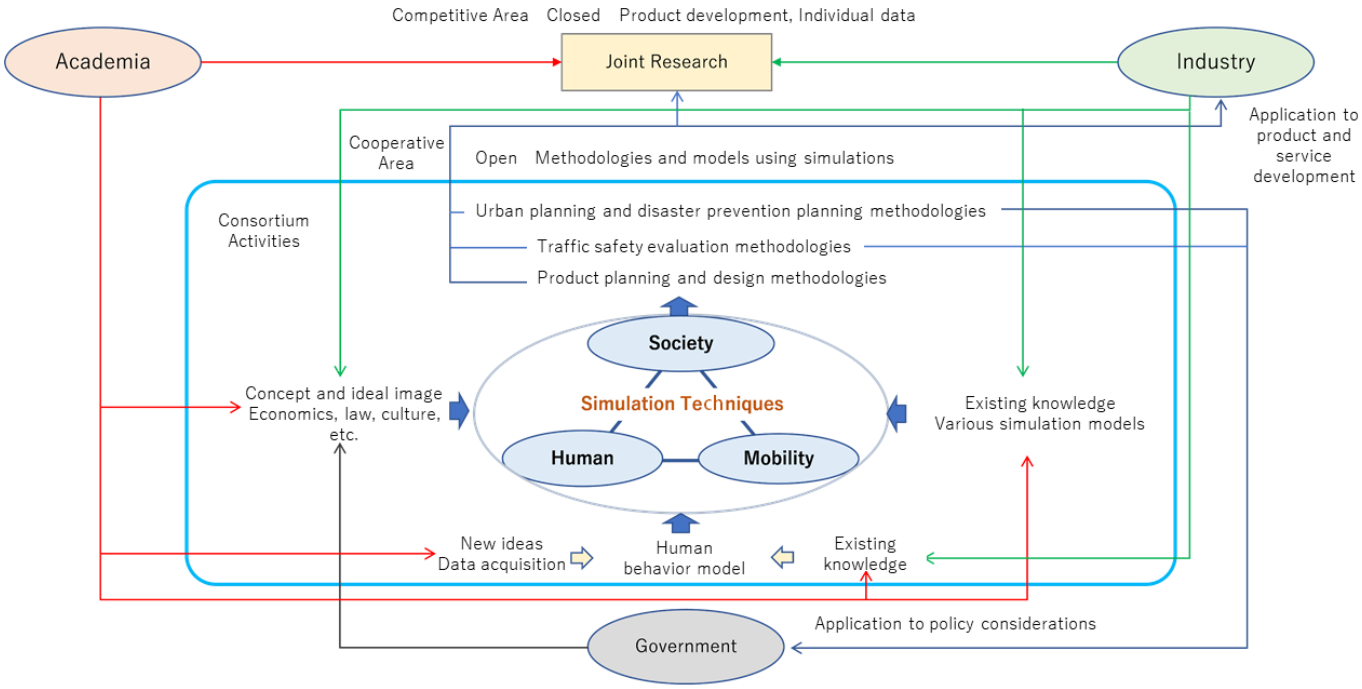
Consortium for Advancing Simulation Technology Related to the Human Mobility Society

The primary objective of this consortium is to propose, research, and demonstrate methodologies for solving various societal issues related to humans, mobility, and society, by fostering collaboration among researchers from different fields.
To achieve these objectives, we will propose vehicle and pedestrian traffic flow simulation technology as our main tool, and will discuss, examine, and verify methods with a focus on improving its sophistication.

Consortium Scheme



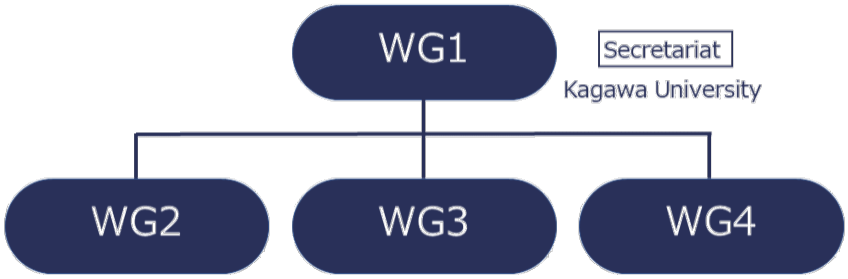
Construction of Human Behavior Models for Simulations

- Simulation Model of Human Error
- Model of Behavioral Changes in Response to Environmental Changes
- Methodology for Evaluating Simulation Validity
- Extrapolation Methodology from Micro to Macro
- Data Collection Methodology for Human Behavior via Simulators

Simulation Utilizing Human Behavior Models

- Methods for Estimating Model Parameters
- Integrated Simulations Considering Social Infrastructure
- Optimization of Information Provision Support Using Safety Confirmation Behavior Models
- Examination of Countermeasures for Accidents Due to Time and Weather Factors

Organization and Management



WG1

・Consortium Policy Decision
・Consideration of Establishing a Steering Committee
・Discussion and Decision on Future Directions of Consortium Activities

Expected Members:
Individuals or organizations interested in participating in the consortium's activities.

WG2

・Theoretical Examination of Agent Models and Traffic Safety Evaluation Methodologies
・Survey and Organization of Existing Human Behavior Models
・Survey and Organization of Traffic Safety Evaluation Methods
・Proposal of New Human Behavior Models and Traffic Safety Evaluation Methods

Expected Members:
Researchers from fields like traffic engineering, traffic psychology, cognitive psychology, cognitive engineering, human factors, experimental psychology, control engineering, system safety, sociology, economics, law, information engineering, cybernetics, and related disciplines.

WG3

・Implementation of New Agent Models
・Developing Software Implementations of New Agent Models
・Code Review and Documentation (Based on WG2's Progress)

Expected Members:
Individuals or organizations with a solid understanding of the theoretical aspects of human behavior models and high-level programming skills, who are interested in independently customizing simulation programs.

WG4

・Consideration of Data Acquisition and Model Parameter Identification Methods in DS Testing
・Acquiring necessary data via DS tests based on WG2’s progress.
・Standardization of Collected Data and Subject Data
・Consideration of Creating a Database for Experimental Data and Reusing It
・Investigation of Parameter Identification Methods from Experimental Data

Expected Members:
Researchers and engineers with expertise in DS testing,
and researchers Involved in parameter estimation.

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