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**HITACHI**  
Inspire the Next

# Data: The Active Ingredient Behind Performance and Profitability

Novartis and Hitachi Vantara:  
Enhancing quality of life with intelligent innovation

# Foreword

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To continue making profound changes at remarkable speed, Novartis needs the innovation to support its strategic goals.

If you want to discover which strategies, approaches and solutions you need to transform efficiency, generate profit end-to-end, and make the right choices, read this e-book. It will give you valuable insight into the latest technology that will drive your success.

By leveraging your existing alliance with Hitachi Vantara, you can change the future for the better. And today is the best time to begin.

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# An insight into your future

## **Imagine a world of low-cost innovation.**

Where automation in the data center means lower management overheads, self-healing infrastructures, and hyperconverged environments that are optimized to ensure outstanding application performance and better user experiences. It adds up to lower costs, higher performance and faster time-to-value for new treatments.

## **A place where you can generate end-to-end profit.**

With streamlined supply chains, optimized operations, lower costs, increased profitability and a competitive advantage that's stronger than ever. Automation and the internet of things will help you engineer waste and inefficiency out of every product line. Complex data pipelines will be optimized to feed AI and robotics with real-time, comprehensive intelligence that drives machine learning and embeds continuous improvement into every point along the line of supply for faster results.

## **Enter a unique dimension of data protection.**

Where Novartis takes a new approach. Tackling the data deluge with innovation that delivers advanced copy management, simplified orchestration of complex protection operations, and in-system replication, and in-system replication all to help minimize risk and enable rapid, almost unnoticeable recovery.





### **Discover the next generation of talent.**

A generation of scientists that will have digital in their DNA use investigative tools fueled with data of the highest possible quality. These employees will have the ability to collect, manage and analyze data at scale and at speed, recruiting graduates of the high caliber needed to maintain and grow their ability to innovate.

### **Close the knowledge gap.**

The close collaboration of brilliant people will enable rapid innovation and fast time-to-value. Novartis will close the knowledge gap by hiring new talent outside of pharmaceuticals to broaden skillsets and gain new ideas. Time and geographic differences will disappear when infrastructures support seamless video, voice and written communication. File sharing, version control and audit-trailing can all be simplified and optimized to allow information and ideas to flow freely across teams. They'll be able to learn quickly and achieve outstanding outcomes.

### **Transform retention and improve performance.**

As you begin to use end-to-end sensors for the entire supply chain, IoT and analytics can play an important role in time to market and time-to-market with improved performance. Analytics will change the game for clinical trial sign-up and continuation, helping Novartis analyze which subsets of patients are more likely to remain. By tracking completion of patient outcomes and retention, this will cut costs with research agencies, improve time to market and increase clinical trial retention.

### **A future together.**

These outcomes are just a glimpse into the benefits made possible by enhancing an existing alliance. Hitachi Vantara and Novartis work together with one key focus: to dramatically reduce costs with the intelligent use of data and digital innovation. We'll help you change the future for the better with expert advice and solutions for the data center and the cloud with big data and the internet of things.

# Making your vision a reality

Hitachi Vantara was established to meet the needs of valued customers like Novartis.



Your vision is being made real: a future where costs are managed effectively with 100% data availability. And we're already working together to build a brighter future. But more can be done to reach your strategic goals.

Our work with Magyar Telekom is a live example of establishing a zero-outage culture within an organization – taking huge volumes of data, consolidating their storage environment and running services faster than ever before. With consolidated, simplified infrastructure, Magyar Telekom has been able to boost application performance by six times, reduce their storage footprint by 26.5% and cut costs dramatically.

Work with us to reach the same goals: reduce costs and improve application performance without compromising on quality.

And the biggest opportunity for Novartis lies in your vision. A vision that Hitachi Vantara shares with you. A dedication to innovation, a focus on improving time to value, a recognition that data is the business-enabling capital of the digital era.

By combining the best brains from two world-leading organizations, we've already begun changing the way the world works.

## Achieve your strategic goals with three changes

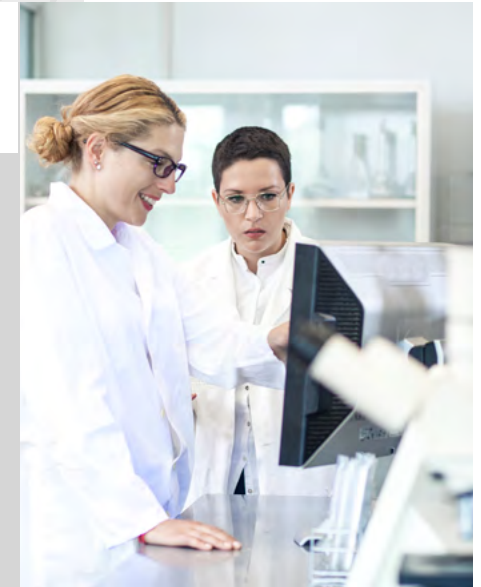
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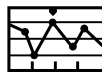
### Rationalize and reduce costs with as-a-service storage and backup

We're already working together on the SAN refresh. But to achieve even greater benefits with the move to India, storage-as-a-service (STaaS) and backup-as-a-service (BaaS) can be used to:

- Turn storage and backup into flexible utilities with predictable costs.
- Unlock faster, more streamlined cloud deployment and operation.
- Reduce management overheads, while assuring quality.



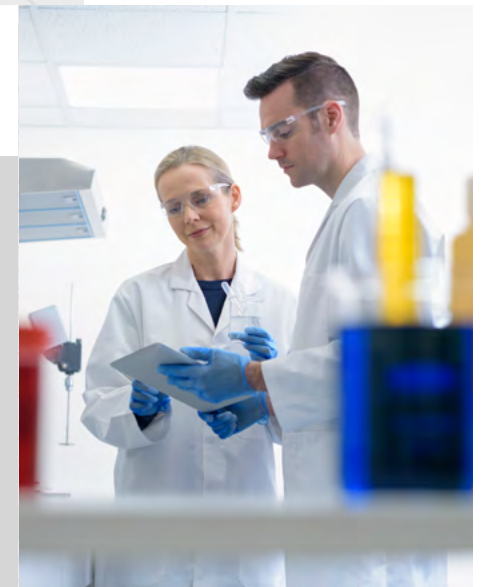
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### Uncover the power of data analytics to drive innovation

Now you can enhance SAP HANA with Hitachi Vantara's Pentaho platform. With integration between the two solutions, you can future-proof your big data environment and allow governed data delivery across multiple structured and unstructured sources.

- We're in the top five for cloud and infrastructure SAP HANA solutions.
- Hitachi Unified Compute Platform and Hitachi Virtual Storage Platforms are fully tested and certified for both SAP HANA's Appliance and Tailored Data Center Integration (TDI) programs.







## Shine a light on your dark data assets

Change at the scale of the Indian move creates big opportunities to transform the future. Intelligent data governance helps you to enrich dark data assets with valuable metadata to help simplify compliance and secure data no matter where it resides.

- Reduce the cost and complexity of data governance and compliance reporting.
- Provide a single source of truth for data governance and regulatory requirements.
- Search, index and tag data without the need to rely on unauthorized IT personnel.

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# TOMORROW

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## The big results

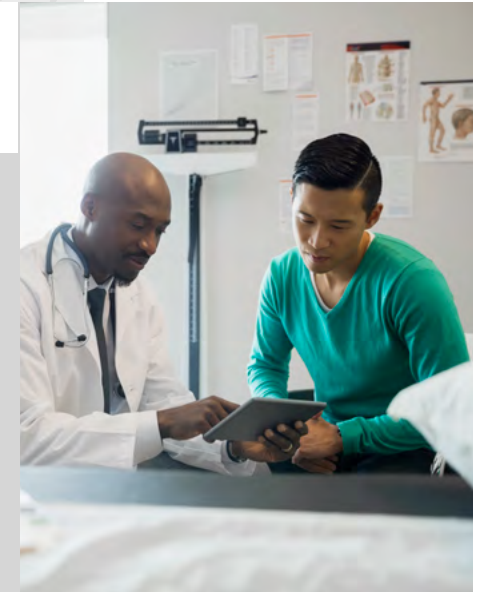
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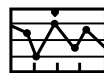
### Novartis cloud and object storage

Cost reduction is only the beginning. The real story of digitally-enabled innovation can be told when cloud and object storage models begin to extend management and governance beyond the data center.

- Explore a complete onsite-to-cloud solution, from hybrid, to all-flash, to object storage.
- Reduce operational costs with advanced storage efficiencies, including adaptive data reduction.
- Centralize, consolidate and quickly scale the storage environment, without complexity.



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### Discover meaningful insight with integration and analytics

Hitachi Content Intelligence unlocks innovation and efficiency, creating complete and comprehensive flows of meaningful data that reach the right people (and the right machines) at the right time.

- Unifies multistructured data throughout on-premises and cloud-hosted architectures.
- Adds value to data by customizing existing data, augmenting content and creating new metadata descriptors.
- Creates detailed analytics and graphical visualizations that are easy to understand.







## Tomorrow: IoT, AI and Automation

Novartis' investment in IoT, AI and automation relies on robust and timely data pipelines to feed the analytics engines.

- Combine traditional business data with data from emerging sources such as machine sensors, networks, and the internet.
- Use visual tools to eliminate the complexity of hand coding.
- Blend, cleanse and prepare diverse data with ease.

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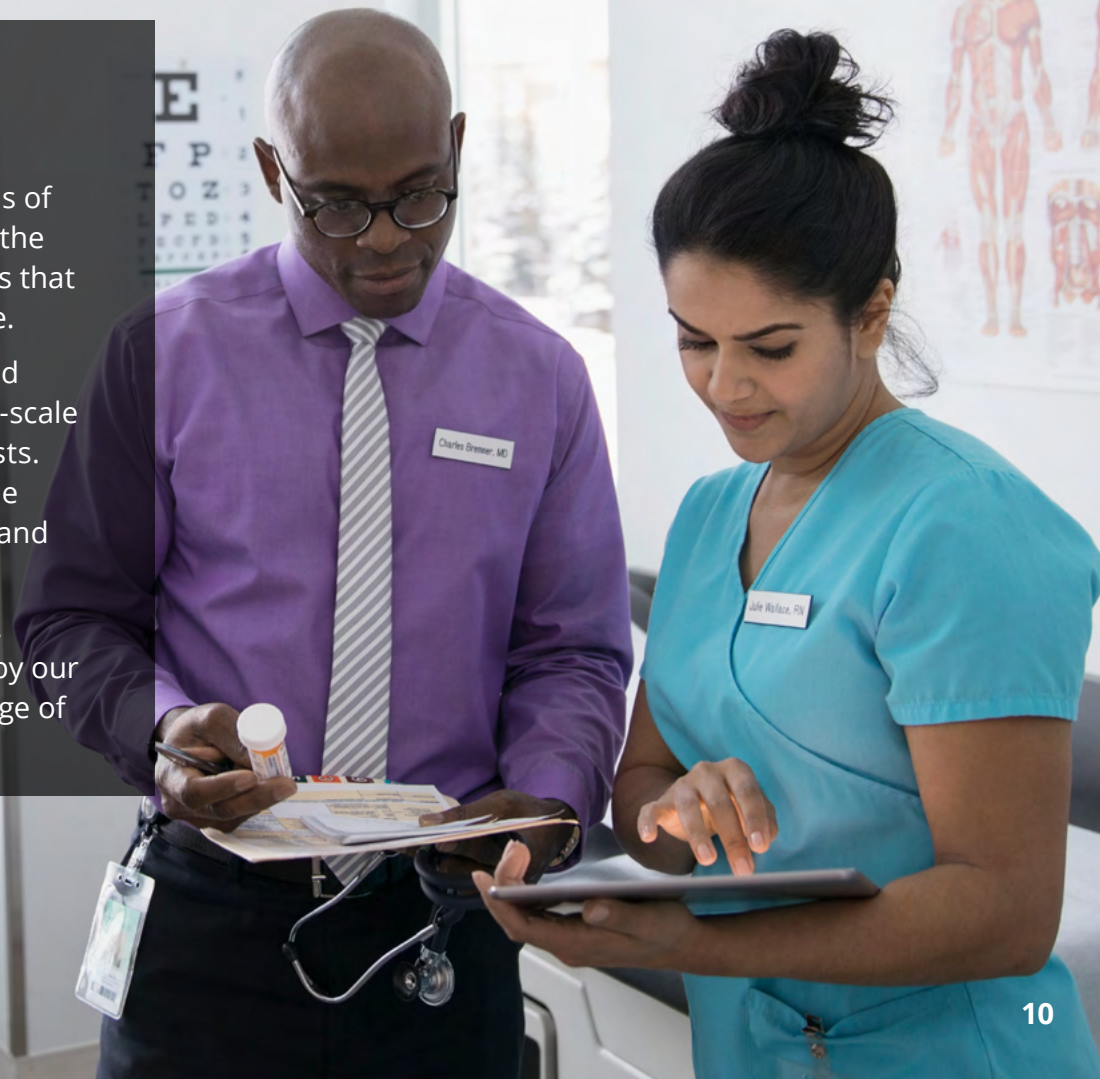
# To perfect the science of medicinal data, Novartis needs a new kind of laboratory

When the science of pharmaceuticals meets the science of data, incredible things can happen.

In your passionate drive for innovation, you've already forged all kinds of new partnerships while capturing and sharing best practices around the world and stripping out waste and inefficiency. Hitachi Vantara shares that passion and we bring unique experience and capabilities to the cause.

With a heritage of 100 years of operational technology experience and 60 years of IT experience, we understand what it means to be a large-scale manufacturer with a global footprint. We are the world's data scientists. We connect business, human and machine data in the data center, the public and private cloud and across applications to create data lakes and pipelines that feed the engines of innovation: IoT, AI and automation.

Our solutions, including Pentaho for SAP HANA, storage-as-a-service, Hitachi Content Intelligence and intelligent data governance, backed by our proven expertise, offer you the capabilities you need to take advantage of these opportunities and turn data into value.





## Get in touch

We share your commitment to data-driven innovation.

Take the time to learn more about what you can do when data is at the heart of your innovation.

Let's shape your future together.

Talk to your dedicated Novartis Account Team,  
via **[robert.moreno@hitachivantara.com](mailto:robert.moreno@hitachivantara.com)**  
to get started.







Visit your dedicated landing page  
to find out more

**[HitachiVantara.com/go/Novartis](https://HitachiVantara.com/go/Novartis)**