

Non-toxic leaching and recovery of gold using thiosulfate based lixiviant and Selmext metal separation technology

Presenter

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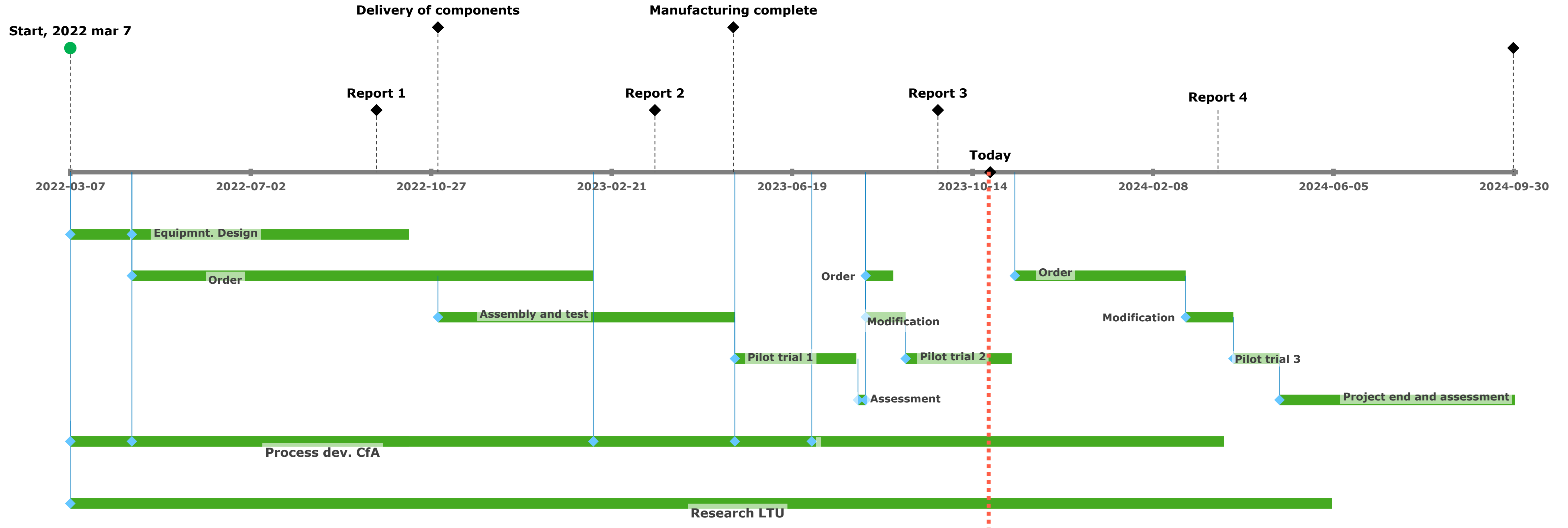
Program Day 2023

Goals of the project

- Prove the thiosulfate-Selmext™ gold leaching concept
- Make readily available, modular cost-effective non-toxic gold leaching technology
- Focus future business towards environmentally aware small to medium size gold producers (globally)
- Impacting: higher safety for worker, lower consequence upon accident, and compete with illegal gold leaching techniques



Project Plan



Au Leaching and Recovery with Thiosulfate-Selmext™

**Gold
flotation
concentrate
50-100 ppm**

Thiosulfate
leaching

Selmext™
separation

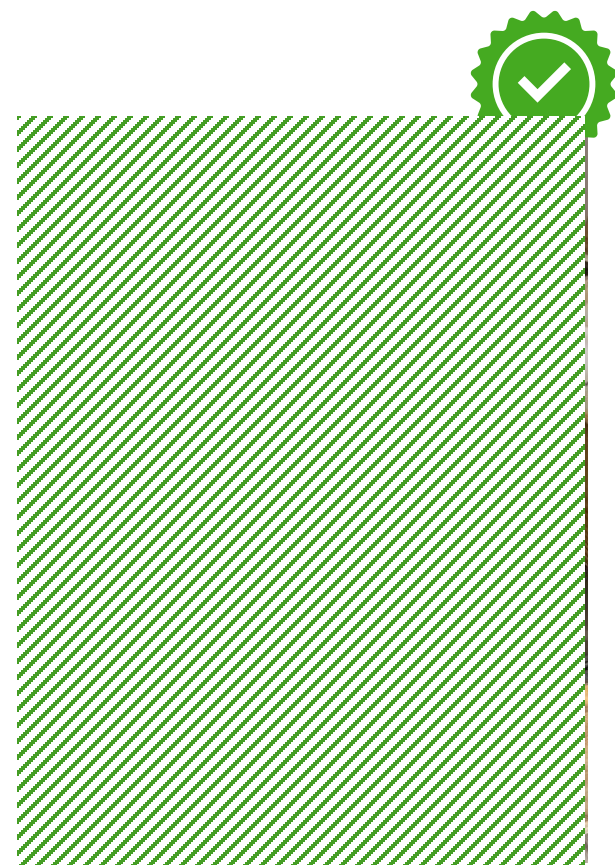
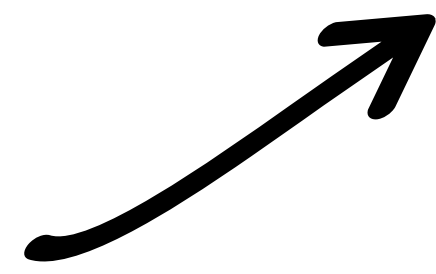
Cementation



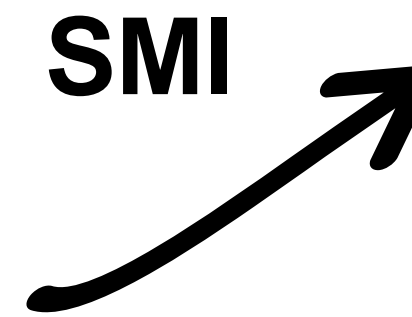
Scaling up leaching



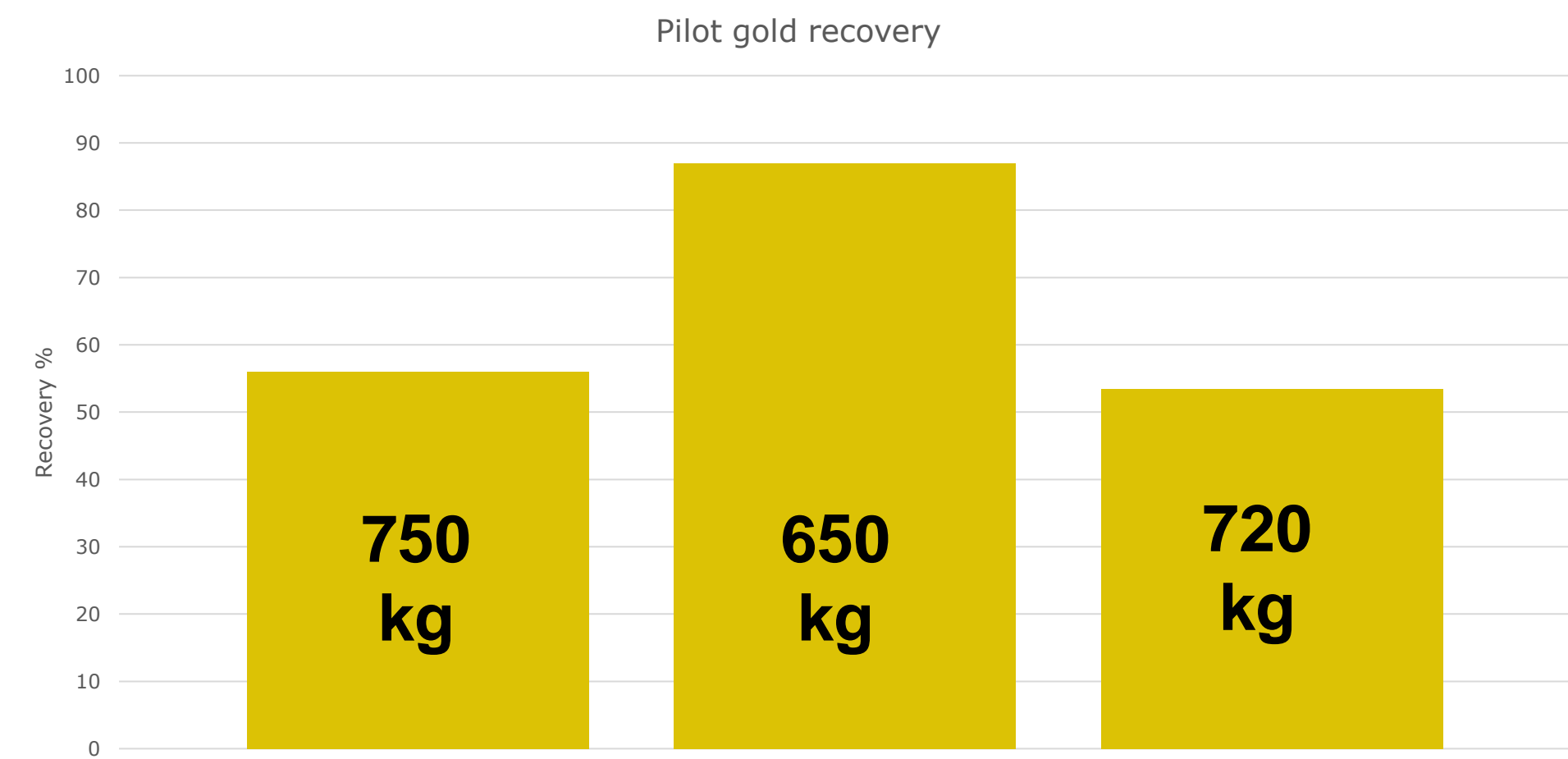
5 g (start)
Prior work



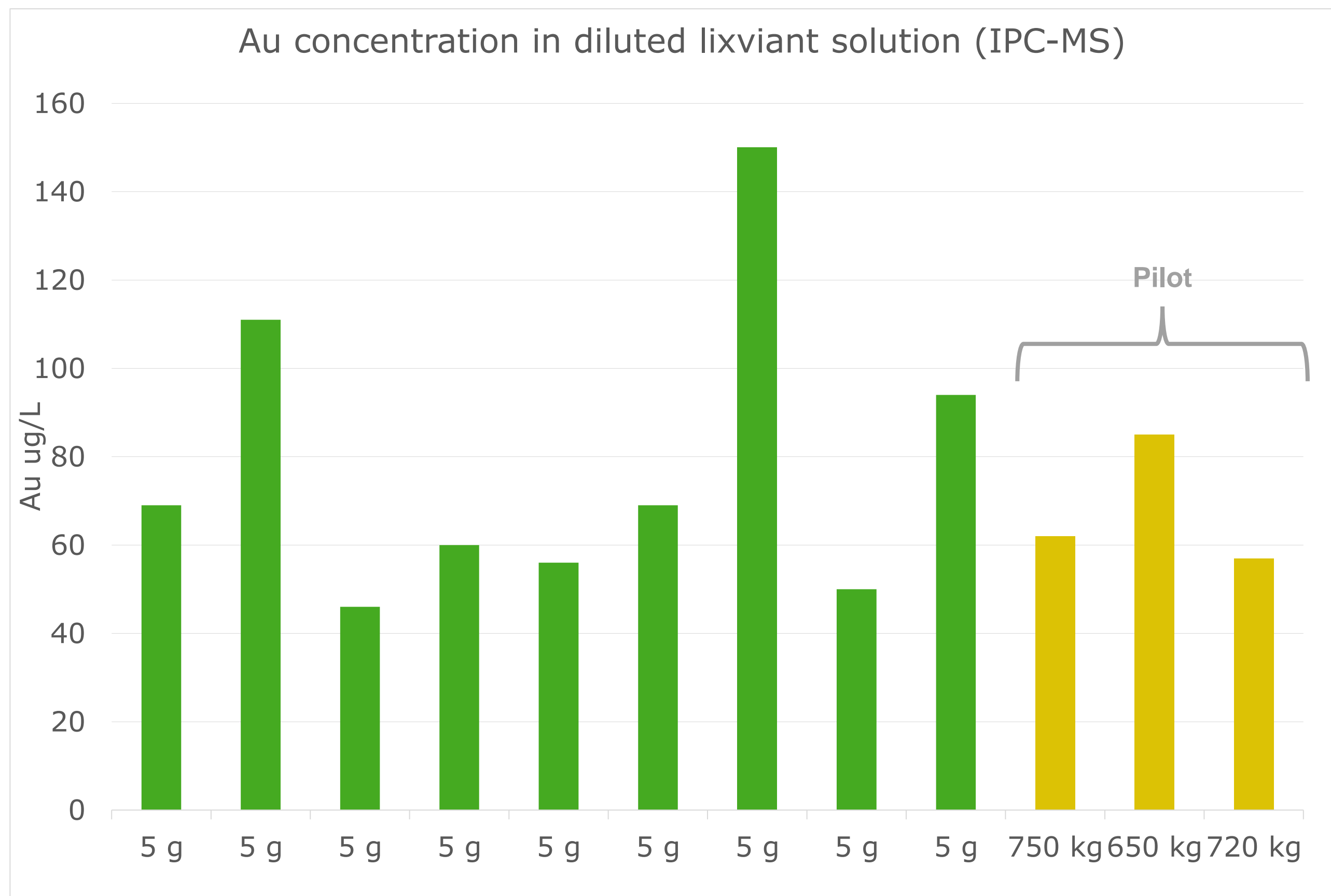
1 kg (20 X)



750 kg (750 X)



Scaling up leaching



Project results so far

- 3 pilot batches conducted
- Pilot and laboratory results are comparable
- Leaching recovery 54-87%
- Selmext recovery 95%
- Cementation 98% recovery
- Inhibiting factors in the material itself are being investigated by LTU.
- The project is on time and on budget



Dissemination

Project results is currently in focus.



Next Steps

Post SMI

- Begin work to scale-up equipment
- Work on business model
- Best scenario: 3 years to first mining implementation



Mining innovation for a sustainable future