



# Can the forthcoming operational resilience regulation provide opportunities to learn from other industries and drive innovation?

Minimize disruption of important business services



## INTRODUCTION

Increased disruption of important business services is challenging financial institutions across the globe. In the UK, the Bank of England (BoE), the Prudential Regulation Authority (PRA) and the Financial Conduct Authority (FCA) are planning to introduce tighter restrictions to ensure firms strengthen operational resilience. They published a consultation paper outlining their vision in December 2019. While we await the outcome of the consultation, financial institutions are questioning what the changes will mean, and how best to implement them.

In November 2020, Dassault Systèmes brought operational resilience experts and leading executives together to find answers to these pressing questions. The round table discussion gave sector leaders a chance to voice their concerns anonymously. In return, speakers gave insight into how to overcome them, in particular, by sharing best practice from other industries such as aerospace. The conversation was conducted under Chatham House rules to enable participants to speak as openly as possible. The results were illuminating.



## INDUSTRY CONCERNS

The financial services sector feels unprepared for the forthcoming changes to operational resilience legislation. When asked to vote on a scale of one to 10 how well-prepared the sector was for the forthcoming changes, more than 80 per cent of the executives only felt moderately prepared.

This sentiment was captured explicitly when those around the table were asked to suggest and vote on what they would describe as “one of the ten commandments of operational resilience”. The winning suggestion was, “Thou shall fail, prepare to deal with it”.

What specifically alarms the sector about the changes? Further investigation during the discussion revealed several areas of concern:

1. Identification of important business services – the sector has anxieties around the regulators’ demand that firms identify their important business services, and set tolerance levels for potential disruptions. One attendee asked how firms could define an important business service. “At what depth?” they questioned. “How to analyze and maintain?” Another questioned: “How do you set a tolerance level? We could all set tolerances that are too generous for us to comply?”

2. Consistency in applying the rules – institutions lack confidence that the regulators will ensure firms apply the new regulations consistently across the financial sector. They fear inconsistencies will arise, for example, between the different UK supervisory authorities. What if the FCA sets a different level of important business service compared to the BoE or the PRA? Will the regulators share best practice to help clarify how to achieve the new standards?

Firms with a global footprint are also anxious to discover whether different jurisdictions will set different definitions in different territories. How will the regulators realize a consistent international standard?

3. Clashes between policies – Firms are unsure how the new operational resilience standards will interact with other internal policies, for example, those related to recovery and resolution. Will the changes help or hinder the sector in solving common challenges?

“Thou shall fail,  
prepare to deal with it.”

## GETTING IT RIGHT

Now is a challenging time for financial services to be introducing new operational resilience measures. The UK is entering recession. The global COVID-19 pandemic has shaken business models. Customer behavior is changing. And resources are low.

Nevertheless, the message from the roundtable was clear: get the changes right, build tolerance into your processes and mechanisms and your customers will be satisfied and kept safe.

There are many actions firms must take, but some key recommendations from the roundtable participants suggested they should:

1. Have a vision – firms need to have a clear picture of how they operate and what will happen if disruptions occur. Building a model or digital twin will help them put in place the right governance mechanisms and become resilient (see more on modeling and digital twins below).

2. Build a scenario catalog – financial institutions need to “cut up the problem” by reviewing their business globally, nationally, internally and externally, and creating a catalog of possible disruptions. This is challenging and time-consuming, but imperative and should include destroy scenarios.

3. Set up proactive detection – situational awareness is of key importance. After mapping and scenario work, firms must decide which areas they need to monitor.

4. Have a clear role for the board – firms must ensure they have support from the top down. Building visual models demonstrating an organization’s operational resilience will help you win buy-in.

5. Not be complacent because firms survived the pandemic – during COVID-19 many firms coped well. But the pandemic was a symmetric disruption affecting all countries, industries and companies simultaneously. It was not fast acting and gave firms time to prepare. Future shocks will be short and sharp, and preparation for such disruptions is imperative.

“Box-ticking won’t help you to future-proof.”

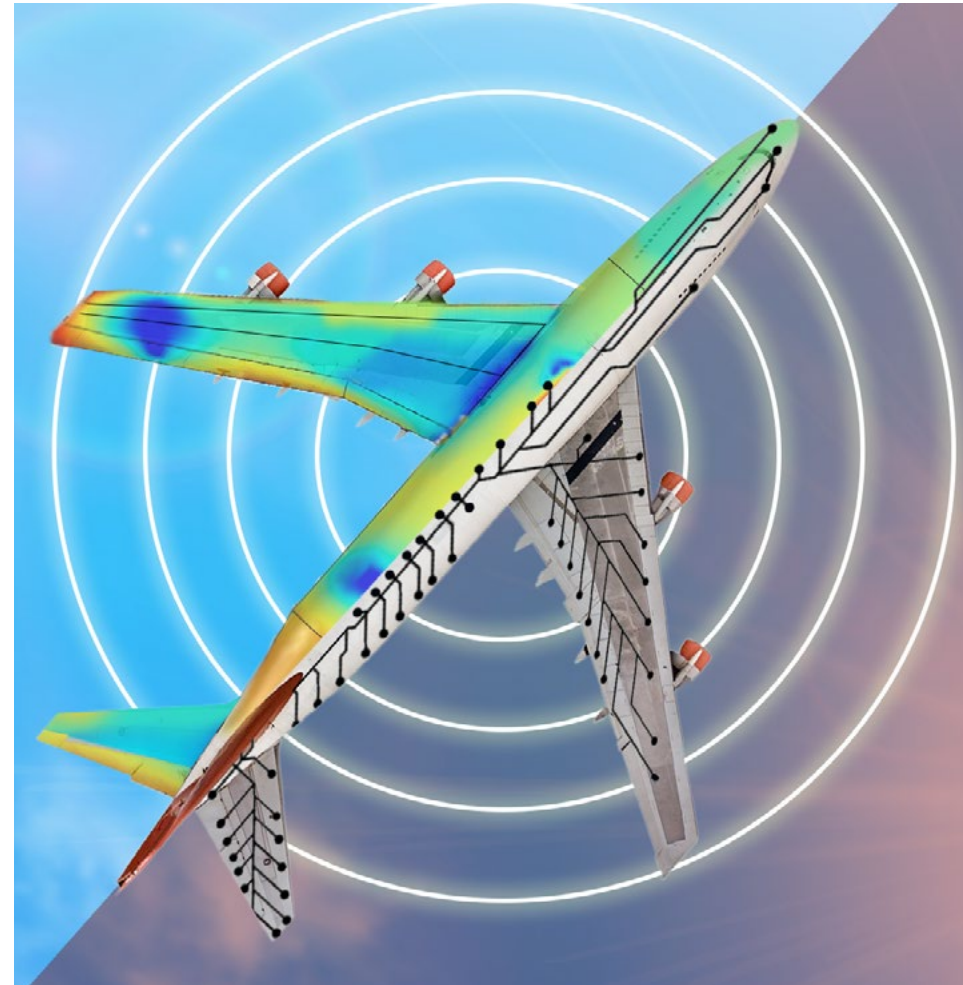


## THE IMPORTANCE OF MODELING AND DIGITAL TWINS

Data will enable financial institutions to model, detect and predict. The best way to use this data is through visualization. These were the two top takeaways chosen by participants at the discussion. And the expert speakers agreed firms could strengthen their operational resilience by building digital twins that simulate processes, test small and large disruptions, and enable you to put mitigating processes in place.

With over three decades of helping its clients thrive in highly regulated industries, Dassault Systèmes has a proven history of helping to strengthen operational resilience in manufacturing through its **3DEXPERIENCE** Platform and digital twin capabilities. This approach is also being used increasingly among financial institutions. In manufacturing, Dassault Systèmes' **3DEXPERIENCE** twins help stress-test products prior to launch – from building cars to airplanes and medical devices, and even city construction. By simulating the impact of changes to policies, processes, and products before they are implemented, institutions can better understand organizational performance in real time and significantly strengthen product service and delivery. Modeling can help firms identify important business services and gauge the level of their importance. It also can strengthen trust and reduce costs.

During the round table, participants heard two examples of how modeling and digital twins strengthened operational resilience:



“The power of visualization to make decisions.”



## CASE STUDY 1

### GLOBAL BANKING – A PHYSICAL MODEL

This particular financial institution wanted to explain the increasing complexity and costs it faced across the globe to its IT stakeholders and senior business stakeholders. It had experienced significant growth, but also faced limitations in technology, which was hindering its ability to have global systems. Internally, the bank had organizational siloes. Externally, it was trying to meet a multitude of customer demands. It decided the best way to present this challenge was through a physical model.

The bottom layer of the model depicted the bank's applications, with color-coding as to how strategic or legacy each system was. The size of the application determined how much investment the bank needed for its maintenance. On the top layer, the model showed all the bank's business areas – all the departments across the globe with customers and the products it provided. It used strings to indicate where the systems were interfacing with each other – which businesses were using which application.

The model helped the bank get its message across. "People understood it was not IT's fault that we had all this complexity and all these costs," said the bank's executive. "It was very powerful."

But the model was limited. It was hard to keep it accurate and wasn't suited for scalability. The bank is currently exploring the use of digital twins to support growth and further strengthen its operational resilience capabilities at the touch of a button.



## CASE STUDY 2 AEROSPACE ENGINEERING – A DIGITAL TWIN

The aerospace industry is constantly trying to produce aircraft quicker and cheaper with fewer people. But it must still maintain stringent compliance to regulation whilst maintaining high quality to ensure safety. While there are vast differences between aerospace and financial firms, this sector's experiences of operational resilience and the solutions it has found are transferable and worth replication.

One of the biggest challenges aerospace faces is complexity across product and process. The internal complexity of aircrafts has developed massively, such as hydraulic and electronic systems. Firms have more specific development and design teams, and as a result, the supply chain has become more complex.

As in financial services, processes in aerospace have moved from paper-based to 3D modeling. The industry has taken a huge step forward in technology on the manufacturing side, including 3D printing. Interoperability is a key challenge, as the sector tries to marry new processes retrospectively to old systems. This has parallels with financial institutions' focus on managing legacy and new systems. Aerospace also faces many of the same potential disruptions as financial services, such as cyber security, economic uncertainty and the coronavirus pandemic.

One route that delivered huge improvements to a particular aerospace firm, and is completely transferable to financial firms, is to view the entire operation holistically: an end-to-end view. This company now looks at the whole life cycle of the product. Previously different manufacturing teams were broken into siloes – they did not visualize or understand how changes in their department would affect other people further down the life cycle of a product. Now it is possible to see the aircraft as one connected system. It is mapped and modeled, and the model is consistently updated. The model both holds the physical connections between an aircraft's components, and captures functional processes – the how and the why behind design.

This enabled the firm to become proactive rather than reactive. It can run simulations to help make future decisions. For example, maybe the best design of a particular component might be one with the lowest weight and cost. But this might add manufacturing cost and a time-delay or complexity in the supply chain. This end-to-end view can be used to make a better analysis. It is easy to imagine what benefits this innovation could deliver to financial systems. Even a very small disruption, such as someone being off sick, can impact the whole end-to-end product. This visualization means the firm can put mitigations in place.

“When you have a digital representation of the whole physical product, with real time data analytics, that can be used to predict where a failure might occur in the future,” an aerospace engineering expert said. “It optimizes the whole process.”

## WILL THE REGULATIONS PROVIDE AN OPPORTUNITY?

Despite the financial industry's concerns around the forthcoming operational resilience regulations, the discussion also revealed that firms support the regulators' approach. In particular, they welcome the regulators' focus on the resilience of important business services. The fact that firms are more accepting now that disruptions will occur indicates the sector will be proactive in implementing the new regulations.

During the debate, there was also a sense that the changes were an opportunity for firms to adapt, strengthen and build capability for the future. One expert highlighted the huge advantage it could deliver of breaking down siloes. "You can build an operating model across disciplines, end-to-end, to achieve attributes, culture and competitive capability," they said.

Experts stressed that for financial services to benefit from the lessons of other industries, cross-industry collaboration was key. Lessons, concepts and innovations already in use today can be learned, adapted, and applied to financial services. Particularly, digital twins are progressively being used more in the sector, with strong results.

Collaboration with the regulators was also highlighted. Too much regulation stifles competition. Too little can lead to risky behavior. In the future, financial services could even come together to develop self-regulating, cross-industry and cross-sector practices.

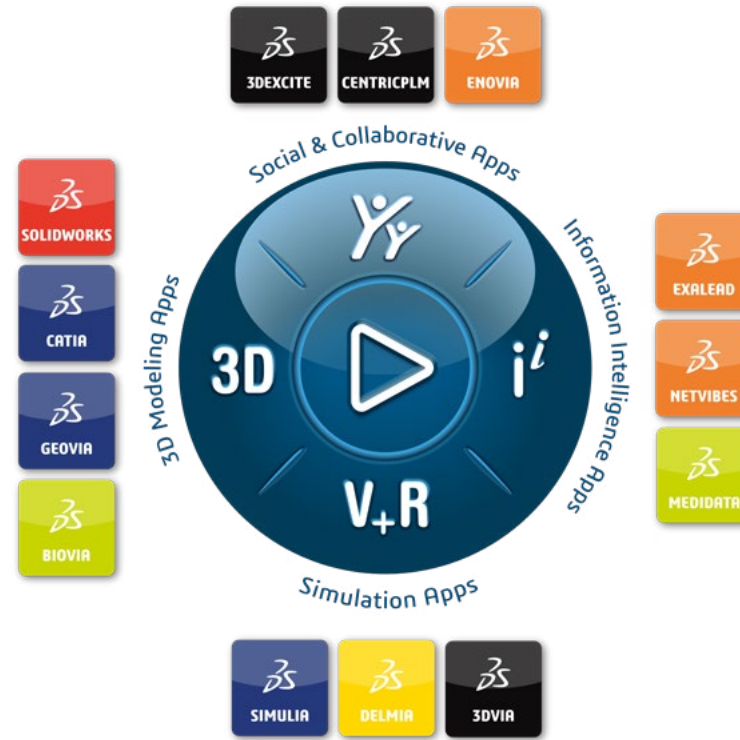
As one expert at the event concluded: "It's a really exciting time".

To find out more, visit <https://ifwe.3ds.com/business-services/strengthen-operational-resilience>

“This is a once in a decade opportunity – grasp it and build capability for the future.”



Dassault Systèmes' **3DEXPERIENCE** platform has brought its engineering approach, best practices and technology, used as standard in manufacturing and aerospace, to financial services to strengthen operational resilience. The Platform can be used within your existing operational risk, business continuity and disaster recovery framework to drive operational excellence and innovation. It links all key components of important business services – people, property, suppliers and technology, enabling all stakeholders to collaborate effectively across the business. The use of virtual twins enables frequent tolerance testing, swift assessment and response. And communication becomes business as usual to strengthen operational resilience.



Our **3DEXPERIENCE®** platform powers our brand applications, serving 11 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 experience twins' of the real world with our **3DEXPERIENCE** platform and applications, our customers push the boundaries of innovation, learning and production.

Dassault Systèmes' 20,000 employees are bringing value to more than 270,000 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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