

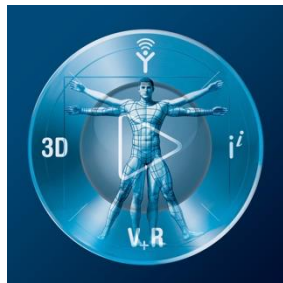


3DEXPERIENCE®

BIOVIA Science Council

Introduction and Overview

Dassault Systèmes | The 3DEXPERIENCE Company



a Scientific company

Combining **Science**, **Technology** and **Art** for a sustainable society



17,000 passionate people

- 130 nationalities
- 181 sites
- One global R&D / 64 labs



250,000 customers

- 11 industries in 140 countries
- 25 million users
- Game-changing 3DEXPERIENCE solutions



12,600 partners

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



Long-term driven

- Majority shareholder control
- **Revenue:** €3,488 million*
- Operating margin: 31,8%*

BIOVIA Mission

 **BIOVIA** | Virtual BioSphere and Materials

BIOVIA provides a **scientific** collaborative environment for advanced biological, chemical and materials experiences.

The sophisticated enterprise system of modeling, simulation, laboratory and quality management enables **innovation** for science-based industries.

BIOVIA – A Science-based Brand

“BIOVIA is committed to speeding innovation for science-driven organizations, from product ideation through commercialization.”

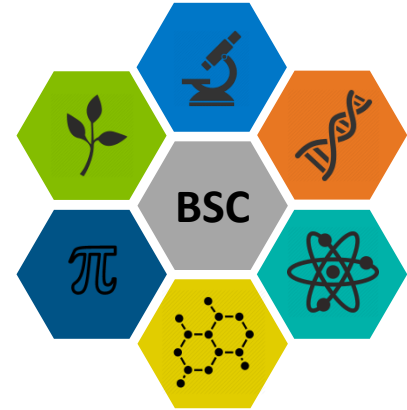
BIOVIA aim to be at the scientific forefront in the fields of science relevant to our customers.

The BIOVIA Science Council (BSC) is guiding and coordinating the scientific efforts of BIOVIA.



BIOVIA Science Council – Mission

- Provide **scientific guidelines and directions** for BIOVIA in the domains of Virtual BioSphere and Materials, by covering applied science innovation and strategy, from discovery to commercial production.
- Ensure **scientific excellence & leadership** for all chemical, material and biology based industries.
- Promote **value and prestige** for Dassault Systèmes scientific communities and solutions.



BIOVIA Science Council – Equity Pyramid

WHO

3DS and BIOVIA
Science Driven Industries
Customers R&D, Functional Teams

WHAT

Providing Scientific Leadership,
Guidelines and Directions for
Virtual BioSphere & Materials

HOW

Executive and Product Specific Scientific
Meetings, Publications, PR, Experiences,
Scientific Advisory Board, External Collaborations

BIOVIA Science Council – Areas of Expertise

LifeScience Research

Scientific support for product development in the Life Science Research. Focusing on Virtual screening, Structure based Drug design, Pharmacophore modelling, Protein and anti-body modelling, Force-Field based intelligence, Artificial Intelligence applied to Drug design.

Materials Science

Scientific support for product development in the Materials Science sector. Particular focus on Multiscale modelling of Materials to build a bridge between BIOVIA, SIMULIA and CATIA. This is part of the strategic initiatives on battery design and additive manufacturing at 3DS.

Data Science/ Statistics

Applications of automated data science workflows, research methods, and statistical methods to make meaningful, data-driven business decisions in scientific industries.

BIOVIA Science Council – Members

Life Sciences Research



Dr. Hugues-Olivier Bertrand
Senior Fellow and Head of BSC

Expertise in

- Protein modeling
- Simulations of macromolecules
- Virtual screening
- Structure-based drug design



Dr. Anne Goupil-Lamy,
Fellow of BSC

Expertise in

- Protein modelling
- Molecular dynamics simulations of macromolecules
- Antibody design
- Structure-based ligand-based design projects.



Dr. Prabhu Raman ,
Fellow of BSC

Expertise in

- Computer-Aided Drug Design (CADD)
- Force-field development
- Protein folding and aggregation.

BIOVIA Science Council – Members

Materials Science Research



Dr. Victor Milman
Senior Fellow of BSC

Expertise in

- Quantum-mechanical modelling of materials



Dr. Marc Meunier
Fellow of BSC

Expertise in

- Nanodielectrics
- Simulation of polymeric materials
- Materials modelling



Dr. Johan Carlsson
Fellow of BSC

Expertise in

- Electronic structure calculations
- Modeling of batteries
- Modeling of carbon based materials

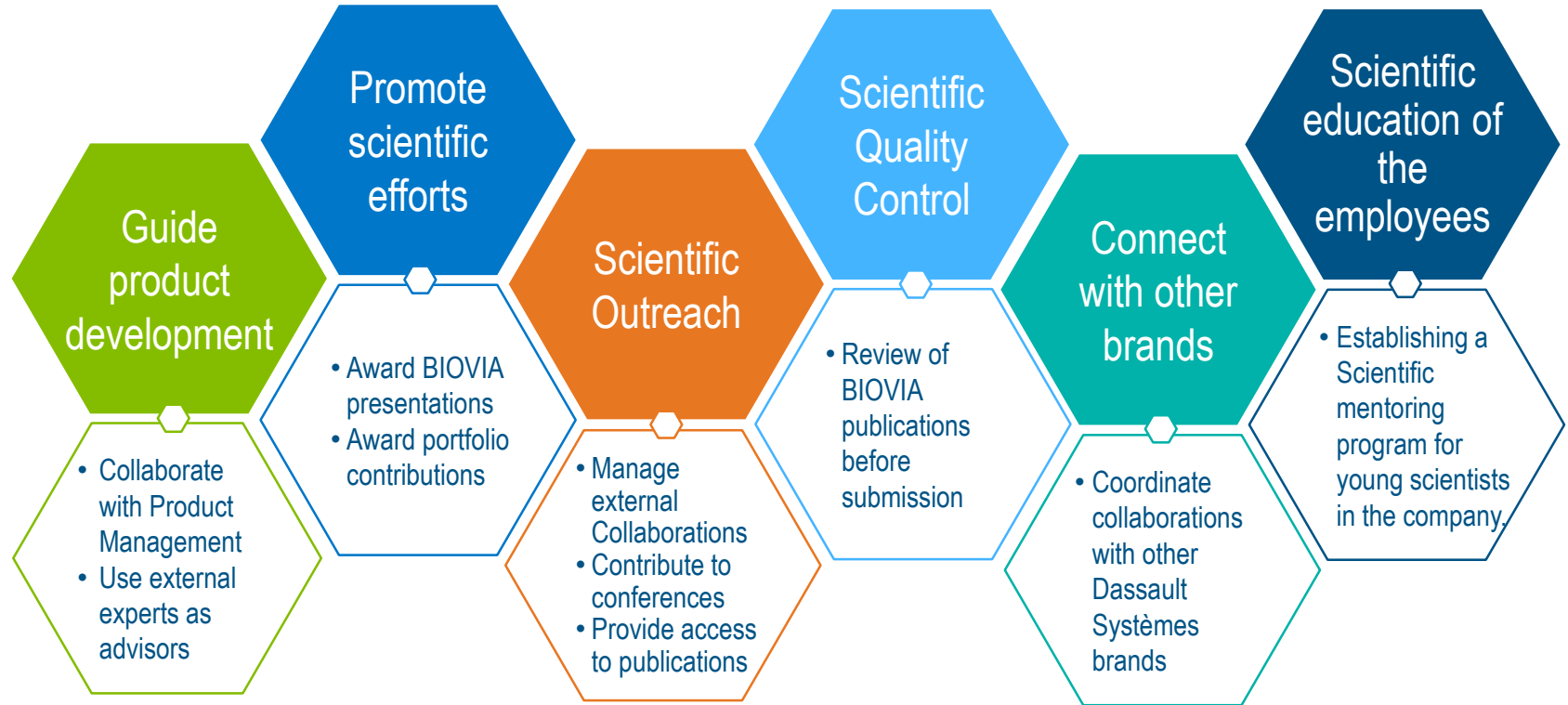


Dr. Felix Hanke
Fellow of BSC

Expertise in

- Quantum-mechanical modeling of chemical reactions
- Multiscale modeling of batteries

BIOVIA Science Council – Activities



BIOVIA Science Council Programs

Access to Literature for Our Scientists



A Significant Scientific Asset

- Since 2010: 169 publications / 119 talks & posters at external scientific events
- Since 4 years, scientific production is declining !
- Policy and Incentive
- Do not hesitate to reach out to the BSC

Coordination of External Scientific Collaborations



- Ambassador program (completely revamped)
- Partner in EU funded projects
- PhD Program (France & UK) and Internship program (France)

Scientific Promotion of BIOVIA' Science



- Webinars / ASTS
- CECAM workshops
- BIOVIA User Conferences (US / Europe)
- 3D Experience Lab
- COMPASS magazine

BIOVIA Research Collaborations

