

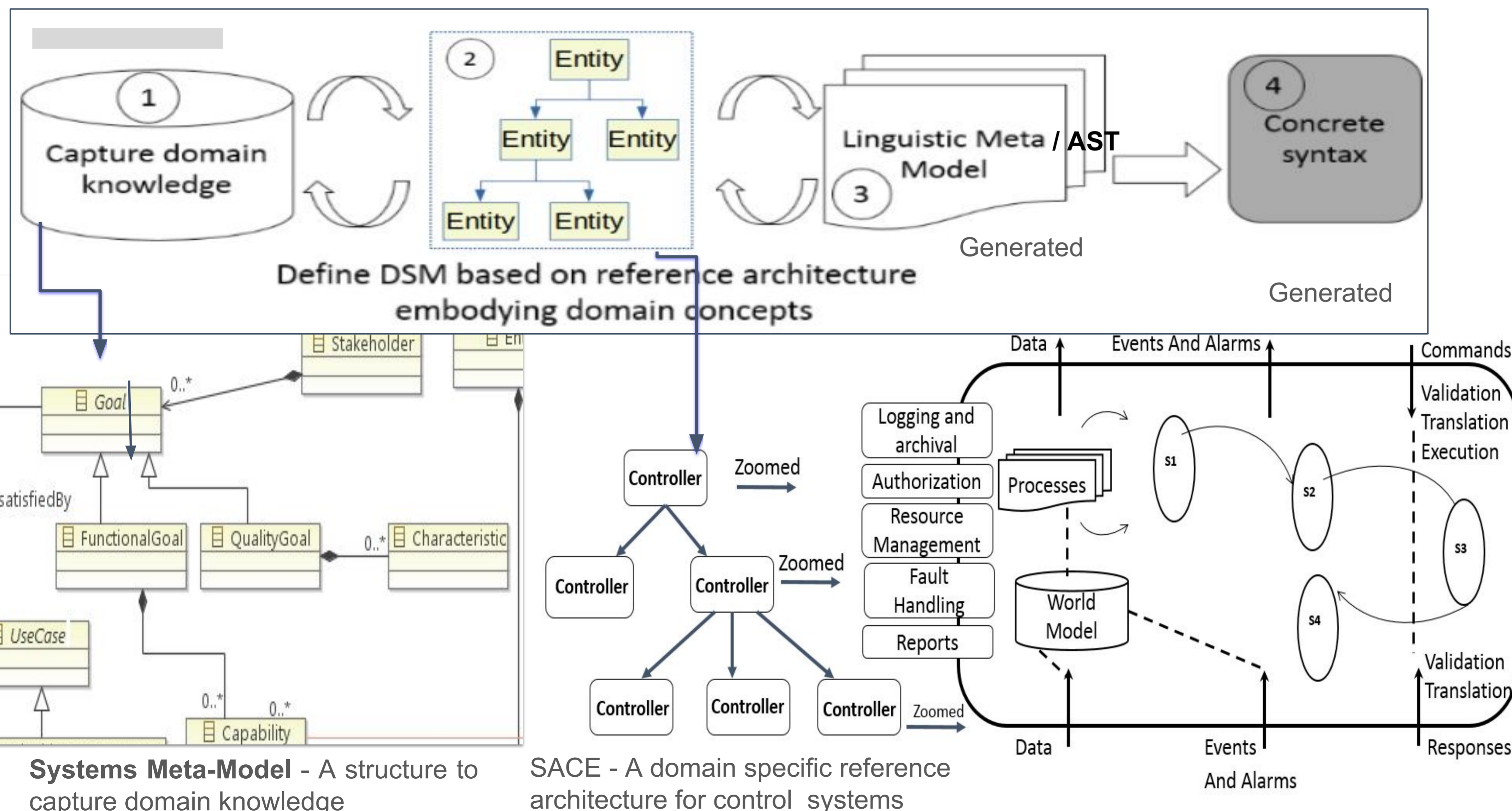


## Methodology to Develop Domain Specific Modeling Languages

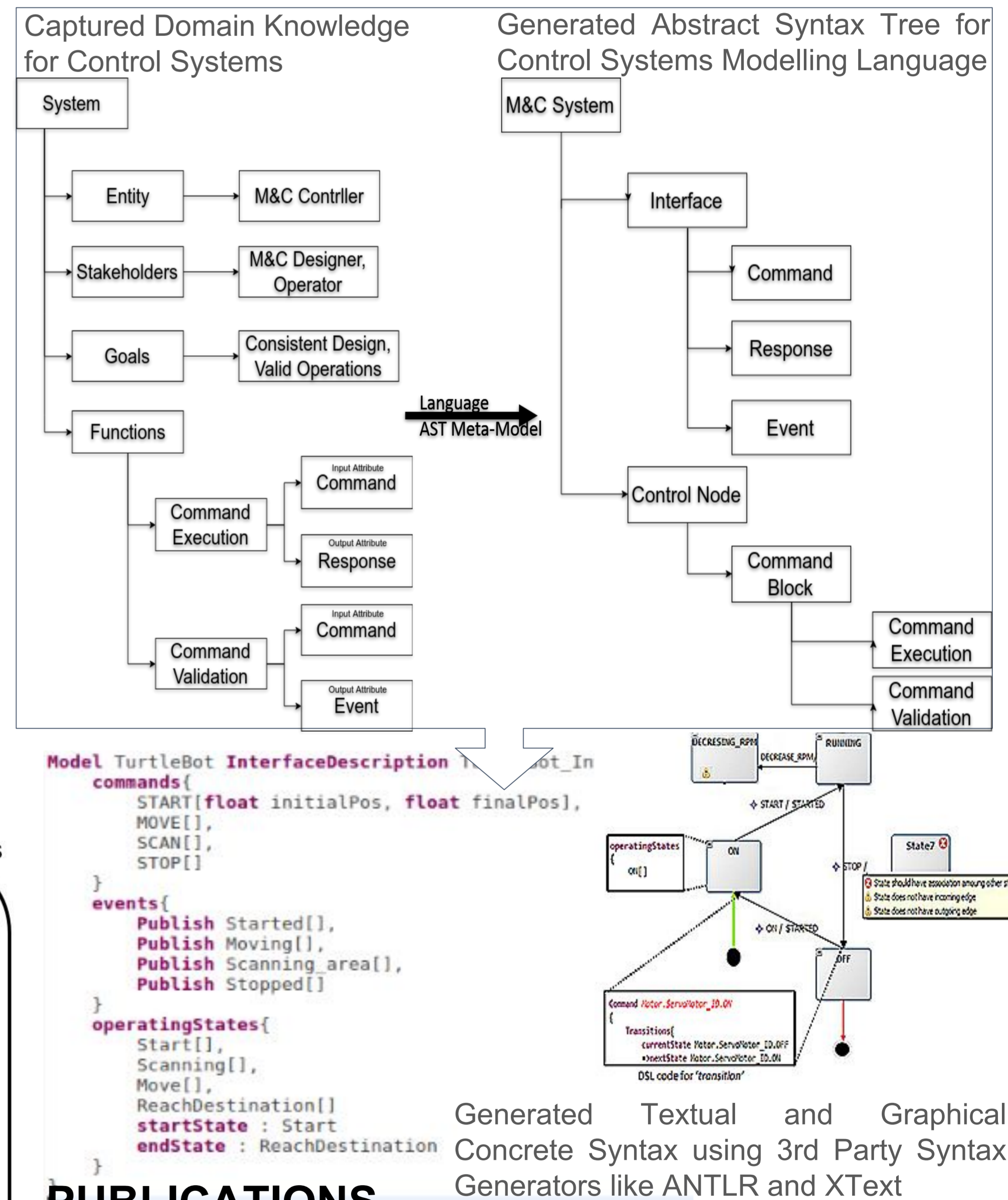
### ABSTRACT

Domain Specific Modeling Languages (DSML) significantly improve productivity in designing Computer Based Systems, by enabling them to be modeled at higher levels of abstraction. It is common for large and complex systems with distributed teams, to use DSMLs, to express and communicate designs of such systems uniformly, using a common language. Developing a new DSML, is non trivial, as it requires (a) significant knowledge about the domain for which the DSML needs to be developed, as well as (b) skills to create new languages. In the current practice, DSMLs are developed by experts, who have substantial understanding of the domain of interest and strong background in computer science. One of the many challenges in the development of SMLs, is the collection of domain knowledge and its utilization is to define the abstract syntax tree(AST). Our approach enables a systematic approach to generate the AST for a DSML from domain knowledge.

### METHOD



### APPLICATION : A Control Design Language



### PUBLICATIONS

- Roy Chaudhuri S, Natarajan S, Banerjee A, Choppella V., *Methodology to develop domain specific modeling languages*, in ACM SIGPLAN International Workshop on Domain-Specific Modeling 2019