

# Wrap-up

2024: A year of **Al-driven** transformation in Life Sciences & Healthcare



# 2024: Accelerating advancements in Al technologies for Life Sciences and Healthcare

Last year was marked by the ongoing digital transformation in Life Sciences and Healthcare, with increasing pressure to advance AI technologies, particularly Generative AI. For Nagarro, 2024 was about supporting our customers in accelerating innovation and addressing critical challenges within the sector.

**Personalized medicine** saw remarkable progress, with **Al-powered analytics** enabling tailored treatments that improved patient outcomes and strengthened the transition to precision healthcare. At the same time, the industry responded to workforce shortages and rising cost pressures by embracing **decentralized care delivery**. Through digital tools, we worked on solutions that brought healthcare closer to patients, improving access and focusing on **near-patient care** experiences.

The Internet of Medical Things (IoMT) continued to play a central role in **patient monitoring** and **real-time health monitoring**. In addition to connecting professional labs, our IoMT projects added new support for home care environments to their scope, with the vision of enabling proactive, assisted interventions that are closer to patients.

Harnessing data as a strategic asset has heightened the need for digital projects to integrate and manage diverse biomedical datasets, unlocking their potential for research, production, and operations.

Andrei Doibani

Life Sciences & Healthcare Global Business Unit Lead, Nagarro



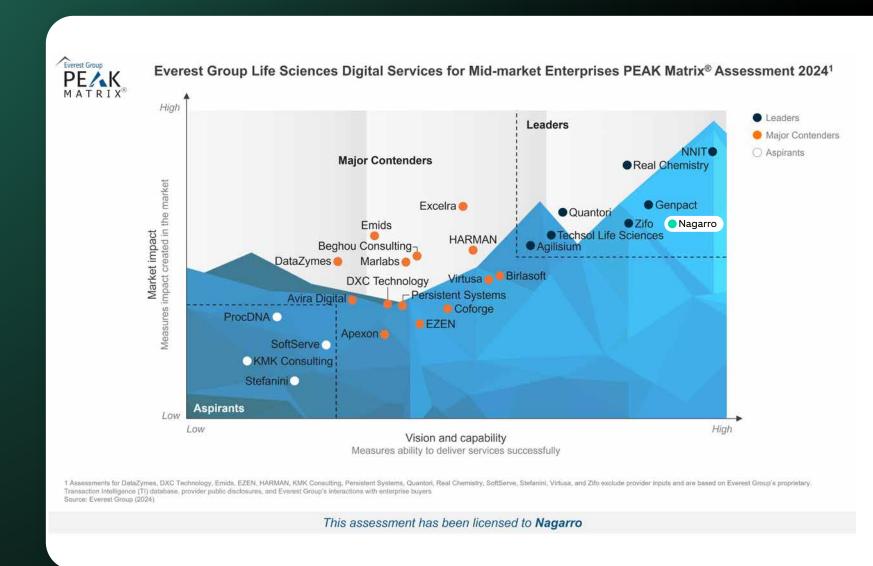
#### What's new

# Nagarro was named a leader in Everest Group's 2024 Life Sciences Digital Services for Mid-market Enterprises PEAK Matrix®

The acknowledgement underscores our commitment to fostering innovation and spearheading digital transformation within the sector.

The report emphasizes Nagarro's strengths in several key areas that include:

- innovative technology solutions our AI/ML applications for drug discovery, blockchain for secure data, and IoT for real-time device monitoring empower;
- **client-centric approach** our understanding of the unique challenges of mid-market life sciences enterprises, from regulatory compliance to clinical trial optimization;
- **focus on expertise** our investments in Generative AI and Centers of Excellence highlight Nagarro's forward-thinking strategy.



Download the full report

#### What's new

# We supported Roche in advancing global collaboration for neurodegenerative research

# We took our collaboration with DIE UMSETZER to the next level

Roche teamed up with Nagarro and a non-profit medical research organization to accelerate research on Alzheimer's through the cloud-based platform NeuroToolKit (NTK). Together, we developed an application that standardizes biomarker data, streamlines analysis, and fosters global collaboration among researchers. With a clinically agnostic design, NTK's impact extends beyond Alzheimer's in advancing neurodegenerative disease research worldwide.

The partnership aims to transform healthcare by supporting MedTech, BioPharma, and Digital Health clients in enhancing patient care. By combining our 26+ years of domain expertise with DIE UMSETZER's strategic consulting, we craft ground-breaking solutions that are driving innovation and shaping a brighter future for healthcare.

Read further





## **Thought leadership**

# Global Medical Devices Market Summary 2024

In 2024, we looked at how emerging technologies like AI, connected health, and wearable technologies revolutionized patient care and healthcare delivery. Our market summary examines critical challenges such as evolving customer needs, cybersecurity concerns, and regulatory complexities. It offers tangible ways to leverage technology for regulatory compliance, supply chain efficiency, and patient satisfaction, ultimately driving business growth.

Read this report to discover how MedTech organizations are harnessing AI and data-driven insights to remain competitive, fuel growth, and transform the healthcare space.

Download the report



## **Thought leadership**

#### **Revolutionizing MedTech with FOTA**

What if your medical device could update itself with no downtime, no disruptions, and just smarter care every day? Our blog unpacks how Firmware Over-The-Air (FOTA) updates are revolutionizing MedTech - keeping devices secure, efficient, and always a step ahead.

Read more

# Getting your organization ready for Al: managing data the right way

We've all heard it – AI can transform industries! But what's the secret ingredient in AI's success story? It's data accuracy! Our CTO, Eugen Rosenfeld, talks about how data quality impacts AI outcomes and shares actionable strategies to elevate organizational data practices.

Read more

#### Electrify your path to success with Agile excellence

Join our experts, Gurpreet Bhadesh and Eugen Rosenfeld, as they unpack the missteps of Agile implementation in this podcast. From rigid frameworks to ignoring the Agile mindset, they share why Agile isn't a one-size-fits-all approach.

Read more

# Al revolution: secure your competitive edge with on-premises LLM deployment

LLMs give you greater control, security, and compliance, especially in industries with strict data regulations. Read on to discover how on-prem solutions help you optimize data while maintaining autonomy and ensuring better performance, privacy, and compliance.

Read more

# Interoperability in healthcare - how Snowflake ensures better patient care

Snowflake is transforming interoperability by uniting data across diverse healthcare systems. Discover how we partnered with Snowflake to help a leading medical institution improve data sharing, accuracy, and efficiency.

Read more

# Tracing the evolution of MedTech and how it is likely to transform the healthcare future

Healthcare is changing, driven by innovations in AI, telemedicine, and wearable tech. But how do you harness emerging technologies like 3D printing and AI-driven diagnostics for accessible and impactful healthcare? We've got you covered, so read this blog to learn more.

Read more



#### **Our recent innovations**

#### Asset Management and Remote Access (AMRA)

Nagarro AMRA is a fully customizable Asset Management and Remote Access accelerator powered by IoT. It efficiently connects all assets deployed in a globally distributed environment. It provides seamless, secure, and efficient remote monitoring and control of medical devices and other healthcare assets. AMRA helps organizations optimize the management of their equipment by offering predictive maintenance, real-time data insights, and enhanced operational efficiencies. It ensures compliance with healthcare regulations while improving the reliability and uptime of critical assets.

#### **Quality Forge - eQMS Solution**

Nagarro's Quality Forge eQMS solution tackles the complexities of quality management in Life Sciences. Our innovative approach automates regulation mapping, streamlines Al-assisted content creation and accelerates QMS platform customization and validation. With dynamic QMS user interaction and real-time regulatory updates, Quality Forge enables companies to set up their Quality Management Systems in just 12 weeks. This solution reduces effort by 70%, enhances compliance, and offers greater adaptability, empowering Life Sciences organizations to bring new products to market more efficiently and successfully.

#### **Augmenting Healthcare Delivery**

We introduced a range of solutions to enhance healthcare delivery, including FHIR-based interoperability for seamless data exchange, AI-driven scheduling for staff and patient management, computer vision for hygiene compliance, and an AI-powered cybersecurity platform for data protection. In the public sector, we improved nutrition monitoring for local governments, enabling data-driven decision-making to achieve better outcomes.

#### MedTech – from intuition to analytics

Our solutions optimize key processes such as manufacturing operations, supply chains, and waste reduction, delivering measurable cost-effectiveness. Additionally, our analytics platform for R&D, specifically designed for mass spectrometry instruments, provides deeper insights and enables improved decision-making throughout the research process. These data-driven solutions empower MedTech companies to achieve smarter, more efficient operations, accelerating growth and innovation.





#### Al and advanced analytics for Pharma excellence

Through our Fluidic Enterprise vision, we integrate data, advanced analytics, and Al-powered tools to enhance HCP engagement and optimize outcomes in the healthcare sector. Our predictive tools deliver Next Best Action (NBA) recommendations, ensuring impactful interactions. With scalable, future-focused systems, we help pharmaceutical and healthcare organizations achieve strategic goals and excel in a competitive market.

#### nPHVault - centralized PHI Data Registry for reporting, data and insights

Nagarro's nPHVault is a secure, centralized patient data repository designed to integrate data from multiple sources, enhancing accuracy and enabling advanced analytics. It addresses challenges like fragmented care, EHR interoperability issues, inconsistent data, and security concerns. Key features include data integration, analytics, user authentication, and efficient management tools.

#### Nagarro's Fit4Lifesciences Template

The Fit4LifeSciences Template streamlines your entry into SAP S/4HANA transformation projects. It incorporates over 50 industry-specific best practices and project accelerators developed by Nagarro, accompanied by comprehensive process documentation. This template establishes a robust foundation for implementing processes that are tailored to the demands of the life sciences industry, ensuring systematic efficiency and precision.

#### Nagarro's Life Sciences package for SAP Cloud ALM

Nagarro's Life Sciences Package for SAP Cloud ALM is a tailored accelerator for regulated industries, enhancing the core functionality of SAP Cloud ALM with seamless ServiceNow integration. This solution ensures compliant and efficient SAP S/4HANA implementations by offering features such as industry-specific documentation, streamlined workflows, advanced automation, and comprehensive support.

#### Where we met

# BioTechX Europe 2024

At this year's event, we spotlighted how digital solutions are reshaping pharma and biotech by streamlining R&D, enhancing outcomes, and accelerating time-to-market. A standout was our panel on maximizing digital transformation by leveraging technology, data architecture and navigating implementation challenges led by Andrei Doibani, Global Head of Life Sciences and Healthcare BU at Nagarro, with insights from Syngenta, AC Immune SA, and Compass Pathways.

The discussion explored how AI, data architecture, and smart implementation fuel innovation and overcome transformation hurdles. The key takeaways? Al's pivotal role in drug discovery, the need for seamless interoperability, and the importance of culture in driving successful transformation.



# Reuters Pharma 2024

Reuters Pharma brought together visionaries transforming pharma and biotech through tech innovation. Andrei Doibani joined the conversation once again, moderating a panel discussion on boosting digital health solutions with reliable partnerships, sustainable data management, and the latest AI models.

Featuring leaders from AstraZeneca, Bristol Myers Squibb, Servier, and Takeda, the panel highlighted Al's pivotal role in advancing drug discovery, therapies, and patient care while stressing the importance of early detection tools, strategic partnerships, and equitable healthcare innovation.



#### Other events we attended in 2024



**Bio Asia** 

February 26-27, 2024



**HIMSS US** 

March 11-15, 2024



RWEsearch Virtual Annual Summit

September 4-6, 2024



Pistoia Alliance EU

April 24, 2024



**MES US** 

March 20-22, 2024



**MedTech Vision US** 

September 10, 2024



IFCC WorldLab

May 26-30, 2024



HIMSS24 EU

May 29-31, 2024



Pistoia Alliance US

November 12-14, 2024

## Delivering impact throughout the entire value chain

#### MedTech

- Diagnostics
- Assays development
- Medical devices software/as a software
- Remote solutions

#### BioPharma & Digital Health

- Clinical data management
- Real-world evidence
- Commercialization & Digital Social Insights (DSI)
- Digital health

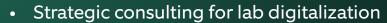
#### Quality as a Service

- E2E project compliance
- · User experience & usability engineering
- Verification & validation
- Computerized system validation
- QMS consultancy & implementation

#### **Biostatistics**

- Data analysis
- Data modeling
- Data management
- Statistical analysis
- Data standardization

#### Lab informatics



- LIMS, ELN, CDS, and SDMS implementation, Customization, and integrations
- Assessment and Strategy Planning for testing and validation
- Support for compliance with regulatory standards

#### Hospitals

- Smart hospitals
- Integrated systems
- Connected experiences for doctors and patients
- Healthcare Providers and Public Health Integration
- Operational efficiency & process optimization

#### Manufacturing execution system

- Operational excellence
- Recipe management
- Rollouts to multiple plants





# Want to kick-off a new project in 2025?

Contact us at lifesciences@nagarro.com

#### **About Nagarro**

Nagarro, a global digital engineering leader, helps future-proof your business through a forward-thinking, fluidic, and CARING mindset. We excel at digital engineering and help our clients become human-centric, digital-first organizations, augmenting their ability to be responsive, efficient, intimate, creative, and sustainable. Today, we are over 18,000 experts across 37 countries, ready to help our customers succeed. For more information, visit www.nagarro.com.



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