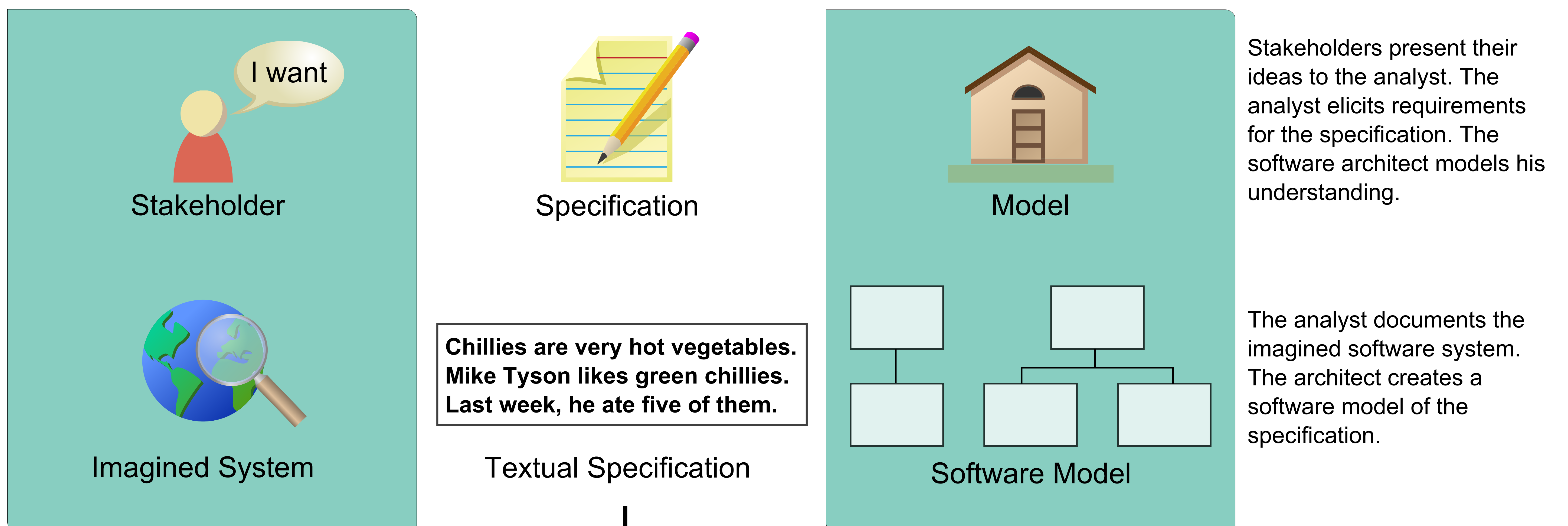


Creating Software Models with Semantic Annotation

Third Workshop on Exploiting Semantic Annotations in Information Retrieval (ESAIR 2010)

Walter F. Tichy, Sven J. Körner, Mathias Landhäußer



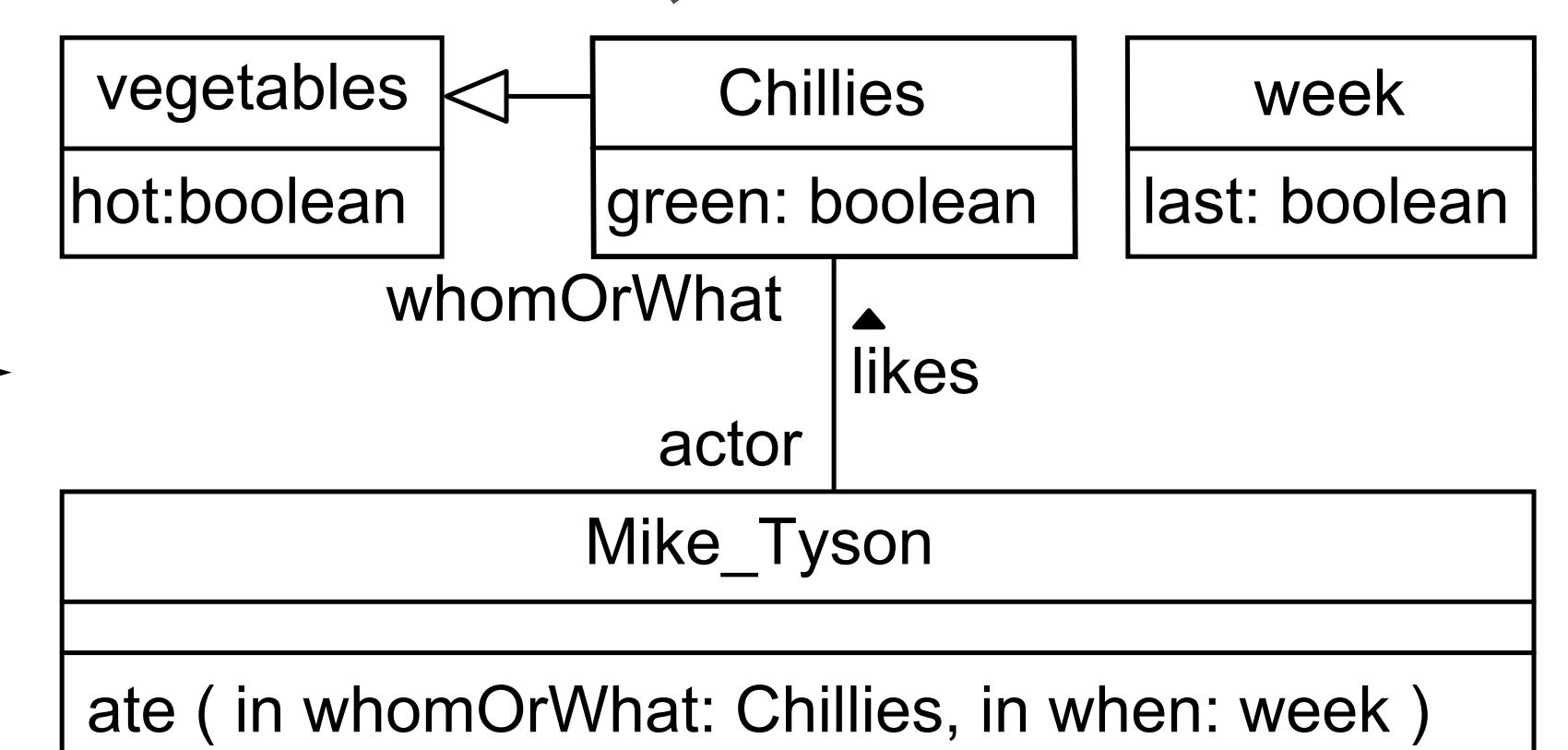
Short Name	Thematic Role	UML Equivalent
AG	agens	class with the name of the agens
PAT	patiens	class with the name of the patiens
FIN+FIC	fingens+fictum	inheritance between FIN and FIC
STAT	status	relation between AG and PAT
TEMP	tempus	time specification for ACT
EQK+EQD	equals	EQK replaces EQD

Syntax is Irrelevant,
Semantics Counts

Thematic Roles (Fillmore et al.) as Explicit Annotation of Semantics.

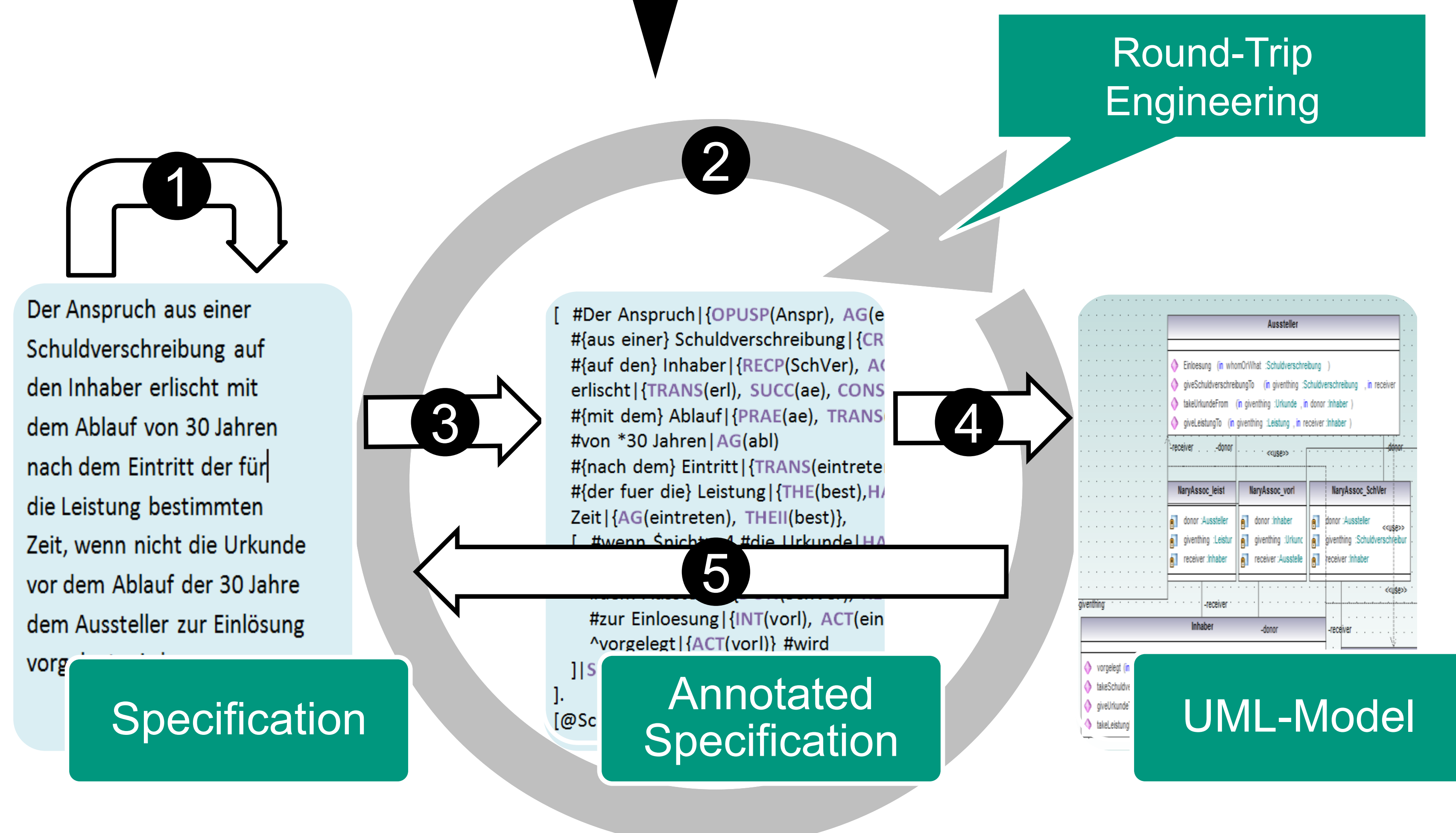
```
[ Chillies|FIN #{are} $very $hot vegetables|FIC ].
[ Mike_Tyson|AG likes|STAT $green chillies|PAT ].
[ @Chillies|EQK @chillies|EQD ].
[ $Last week|TEMP, he|AG ate|ACT *five #of them|PAT ].
[ @them|EQD @chillies|EQK ].
[ @he|EQD @Mike_Tyson|EQK ].
```

Automatic Model Generation



Enable Tool Support for Round-Trip (Requirements Engineering)

Thematic Roles are Language Independent.



Automating semantic annotation for natural language requirements enables automatic domain model creation from specifications. Requirements engineering is an iterative process which is now supported by 5 tools:

1. Specification Improver
2. Change Impact-Analyzer
3. Semantic Annotator
4. UML Model Extractor
5. Model-Text-Feedback