Background - Why
One of the key enablers for model-based systems engineering is a consistent set of languages, graphical notations and their semantics, modelling methods and model transformations. ModelicaML is an attempt to answer to these needs by providing the engineers with an integrated system modelling environment that is based on standardized languages such as UML and Modelica. Modelica Modeling Language (ModelicaML [1]) is a graphical modeling language for the description of time-continuous and time-discrete/event-based system dynamics. ModelicaML is defined as an extended subset of the OMG Unified Modeling Language (UML). This subset enables the generation of executable Modelica code. ModelicaML is an alternative way for authoring Modelica models. It extends the graphical modeling capabilities of Modelica by providing more diagrams (UML diagrams for presenting the composition, connection, inheritance or behavior of classes) for graphical model definition or documentation. Moreover, ModelicaML incorporates concepts for formalizing and evaluating system requirements during system simulations.

What
Presently, the ModelicaML code generator is implemented using the old Acceleo framework [3]. Based on this prototype, the task of this project is to re-factor and
implement the ModelicaML code generator by using the latest Acceleo version 3.x [4].

**How**
The Master thesis is done at Linköping University, Dept. for Computer Science and Information Science, in cooperation with EADS Innovation Works in Hamburg (Germany).

Supervisor: Dr. Adrian Pop, IDA, Linköping University, 58183 Linköping
E-mail: adrpo@ida.liu.se
Tel: +46 (0)13 285781
Other Contacts: Prof. Peter Fritzson, IDA, Linköping University, 58183 Linköping
E-mail: petfr@ida.liu.se

Contact person at EADS IW: Wladimir Schamai, EADS IW, Nesspriel 1, 21129 Hamburg, Germany
E-mail: Wladimir.Schamai@eads.net
Tel: +49 40 743 84 254

The Master thesis work is for one student.

When: Now.

**References**