3D Digital Tools for the Development and Promotion of Religious Heritage Tourism

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SUMMARY

Religious heritage forms a unique and essential pillar of Europe's cultural identity. There are almost half million religious buildings along with their associated contents in Europe that have inspired numerous people over the centuries. Understanding the continuing nature of religious and sacred heritage, having the capacity to protect its authenticity and integrity, including its particular spiritual significance, and sharing the knowledge of the common history, are some of the measures to preserve religious and sacred places for the future generations. Furthermore, religious heritage constitutes a great leverage in the growing interest for religious tourism worldwide which is beneficial for international tourism and economic growth.

It is estimated that approximately 600 million religious voyages in the world occur annually with 40% of which take place in Europe's religious heritage sites. Clearly, religious tourism can be a powerful instrument for raising awareness on the importance of safeguarding religious heritage and may help preserve the integrity and authenticity of these important sites. Today many places of worship in Europe are suffering from neglect and abandonment due to financial distress and lack of specialist knowledge about the conservation of buildings and the treasures they hold. The challenges facing religious heritage are complex, the aims of its multiple stakeholders are widely diverse and there is a general lack of credible information upon which to build a forward-looking policy for the sector.

This paper aims to highlight the fact that promoting the conservation of religious heritage assets and their inclusion in sustainable religious tourism activities can provide a positive impact on social innovation, smart, sustainable and inclusive growth, competitiveness and job creation. In light of the above, the paper describes the implementation of geodetic techniques to collect geospatial data that deliver a number of products regarding the geometric documentation of religious heritage

buildings. Specifically, a number of byzantine churches of varying periods located in the island of Syros, Greece, are documented and precise 3D models are derived from a combination of surveying, GNSS and laser scanning techniques. The 3D models are rendered using photographic images and the imaging models are then included in a database. The developed online tool provides practical and background information on religious structures destined for a wide audience. It is easy to use and designed to an international standard. The paper provides a discussion on the use of digitised resources that can enhance the visitors' experience by providing educational content, documentaries, and tourism apps. In addition, such tools can help the managers of religious heritage to promote their use in the community and religious tourism in general.