

# TAKING ON A PIONEERING ROLE – DRIVING DIGITALIZATION AND PREPARING FOR THE FUTURE

How new finance strategies are driving  
digital innovation in hospitals and increasing  
patient welfare

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Efficient Technology Management®

# The background



According to research by McKinsey conducted in 2019, there is not a single hospital in Germany that works with fully electronic patient records. A finding that is symbolic of the German healthcare sector's lack of progress when it comes to digitalization.

The sector is still heavily reliant on analog workflows, and digital processes merely support them. It comes as no surprise, therefore, that the potential of digitalization is not being fully exploited, neither in terms of financial savings nor with regard to potential improvements for the benefit of the patient.

The hospital of the future remains a vision that is a long way off. One key reason for the slow progress with digitalization is a lack of funds.<sup>1</sup> This white paper explains what a future-proof hospital might look like, which obstacles need to be overcome, which financing models can make it a reality, and how this might be achieved sustainably.

Source:

<sup>1</sup> 2019/2020 D21 Digital Index study (D21 Index), D21 Initiative, 2019/2020



# The hospital of the future – the story so far in Germany

## WHAT DOES THE HOSPITAL OF THE FUTURE LOOK LIKE?

The hospital of the future must be considered in a cross-sectoral way and includes areas such as:

- video consultations with a local primary care physician and remote treatment via telemedicine
- diagnostics through artificial intelligence and big data analysis
- digital networks that fully interconnect healthcare providers
- increased use of robotic technology in surgery

Picture this: All of your systems are interconnected and your employees can exchange health-related data securely online in real time. In this scenario, it would be possible to access relevant studies, comparable cases, and successful new treatments, obtain second opinions, and plan further steps in the care chain with colleagues across hospitals, at the click of a button and with the support of AI.

What an efficient and cost-effective work environment this would be, and the patient would enjoy the best possible medical care. It would be an environment where online interaction would reduce the need for the physician to be present, and where the potential for automation could be maximized. Optimized processes and less administrative overhead would relieve the burden on nursing staff and physicians so that they have more time for what really matters: their patients. As the latest D21 study for 2019/2020 shows, most of the German population welcome the changes in healthcare expected as a result of digitalization, or at least take a neutral stance toward them. Only a minority of 14 percent view this development negatively.

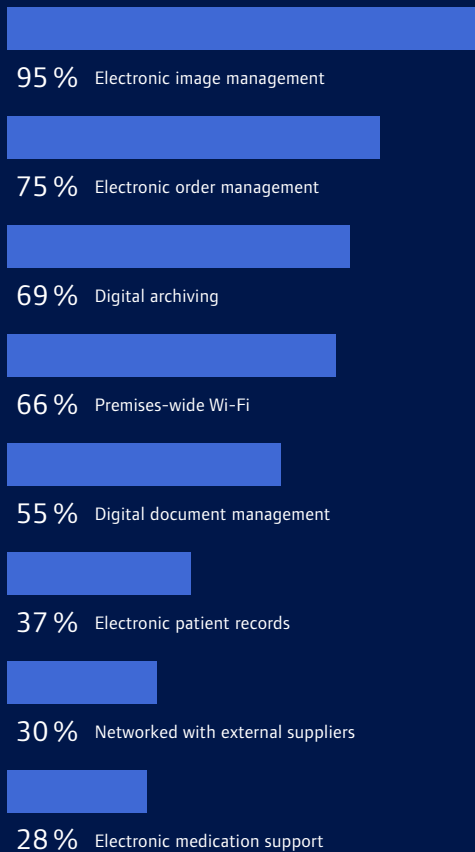
Establishing these types of digital network to facilitate collaboration across departments and hospitals is part of the vision for the healthcare sector. This level of digitalization is a distant goal in most hospitals, although there has been encouraging progress, as the following overview shows.



# Facts and figures

## The most-implemented digitalization projects in 2019

– percent fully or broadly implemented



One in two hospitals are unable to fill IT vacancies.<sup>2</sup>

When it comes to digitalization, Germany still has plenty of room for improvement compared with some other countries.<sup>2</sup>

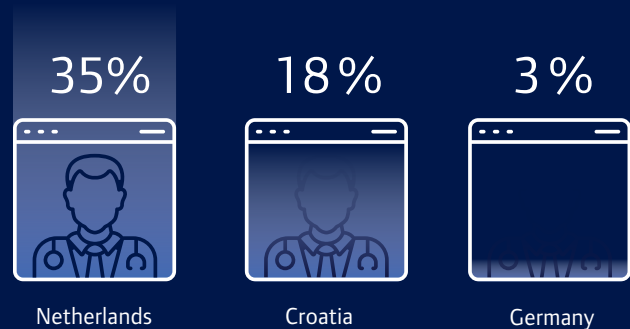
Hospital managers in

# 55 %



of Germany's larger healthcare facilities have doubts about the economic benefit of digitalization<sup>2</sup>

Hospitals with e-health applications for telehomecare/telemonitoring<sup>3</sup>



# 60 %

of hospitals in Germany do not have a long-term digitalization strategy<sup>4</sup>

Source:

<sup>2</sup> Das Digitale Krankenhaus (The digital hospital), study by the German Hospital Institute (DKI) and BDO, 2019

<sup>3</sup> European Commission, PwC 2015

<sup>4</sup> Digitalisierung in deutschen Krankenhäusern (Digitalization in German hospitals), McKinsey & Company, 2019

# The main obstacles to digitalization and how to overcome them

While the technological prerequisites for the hospital of the future already exist, the majority of hospitals still face three major challenges: financial gaps, outdated IT infrastructure, and a lack of IT personnel or expertise.<sup>2</sup>

According to the German Hospital Federation, Germany's hospitals are chronically underfunded; the country's nearly 2,000 hospitals would have had to invest €6.4 billion in 2018 just to maintain their existing infrastructure. Compare that with public financing of around €3.04 billion, and a financing gap of €3.36 billion emerges.

Customized business concepts and finance strategies are a promising approach to closing this financing gap, and lifecycle management plays a crucial role in this context. Every asset runs through typical lifecycle phases, from procurement and rollout to actual use and disposal or remarketing. Only by taking into account and planning for the entire lifecycle and the associated costs can sustainable budget decisions be made. This not only makes the decision in favor of a usage-based model easier but also frees up funds for further investment in the digital transformation. Innovative technology service providers such as CHG-MERIDIAN can help to develop and implement tailor-made digitalization strategies.

Choosing the right financing model requires innovative thinking and a different approach. In industry, financing based on price per unit is common. So why not pay-per-patient or pay-per-procedure? Under this model, the overall cost of procuring and using the medical equipment is broken down by individual case of treatment. It provides hospital managers with the detailed information they need to decide whether multi-million-euro investments, for example in robotic systems, can be funded. Affordability no longer needs to be the main consideration when using high-tech medical equipment. Instead, the focus is on how the equipment can benefit the patient and the hospital.



Quellen:

<sup>2</sup> Bestandsaufnahme zur Krankenhausplanung und Investitionsfinanzierung in den Bundesländern (Review of hospital planning and equipment finance in the federal states), German Hospital Federation, 2019.



# Securing the future through customized finance strategies

- Non-captive, tailor-made solutions
- Reduced overall costs; favorable purchasing terms and residual values reduce costs and protect liquidity, budgets, and credit lines
- Minimized risk thanks to predictable lease installments that can include all necessary services
- Flexibility and modernization through innovative technology exchange models
- Cost transparency and planning certainty
- Pay-per-use models

Such lifecycle models enable continuous modernization of the device landscape through regular replacement, and also provide a solution to the problem of outdated software and hardware in healthcare facilities. This is still an issue in around half of the hospitals surveyed.<sup>2</sup> Insecure operating systems where manufacturer support has expired, security concepts that are inconsistent, and existing hospital IT that cannot be sufficiently networked and lacks interoperability with modern equipment are a security risk and act as a further brake on the digital revolution.

And this is despite the fact that a greater degree of digitalization could lead to huge potential savings of €16.1 billion. The systematic use of performance dashboards, the automation of processes, the switch to paperless workflows, and the use of telemedicine would save €8.4 billion alone.<sup>4</sup>

## IN BRIEF

- The annual financing gap is more than €3 billion.
- Customized finance strategies can help to close this gap.
- Outdated IT infrastructure poses a security risk and slows down digitalization.
- 75 percent of hospitals complain of a lack of IT staff and expertise.
- Systematic digitalization could bring potential savings of over €16 billion.



# The human factor: why digitalization is not an end in itself



A shortage of IT staff and resistance to digitalization measures among the workforce also hamper innovation. 75 percent of hospitals do not have enough IT staff, and the same number of hospitals believe that their employees do not value digitalization measures highly enough.

But digital transformation relies on the willingness and ability of all employees to deal with the changes required and the resulting consequences. Any digital transformation is therefore essentially a process of social change that requires high levels of personal commitment. Employers can provide targeted incentives and support to encourage this.

Technologies evolve at a staggering pace and open up new possibilities of coping with workloads and managing processes. Hospital staff, however, must recognize and accept this and need to integrate the new technologies into their day-to-day work. Digital skills training for all those affected is required to

ensure that this process works smoothly. Companies can use self-training incentive schemes such as the Employee PC Program, in which employers provide their employees with state-of-the-art communication devices that they can also use privately. This enhances the skills of managers and employees, and the hospital increases its attractiveness as an employer for potential new recruits and current employees. Ultimately, this is the main way for the workforce to understand and get to grips with the benefits that digital innovations bring to their personal and professional lives.

The skepticism that many employees feel about digitalization's usefulness is partly based on bad experiences in the past. According to a study by Roland Berger <sup>6</sup>, digitalization measures in hospitals were delivered successfully and on time in just 18.4 percent of cases. While 42.5 percent overran the time frame set but were completed successfully, just under 40 percent were completed neither on time nor successfully. Relying on professional IT project management and oversight increases the likelihood of success.

## IN BRIEF

- The number one key to success when implementing digitalization measures is to foster a willingness to change across the workforce. <sup>6</sup>
- Improving employees' digital skills is a significant step toward the hospital of the future.
- In the past, fewer than 20 percent of hospitals were able to implement digitalization measures successfully and on time. <sup>7</sup>
- Partnerships with other hospitals and players in the healthcare sector reduce costs and are a sensible addition to a hospital's expertise. <sup>6</sup>

Source:

<sup>6</sup> Future of Health, Roland Berger, 2019

<sup>7</sup> Digitalisierung in deutschen Krankenhäusern (Digitalization in German hospitals), McKinsey & Company, 2019



# Summary

Increasing cost pressures, a lack of skilled personnel, and growing patient numbers are key challenges for the healthcare sector. On top of that, there is the requirement to adapt to continual technical progress in medicine. The implementation of a long-term modernization and digitalization strategy helps healthcare providers to face the challenges posed by current and future developments. The support of everyone involved, across hierarchical levels, as well as intelligent and tailored investment planning are required to ensure that this kind of digital transformation will be successful.

The goal is to secure the German health sector's long-term future and its ability to perform. Cost savings and improved efficiency create the scope for further investment in the digital transformation process, so that all patients can benefit from the latest healthcare technology. This makes it easier to juggle patient well-being and economic challenges.





# CHG-MERIDIAN

## Effizientes Technologie-Management

### OUR COMPANY PROFILE

We have been advising customers for around 40 years on how to optimize their IT infrastructure across the whole value chain – from the analysis of the current situation and the selection and implementation of appropriate, non-captive technology, through to efficient management and flexible financing. We bring together skills and expertise from the areas of IT, software, and healthcare technology to offer a comprehensive package of services and advice. Hospitals, care homes, and other healthcare providers benefit from CHG-MERIDIAN's many years of IT expertise as well as from intelligent financial control and a reduction in total costs and risks.

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