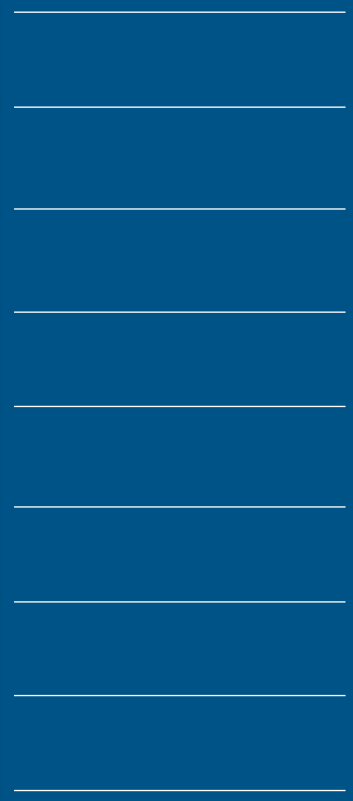




# UNLEASHING SUSTAINABLE INNOVATION

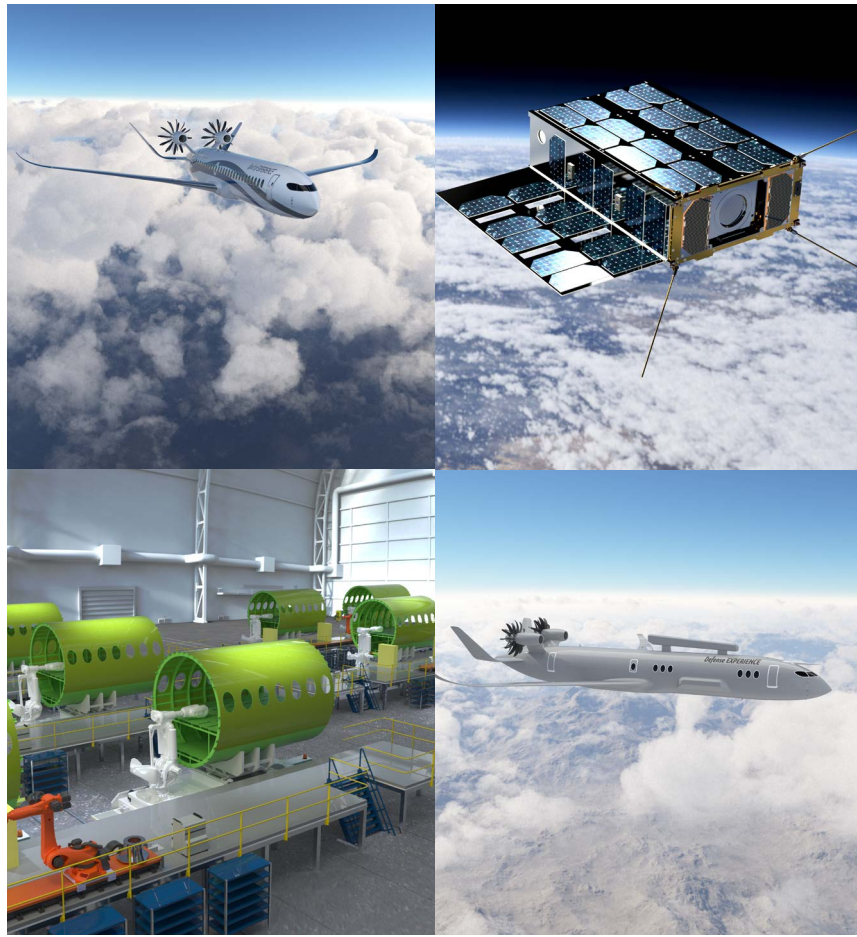
Discover how Dassault Systèmes can help you overcome today's challenges while preparing for a sustainable future



## LEAD YOUR COMPANY TRANSFORMATION TODAY

The Aerospace & Defense industry is experiencing a shift in paradigm, with the need to meet short-term goals while trying to accomplish long-term objectives. From accelerating

decarbonization and managing production ramp-up to developing cyber-secure sovereign systems while keeping costs down, building sustainable innovation in this age of disruption is key.



Dassault Systèmes' **3DEXPERIENCE®** platform delivers the capabilities to accelerate sustainable innovation with the power of the virtual twin. As the only truly integrated, open and model-based data environment, the virtual twin experience offers cradle-to-grave technology for the Aerospace & Defense industry:



From traditional program development to agile development on the cloud



From carbon-heavy aviation to environmental stewardship using electrification or hydrogen



From traditional space to new space, optimizing manufacturing and in-space activities



From conventional supply chain management systems to data-driven quality management

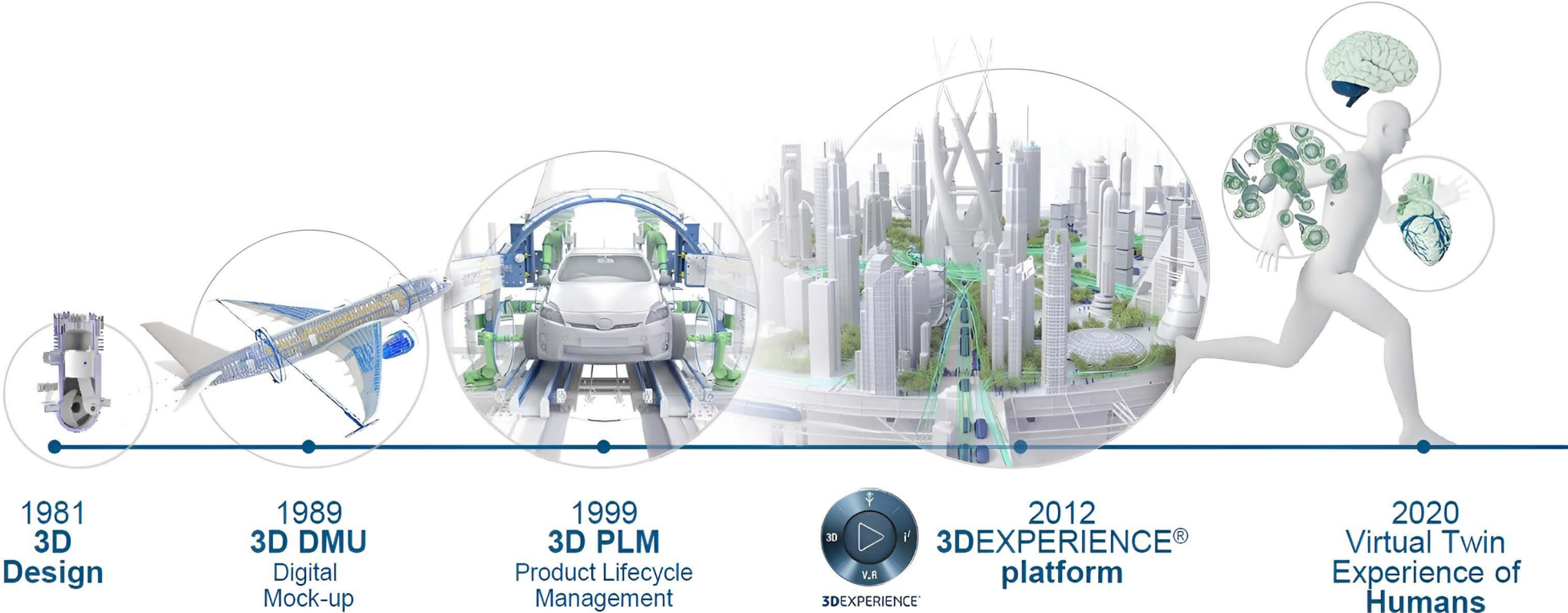


Combined with constant upskilling of the workforce to retain and attract talent

# LEGACY

Dassault Systèmes has a proven track record as a **catalyst and enabler of the world's leading industrial transformations.**

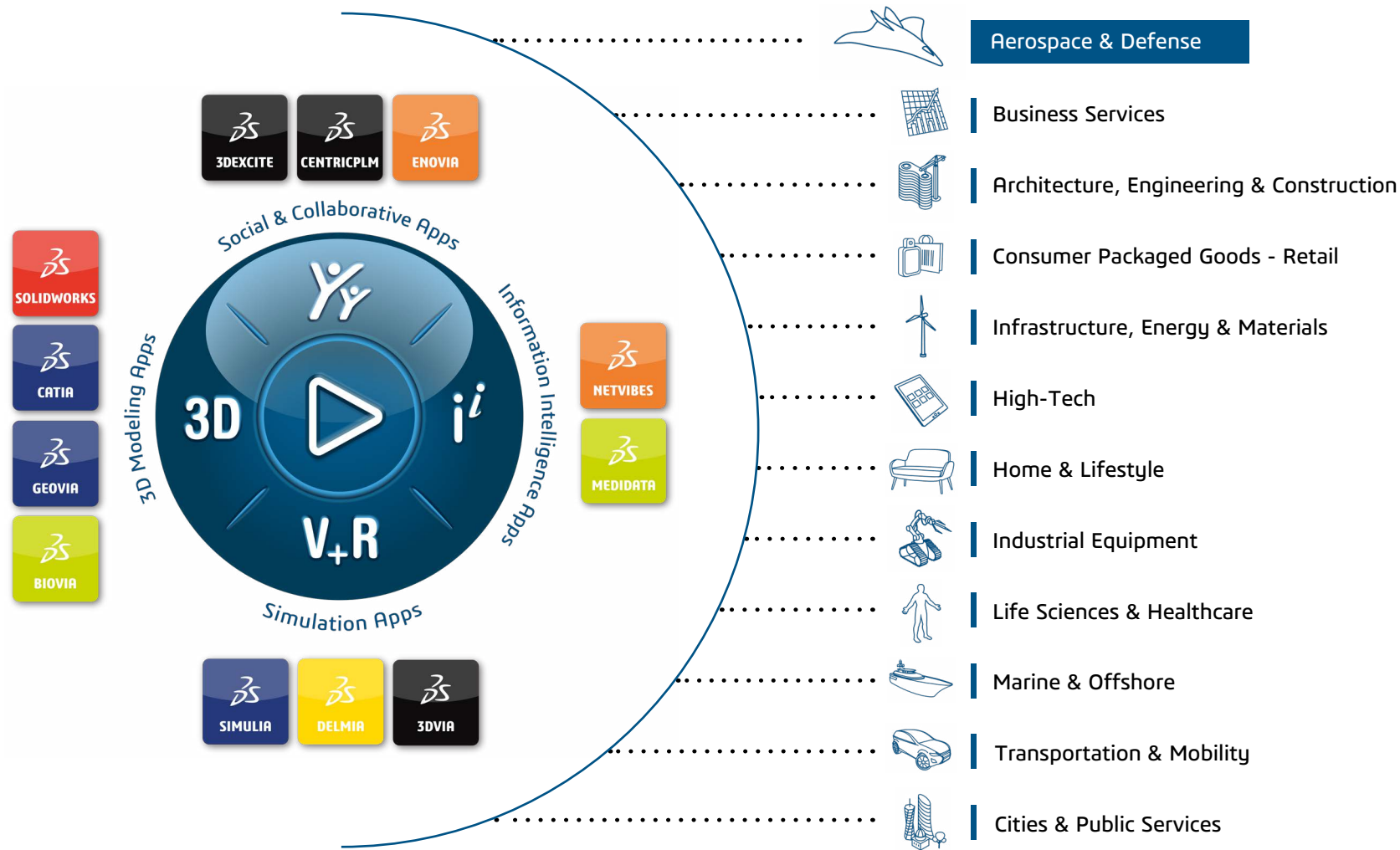
Every decade, we have partnered with manufacturers to disrupt how products are designed, manufactured and sustained, and we continue to rethink development, production and support processes and methods.



# THE 3DEXPERIENCE PLATFORM

The **3DEXPERIENCE** platform is a Business Experience Platform for knowledge and know-how, a game-changing collaborative environment that empowers businesses and people to innovate in an entirely new way.

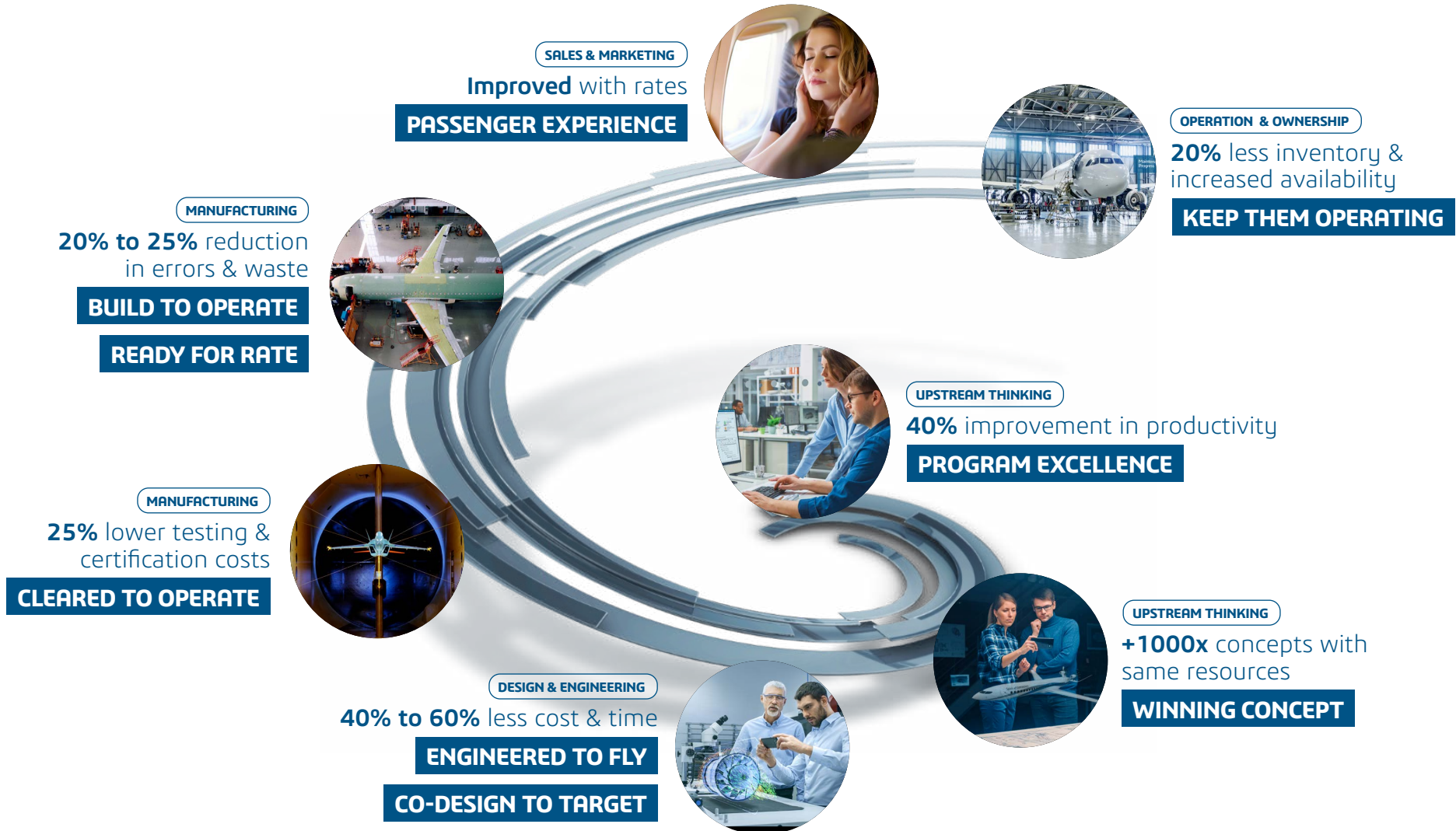
The platform is powered by Dassault Systèmes' **twelve brands** delivering applications that enable social and collaborative interactions, 3D modeling, simulation and optimization, and information intelligence. It serves **twelve distinct industries** with tailored industry solutions to address the specific regulations and challenges of each.



# AEROSPACE & DEFENSE INDUSTRY SOLUTIONS

Across the Aerospace & Defense industry, rising customer expectations (lower costs, higher standards and increased capabilities) along with growing program complexity continually make it more challenging to compete. As systems become more complex to design, build and deliver, OEMs and suppliers need to

**accelerate innovation, drive efficiencies and move to the factory of the future** to allow for **greater agility on production rates**. This requires a new way to conceptualize, design, manufacture, test, certify and sustain new air and space vehicles.



## **SUSTAINABILITY:** Accelerate the transition toward more electrical, hybrid or hydrogen-powered aircraft

### **Which trends are influencing the commercial aviation landscape?**

#### **Sustainable aviation**

The air transport industry has made a commitment to take concrete steps toward its decarbonization in order to achieve net-zero carbon emissions by 2050. The **3DEXPERIENCE** platform not only supports sustainable innovation at the product level, but also helps you build a global and cooperative ecosystem with all value chain players to achieve a truly competitive and sustainable industry.

#### **Innovative programs**

The aerospace industry is known for making giant technological leaps with each new generation of aircraft. With the **3DEXPERIENCE** platform, OEMs can safely and sustainably move faster through the adoption of advanced technologies – from robotics and additive manufacturing to artificial intelligence and advanced data analytics – across their entire value network.



#### **Advanced air mobility**

We see the emergence of startups that are disrupting the market with novel configurations, including electrical vertical take-off and landing (eVTOL). This sector is now facing increasing competition; as such, the efficiency and integration of engineering tools used in the development of eVTOL concept vehicles is of importance. The **3DEXPERIENCE** platform supports these startups to efficiently deliver new sustainable air mobility innovations while minimizing IT-related expenses.

#### **Manufacturing agility**

Airlines and operators are accelerating the replacement of older aircraft with modern, fuel-efficient aircraft. The **3DEXPERIENCE** platform supports the creation of your future factory to create highly automated, interconnected manufacturing capabilities to manage changes in demand with more agility.

## DEFENSE MODERNIZATION:

Empower organizations and agencies to streamline the acquisition process of new defense systems and integrate cutting-edge technologies

### What are the trends changing the defense landscape?

#### Acquisition speed

Countries around the globe are investing significantly in the development and acquisition of more capable weapon systems to strengthen their defense forces. The **3DEXPERIENCE** platform supports the development of new capabilities and systems that can be reconfigured and modified quickly. The platform fosters efficient cooperation among all stakeholders to ensure systems availability when needed.

#### Cutting-edge technologies

Defense contractors around the globe are incorporating advanced technologies into new weapon systems to achieve significantly greater effectiveness and versatility in manned and unmanned systems. The **3DEXPERIENCE** platform combines the “system of systems” approach to constantly adapt multiple defense assets.

#### Program performance

Defense companies are seeking new innovations in their traditional bespoke development models. The **3DEXPERIENCE** platform supports defense contractors in managing programs across the entire value network. The platform improves their ability to deliver the weapon systems required by various forces on time and on budget.

#### Mission readiness

A key challenge for operators of critical defense systems is to meet mission-readiness goals while reducing lifecycle costs. The **3DEXPERIENCE** platform helps you analyze structured and unstructured operational, logistics and maintenance-related data. It gives an understanding of a decision’s short- and long-term impact on the cost and performance of defense systems.



## AGILE MANUFACTURING:

### Increase reactivity to market demand by improving adaptability for program ramp-up

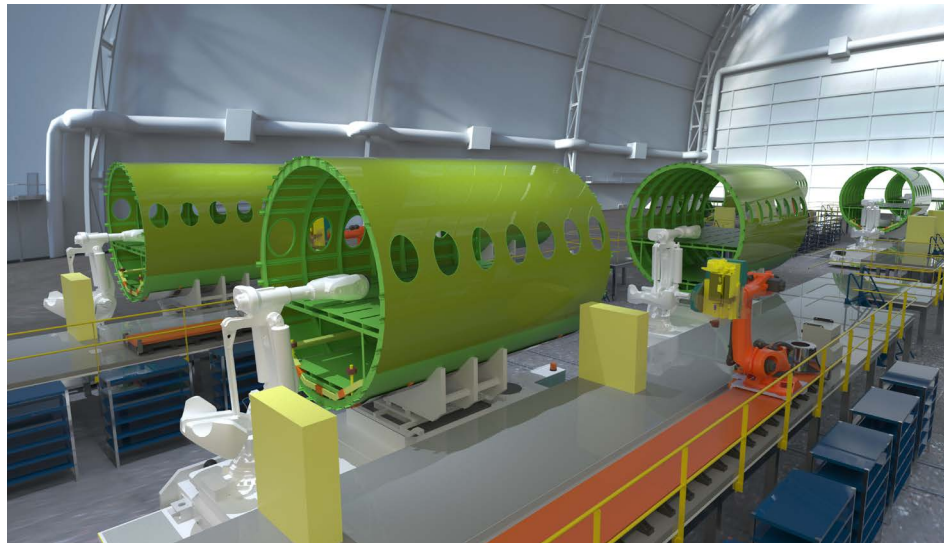
What are the trends changing the supplier landscape?

#### Aircraft complexity

Aerospace and defense suppliers must create increasingly complex components and sub-systems to meet OEMs' demand for innovation. The **3DEXPERIENCE** platform supports innovation by ensuring consistency and traceability of all products and process information to comply with programs and regulations requirements while protecting intellectual property.

#### Manufacturing agility

Airframe manufacturers are demanding more visibility into their suppliers' production and sourcing plans. The **3DEXPERIENCE** platform helps you transform your manufacturing operations and reorganize your manufacturing plants to make them leaner, more agile and more connected by including new technologies.



#### New markets

Today, we are part of a new century of powered flight and space exploration. We see the emergence of players that are disrupting the mobility market with innovative configurations that require a new supply chain model. The **3DEXPERIENCE** platform ensures strong collaboration and transparency between OEMs and their suppliers to accelerate program development.



## NEW SPACE:

Expedite the development, from design to launch, of space vehicles that are shaping the future of the new space

Which trends are influencing the space landscape?

### New space

The commercial space industry, driven by private organizations, is making giant leaps in space tourism, exploration and satellite technology. The **3DEXPERIENCE** platform supports you from ideation to operations to get it right the first time.

### Geospatial data analytics

Private companies are launching new advanced satellites ready to visualize, collect and analyze data needed to generate insights that will lead to more efficient and optimized decision-making. Dassault Systèmes' **3DEXPERIENCE** platform transforms this data into actionable items to improve decision-making.

### Mega-constellations

Satellites have played an enormous role in improving the state of the world, and will do even more as an explosion of technological innovations over time enable constellations of small satellites to be deployed with radical new capabilities. The **3DEXPERIENCE** platform allows new space companies to rapidly produce increasingly sophisticated satellites, reusable launchers, and also think about deorbitation.





## DISCOVER HOW OUR INDUSTRY SOLUTIONS EXPERIENCES CAN HELP YOU ACCELERATE FROM CONCEPT TO OPERATIONS BY 50%

With the **3DEXPERIENCE** platform, you can:

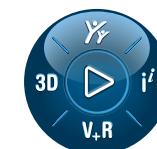
- **Break down** the silos to innovation by developing new ways of working across teams
- **Accelerate program maturity with digital continuity** across engineering, manufacturing and business functions
- **Drive flexible production** by combining virtual planning and real operations for continuous improvement
- **Create new business opportunities** with the full potential and controlled investment of cloud solutions

Learn more about the **3DEXPERIENCE** platform for Aerospace & Defense at <https://www.3ds.com/industries/aerospace-defense>

### Our **3DEXPERIENCE**® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3DEXPERIENCE** Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating virtual twin experiences of the real world with our **3DEXPERIENCE** platform and applications, our customers can redefine the creation, production and life-cycle-management processes of their offer and thus have a meaningful impact to make the world more sustainable. The beauty of the Experience Economy is that it is a human-centered economy for the benefit of all –consumers, patients and citizens.

Dassault Systèmes brings value to more than 300,000 customers of all sizes, in all industries, in more than 150 countries. For more information, visit [www.3ds.com](http://www.3ds.com).



**3DEXPERIENCE**®