



FAB LABS

DATA SCIENCE
IN ENERGY

Production Tuner

for increased oil recovery

DATA SCIENCE
IN ENERGY

Intended Target

- Offshore production optimisation
- Short Horizon — hours to days
- Large or complex topside
- Use your own well models
— Wellflo, Prosper

Competition

- No head-to-head competitor
- Weatherford Rio — add rerouting
- Petroleum Experts Gap + Resolve — ad-hoc
- Integrated Operations



Bjørn Tore Bjørsvik
Project Manager, Programme

"I've been a technical journalist for 20 years. The industry has been waiting for a solution like this for a long time"

—Bjørn Tore Bjørskvik
Project Manager
Technical Sessions ONS

We're different

- Technology — cloud, network based
- Monitors 24/7 to identify opportunities
- Acknowledges well personalities
- Small footprint, Extremely fast
- Plays well with others

Operational Intelligence

Wikipedia:

- monitor business activities, event-centric
- identify and detect inefficiencies, opportunities, and threats
- empowers people to make better decisions
- provide operational solutions

What does this mean to us?

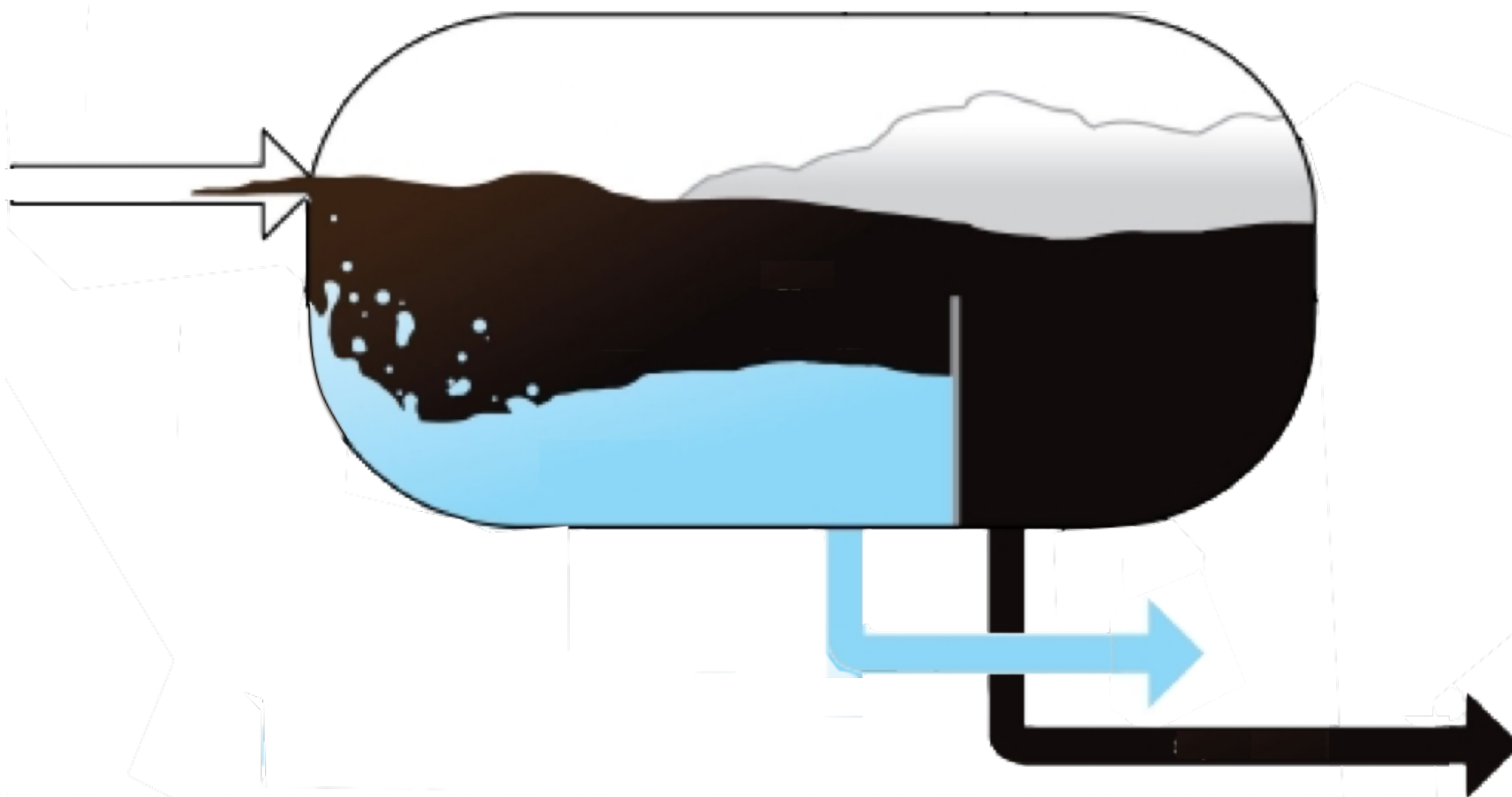


“I want to remove the cost of knowing our options...”

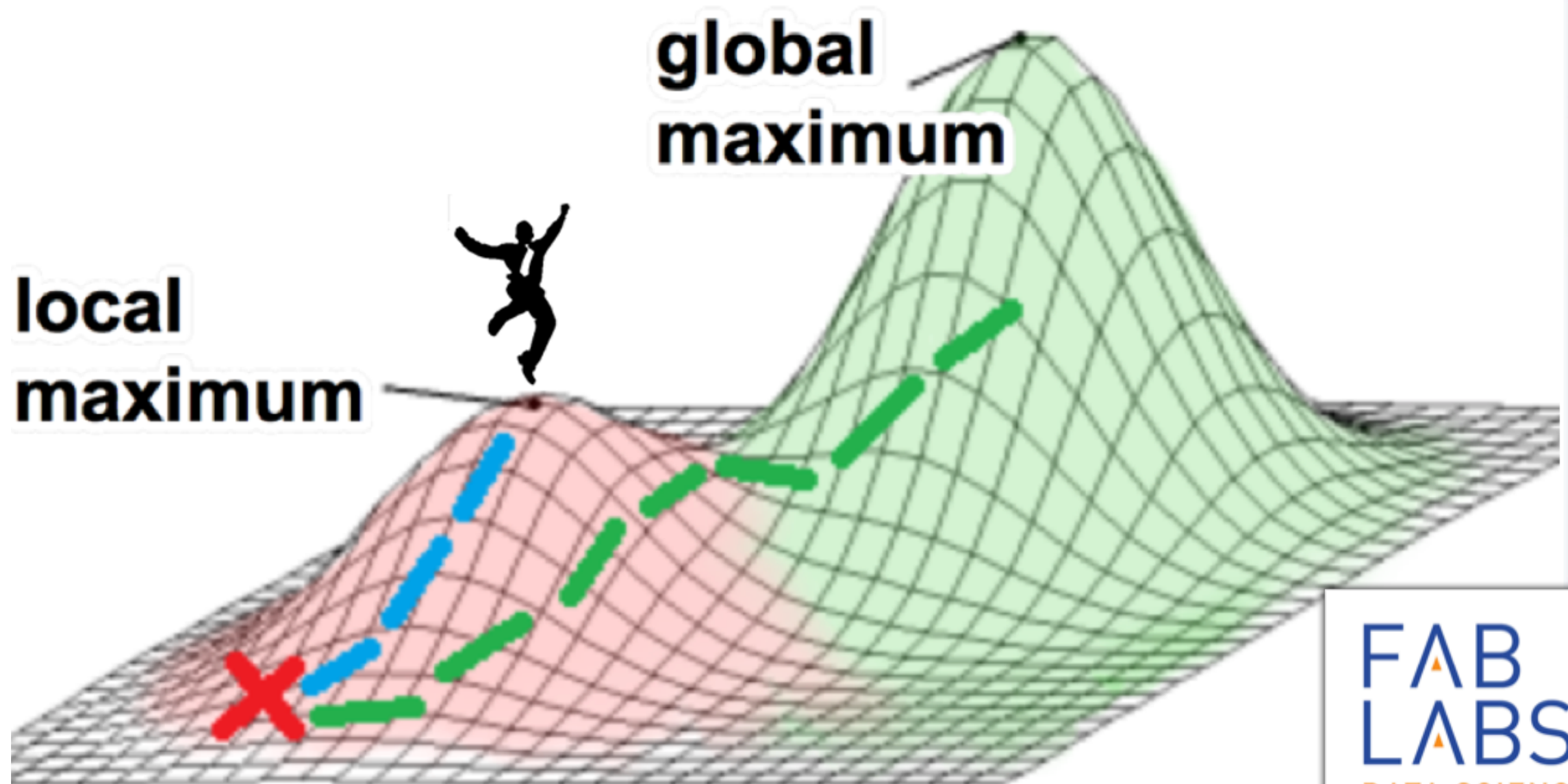
...and to reduce the try-and-see nature of our decisions.”

Topside Constrained

Too much water, not enough gas injection...hard choices.



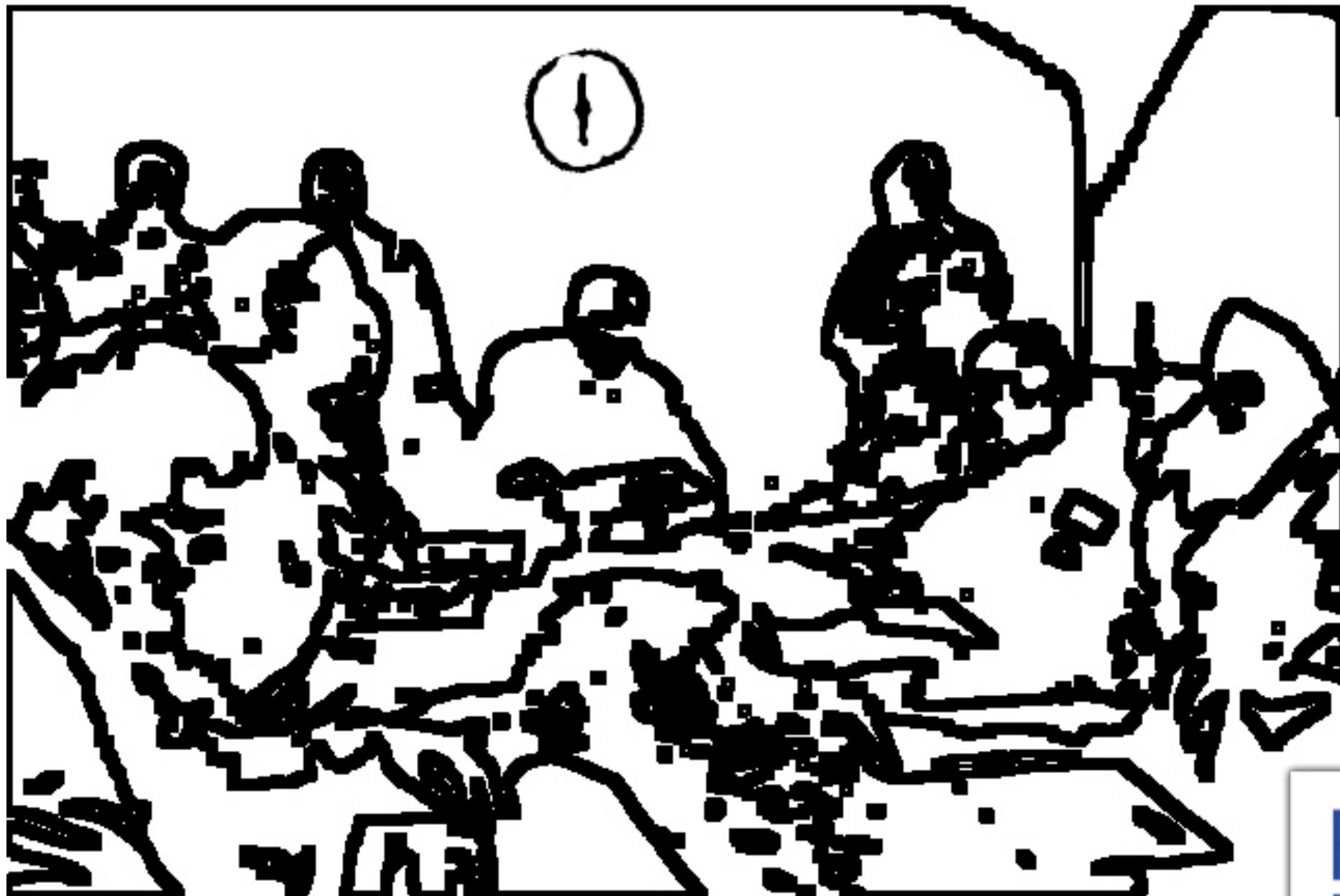
Tuning happens to wells ... not Topside



Short windows of opportunity



6AM - 6AM rhythm



Solution: Production Tuner

- near-realtime monitoring
- runs millions of scenarios per day
- not more alarms. just opportunities
- cuts execution lead-time to zero*
- sees hidden edge cases

Reduced Drilling

- Supplements drilling
- Productively combines old + new wells
- NPD: “older wells represent good business”

Inputs

- well flow characteristics (well model)
- material rates per well—oil, water, gas, gas injection
- pressures: well head, separator
- operating envelopes: safe ranges
- limits: H₂S, CO₂, etc.

Outputs

Recommendation sets with basic steps sequenced. One might be:

1. Well-R-21 Increase **gaslift** 20%

Increase of 70 BBLD

2. Well-N-03 **choke** back to 50%

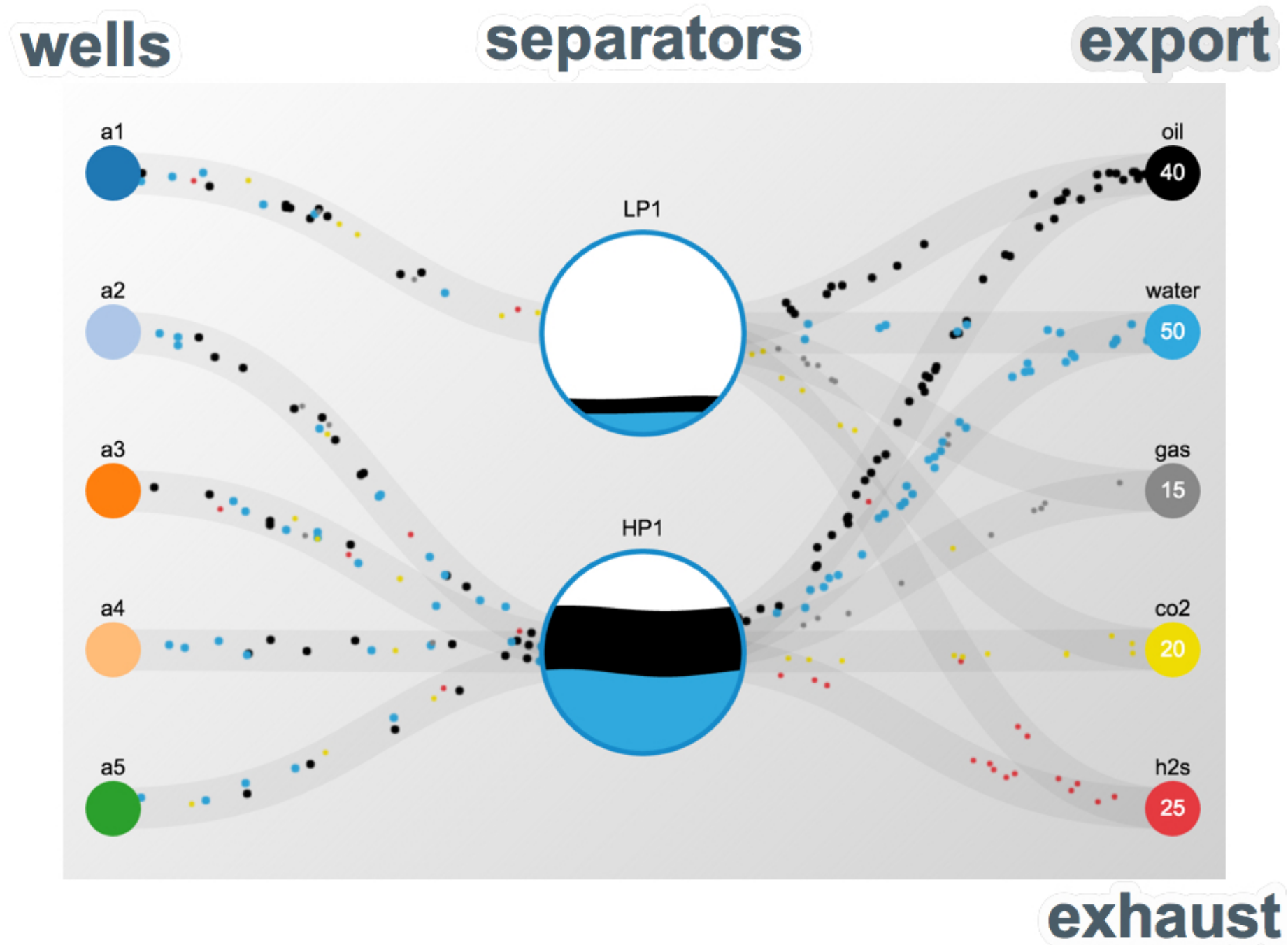
Decrease of 40 BBLD

3. Well-T-44 **reroute** to LP separator.

Increase of 1100 BBLD

4.

Example Scenarios



In closing... again, Time-to-Execution

- ‘Choose’ one of several high yield recommendations. Let that be your starting point.
- Reduce likelihood of intervening events by making the call faster.
- Reduce wait-state losses.

Interested?

Production tuner is in alpha phase.

Looking for a pilot project partner.

Looking for your statement of interest.

Contact me: joe@fablabs.no