

# Digitalization

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# Motivation

For Digitalization



## Advantages

- Unmanned Operation (24/7)
- Operation in remote areas and sub sea
- Predictive maintenance instead of time based Maintenance
- Remote supervision and support
- Reduction of travel time and cost
- Efficient staff deployment
- Environment friendly



Bring customer closer to MAN Engineers and Workshop

# PrimeServ Assist

What it is



Advanced analytics

Machine and process data

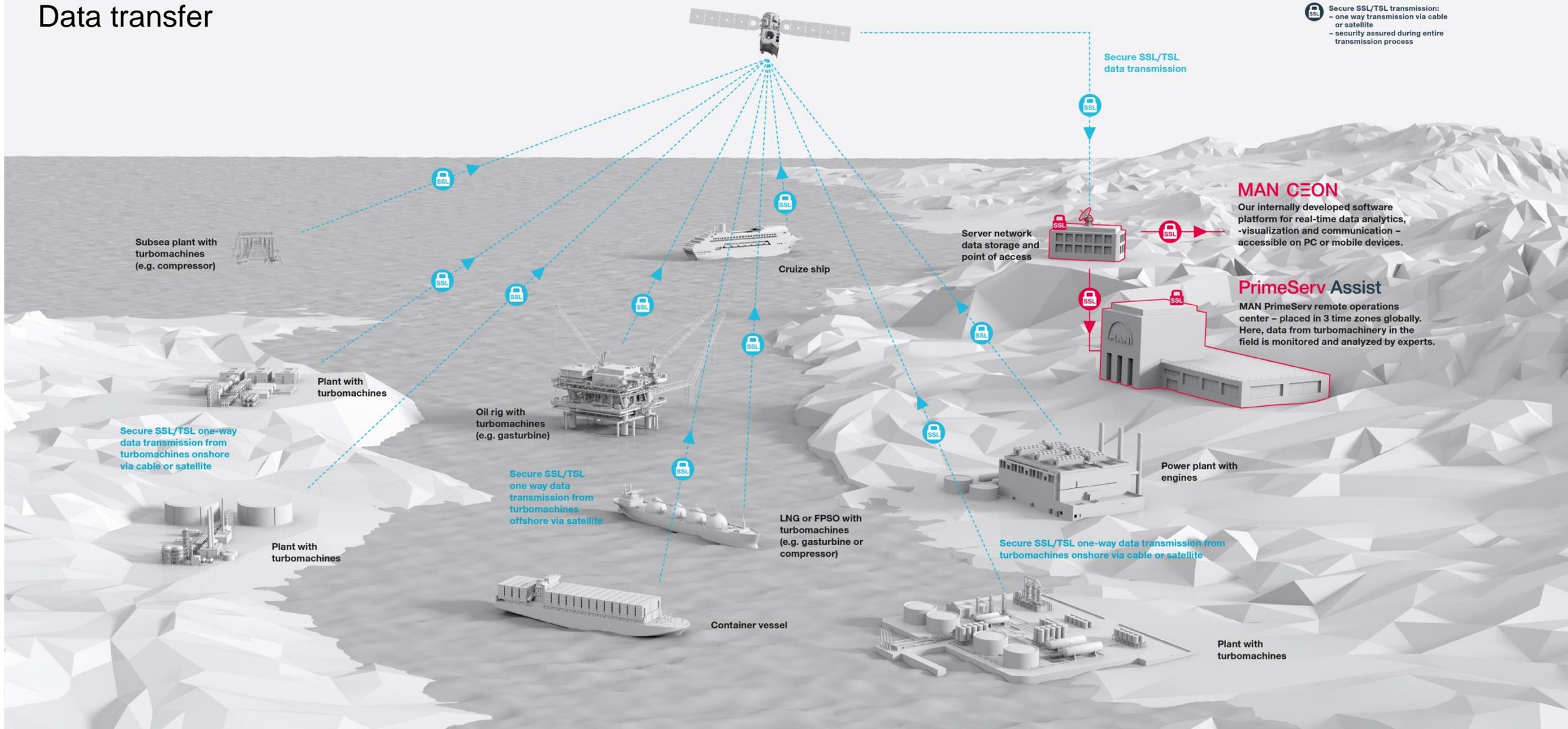
The PrimeServ Assist approach

24/7 MAN expertise

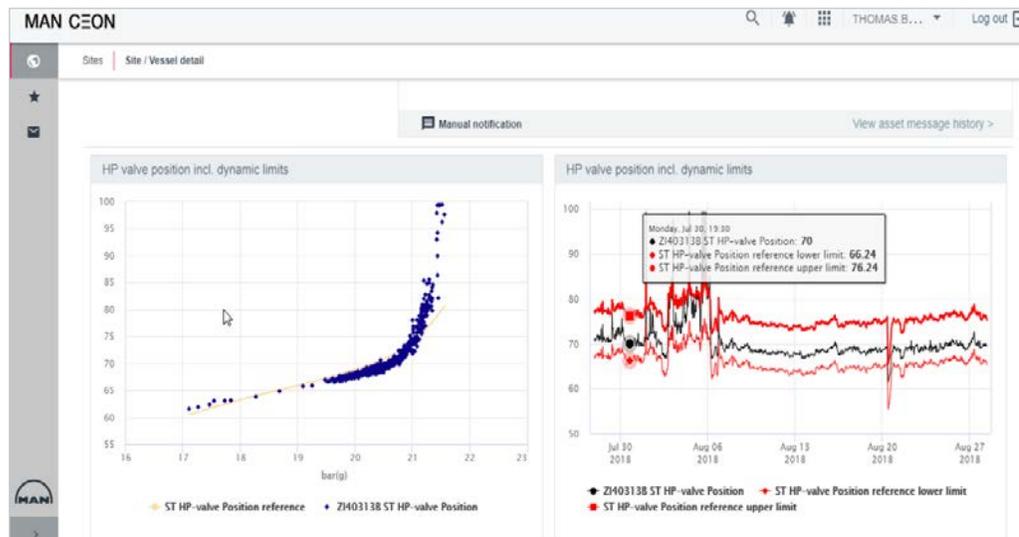
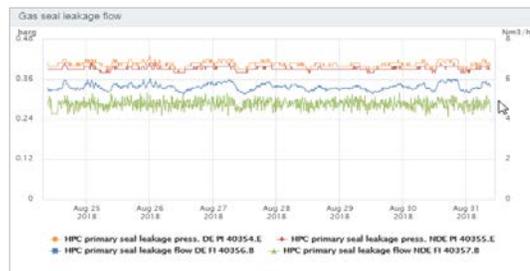
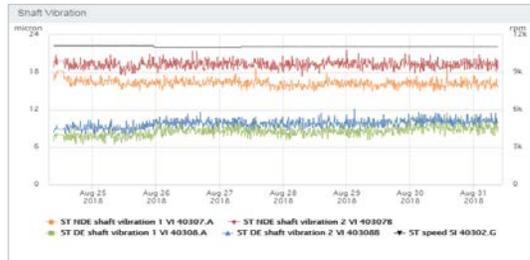
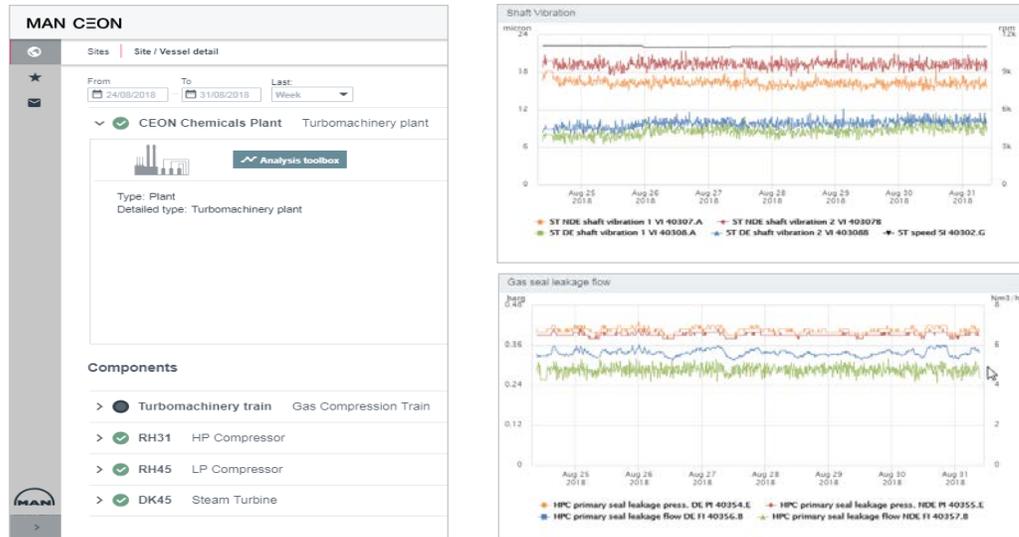


# PrimeServ Assist

## Data transfer



# PrimeServ Assist



→ Available on PC, Tablet or Smartphone

→ You can visit CEON with this link:

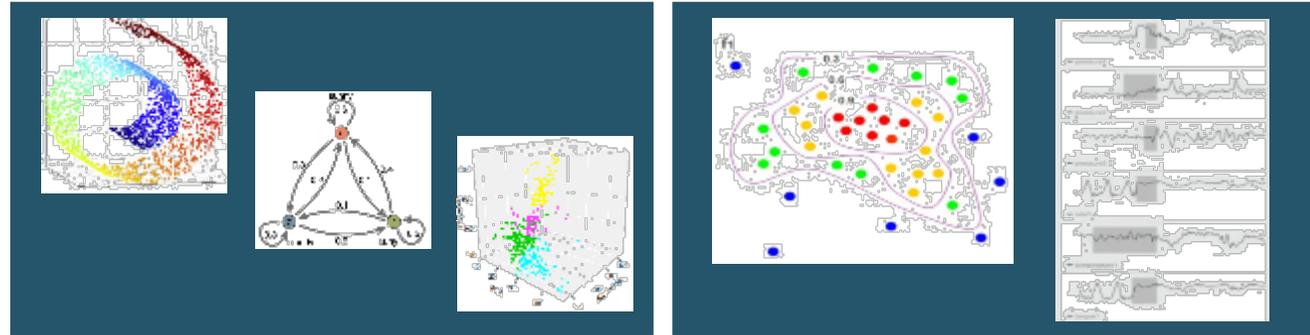
<https://manceon.io/login>





## Analytics team

- Internal analytics global teams
- External support from Volkswagen DataLab



## Advanced algorithms

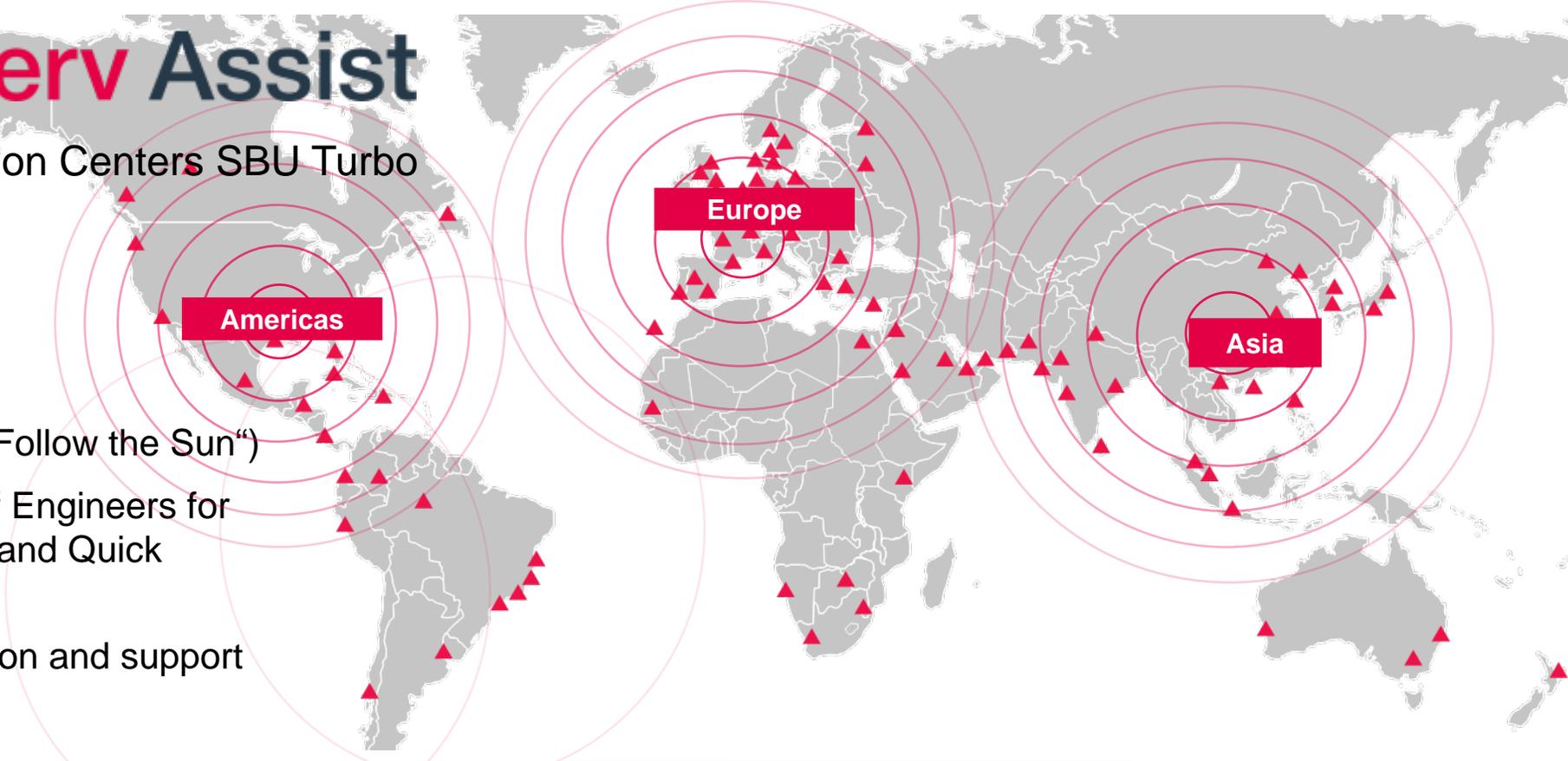
Two step approach to build algorithms:

- Identification of operational modes
- Find clusters of operational behavior
- Detect anomalies based on dynamic thresholds within each op. mode

# PrimeServ Assist



3 Remote Operation Centers SBU Turbo



- In 3 time zones („Follow the Sun“)
- 24/7 Availability of Engineers for Trouble Shooting and Quick TechLine
- Proactive evaluation and support



ROC Americas - Brazil



ROC Europe – Germany (Oberhausen)



ROC Asia – China (Shanghai)

# PrimeServ Assist



EyeTech in the Field Service



# PrimeServ Assist



EyeTech for witness, acceptance test and quality inspections



Audio- and Video connection



PC, notebook, tablet or smartphone

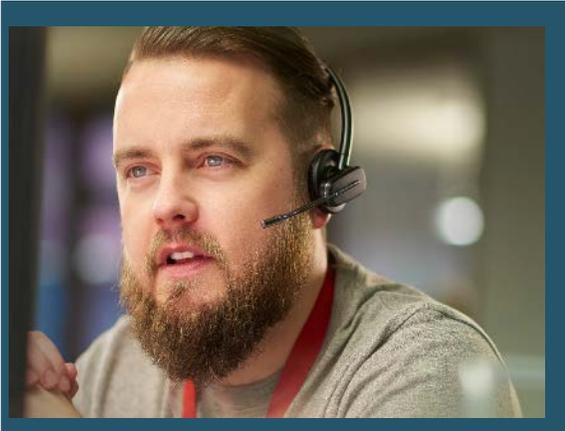
«Mobile» user with smart glasses, smartphone or tablet

# PrimeServ Assist



## Digitalization Summary

### Nominated Service Engineer



- Knowing your local assets, your team and the history of your assets
- Having access to real time data will take care of your problems.
- Recommending maintenance, spare parts and modifications

### Remote Operation Centers



- Developed for intensive trouble shooting sessions with multi discipline technical experts
- Access to operational data
- Located in your Region

### EyeTech



- Your head mounted device for live guided trouble shooting with the PrimeServ team
- Instant access to trouble shooting support
- Increase availability of the plant
- Save mobilization costs

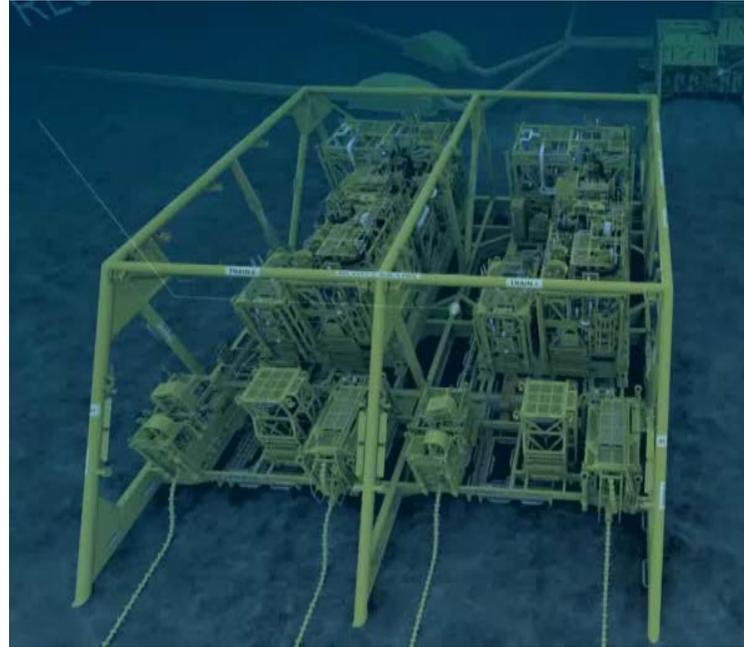
### 24/7 TechLine



- Staffed with technical experts
- Technical competence over the phone 24/7 “Follow the sun” concept
- Priority for PrimeServ Assist Premium und LTSA Customers

# The HOFIM ® & Digitalization

HOFIM Subsea

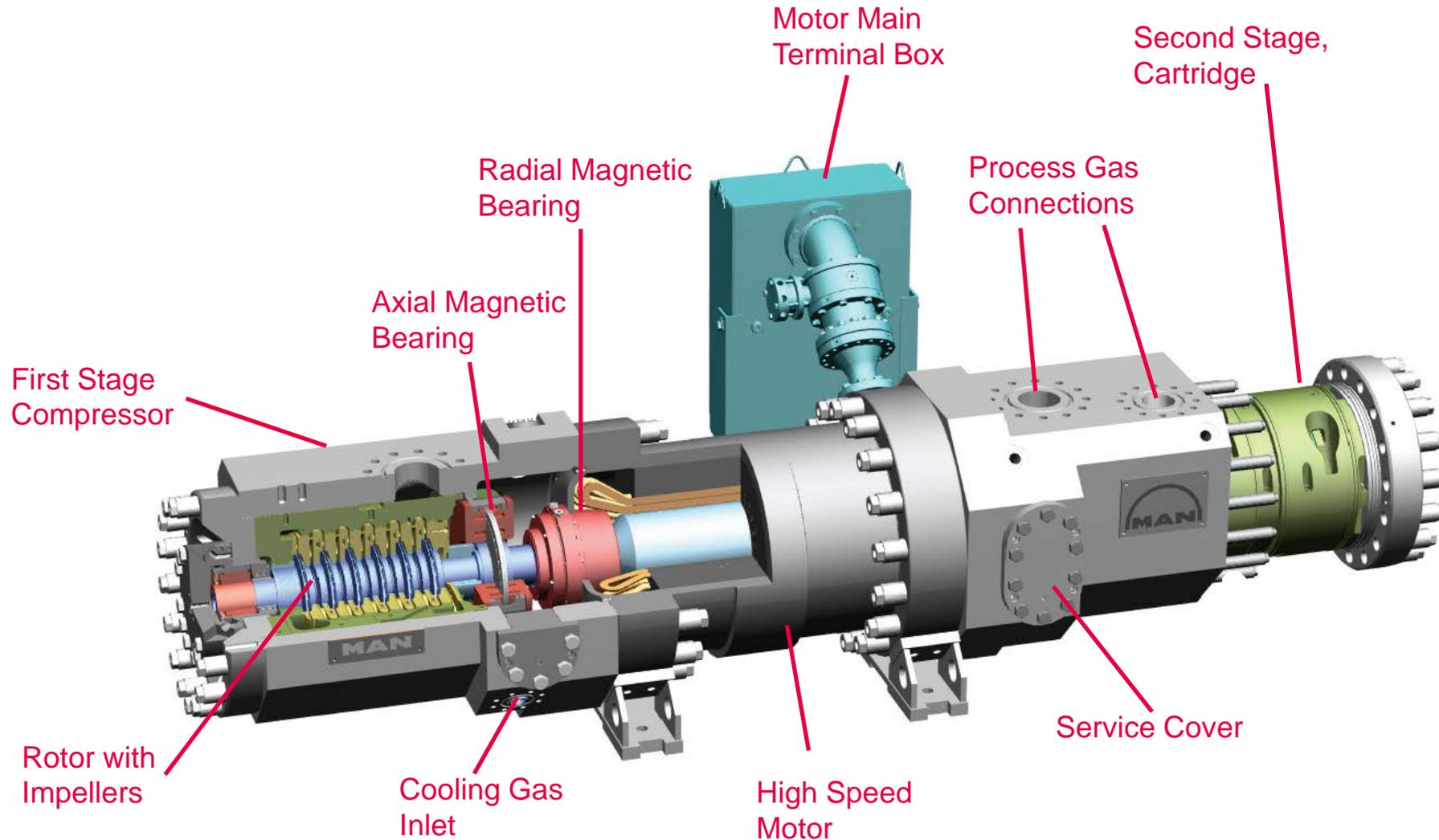


## Digitalization Journey

- Digitalization was prerequisite for subsea operation
- Development for subsea started early 2000s
- 100% compressor availability since installation Sep 2015

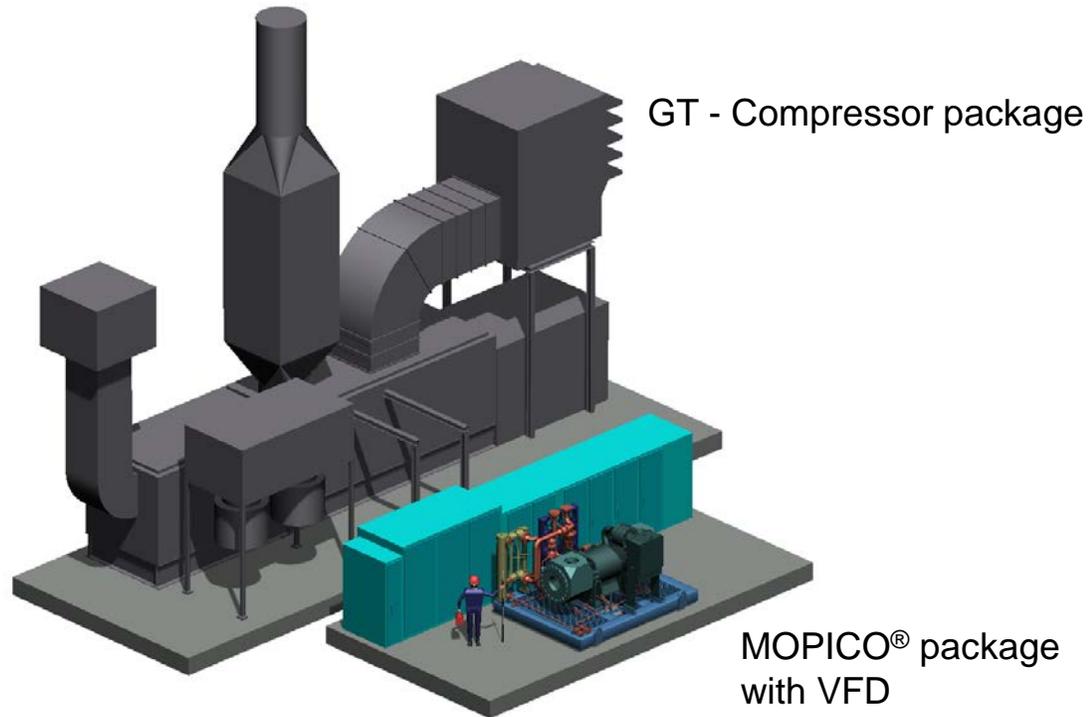
# HOFIM® Compressor

For Sub Sea Gas Lift and Gas Storage



# MOPICO®

Compact design, small footprint, low weight

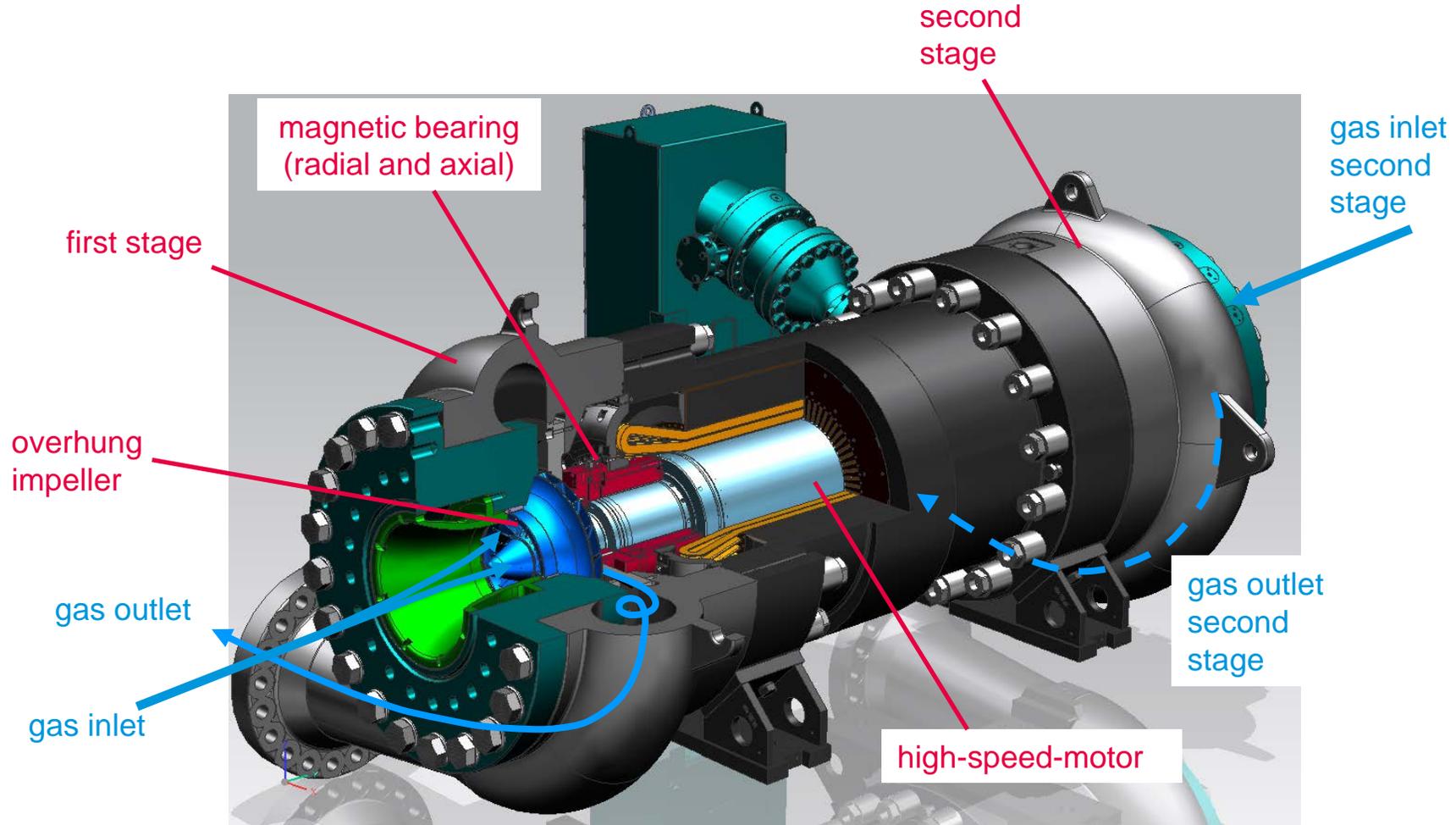


## Advantages

- Small footprint
- No emissions (exhaust, noise)
- Flexible Operation as compressor stays pressurized
- Oil free
- Reduced maintenance
- High availability

# MOPICO® Compressor

For Gas Transportation



Thank you  
very much!



# Disclaimer



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Depending on the subsequent specific individual projects, the relevant data may be subject to changes and will be assessed and determined individually for each project. This will depend on the particular characteristics of each individual project, especially specific site and operational conditions.