

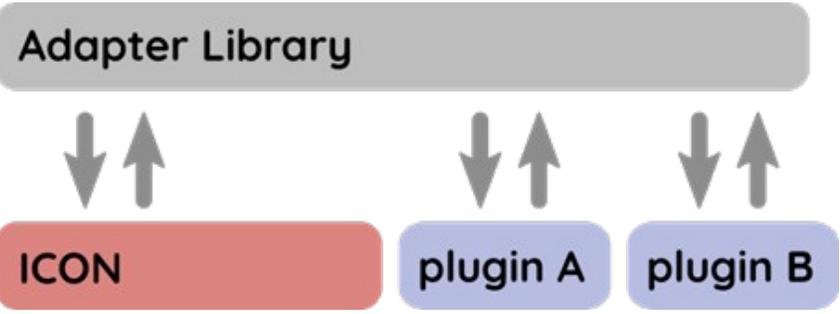
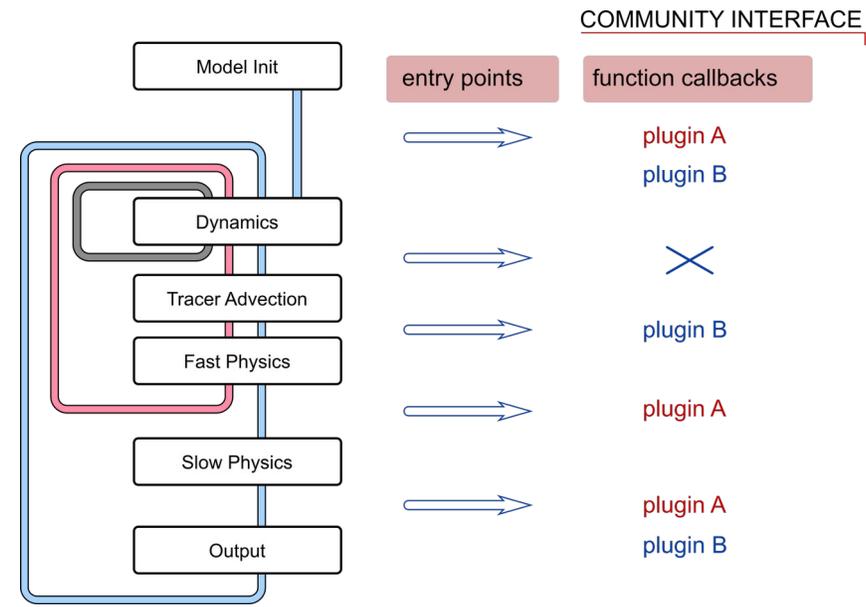


ICON Community Interface

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What are the aims of ComIn?

- ➔ Providing a standardized **public interface** for third party codes ('**plugins**') coupled to ICON
- ➔ Significantly **reduced maintenance** for ICON as well as for third party code developers
- ➔ Plugins **easier to migrate** to new ICON releases
- ➔ Establishing ICON as the core model for applications ranging from **NWP** to **ESM**
- ➔ Enables **multi-language support** (Fortran, C/C++, Python)

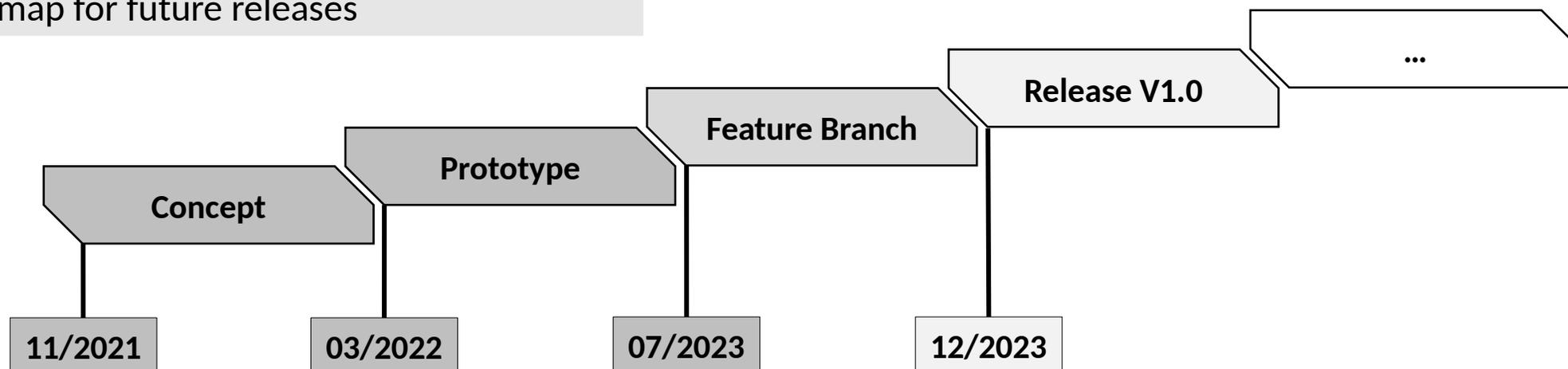


How does ComIn work in a nutshell?

- ➔ ComIn organizes the **data exchange** and **simulation events** between the ICON model and multiple plugins.
- ➔ **ComIn Callback Register**: Subroutines of the plugins are called at pre-defined events during the ICON simulation.
- ➔ The **ComIn Adapter Library** is included by ICON and the plugins. It contains descriptive data structures and regulates the access and the creation of model variables.

Timeline

- First **release version** targeted for end of **2023**
- Roadmap for future releases



Large range of applications

- Coupling to community components and models
e.g. land, chemistry, hydrology, ...
- Execution of **Python scripts**,
e.g. output, in-situ data processing and ML applications
- Horizontal or vertical **interpolation** of data