



**PREDICTING SAFETY CRITICAL VALVE  
PERFORMANCE USING ADVANCED  
ANALYTICS**

# PREDICTING ASSET PERFORMANCE

## CONDITION MONITORING

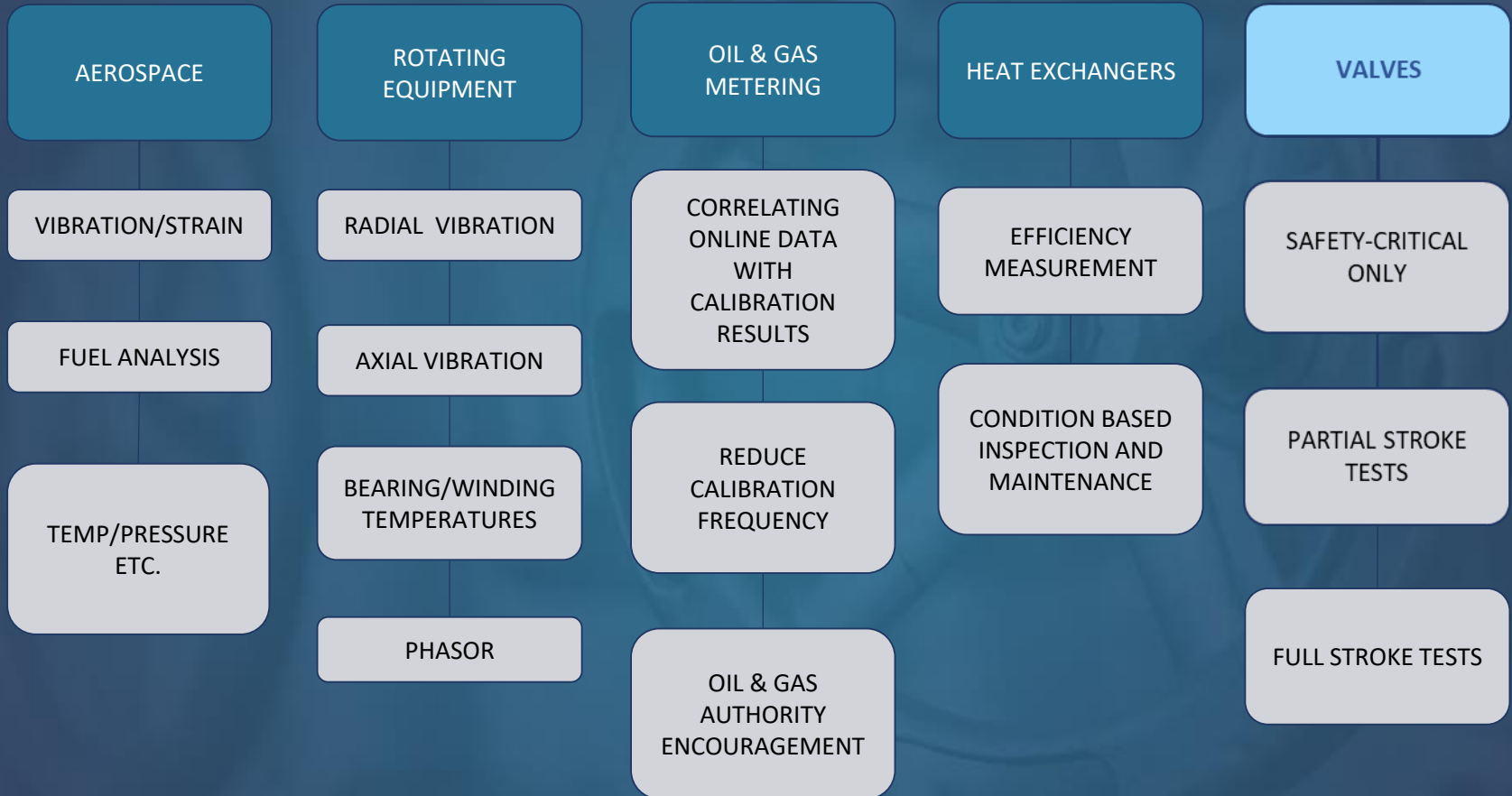
COLLECTION OF OPERATIONAL DATA RELATING TO EQUIPMENT

DATA TRENDING

IDENTIFY EQUIPMENT DEGRADATION

FORECAST WHEN CONDITION REQUIREMENTS EXCEED PARAMETERS

# PREDICTING ASSET PERFORMANCE



# CONFLICTING INDUSTRY REQUIREMENTS

## HSE

Increased focus on 'PROOF OF CONDITION' record keeping

Increased transparency



## OPERATORS

Reduce operating cost

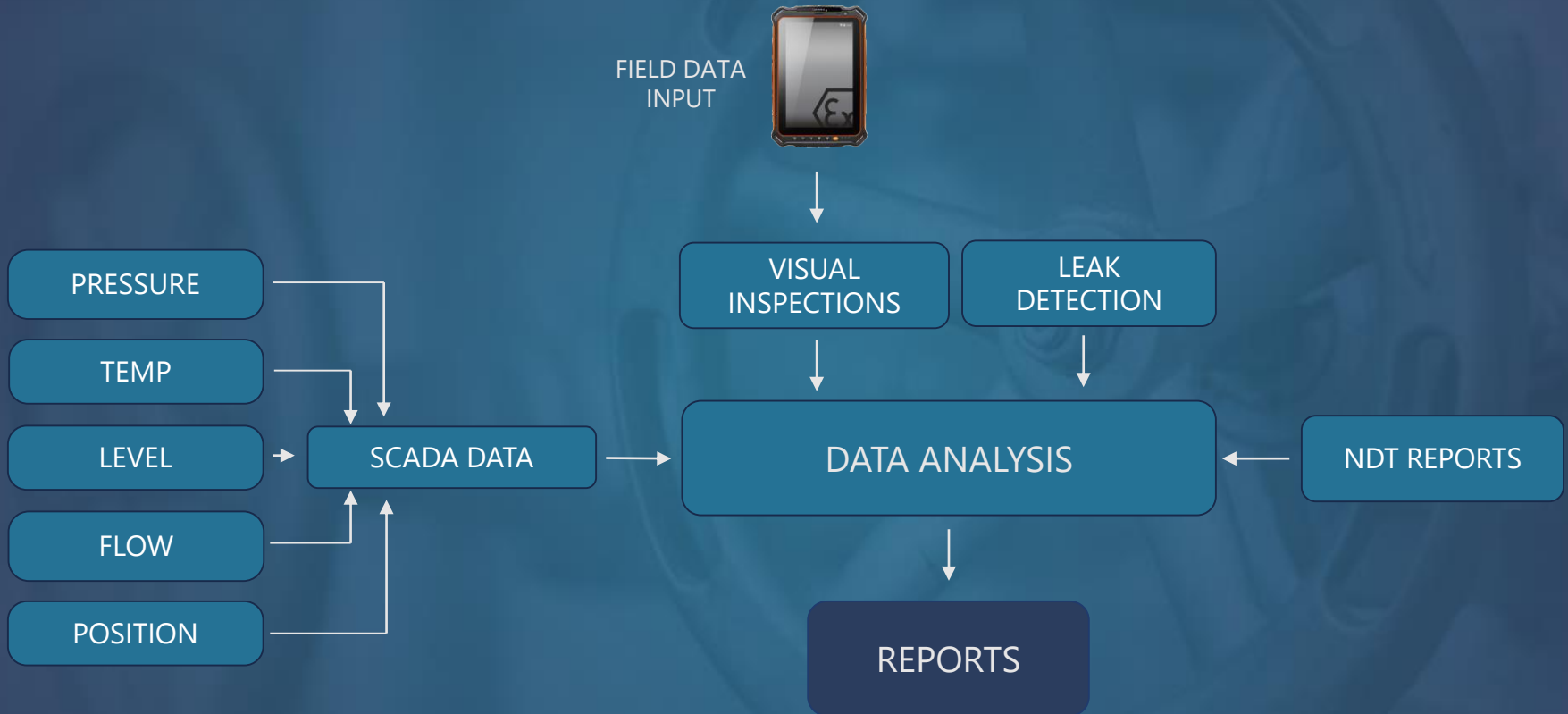
Ageing assets

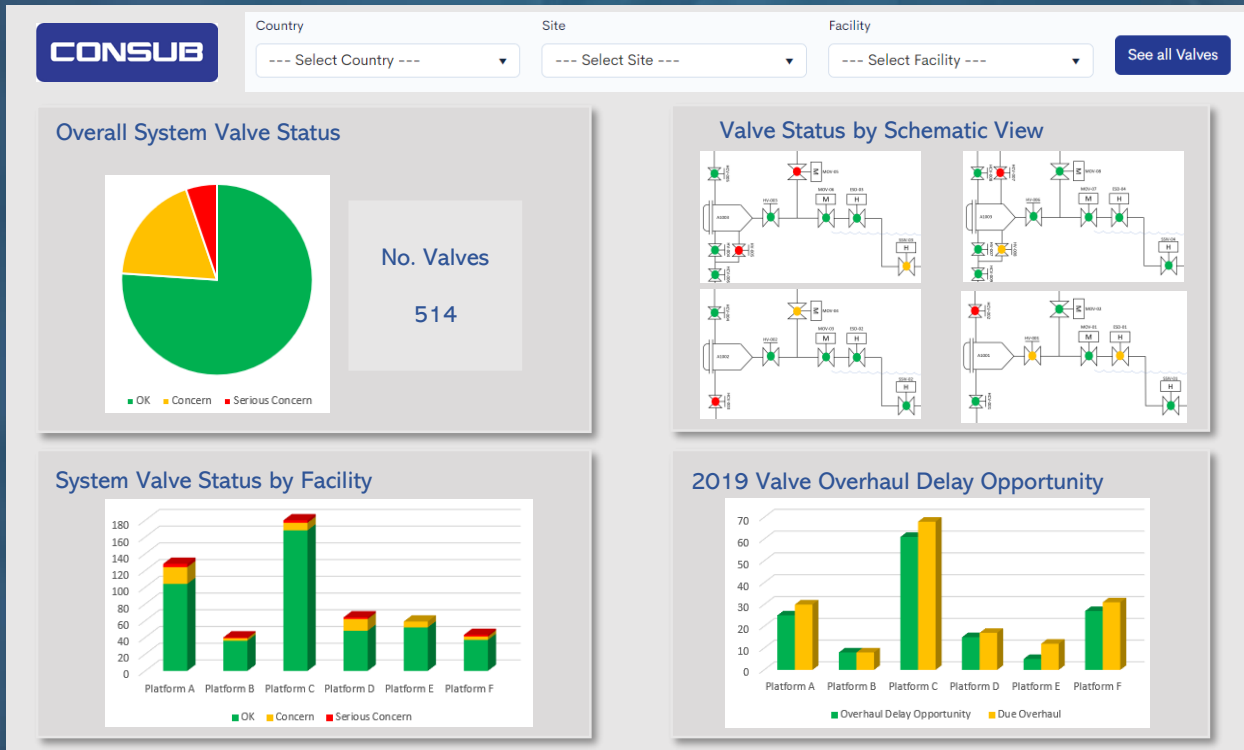
Asset life extension

Maintain Safety Integrity



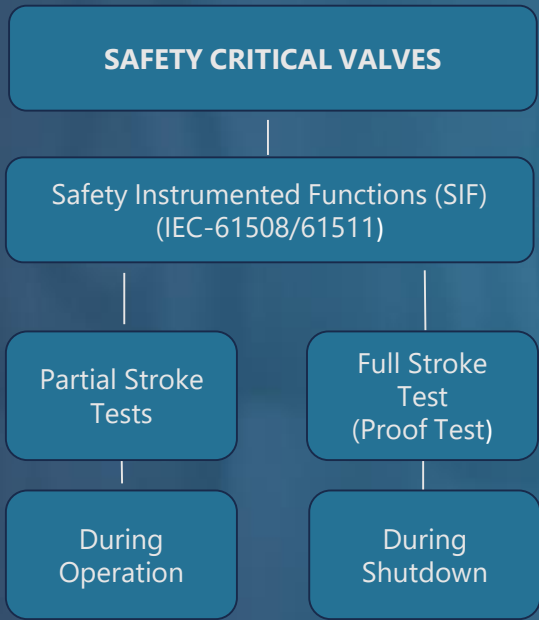
# CONSUB SOLUTION - C-VMS<sup>©</sup>



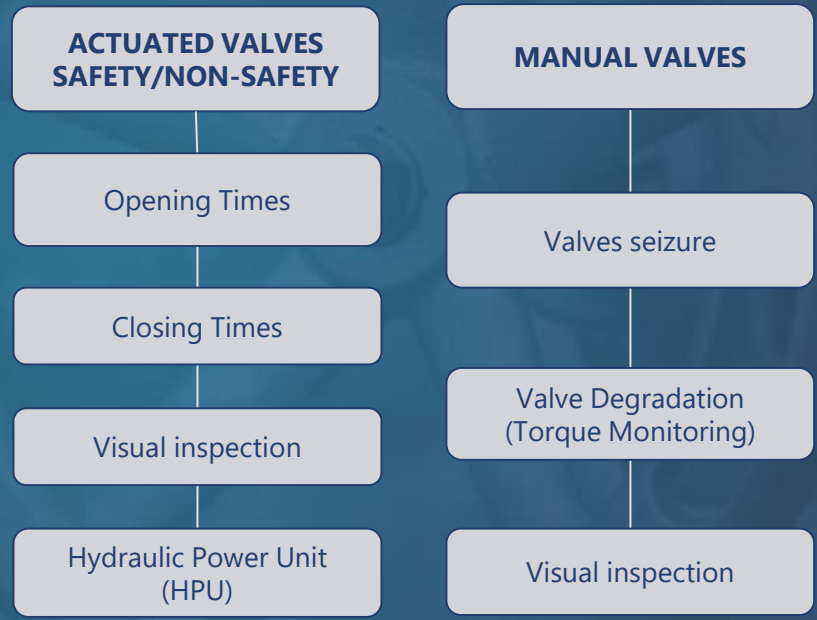


# VALVE CONDITION MONITORING

## CURRENT VALVE TESTING REGULATION



## VALVE CONDITIONS **NOT** CURRENTLY RECORDED



# CONDITION MONITORING FOR ALL VALVES

## ALL VALVE TYPES AND SIZES

Ball, Gate, Plug, Butterfly, Choke, Control  
ROV, Hydraulic, Pneumatic, Electric, Manual

## C-PAS©

Manual Valve Torque Monitoring System  
Multi adjustable – no valve modification

**Standards are changing towards increased condition monitoring**





# FUTURE OF VALVE MAINTENANCE

## PRESCRIPTIVE MAINTENANCE

GENERIC

UNNECESSARY MAINTENANCE

UNNECESSARY EXPENDITURE

POTENTIAL TO CREATE PROBLEMS

## PREDICTIVE CONDITION BASED

REDUCED OPEX COSTS

ELIMINATE UNPLANNED SHUT-INS

# SUMMARY AND RECOMMENDATIONS

Condition Based Maintenance is proven in other asset types

Growing demand for Valve Condition Records – (Safety and Non-Safety Critical)

Maximise use of currently available process and equipment data - Minimise requirement for CAPEX of new sensors

Maximising use of field-based data entry at time of inspection

Automate digital data analysis to reduce condition monitoring time/cost

Tailored reports to maximise benefits and highlight abnormalities

# VALVE MANAGEMENT SERVICE TRACK RECORD



WE CAN HELP YOU

**CONTACT US**

**[mark.gaskell@consub.com](mailto:mark.gaskell@consub.com)**

**+44 (0) 208 9414236**

**[www.consub.com](http://www.consub.com)**