

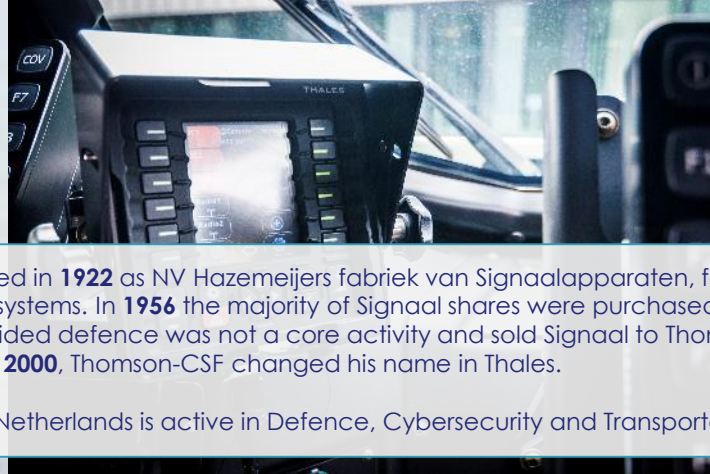
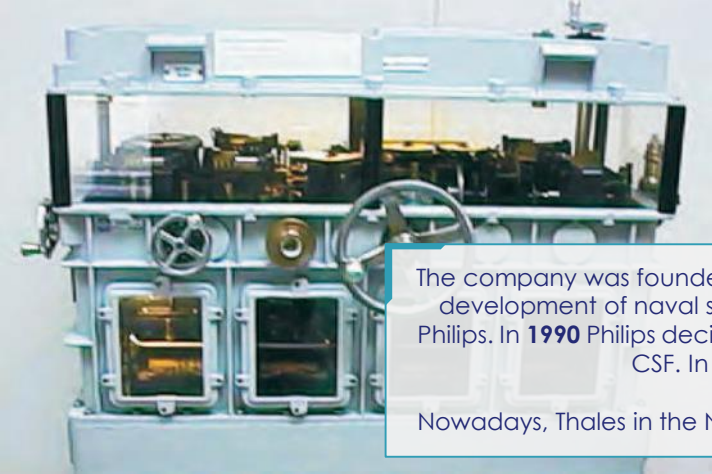
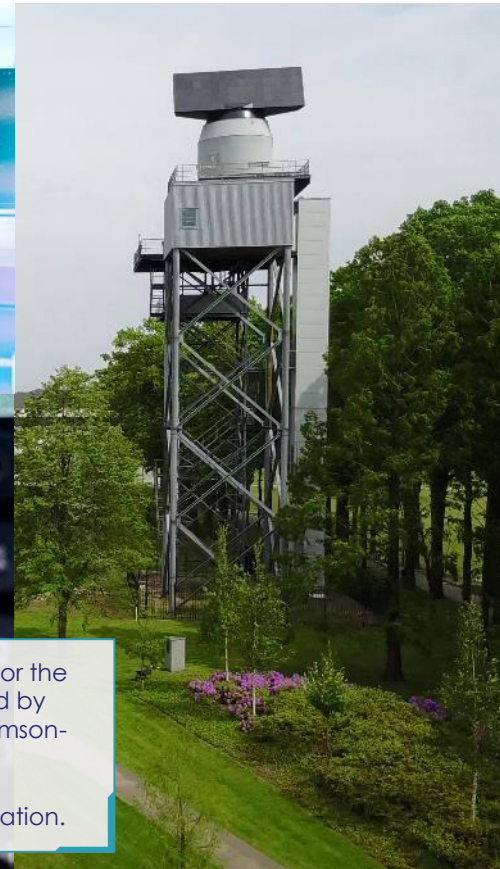
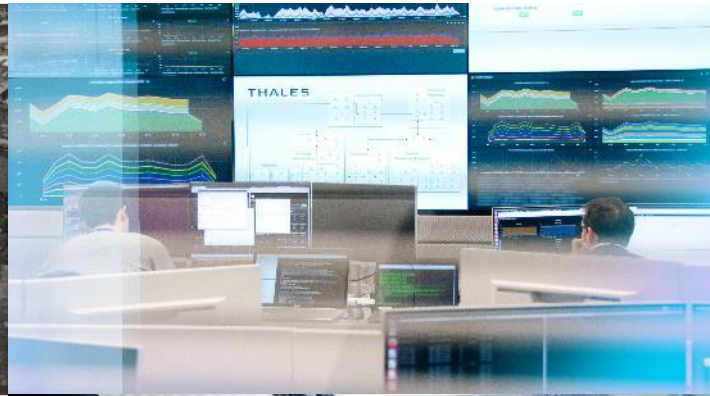
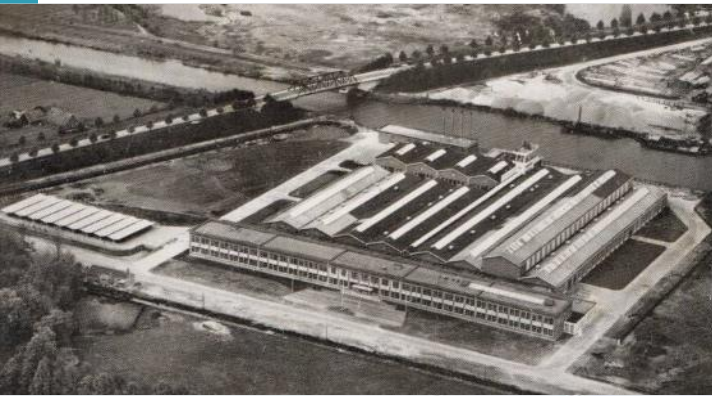


Practical applications of VR in the field of service

Rob Verhoeven & David Reid



Thales History in the Netherlands



The company was founded in **1922** as NV Hazemeijers fabriek van Signaalapparaten, for the development of naval systems. In **1956** the majority of Signaal shares were purchased by Philips. In **1990** Philips decided defence was not a core activity and sold Signaal to Thomson-CSF. In **2000**, Thomson-CSF changed his name in Thales.

Nowadays, Thales in the Netherlands is active in Defence, Cybersecurity and Transportation.

Some definitions

Physical Reality



Real world

Augmented Reality



*Virtual items in
a real world*

Augmented Virtuality



*Real items in
a virtual world*

Virtual Reality



*Complete
virtual world*

THALES
Building a future we can all trust

Various application examples on the asset lifecycle

Validation operational use



Validation maintainability



Develop documentation



Develop training

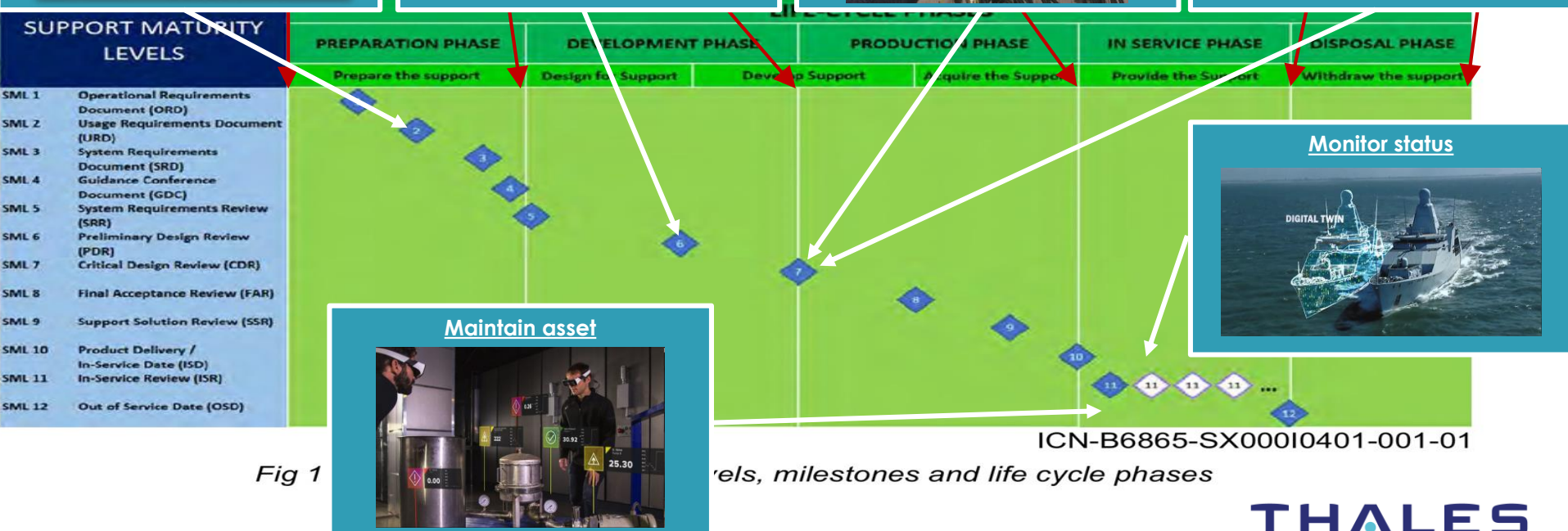


Fig 1

Models, milestones and life cycle phases

Key considerations / requirements

Low content production costs

- Efficient CAD to XR process
- Process for non-CAD data needed
- Re-use of 3D objects & info for various applications
- Smart integration / conversion / blending of information sources with XR technology

Superior user experience

- Use highest possible resolution in VR
 - Small details offer matter in maintenance
- Good XR object interaction
 - When possible adapt to user preference
- Robust application
- Where possible aim for highest realism

Must have VR features

- Multi-user possibly with for some/most users limited interaction
- Link 'classical' learning objects to geospatial data
- Simple task trainers
- Task trainers with complexities
- Flexible fault finding scenarios
 - Easy to add/modify/delete
 - Low effort to design / configure (implement)
- Allow trainees to make mistakes and experience the effect of errors made
- Record trainee journey for briefings

Demo

