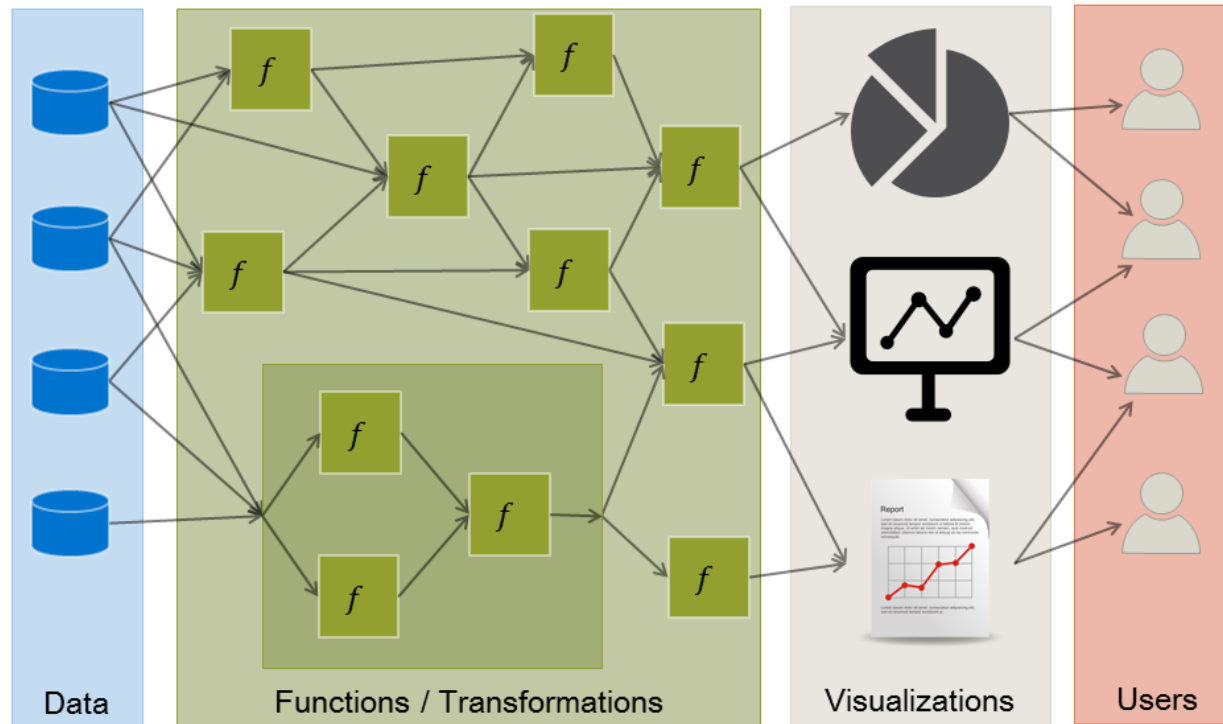


Design and Prototypical Implementation of a Web-based Spreadsheet System for Managing and Analyzing Semi-structured Data

Alexander Meissner, 20.05.2015, Garching

Software Engineering for Business Information Systems (sebis)
Department of Informatics
Technische Universität München, Germany

www.matthes.in.tum.de



- Spreadsheet 2.0
 - User-oriented tools for analyzing complex linked data

- **Lack of transparency of a Spreadsheet's design**
 - **Lack of support for complex linked data**
 - **Lack of collaboration support**
-
- Spreadsheet 2.0
 - User-oriented tools for analyzing complex linked data

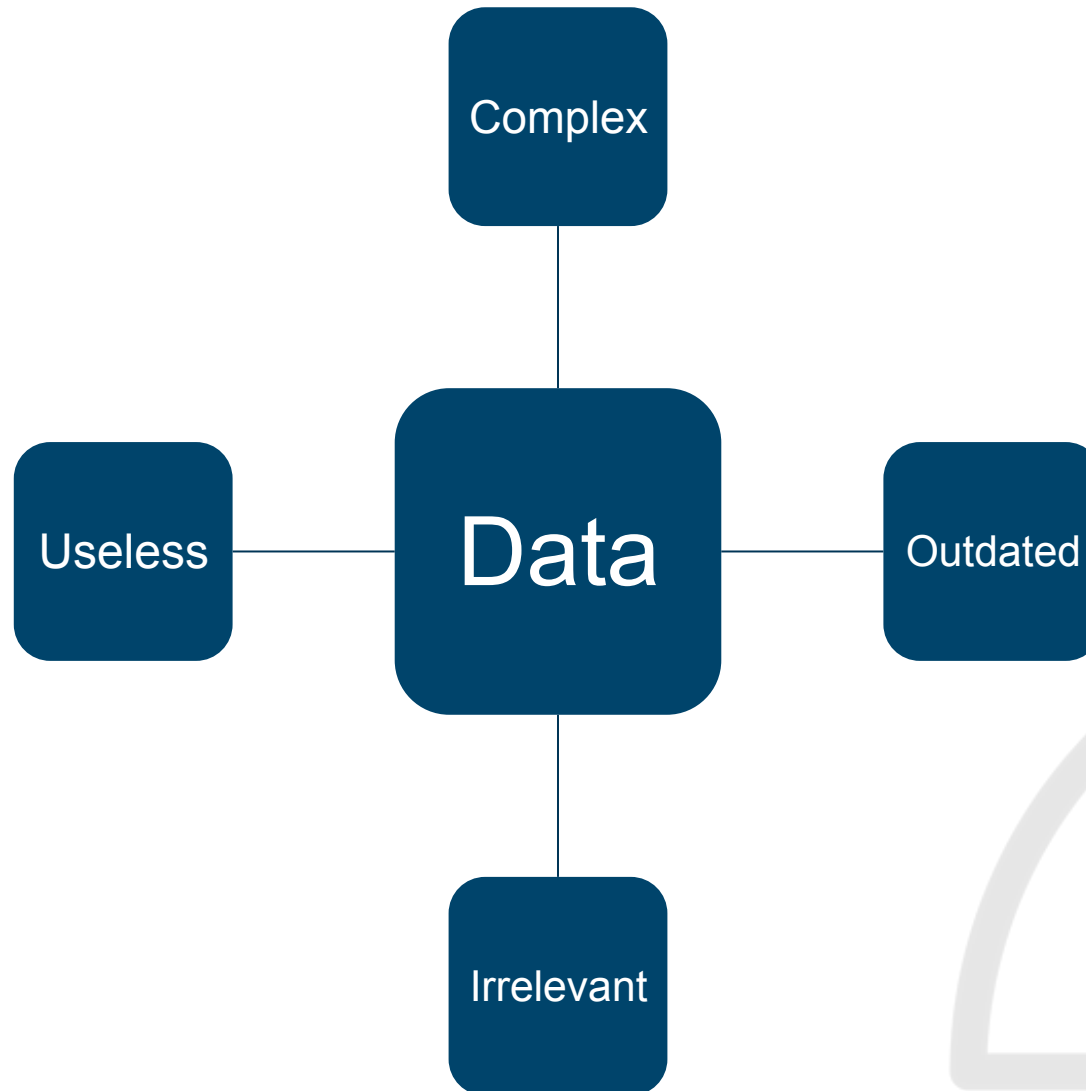
What is the best approach from a ...

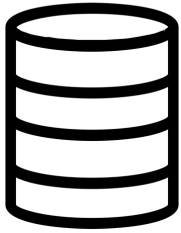
... user experience (UX) perspective ...

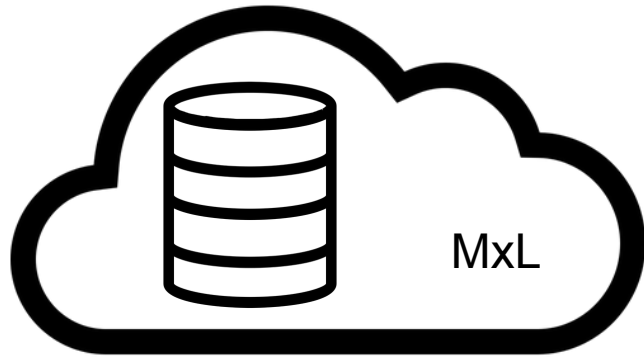
&

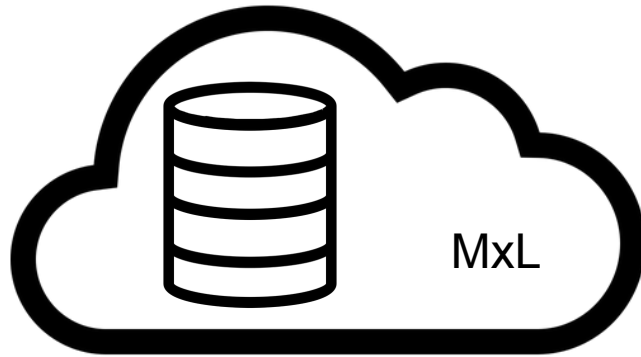
... technical aspect ...

... to **improve transparency & usability**
in Web-based Spreadsheet Systems?





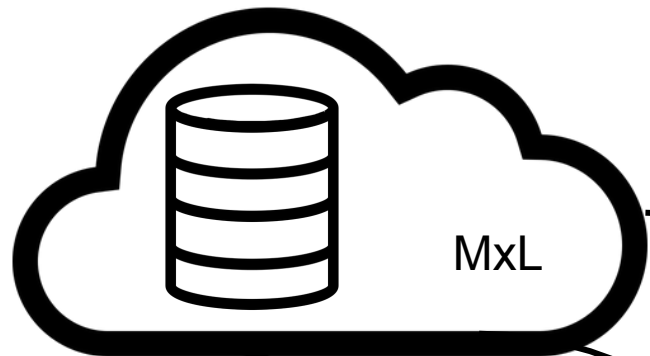




Name	Start date	Business units	Resource (MDs)	Allocation			Demands		
				Project Manager	Test Engineer	Software Engineer	Project manager	Test Engineer	Software Engineer
xyz1	02.10.2013	<ul style="list-style-type: none"> Business Intelligence Sales 	50	10%	0%	90%	5	0	45
xyz2	02.10.2013	<ul style="list-style-type: none"> Sales Development 	1 773	30%	30%	40%	531	531	711
xyz3	sometimes	<ul style="list-style-type: none"> Development 	223	30%	20%	50%	67	45	111
xyz4	02.10.2013	<ul style="list-style-type: none"> Business Intelligence 	200	30%	0%	70%	60	0	140
...
...
Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...
Total			12 567				5 643	1 576	5 348



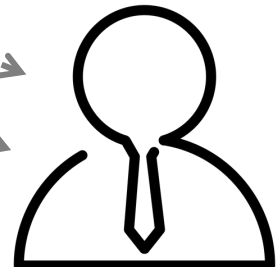
Name	Start date	Business units	Resource (MDs)	Allocation			Demands		
				Project Manager	Test Engineer	Software Engineer	Project manager	Test Engineer	Software Engineer
xyz1	02.10.2013	<ul style="list-style-type: none"> Business Intelligence Sales 	50	10%	0%	90%	5	0	45
xyz2	02.10.2013	<ul style="list-style-type: none"> Sales Development 	1773	30%	30%	40%	531	45	711
xyz3	sometimes	<ul style="list-style-type: none"> Development 	223	30%	20%	50%	67	0	140
xyz4	02.10.2013	<ul style="list-style-type: none"> Business Intelligence 	200	30%	0%	70%	60	0	140
...
...
Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...
Total			12 567				5 643	1 576	5 348



Name	Start date	Business units	Resource (MDs)	Allocation			Demands		
				Project Manager	Test Engineer	Software Engineer	Project manager	Test Engineer	Software Engineer
xyz1	02.10.2013	<ul style="list-style-type: none"> Business Intelligence Sales 	50	10%	0%	90%	5	0	45
xyz2	02.10.2013	<ul style="list-style-type: none"> Sales Development 	1773	30%	30%	40%	531	531	711
xyz3	sometimes	<ul style="list-style-type: none"> Development 	200	30%	0%	70%	67	45	111
xyz4	02.10.2013	<ul style="list-style-type: none"> Business Intelligence 	---	---	---	---	60	0	140
...	...	---	---	---	---	---	---	---	---
...	...	---	---	---	---	---	Type to add row...	Type to add row...	Type to add row...
Type to add row...	Type to add row...	Type to add row...	12 567	Type to add row...	Type to add row...	Type to add row...	5 643	1 576	5 348
Total									

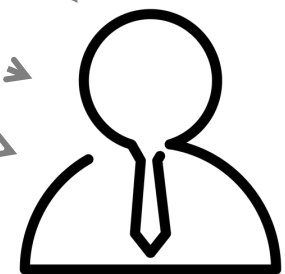


Name	Start date	Business units	Resource (MDs)	Allocation			Demands		
				Project Manager	Test Engineer	Software Engineer	Project manager	Test Engineer	Software Engineer
xyz1	02.10.2013	<ul style="list-style-type: none"> Business Intelligence Sales Sales Sales Development 	50	10%	0%	90%	5	0	45
xyz2	02.10.2013	<ul style="list-style-type: none"> Development 	1773	30%	30%	40%	531	531	711
xyz3	sometimes	<ul style="list-style-type: none"> Development 	223	30%	0%	50%	67	0	111
xyz4	02.10.2013	<ul style="list-style-type: none"> Business Intelligence 	200	30%	20%	70%	60	0	140
...
...
Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...
Total			12 567				5 643	1 576	5 348



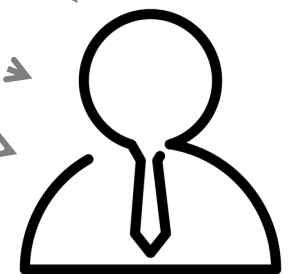


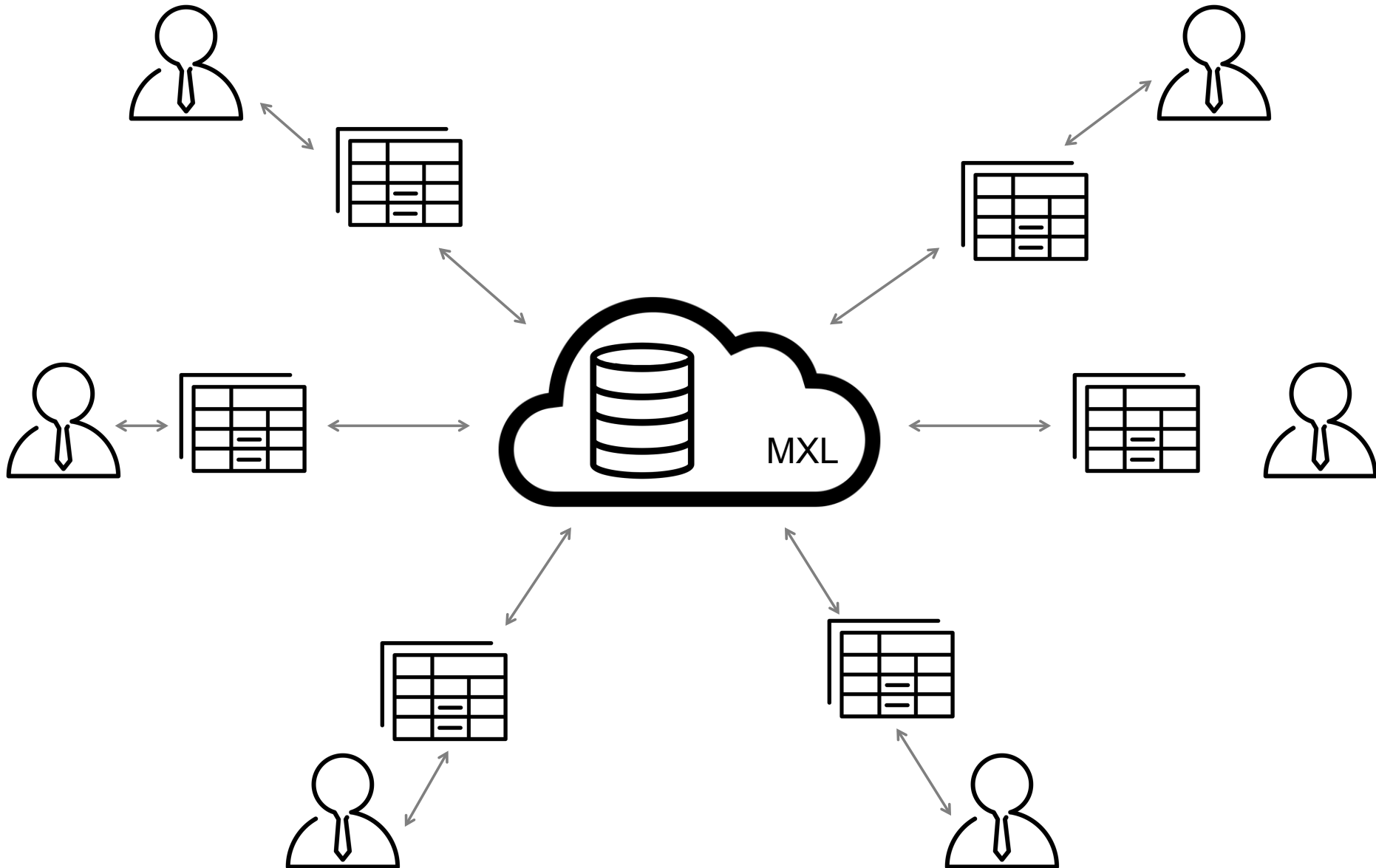
Name	Start date	Business units	Resource (MDs)	Allocation			Demands		
				Project Manager	Test Engineer	Software Engineer	Project manager	Test Engineer	Software Engineer
xyz1	02.10.2013	<ul style="list-style-type: none"> Business Intelligence Sales 	50	10%	0%	90%	5	0	45
xyz2	02.10.2013	<ul style="list-style-type: none"> Sales Development 	1773	30%	30%	40%	531	531	711
xyz3	sometimes	<ul style="list-style-type: none"> Development 	223	30%	0%	50%	67	0	111
xyz4	02.10.2013	<ul style="list-style-type: none"> Business Intelligence 	200	30%	20%	70%	60	0	140
...
...
Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...	Type to add row...
Total			12 567				5 643	1 576	5 348

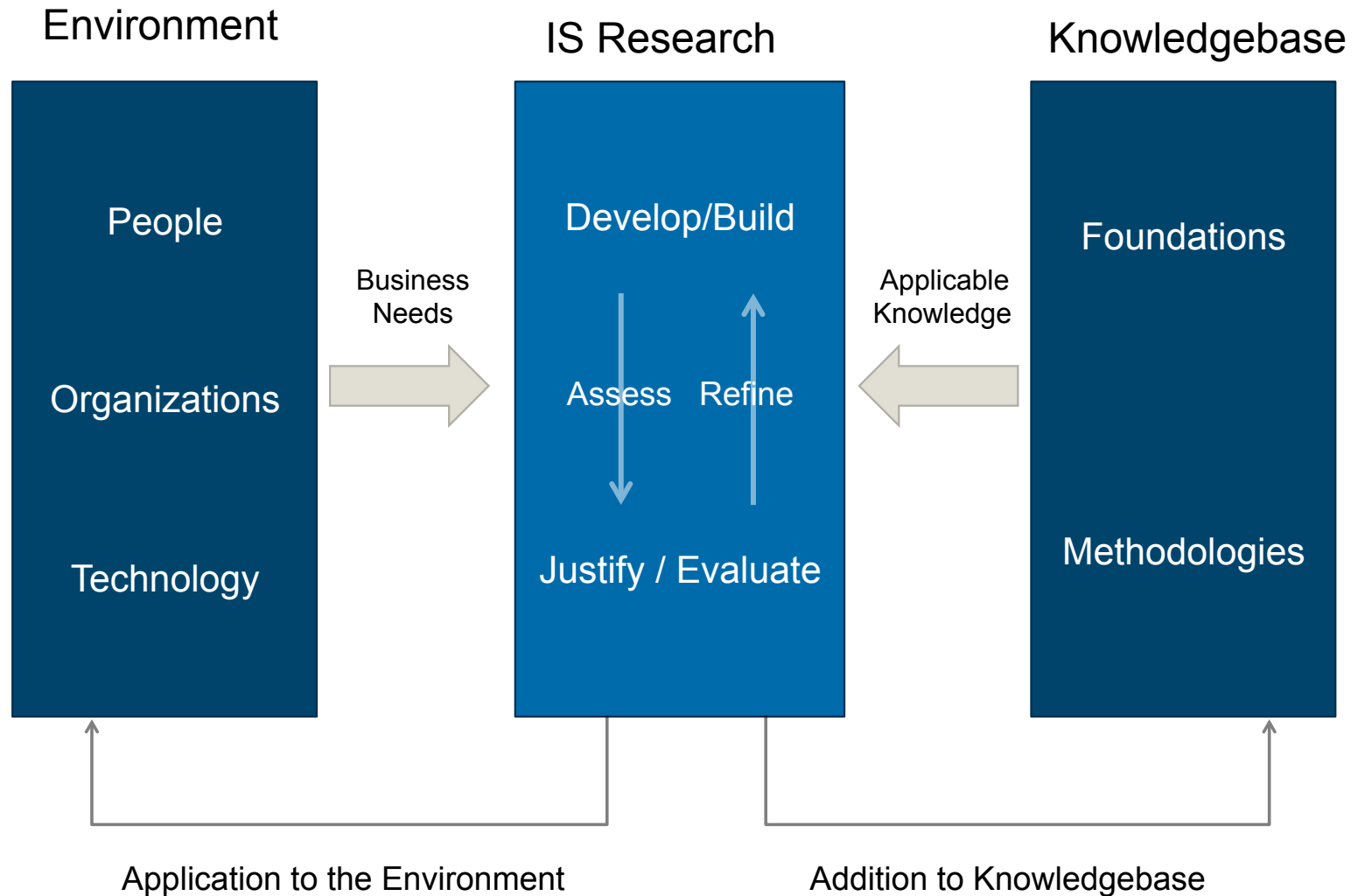


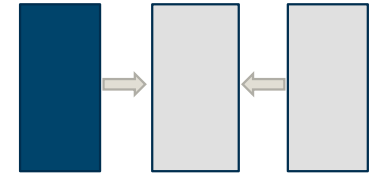


Name	Start date	Business units	Resource (MDs)	Project Manager	Test Engineer	Software Engineer	Project manager	Test Engineer	Software Engineer
xyz1	02.10.2013	Business Intelligence	1773	50%	10%	30%	0%	40%	531
xyz2	02.10.2013	Sales	223	30%	20%	30%	50%	40%	67
xyz3	02.10.2013	Development	200	30%	0%	20%	70%	50%	60
xyz4	02.10.2013	Business Intelligence	200	30%	0%	70%	---	---	60
Total			12567				5643	1576	5344









Stakeholders

Companies

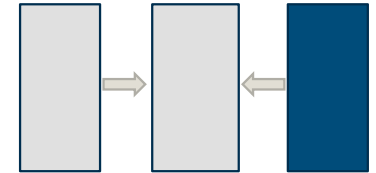


infoAsset Tricia

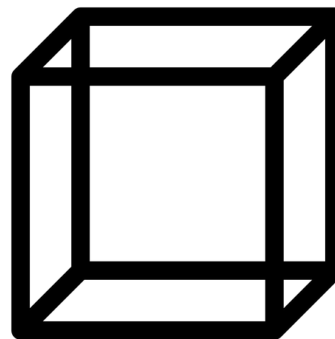
Socio-Cortex



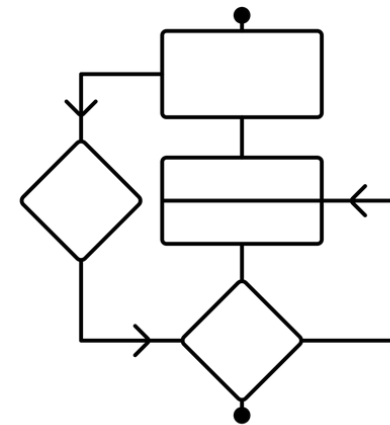
Existing Technology



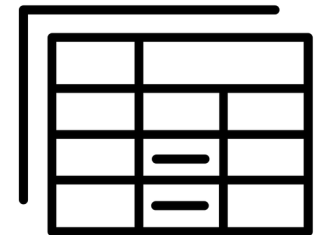
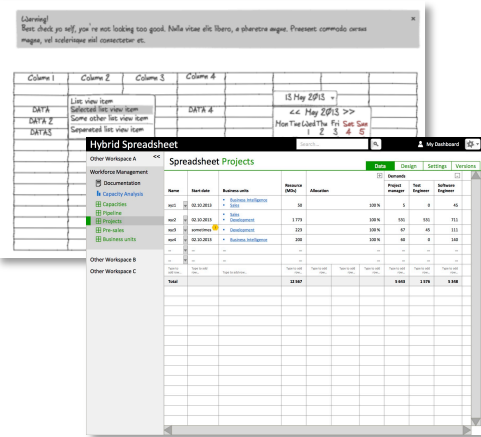
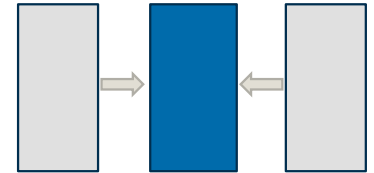
Existing Research
(sebis Research)



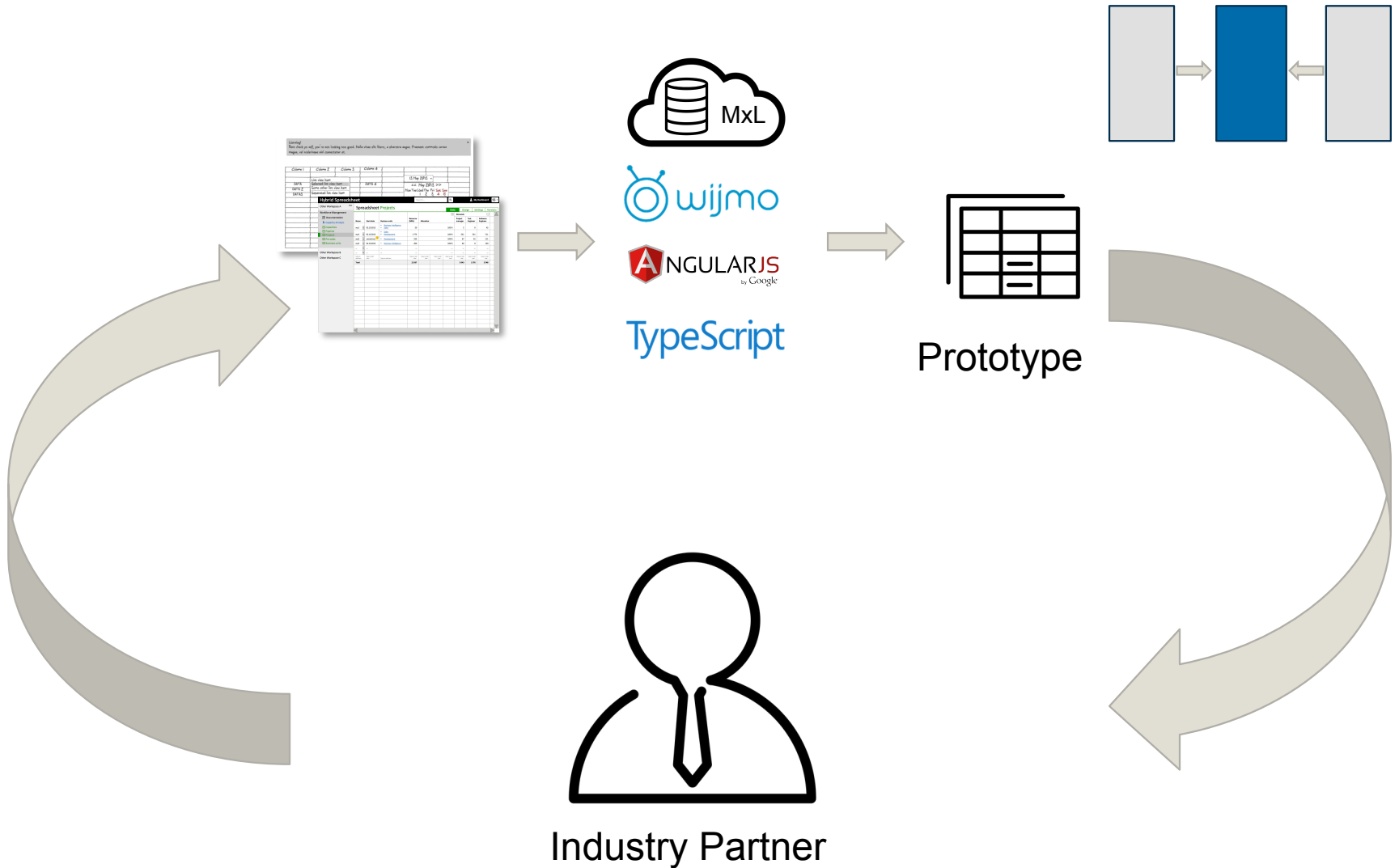
Existing Models & Frameworks



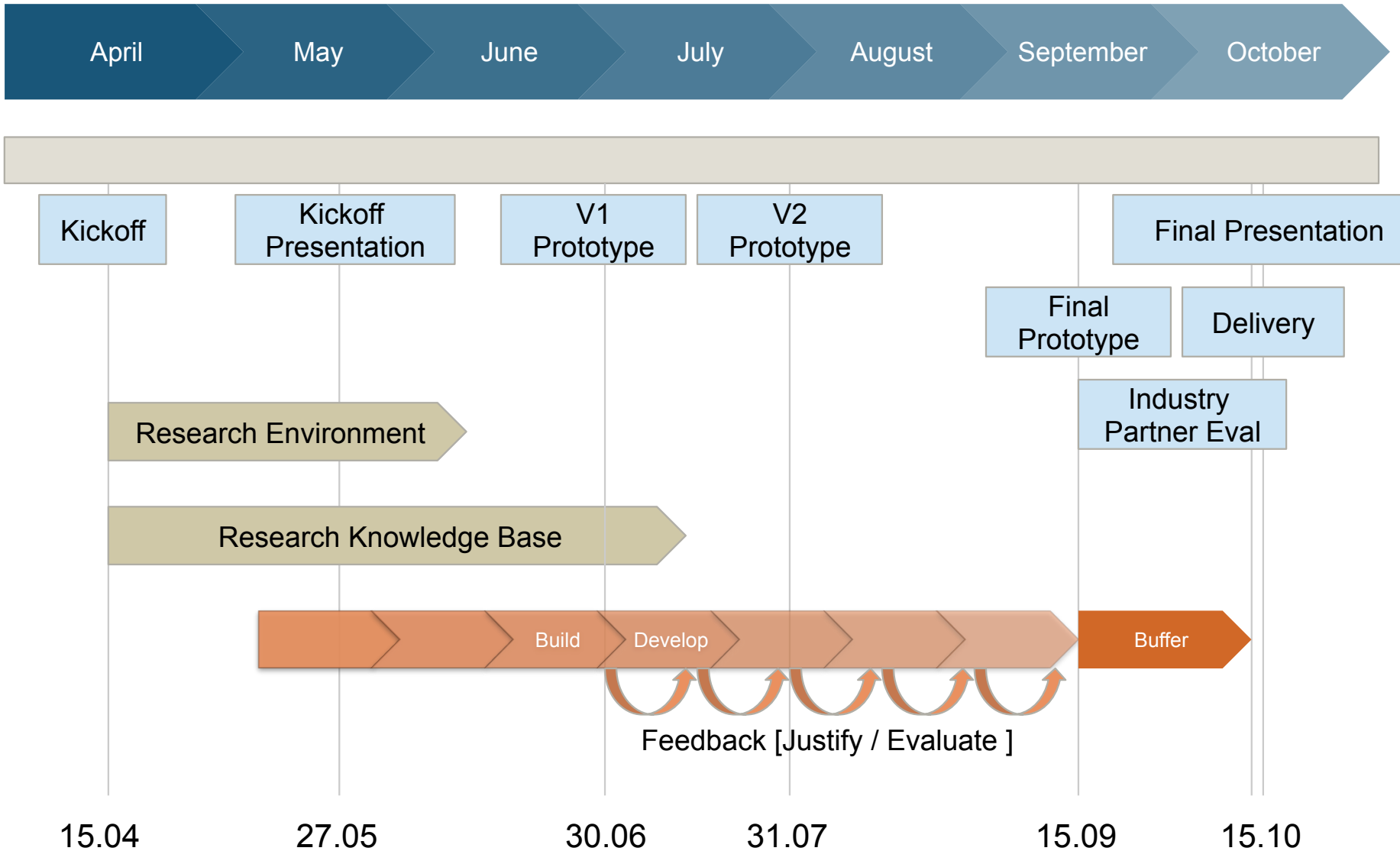
Existing Methodologies
Existing Patterns



Prototype



Timeline





Alexander Meissner



Technische Universität München
Department of Informatics
Chair of Software Engineering for
Business Information Systems

Boltzmannstraße 3
85748 Garching bei München

Tel +49.89.289.0
Fax +49.89.289.17136

Alexander.meissner@tum.de
www.matthes.in.tum.de