Ref no	Project title		C-SPACE: AN AFFORDABLE TOOL TO TURN THE SPACE SURROUNDING US INTO A CREATIVE EXPERIENCE WWW.C-SPACEPROJECT.EU					
Name of legal entity	Country	Overall contract value (€)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members, if any
Epsilon	Greece	2 928 180	15%	10	European Commission, FP7	European Commission, FP7	11/2013 05/2016	Graphitech, Vicomtech, GISIG, Fraunhofer, TU/e, Epsilon International, Technoport

Detailed description of project (www.c-spaceproject.eu)

The aim of **c-Space** is to leverage on people familiarity with Augmented Reality (AR) software for tablets/smart phones and on emerging micro-projection technology to unleash users' inventiveness by letting them create 4D content in a completely new way, reconstructing 3D scenes of real scenes at different times (4D), which can be used as the "virtual stage" for ubiquitous media-sharing.

This scenario paves the way to a future vision whereby it becomes possible to achieve real-time 3D reconstructions of dynamic scenes from multiple high resolution video streams made available on-the-fly by hundreds or thousands of concurrent users, without imposing impractical constraints to the hardware setup and environment conditions. According to this vision the video streams are used to create in real-time extremely high quality lossless and detailed AR scenes of the surrounding environment, thus delivering true real-life-like looking experience and bringing to a true blending between real and virtual worlds.



Partial MVS-Reconstruction of Löwentor (Lionsgate), Darmstadt. Left/Right: sample input images taken from different directions, and reconstruction (textured and gray scale) of one column of the gate (left) / gate panel (right)

Type and scope of services provided

By significantly shortening the 3D content creation pipeline, c-Space will fill a gap not covered by any technology on the market, yielding manifold savings (in terms of time & resources) in several creative industries (performing arts, advertising, movies, video games, cultural tourism etc.). Mainly, EPSILON is responsible for a number of GeoIT mobile modules and also for the cloud based computing system which is one of the most critical component that includes different data sources such as data coming from pilot areas; end-user and data produced by the 4D reconstruction pipeline. This data comprises the 'core' data of the c-Space platform, with the entire end-user experience "revolving" around it.

Moreover, c-Space will address several S&T challenges to demonstrate that the aforementioned vision is only limited by technological constraints. Although these constraints currently prevent us from being able to handle a high number of concurrent video streams (100+), real-time 3D reconstruction, and uncompressed transmission of 3D content, we believe that fast technological development will help make this vision true in a not too remote future.



MVS reconstruction of the statue of liberty, New York, from hundreds of Internet photos.