

Hur ser det ut med våra svenska gruvdammar?

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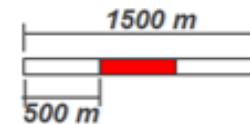
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Current Mining Operations in Sweden

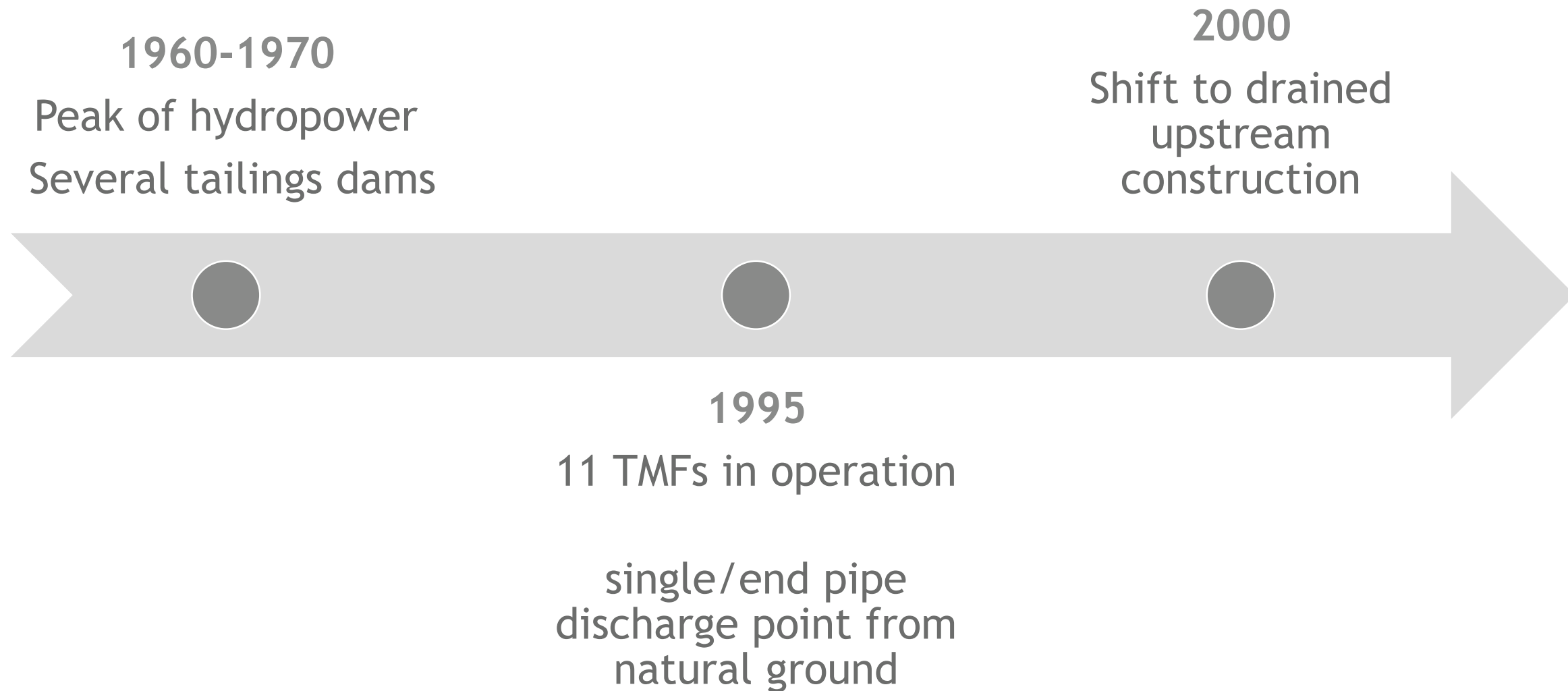
13 active mines

- Iron
- Base metals (Sulphides)
- Gold





Development of Management Practice in Sweden



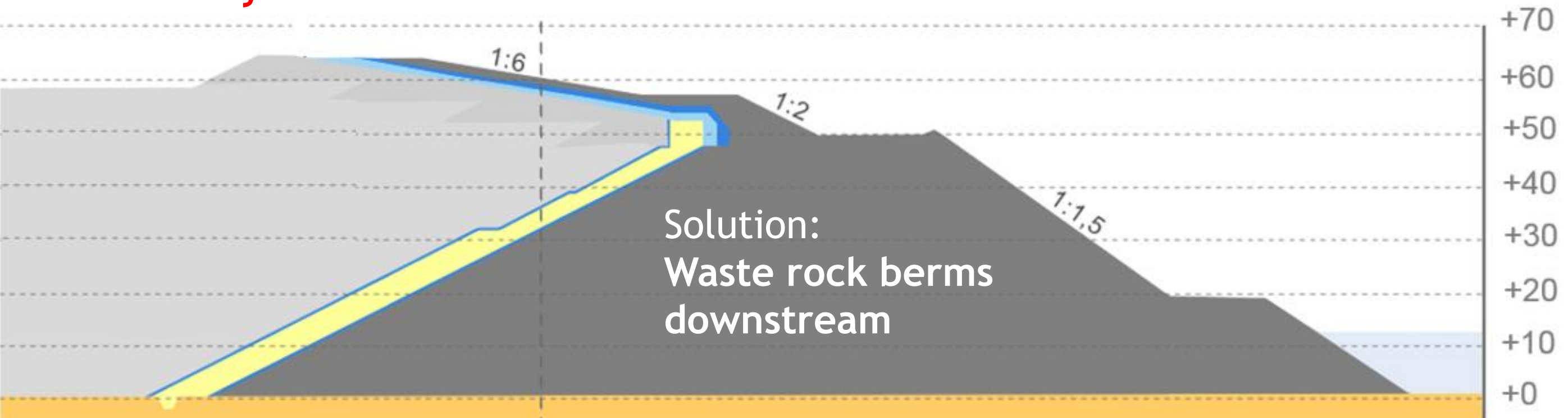
Drained Upstream Construction

Contributing factors to the new design

- Increase in the rate of rise
- Footprint constraints
- Volumes/costs
- Limitations in using natural borrow material

Drained Upstream Construction

Challenge:
Stability



Drained Upstream Construction

- Beach
- Spigot systems
- Reduced free water



Water



Many things have been tried over the years

- Different solids content
- High rate thickened tailings
- Subaqueous tailings storage (to avoid ARD)
- Dewatering of tailings
- Cycloning



Deposition Methods in Sweden used today

- Spigotting 5 sites
- Cycloning 1 site
- High rate thickeners 2 sites
- Subaqueously 1 site

Six out of nine TMFs in Sweden uses tailings as a structural part of the dams.

Conclusions

- Evolving national legislation
- Studies to investigate the geotechnical conditions in existing facilities with complex construction
- Closure



Save the date!

- Workshop in Static Liquefaction
- Professor Andy Fourie,
The University of Western Australia
- 1 - 2 June 2020 in Stockholm
- In cooperation with SveMin, Svenska kraftnät och ACG (Australian Center for Geomechanics)