SIEMENS

CAPE-OPEN
ANNUAL MEETING 2020

PRESENTERS

SIEMENS

Name:
Anusha Gurrapu

Company:
Siemens Digital Industries Software

Department:
Simcenter

Position:
Team Lead | Software Engineer

DOW

Name:
Bjoern Altendorf

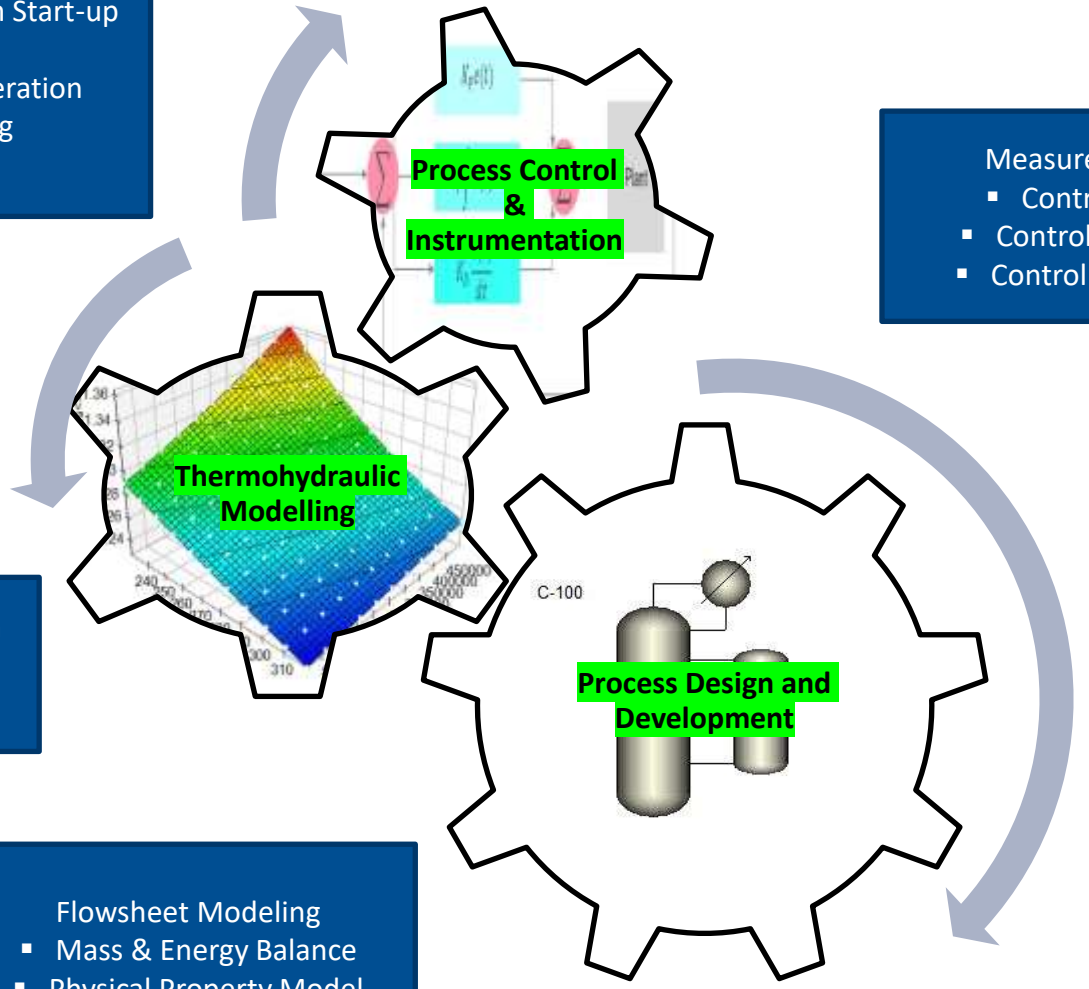
Company:
Dow Olefineverbund GmbH, Schkopau, Germany

Department:
TES Process Engineering Technology Group

Position:
Fluid Mechanics & Mixing Technology Expert | Reaction Engineering Subgroup Lead

IDEATION: UNIFIED PROPERTY DATA FROM FLOWSHEET TO EQUIPMENT DESIGN

Safe & Reliable plant operation from Start-up to Maximum Capacity
- Steady State and Transient operation
- Upset condition screening
- Surge Evaluation

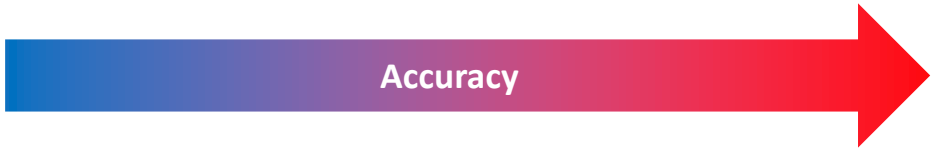


Measure & Control
- Control Strategy
- Control Loop Tuning
- Control Optimization

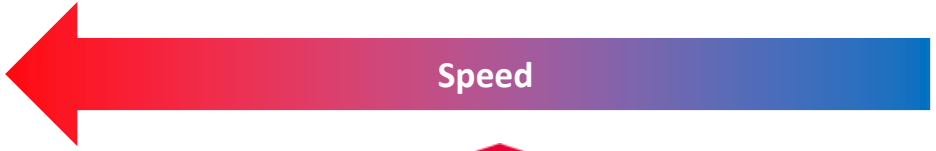
Most effective plant design
- Minimum Cost Plant
- Design for Capacity

Flowsheet Modeling
- Mass & Energy Balance
- Physical Property Model

SIMCENTER FLOMASTER: PHYSICAL PROPERTY GENERATION WORKFLOWS



Use of Integrated Physical Property Data	Use of NIST Database	Use of Proprietary Data
• Fast and easy data generation • Limited number of components • Property data for mixtures differs from in-house data	• Pure components • Limited amount of mixtures • Data generation fairly simple	• Generate data in proprietary platform • High-accuracy data reviewed by internal Property SME's • Manual data transfer tedious and prone to error



SIMCENTER FLOMASTER FOR ACCURATE PIPING SYSTEM ENGINEERING

- **Comprehensive solution for thermo-fluid systems of any size and complexity**

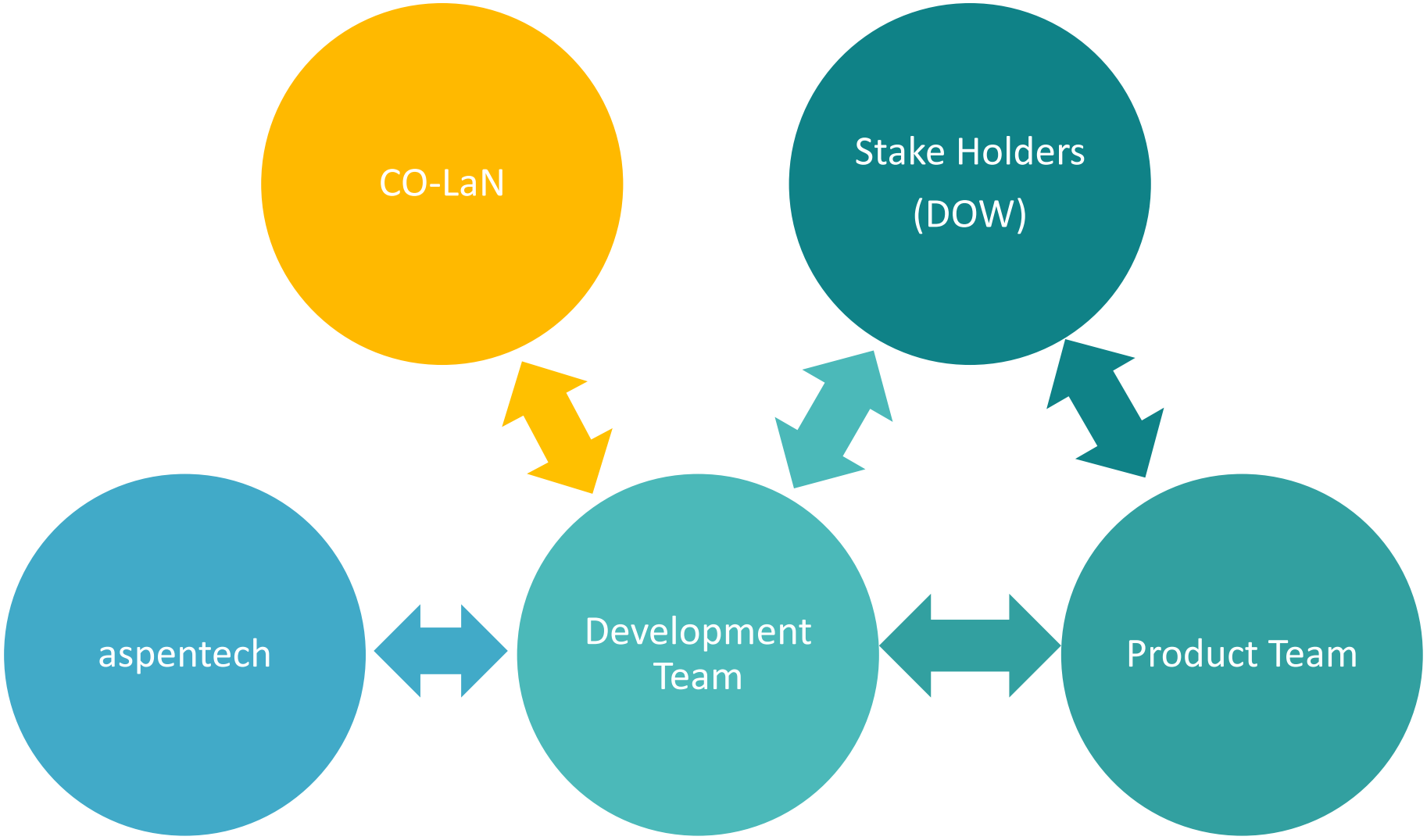
Build
thermo-fluid system digital twin

Understand
system behaviour anytime, anywhere

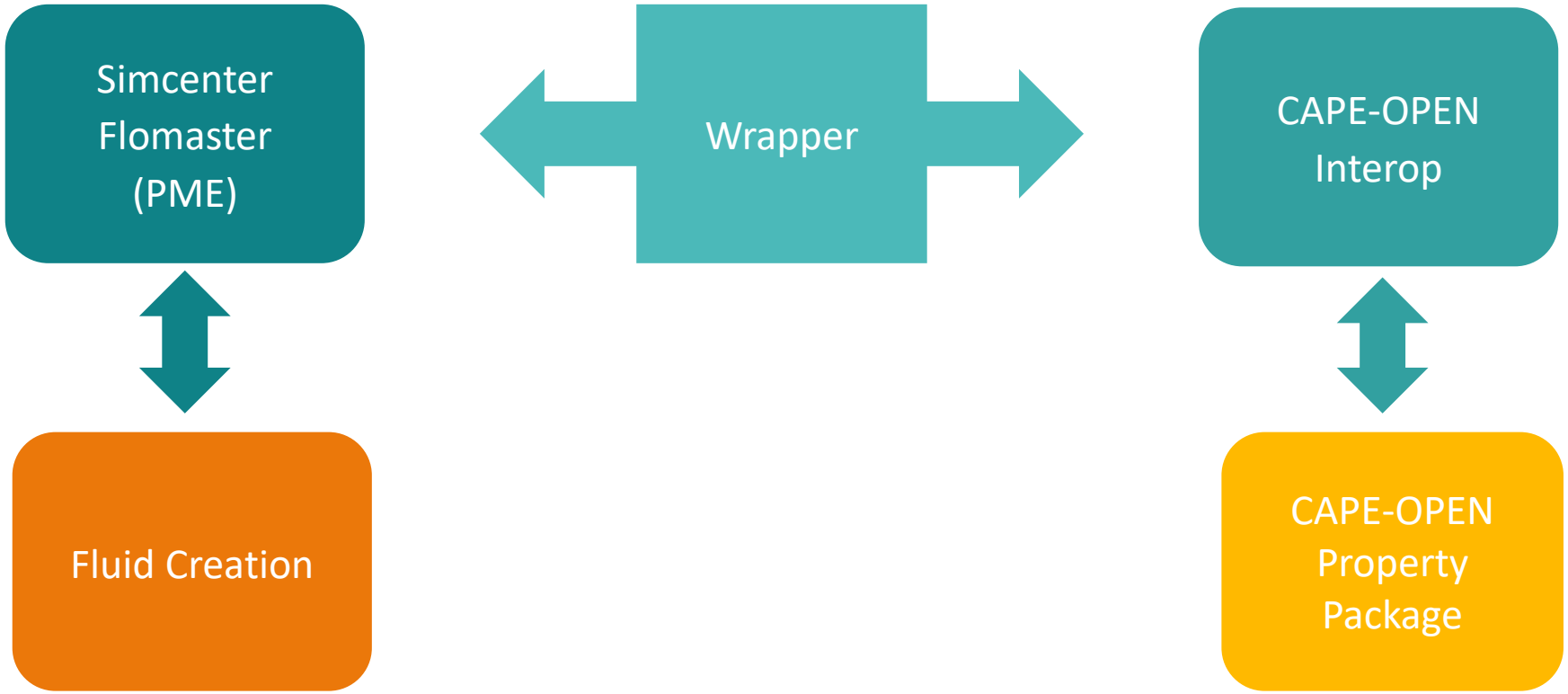
Reduce
risk, costs and the development cycle

SIMCENTER FLOMASTER SAMPLE SYSTEM

HOW WE WORKED WITH DOW



HIGH LEVEL ARCHITECTURE

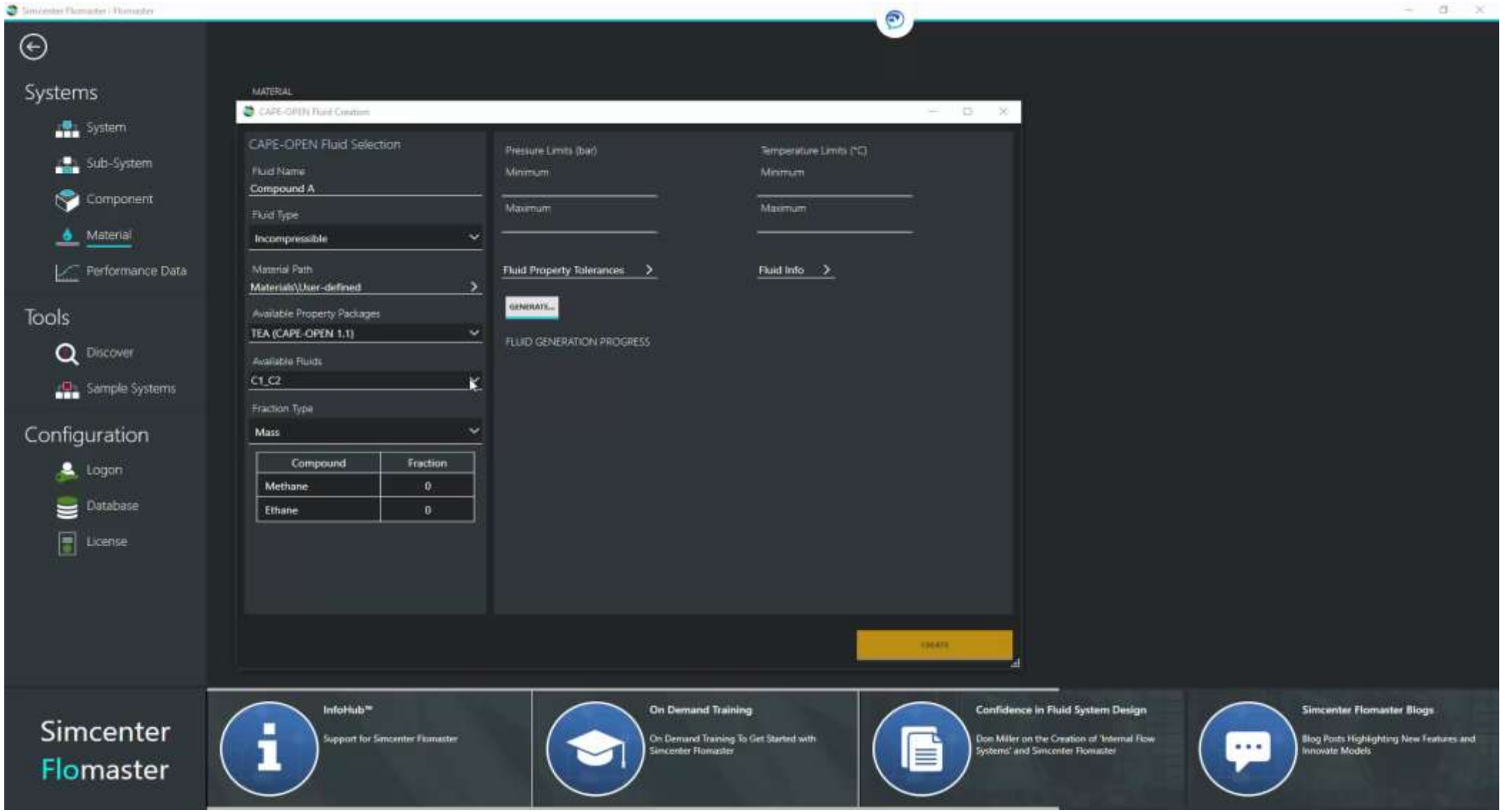


Development Timeline

January 2020

October 2020

DEMO - SIMCENTER FLOMASTER FLUID CREATION USING CAPE-OPEN



Seek

Together™