



INSIDDE

Collaborative Project

FP7 – 600849

Follow-up meeting (15 July 2013)

[Summary and next actions]

Last Monday 15 July, the INSIDDE project (Integration of technological solutions for imaging, detection, and digitisation of hidden elements in artworks) celebrated the first follow-up meeting. After the kick-off that took place at the beginning of February in Asturias (Spain), this was a perfect occasion to evaluate the activities carried out during these six months of execution.

The agenda included a review of all the work packages running – WP1 “Project coordination”, WP2 “Development of a cost-effective terahertz system for specialised digitisation of artworks” and WP6 “Dissemination and exploitation” –, an outline of the deliverables that were submitted in June – D2.1.1 “First samples of graphene films” and D6.1.1 “Web (continuous actualisation)” – and the next actions for the period from July to December 2013.

However, one of the most interesting aspects was focusing on the scientific/technical developments. ITMA Materials Technology presented how the process to obtain graphene films via Chemical Vapour Decomposition (CVD) was optimised: from the basic recipe, five parameters were modified and controlled until the characterisation of samples by means of microscopy was good enough. Then, those were transferred to a different substrate with the purpose of being integrated into the terahertz devices that are designed and fabricated by the University of Oviedo. Even though these prototypes are currently working in one of the frequency subbands envisioned in the range from 0.14 to 1.1 THz, the whole band will be covered in 2014. Likewise, despite the experiments already performed have led to promising results, multiple tests are planned for the next semester and fine adjustments will be possibly made to improve the performance of the terahertz scanner.

The participants involved in these amazing studies are now thinking about the forthcoming phases with test-tube samples for pigment identification, fake/self-made paintings for establishing the number of layers and their thickness, etc. This will be obviously performed together with experts in art and end-users like the Regional Museum of History Stara Zagora, which has also proposed the utilisation of the terahertz technology for other types of artworks and materials – apart from paintings and pottery – within the cultural heritage theme.

Before summer ends, two tasks will start: T2.3 “Terahertz automatic focalising system” (led by Consiglio Nazionale delle Ricerche – Istituto Nazionale di Ottica) and T3.2 “Automatic analysis of terahertz images” (led by the Technical Universiteit Delft). While the former will contribute to developing the focusing subsystem required to complete the THz scanner, the latter paves the way for processing the acquired images.

Other key point within the INSIDDE project is the collaboration with other FP7 projects, e.g. Linked Heritage [1] and Europeana Photography [2], as well as the participation in other initiatives like the webinar organised by Maxiculture [3] and relating to how to improve the impact on society or economy of FP7 projects. The consortium is always glad to get in touch with other institutions to exchange experiences and promote research in cultural heritage.

In December the advances to achieve the objectives and goals described in the second milestone “Graphene films and dissemination” will be assessed and the consortium will meet again in January 2014 to prepare the first review and the documents associated with the first reporting period. New advances and results will be unveiled then.

[1] <http://www.linkedheritage.eu/>

[2] <http://www.europeana-photography.eu/>

[3] <http://www.maxiculture.eu/>



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