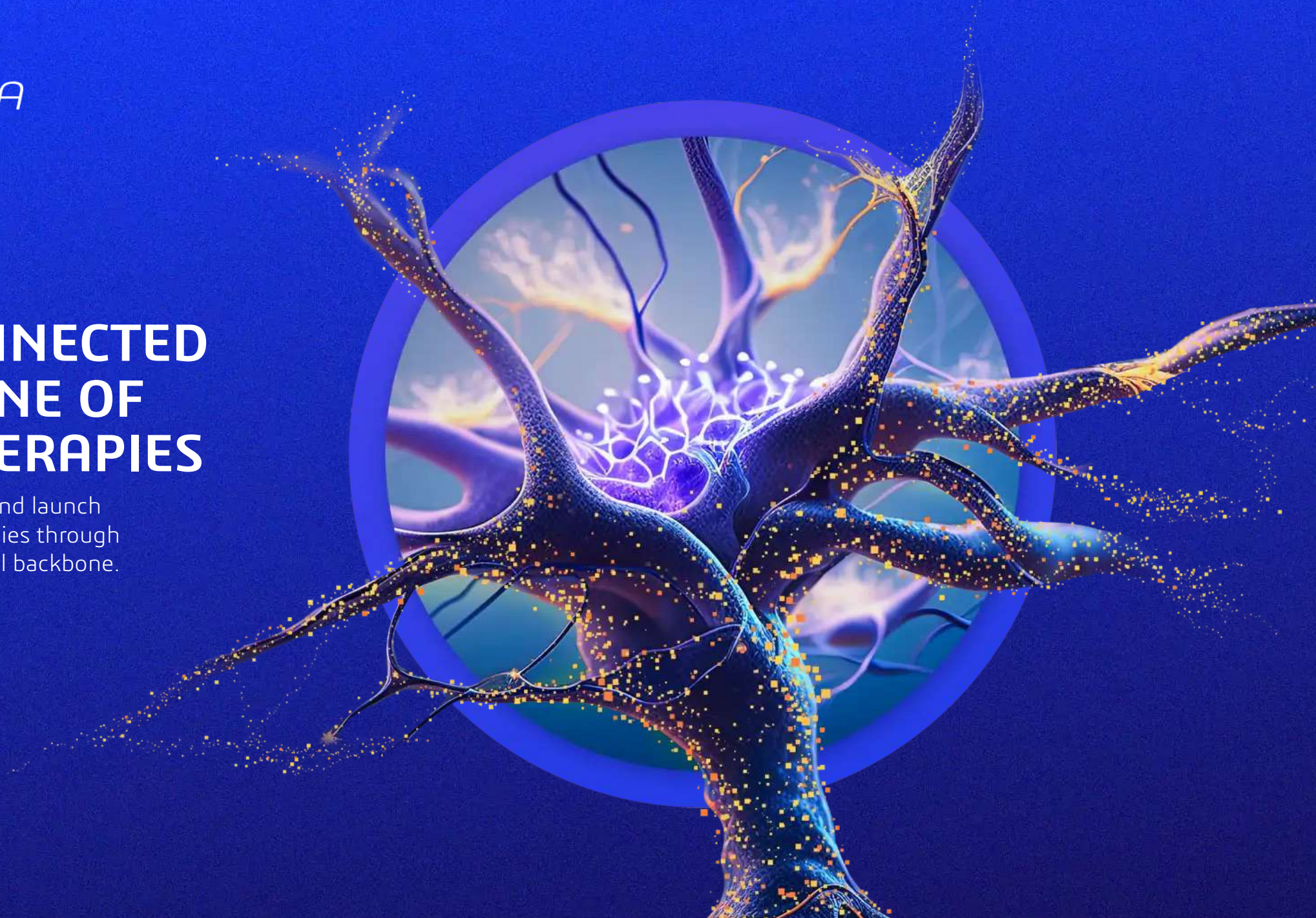


GUIDE

# THE CONNECTED BACKBONE OF NEW THERAPIES

Innovate, scale up, and launch  
breakthrough therapies through  
an end-to-end digital backbone.



# THE URGENCY TO DELIVER NEW THERAPIES

Despite the incredible advancements in the Life Sciences and Healthcare (LS&H) industry, drug shortages are still prevalent today<sup>1</sup>.

Out of the hundreds of thousands of molecules screened in early research and development, few ultimately achieve approval and commercialization. Disconnected processes and supply chain inefficiencies add to the complexity of getting new therapies to market.

The biopharma R&D process — from drug discovery to development — is costly, lengthy, and risky. A new therapy can take 10 to 12 years to progress from discovery to launch and incur capitalized costs exceeding \$2 billion<sup>2</sup>.

Today, pipelines of biologics, including cell and gene therapies, are increasing and their complexity demands new methods and real-time analytics for process efficiency and predictability.

To get to market first, biopharma companies must forge a **digital backbone** — a connection made possible by Dassault Systèmes' solutions and the virtual twin experience on the **3DEXPERIENCE®** platform.

This connection raises the bar for closer collaboration and synergy between development labs and manufacturing operations — and the connection of people, processes, and data.

In this eBook, we will focus on how a digital backbone can help you streamline all facets of the drug discovery journey to create novel and innovative therapies.

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<sup>1</sup> [CNN Health](#) (Mar 2022)

<sup>2</sup> [Deloitte's 13<sup>th</sup> Annual Pharmaceutical Innovation Report](#) (Feb 2023)

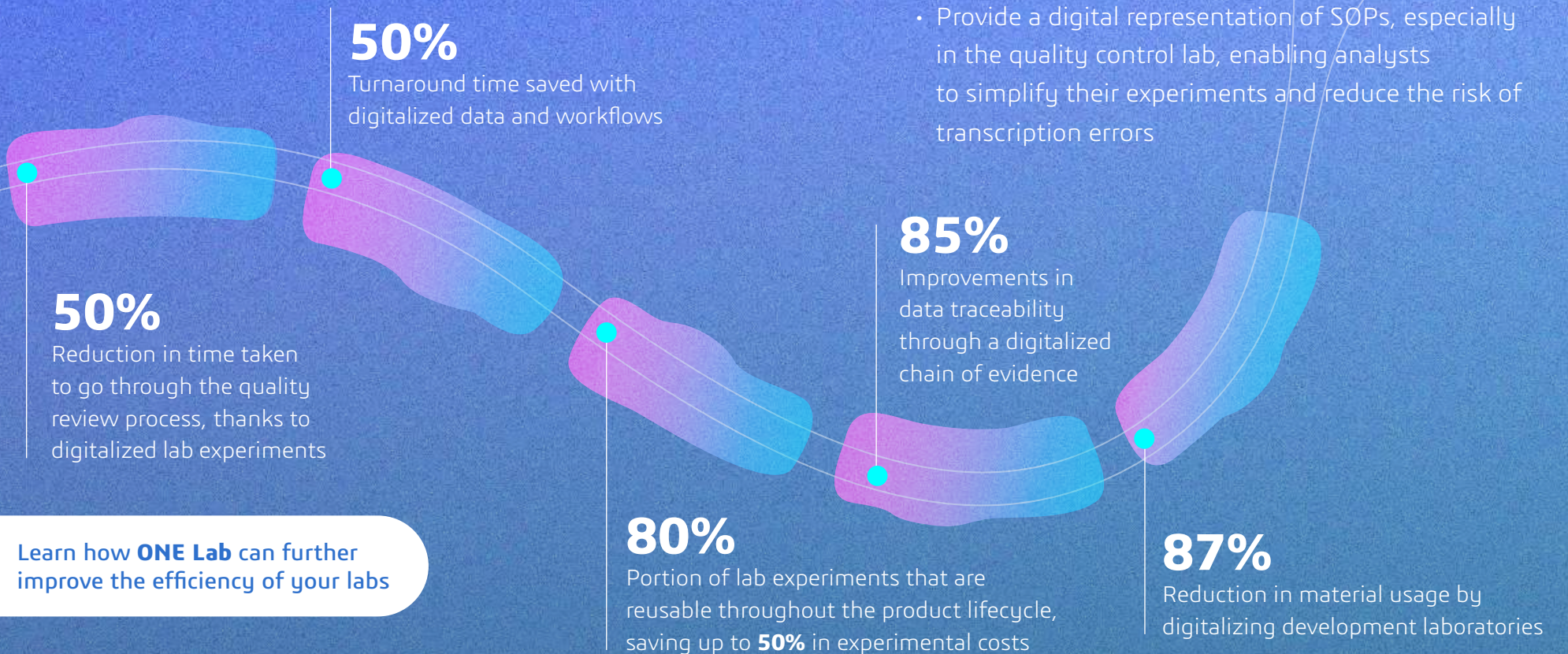
# DIGITALIZED CHAIN OF EVIDENCE

In too many cases, companies spend too long finding and giving evidence of how a batch was produced by searching through disparate records, systems, and paper documents. This inefficiency illustrates a breakdown in the chain of evidence between what was produced and how it was produced.

Powered by the **3DEXPERIENCE** platform, Dassault Systèmes' **ONE Lab** solution supports all the scientific workflows and processes biopharma companies use to create new and novel therapies.

By digitalizing the biologics lab, chemistry lab, formulations lab, and analytical lab, companies can harness synergy to:

- Manage variables and identify interdependencies across materials, equipment, and processes
- Identify the equipment used, the genealogy of specific samples, the teams involved, and the chain of custody
- Reduce the number of deviations, which lowers the risk of compliance issues
- Reduce R&D cycle time, and optimize test methods and specifications
- Provide a digital representation of SOPs, especially in the quality control lab, enabling analysts to simplify their experiments and reduce the risk of transcription errors



**+** Learn how **ONE Lab** can further improve the efficiency of your labs

**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).

