



STRUCTURAL SIMULATION UNLEASHED: A JOURNEY THROUGH CLOUD-BASED EXCELLENCE

STRUCTURAL SIMULATION
UNLEASHED: A JOURNEY
THROUGH CLOUD-BASED
EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL
SIMULATION IN PRODUCT
DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL
ENGINEERING

BENEFITS OF STRUCTURAL
SIMULATION IN PRODUCT
DEVELOPMENT

BRIDGING THE GAP: THE POWER
OF UNIFIED MODELING AND
SIMULATION

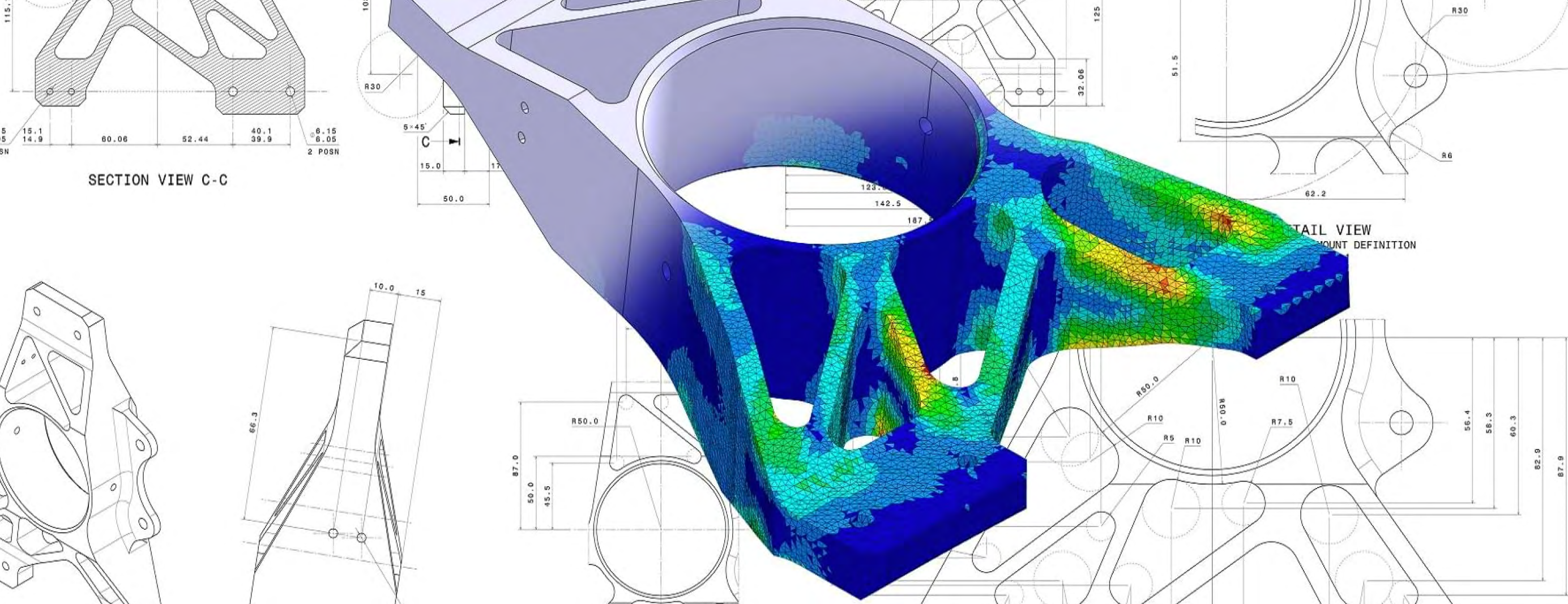
CORE BENEFITS OF
3DEXPERIENCE PLATFORM ON
THE CLOUD FOR STRUCTURAL
SIMULATION USERS

ACCELERATED SIMULATION
ITERATIONS AND DESIGN
VALIDATION

COST SAVINGS AND
FLEXIBILITY IN ADAPTING TO
CHANGING REQUIREMENTS

UNLOCKING THE POWER OF
CLOUD HPC FOR SIMULATION
EXCELLENCE

CONCLUSION



STRUCTURAL SIMULATION IN MODERN PRODUCT DEVELOPMENT

The current use of simulation in modern product development has revolutionized the design process across industries. By combining physics-based computer algorithms with virtual CAD models, engineers can simulate and evaluate the behavior and performance of their designs before any physical prototypes are built.

Structural simulation allows for the analysis of the structural integrity, safety, and performance of products under realistic in-service loading conditions. It enables engineers to iterate on new designs with virtual prototypes to accelerate time to product readiness. Some examples include:

- Detecting early stage design flaws

- Optimizing for a better performing product
- Reduce costs by minimizing the number of real prototypes required

and all-in-all allowing for data-driven decisions earlier in the design process.

With applications in automotive engineering, aerospace, consumer electronics, architecture, civil engineering and other industries, structural simulation has become an integral part of product development. It helps drive innovation by enabling organizations to deliver high-quality, reliable and efficient products to the market, faster and more affordably.

STRUCTURAL SIMULATION UNLEASHED: A JOURNEY THROUGH CLOUD-BASED EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL ENGINEERING

BENEFITS OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

BRIDGING THE GAP: THE POWER OF UNIFIED MODELING AND SIMULATION

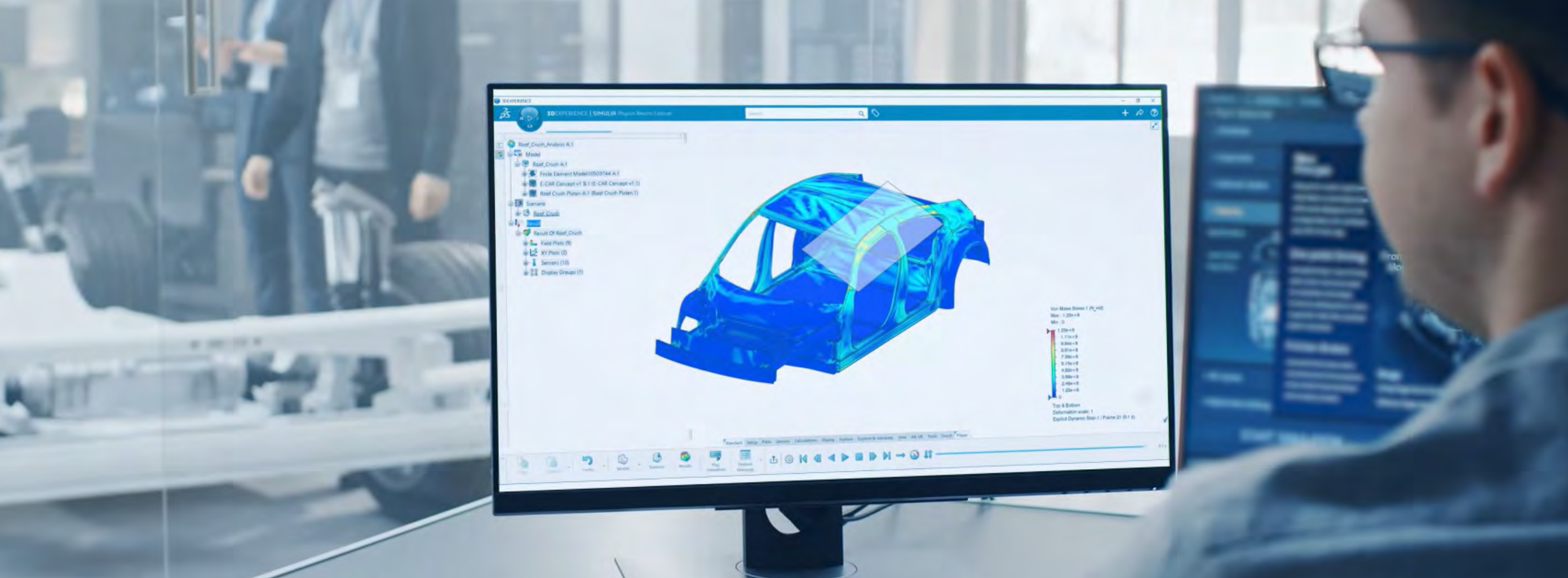
CORE BENEFITS OF 3DEXPERIENCE PLATFORM ON THE CLOUD FOR STRUCTURAL SIMULATION USERS

ACCELERATED SIMULATION ITERATIONS AND DESIGN VALIDATION

COST SAVINGS AND FLEXIBILITY IN ADAPTING TO CHANGING REQUIREMENTS

UNLOCKING THE POWER OF CLOUD HPC FOR SIMULATION EXCELLENCE

CONCLUSION



STRUCTURAL SIMULATION UNLEASHED: A JOURNEY THROUGH CLOUD-BASED EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL ENGINEERING

BENEFITS OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

BRIDGING THE GAP: THE POWER OF UNIFIED MODELING AND SIMULATION

CORE BENEFITS OF 3DEXPERIENCE PLATFORM ON THE CLOUD FOR STRUCTURAL SIMULATION USERS

ACCELERATED SIMULATION ITERATIONS AND DESIGN VALIDATION

COST SAVINGS AND FLEXIBILITY IN ADAPTING TO CHANGING REQUIREMENTS

UNLOCKING THE POWER OF CLOUD HPC FOR SIMULATION EXCELLENCE

CONCLUSION

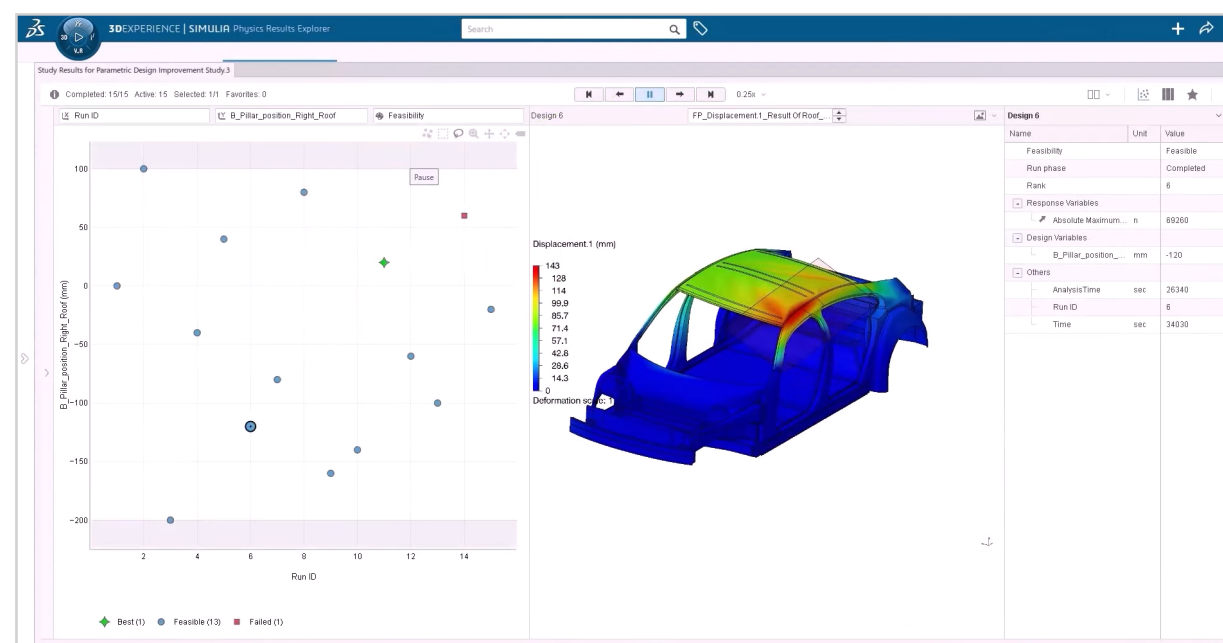
EXAMPLES OF STRUCTURAL SIMULATION IN ACTION

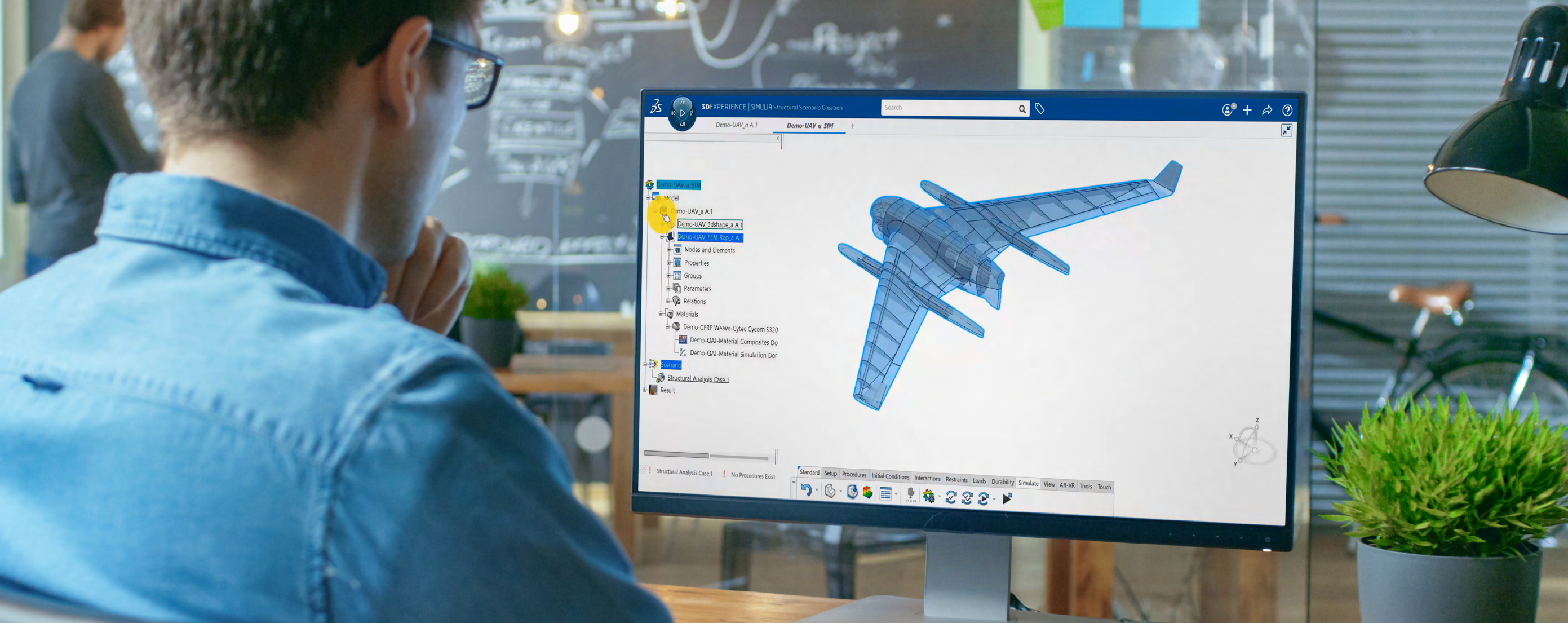
The application of structural simulation spans across a wide range of industries, providing significant benefits in product development. Here are a few examples of how structural simulation is used in different domains:

Automotive Engineering

In the automotive industry, structural simulation plays a critical role in assessing crashworthiness, optimizing vehicle weight distribution, analyzing vibration and noise levels, and evaluating the integrity of critical components from wiper blades to engine mounts, from suspension systems to powertrains, from body-in-white frames to

full vehicles including their driving environment. By simulating these scenarios, engineers can identify potential design weaknesses and make necessary modifications to enhance safety and performance.





STRUCTURAL SIMULATION UNLEASHED: A JOURNEY THROUGH CLOUD-BASED EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL ENGINEERING

BENEFITS OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

BRIDGING THE GAP: THE POWER OF UNIFIED MODELING AND SIMULATION

CORE BENEFITS OF 3DEXPERIENCE PLATFORM ON THE CLOUD FOR STRUCTURAL SIMULATION USERS

ACCELERATED SIMULATION ITERATIONS AND DESIGN VALIDATION

COST SAVINGS AND FLEXIBILITY IN ADAPTING TO CHANGING REQUIREMENTS

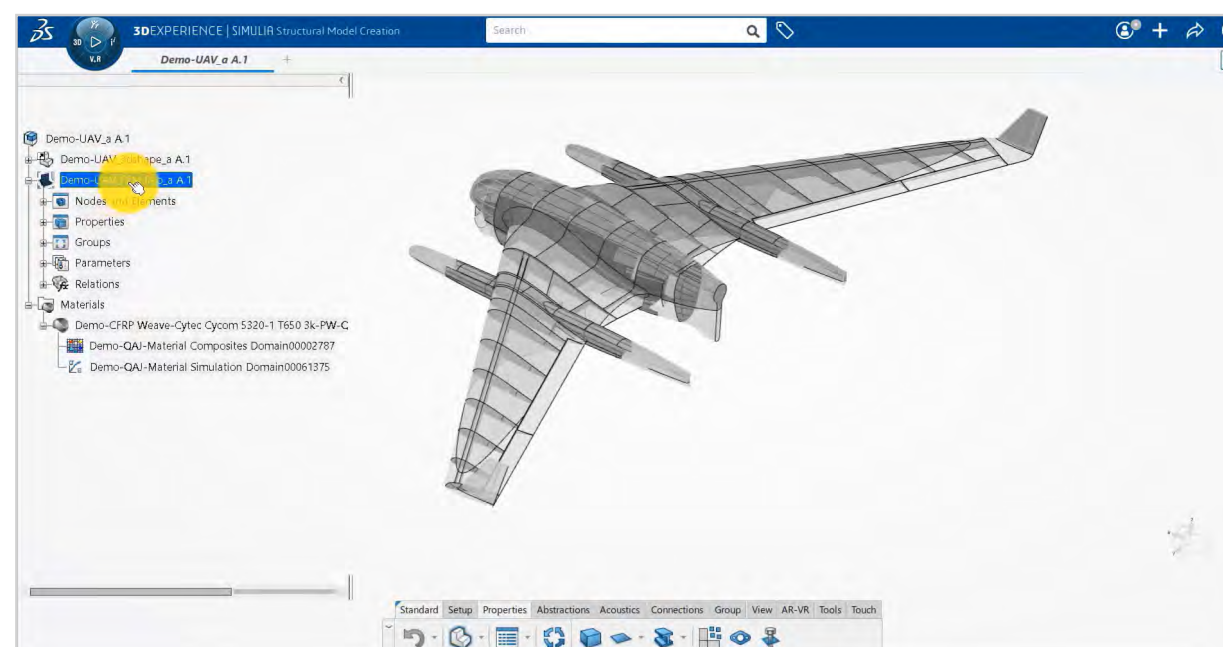
UNLOCKING THE POWER OF CLOUD HPC FOR SIMULATION EXCELLENCE

CONCLUSION

AEROSPACE ENGINEERING

In the aerospace industry, structural simulation is employed to analyze the response of aircraft components, such as wings, fuselage, and landing gear, to aerodynamic forces and landing loads. This allows engineers to optimize the design for maximum performance, structural integrity, and weight reduction while ensuring safe and efficient flight operations for decades.

Discover the role of simulation in [advanced air mobility](#).





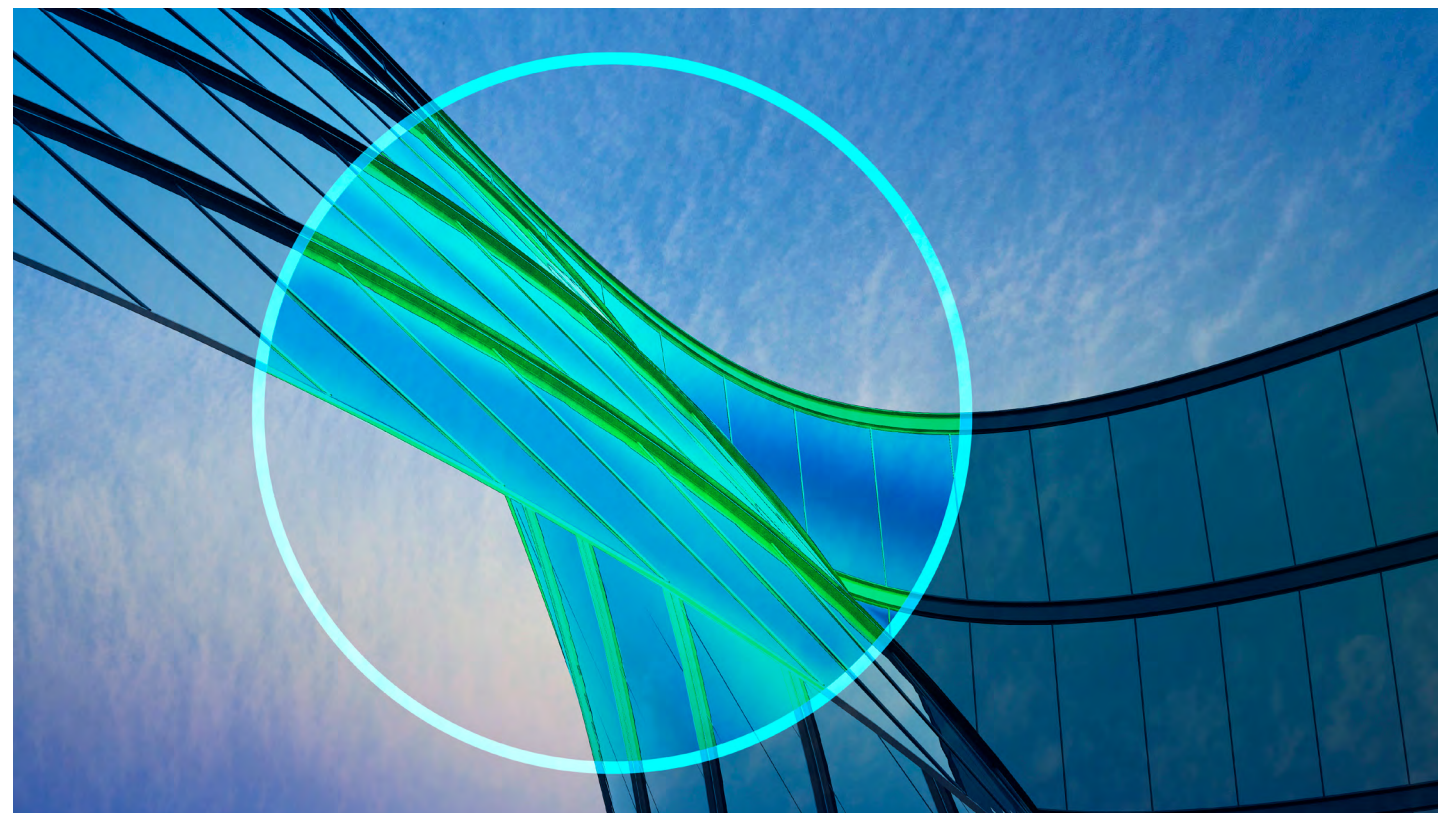
CONSUMER ELECTRONICS

Structural simulation is widely used in the development of consumer electronics, such as smartphones, tablets, and laptops. By simulating the structural behavior of these devices, engineers can assess their durability, resistance to mechanical stress, and performance under different operating conditions including assembly, certification, operation, drop, and impact. This enables the design of robust and reliable consumer products.

ARCHITECTURE AND CIVIL ENGINEERING

In the field of architecture and civil engineering, structural simulation helps analyze and optimize the design of buildings, facades, bridges, and other structures. Engineers can simulate various loads, including wind, weight, seismic activity, and environmental conditions, to assess the structural integrity, safety, and performance of the design. This ensures that structures are built to withstand real-world conditions.

These examples illustrate how structural simulation is widely employed in modern product development across various industries. Simulation enables engineers to evaluate the behavior of their products earlier in the design process, all while reducing costs linked to physical testing.



STRUCTURAL SIMULATION UNLEASHED: A JOURNEY THROUGH CLOUD-BASED EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL ENGINEERING

BENEFITS OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

BRIDGING THE GAP: THE POWER OF UNIFIED MODELING AND SIMULATION

CORE BENEFITS OF 3DEXPERIENCE PLATFORM ON THE CLOUD FOR STRUCTURAL SIMULATION USERS

ACCELERATED SIMULATION ITERATIONS AND DESIGN VALIDATION

COST SAVINGS AND FLEXIBILITY IN ADAPTING TO CHANGING REQUIREMENTS

UNLOCKING THE POWER OF CLOUD HPC FOR SIMULATION EXCELLENCE

CONCLUSION

BENEFITS OF STRUCTURAL SIMULATION

1. Early Problem Detection and Optimization: Simulating product behavior detects design flaws and weaknesses early, left-shifting product design decisions and aiding in timely optimization. This reduces the need for physical prototyping and ensures smooth design progress.

2. Reduced Prototyping Costs: Iterative virtual testing accelerates the design cycle by minimizing reliance on physical prototypes, saving costs in materials, manufacturing, and logistics.

3. Deeper Product Understanding: Simulation reveals product behavior under various conditions, providing insights into stress, deformation, and failure. Engineers are able to optimize for performance and reliability.

4. Informed Decision-Making: Simulation empowers data-driven decisions by assessing multiple design options and their outcomes. This reduces risks and enhances decision-making throughout development.

In the realm of simulation, conventionally, expertise and specialized software, coupled with significant IT investments in computing, have been prerequisites. However, our approach redefines this landscape.

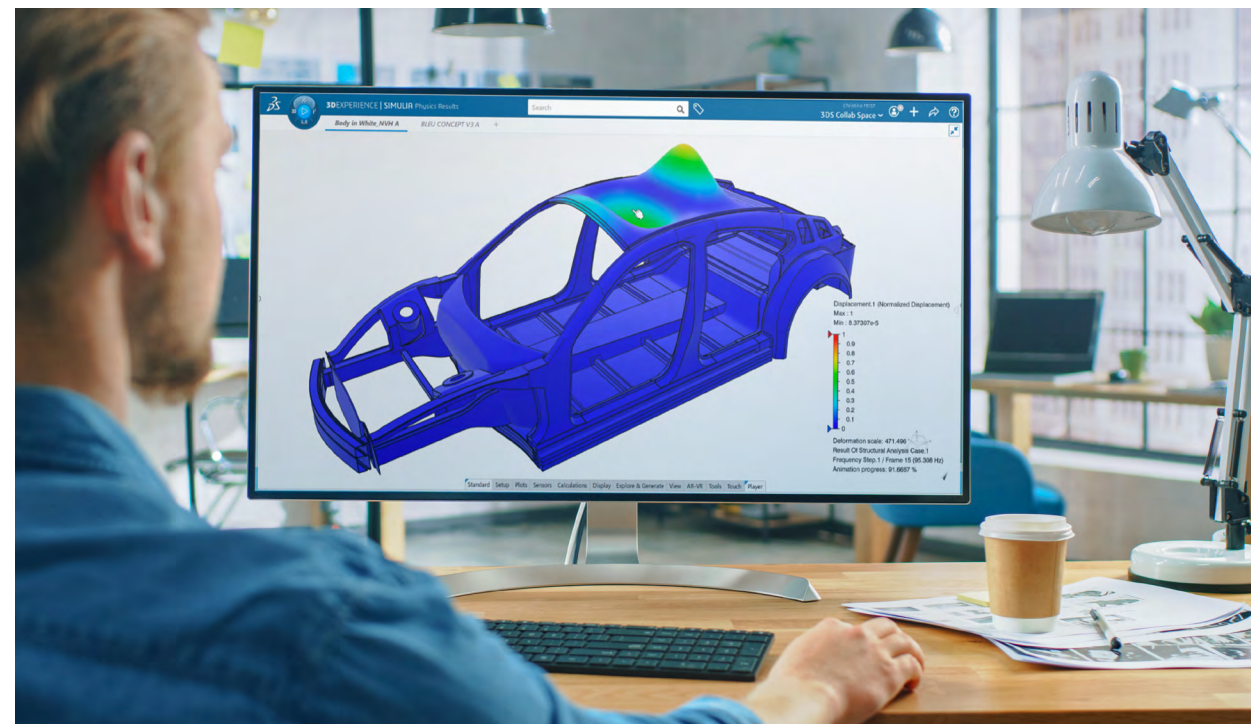
Democratizing simulation with cloud computing

Historically, leveraging simulation required domain experts and substantial CAPEX investments in IT infrastructure. Enter our cloud-based solution—an innovation that transforms specialized software into an accessible technology through a designer-oriented interface. By providing seamless access to cloud-based computing, companies can bid farewell to the requirement for individualized purchase, installation, and maintenance of compute clusters.

KEY PERFORMANCE INDICATORS (KPIs)

To assess the benefits of structural simulation, several key performance indicators (KPIs) can be considered:

- **Time-to-Market Reduction:** Measuring the time saved in the design and development process through the use of simulation, compared to traditional methods.
- **Cost Savings:** Evaluating the cost reductions achieved by minimizing physical prototyping and testing, as well as optimizing designs to reduce material usage.
- **Design Optimization:** Assessing improvements in design performance metrics, such as weight reduction, increased strength, enhanced durability, or improved product efficiency.
- **Failure Prediction:** Tracking the accuracy of simulation in predicting potential failure points and identifying design weaknesses, thereby reducing the risk of product failure in real-world conditions.



STRUCTURAL SIMULATION UNLEASHED: A JOURNEY THROUGH CLOUD-BASED EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL ENGINEERING

BENEFITS OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

BRIDGING THE GAP: THE POWER OF UNIFIED MODELING AND SIMULATION

CORE BENEFITS OF 3DEXPERIENCE PLATFORM ON THE CLOUD FOR STRUCTURAL SIMULATION USERS

ACCELERATED SIMULATION ITERATIONS AND DESIGN VALIDATION

COST SAVINGS AND FLEXIBILITY IN ADAPTING TO CHANGING REQUIREMENTS

UNLOCKING THE POWER OF CLOUD HPC FOR SIMULATION EXCELLENCE

CONCLUSION



BRIDGING THE GAP: THE POWER OF UNIFIED MODELING AND SIMULATION (MODSIM)

Let's explore the heart of this transformation: the **3DEXPERIENCE** platform on the cloud and MODSIM.

The **3DEXPERIENCE** platform on the cloud brings structural simulation capabilities to the cloud, streamlining collaboration and reducing the need for specialized hardware and software. Its user-friendly interface offers a range of finite elements analysis techniques from linear to nonlinear stress, contact, crash, friction, forming, heat transfer and much more.

MODSIM, an integral part of the **3DEXPERIENCE** platform, redefines value delivery by tailoring simulation functionalities for specific industries. It integrates with the core platform, seamlessly unifying modeling and simulation into a versatile tool for product design.

Together, **3DEXPERIENCE** and MODSIM offer a fully integrated simulation solution, rapidly accessible in the cloud with Software-as-a-Service with robust analysis, scalability and collaboration tools. This introduction lays the foundation for exploring the benefits of these tools in accelerating the product development process.

Find out more about MODSIM on the **3DEXPERIENCE** platform on the cloud here: go.3ds.com/cloud-modsim

STRUCTURAL SIMULATION UNLEASHED: A JOURNEY THROUGH CLOUD-BASED EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL ENGINEERING

BENEFITS OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

BRIDGING THE GAP: THE POWER OF UNIFIED MODELING AND SIMULATION

CORE BENEFITS OF 3DEXPERIENCE PLATFORM ON THE CLOUD FOR STRUCTURAL SIMULATION USERS

ACCELERATED SIMULATION ITERATIONS AND DESIGN VALIDATION

COST SAVINGS AND FLEXIBILITY IN ADAPTING TO CHANGING REQUIREMENTS

UNLOCKING THE POWER OF CLOUD HPC FOR SIMULATION EXCELLENCE

CONCLUSION

CORE BENEFITS OF THE 3DEXPERIENCE PLATFORM ON THE CLOUD FOR STRUCTURAL SIMULATION USERS

A pivotal advantage offered by the **3DEXPERIENCE** platform on the cloud is its unparalleled scalability, seamlessly tapping into the potential of cloud computing resources for efficient and effective simulations.

This platform-as-a-service model eliminates the need for in-house installation, expediting customers' access to a production-ready environment. By harnessing cloud resources, the platform empowers engineers to conduct computationally demanding simulations with ease. Scaling computing power on demand liberates engineers from local hardware limitations, enabling the exploration of intricate simulations.

This scalability translates to quicker simulation and the ability to handle larger and more complex models, ultimately yielding heightened precision and amplified productivity.

Remote collaboration and real-time information sharing

The **3DEXPERIENCE** platform on the cloud facilitates remote collaboration among team members. Engineers can work together on projects regardless of their physical location, enabling seamless collaboration between different departments, teams, or even external stakeholders. Real-time information sharing capabilities allow for instant feedback, discussions, and decision-making, accelerating the design process and ensuring effective collaboration throughout the simulation workflow.

ELEVATE YOUR EXPERIENCE WITH SAAS

Embark on a new era of structural simulation prowess through the Software as a Service (SaaS) features within the **3DEXPERIENCE** platform on the cloud:

- **Seamless and Secure Access:** Dive into simulation tools anytime, from anywhere and improve collaboration between your team members.
- **Smart Spending:** Adopt advanced simulation solutions at lower cost, freeing you from the shackles of substantial investments in hardware and software.
- **Single Source of Truth:** All stakeholders are on the same page for all your projects; automatic updates guarantee you are equipped with the latest features.
- **Flexibility at its Core:** Scale your resources with ease, adapting to evolving simulation demands without the usual constraints of fixed infrastructure.

Embrace the transformative capabilities of SaaS within the **3DEXPERIENCE** platform – where flexibility meets efficiency for unparalleled collaboration in simulation.

Streamlines data management and collaboration features

The platform provides robust data management and collaboration features, ensuring efficient organization and version control of simulation files. Engineers can easily access and share simulation models, materials, and boundary conditions, eliminating versioning issues and reducing the chance of errors. The platform's centralized data management system ensures that all team members have access to the latest design and related simulation data, enhancing productivity and minimizing confusion and errors.

STRUCTURAL SIMULATION UNLEASHED: A JOURNEY THROUGH CLOUD-BASED EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL ENGINEERING

BENEFITS OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

BRIDGING THE GAP: THE POWER OF UNIFIED MODELING AND SIMULATION

CORE BENEFITS OF 3DEXPERIENCE PLATFORM ON THE CLOUD FOR STRUCTURAL SIMULATION USERS

ACCELERATED SIMULATION ITERATIONS AND DESIGN VALIDATION

COST SAVINGS AND FLEXIBILITY IN ADAPTING TO CHANGING REQUIREMENTS

UNLOCKING THE POWER OF CLOUD HPC FOR SIMULATION EXCELLENCE

CONCLUSION



Accelerated simulation iterations and design validation

The **3DEXPERIENCE** platform on the cloud enables engineers to perform rapid simulation iterations and design validations. With fast access to powerful computing resources and MODSIM, engineers can quickly evaluate design alternatives, make informed decisions, and iterate on their designs more efficiently. This accelerates the overall design process and reduces time-to-market.

Cost savings and flexibility in adapting to changing requirements

Using the **3DEXPERIENCE** platform on the cloud can lead to cost savings by eliminating the need for significant upfront investments in hardware and software licenses. With a cloud-based solution, companies can leverage an easily scalable model, only paying for the resources and tools they need when they need them. Additionally, the flexibility of the cloud platform allows engineers to adapt to changing simulation requirements and scenarios, easily scaling resources up or down as needed without the constraints of fixed infrastructure.

STRUCTURAL SIMULATION UNLEASHED: A JOURNEY THROUGH CLOUD-BASED EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL ENGINEERING

BENEFITS OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

BRIDGING THE GAP: THE POWER OF UNIFIED MODELING AND SIMULATION

CORE BENEFITS OF 3DEXPERIENCE PLATFORM ON THE CLOUD FOR STRUCTURAL SIMULATION USERS

ACCELERATED SIMULATION ITERATIONS AND DESIGN VALIDATION

COST SAVINGS AND FLEXIBILITY IN ADAPTING TO CHANGING REQUIREMENTS

UNLOCKING THE POWER OF CLOUD HPC FOR SIMULATION EXCELLENCE

CONCLUSION

UNLOCKING THE POWER OF CLOUD HPC FOR SIMULATION EXCELLENCE

Traditional simulation has long relied on local hardware, often situated beside an engineer's desk or housed within the company's data center. Acquiring, fine-tuning, maintaining, upgrading, and expanding such hardware is a costly and time-consuming endeavor. Consequently, the scope of simulations has been confined by the limitations of available hardware.

Cloud-based simulation, however, turns this convention on its head, transforming cloud hardware from a constraint into an enabler. With the **3DEXPERIENCE** platform on the cloud, both hardware and software come pre-configured and optimized as part of Software-as-a-Service, providing immediate access to the hardware you need to ensure rapid turnaround times for results. The traditional burdens of setting up and managing in-house computing environments or installing software become obsolete. Instead, the **3DEXPERIENCE** platform on the cloud offers instantaneous access to the latest technology, algorithms and capabilities.

Furthermore, all SIMULIA solvers are accessible from a single cloud license pool, making MODSIM an integral part of design and simulation in the cloud.

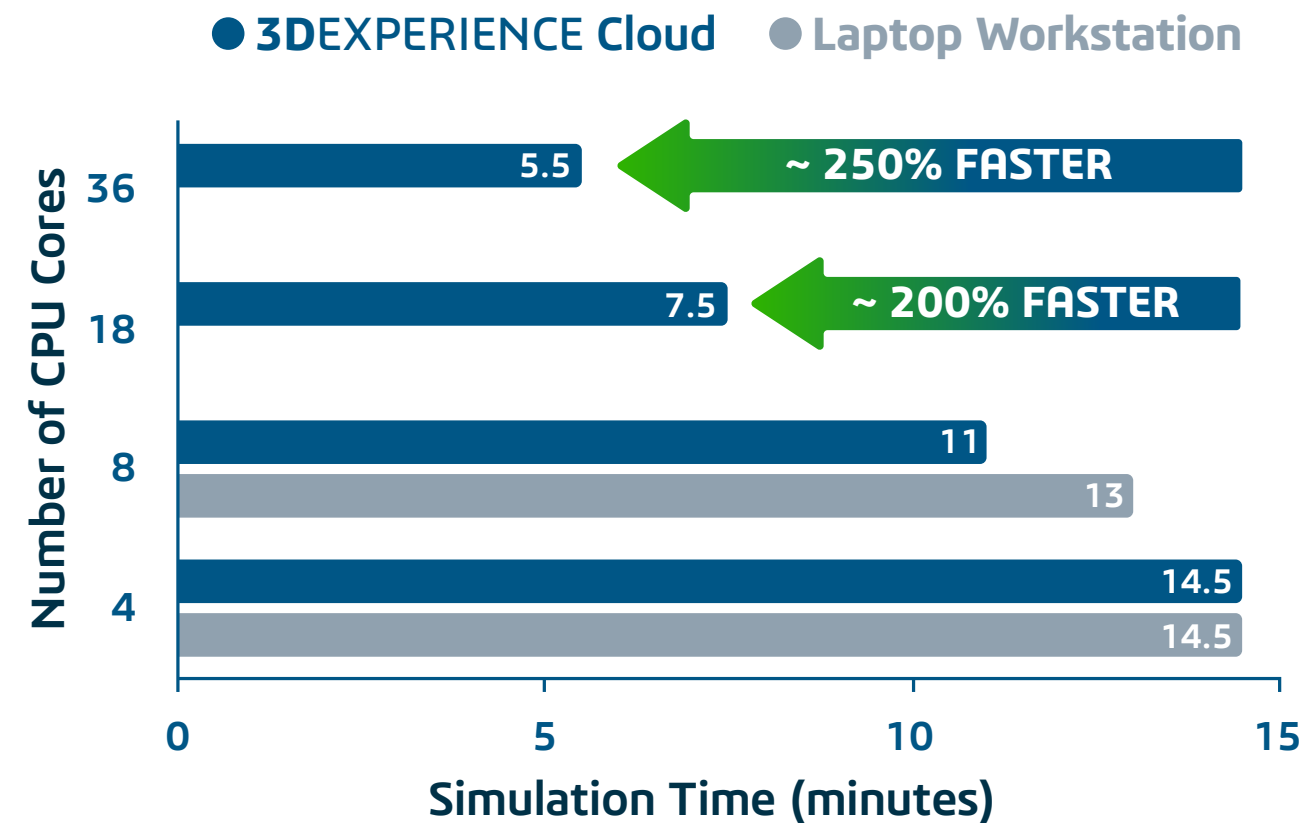
This single license pool offers customers the flexibility to purchase either burst compute or sustained compute.

- Burst capacity, or credits, is typical of a pay-as-you-go model and offers immediate, on-demand access to all our cloud compute options for simulation,
- Sustained capacity, or tokens, enables customers to consolidate their annual HPC investment up-front, guaranteeing access to a fixed compute capacity for the whole year.

And there are no hidden extras or monthly billing to worry about; both software and hardware costs are combined into a single SaaS rate, making **3DEXPERIENCE** Cloud Compute the most convenient way to enable the benefits of structural simulation and MODSIM for your business.

Cloud resources can expand instantly to meet your needs, eliminating the need to request additional hardware, endure delays in delivery, installation, configuration, or tuning. In the cloud, the cores you require are always ready for your next simulation endeavor, be it a single task or an expansive workload.

In truth, the cloud is revolutionizing the way companies approach simulation, offering unprecedented flexibility and efficiency in the process.



STRUCTURAL SIMULATION UNLEASHED: A JOURNEY THROUGH CLOUD-BASED EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL ENGINEERING

BENEFITS OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

BRIDGING THE GAP: THE POWER OF UNIFIED MODELING AND SIMULATION

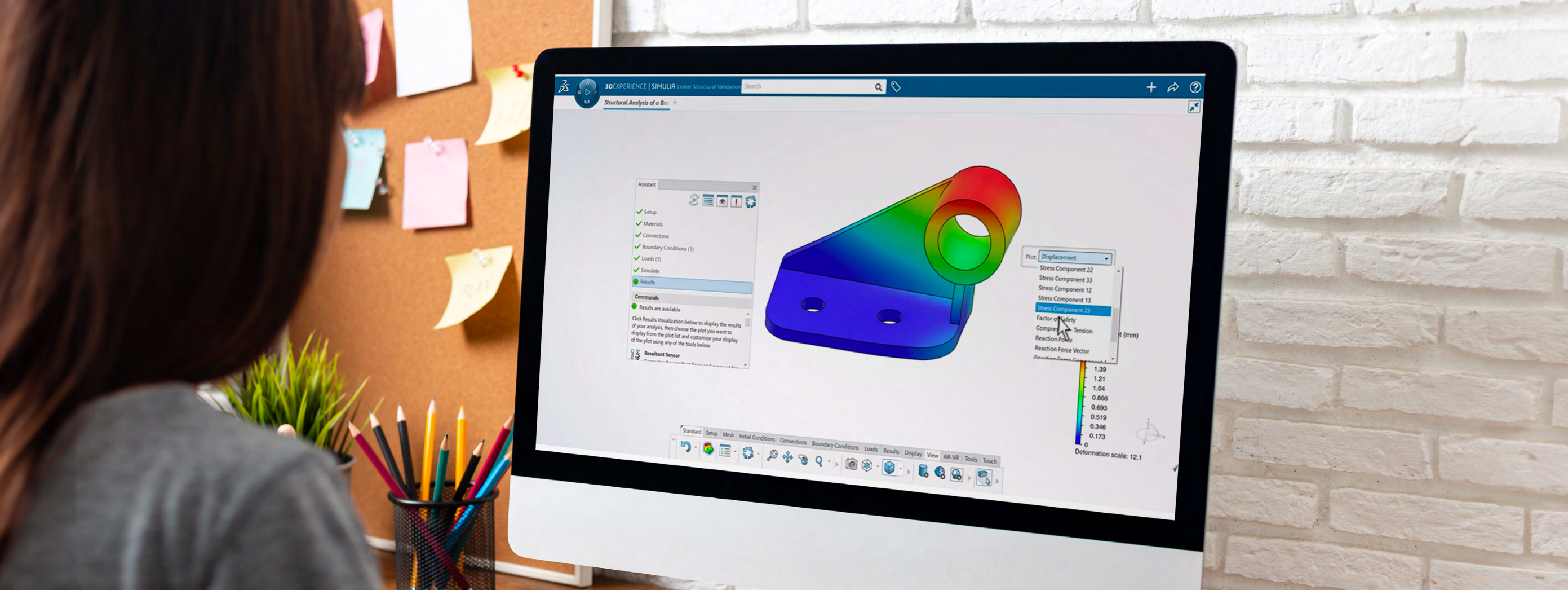
CORE BENEFITS OF 3DEXPERIENCE PLATFORM ON THE CLOUD FOR STRUCTURAL SIMULATION USERS

ACCELERATED SIMULATION ITERATIONS AND DESIGN VALIDATION

COST SAVINGS AND FLEXIBILITY IN ADAPTING TO CHANGING REQUIREMENTS

UNLOCKING THE POWER OF CLOUD HPC FOR SIMULATION EXCELLENCE

CONCLUSION



UNVEILING STRUCTURAL PERFORMANCE ENGINEER: EMPOWERING PRECISION

Meet our pinnacle offering for cloud-based structural engineering—designed to empower engineers in assessing structural prowess across dynamic realms. Fueling astute engineering choices, it's the epitome of innovation.

With Dassault Systèmes' Structural Performance Engineer, you gain:

- **Advanced Design Simulations:** Seamlessly integrate intricate simulations, bolstering decision-making accuracy.
- **Realistic Scenario Projections:** Experiment via design-rooted simulations, unveiling "what if" insights.
- **Swift Large Assembly Analysis:** Expedite extensive assembly simulations through automated model creation.
- **Effortless Visual Insights:** Grasp results vividly, even with intricate models, for holistic understanding.
- **Potent Computational Muscle:** Instant access to **8 compute cores**, expandable to meet time-varying demand.

Explore [here](#) for deeper insights. Experience our commitment to innovation, reshaping design excellence.

STRUCTURAL SIMULATION
UNLEASHED: A JOURNEY
THROUGH CLOUD-BASED
EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL
SIMULATION IN PRODUCT
DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL
ENGINEERING

BENEFITS OF STRUCTURAL
SIMULATION IN PRODUCT
DEVELOPMENT

BRIDGING THE GAP: THE POWER
OF UNIFIED MODELING AND
SIMULATION

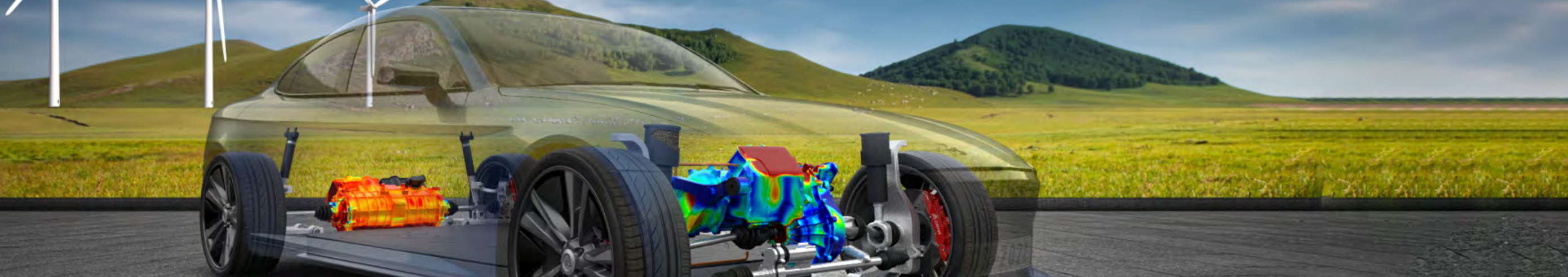
CORE BENEFITS OF
3DEXPERIENCE PLATFORM ON
THE CLOUD FOR STRUCTURAL
SIMULATION USERS

ACCELERATED SIMULATION
ITERATIONS AND DESIGN
VALIDATION

COST SAVINGS AND
FLEXIBILITY IN ADAPTING TO
CHANGING REQUIREMENTS

UNLOCKING THE POWER OF
CLOUD HPC FOR SIMULATION
EXCELLENCE

CONCLUSION



CONCLUSION

In a world increasingly concerned with sustainability, structural simulation powered by the [3DEXPERIENCE platform on the cloud](#) brings a profound shift to modern product development. This shift not only enhances design, performance, and cost-efficiency but also fosters sustainability.

We discussed the multifaceted benefits of structural simulation, which include early problem detection, reduced costs, enhanced product understanding, and risk mitigation. Moreover, the efficient use of virtual prototyping allows synchronizing product requirements with validation and test plans, enabling critical multiphysics simulations like structural analysis, which is particularly advantageous for sustainable product development.

In the realm of simulation, the **3DEXPERIENCE** platform on the cloud, featuring the capabilities of MODSIM, redefines the speed and efficiency of complex simulations. Tailored for specific industries, MODSIM ensures that simulations run optimally, providing swift insights and empowering informed decision-making in every phase of the product development process. By seamlessly integrating MODSIM into the cloud platform, engineers gain a transformative toolset that propels them toward innovative product launches.

Thanks to the power of the **3DEXPERIENCE** platform on the cloud and its HPC capabilities, you can unlock the benefits of scalability, collaboration, cost-efficiency, and accelerated iterations. Simulation

will become a foundational part of your design and engineering practices for transformative impact.

In summary, embracing structural simulation with the **3DEXPERIENCE** platform on the cloud enhances product development, empowers informed decisions, reduces costs, fosters sustainability, and accelerates the journey to innovative product launches.

We hope this e-book provided valuable insights and inspiration. Contact our experts now to learn more and thrive in your sustainable business journey.

Contact our experts now

DISCOVER REAL-WORLD SUCCESS STORIES

Thank you for exploring the numerous benefits of the **3DEXPERIENCE** platform on the cloud in this e-book. If you're eager to see how these benefits have been applied by companies in the real world, we invite you to visit our website for a collection of inspiring success stories. Learn how organizations have harnessed the power of our platform to solve their structural simulation challenges and achieve remarkable results.

Visit <https://go.3ds.com/stories> to access these real-world case studies now.

STRUCTURAL SIMULATION
UNLEASHED: A JOURNEY
THROUGH CLOUD-BASED
EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL
SIMULATION IN PRODUCT
DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL
ENGINEERING

BENEFITS OF STRUCTURAL
SIMULATION IN PRODUCT
DEVELOPMENT

BRIDGING THE GAP: THE POWER
OF UNIFIED MODELING AND
SIMULATION

CORE BENEFITS OF
3DEXPERIENCE PLATFORM ON
THE CLOUD FOR STRUCTURAL
SIMULATION USERS

ACCELERATED SIMULATION
ITERATIONS AND DESIGN
VALIDATION

COST SAVINGS AND
FLEXIBILITY IN ADAPTING TO
CHANGING REQUIREMENTS

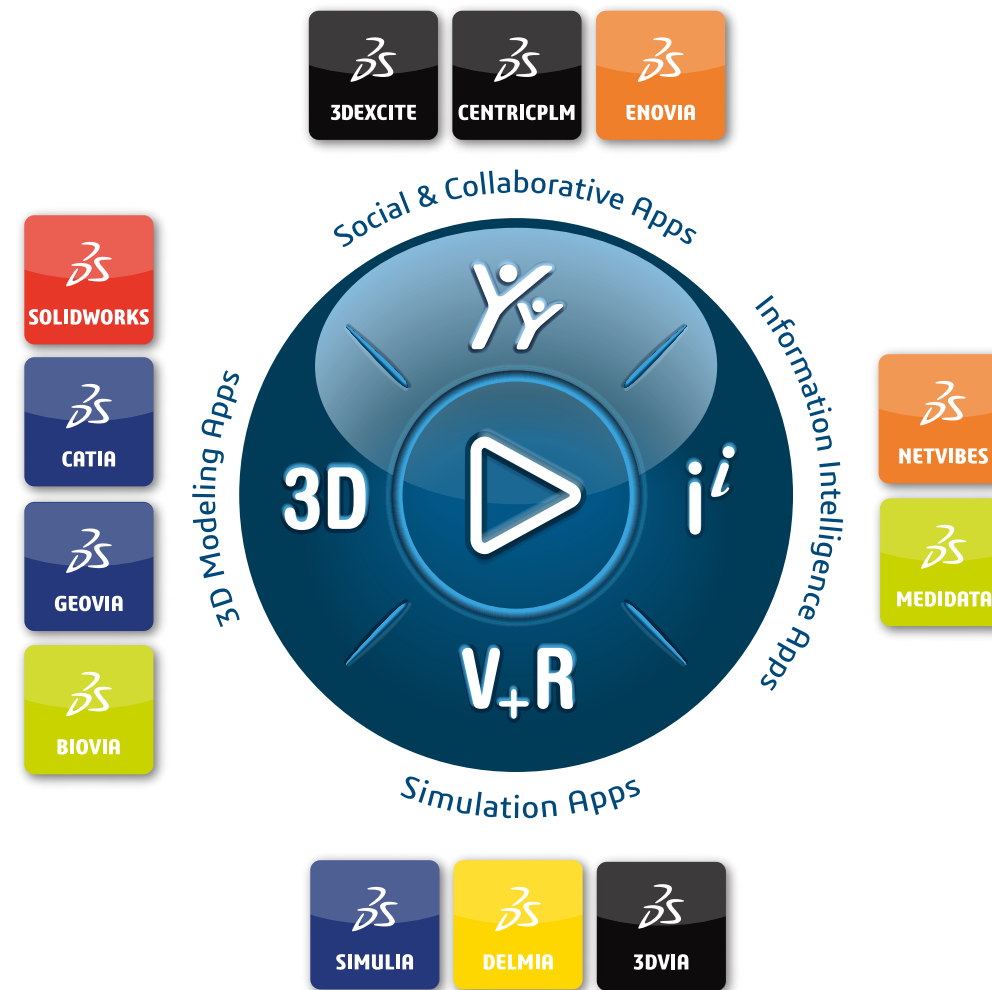
UNLOCKING THE POWER OF
CLOUD HPC FOR SIMULATION
EXCELLENCE

CONCLUSION

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.



STRUCTURAL SIMULATION UNLEASHED: A JOURNEY THROUGH CLOUD-BASED EXCELLENCE

INTRODUCTION

EXAMPLES OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

AUTOMOTIVE ENGINEERING

AEROSPACE ENGINEERING

CONSUMER ELECTRONICS

ARCHITECTURE AND CIVIL ENGINEERING

BENEFITS OF STRUCTURAL SIMULATION IN PRODUCT DEVELOPMENT

BRIDGING THE GAP: THE POWER OF UNIFIED MODELING AND SIMULATION

CORE BENEFITS OF 3DEXPERIENCE PLATFORM ON THE CLOUD FOR STRUCTURAL SIMULATION USERS

ACCELERATED SIMULATION ITERATIONS AND DESIGN VALIDATION

COST SAVINGS AND FLEXIBILITY IN ADAPTING TO CHANGING REQUIREMENTS

UNLOCKING THE POWER OF CLOUD HPC FOR SIMULATION EXCELLENCE

CONCLUSION