Congenius

5-minute guide:

Key takeaways from the AI Index Report 2026

April 2026

By Dr. Dirk Hüber

The ninth edition of the AI Index Report has landed – and for the first time, it features standalone chapters on AI in science and medicine, reflecting AI's growing impact on the MedTech industry...

The FDA authorised **258** AI medical devices last year alone, with a cumulative total of **1,357** by December 2025.

These devices were submitted from **693** different companies, with around **100** new companies every year since 2023.

Most devices sit in the field of radiology, with acceleration in cardiology, neurology, anaesthesiology, and gastroenterology-urology since 2020.

In the medical device industry, performance is key – and in this respect, the AI Index Report 2026 provides some interesting insight.

In this 5-minute guide, our Head of eHealth Dr. Dirk Hüber highlights three key takeaways from the Research & Development section relevant for the application of AI in a medical device, or AI tools used as part of device development, maintenance, and operation.

Bigger is not better

Smaller, well-designed models can outperform larger ones in specific domains.

Since medical device AI applications are designed for specific uses, this insight implies that efforts should focus on the design of the AI model rather than investing too much into the model size.

Model size is no longer the sole driver of performance.

Specialisation over generalisation

Similarly, smaller, targeted models often match or outperform larger general-purpose systems, especially when trained on curated or specialised datasets.

Data quality matters

The quality of training data is more important than the amount of data.

Training on low-quality or polluted data can degrade performance, while careful data selection and pruning can outperform indiscriminate scaling.

As such, improving dataset quality (pruning, deduplication, curation) can yield better performance than simply increasing model size or training data volume.

In summary…

For AI applications in the medical device industry:

- ✓ Focus efforts on designing task-specific models
- ✓ Apply fewer but relevant parameters
- ✓ Collect high quality data
- ✓ Process the collected data to further increase its quality and relevance for the specific task assigned to the AI model

For more information on AI in medical devices, see here.

And should you have an AI challenge related to your medical device, contact our experts today.

Contact us:

E: info@congenius.ch

T: +41 44 741 04 04

Congenius AG

Riedstrasse 1

CH-8953 Dietikon