

3DS and CO-LaN

CAPE-OPEN Annual Meeting 2021 27. + 28. October, 2021



Our company



A purpose-driven company

Combining Art, Science & Technology for a more sustainable world

20,000 passionate people

From 133 countries 188 sites One global R&D / 69 labs



Majority shareholder control Revenue: €4,5 billions*
Operating margin: 30,2%*

*Figures as of FY 2020 / Non-IFRS

12,260 partners

Software, Technology & Architecture
Content & Online services
Sales
Consulting & System Integrators (C&SI)
Education
Research



290,000 customers

11 industries in 140 countries26 million usersGame-changing3DEXPERIENCE platform



Our legacy



1981 **3D Design** 1989
3D DMU
Digital
Mock-up

1999
3D PLM
Product Lifecycle
Management



2012
3DEXPERIENCE®
platform



2020 Virtual Twin Experience of **Humans**



BIOVIA Solvation Chemistry - COSMO-RS

Predict the properties of molecules in solution



Polymers & Petrochemicals



Coatings



Fertilizers & Agrochemicals



Fragrances



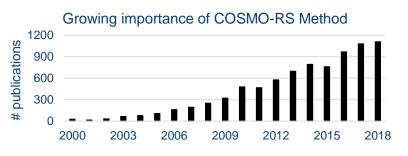
Food & Beverages



Pharmaceuticals

COSMO-RS provides the theory researchers need to understand the fluid thermodynamics which underlie their product's properties

- ► Market leading developer of COSMO-RS based methods
- Continued development of underlying theory and applications





BIOVIA Solvation Chemistry

A Short History



COSMOSPLIT

by AmsterChem

COSMOtherm CO

CAPE-OPEN compliant

ICapeThermoPropertyRoutine

BIOVIA Pipeline Pilot integration

3DEXPERIENCE

platform integration

Theory refinement and

Ongoing theory and solution development

2020 -



First publication of COSMO-RS

COSMOlogic starts with COSMOtherm in 1999

1995 - 1999



Strategic partnership with TURBOMOLE

Product UIs are launched, COSMObase is introduced

2005 - 2009



2015 - 2018

solution development

COSMOperm

membrane permeation

1991 - 1994

COSMO & COSMO-RS invented by Andreas **KLAMT**



2000 - 2004

Conformer handling in **COSMOtherm**

A lot of solvers and property predictions introduced

> **Ionic Liquid** applications

2010 - 2014

New best quality **BP-TZVPD-FINE level**

COSMOmic COSMOquick, COSMOsim3D/sar3D **COSMOconf**

2019 - 2020

COSMOlogic is acquired by 3DS (BIOVIA) ಬ್

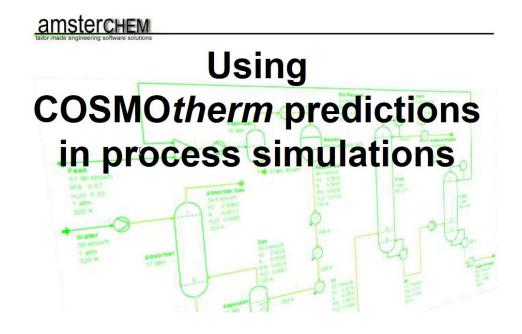
COSMOplex for inhomogenous systems



COSMOSPLIT

Developed by Jasper van Baten / AmsterChem

Details presented at the 2019 CAPE-OPEN Annual Meeting by Jasper:



http://www.colan.org/wp-content/uploads/2019/10/Y19_COEU_COSMOsplit.pdf



Our purpose

Dassault Systèmes provides business & people with **3D**EXPERIENCE® universes to imagine sustainable innovations capable of **harmonizing product**, **nature** and **life**.





3DEXPERIENCE® platform

Social & Collaborative

Information Intelligence

3D Modeling

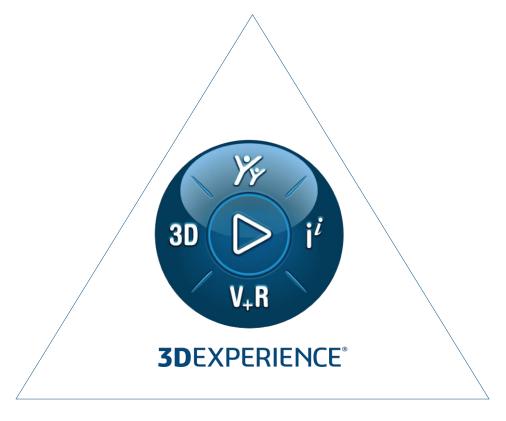
Real time 3DEXPERIENCE®

3DEXPERIENCE®



Chemical Process Development | 3DEXPERIENCE platform

Solutions



- ➤ **3DEXPERIENCE** at the heart of companies product development cycles
- ► BIOVIA at the heart of research and development
- ► An integrated platform for solutions, computing and data

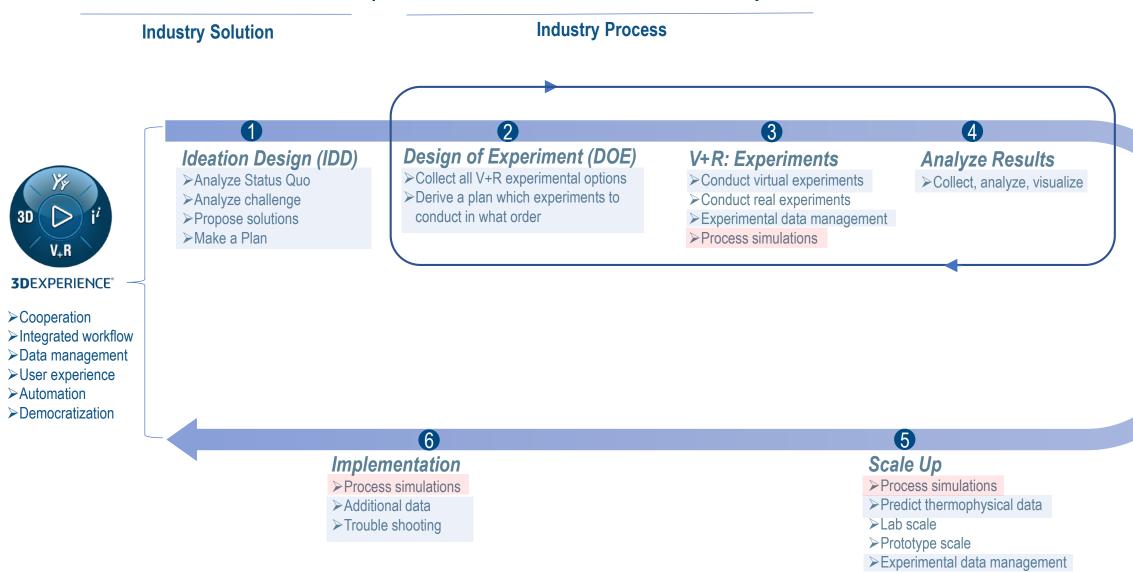
 - > Archiving data

Data

Computing



Materials Excellence | Chemical Process Development

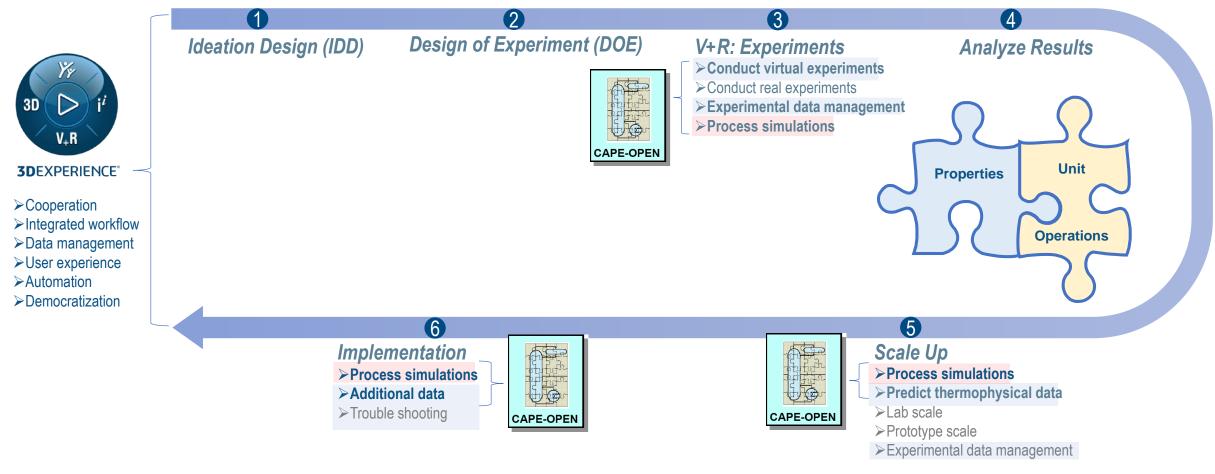




Materials Excellence | Chemical Process Development

Industry Solution

Industry Process





Who?

Frank ECKERT (frank ECKERT (frank.eckert@3ds.com) BIOVIA Solvation Chemistry R&D ... more colleagues from other 3DS brands to follow





