

**The European Commission's
science and knowledge service**

Joint Research Centre

Mobile Laser Scanning for Cultural Heritage

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JRC GII7

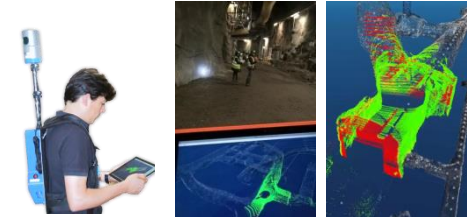
7th Annual Forum of the EU Strategy for the Danube Region
18 October 2018



Mobile Laser Scanning Platform

Capabilities

- *Fast and accurate 3D mapping of large environments*
- *Indoor localization*
- *Change analysis/Progress monitoring*
- *Works in outdoor and indoor environments*



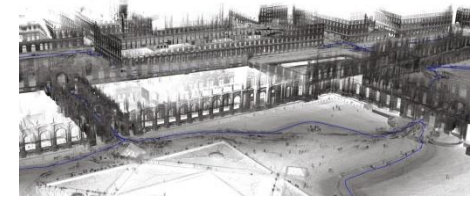
Application Areas

- *Developed for Nuclear Safeguards Inspections*
- *Used for Cultural Heritage, Emergency Response and Preparedness, Facility Management, Augmented and Virtual Reality, etc.*



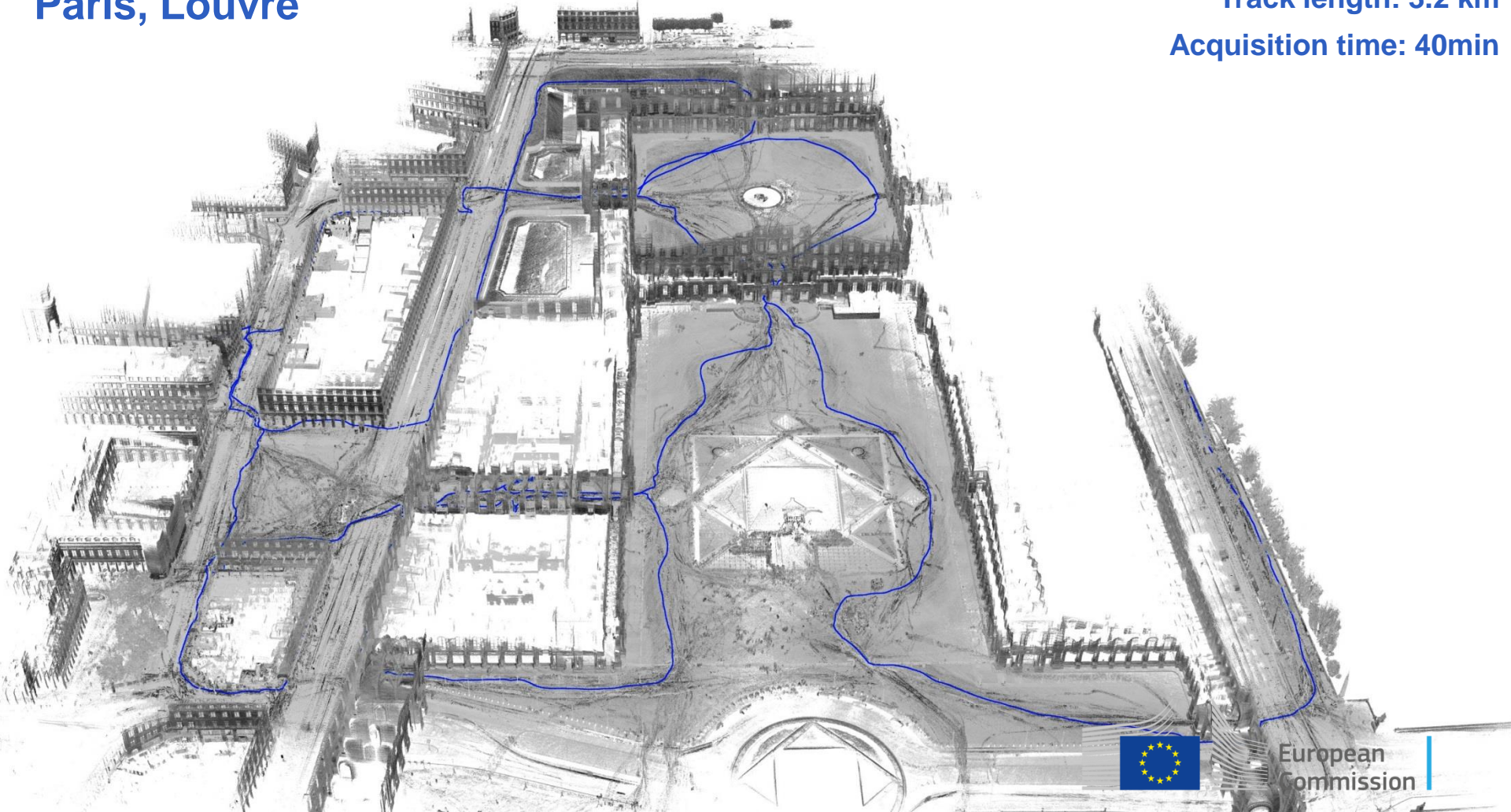
Use Cases for Cultural Heritage

- *Documentation and mapping*
- *Monitoring and change Analysis*
- *Damage assessment and support to reconstruction*
- *Communication and Public Relations*



Paris, Louvre

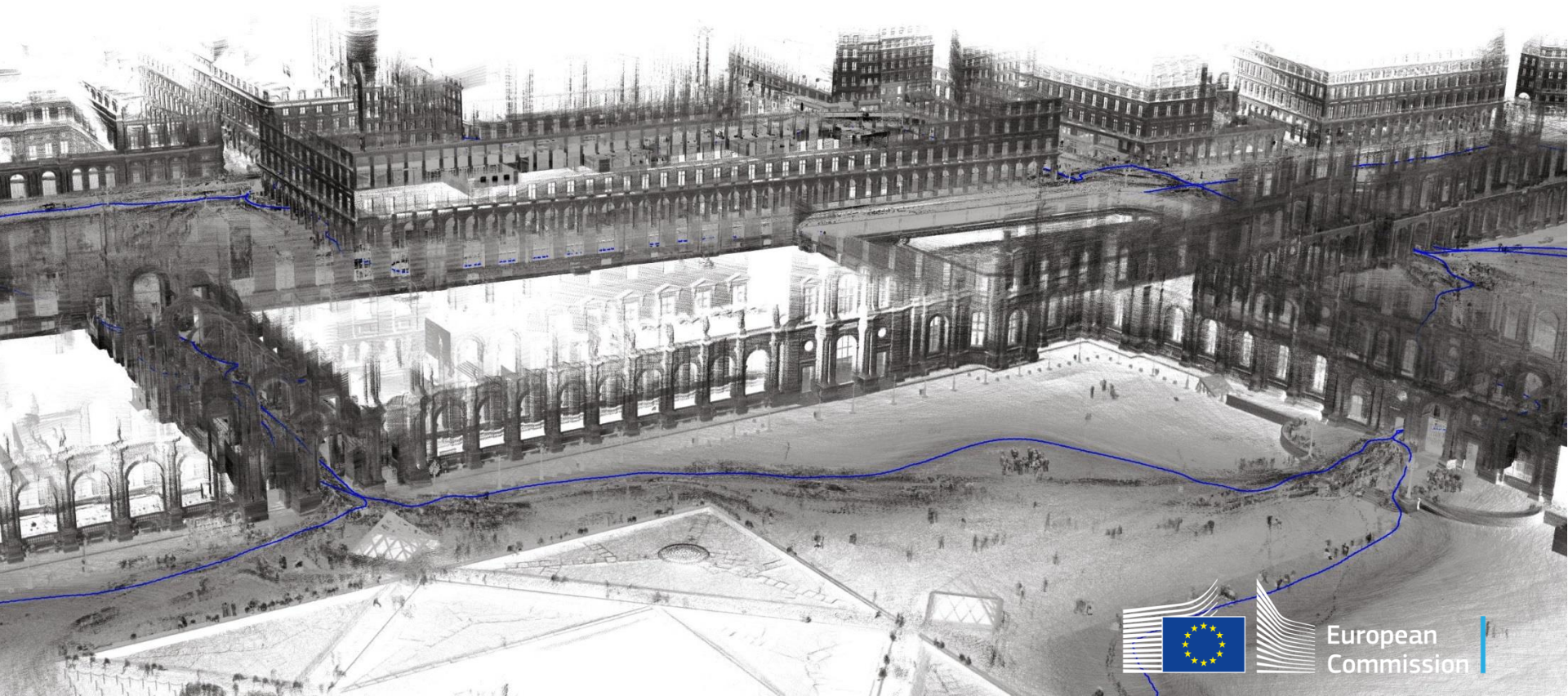
Track length: 3.2 km
Acquisition time: 40min



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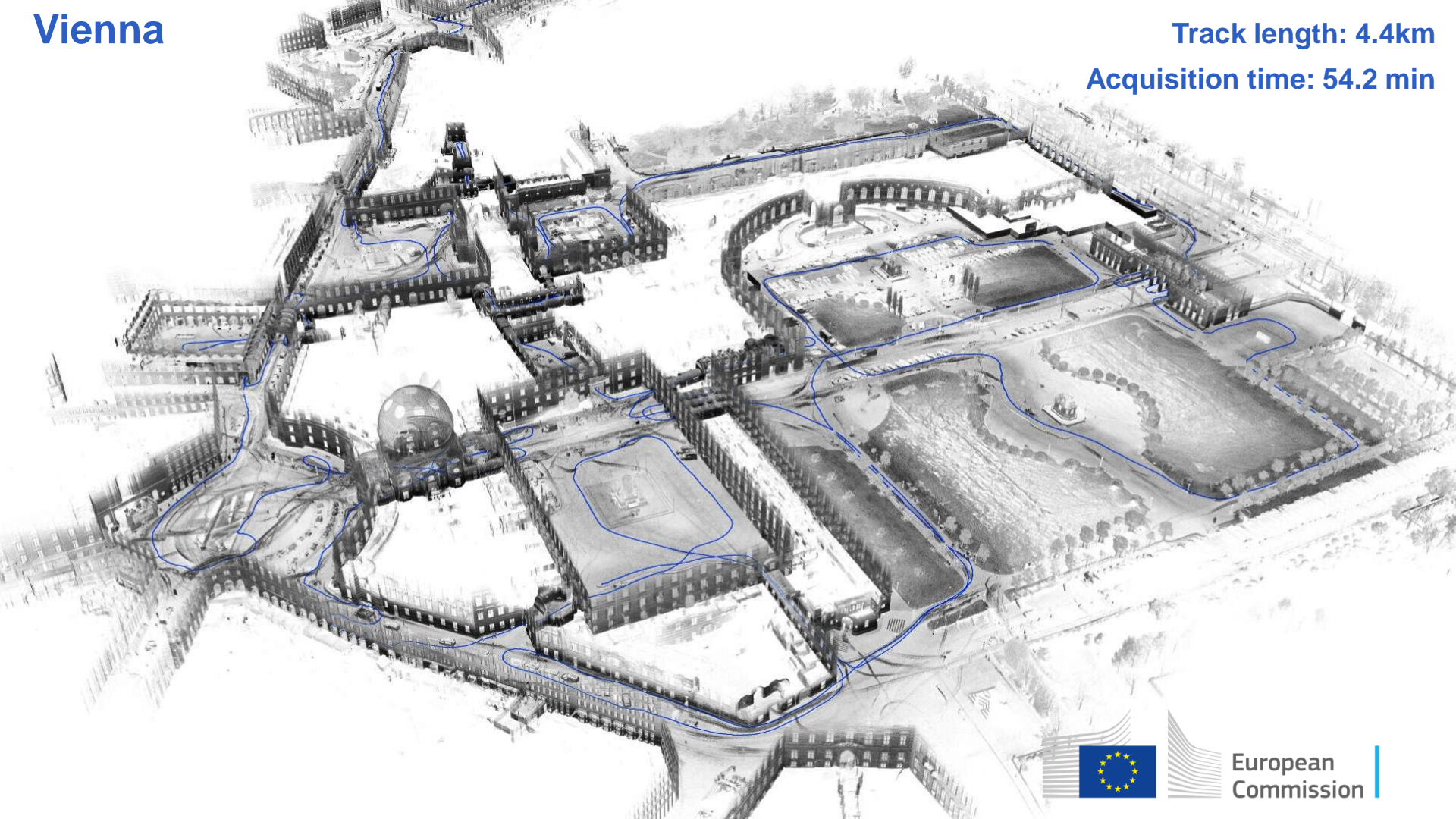
Paris, Louvre

Track length: 3.2 km
Acquisition time: 40min



Vienna

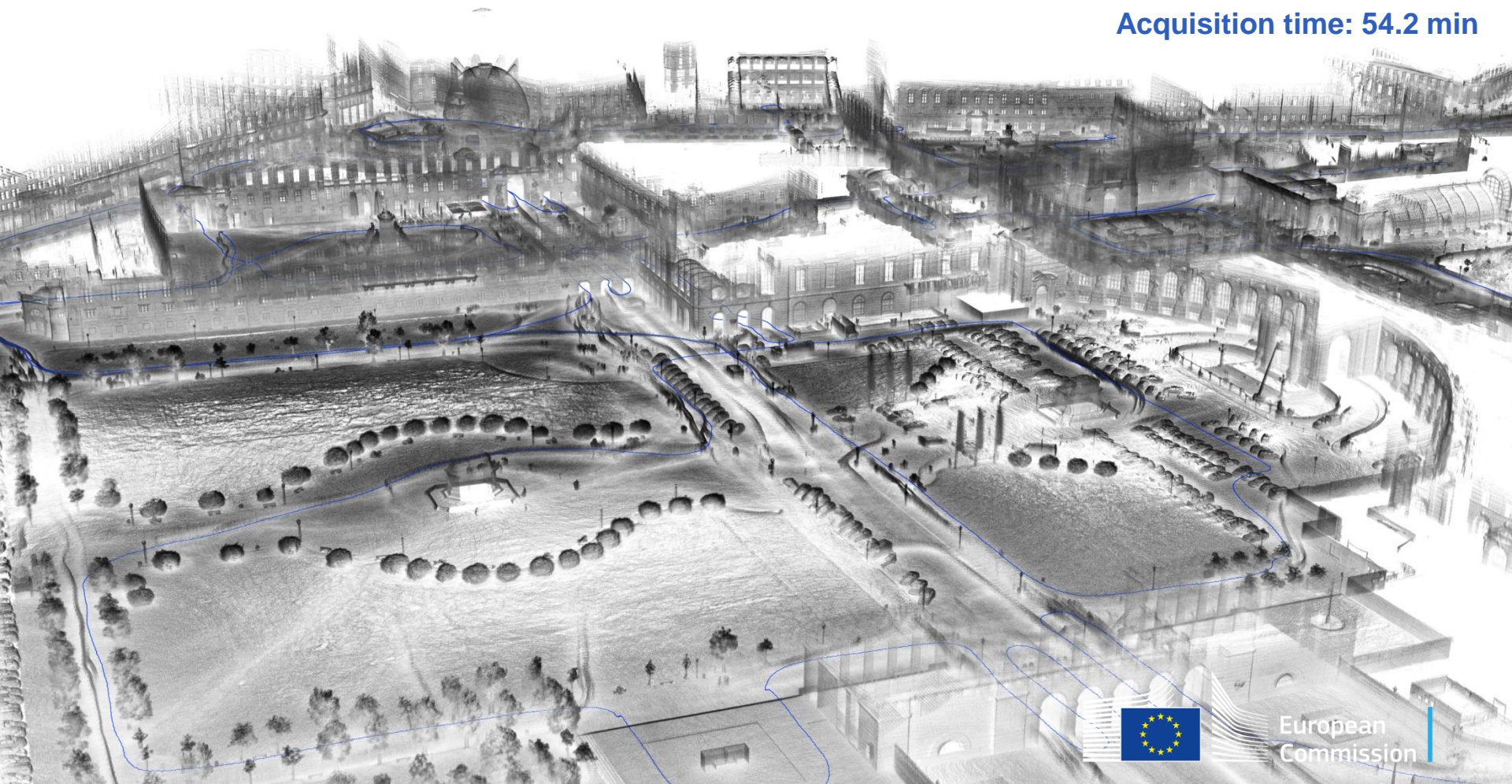
Track length: 4.4km
Acquisition time: 54.2 min



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Vienna

Track length: 4.4km
Acquisition time: 54.2 min

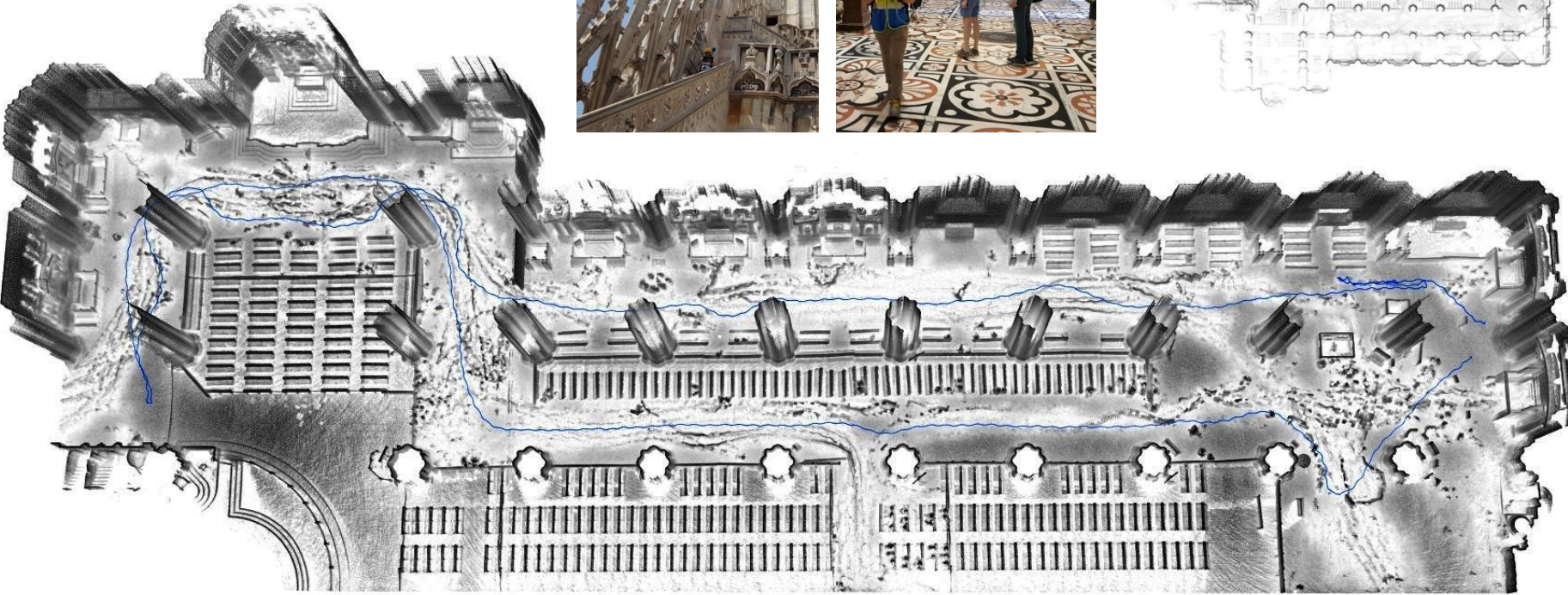
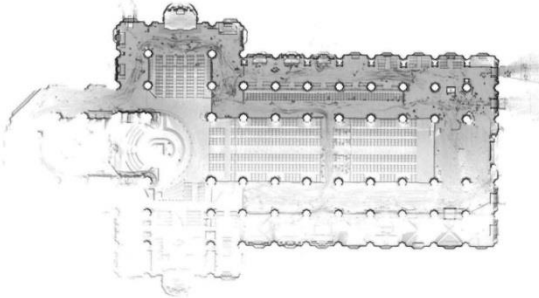


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Duomo di Milano

Track length: 300m

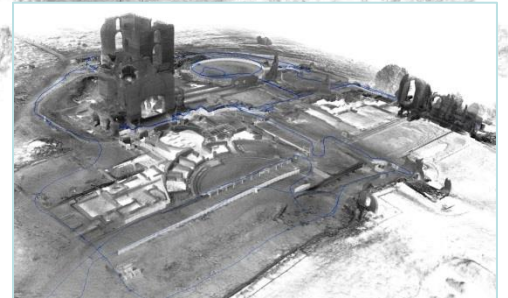
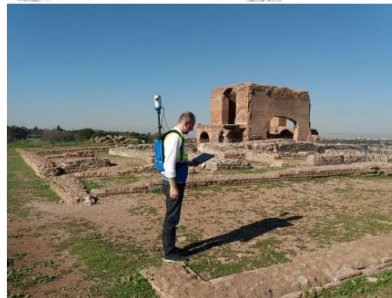
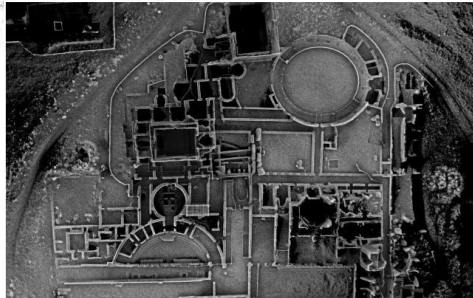
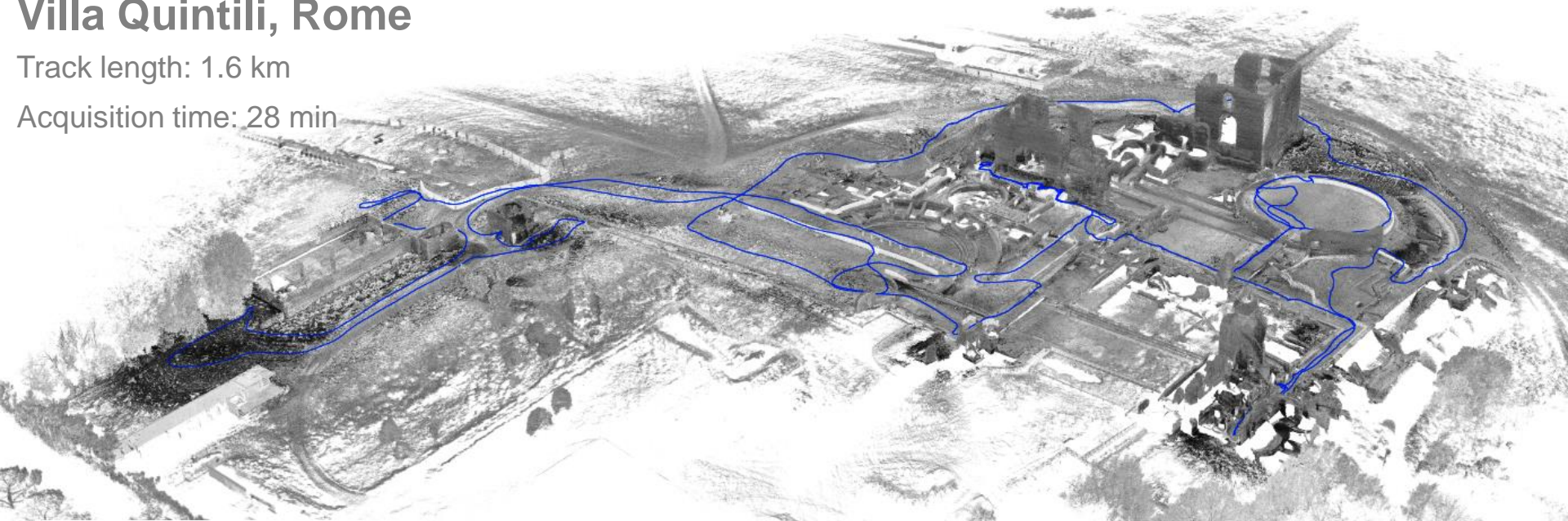
Acquisition time: 7 min



Villa Quintili, Rome

Track length: 1.6 km

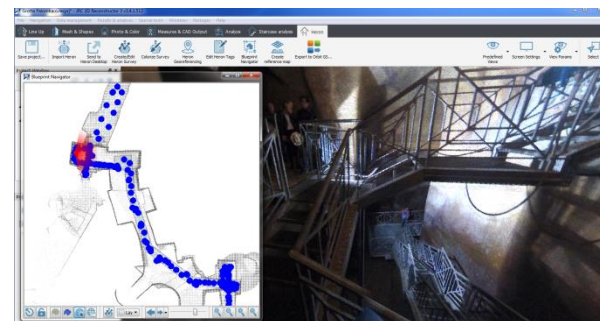
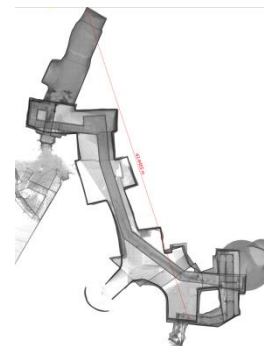
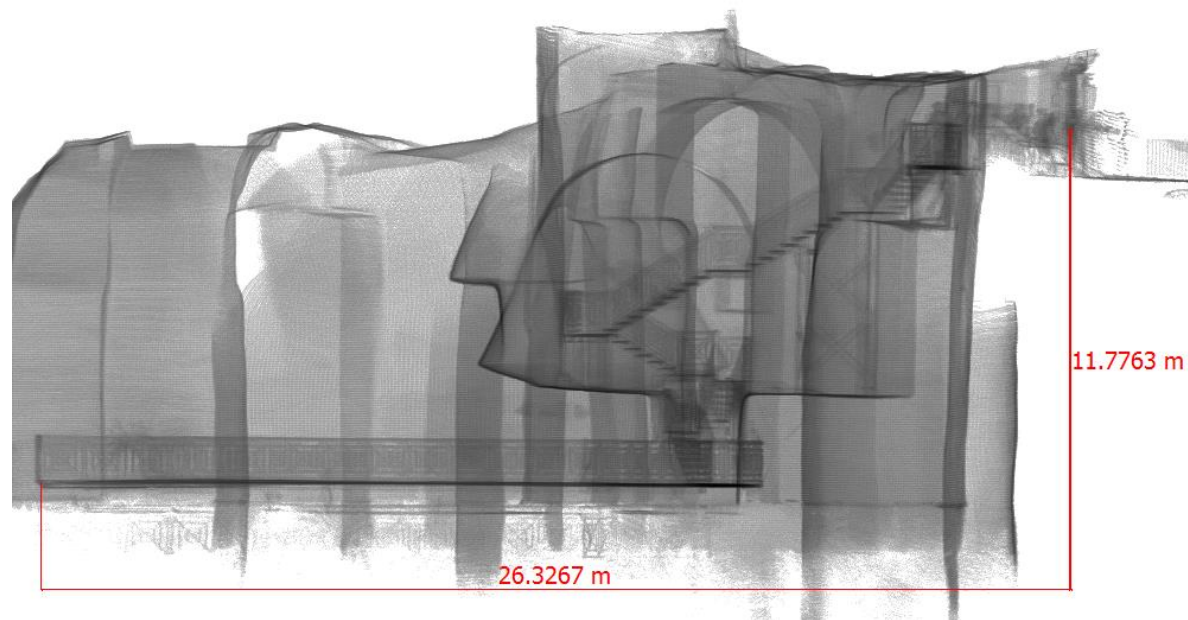
Acquisition time: 28 min



Data and Image Credits:  **GEXCEL**
GEOMATICS & EXCELLENCE



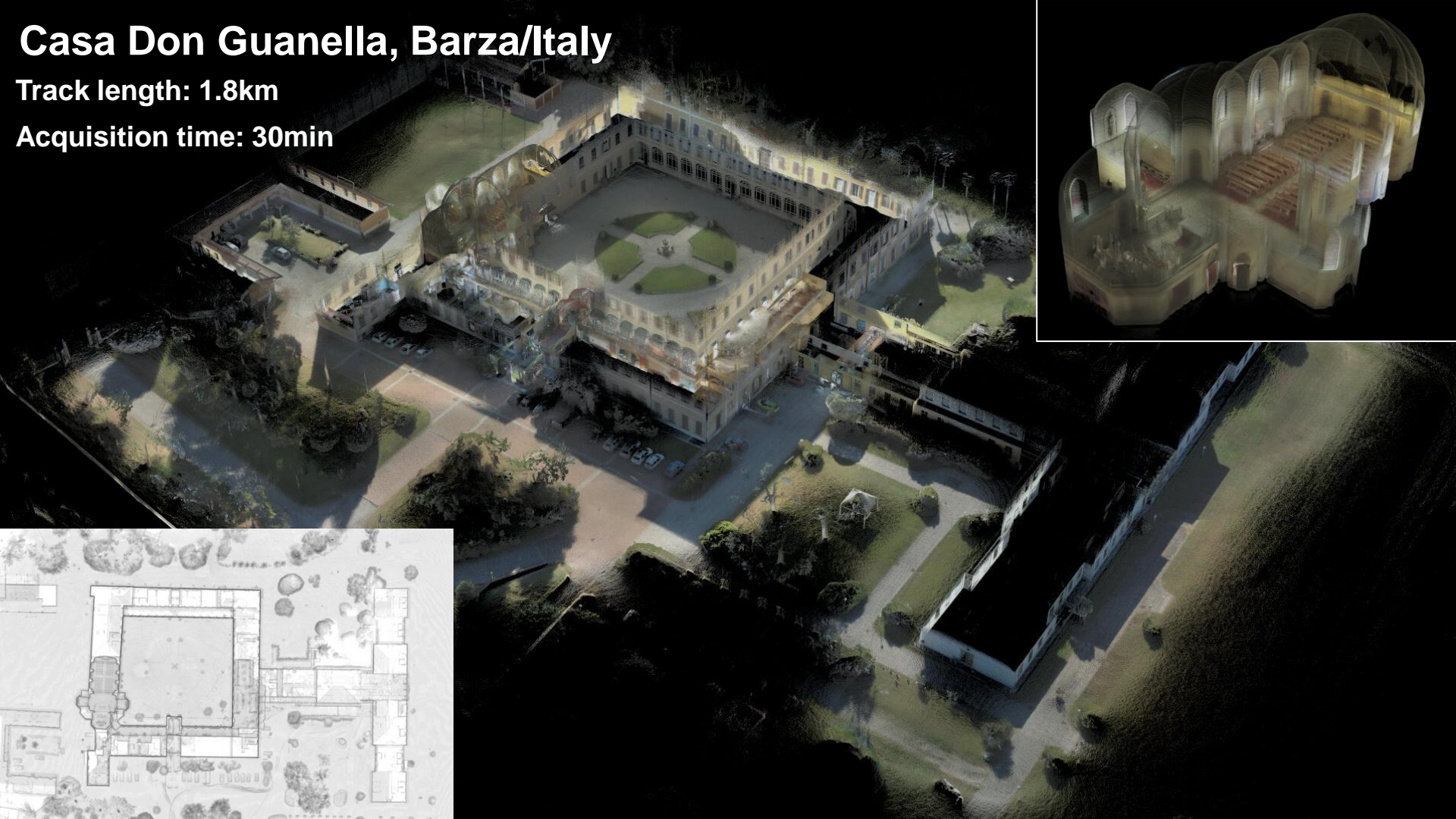
Grotta Palombardo, Matera, Italy. UNESCO World Heritage Site

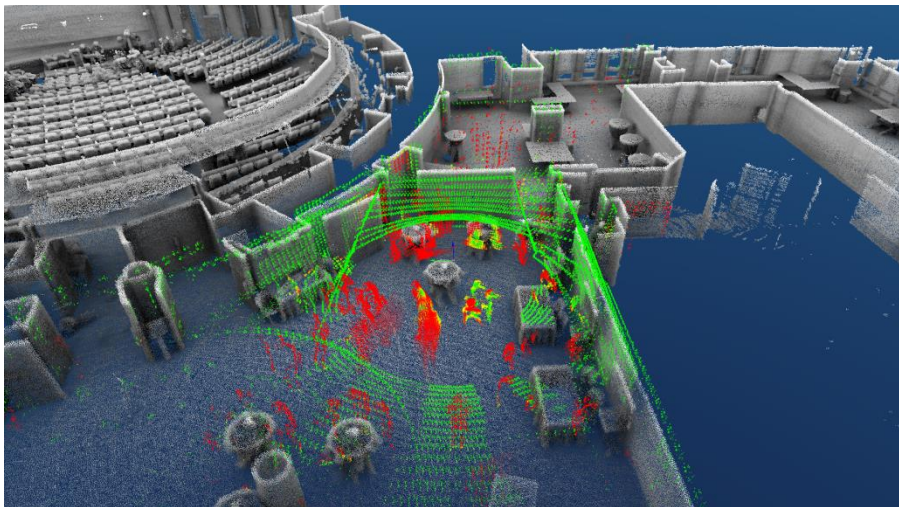


Casa Don Guanella, Barza/Italy

Track length: 1.8km

Acquisition time: 30min





Live Demonstration: **Tracking and Change Detection**