BIM-based Cultural Heritage Asset Management Tool. Innovative solution to orient the preservation and valorization of historic buildings

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Abstract: (250 to 500 words: for each heading use the bullet points or narrative - the submission including graphics should not exceed one page)

Digital technologies are more and more needed to give access to Cultural Heritage (CH) and to allow for their curation and re-use. For this reason it is necessary to increase the knowledge on the CH building stock to support sustainable maintenance, preservation and revitalization strategies through the development of user-friendly asset management tools to support decision making on the interventions needed during the lifetime of the building.

The H2020 INCEPTION project creates an inclusive understanding of European built CH across different disciplines (ICT, architecture, history, and law), using a set of relevant IT technologies and serving various business sectors and different stakeholders within the CH sector such as technicians, asset managers or owners and local authorities.

This paper presents a desktop (off-site) and mobile (on-site) application that equips the stakeholders involved in CH preservation with cost-effective instruments for condition assessment, asset management, rehabilitation and maintenance planning of heritage assets, as well as decision-support on how to maintain the CH stock within constraints on monumentality and resources.

Within INCEPTION, Asset Management (AM) is regarded mainly within the framework of decision-making for restoration, conservation and maintenance of historic buildings. As such, AM deals with collecting, structuring, analysing and disclosing data related to historic buildings. The CH AM is a Building Information Modelling (BIM) user application for preventive conservation of CH buildings. It supports the required on-site and technical assessment and off-site analysis to determine the actual condition of the historic buildings. As a result, it will enhance the understanding of possible and necessary preventive measures for the historic buildings, including the implications of these measures in relation to technical risks, monument protection regulations, cost management, and socio-functional building performance. Together with the IT technologies developed within INCEPTION, the CH AM tool will facilitate streamlining the conservation and management process of heritage assets.

Keywords: (up to 5 keywords)

Cultural-Heritage; BIM; Condition assessment; Sustainable maintenance; Asset Management

Graphics: (please use the gray area bellow for representative graphics or graphical summary; select the gray area bellow and paste your graphics)