

25.4. OpenSource Modelling Platform

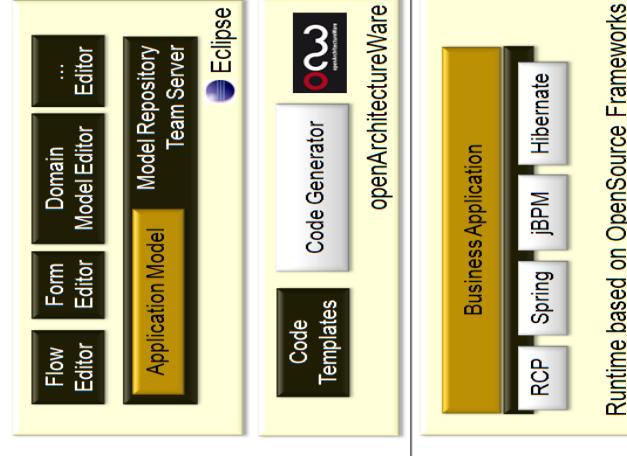


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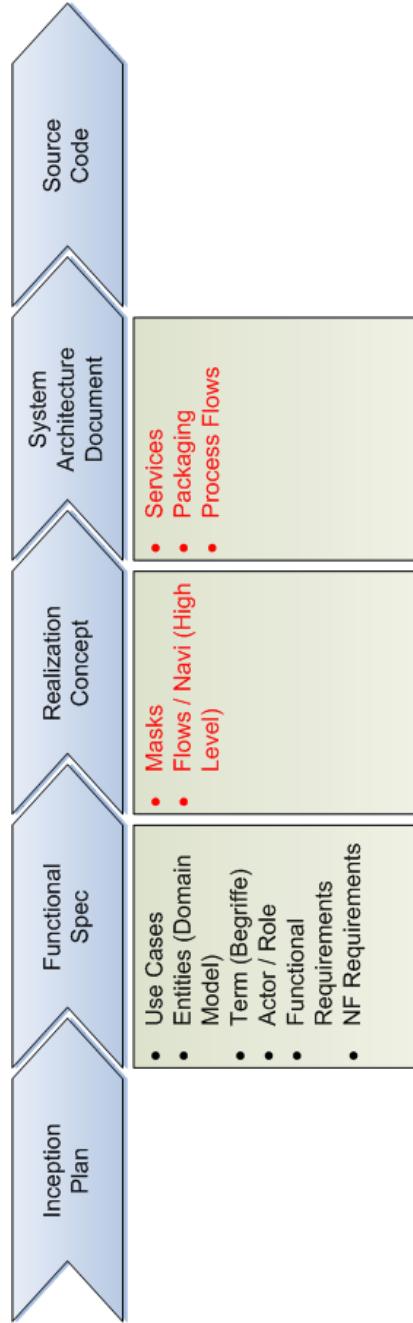
25.4 Flowr von Achievo (Dresden), www.flowr.org

- Ein **Schreen Flow** ist eine Abfolge von Masken oder Formularen in Informationssystemen (z.B. SAP-Anwendungen) (Screen/Seiten-Folgen)
 - Webshops
 - Versicherungsfälle
 - Internet Banking
- Flowr ist eine MetaCase-Umgebung zur Generierung von Screen-Flow-Anwendungen
 - Metamodellierung in EMF
 - Codegenerierung in OAW
 - Ursprung in Dresden



OpenSource Project flowR

Where in the Development Process is flowR?



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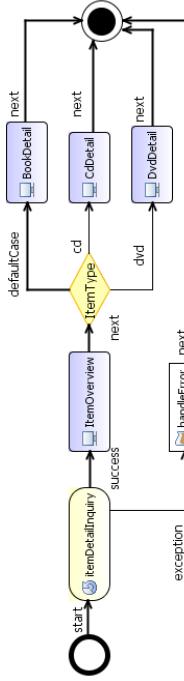
Levels Of Abstraction

Activity

Application Specific Modelling

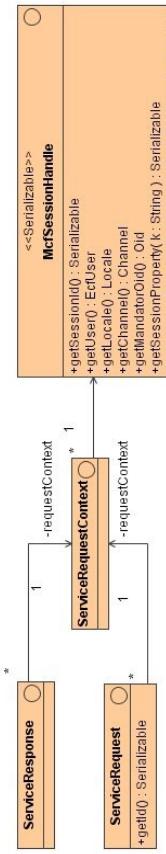
ScreenFlow

Example



Implementation Specific Modelling

UML Diagram



Activity

Example

```

public interface OidFactory {
    Old newOld (String type);
}

public final static OidFactoryReference ref = new OidFactoryReference () ;

public final static class OidFactoryReference implements OidFactory {
    public Old newOld (String type) {
        return ref () .newOld (type);
    }

    private OidFactory ref () {
        return (OidFactory) SingletonManager .getSingleton (oidFactory .class);
    }

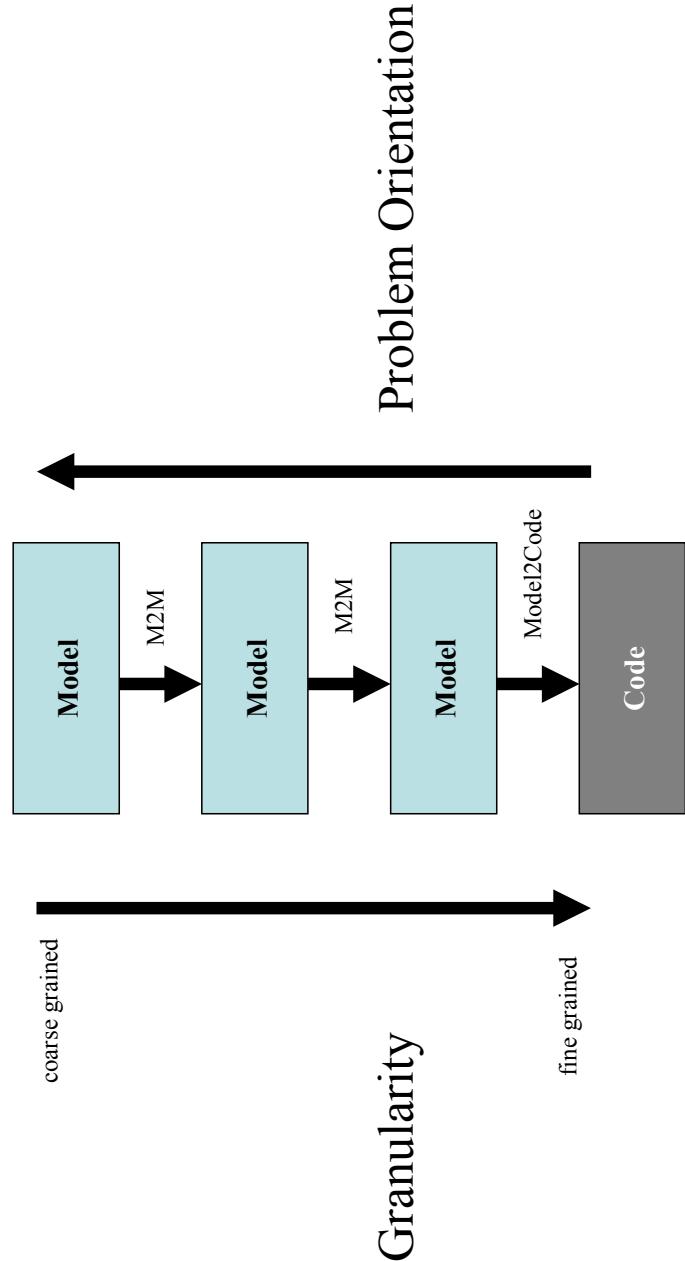
    // OidFactoryDelegator
}
        
```

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MDSD Overview (1)

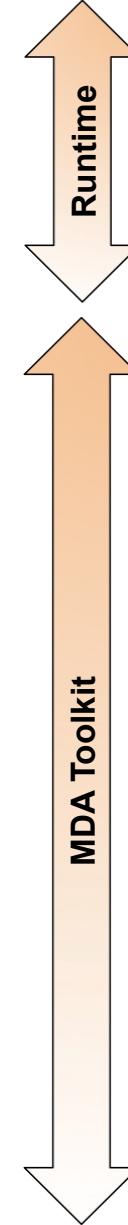


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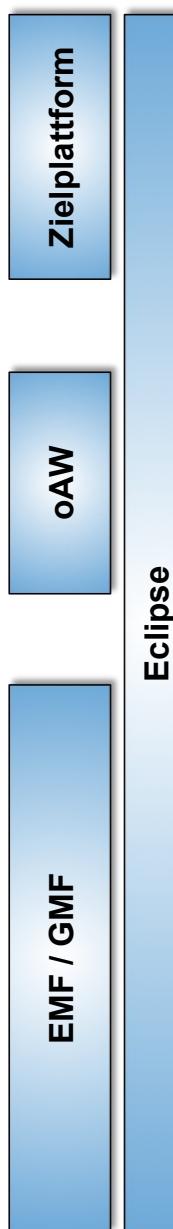


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MDSD Overview (2)



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Model Editors

Application Model

CodeGen

CodeGen

RCP/Spring

.NET/BPEL Engine

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What is flowR, what is it not

- ▶ flowR is a generic design environment to build multi channel solutions using MDSD
- ▶ flowR is a Modelling Framework that can be used with any Generator Framework with EMF capabilities
- ▶ flowR is not a Generator Framework itself (i.e. oAW or AndroMDA)
- ▶ flowR is not a Runtime Framework

- ▶ An example integration of a full MDSD stack using other OpenSource Frameworks
- ▶ A team server to share models
- ▶ A component model to organize reuse of models
- ▶ A set of standard editors (e.g. screen flows, domain model)
- ▶ A set of APIs to extend the existing editors and write your own editors

- ▶ Based on Eclipse EMF/GMF

- ▶ Uses openArchitectureware to generate code for different technology stacks

- ▶ Comes with a predefined example OpenSource runtime stack based on RCP and Spring

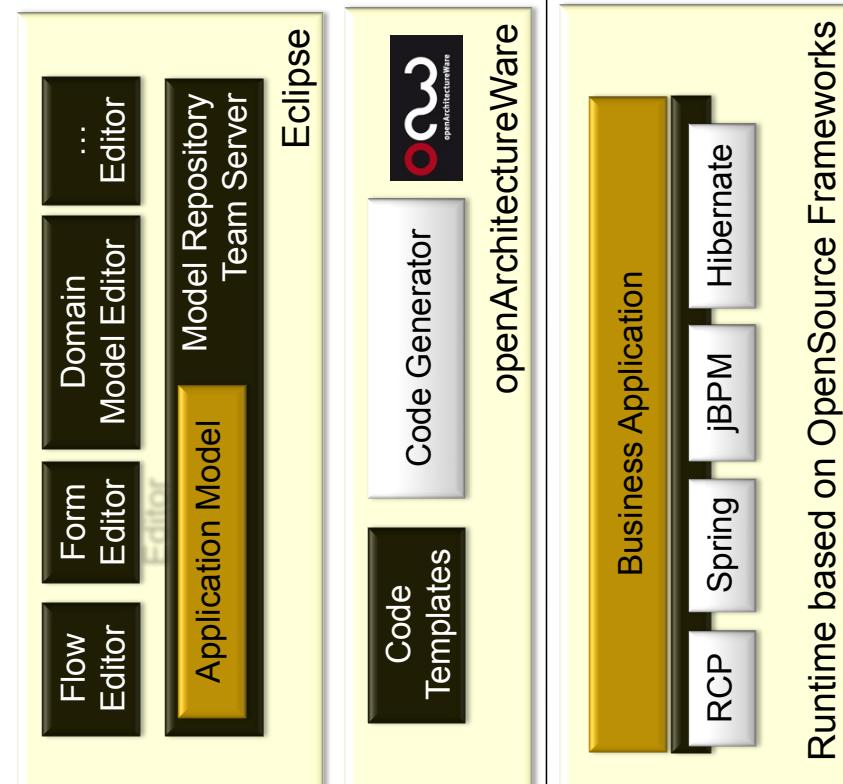
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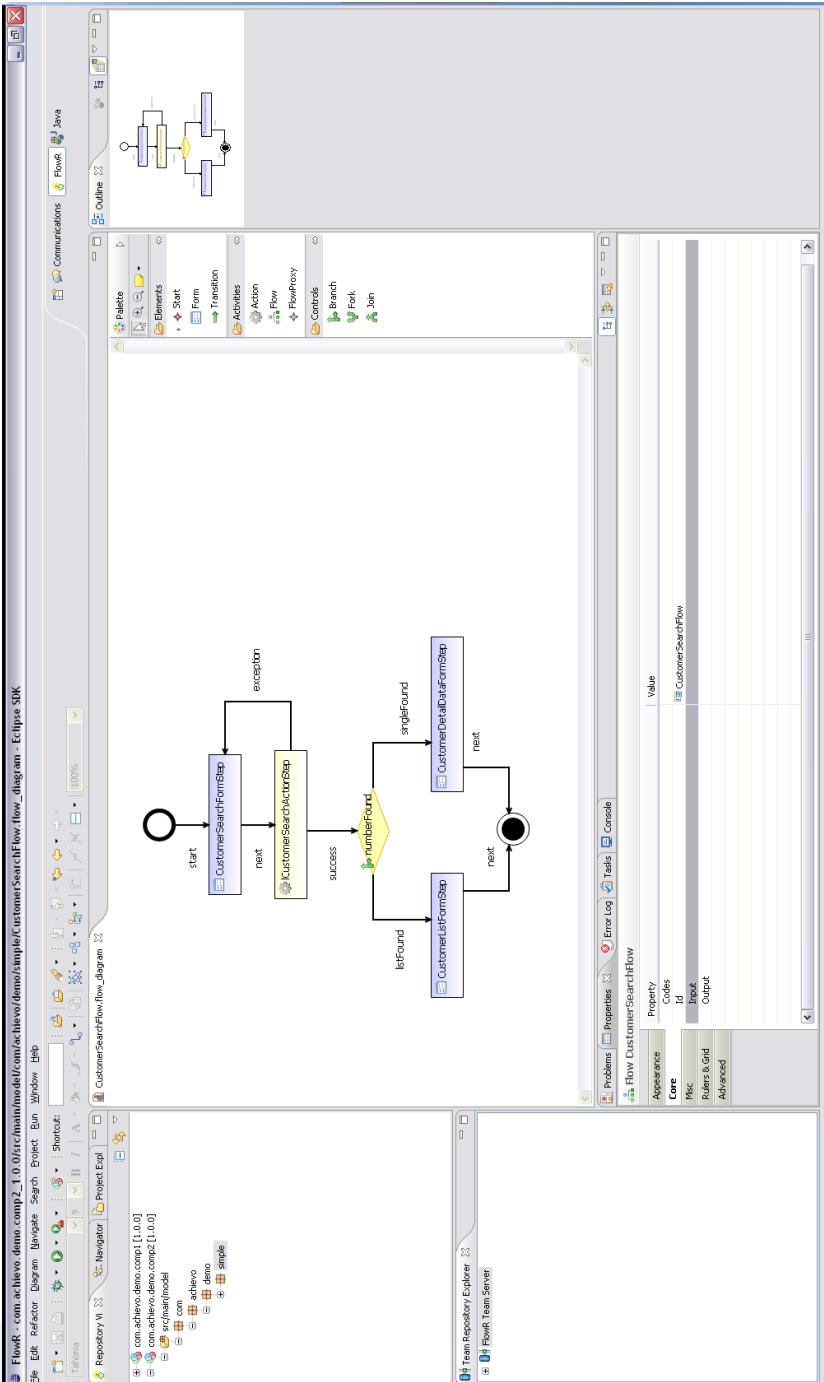
Which challenges does flowR address?

- ▶ How can I write an editor for my specific DSL and integrate it into my tooling environment?
 - ▶ How can I manage my entire application model?
 - ▶ How do I organize team collaboration?
 - ▶ How can I ensure model consistency?
 - ▶ How can I divide my mode into reusable model components?
 - ▶ How can I provide model refactoring support?

OpenSource Project flowR

The Big Picture

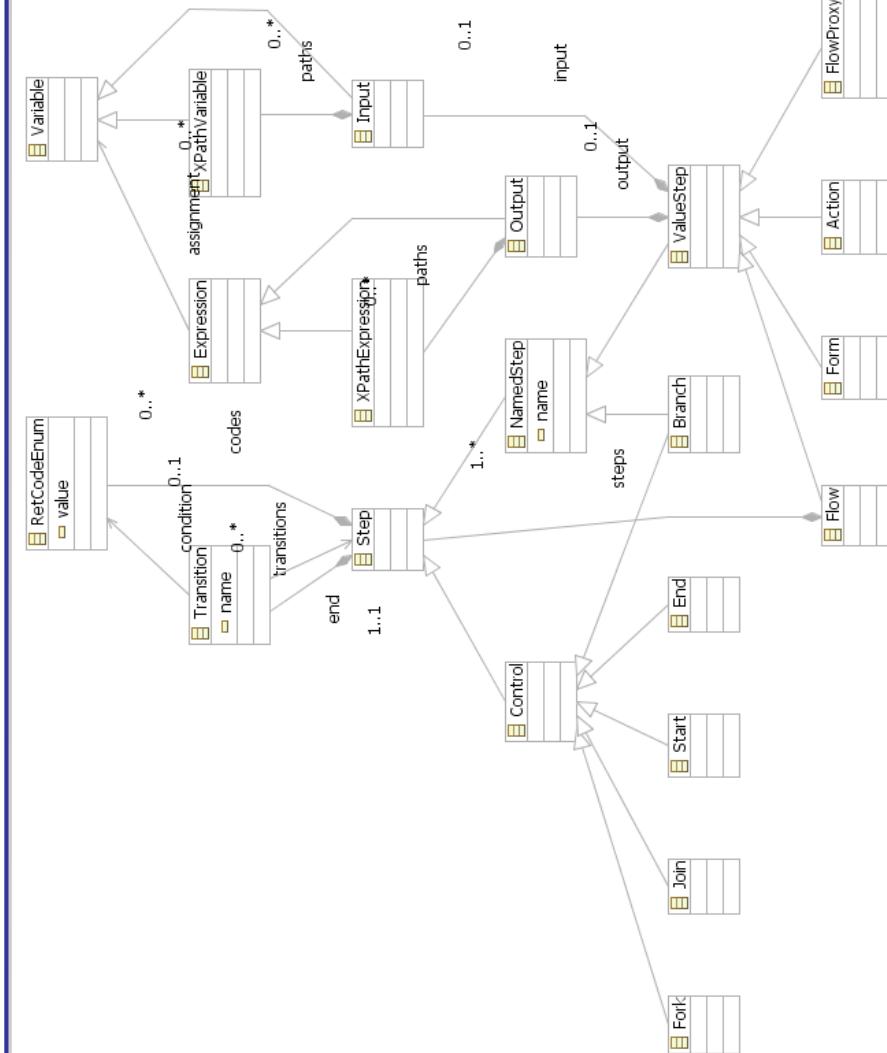




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flowR Flow Editor - Metamodel



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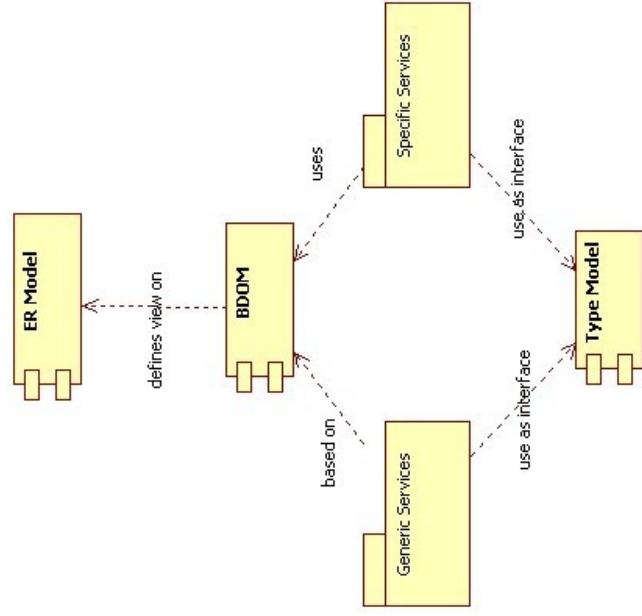
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- ▶ Multi-user capability
- ▶ Check in/check out
- ▶ Remote References (shared ref)
- ▶ Central point of validation
- ▶ Central source for Continuous Build

- ▶ Link between Application Model and chosen Generator
- ▶ Generator Model is kind of a Platform Specific Model (PSM)
- ▶ Different Generator Models for different runtime platforms but just a single Application Independent Model (PIM)
- ▶ Allows the embedding of platform specific tools (editors/wizards for manual code) in the tooling
- ▶ Platform specific tools can be deployed depending on the current runtime platform

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Business Domain Modelling (BDOM) - Overview



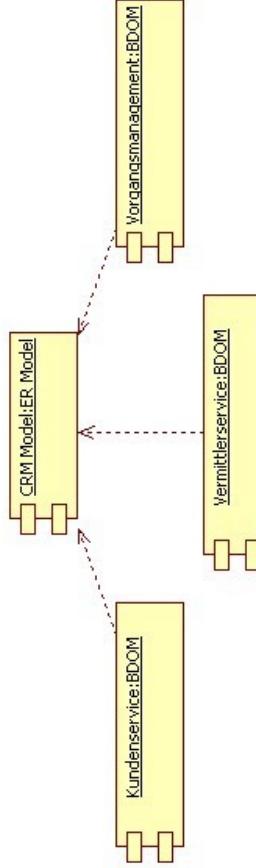
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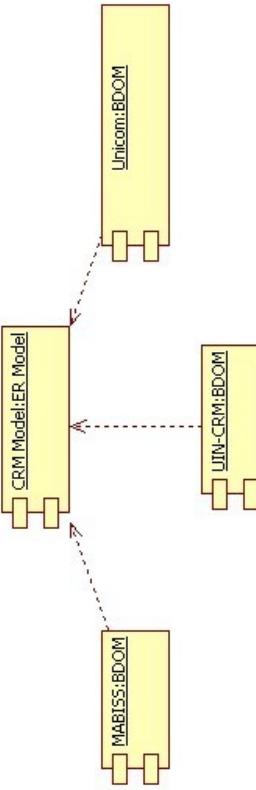
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Partitioning of Business Domain Model (BDOM)

- ▶ by functionality

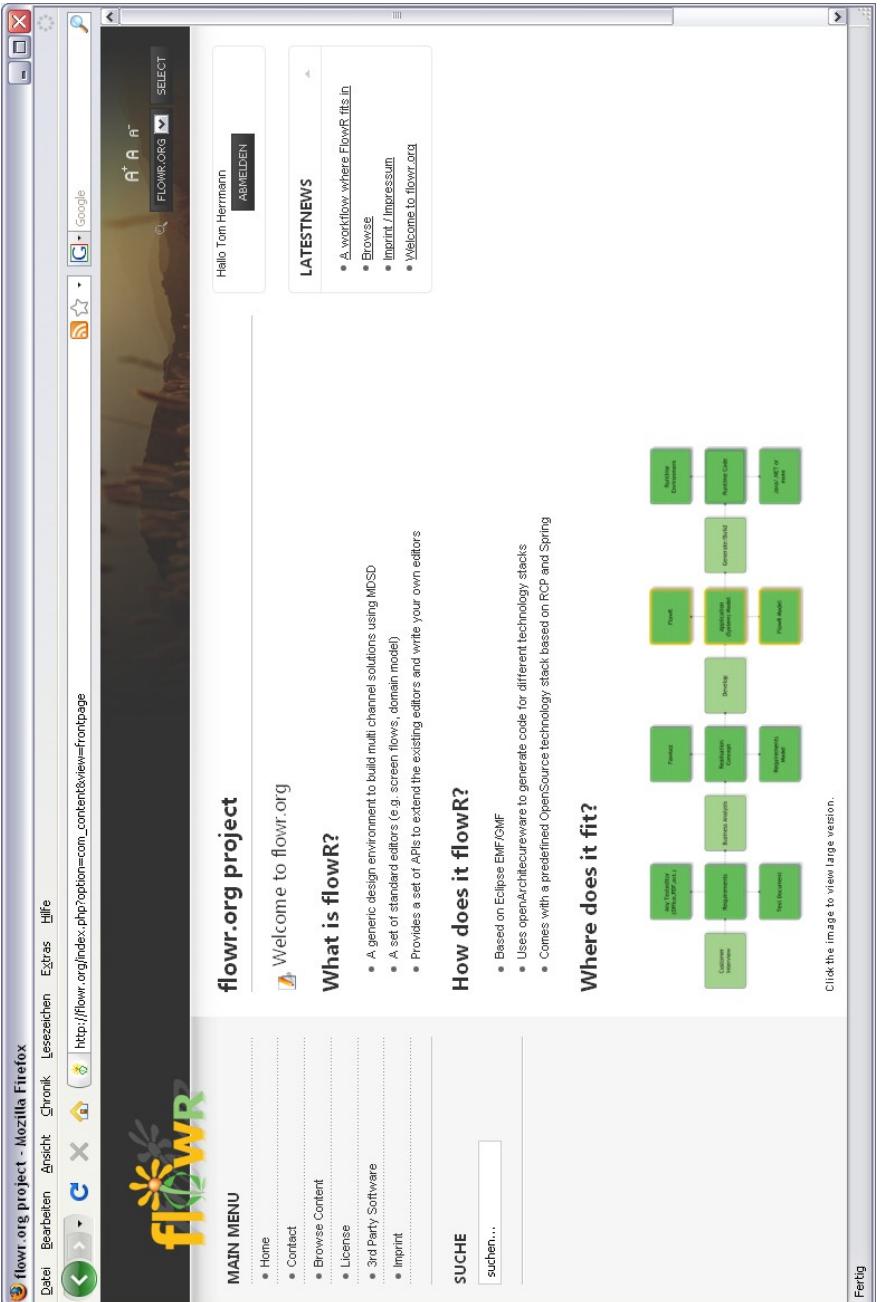


- ▶ by application



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The ACHIEVO logo consists of a blue triangle pointing upwards next to the word "ACHIEVO".

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Kontaktdaten / Ansprechpartner

**wir freuen uns auf die Zusammenarbeit
mit Ihnen!**



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