



## Company Profile

Leo Gall

Mittwoch, 21. September 2016

## LTX Simulation GmbH

---

- Focus on **system simulation**
- Full service: **engineering, training, consulting, sales**
- Incorporated in 2014
- Owners: Leo Gall, TLK-Thermo GmbH, XRG Simulation GmbH
- CEO: Dipl.-Ing. Leo Gall
- Started with 3 employees
- Based in **Munich, Germany**

## Dipl.-Ing. Leo Gall

---

- Studied Mechanical Engineering at **Technical University of Munich (TUM)**
  - Energy systems and simulation/control
  - Worked with TUM (Dymola, BMW cooling circuit), CENIT (CATIA/Dymola)
  - Internships at DaimlerChrysler (Stuttgart), Qtronic (Berlin)
  - Diploma Thesis: Dynamic model of coal fired boiler (Siemens Energy, Erlangen)
- **BAUSCH-GALL GmbH**
  - 1999-2010: Part time in parent's company
  - 2011-2015: Project and sales engineer
  - 2014: Became owner together with Hans Gall (Dr. Ingrid Bausch-Gall retired)
  - Various Industry and research projects (CleanSky, MODRIO)
- **LTX Simulation GmbH**: CEO since 2014
- Member of Modelica Association

## Business Areas

---

### Modelica Technology and Methods

- **Sales for Dymola, Modelica Libraries** and Add-on Tools
- **Support for Dymola Users**
- **Consulting** for Modelica and FMI
- **Training** for Modelica and Dymola

### Projects and Engineering Services

- **Research and development projects**, focused on customers in southern Germany
- Development of customized model libraries
- Heating, cooling, air-conditioning in automotive, power plant and building applications

# Partner Companies



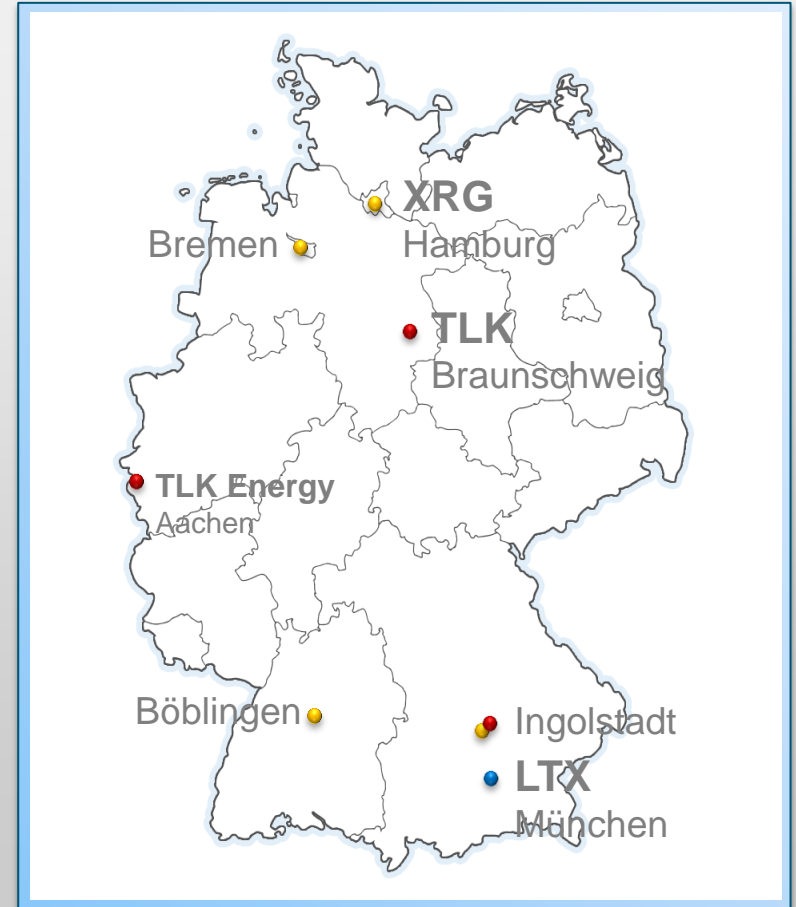
- Founded in 2003, about 30 employees
- Engineering services and software for thermal systems



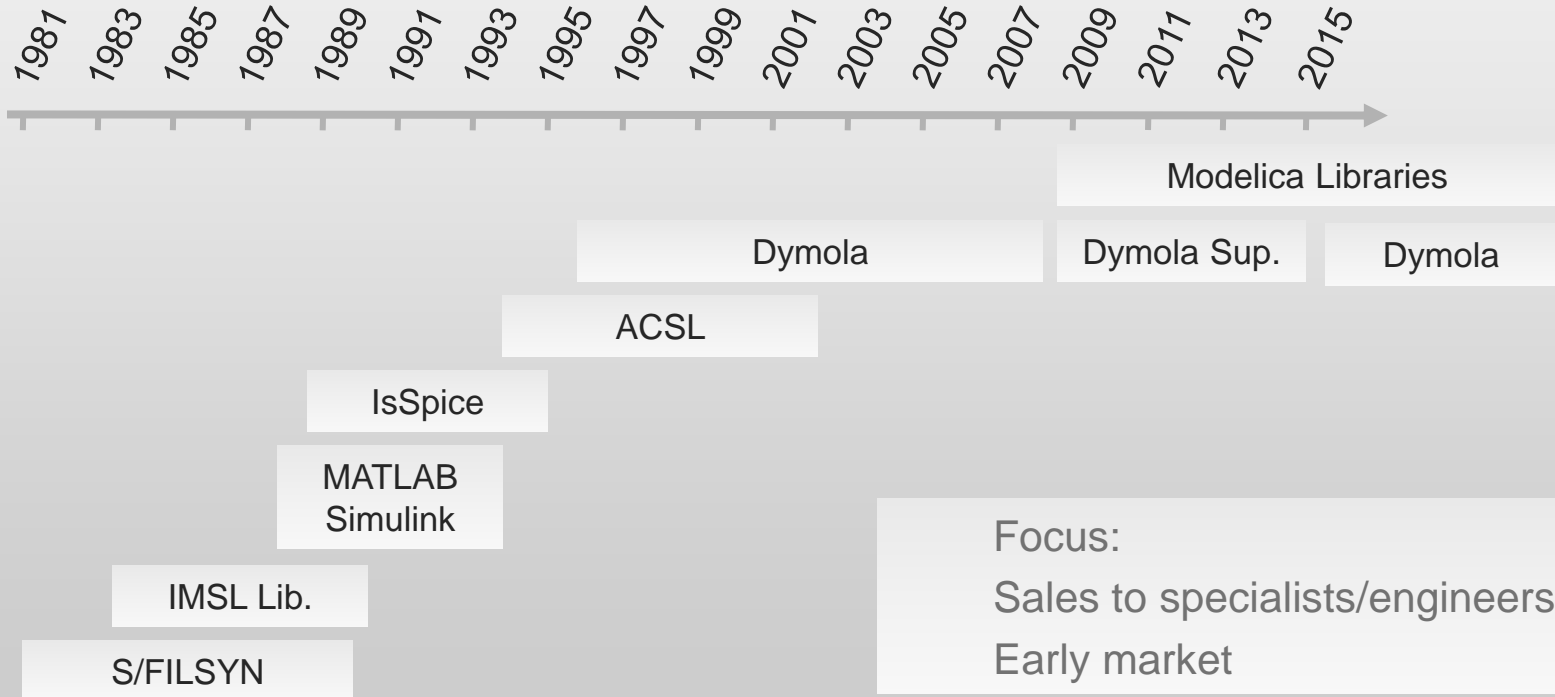
- Founded in 2005, about 20 employees
- Specialists for energy systems

## **BAUSCH-GALL GmbH**

- Founded in 1987, about 4 employees
- System simulation (sales, classes, projects)



## Company Background: BAUSCH-GALL GmbH





# Modelica Libraries - distributed by LTX

---

<b>AlternativeVehicles</b>	Hybrid Vehicle Power Trains, Battery-Electric and Fuel-Cell Vehicles
<b>Belts</b>	Static and Dynamic Analysis of Belt Drive Systems
<b>BG_RT</b>	Real-Time Simulation with Standard DAQ Cards
<b>EDrives</b>	Modular, Multi-phase Controlled Electric Drives – new
<b>FlexibleBodies</b>	Flexible Beams, Annular Plates and general FE-based Bodies – enhanced
<b>HumanComfort</b>	Human Comfort within Air-Conditioned Zones – enhanced
<b>HVAC</b>	Heating and Cooling Systems in Buildings – new
<b>Hydronics</b>	Incompressible Thermo-Hydraulic Fluid Systems – enhanced
<b>PowerTrain</b>	Vehicle Power Trains and Planetary Gearboxes with Losses
<b>Statistics</b>	Definition of Statistical Variations of Parameters and Variables
<b>Visualization</b>	Advanced, Model Integrated, Offline and Real-Time Visualization – enhanced

- Ready-to-use modeling know-how
- Developed by DLR, Fraunhofer, XRG and individual developers



## BAUSCH-GALL GmbH - continued by Hans Gall

---

- Transformers for EMC testing and radio applications
  - 10 W to 10 kW
  - 10 kHz to 50 MHz
  - Development and production
  - [www.bausch-gall.de/trltrf](http://www.bausch-gall.de/trltrf)
- Modeling software for electronic circuit design
- Training classes for PSpice, LTspice



## LTX und Modelica Association, Forschungsprojekte

---

- Organisatorisches Mitglied der MA seit 09/2015
- Regressionstest für MSL Releases
- Vorschlag für Standardisiertes Result File Format (MTSF) (Pfeiffer, Bausch-Gall, Otter)
- Forschungsprojekt PARADOM mit Fokus OpenModelica

# Workshop ASIM/GI—Fachgruppentreffen

9./10. März 2017 Ulm

Simulation technischer Systeme—

Grundlagen und Methoden in Modellbildung und Simulation

Hochschule Ulm



University of  
Applied Sciences



## Thematische Schwerpunkte und Ansprechpartner

- ◆ **Simulation mechatronischer Systeme**  
Heinz-Theo Mammen: [heinz-theo.mammen@hella.com](mailto:heinz-theo.mammen@hella.com)
- ◆ **Simulation in der Robotik / Steuerungstechnik**  
Thorsten Pawletta: [thorsten.pawletta@hs-wismar.de](mailto:thorsten.pawletta@hs-wismar.de)
- ◆ **Modellbasierte Funktionsentwicklung**  
Walter Commerell: [commerell@hs-ulm.de](mailto:commerell@hs-ulm.de)
- ◆ **Simulation in der Elektronikentwicklung**  
Joachim Haase: [joachim.haase@eas.iis.fraunhofer.de](mailto:joachim.haase@eas.iis.fraunhofer.de)
- ◆ **Simulation in der Energietechnik**  
Ansprechpartner folgt

- ◆ **Simulation in der Medizintechnik**  
Ansprechpartner folgt
- ◆ **Modellierungssprachen (Modelica, VHDL, AMS, etc.) und Standards**  
Klaus Panreck: [klaus.panreck@fh-bielefeld.de](mailto:klaus.panreck@fh-bielefeld.de)
- ◆ **Grundlagen und Methoden in Modellbildung und Simulation**  
Thorsten Pawletta: [thorsten.pawletta@hs-wismar.de](mailto:thorsten.pawletta@hs-wismar.de)
- ◆ **Mathematische Verfahren in Modellbildung und Simulation**  
Michael Striebel: [michael.striebel@htwg-konstanz.de](mailto:michael.striebel@htwg-konstanz.de)
- ◆ **Simulation thermischer Systeme**  
Leo Gall: [leo.gall@ltx.de](mailto:leo.gall@ltx.de)

# Contact

---

## LTX Simulation GmbH

Wohlfartstraße 21 b  
80939 München  
Deutschland

Tel.: +49 89 20 97 00 55  
[leo.gall@ltx.de](mailto:leo.gall@ltx.de)

[www.ltx.de](http://www.ltx.de)

