

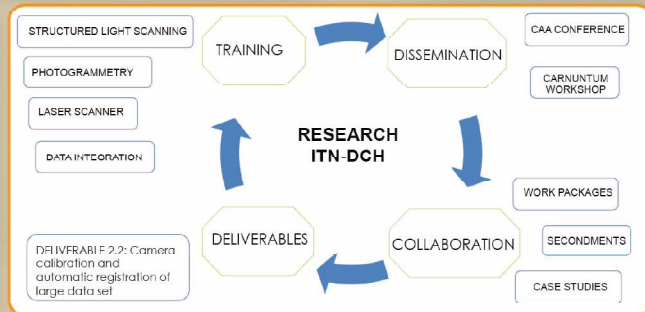
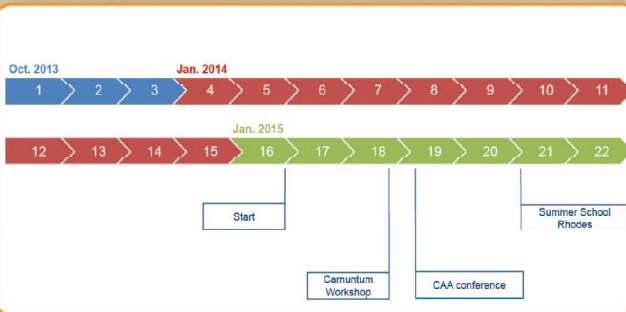


## DIEGO BELLIDO CASTANEDA, ESR3

### ESR3 RESEARCH PROJECT

**Laser scanning and structured light methods in cultural heritage digitalization for high resolution 3D surveys.**

- Relevant World Packages: WP2, WP3, WP5, WP7.
- Objectives: CH digitalization, precise 3D reconstruction and data integration.
- Tasks: Laser scanner techniques, new trends in structured light and photogrammetry.



### ILMENDORF

#### Objectives

- Acquire high-resolution data of small objects and one archaeological block. The acquisition is a challenge due to the size of some of the findings (less than 2cm) and owing to the specific material of them (amber, gold, glass).
- The integration and registration of the different data sets; tomography, microscope, light structured scanner, photogrammetry.

#### 3D high resolution survey

- STRUCTURED LIGHT SCANNING: 3D data acquisition of the surface of a block with a resolution minor than 0.1 mm.
- PHOTOGRAMMETRY AND SFM: 3D models of the block and the findings. The data could be compared and integrated with the scanner data.

- Photo texture images using a colorimetric pattern to add the true color in the model.



### CASTLE OF DONAUSTAUF

#### Objectives

The main goal of this case study is to integrate different techniques available in the project. Using the different datasets a complete 3D model of the castle will be created.

#### Data acquisition

- Aerial data: 3D model of the castle, the hilltop and the landscape.
- Terrestrial data: Laser scanner and close-range photogrammetry.



### FUTURE RESEARCH

#### NEXT SECONDMENTS

- Fondazione Bruno Kessler (FBK)
- University of Warwick (UK)

**DELIVERABLE 2.3:** Data acquisition techniques using multiview cameras

DATE	EVENT	PARTICIPATION
08/07/2015	AGIT (geoinformatic)	Poster
31/08/2015	CIPA	ITN-DCH Workshop
25/09/2015	Researches night (Braunschweig)	ITN-DCH stand organization



Home Country



Host Country

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