The open Framework for Agent-based Modelling
Next Steps and Community Interaction

FAME: In a Nutshell

- **Name**: open Framework for distributed Agent-based Modelling of Energy systems
- **Purpose**: rapid development & fast execution of complex agent-based energy system simulations
- **License**: Apache 2.0
- **Languages**: Java & Python
- **Developed since**: 2017

**Aim**: Reduce overhead code

**FAME: Components**

- **FAME is split into multiple components**, each addressing a specific task:
  - **FAME-Core**: Provides methods to create & run agent-based simulations
  - **FAME-Io**: Feeds input data to & extracts results from simulations
  - **FAME-Mpi**: Coordinates processes in multi-core mode
  - **FAME-Protobuf**: Defines input & output file formats
  - **FAME-Gui**: Drag & drop configuration of FAME-based models (in Beta)
  - **FAME-Prepare**: Analyses FAME models for simplified configuration (planned)

**FAME: Premises**

- **Scalable**: use Laptops / Servers / HPC
- **Portable**: works with Windows / Linux / Mac
- **Configurable**: adapt inputs, agents & execution order outside of code
- **Multi-core ready**: go multi-core without any code adaptions

**FAME: Planned Improvements**

FAME’s two user groups are modelers and scientific model users. We aim at improving the FAME workflow, performance and usability for these users.  

- **Enhanced Inputs**: Allow inputs to be read from database or JSON files
- **FAME-Prepare**: Provide an automatic analysis of FAME models to make FAME-Io & FAME-Gui operate any model code
- **New CLI**: Reorganise FAME’s command line interface to assess & run different FAME models
- **Improve Reproducibility**: Ensure long-term reproducibility of any model result by allowing to store models, their inputs & their outputs in one simulation file.
- **Use Meta Data**: Enhance FAME to store and show additional meta data for inputs, outputs and other properties of agents.

**FAME: Material**

We strive to remove barriers and to maximise the benefit of applying FAME. So far, we provide the following material to use FAME:

- **README, Wiki, JavaDoc, Architecture Documentation, Getting-Started Guide, Development Guidelines, PyPI & Maven Integration, CLI, GUI**

In addition, we plan to build the following material:

- **Tutorials, Video-Tutorials, …**
- What would help you when learning a new framework?

**FAME: Community Interaction**

We love to learn from the community and interact with modelers out there! Here’s what we expect to see:

- Questions / Ideas & openmod-Forum / Stack Overflow
- Bug reports
- Feature requests

How would you like to contribute to a framework?

**Important Links**

- [Repository](https://gitlab.com/fame-framework)
- [Wiki](https://gitlab.com/fame-framework/wiki/wiki/home)
- [Javadoc](https://gitlab.com/fame-framework-javadoc)
- [E-Mail](mailto:FAME@dlr.de)

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