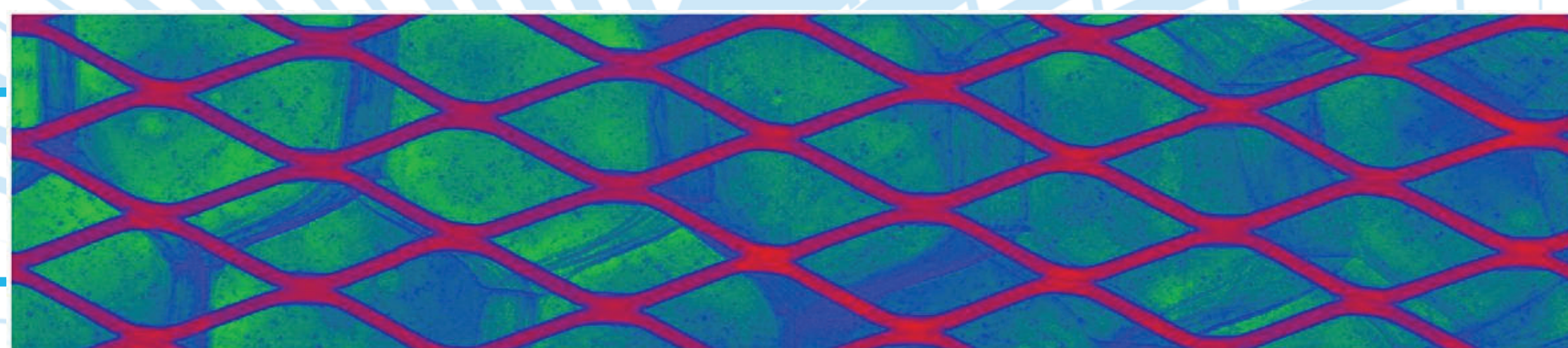




Quantitative Inspection of Complex Composite Aeronautic Parts Using Advanced X-ray Techniques

Introduction

The QUICOM project for “Quantitative inspection of complex composite aeronautic parts using advanced X-ray techniques” was officially launched on October 1st, 2012. During the two day Kick-off Meeting on November 19-20th 2012, at Upper Austria University of Applied Sciences in Wels/Austria, the collaboration was initiated. In QUICOM, 12 partners from 6 different European countries are contributing to facilitate the envisaged goals within the complete duration of the 36 months. QUICOM is focusing on the development of a new technology platform of highly detailed inspection methods, in combination with advanced composite modeling and simulation. It is expected to generate new concepts and methods based on cutting edge X-ray techniques, which aim to escalate conventional non-destructive techniques in aeronautics in the short run and to replace them in the long run. Overall, the project is divided in 3 phases, of which two started in the first half year of QUICOM.



Phase 1. Detailed Specifications

In the first half year of the QUICOM project, phase 1 was accomplished. In phase 1 the specifications for the required techniques, methods, required software modules and showcases have been defined. The end-users defined the industrial needs and the test components for the different application areas. Finally the test specimens together with conventional NDT data are collected.

Phase 2. Development of Methods & Techniques

In parallel to the detailed specifications, the core phase of the QUICOM project has started with Phase 2 “Development of Methods and Techniques”. In this phase the targeted QUICOM technology platform will be implemented, which consists of new highly detailed inspection methods based on cutting edge X-ray techniques, in order to facilitate a full characterization of aeronautic specimens concerning material and geometric features within a short time. The developed methods and techniques will be integrated into a software demonstration system and demonstrated on the defined showcases. In terms of hardware demonstrators, robot based XCT for aeronautic components will be demonstrated on a laboratory-scale demonstration system. For all other techniques existing devices with QUICOM specific adaptations will be used.

Get Involved

Regarding dissemination the QUICOM webpage (www.quicom.eu) was implemented and further public dissemination material such as folders and newsletters was generated. An **industrial interest group** was set up as extension to the core partners.

The industrial interest group was formed as a forum for end users that might benefit from the efforts done in QUICOM, and **helps to ensure the seamless dissemination of results on the stake holders of the European aeronautics industry as well as RTD and other institutions.**

There is still the chance to join the industrial interest group of the QUICOM project. In case you are interested feel free to contact us via the following email: c.heinzl@fh-wels.at



For more information on the QUICOM project please visit www.QUICOM.eu or contact us via email c.heinzl@fh-wels.at

