SIMULATION HIGHWAY

Support of EU 7th framework ICT STREP project
"Simulation Highway" development.
Funded by ERDF Nr.2010/0191/2DP/2.1.1.2.0/10/APIA/VIAA/001

Goal and Scope: The aim of the project is to prepare EU 7th framework ICT STREP project "Simulation Highway" which would result in a multilevel conceptual model that would determine access to isolated models and ensure the collaboration between these models in a distributed communications subsystem. The main activities of the project are focused on the development of collaboration and valorization exchange network among leading European and global simulation schools in Germany, Poland, Italy, Spain, France, USA and Latvia, as well as major European and global simulation associations.

Project facts:

Project Title:
Support of EU 7th framework ICT STREP project "Simulation Highway" development..

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Project number:
Nr.2010/0191/2DP/2.1.1.2.0/10/APIA/VIAA/001

Partners:
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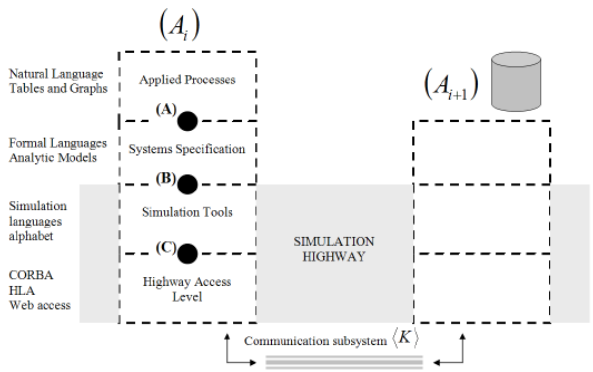

Summary:

Due to stochastic nature and complex interdependencies between processes of nowadays business and social environment, simulation becomes a highly effective decision support tool which allow end-user creating computer-based models of a real or proposed system and conducting experiments of the model to describe observed behavior and predict future behavior before investing time or money, as for example, testing the implementation of the new tax policy on the region development.

However, simulation of real sociotechnical system faces to several essential challenges. The one is related to the necessity of using several simulations tools capturing together all the benefits of a variety of simulation approaches as system dynamics, discrete event systems, micro-analytic models, cell automation, neural networks, agent based models etc. Next, a real model is usually geographically distributed. This requires a development of communication network which allows accessing geographically distributed simulation models from geographically spread locations. Another important issue is related to the lack of programming/simulation competences of models potential end-users, who in fact are experts in economic and social systems governance.

Therefore, obvious is the topicality of multilevel conceptual model development which will ensure an access to individual models created in incompatible simulation environments, as well as provide collaboration among models by using a distributed communications subsystem. Additionally, a universal human machine interface should be developed which allows national economy experts accessing the model set without having simulation/ programming skills by this supporting consistent assessment of planned decisions outcomes and financial resources saving related to ineffective decisions.

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