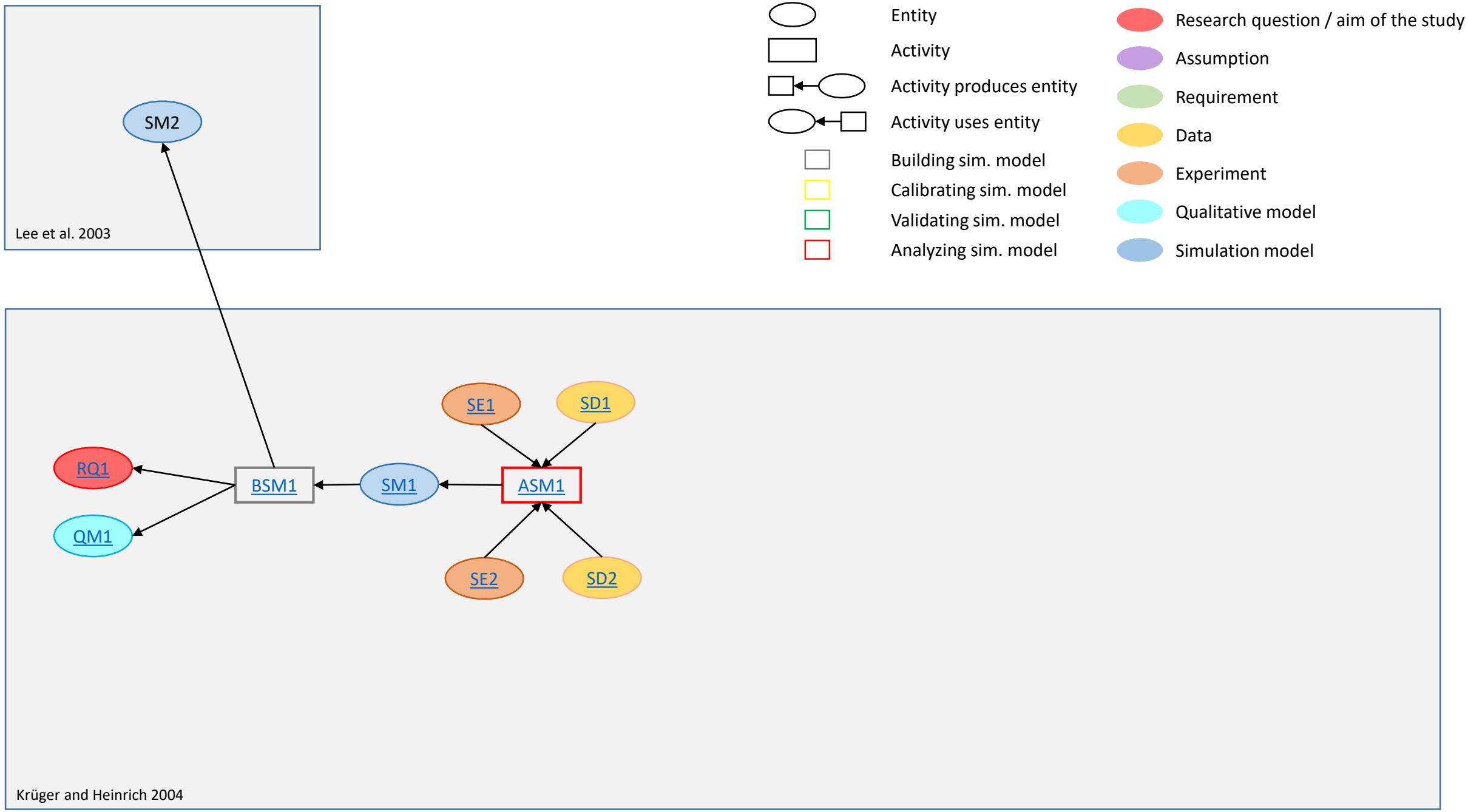
SM2
Lee et al. 2003
Entity
Activity
Activity produces entity
Activity uses entity
Building sim. model
Calibrating sim. model
Validating sim. model
Analyzing sim. model
Research question / aim of the study
Assumption
Requirement
Data
Experiment
Qualitative model
Simulation model
SE1
SD1
RQ1
BSM1
SM1
ASM1
QM1
SE2
SD2
Krüger and Heinrich 2004

RQ1 Research question

Type	Label
Description	How is the dimensionality of the Wnt model by Lee et al. 2003 reduced and how robust is the model?
Study	Krüger and Heinrich 2004

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QM1 Qualitative model

Type	Label
Description	Reaction scheme for Wnt signaling pathway (slightly extended pathway model of Lee et al. 2003)
Reference	Figure 1
Species	Wnt, Dsh, GSK3, APC, β-catenin, Axin, TCF
Compartments	Cell extract (cytosol)
Study	Krüger and Heinrich 2004

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BSM1 Building simulation model

Type	Label
Description	Model reduction that leads to Lee et al. 2003 model (explanation of that model)
Study	Krüger and Heinrich 2004

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SM1 Simulation model

Type	Label
Description	“In summary, the original system of 15 differential equations involving 31 parameters (Table 1) is reduced to a system of 7 differential equations (Eqs. (12) to (15) and Eqs. (18) to (20)) and 8 simple algebraic equations (Eqs. (5a), (7) to (11)) with only 19 parameters.”
Reference	Not available
Study	Krüger and Heinrich 2004

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ASM1 Analyzing simulation model

Type	Label
Description	Analyzing dependencies of the β-catenin signal
Study	Krüger and Heinrich 2004

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SE1 Experiment

Type	Label
Description	“Showing how the β-catenin signal depends on the duration of a transient stimulation of the pathway by its ligand Wnt”
Reference	Not available
Category	Parameter scan
Study	Krüger and Heinrich 2004

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SD1 Data

Type	Label
Description	Simulation results of SE1
Reference	Figure 3 [A]
Related to	SE1
Study	Krüger and Heinrich 2004

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SE2 Experiment

Type	Label
Description	“Showing how the β-catenin signal depends on the characteristic time τ_{PD} of the phosphorylation/dephosphorylation cycle of Axin and APC”
Reference	Not available
Category	Parameter scan
Study	Krüger and Heinrich 2004

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SD2 Data

Type	Label
Description	Simulation results of SE2
Reference	Figure 3 [B]
Related to	SE2
Study	Krüger and Heinrich 2004

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