



Synthetic Environments, Digital Twins – Ukraine Today and Tomorrow

Christopher Coates

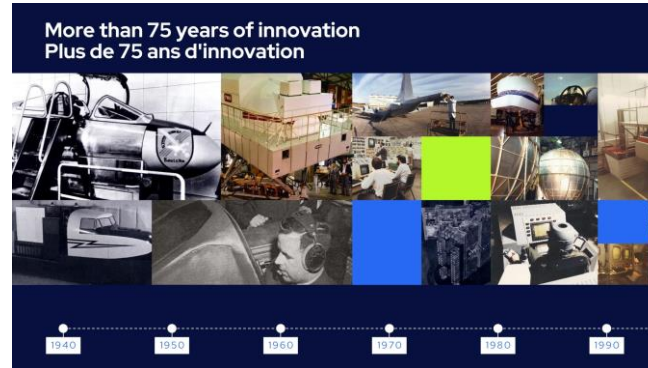
Simon Merrick

17 October 2023

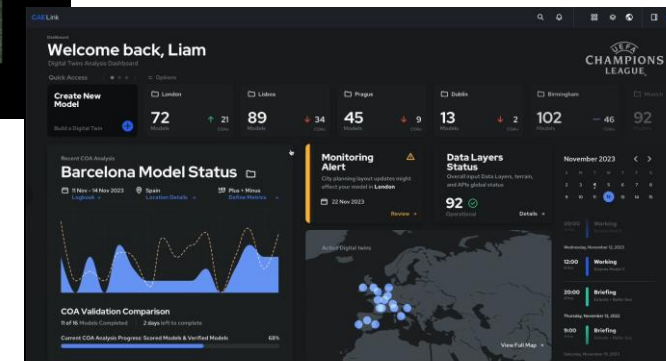
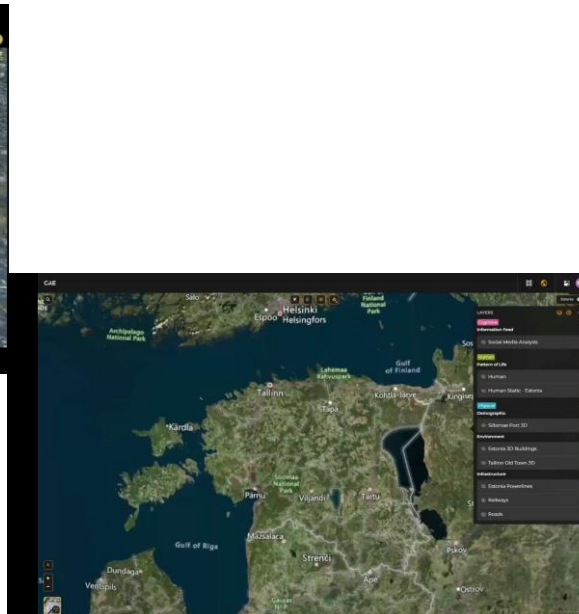
CAE

CAE – Synthetic Environments and Digital Twins

World Leader in Modeling and Simulation, Aviation Training



Single Synthetic Environments and Dynamic Digital Twins



CAE – Ukraine StateGeoCadastre - Dam Modelling and Geoinformation Analysis

Approach

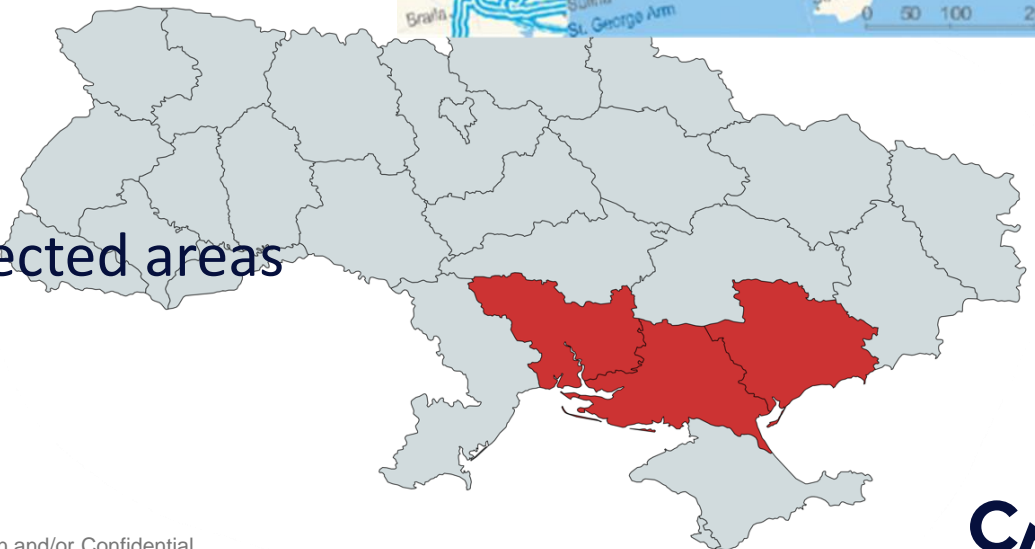
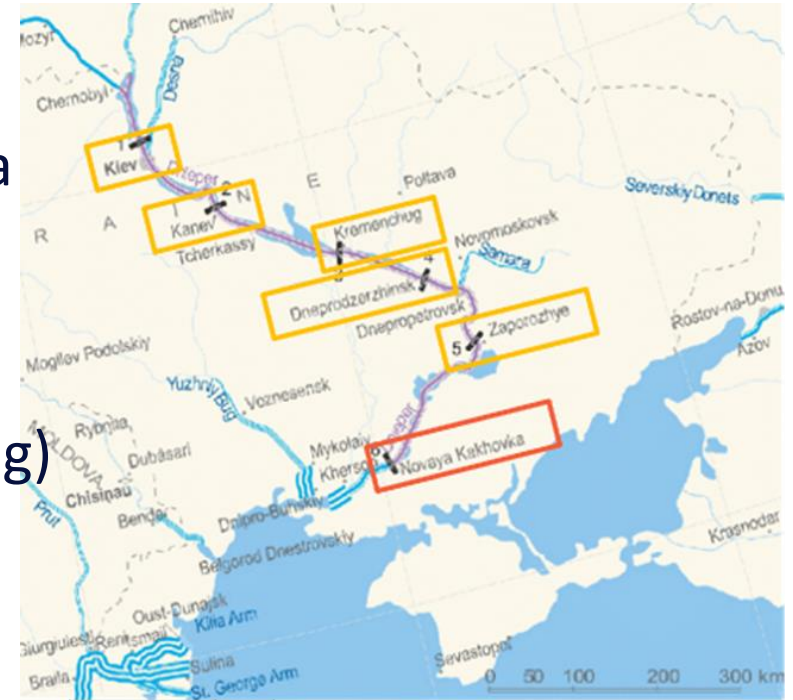
- NSDI-based system
- Collaboration with Canadian government agencies, academia

Dam Modelling

- Dnipro River Cascade
- dynamic, physics-based modeling of dam failure (3D modeling)
- impacts due to flooding, dynamic forces
- irrigation changes
- populations, critical infrastructure
- 2D, 3D visualizations

Geoinformation System

- integration of sensors and remote sensing
- up-to-date air, water and soil conditions of affected areas
- modeling of impacts





Thank you

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