

A crumpled blue paper ball sits on a sketchbook page. The page is filled with faint pencil sketches, including a large oval shape and some smaller geometric forms. A black pen lies on the right side of the page. The spiral binding of the notebook is visible on the left.

Corrosion Growth JiP proposition



BUREAU
VERITAS

WHY A NEW JIP?

How to predict **evolution of observed corrosion** on offshore units
and **adapt repair plan?**



AGS 3D: AI INSPECTION ECOSYSTEM

BV
AUGMENTED
SURVEYOR
3D

Digital 3D model

- Localised corrosion
- Access to pictures



Digital 3D Model

What's coming next ?

One digital 3D Model

- Automatic thickness measurements importation
- Corroded surface measurements
- Characterisation of corrosion type



And predictive tool for maintenance and repair

JIP CORROSION GROWTH MODELLING



Data analysis

Evaluate database available

Data quality

Group of measures wrt
exposition / location / type of
structural element



Corrosion model

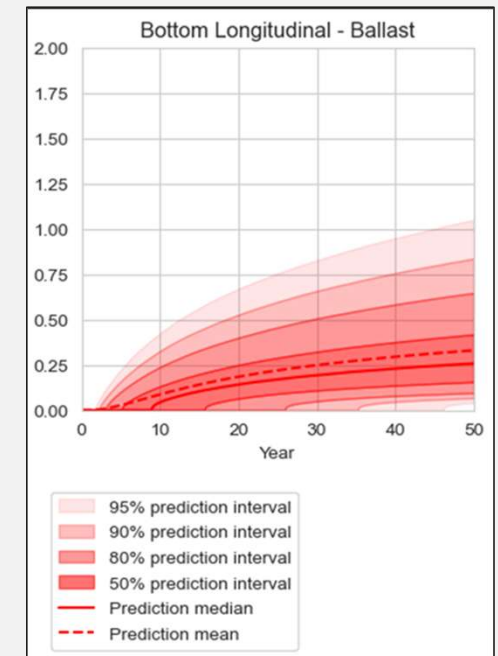
Probabilistic models of
corrosion kinetics based on
statistics

Evaluate corrosion laws
(Electrical Resistance sensors
or lab tests)



Fit model with corrosion laws

Use of Bayesian approach to
refine the model based on
measures



tool

Predicting corrosion evolution

Recommendation on repair plan



EXPECTED OUTCOME FOR BV

tool

Facilitate inspection and asset
integrity management

Expand digital database

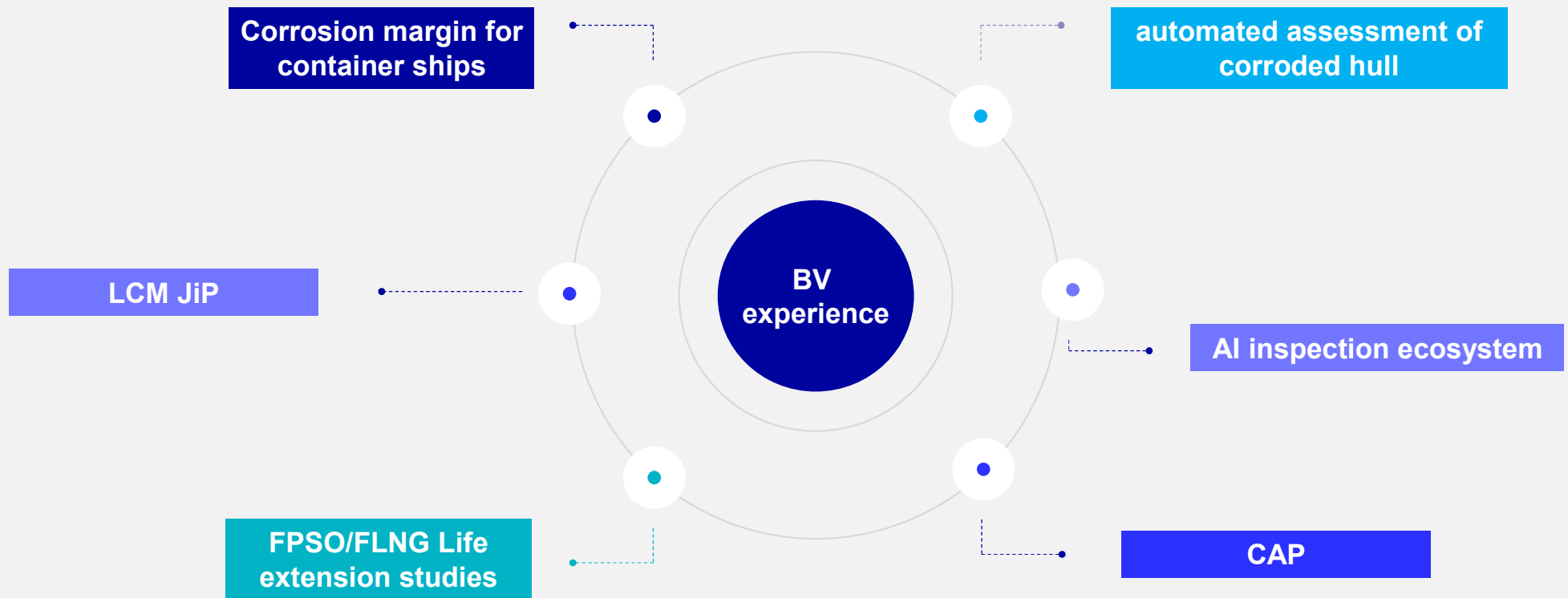
rules

Challenge steel renewal
criterion in NR 445

Revisit design requirements for
coating cathodic protection



WHY WITH BV?



CONTACTS



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