

HARNESSING INNOVATIVE 3-DIMENSIONAL DIGITAL DESIGN TO REDUCE SEWAGE OVERFLOWS

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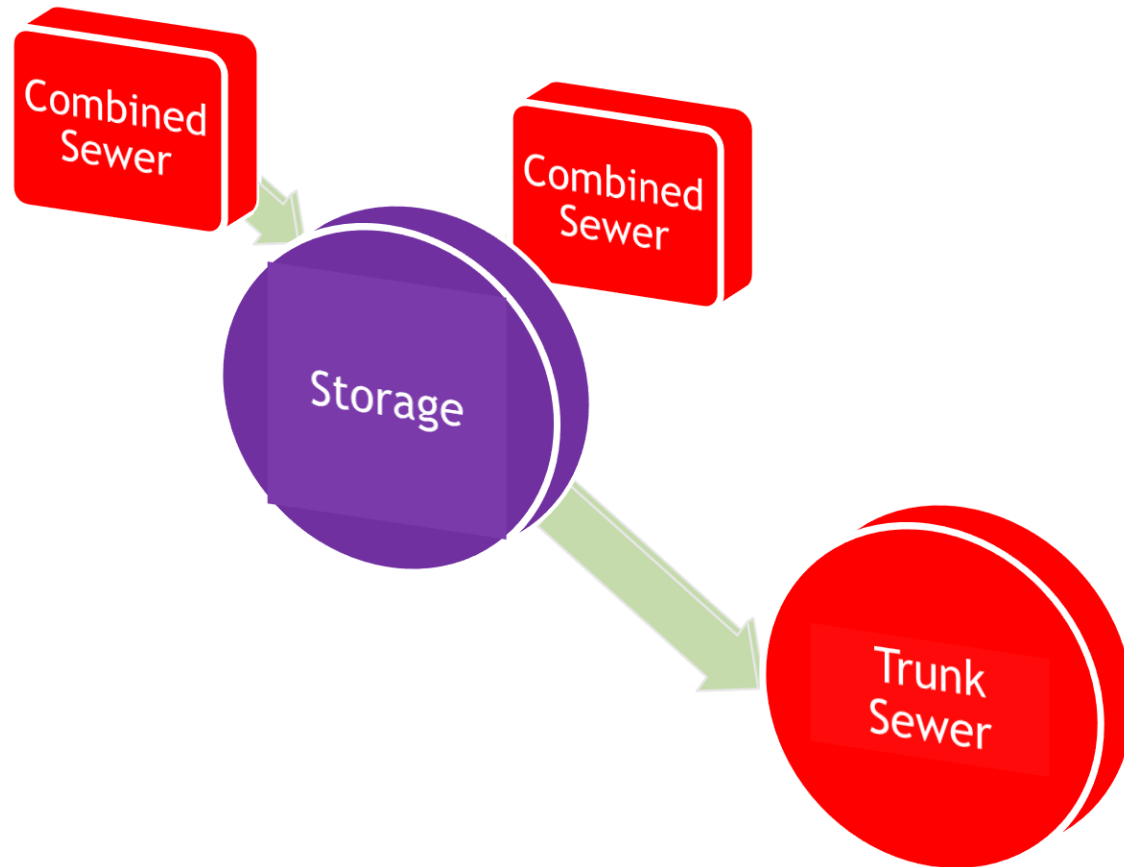


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to life*

The Project

The current set up....and the future.



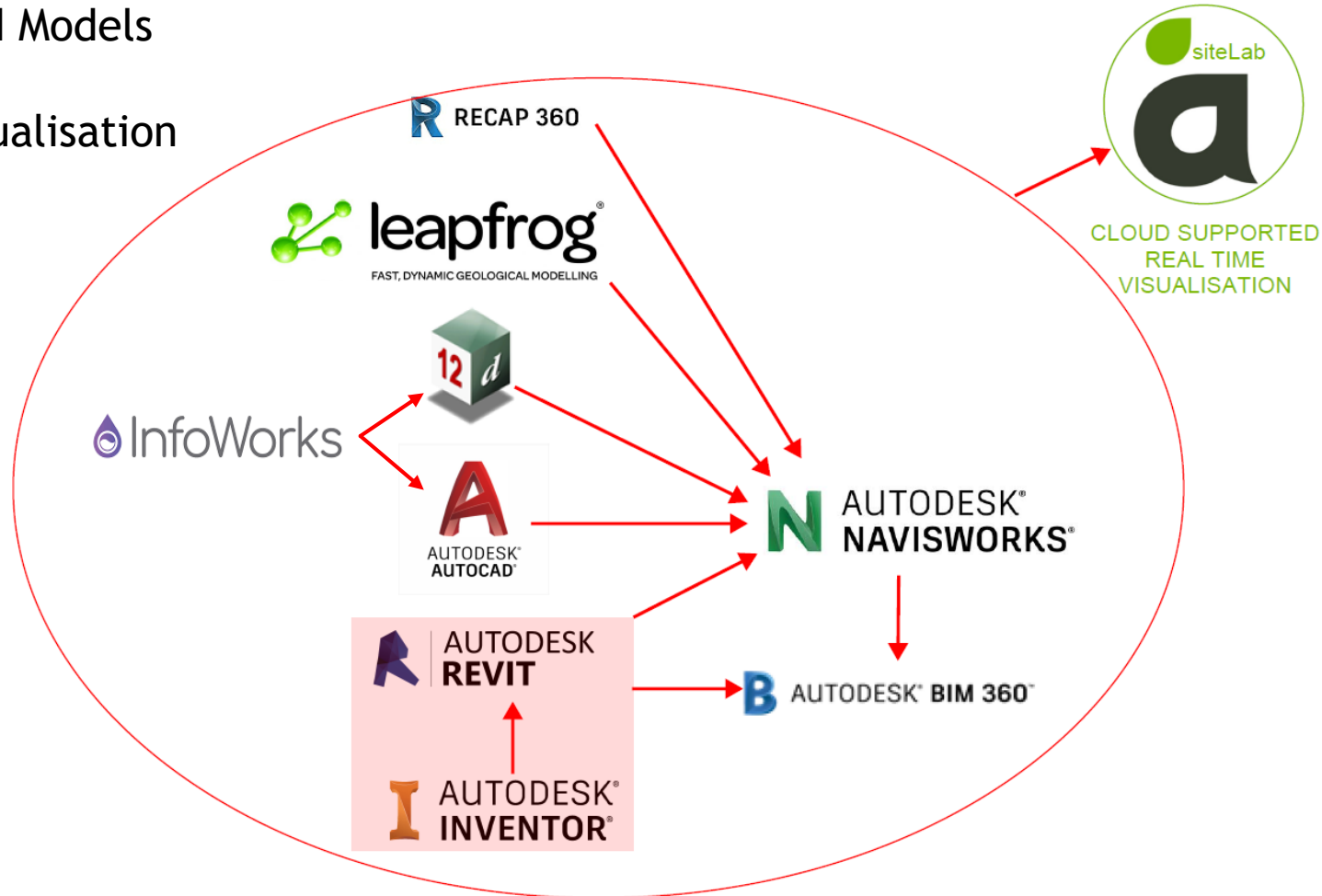
The Design Constraints

- ▶ Compressed design programme
- ▶ High construction risk - utilities, geotechnical
- ▶ Safety in Design
- ▶ Integration from many specialists - electrical, mechanical, geotechnical, structural, hydraulic, odour, etc.
- ▶ Very interested stakeholders seeking deep engagement

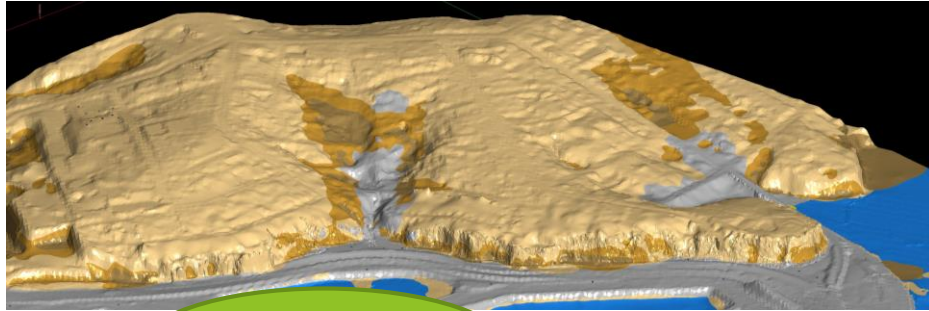
Traditional design would be slow and less accurate

Knitting it all Together

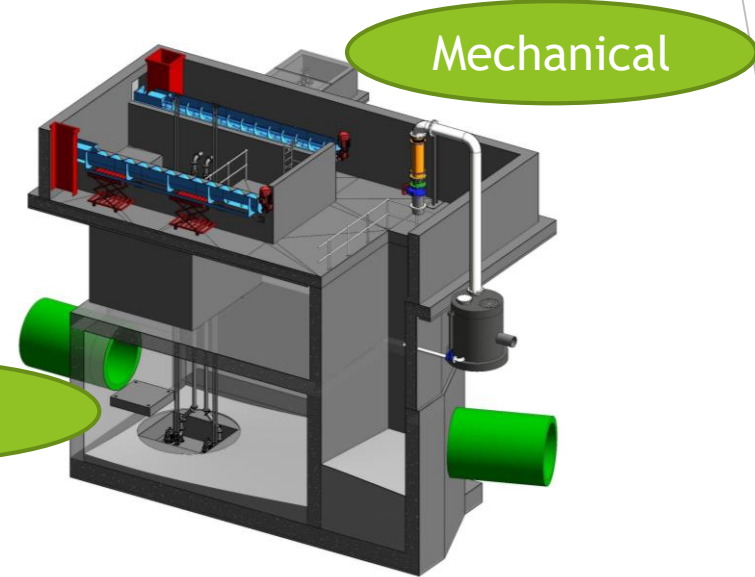
Synchronised Models
&
Real Time Visualisation



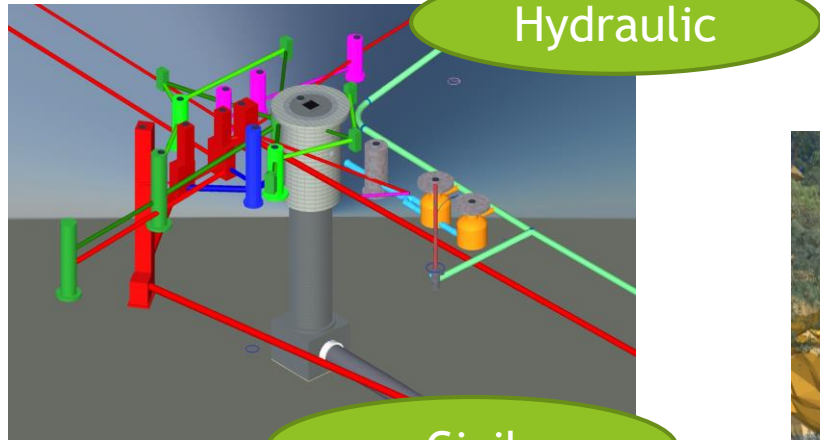
3D Digital Modelling



Geology



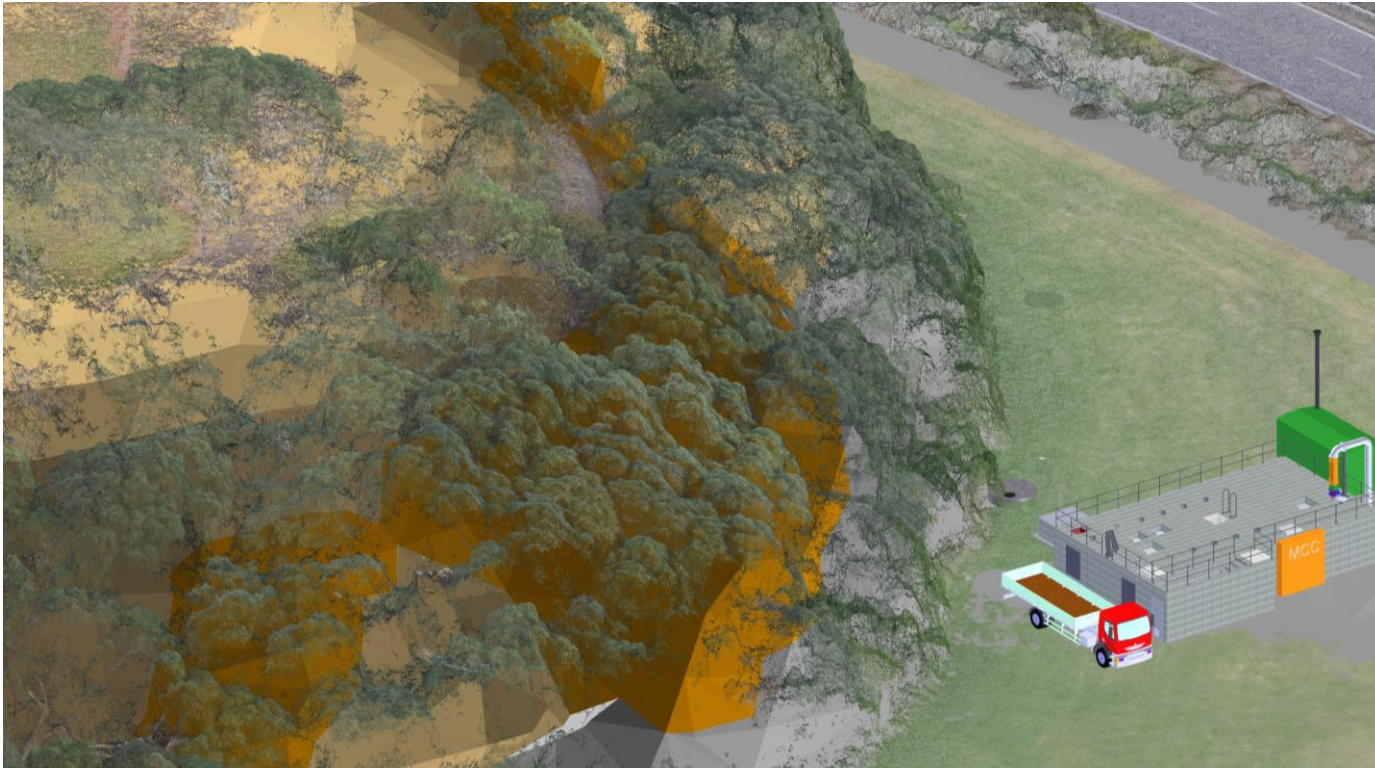
Electrical



Civil

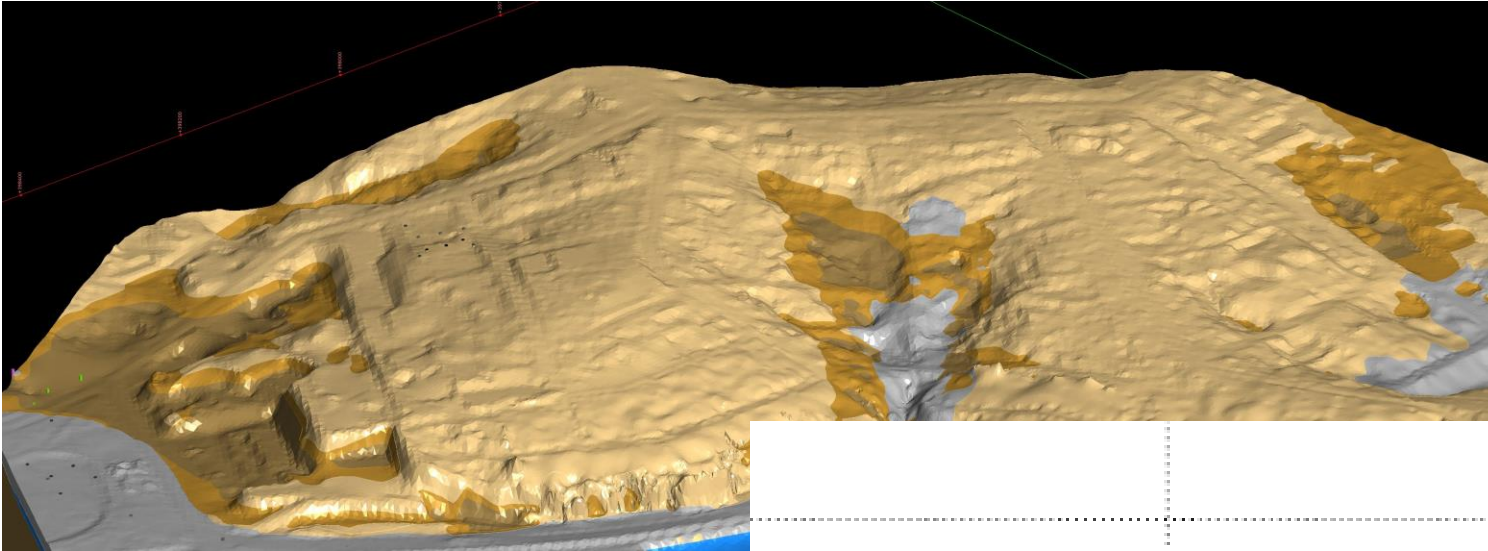


Aerial photogrammetry and terrestrial LiDAR scanning

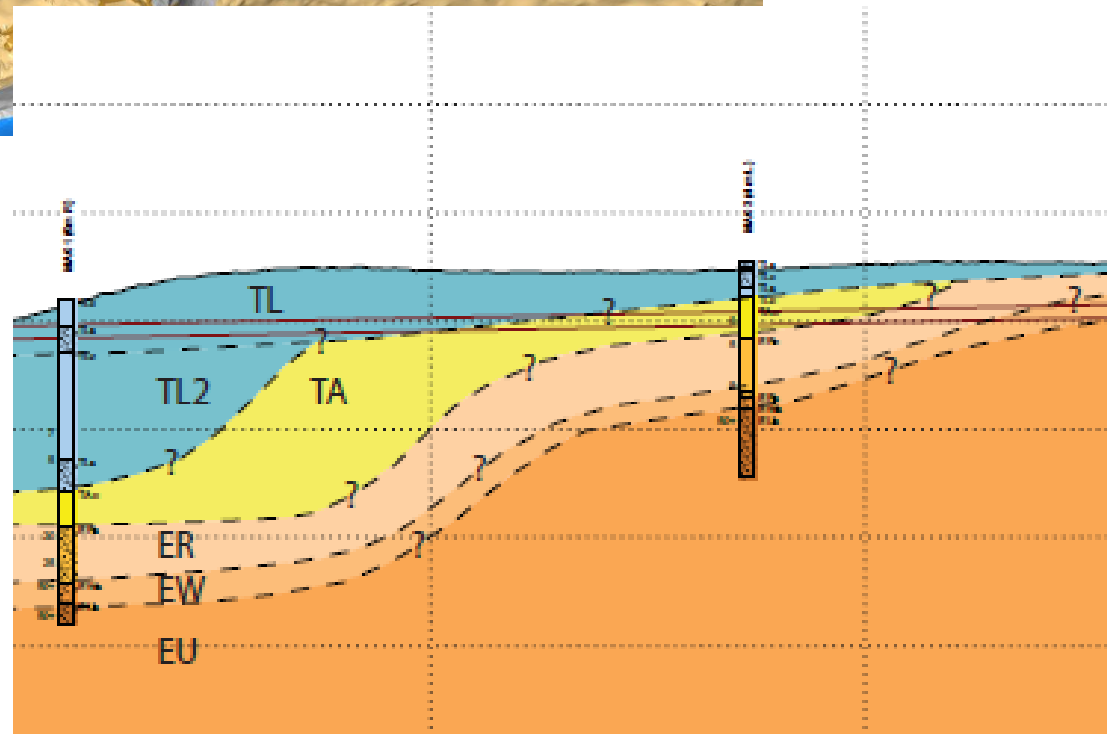


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- ▶ Very interested stakeholders seeking deep engagement

Digital 3D geology tools and aerial photogrammetry



- ▶ Compressed design programme
- ▶ High construction risk - utilities, geotechnical
- ▶ Integration from many specialists - geotechnical, structural, hydraulic, etc.



VR Model



- ▶ Very interested stakeholders seeking deep engagement

Benefits of our Design Approach

- Faster - integration of many design packages accurately and quickly
- Avoided design clashes
- Supported Safety in Design
- Better management of geotech and utilities - traditionally greatest construction risks
- Benefited stakeholder engagement
- We look forward to seeing how it will support the construction team



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**The End
Any Questions?**