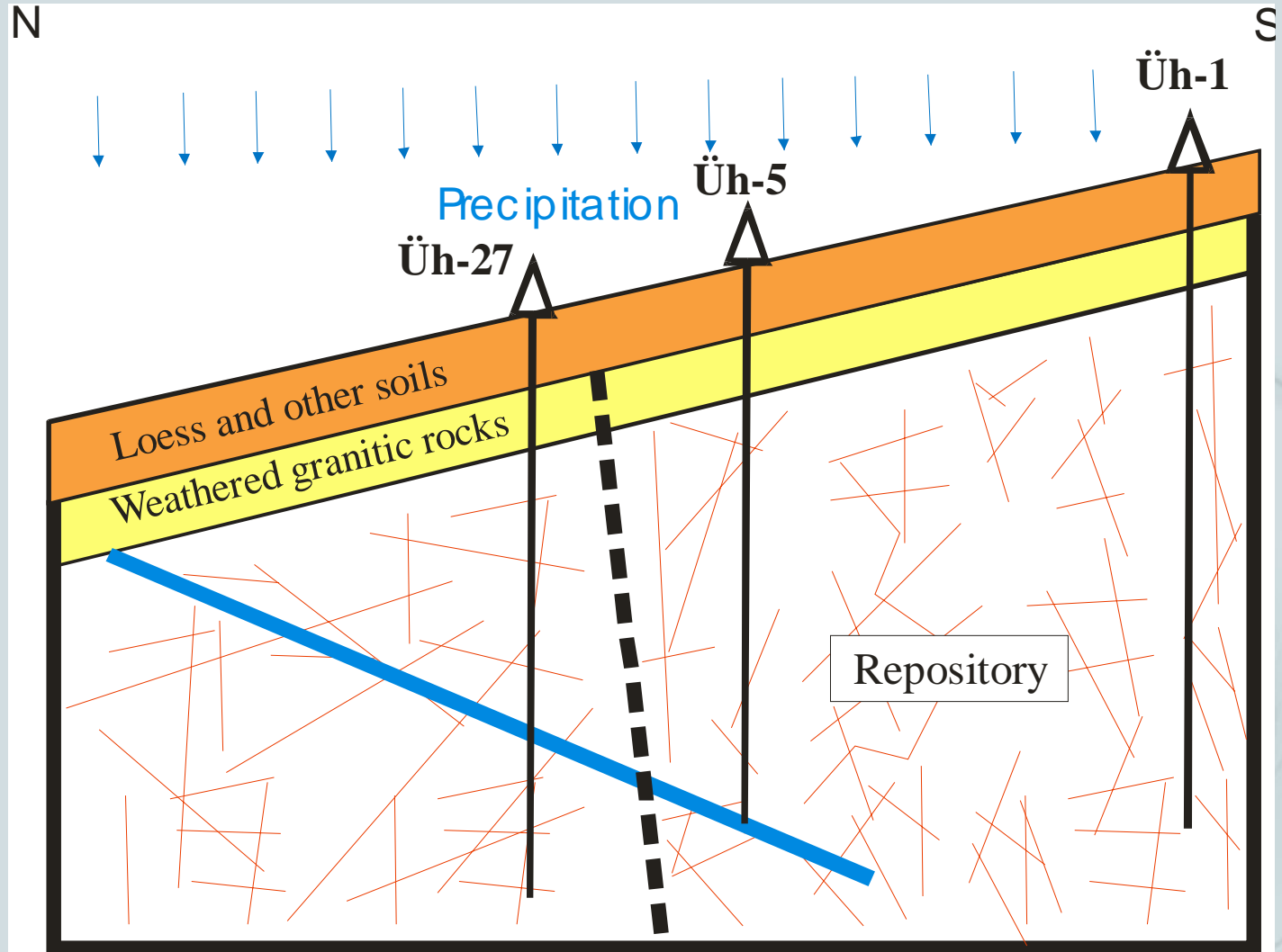
Evidence, analyses and arguments

- **Formal confirmation of site area geological suitability**
- **Decree on final disposal of radioactive waste**
- **Twin access tunnels**
- **Fractured crystalline rock, heterogeneous hydraulic conditions and properties**
- **Surface investigations including boreholes, geophysics etc.**
- **Old groundwater, downward hydraulic gradient; safety analyses: various hydraulic models and repository locations**



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Site characterisation phase (2003)





Evolution 2005 - present

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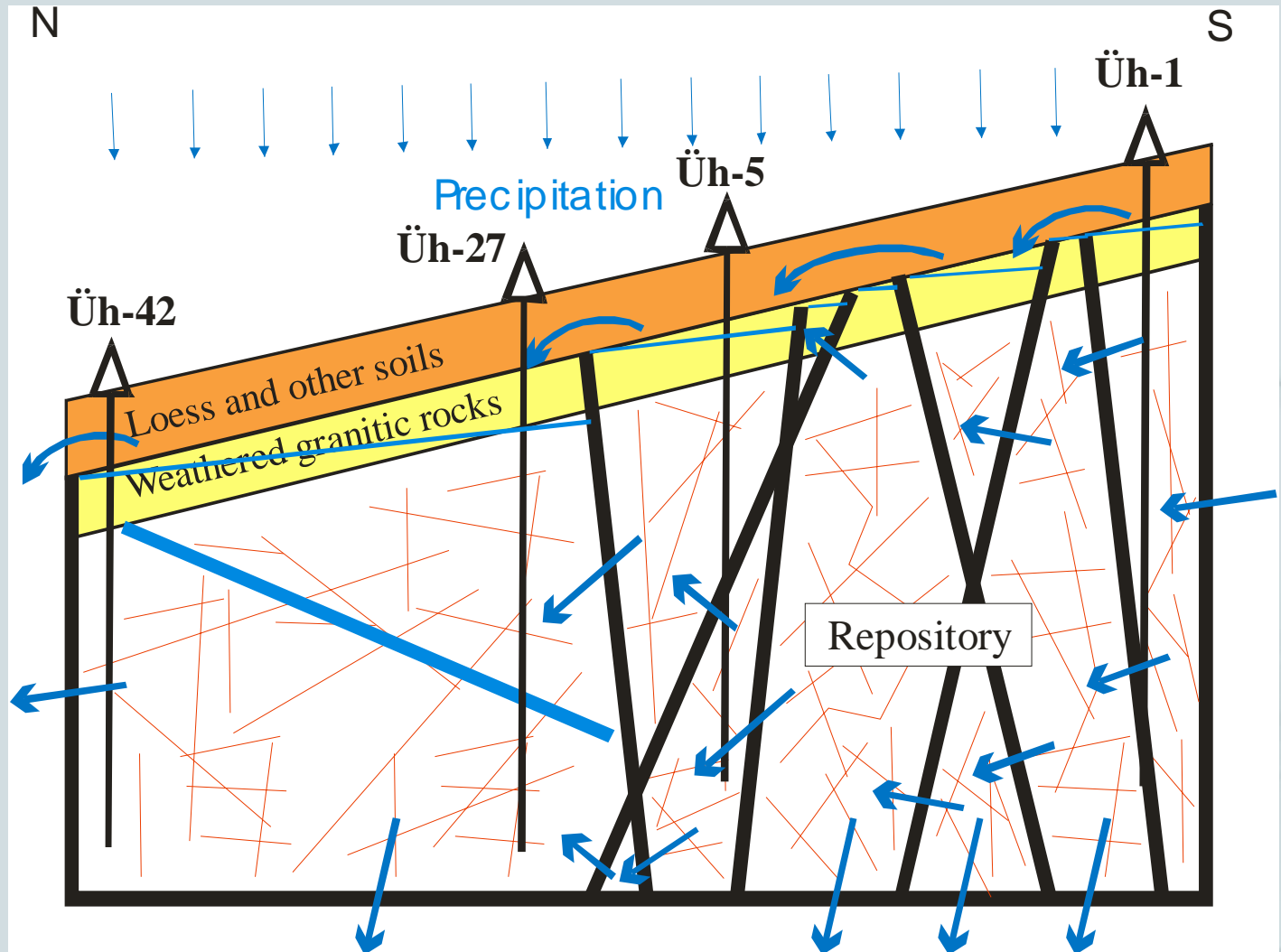
Evidence, analyses and arguments

- **Conceptual design team with international input; monzogranite recommended**
- **Quality assurance system; external expert review of tunnel investigations**
- **Overpacks for all waste, cemented backfill**
- **Strongly compartmentalized fractured crystalline rock with monzonite and monzogranite zones**
- **Underground and additional surface investigation; relational database**



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Site confirmation phase (2006)





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Thank you for your attention

