

» EXPECTED RESULTS

MOSIPS delivers a multi-agent based simulator engine for policy impact assessment and validation. The simulation framework will

- » be dedicated to public policies evaluation and adaptive to fit the needs of given policy domains
- » allow a direct involvement of stakeholders in the simulation process
- » comprise web components for reuse & exploitation & communication
- » rely on public Open Data Models in order to ensure the reusability of simulations
- » provide an easy to use interaction module and an intuitive spatio- temporal interface for visual analytics

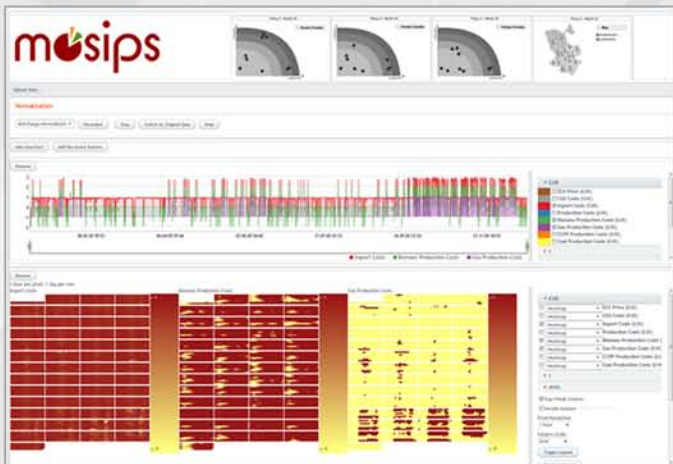


Fig.: The presentation of results follows a visual analytics approach coupled with an interactive mapping interface.

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MORE INFORMATION

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MODELING AND SIMULATION
 OF THE IMPACT OF
 PUBLIC POLICIES ON SMES

GENERAL INFORMATION

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»» ABOUT MOSIPS

The MOSIPS project aims to design and develop a decision support framework for evaluating and simulating the quality of public policies implemented at administrative level.

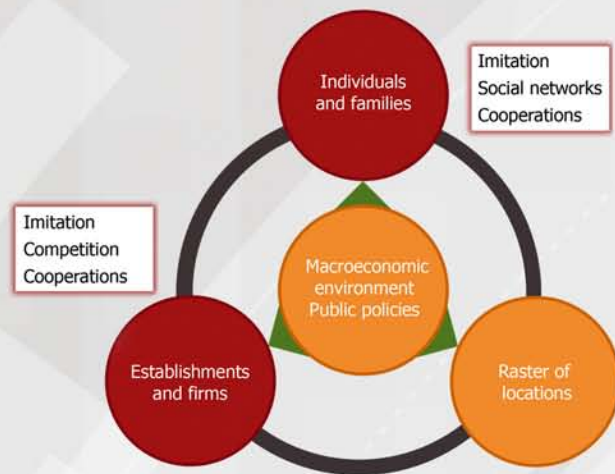


Fig.: MOSIPS models and simulates the interactions of the macroeconomic environment with agent based methodology.

These objectives will be achieved by developing a user-friendly policy simulation system allowing forecasting and visualizing the socio-economic potential impact of public policies.

Thus, policy makers can evaluate with different socio-economic designs, get feedback of citizens and potentially impacted stakeholders, before settling a public policy.

MOSIPS focuses on SME-oriented policies, due to their main role in the European economy, which will help to manage the scope of Research and Development (R&D) activities.

»» METHODOLOGY

The MOSIPS project utilizes an agent-based modeling approach in order to simulate interactions between public policies, citizens and enterprises with respect to market conditions and the environment.

MOSIPS attempts to model the interactions of macroeconomic environment with agent-based methodology. The interactions between human beings, the economy and space are simulated in detail.

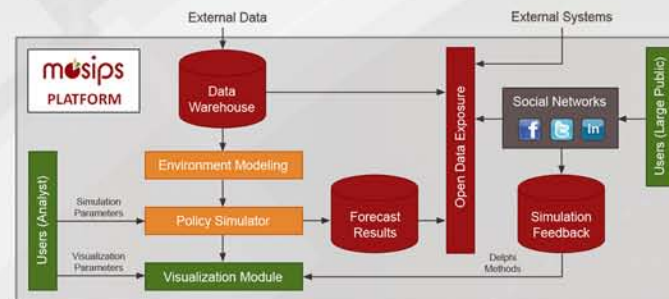


Fig.: Architecture of the MOSIPS simulation platform.

The proposed agent-based approach involves the modeling of each "player" in the socio-economic environment as a single agent. In addition, the project's simulation engine is enhanced by the geospatial dimension - allowing agents to move around in space and act according to their environment. As a consequence, agents will change places, e.g. through pollution, their economic "power" or their ability to create jobs through innovation. Summarizing, agents are - similar to reality - able to change their strategies, cooperate and compete.

»» AGENT-BASED MODELING

Agent-based models are used to study economic systems in recent research works. These models are intended to model complex socio-economic systems in a bottom-up approach.

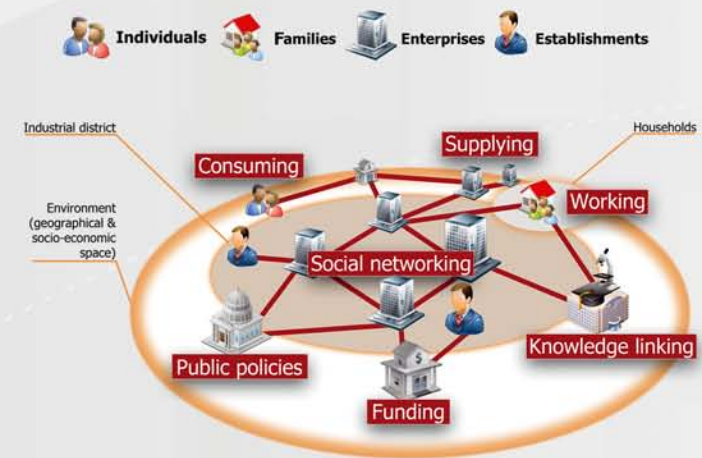


Fig.: Depiction of interactions of agents in the MOSIPS socio-economic environment.

The interactions of agents in the socio-economic environment of MOSIPS are as follows. Consumers use commodities provided by suppliers, who are in constant competition and try to come up with innovative products. Politics create the "biotope" for firms and stimulate the development of new enterprise through certain policies.

Agents are capable of altering the environment either by their behavior and/or by their presence at a specific location. Through the flexibility of agent-based simulations complex models can be developed. They are even accurate on long term forecasts. Hence, the long-term model is notified of and updated, period by period after the underlying short-term model is finished.