



CUSTOMER STORY

# How Össur Uses Jama Connect<sup>®</sup> to Keep Millions of People Moving

By shaving days off development, the Icelandic orthopedic pioneer is moving faster than ever.

# About Össur

Since 1971, Össur has been working to create a better quality of life for millions by improving their mobility.

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Founded in Reykjavik, Iceland, by famed prosthetist Össur Kristinsson, the company was granted its first patent in 1986. It has since grown into a global leader in non-invasive orthopedics. Specializing in prosthetics and bracing and supports, Össur's landmark technology has been celebrated in publications such as Popular Science magazine and worn in competition at the Olympic Games.

While the company's headquarters remain in Iceland, Össur now counts over 3,500 team members across Europe, U.S.A., Asia, and beyond. Given the company's growth and pioneering spirit, Össur is continually evolving its development processes across its broad portfolio of products to consistently deliver ground-breaking orthopedic solutions for its customers.



# Growing More Agile and Efficient

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For several years, Össur had been relying on an internally developed document-based system to manage its product requirements. The system had been working as intended, but Össur felt there was an opportunity to make its process faster and more agile.

The company offers a range of solutions of varying complexity. Some of the products Össur creates, for instance, share around 60% to 70% of the same core requirements. Those particular solutions make a strong case for reusing requirements to avoid pitfalls like scope creep when it comes time to build the next product variation. Unfortunately, replicating requirements in a document-based system can be extremely time-consuming, as the critical but painstaking tasks associated with traceability must be performed manually.

“Developing more efficiently is probably one of the main goals that we have as a medical device manufacturer,” says Guillaume Julien, program manager at Össur. “Especially when we do design control, which is basically driven by complying with regulatory requirements.”

Given the orthopedic products Össur builds, it must also comply with international standards like ISO 14971 and ISO 13485. That responsibility demands that risk management be part of Össur’s development process, which can drain resources depending on the project. For instance, the more complex a product, the higher the chance for risk, and managing the sometimes hundreds of requirements can be a major chore with a document-based system.

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**Guillaume Julien**, Program Manager, Össur

“If you have five or six developers that are working concurrently, just making sure that your traceability doesn’t develop gaps is a full-time job,” says David Langlois, director of R&D Bionic Solutions at Össur.

In the quest to make its process more expeditious, Össur examined the different steps of its development cycles, which included collaborating on requirements within a static document, sending it around for reviews and, once approved, verifying the requirements. Since the process unfolded in such a sequential manner, it was conflicting with the desire to become more agile.

A highly complex Össur product might have hundreds of requirements which first need to be drafted — sometimes from scratch — then reviewed and approved. If you decide to add one single requirement, you’d need to send the whole thing around to stakeholders for review again. At that point, the original stakeholders may not be totally up to speed on the updates, and so they’ll need additional time to refresh on the project before diving back in.



Our old system was very rigid. The minimum effort was always quite high, which also means that the overhead was also high.”

**David Langlois**, Director of R&D  
Bionic Solutions, Össur

# The Search for a New Solution

Feeling it was time to look for an alternative to its in-house, document-based requirements management system, Össur set about finding a new one. The company wanted something that was as close to a turn-key solution as possible, capable of handling Össur's diverse line of products and their varying levels of complexity and compliance, with a very specific set of features that could be scaled across the organization.

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Össur knew, for example, that it wanted an integrated, all-in-one solution with traceability that allowed for dynamic content management and could handle the complete chain from requirements through verification and validation.

After considering a variety of options, including legacy platforms and some specifically built for developing medical devices, Össur landed on Jama Connect™ because the solution was configurable, could scale quickly, handle products of varying complexity, and easy to use.

# Implementing Jama Connect

In 2018, Össur initially began using Jama Connect with a small group of select developers working on bionic lower-limb prosthetics. Since then, it has seen the process improve dramatically, particularly around:



## Impact Analysis

“Right off the initial stage of just importing the data in Jama and trying to create the relationships,” Langlois says, “we actually saw that we had traceability gaps, just based on what we had done before in the old system. Catching these gaps would’ve probably taken hours or days in our old system, while with Jama, it became obvious in a matter of minutes.”

Jama Connect’s impact analysis — which provides an accurate understanding of the implications of a proposed change, and helps teams make informed business decisions



## Traceability

about which proposals to approve or deny — has been another huge advantage for Össur.

“We can see the impacts backwards and forwards,” Langlois says. “That brings a lot of value when you’re trying to run a review, and you want to know whether you have gaps in your test coverage. With Jama, it’s a five-minute question instead of one that takes hours.”

Jama Connect’s test coverage has also been a benefit for Össur. The team had been relying on a different testing tool that was inefficient.



## Test Management



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Jama Connect provides an overview of where you are in the test process, so you can see exactly how much time you have already spent on test cases, and that helps better estimate the amount of time left with remaining test cases still needing to be done.”

Matthías Kristjánsson, Product Lead Designer, Össur

With built-in metrics from Jama Connect, Össur feels its testing process is becoming more predictable. Previously, the team didn't have a very effective way to track how much time was spent writing documents or creating and executing test cases. Usually, it would take three weeks to run a test program, and it was unclear how that time was being spent.

“One thing that's very powerful about Jama Connect is that, after a few test runs, you can actually quantify pretty accurately what sort of effort is required,” Langlois says. “Jama provides all these metrics that actually allow you to identify where are your bottlenecks, and giving you a better understanding of where the time is going, and where you're losing money.”





# A Faster Future Full of Momentum

Össur will begin expanding Jama Connect out to more teams across the organization, particularly those working on complex products. The expectation is that Jama Connect will help consolidate information and improve collaboration for those working cross-functionally and remotely across locations. And Össur has been extremely happy with the ease of adoption so far.

“We have people that just started last week, and they’re already working within Jama Connect this week,” Langlois says.

As Össur branches Jama out into other areas of its organization, it plans to allow individual teams to configure Jama Connect in a way that best suits how they work. And Össur is already thinking about ways to integrate with some of the other solutions it’s currently using.

“As a software developer, I think Jama Connect’s integration with Jira is going to be very useful for me,” Kristjánsson says. “Today, we actually make duplicates of our requirements into the Jira system. Being able to connect them straight to Jama, and remove that step, so they’re directly connected to a requirement or specification will be valuable.”

Visit [jamasoftware.com](https://jamasoftware.com) to learn more about [Jama Connect](#) for medical device development.

## ABOUT JAMA SOFTWARE

Jama Software® is focused on maximizing innovation success in multidisciplinary engineering organizations. Numerous firsts for humanity in fields such as fuel cells, electrification, space, software-defined vehicles, surgical robotics, and more all rely on Jama Connect® requirements management software to minimize the risk of defects, rework, cost overruns, and recalls. Using Jama Connect, engineering organizations can now intelligently manage the development process by leveraging Live Traceability™ across best-of-breed tools to measurably improve outcomes. Our rapidly growing customer base spans the automotive, medical device, life sciences, semiconductor, aerospace & defense, industrial manufacturing, consumer electronics, financial services, and insurance industries.