Results of the Qualitative Data Synthesis	
Phase	Pain Point
Model-driven approach definition	I could not choose the modeling tool I wanted because of, *e.g., cost, expertise, culture, or bureaucracy.*
	My stakeholders resisted adopting modeling, a modeling language, or a tool because, *e.g., they did not think it was worth it or I could not show its value.*
	I was not sure which modeling tool to choose because, e.g., there were many alternatives, too many features, or the requirements were not clear.
	I could not find a model-driven methodology ready to use.
	I struggled to find a model-driven methodology that suited the needs of my stakeholders and was technically sound.
	It was costly* to define the model-driven approach because, *e.g., my company did not have a modeling culture or I was not knowledgeable enough.* * Costly = Time, money, cognitive effort.
Requirements Elicitation	I could not properly define the model requirements because, *e.g., my stakeholders did not know exactly what they needed or the domain was unfamiliar to me.*
	It was costly to define the model requirements because, *e.g., there were too many stakeholders.*
Knowledge Acquisition	It was costly to learn the project's domain of interest because, e.g., *I did not have experience in extracting domain knowledge from experts or they were not sufficiently available.*
	It was costly to negotiate a common definition among the experts about a concept of the project's domain of interest.
	I was insecure about my knowledge about the project's domain of interest because, *e.g., the domain was complex or the experts were not reliable.*
Model Creation	I could not accurately represent the project's domain of interest because, *e.g., the language was not expressive enough or the tool did not fully implement the language.*
	I found it difficult to use the tool I had chosen. I did not know how to handle its features. It was complicated and had some bugs.
	I was the only one on the team with experience in modeling. So I did everything myself. I wish I had had someone to discuss the challenges.
	I wanted to reuse an existing model, but I had to redraw it from scratch.
	I did not know the right time to stop modeling. I was unsure if my model was ready to be used and had everything needed.
	I could not make one of my diagrams look good.
	I could not clarify my doubts about the language I had chosen because, *e.g., there is no reference material (e.g. manuals, books) or community forum.*
	I was not sure which classes and relations should go in my diagram.
	I did not know how to increase my model's comprehensibility.
	I changed something in a class and then had to reorganize several diagrams in which the class occurs.
	Creating the model took more effort than I expected, which resulted in unforeseen costs.

Results of the Qualitative Data Synthesis	
Phase	Pain Point
Model Creation	Writing definitions for the elements in my model was hard and boring.
	It was costly to manually split the model into visually appealing and understandable views (diagrams).
	I was not comfortable using the language I chose because, *e.g., it was not intuitive, I did not have enough training, or I did not know logic.*
	My colleagues did not consider it important to document the model and did not understand my efforts to do so.
	I was not sure how to document my model.
	I wanted to reuse an existing model, but I had difficulty understanding it because, *e.g., I only had access to part of it or it was poorly documented.*
Model Testing and Evaluation	I verified my model but did not understand the errors in it.
	The tool I chose did not support model verification. My model was large and complex and verifying it by myself was not trivial.
	I verified my model but did not know how to solve the errors in it.
	I was not sure if my model was good enough.
	My model was under- and/or over-constrained and I did not know how to fix it!
	I had difficulty explaining my model to my stakeholders/domain experts.
Model Implementation	I was the only one on the team interested in using and reusing the model.
	The model was insufficient to achieve its application objective and I had to rework it.
	My model was not (re)used because, *e.g., my colleagues could not or did not want to use or it was not ready on time.*
	I felt like I was repeating myself when manually creating my database schema (or OWL vocabulary).
Model Verbalization	It was costly to generate verbalizations of my model suitable for the different audiences that should be able to read and use it.
Model Maintenance	The model has become too complex and too costly to maintain because, *e.g., the tool did not support documentation or there were too many elements.*
	I left the project and there was no one to maintain the model.

Total = 41 Pain Points