



# SCIENTIFIC CONSULTING AND CONTRACT RESEARCH

Datasheet



# STRATEGIC PARTNERSHIPS DRIVE INNOVATION THROUGH DEEP SCIENCE

In today's biotech/pharmaceutical, chemicals and materials industries, R&D teams are looking for agile and novel ways to improve products, processes and performance. The need to minimize developmental bottlenecks that increase the cost and time required to bring new products to market is always a primary concern. In-house scientists are often fully engaged in projects and do not have the time, resources or expertise to assess and implement modeling/simulation and computational approaches to product design and development. To address these challenges, Dassault Systèmes offers flexible Scientific Consulting and Contract Research engagements to meet the needs of industries. The program leverages advanced modeling/simulation and computational science techniques, as well as the deep scientific knowledge and know-how of experts at Dassault Systèmes, to improve research productivity and help organizations accelerate successful products to market.

## ACCELERATE INNOVATION, DESIGN & DEVELOPMENT

### Do you need to:

- Search chemical space more cost-effectively?
- Improve lead optimization or structural characterization?
- Reduce time-consuming and costly experimental laboratory work?
- Identify key chemical interactions driving enhanced property design and prediction?
- Accelerate your IP patent process through improved understanding of key discovery pathways?

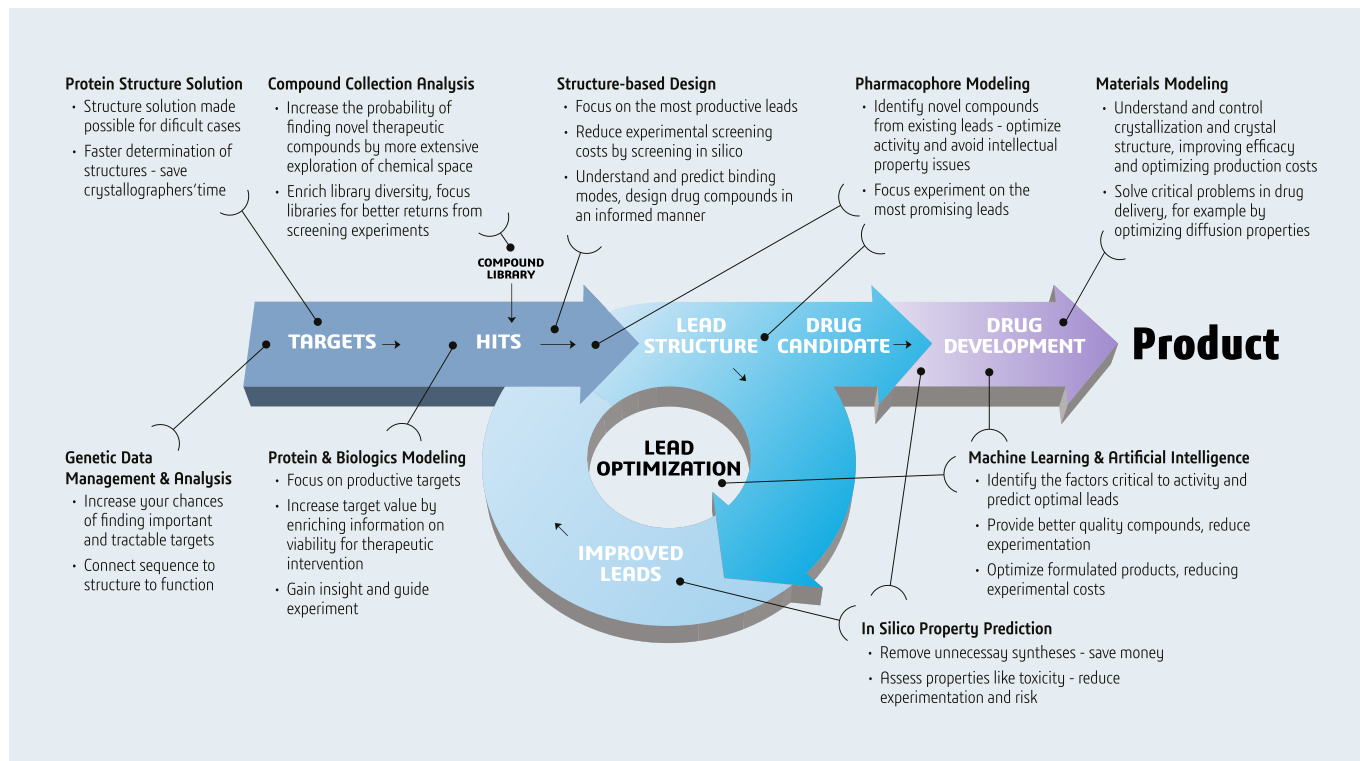
### Extend your reach with deep-science simulations:

- Understand key chemical processes better
- Accelerate discovery processes
- Improve product performance
- Probe experimentally intractable areas
- Optimize process conditions
- Gain key insights to help direct experiments

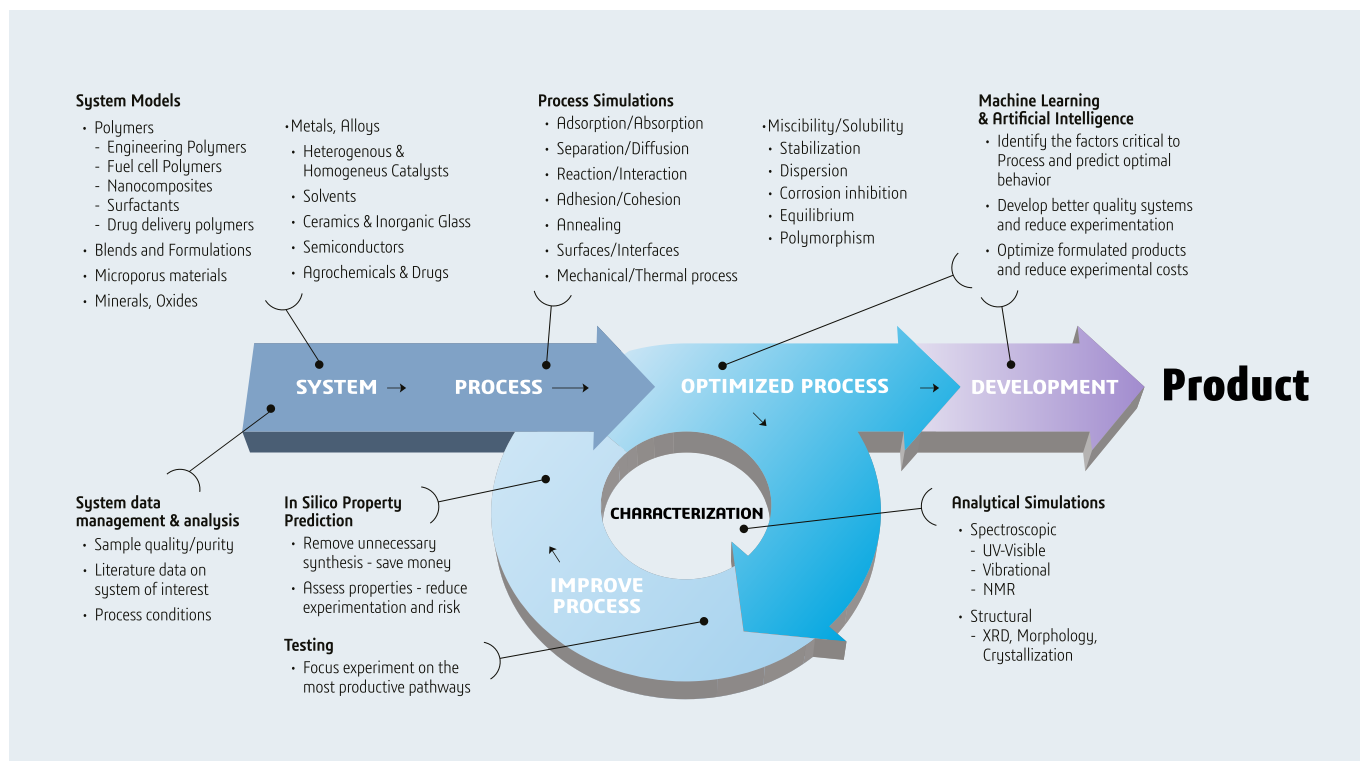
Dassault Systèmes can handle complex systems, numerous processes, multiple characterizations and varied data.



## FOR LIFE SCIENCE & HEALTHCARE INDUSTRIES



## FOR CHEMICALS & MATERIALS INDUSTRIES





## **COST-EFFECTIVE, FLEXIBLE & COLLABORATIVE RESEARCH SOLUTIONS**

Flexible Scientific Consulting and Contract Research engagements with Dassault Systèmes offer three cost-effective ways to apply powerful, deep-science software technology and expertise to business-critical scientific challenges under strict confidentiality.



### **Computational Scientist Resource Program**

- Dedicated off-site or on-site resource
- Managed by a Dassault Systèmes Program Manager



### **Applied Research Projects**

- Innovative solution to specific scientific problems
- Deliverables mutually agreed before contract is signed



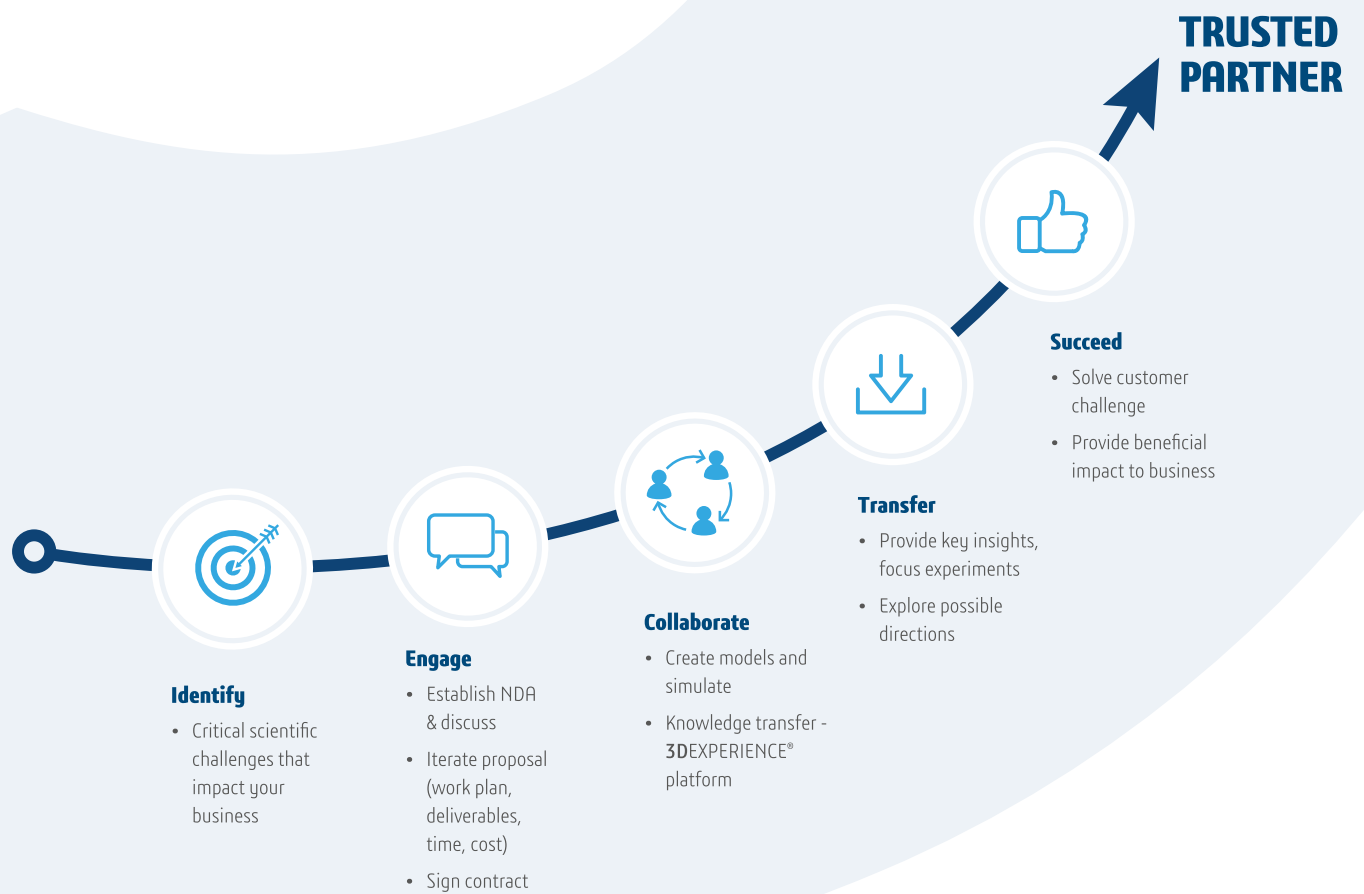
### **Advanced Guidance**

- Analysis of customer scientific process to maximize value from Dassault Systèmes technology
- Guidance on applying licensed software to address specific problems

## **A BROAD RANGE OF INDUSTRIES & APPLICATIONS**

Scientific Consulting and Contract Research engagements are available across a range of applications and industries including:

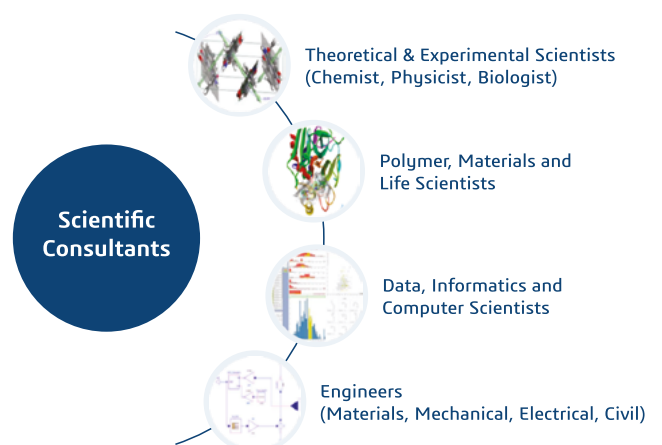
- Aerospace & Defence
- Consumer Packaged Goods
- Energy & Materials
- Food & Beverage
- High Tech & Microelectronics
- Industrial Equipment & Manufacturing
- Nutraceuticals & Formulations
- Pharmaceutical Discovery & Development
- Pharmaceutical Delivery & Medical Devices
- Transportation & Mobility



## A STEP-BY-STEP APPROACH TO RESOLVING RESEARCH CHALLENGES

A collaborative engagement with Dassault Systèmes offers solutions to proprietary scientific research challenges supported by:

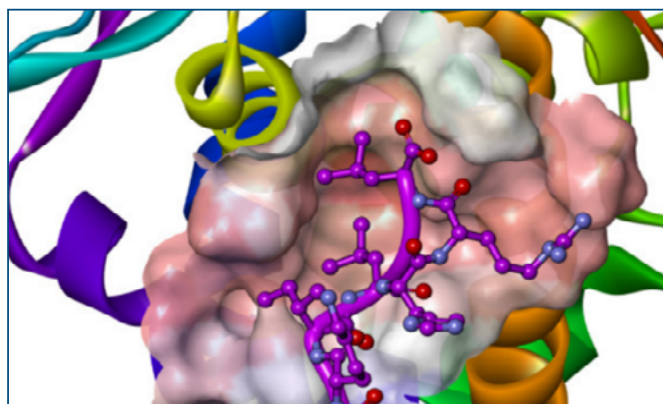
- The most talented team of scientists and engineers to solve a given problem
- Industry-specific experts with prior experience and success working in similar problem areas
- Powerful multi-scale, multi-paradigm, multi-disciplinary software products from Dassault Systèmes



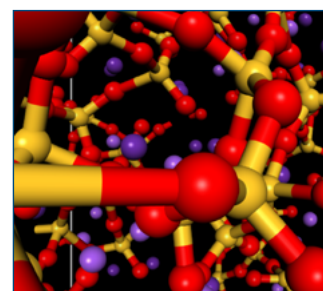
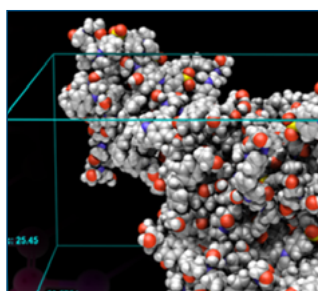
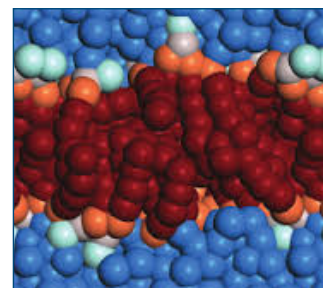
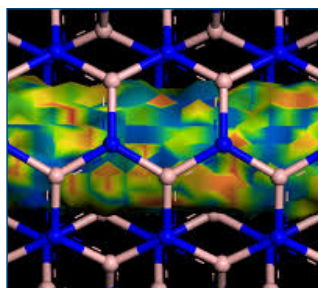
## WHY DASSAULT SYSTÈMES?

With our deep scientific heritage and valuable technology expertise, Dassault Systèmes is committed to advancing the highest levels of scientific research and innovation. We draw on various branches of science – biology, chemistry, engineering, geology, materials science, mathematics and physics – to break down silos of knowledge and find the most innovative, sustainable solutions for the future. For 30 years, we have led the world in multidisciplinary, multi-scale modeling/simulation and computational science solutions.

We are also the only company capable of providing a complete, model-based and data-driven 3DEXPERIENCE twin of the world built on the Dassault Systèmes 3DEXPERIENCE platform. The 3DEXPERIENCE twin combines two dimensions: the virtual, which is an abstract model of a given object (based on the scientific and mathematical laws of nature); and the real, which is derived from all data associated with the object (from all possible sources, e.g., the Internet of Things, the cloud, the enterprise, etc.). The value of the 3DEXPERIENCE platform lies in its ability to integrate creative thinking (model-based) with existing knowledge (data-driven).



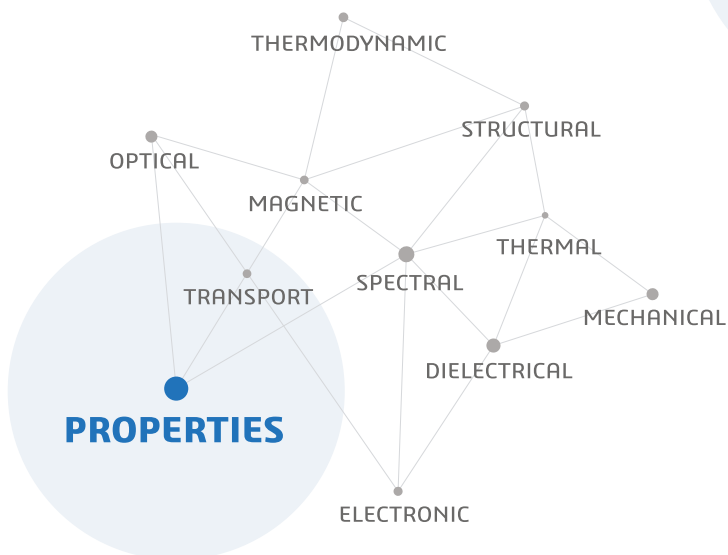
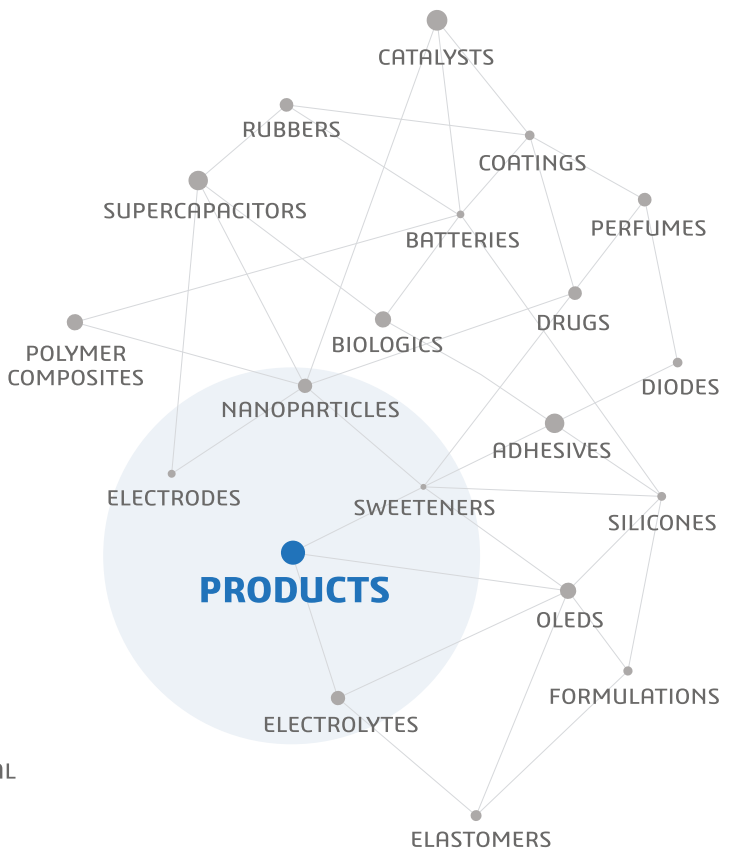
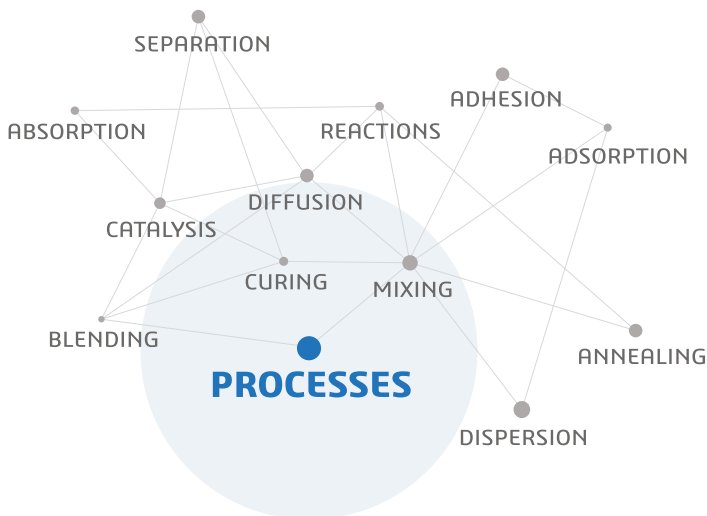
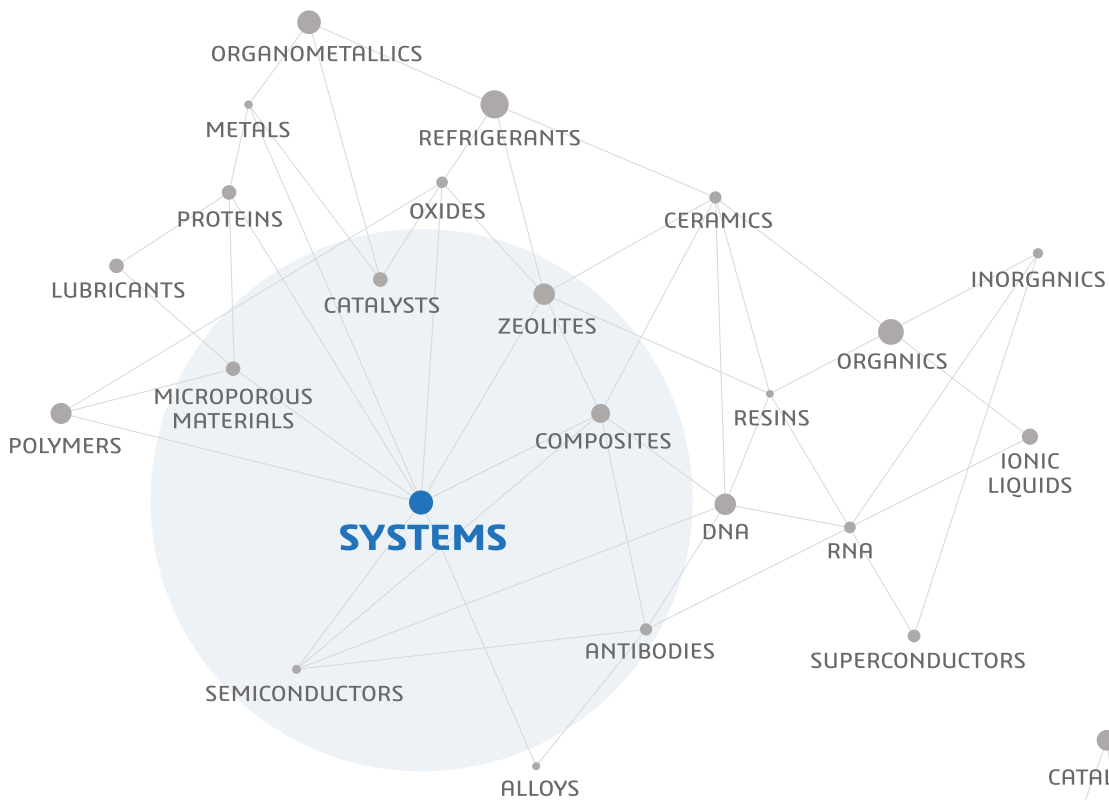
Scientific collaborations in the life sciences space range from target identification, lead optimization, virtual ligand screening and biologics design to API form and formulations design, shelf-life issues remediation, bio-labeling and bio-analytics, toxicity prediction, image analysis, therapeutics delivery and manufacturing failure remediation.



Scientific collaborations in the materials science space range from materials property prediction, formulations design and spectral/image analysis to virtual screening of materials, generative materials design and manufacturing failure remediation.



Machine Learning and Artificial Intelligence technology allows researchers to efficiently analyze scientific data (chemical, biological, numeric, static and dynamic images), create Machine Learning models, generate virtual variants and screen rapidly. Our technique is unique in that it takes into account the inherent chemistry of the system apart from experimental variables.

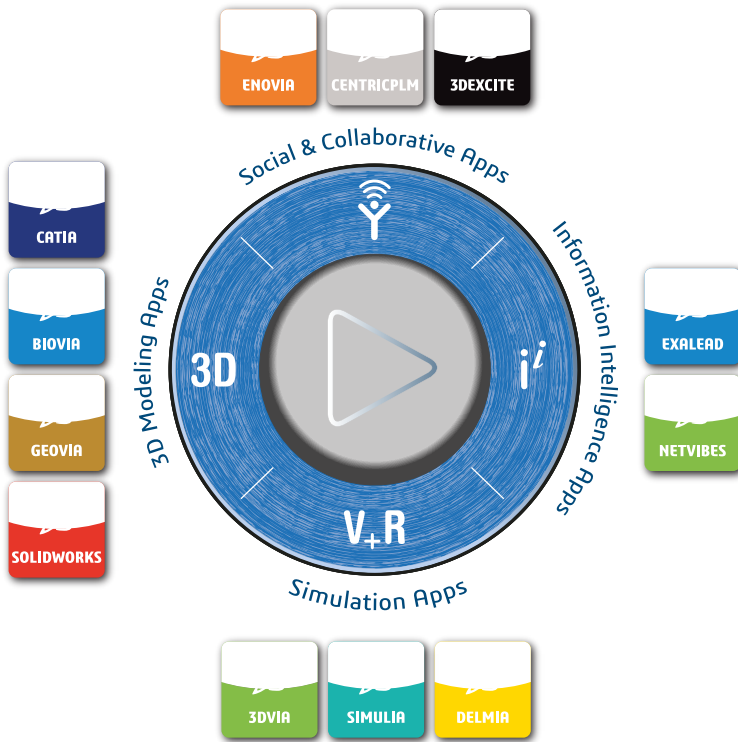


## YOUR NEXT STEP

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or contact your Account Executive



Our **3DEXPERIENCE®** platform powers our brand applications, serving **1** industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3DEXPERIENCE®** Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 250,000 customers of all sizes in all industries in more than 140 countries. For more information, visit [www.3ds.com](http://www.3ds.com).

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The **3DEXPERIENCE®** Company