ESTONIA

9 HCs
6 pools
- 4 historical
- 2 new-waves

Rein Riisalu, Tallinn University of Technology
OIL SHALE

- Rein Riisalu, Tallinn University of Technology
OIL SHALE - LESSONS

- Assess the POTENTIAL of your resources! – HIDDEN potentials.
- INNOVATE because your product is never good enough – and some day you may discover that whole world wants to be your client.
- Access to the resources and technological know-how are COMPETITIVE ADVANTAGES.
- Those who don’t RISK won’t be drinking champagne – To establish your competitive strategy, assess how long the dominant product can be sold cheaper than your product and prepare yourself for market penetration. Being hidden but awake may require SUPPORT from government.

Rein Riisalu, Tallinn University of Technology
What allows for a 'hidden champion' to emerge?

Source: Oilfield Review, Winter 2010, p 6
How can the growth be sustained?
– Access to the resource

Source: Oilfield Review, Winter 2010, p 7
How can the growth be sustained? – Battlefield of technologies

- Kiviter
- Petroter
- Galoter
- Enefit-140
- Enefit-280
- In-Situ Conversion Process (ICP)
- CRUSH Process
- Electrofrac
- Conduction, Convection, Reflux (CCR)
- Fushun
- Petroter
- Petroter
- Petrosix
- Alberta Taciuk Process (ATP)
- Paraho
- Petro Probe Process
- Geothermic Fuel Cell (GFC)

Sources: VKG; The Oil Shale Market 2011-2021
How can the growth be sustained?

– Costs of (crude) oil products

Sources: Enefit; Wallstreet-Online
Trends that influence ability to grow and develop?

- Energy security and growth in energy consumption.
- The end of conventional petroleum.
- „Green energy“.
- Environmental requirements.
- Proven reserves.

Source: Enefit