



INTERVENTION &
STIMULATION ALLIANCE

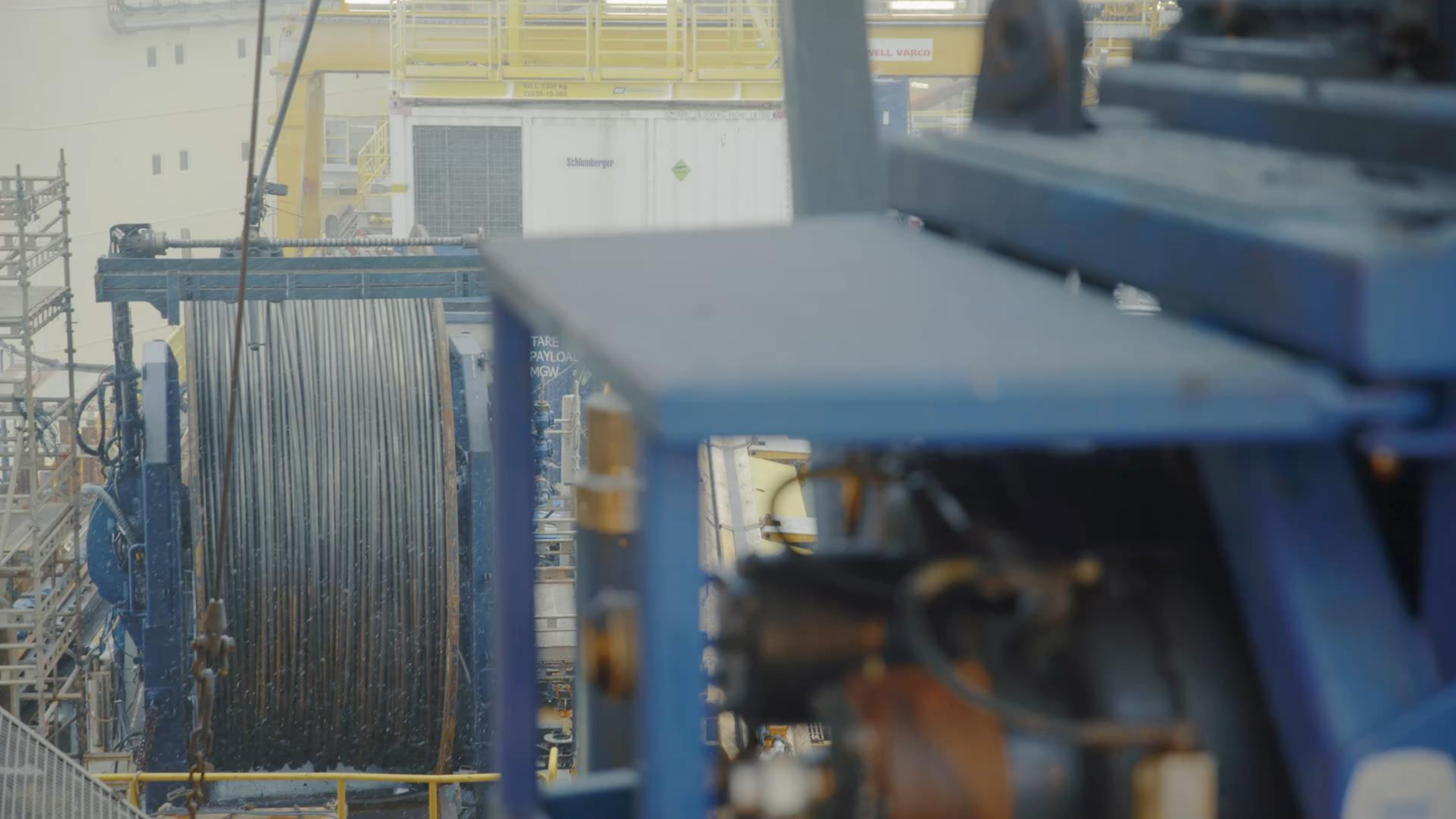
Autonomous Interventions

Heidrun Ludwig

Bjørn Engvald Nilsen

Johnny Bårdsen





WELL VARCO

W.C. 3300 kg
72035-10-000

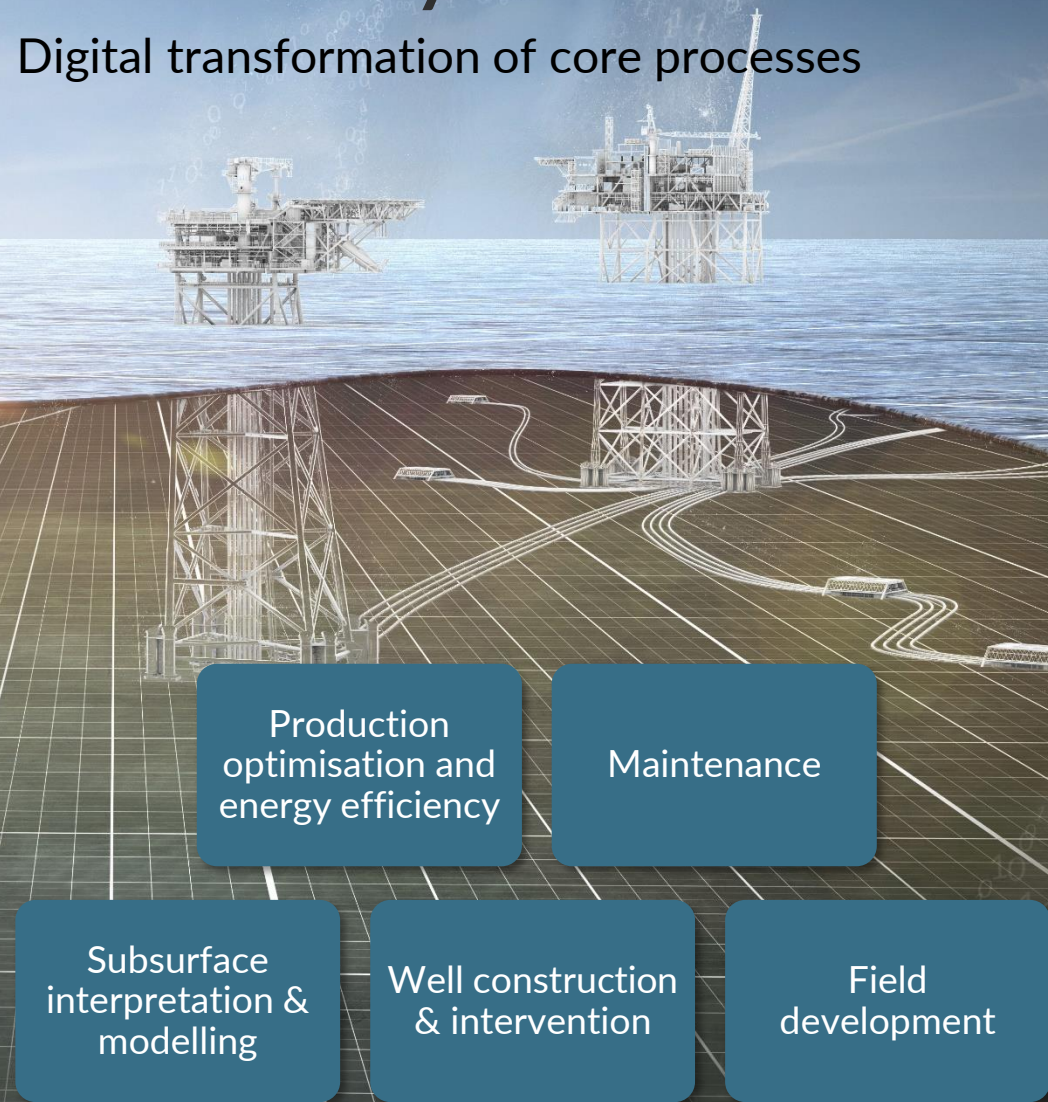
Schlumberger

TARE
PAYLOAD
MGW

Driving the transformation of the E&P industry

Strategic alliances to reorganise the value chain

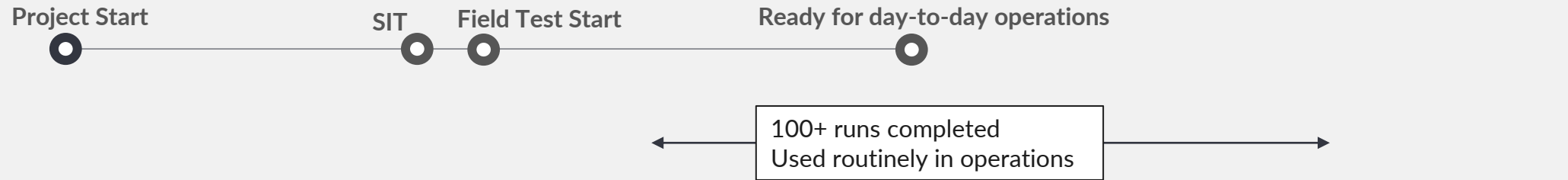
Digital transformation of core processes



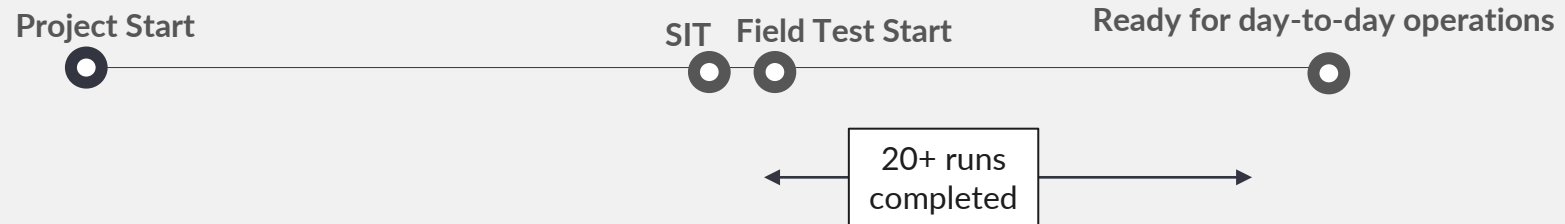
Where are we today?

2021				2022				2023			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

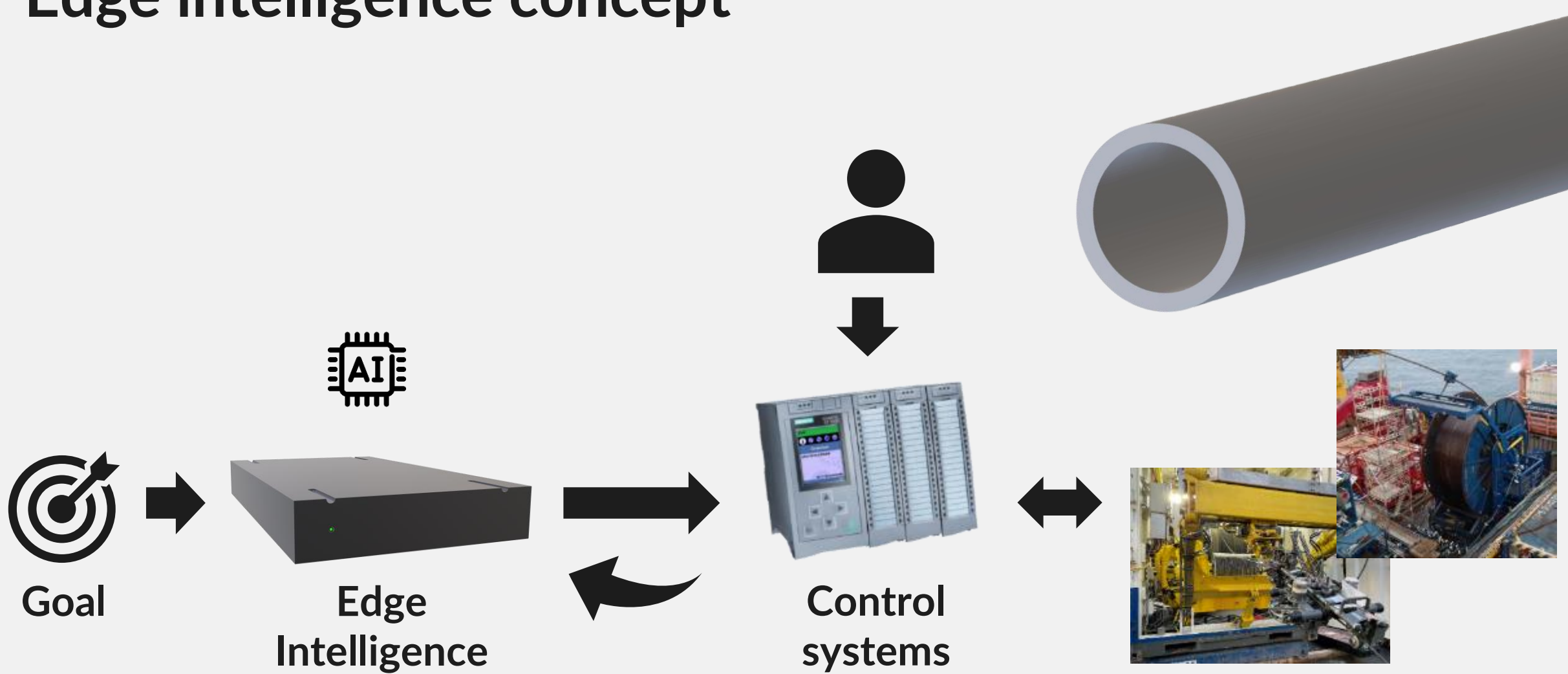
Wireline / Slickline



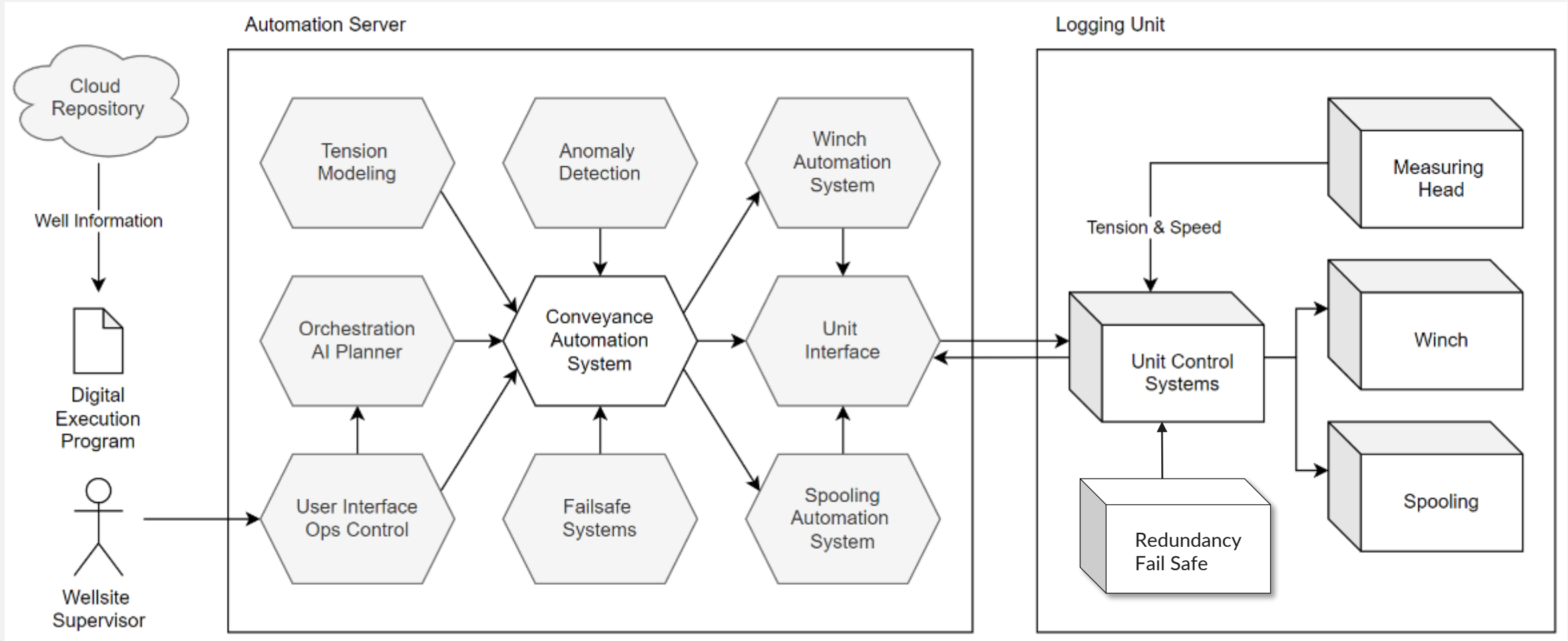
Coiled Tubing



Edge intelligence concept



Autonomous Concept



Testing Stages Overview



SILS (Software test)

- First layer of testing
- Provides initial de-risk

HILS (Integration Lab)

- Very similar to actual conditions
- Does not have full actual hardware

Test Well (Test with the actual unit)

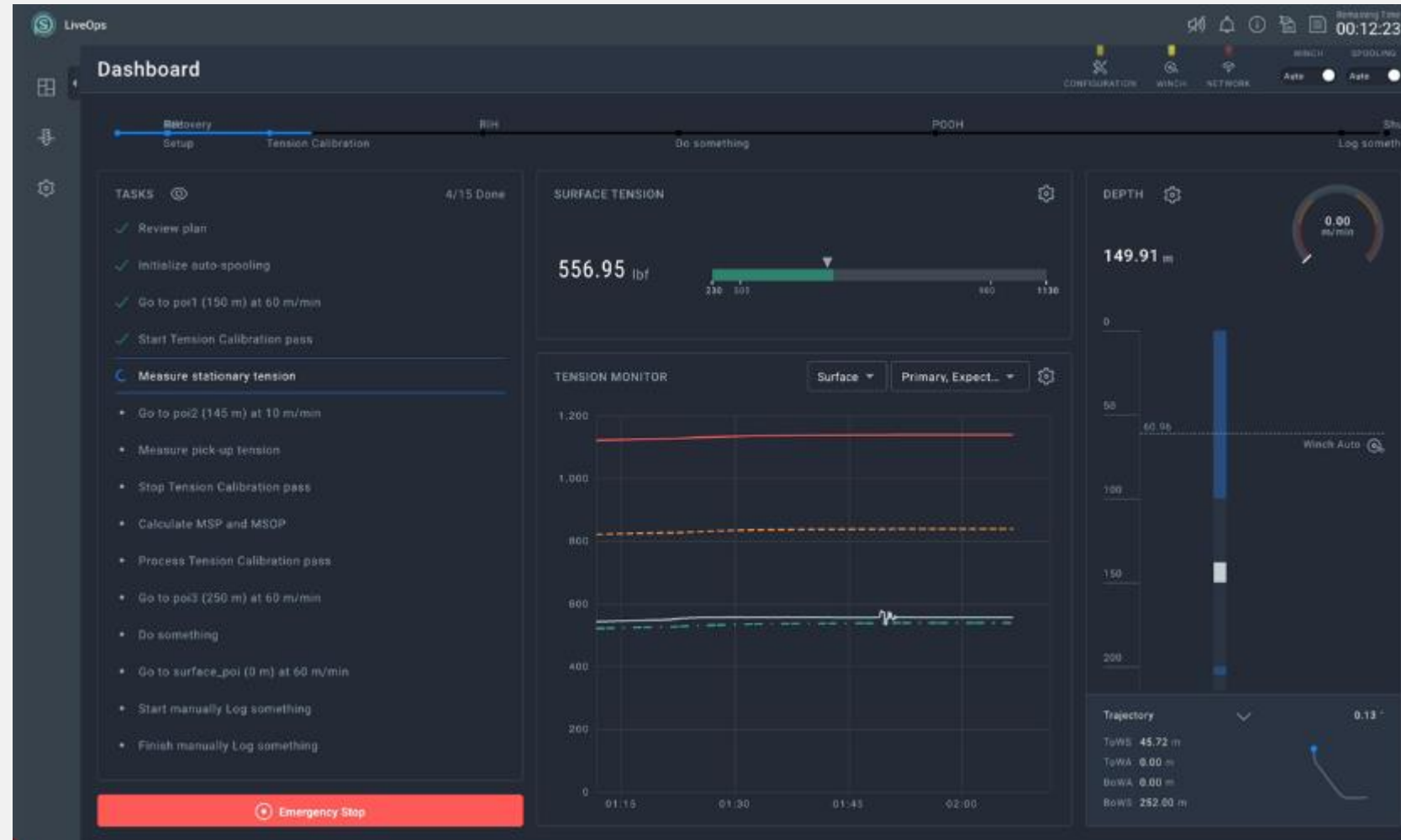
- Nearly identical to field operations

Test in the Field

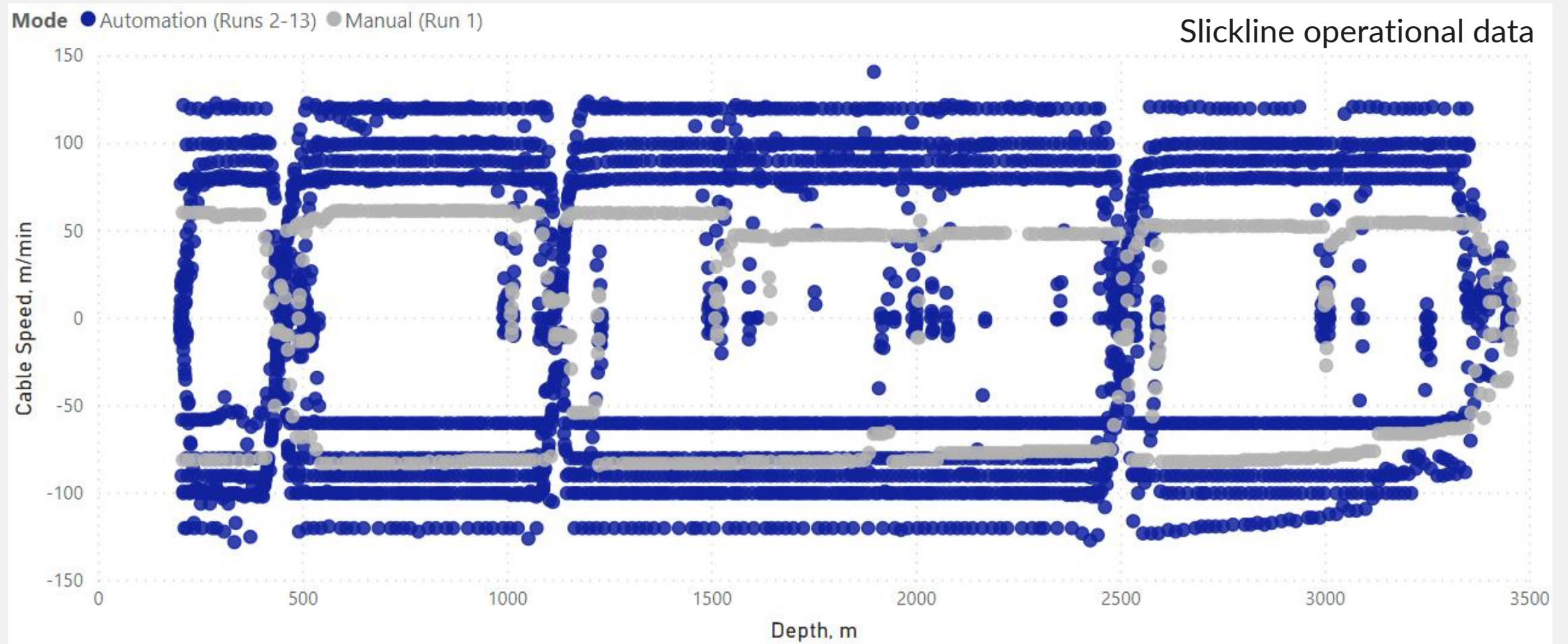
- Most complete test
- Need to minimize impact to operations

User Experience

- Planning & Scheduling
- Situational Awareness
- Expected Tension
- Well Navigation
- Control Handover



Increased consistency and efficiency



Collected data - 2023 YTD

Conveyance	Auto Usage	Speed Improvement
Slickline	33%	39%
WL <12 m/min (logging, restrictions)	39%	4%
WL >12 m/min	33%	12%
Total WL/SLK	35%	14%
CT <9 m/min (restrictions, cleanout...)	28%	28%
CT >9 m/min	39%	12%
Total CT	32%	33%

Potential additional future benefits



Better equipment insight and understanding of emissions



More efficient operations can reduce emissions and maintenance requirements

