

Face-to-Mill

Improved production efficiency in open pit mining

Daniel Johansson, Biträdande Professor (Projektledare)

Håkan Schunnesson, Professor

Anna Gustafson, Universitetslektor

Doktorand

Project partners:



Aim:

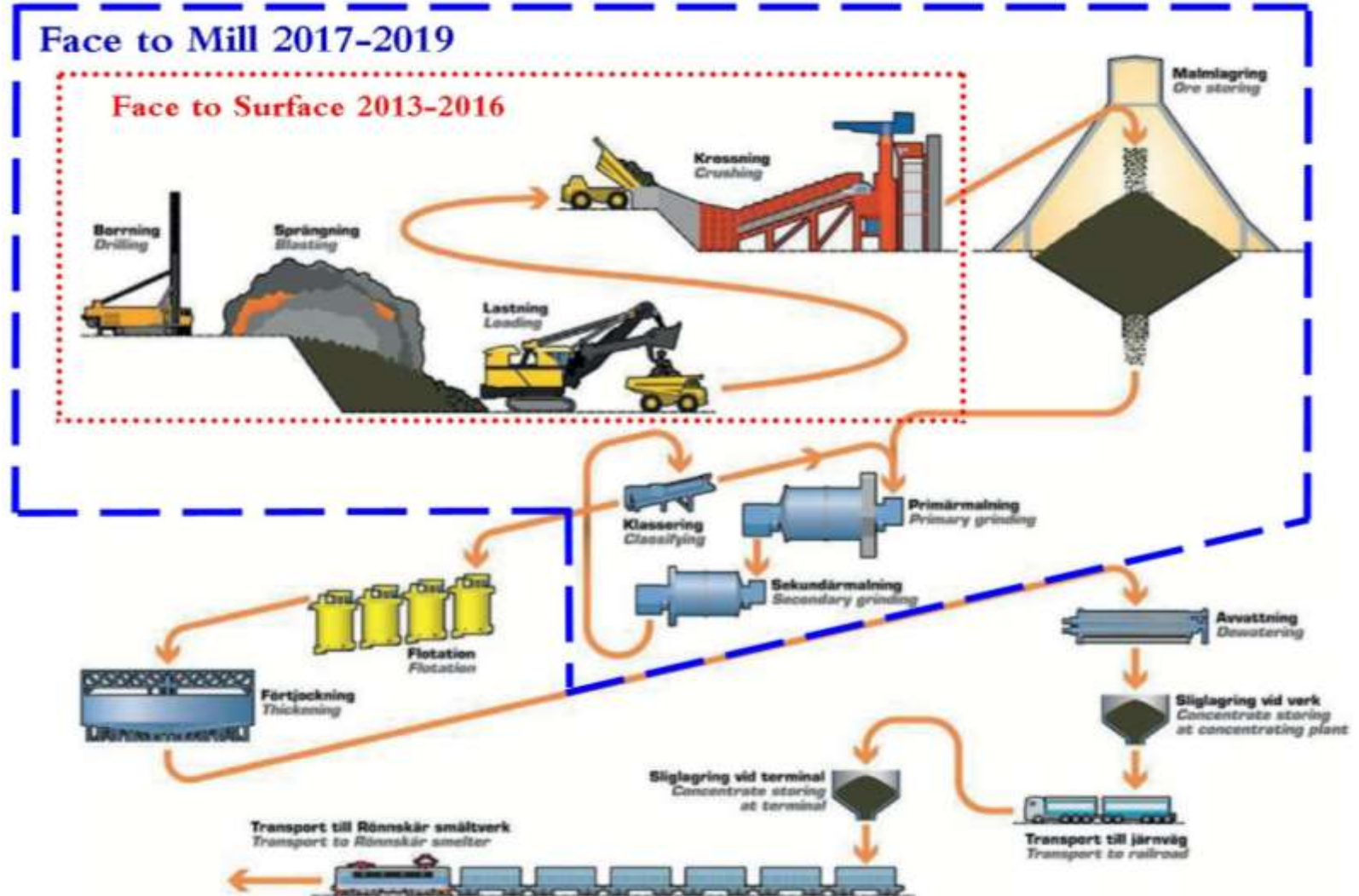
To improve the mining efficiency, blast design and implement long term measurements with a Big Data scheme. Additional to this, new Key Performance Indicators from the mill will be implemented. Therefore, a mine-to-mill case is evaluated and it will develop a method that could both predict and adapt the optimal mine to mill operation.

Goal:

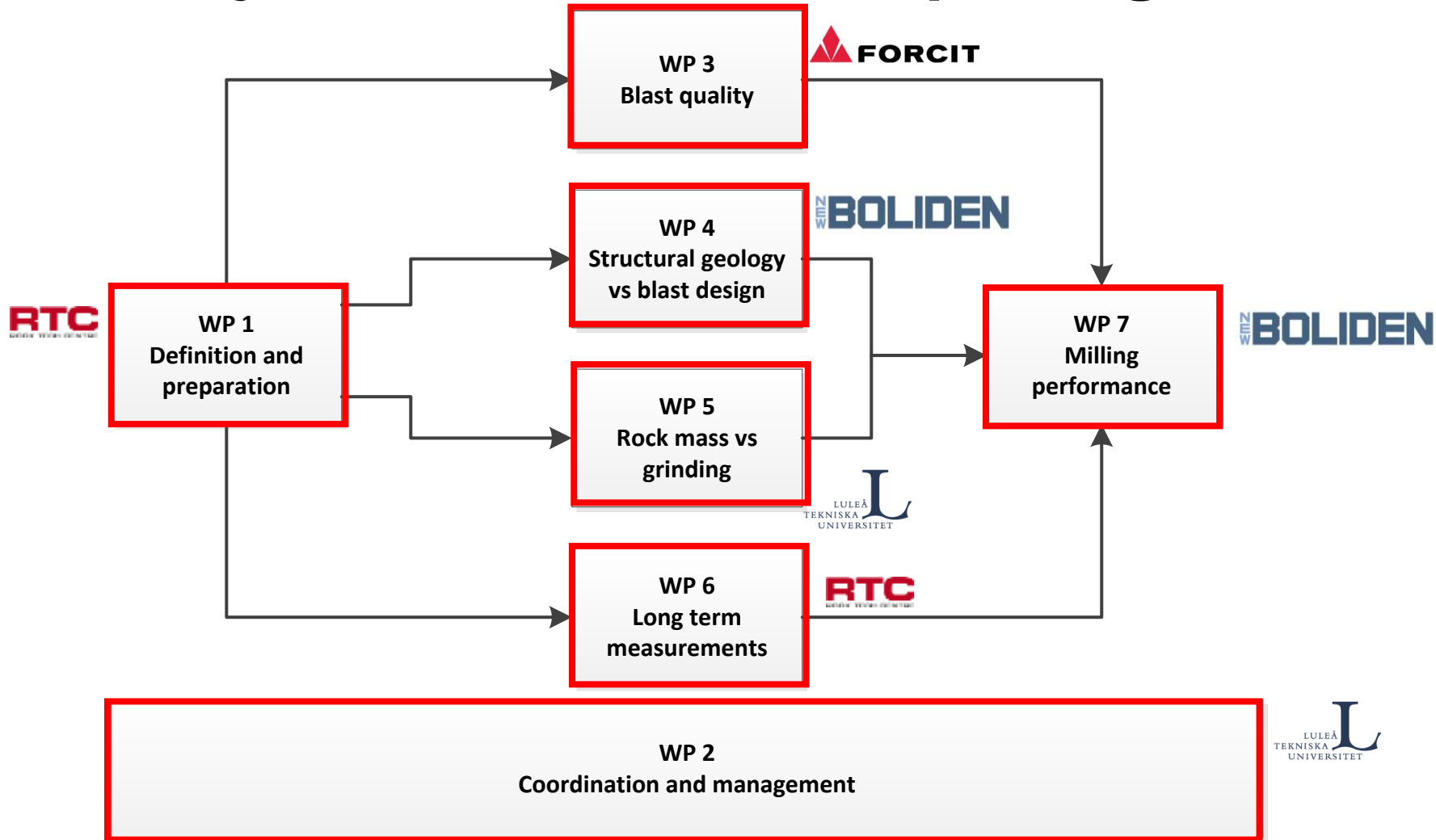
The specific goals of Face to Mill are to increase productivity by:

- ✓ Increase the knowledge of how fragmentation influences each transportation step in the mining process in a long term perspective.
- ✓ Adapt recent findings from to the overall mining operation, including the mill throughput.
- ✓ Improve blast function and quality by developing tools and technologies with support of detailed information of the rock mass to be blasted.
- ✓ Increase overall productivity through optimization of the blast operations in terms of active design
- ✓ Further improve the developed KPI:s and implement a big data approach

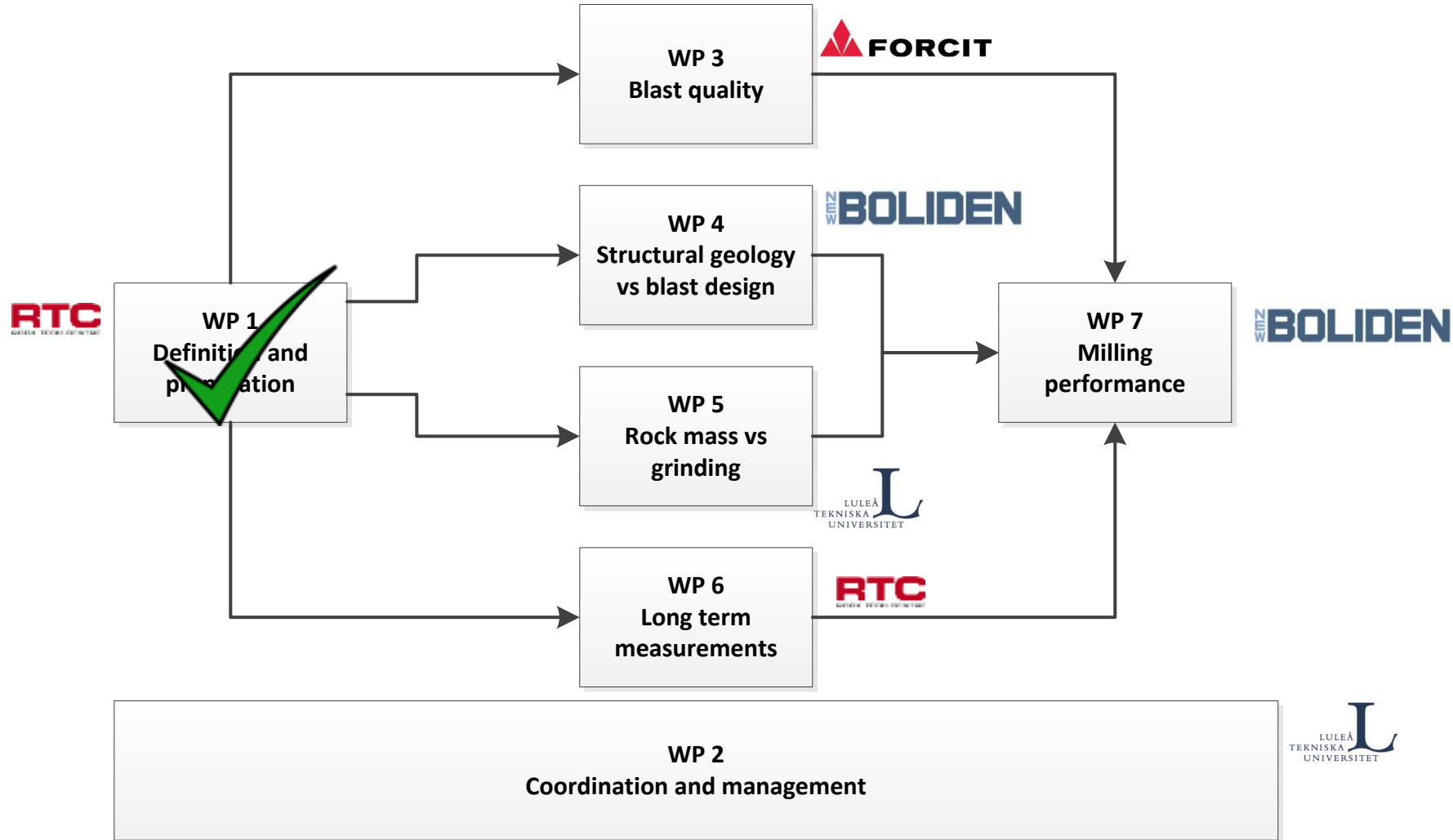
Project lay-out



Project execution - Workpackages



Project execution - Status



Projektläge maj 2018

LTU: 3 doktorander rekryterade och blir aktiva i projektet. Boliden samverkar nu projektet med interna projekt.

WP1: Genomfört

WP2: Pågående

WP3: Pågående av Forcit

WP4: Omfattande strukturkartering genomförd av Boliden; numerisk modellering påbörjad av LTU. Del av senior och doktorandarbete

WP5: Del av doktorandarbete

WP6: Del av doktorandarbete och aktiviteter av Boliden

WP6: Påbörjad.

SIP | STRIM

Strategic Innovation Programme for the Swedish Mining and Metal Producing Industry