



MANNVIT

ENGINEERING



International operation

Tryggvi Jonsson

Manager of Marketing and Business Development

Mannvit – Facts

- Employees approx 350
- Employees in affiliated companies 50
- Employee-owned by 130 shareholders
- Headquarters in Reykjavík
- Turnover in 2009 was 5.000 mkr.



Services



Our products

Renewable Energy and Climate

- Geothermal energy
- Small hydropower
- Waste management
- Landfill Gas
- Bio Diesel
- Bio Ethanol
- Methanol by capture of CO2 emissions
- CO2 reduction
- Composting industry

International operations



Clear benefits ...

... of geothermal district heating and power

Mannvit kft



Present



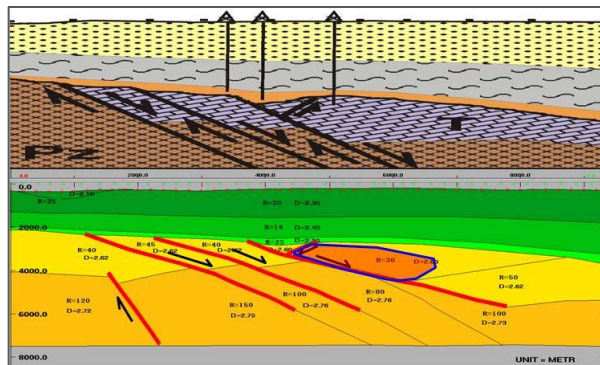
Future

Project Milestones

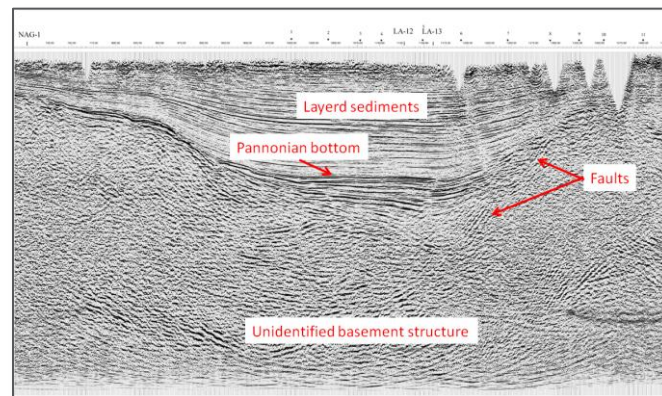
2007
Evaluation of
potential
geothermal areas
in Hungary



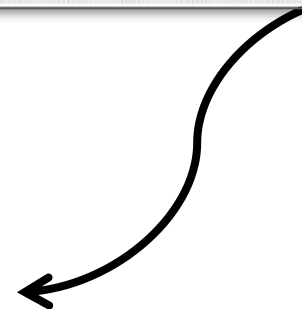
December 2007 – May 2008
Geophysical survey -
AMT/MT/Gravity



First part of 2008
Interpretation of seismic lines



End of 2008
Official opening of Mannvit's
office in Budapest



The first geothermal well drilled – 2009

Results:

- The first well was successful
- Drilled depth: 1820 m
- Yield: 20 l/s
- Outflow temperature: 87°C
- Estimated heat output: 2,3 MW



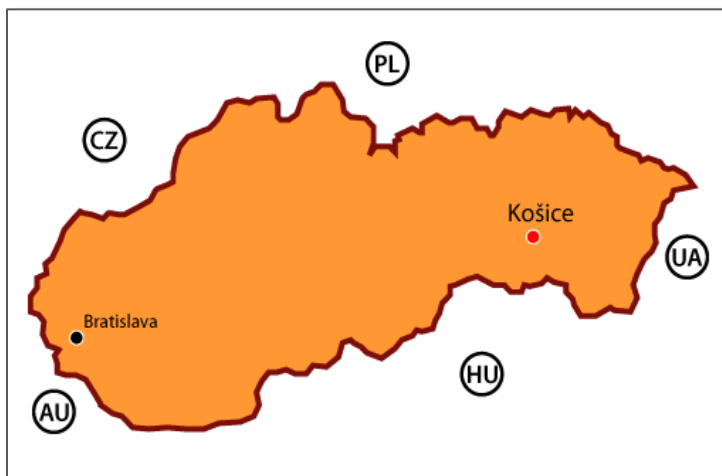
Szentlőrinc, SW Hungary

Electrical production - geothermal energy, Kosice, Slovakia



Mannvit's Role

- Project management and EPCM
- Evaluation of geological data, well siting
- Environmental Impact Assessment and licensing
- Well design, tender documents for drilling and contracting
- Reservoir engineering
- Feasibility study



Mannvit team



- Geothermal reservoir engineering
- Reservoir modeling
- Groundwater hydrology
- Surface runoff
- Environmental modeling

Vatnaskil Land & Water Resource Consultants

- Geological and hydrological studies
- Water resources assessments



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Geothermal Exploration

- Geothermal exploration management
 - Geological, geochemical and geophysical surveys management and interpretation
 - Resource estimation
 - Cartography

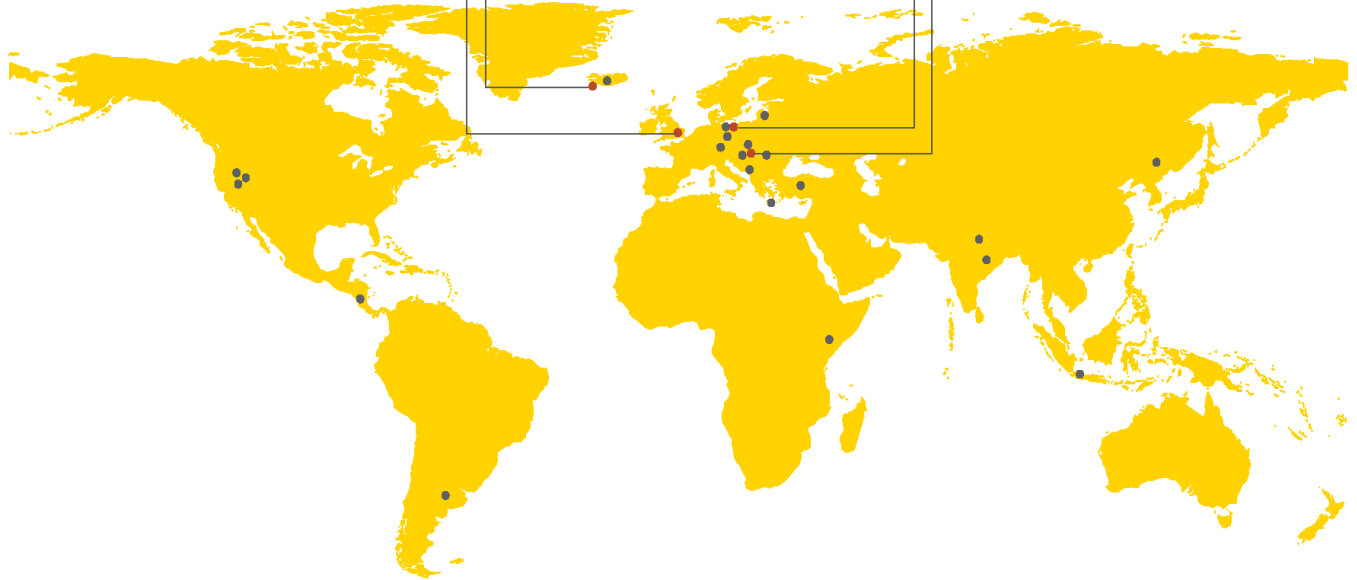
Geothermal Energy

- Pre-engineering
- Cost estimation
- Drilling supervision



MANNVIT HUNGARY

- Geothermal development of low-enthalpy basins
- Reservoir modelling
- Well design and Drilling supervision
- CO₂ storage
- EGS technology
- Geothermal exploration and utilization of Hungary's Pannonian basin
- Geothermal exploration in Slovakia, Romania and Greece
- Drilling supervision



Mannvit UK

- Small hydropower
- Waste management
- Landfill Gas
- Bio Diesel
- Bio Ethanol
- Methanol by capture of CO₂ emissions
- CO₂ reduction
- Composting industry

Mannvit USA

- Geothermal energy
- Cooperation with Technip
- Two clients
- Exploration projects
- Corporate member of CANGEA
- Registered as “Qualified Person,” under the Canadian Geothermal Code for public reporting.
- Design of a binary power plant will start this summer

Mannvit International Operation

- Turnover in 2009 was 440 mkr.
- Between 40 and 50 experts in Iceland working on projects
- Opportunities for advancement and growth
- Up to half of Mannvit's activities in 2015 overseas in Central Europe, UK and USA





MANNVIT

telecommunications
transportation
veitur
ACOUSTICS
URBAN PLANNING
umferð
VERKEFNASTJÓRNUN
GEOHERMAL
skipulag
umhverfismál
orkufrekur iðnaður