Project scope and objectives

The European Union Initiative aimed to create a collaborative body, with pan-European cooperation, to encourage and chart a common course in the adoption of Building Information Modelling. Modern economic, social and environmental challenges, combined with the size and importance of the construction sector in the Eurozone, led to the creation of a working group, the EU BIM Task Group, with the aim of developing a common line in the adoption and implementation of BIM by the public sector in Europe.

The construction industry is now in the midst of a technological renaissance with Building Information Modeling (BIM) serving as the primary catalyst in this period of innovation by creating information-rich models from all disciplines, capable of exploring perspectives and scenarios and facilitating smooth workflow. In the modern era, the construction planning and organization industry is beginning to realize that the old methods can no longer serve the new needs that arise and the implementation of successful projects. Consequently, Building Information Modelling (BIM) is rapidly being adopted by various links in the value chain as a strategic tool for cost savings, improved productivity and operations, improved infrastructure quality and better environmental performance

The development of Building Information Modelling (BIM) is an innovative and promising technology that is gaining acceptance in the construction industry, leaving behind traditional design and construction methods. The pioneering nature of BIM, lies in the fact that it introduces new processes and tools aimed at the virtual simulation of an engineering project, the analysis of its data and its lifetime management.

The investment proposal submitted concerns the design and development of significant extensions and upgrades to the existing software for the static and dynamic analysis of structures "SCADA" through the application and integration of the innovative BIM (Building Information Modeling) technology.

The new **"Scada Pro BIM"** software will incorporate BIM technology, which is a standard and an Operations Methodology that allows designing with "intelligent" objects that incorporate all the information (architectural, structural, electromechanical, construction, etc.) required for the completion of the technical project.

More specifically, the upgraded software will be able to gather all information, models and drawings in a common database and link them together, improving accuracy and minimising any errors and discrepancies in the drawings produced. If a change is made to a model then automatically the change is transferred to the corresponding models in the database and the drawings are updated accordingly. If for example the cross-section of a column is modified, all drawings, sections, floor plans, dimensioning tables, etc. are automatically updated. The 3D BIM model will now represent an aggregated model with detailed analysis of the construction process before the actual construction is completed.

Project Content

The proposed investment project concerns the radical upgrade of an existing static and dynamic analysis software with innovative features, which aims at the design and construction of technical works that meet the architectural concept, are safe, are implemented within the time schedule and do not deviate from the original budget.

The proposed investment plan will follow the flow of actions foreseen for new products to penetrate the market. First, a feasibility study and market analysis will be carried out, where data will be collected from potential users and products that can be considered competitive. The definition of the final technological specifications will be based on this data. Once these have been finalised, a prototype product will be created which will lead to confirmation of the functionality and efficiency of the specifications. The first phase of implementation of the investment project includes the final design of the product and the development process as well as the promotion and publicity activities aimed at commercialising the product.

In the next phase, with the utilization of the existing staff, with the recruitment of new employees and the outsourcing of work to specialized partners, having drawn up the initial plan for the implementation of the development of Scada Pro BIM, the main part of the work will start, which concerns the programming of the code, the implementation of the methodologies of the tools/techniques used and the configuration of the user interface.

Having the first results (demo) available, the preparation phase for the product launch can proceed. An important aspect that will be served by the proposed investment is the registration of trademarks, intellectual property and the protection of the intellectual property of ACE-Hellas S.A. in general.

Moving on to the final stages of the implementation of the investment plan and in particular the distribution of the Digital Product SCADA PRO BIM, the main role for the commercial exploitation of Scada Pro BIM is its promotion and promotion to the target market, which mainly includes companies operating in the entire spectrum of the construction industry.

A milestone will be the company's participation in trade fairs of the target sector in Greece and abroad. These exhibitions will give an additional boost to the awareness of the company and Scada Pro BIM, which will of course be accompanied by other marketing promotions through advertising as well as the design of a special website for the digital product.

All activities and actions related to the field of research and development of new and innovative products and/or services bring significant social and economic benefits. In particular, applied research, technological development and advanced innovation are vital factors for social and economic advancement and prosperity by solving practical problems of the modern world. At the same time, the commercial exploitation of the innovative results of a project brings economic benefits for both the actors themselves and the end-users.

The expected results are:

Institution	Development of a product with innovative features that will bring significant competitive advantage to the market.
Users/ Consumers	Optimal management of human and material resources
	Optimal energy management
	Reduction of production costs
Social Benefits	Greater productivity and the implementation of more technical projects
	Better quality of the public works produced and greater transparency between stakeholders and adaptation to a sustainable built environment
	The construction and maintenance of new buildings and infrastructure will be achieved by the same or smaller budgets, leaving room for new investments.
	Reducing the volume of waste from construction sites resulting in a smaller environmental footprint