

# The LionWeb Initiative



**SEN Symposium, June 2024**  
**Meinte Boersma & Jos Warmer**



# Mission

- **Facilitate adopting language engineering**
- **Reduce technology/vendor lock-in**
- **Mix and match components**
- **Foster innovation**
- **Integrate with non-language engineering tools**

**To create an ecosystem of interoperable components for building language-oriented modeling tools on the web.**

# Why – Rationale



## Most mature Language Workbenches desktop-based

- Everything needs to be on the web
- Huge re-engineering effort

## Language Engineering landscape is fragmented

- Strong tool lock-in
- Many interesting tools/component that you would like to use ... but you cannot
- Everybody has to keep re-inventing the wheel

## Our community is too small to afford this

- We can only grow if we can benefit from each others work

**LionWeb: Language**

{ Interfaces  
Interoperability  
Integration }

**on the Web**



# How – Principles

## **LionWeb as boring, reliable base**

- Innovate on top

## **Rough consensus & Running code**

- Yoyo approach

## **Everything is a model**

- Markus Voelter's [Whitepaper](#)
- “A Platform for Systems and Business Modeling”

## **Business-friendly Open Source License**

- Apache 2.0

# What – Done and Doing



## Interoperability

- meta-metamodel
- serialization format



**2023.1 Release**

## Protocols

- Bulk protocol
- Delta protocol



**Next release: 2024.1**

### Programming APIs

- Java / Kotlin
- TypeScript / JavaScript
- C# (upcoming)

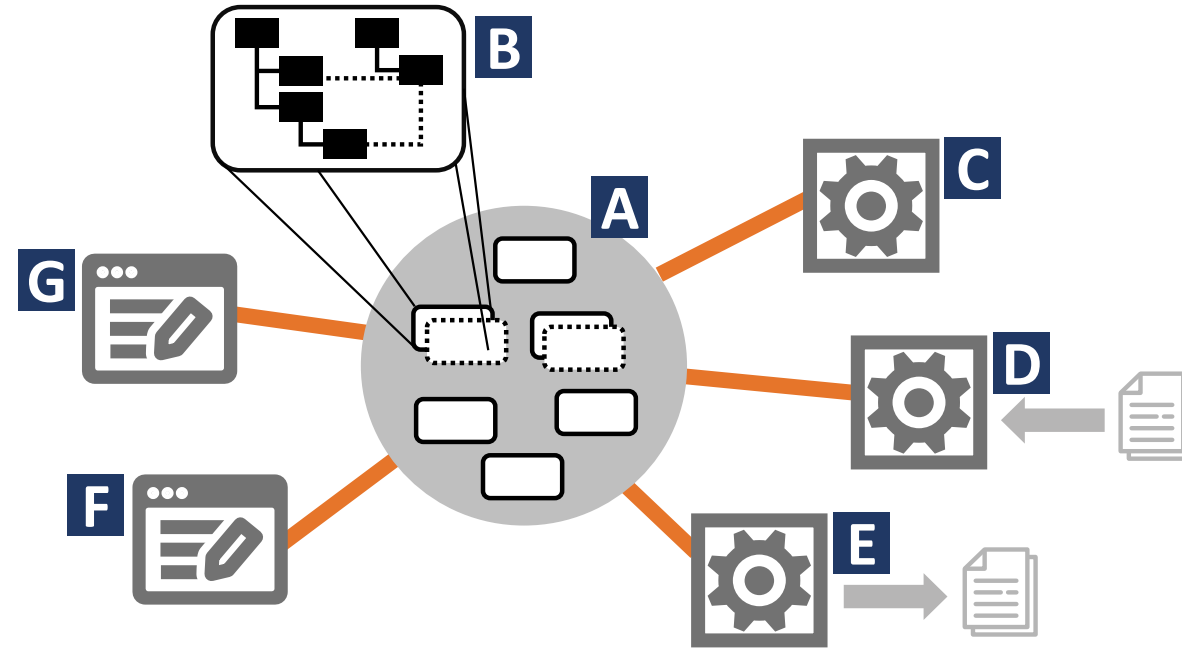
### Tool integrations

- MPS
- Starlasu (ANTLR)
- Freon
- Ecore

### Repository

- Implemented bulk protocol

# Reference Architecture



## Clients

### Editors

**F** Visual

**G** Projectional

### Processors

**C** Model checker

**D** Importer

**E** Generator

## Repository

### Models

**A** Original

**B** Derived



JSON &  
Protocols (bulk / delta)

# Team – Contact - More Info

## Team

<b>Meinte Boersma</b>	Freelancer
<b>Norman Koester</b>	itemis (Modelix)
<b>Sergej Koscejev</b>	Freelancer
<b>Sascha Lisson</b>	itemis (Modelix)
<b>Eugen Schindler</b>	Canon Production Printing

<b>Alex Shatalin</b>	Jetbrains (MPS)
<b>Niko Stotz</b>	F1RE
<b>Federico Tomassetti</b>	Strumenta (ANTLR)
<b>Markus Voelter</b>	Freelancer
<b>Jos Warmer</b>	Freelancer (Freon)

## Contact

**Want to work with us:**  
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**Github:**  
<https://github.com/LionWeb-io>

**Want to follow us or use or implement LionWeb:**  
[https://join.slack.com/t/lionweb/shared\\_invite/zt-2k1k5bsv7-EvC2IABlgSxWrqJNVOZ0HQ](https://join.slack.com/t/lionweb/shared_invite/zt-2k1k5bsv7-EvC2IABlgSxWrqJNVOZ0HQ)