How product engineering PODS deliver diverse solutions

End-to-end customer engagement for a fast food retailer. Enjoying a seamless shopping experience on a sneakers site. Managing patient interactions on a national cancer screening programme.

What do these all have in common? They're projects designed and delivered by Hitachi Digital Services' agile PODS team. We are 25,000 product development engineers across 10 engineering centres globally with more than 250 clients in every imaginable sector.

We're all about helping businesses – enabling better customer service and engagement, getting new products and services to market quicker, and delivering better business and customer understanding through data.

Continuous improvement

While the starting point is often a single goal, once a solution is up and running, our systems are autonomously cross-relating data all the time, feeding new insights to our data scientists and enabling our engineers to constantly refine performance. Our POD approach makes product engineering measured, outcome-orientated and KPI-driven.

Collaboration and challenging the status quo is at our core. We incentivise our entire cross-disciplinary team with rewards to bring new ideas and ways of working to clients, with co-creation, process improvement approaches and concepts to enhance the final product – and beyond.

Beyond our client base, many organisations suffer serious reliability issues because of the way the code has been written in their products. But for us, QA and testing starts at the beginning, and we write code with the end in mind using advanced tools like generative AI to create reliable, reusable assets.

Start with what you want to achieve

The approach we take is to ask, What do you want to achieve for your business?

That's the starting point. And there are so many different goals and priorities that our clients have. For example, cardboard manufacturing is very energy-intensive, so we're helping a client in that industry to reduce energy through monitoring and optimising machinery. We're harvesting data and analysing it in the cloud to develop end-to-end energy reduction solutions including turning the machinery temperature down when they're not in use.

Similarly, commercial kitchens use a lot of gas and electricity – notably gas burners and fridges. A national pub chain came to us with this problem, and we developed and implemented a pioneering central system that can tell whether gas is being cooked on or wasted, and automatically turn off burners, and also switch fridges off periodically to save electricity while maintaining a stable temperature.

Extensive capabilities on tap

Our self-sufficient autonomous PODS provide a team that can be operational in just four weeks, and we can also embed our skilled resources within clients' own product engineering teams.

With decades of experience, there is hardly a sector that we don't have deep expertise in. That enables us to deliver an incredible breadth of solutions.

In healthcare our advisory experts help clinical and operational teams to create new models of care, and clinical data scientists unlock new insights to transform patient care. For example, we've co-created a new digitally-enabled hospital operating model and management system with a leading NHS Provider. We enabled new ways of working through the design, development and deployment of a Digital Twin to improve real time operational and clinical decision making with insights powered by AI and machine learning. The solution safely reduced patient LoS by ~10%, reduced unwarranted variation, improved staff experience and organisational efficiency.

We have also partnered with a prestigious US healthcare provider to develop clinical decisions support tools for selecting type 2 antidiabetic medications, and better communicating cancer prognosis using machine learning. We developed SMART on FHIR applications and integrated them into the electronic health record system. The machine learning models were developed in compliance with FDA regulations and adherence to current clinical research reporting standards.

The pharmaceutical industry too is increasingly looking at digitally enabled solutions to optimise operations, enhance research, and provide better patient outcomes. For a biopharmaceutical client, we successfully designed and developed an international launch strategy for a new autoimmune drug, embedding the latest med tech innovation to accelerate access to treatments and personalised patient engagement.

We have also designed and built a secure research environment for the American Heart Association to enable their mission of accelerating and democratising research, by enabling fast and secure access to data, high performance computing and cutting edge analytic tools for the global research community. The AHA Precision Medicine Platform has been used by 100s of researchers to advance science in cardiology and related medical areas.

In banking, we've worked with 44 of the world's top 50 banks to enable them to keep adapting in an industry that's constantly changing. We help launch, test and adapt new products quickly, so banks can continue to meet customer needs and reduce the cost of compliance.

And in retail we've delivered innovative, omni-channel media customer insight solutions to open up new long-term revenue, and front and back-end development for web and mobile sites, with customer and campaign data integration and associated support services.

Product engineering is the enabler

At Hitachi Digital Services we have a strong track record of enabling our clients to successfully meet their business needs by accelerating time to value, bringing forward new products to increase sales and customer engagement, and reducing risk and costs. And we manage the full lifecycle, from architecture and design to maintenance and support. We have the skills, industry experience, processes and product engineering tools to accelerate your software development and drive business success through products that are robust, ready to scale and easy to maintain.

Whatever your business problem, PODS have the answers.

ABOUT HITACHI DIGITAL SERVICES

Hitachi Digital Services believes in the power of technology to improve people's lives today and build a better future. It's something we've done, as part of the Hitachi Group, for more than 110 years. We work at the intersection of people and technology, through trusted partnerships, engineering excellence and digital transformation. Let's accelerate your journey to tomorrow. Visit https://diamond.nih.gov/







