














PLANNING



Challenges in the planning
of healthcare buildings

**Challenges
in the planning of healthcare
buildings**

How you can plan buildings professionally
despite increased construction costs
and high requirements in terms of sustainability

1	Introduction	4	
2	The current situation in the healthcare sector	6	
3	Mastering challenges in planning		
	3.1 Barrier-free construction in the healthcare sector	9	
	3.2 Taking sustainability into account when planning buildings	11	
	3.3 Sustainable construction: The most important certifications	15	
	3.4 Healing architecture enhances the well-being of both patients and employees	16	
	Interview with Charleen Grigo from bkp-Architekten		
	3.5 The influence of colours in architecture	25	
	3.6 The patient room of the future	31	
	3.7 Hygiene is the be-all and end-all in the hospital environment	33	
4	Funding opportunities for hospitals and nursing homes	35	
5	Conclusion	38	
6	HEWI planning service	39	
7	Imprint	40	



1 Introduction



The health sector has come into even sharper focus as a result of the Corona pandemic. The virus has pushed many hospitals to their limits – not only in terms of staffing, but also in terms of the financial burden. The pandemic has highlighted the importance of a functioning health-care system. The challenge for hospitals is that they have to cover a wide variety of functions under one roof. For example, main connecting routes should be short and barrier-free – for example, between A&E and the operating theatre. Cabling and installations should also be planned as compactly as possible, and the high hygiene standards, especially in the intensive care unit, mustn't be forgotten. Public and sterile rooms must be strictly separated. Hospitals must also comply with the requirements of the Robert Koch Institute and the Commission for Hospital Hygiene and Infection Prevention, which is based at the Robert Koch Institute. It is not for no reason that healthcare is considered the supreme discipline in the construction and architecture industry.

Taking all these aspects into account during planning is not easy. Planners and architects have to meet numerous requirements while taking into account the interests of a wide range of stakeholders. The pandemic has further exacerbated the complexity of construction projects. Rising prices and interest rates, as well as the shortage of raw materials, further complicate construction projects.

**This e-book is intended to provide guidance.
It informs planners and architects about**

- important issues in planning healthcare buildings, including regulations, standards, etc.,
- the relevance of architecture in patient recovery, keywords “healing architecture”,
- the influence of colours on architecture,
- information on the patient rooms of the future,
- the importance of the topic of sustainable construction in relation to healthcare buildings, as well as
- possible funding for construction in the health care sector.



2 The current situation in healthcare

Shortage of skilled workers and capped budgets in the healthcare sector

The situation in German hospitals is precarious. Many wards are chronically understaffed. There is a shortage of qualified nurses and doctors. Capped budgets and a shortage of skilled workers mean that this situation will not change for the time being. A survey shows that the situation of hospitals in Germany is currently tighter than ever before.¹ Not least, many hospitals have suffered financial losses as a result of the Corona crisis. As a result, however, urgently needed investments for the future are not possible – and are being pushed back further and further. At present, it is not yet foreseeable when the situation will ease again. In 2020, almost every second hospital (49 percent) was in the red. So far, at least private hospitals have been able to stem the losses – but one in three private hospitals surveyed (38 percent) also had to accept losses. The situation is most dramatic in publicly owned hospitals. Here, two out of three hospitals (63 percent) incurred high deficits.

Corona has not improved the situation. In some cases, hospitals were not well prepared for the pandemic. The hospital barometer of the German Hospital Institute (DKI)² shows that 70 percent of the hospitals surveyed had developed an individually tailored hospital alert and deployment plan that took pandemics into account. This had worked very well for 19 percent and well for 62 percent. However, at about 20 percent, the plan worked less well or not well at all. The plans had often been too rigid or had not taken into account the possible duration of the pandemic. Other obstacles included the flow of information from the country and authorities, changes to the law at short notice, additional measures such as restrictions on visits, data collection from visitors and distance regulations.

Of equal concern is the nursing staffing situation. According to a survey, four out of five hospitals are having trouble filling open nursing positions. This relates to both general and intensive care units.³ One in two hospitals expects this situation to worsen.

¹<https://www.rolandberger.com/de/Insights/Publications/Deutsche-Krankenh%C3%A4user-Die-Lage-ist-dramatisch-wie-nie.html>.

²https://www.dkgev.de/fileadmin/default/Mediapool/3_Service/3.4_Publikationen/3.4.5_Krankenhaus_Barometer/2021-12-21_KH-Barometer.pdf.

³<https://www.dkgev.de/dkg/presse/details/krankenhaeuser-finanziell-und-personell-am-limit/>.



3 Challenges in planning master



3.1 Barrier-free construction in healthcare

Planners and architects are not in the position of being able to solve general challenges in the hospital environment, including the shortage of specialists and the financial problems of hospitals. However, they do have the ability to plan clinics and nursing homes to best support employees in their work.

In general, the challenge for architects and planners in the planning of buildings in the healthcare

sector is that this must be done with a particularly high level of attention to detail. Only those who approach planning in a holistic and interdisciplinary way understand how to combine room arrangements, route relationships and the entire organisational concept. There are also numerous regulations to consider when planning healthcare buildings. These include aspects such as DIN standards, for example DIN 18040 for barrier-free construction.

3.1 Barrier-free construction in healthcare



Barrier-free construction is essential, especially in the healthcare sector. It allows equal access for all people to use the infrastructures. Any person who struggles with limitations, whether from birth or through an illness or accident, will face numerous barriers in life. Integration is increasingly being replaced by the concept of inclusion, which is intended to break down these barriers. In the spirit of universal design, the goal is to make it possible for all people to access and benefit from public space. The change in perspective is plain to see in DIN 18040.

The aim of the DIN standard is to enable individual, future-proof and sustainable use of buildings. DIN 18040 takes into account not only motor limitations but also cognitive impairments. For example, vision

and hearing decline with age, so a large portion of the population requires assistance. For healthcare buildings, there are two sources of law that require barrier-free accessibility: the public building code as well as the workplace law.

The model building code – thus also the building codes of the federal states – requires that buildings with a public entrance must also be accessible for people with impairments, elderly people and those with small children. This is all the more important for buildings that serve a medical purpose. If employees with a disability work in the company, the workplace regulation „Barrier-free design of workplaces“ (ASR V 3a.2) applies. This sets out minimum requirements for barrier-free workplaces.



3.2 Taking sustainability into account when planning buildings

Overall, the construction sector is one of the most resource-intensive industries in Germany. The construction and operation of buildings account for almost 41 percent of Germany's greenhouse gas emissions. The non-profit organisation World Green Building Council goes so far as to estimate that around 40 percent of total CO₂ emissions worldwide are attributable to the construction sector.⁴ Operators of hospitals and nursing homes cannot ignore these facts.

The German government has set itself the goal of being climate-neutral by 2045. Accordingly, this also applies to hospitals and nursing homes. In 2021, the delegates of the German Medical Con-

gress even appealed to all decision-makers in the healthcare sector to take action to achieve climate neutrality as early as 2030. After all, 5.2 percent of Germany's greenhouse gas emissions come from the healthcare sector.

According to the **Wuppertal Institute**, 3.1 percent of these originate from hospitals.⁵ Every clinic is called upon to draw up and implement climate protection road-maps. The use of ecological building materials in new buildings and extensions is a great lever for planners and architects to save on conversion, renovation measures and also CO₂ emissions.

⁴<https://worldgbc.org/article/the-role-of-buildings-at-cop23/>.

⁵<https://www.aerzteblatt.de/nachrichten/132978/Gutachten-Krankenhaeuser-koennen-bis-2045-klimaneutral-werden>.

Briefly explained: KLIK green project

In the period between May 2019 and April 2022, the National Climate Protection Initiative and the German Federal Ministry for the Environment successfully funded the KLIK green project. In the meantime, it has been brought to a successful conclusion. The background to KLIK green was that hospitals and rehabilitation clinics are very resource-intensive, but at the same time can make a major contribution to climate protection. Within the project period, the aim was to avoid at least 100,000 tons of CO₂ -equivalents. A total of 250 hospitals and rehabilitation clinics nationwide took part, with around 1,600 climate protection measures. Specialists have been qualified as climate managers in the facilities in order to establish climate protection goals for the facilities, plan measures and implement them in concrete terms. The participating hospitals were able to achieve savings in particular in areas such as energy, catering, IT, mobility and waste avoidance. The biggest plus: operating expenses for energy costs decreased. This means that the clinics not only make their contribution to climate protection, but also go easy on their wallets. The project also means that clinics will increasingly use climate managers in the future to further advance the issue of sustainability in healthcare facilities.

More information about the project can be found at:

<https://www.klik-krankenhaus.de/startseite>.

3.2 Nachhaltigkeit bei der Planung von Gebäuden berücksichtigen



© HEWI Polar bear house, Kirchheim unter Teck

More sustainability is imperative in the construction industry. The world's most sustainable building – the Polar Bear House in Kirchheim unter Teck – may well be located in Germany, but, overall, Germany lags far behind other European countries when it comes to sustainability. Only 16 percent of developers focused on green building in 2021. At the same time, buildings in Germa-

ny altogether produce 30 percent of the annual CO₂ emissions.⁶ Even the production of building materials is difficult from an environmental point of view, because producing concrete requires not only a great deal of energy but also sand. Mining sand, in turn, has a serious impact on the environment. Developers, architects and planners are therefore called upon to act.

⁶<https://www.umweltbundesamt.de/themen/klima-energie/energiesparen/energiesparende-gebaeude#eigentuemer>.

Briefly explained: The Polar Bear House in Kirchheim unter Teck

Kirchheim unter Teck, a small town in the German state of Baden-Württemberg, is home to the Polar Bear House, which has received the “Climate Positive” award. The special thing about the building is its sustainable construction and negative CO₂ annual balance. It accommodates commercial space, apartments and the architect’s office over a total of four floors. The concrete work of the house was carried out using recycled concrete. The exterior walls consist of storey-high wall elements that were attached directly to the reinforced concrete skeleton using mounting rails. Cellulose filling is used as insulation, keeping the heat inside the building. The façade is made of wood, which acts as weather protection, but at the same time is ventilated so that it dries out after rain.

For more information about the Polar Bear House, visit:

<https://www.bankwitz.de/index.php/22-inhalte/projekte/wohnbau/233-01-22-eisbaerhaus>.

3.3 Sustainable construction: The most important certifications



As early as 2002, the German government adopted a national sustainability strategy, “Perspectives for Germany”. This includes policy guidelines for sustainable development and 21 indicators to track progress and targets. The following certification and evaluation systems have become established in Germany:

- **German Sustainable Building Council (DGNB)**
- **Assessment System for Sustainable Building (BNB)**
- **Quality Seal for Sustainable Housing (NaWoh)**
- **Leadership in Energy and Environmental Design (LEED)**
- **Building Research Establishment Environmental Assessment Method (BREEAM)**

Particularly in the healthcare sector, special requirements are placed on real estate in terms of sustainability. Planners as well as architects are challenged to design and construct health care buildings according to the most modern criteria in a sustainable way. They have the chance to create design opportunities and thereby improve patient well-being. Sensitive planning allows the realisation of individual living spaces. They must also prepare for and respond in good time to the changes resulting from demographic change.

3.4 Healing architecture enhances the well-being of both patients and employees



3.4 Healing architecture enhances the well-being of both patients and employees

The key quality criteria of a hospital include not only patient care but also equipment and furnishings. This has a great influence on the well-being and thus the recovery of patients. Especially in hospitals and nursing homes, where the goal is to restore or maintain health, health is often referred to purely in terms of physical condition. There is a lack of holistic approaches that incorporate both patient health and employee well-being. One possible approach to this is healing architecture. This supports the recovery process and relatives as well as hospital and nursing staff.



Interview with Charleen Grigo from bkp-Architekten

bkp-Architekten, interior designers and strategy consultants from Düsseldorf and Hamburg. Together with their clients, they develop strategies for the construction project and accompany change processes right through until the end. With over 25 years of project experience, bkp works in all phases of performance: starting with the feasibility study and ending with the handover of the keys.

For more information, see:
<https://www.b-k-p.net/de>.



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The role of healing architecture in the planning of healthcare buildings

In the meantime, there has been a rethink with regard to healing architecture. As early as the 1970s, this entered the architectural discussion via environmental psychology. The term healing architecture has been established for some years now. Numerous studies show the influence of the constructed space on interaction and behaviour, and on physical and psychological well-being. In this interview, Charleen Grigo, Head of Healing Architecture at bkp, reveals the role that healing architecture plays in healthcare building design.

HEWI: *Ms Grigo, how would you define healing architecture?*

Charleen Grigo: The perception of space is more sensitive in patients. Sensitivity to stimuli and the need for a sense of security and a place to withdraw to are increased. During hospital planning, interior design should be based on patient needs. The concept of “healing architecture” does this and respects the nature of the human body and psyche. It does not focus on “embellishments” or the separate integration of the latest equipment – rather, it links different disciplines and looks outside the box to create user-focused spaces. This includes, for example, the desire for space for accompanying persons, spots to relax amongst greenery

and nature, but also areas for rest and retreat on particularly bad days. The aim is to create spatial structures that have a positive impact on patients’ mental health and thus promote faster recovery.

As factors to take into consideration, interior design and architecture also play a role in the support and retention of skilled personnel. Healing architecture in this case refers to well-being at work and stress-reducing moments. This is achieved, for example, by acoustically effective elements that reduce auditory stress, or a clearer zoning of different areas of use. For example, a break room should be a place of rest and relaxation that allows staff to “switch off” for a while. After all, staff will only



feel satisfied and healthy at work – and be persuaded to stay in the job – if they are given opportunity to balance out the high work stress they are subjected to. Thanks to an individual design concept that focuses on work requirements and human needs, various such factors are taken into account and support the long-term success of the healthcare facility.

HEWI: *In your opinion, what is the current status of healing architecture in the industry? Do you think the issue has become more important in recent years?*

Charleen Grigo: The long-term positive effects of healing architecture are increasingly coming to the attention of the healthcare community. The economic benefits, for example on the length of patients' stays or the long-term retention of good employees, which result from such optimisation, are of interest for all facilities. The willingness to rethink and invest in a future-oriented manner is increasing. This is also shown by the "Magnet4-Europe" study⁷, which is currently running in 21 German hospitals: Following the American model, major structural changes are being made in hospitals here, which also have a very positive impact on employee satisfaction and patient health.

These positive experiences can also be applied to healing architecture and provide impetus for rethinking the industry. In addition, health is becoming synonymous with a good life for more and more people.

Patients are doing their own research and have clear needs and requirements for hospitals and healthcare facilities.

This creates new expectations for infrastructures and health-promoting environments. This is precisely why "healing architecture" is becoming an important success factor for health care facilities.

⁷<https://www.magnet4europe.eu/deutschland.html>.





HEWI: *How can healing architecture be implemented in concrete terms? What does it take?*

Charleen Grigo: First of all, it is important to understand the processes and structures of the respective healthcare facility and to know the company's objectives. The following questions are useful for this purpose:

- How can we improve work processes and avoid interruptions?
- How can we create spaces that meet the needs of their users?
- What is the impact of illness and pain on patients' perceptions and psyche?

We develop answers and solutions to these questions in workshops together with the clients in inter-professional teams. In doing so, we ensure that the individual needs of the employees can be combined with those of the patients. We are also concerned with designing the rooms to function optimally as workspaces and to provide a "temporary home" that gives patients confidence and security.

Beyond the collaboration with the staff, it is important to align the design with the respective specialist facilities and to take into account the

different needs of the patients, e.g. on a stroke unit, a surgical ward or on a children's and adolescents' ward. Patients who have recently had a heart attack need to slowly regain their strength and regain confidence in their bodies. Corridor areas here should be more like a stimulating therapy space, while corridors in a paediatric ward should be designed as communication zones and common areas. Understanding the different health conditions of patients then results in completely different ward layouts. Again, the more we understand, the more individually we can plan. This is where our workshop-approach and the cooperation with customers help us to create successful concepts.

HEWI: *What are the advantages of using the healing architecture concept when designing buildings?*

Charleen Grigo: The feedback we receive from our clients after project completion is that the healing architecture concept has a lasting return on investment:

employee satisfaction and employer attractiveness increase, staff turnover decreases; at the same time, patient satisfaction increases and



the length of stay in hospitals is reduced. Very simple example: Simply being able to look out from a window with a wide view has a demonstrably positive effect on the psyche of patients and thus ensures a faster recovery, less need for painkillers, etc. in the final effect.

Even in the preliminary research in the search for a suitable facility, visually appealing design concepts and the communication of the right values have a positive impact on the decision of potential new patients. Therefore, healthcare facilities can convince with “healing Architecture” already in this early phase. The bottom line is that a holistic healing architecture concept thus ensures efficiency, satisfaction and a good reputation – in other words, a more economical and successful healthcare facility overall.

HEWI: *What challenges do you encounter in strategic building planning – in general and in relation to healing architecture – with your clients and how do you solve them?*

Charleen Grigo: The challenge in a transformation in the healthcare sector – regardless of the healing architecture issue – is often that it must take place during ongoing operations.

While employees in other industries can simply be relocated or work more closely together on short notice, this is not readily possible in hospitals and clinics. Smooth operation must be ensured; at the same time, noise pollution must be kept as low as possible. Organised and detailed pre-planning is essential for this.

The fact that we ourselves are active in all service phases and have only short coordination paths means that we can work very efficiently in terms of time and have no frictional losses.

HEWI: *Is there a roadmap that planners/architects can follow to implement healing architecture? What are the steps to consider?*

Charleen Grigo: For us, the most important basic requirement is to develop the right strategy together with our customers and to align concepts with the company’s goals. Because, in addition to people’s health, the ability to act and efficiency are also at the heart of a reorganisation.

When it comes specifically to the health-promoting effects of healing architecture, there are then various aspects that should be considered in the design: a connection to nature has a

positive influence on well-being, as does an appropriate lighting concept – as much daylight as possible has a positive effect on patients' and employees' moods. At the same time, however, various work situations must be taken into account and appropriate illumination and lighting must be provided. The selection of materials and colour plays a role in creating a pleasant atmosphere, as does smell – which is less tangible, yet also has an impact on our perception. Think of that typical hospital smell that subconsciously tells you that you are here because you are not in the best of health. There is still potential here that can be exploited without sacrificing hygiene standards.

The “communication” aspect also entails various strata, which have an impact on both patients and employees: visual contact and responsiveness of staff is important on the one hand; at the same time, employees must have the option to remove themselves to work in peace or to take a short breather. Visual or auditory alarms are also stressors here and must be kept to a minimum. Patients should also have the opportunity to autonomously seek contact or withdraw when their condition requires it. They should have the opportunity to seek company, receive their loved ones or remain undisturbed while their ward neighbour has the exact opposite needs. A spatial structure with different zones and flexible design options helps to meet the various needs.

HEWI: *What is your general assessment of the market situation at the moment? Has planning buildings in the healthcare sector become more challenging?*

Charleen Grigo: Unfortunately, the Corona pandemic has actually somewhat dampened the health sector's willingness to plan at the moment – there have been too many other concerns for hospitals to take care of in recent months. However, this does not mean that the need for a holistic so-



lution to the various challenges has diminished. Quite the opposite: the pandemic has highlighted the areas where action is needed and the need for a holistic approach, rather than dealing with them in “fire extinguishing mode”.

It has become apparent that policy-makers have no quick fixes for the drastic problems in the health sector. Therefore, it is important for every



institution to think about what can be changed from within. With healing architecture and New Work concepts, every clinic can set off down the path to the future today, and in this we are happy to help our customers with our expertise, in line with our motto: #buildingbetterworlds!

HEWI: *Thank you very much for the interesting interview, Ms Grigo!*

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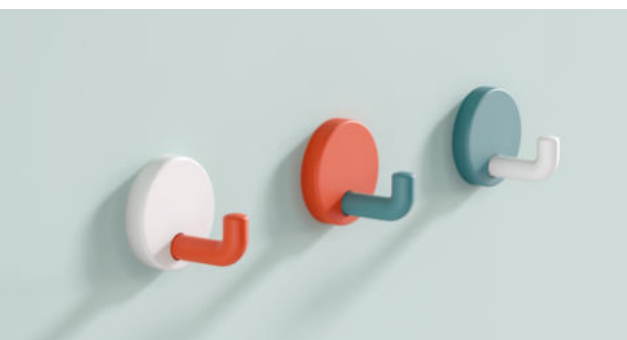
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3.5 The influence of colours in architecture



3.5 The influence of colours in architecture



An important part of the healing architecture concept is colour. That's because: over 83 percent of sensory impressions are received through vision. Colours create feelings. They have a great impact on the psyche and the human organism. Not surprisingly, each colour triggers a different effect and a – mostly subconscious – reaction. Depending on the purpose of a room, colours and their effect should not be underestimated.

“Colour psychology” is becoming increasingly popular. It has long been used not only in advertising and branding, but also in retail, hospitality, education, and even healthcare.



How exactly colour takes effect depends on various factors:

- Personal evaluation: What relationship does a person have to a colour?
- Influence of fashion: We encounter styles and trends every day in the media and in public.
- Cultural influences: In different cultures, colours mean different things. For example, while in Germany the colour black symbolises mourning, in China it is the colour white. In China, black stands for power, money, lack of hope – and thus for a rather gloomy mood.
- Symbolism: Often colours stand for a certain symbolism. While the colour red represents the colour of love and passion, in other contexts it also means danger. Here, too, cultural influences flow into the meaning of colour.



3.5 The influence of colours in architecture

- Collective unconscious: Colours act as a repository of the psychic heritage of human history. In the Middle Ages, for example, the colour purple was an expression of power, so only nobles were allowed to wear fabrics in this colour. This meaning has been preserved in the collective unconscious of people.
- Biological response to a colour stimulus: Some colours have been shown to have a powerful effect on people, including “Cool Down Pink.” The colour has a calming effect and lowers the propensity to violence. Used in a prison cell⁸, the paint has been shown to lower blood pressure. Why this is so is not yet clear: it could be that many people associate the colour pink with femininity and babies. Others reject pink and become aggressive at the sight of the colour.



⁸<https://blog.zhdk.ch/farblichtzentrum/cool-down-pink-gefaengniszelle/>.

3.5 The influence of colours in architecture



Colour and healing are closely related, especially in hospital and nursing home environments. The fact that colours influence the healing process is found in many cultures. Colour therapies, for example, can be traced back to antiquity, prehistoric Peru, Mexico and ancient India.

Even today, colours play an important role in traditional Chinese medicine. Colour therapies have also become established in Western culture. Colours are thought to have effects on the organism that go beyond (culturally influenced) associations. For example, the colour orange is said to be the colour of gentle energy. It would improve the mobility of joints in osteoarthritis, have a positive effect on depression and provi-

de better breathing in respiratory diseases. A study⁹ with the HELIOS University Hospital Wuppertal's Clinic for Intensive Care Medicine shows: thanks to an appealing colour-light design, the medication consumption of neuroleptics can be reduced by an average of 30.1 percent.

This has positive effects not only on the patients: staff interviews also revealed that the well-being and satisfaction of employees has increased. Patients' perceptions of design factors increased by 32.3 percent, while staff perceptions increased by 40.8 percent. Those affected spoke of a "feel-good atmosphere" that made for more effective care. Staff satisfaction increased by 12 percent.

⁹<https://axelbuether.de/2019/farbe-im-gesundheitsbau-colour-design-thinking/>.

Briefly explained: Set accents with colour - thanks to HEWI ICONIC

**be iconic. be colourful. –
that is the HEWI ICONIC concept.**

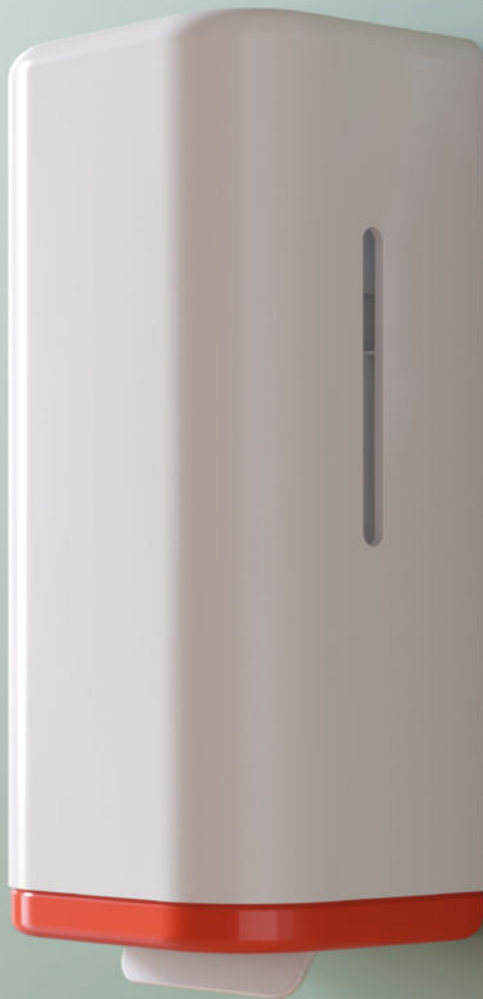
With the 477/801 series, HEWI succeeded many years ago in creating a design icon that conveys a “must-have” feeling. Design icons remain desirable even after many years. Series 477/801 is in use today in numerous hospitals and nursing homes. With its modification, the series looks young, fresh and innovative – just as it did on its first day. New colour combinations make the series shine in new splendour. With ICONIC, HEWI brings emotion and colour into architecture – and thus does justice to the healing architecture concept.

It has long been proven that colour influences the well-being of people in a room. Recovery processes are promoted as pleasant colours create a calming, stress-free atmosphere. This is especially important in hospital and nursing environments. In health buildings, ICONIC therefore comes in the colour combination coral, aqua blue and pure white. Coral and aqua blue evoke associations with warm, tropical climates with beaches and crystal clear water. The base is the warm coral tone, which has a revitalising and relaxing effect at the same time. Combined with pure white and aqua blue, the result is a pleasant colour scheme. Viewers wind down while contemplating them and can concentrate on their recovery.

3.6 The patient room of the future



3.6 The patient room of the future



Range 477/801 | Soap dispenser

What influence does room design have on the risk of infection in patient rooms in hospitals?

This question was investigated by architects from the TU Braunschweig together with molecular biologists and physicians from the Charité Berlin. In this context, the KARMIN project (the name standing for Hospital, Architecture, Microbiome and Infection) explored the impact of architecture on hygiene and the recovery of hospital patients. Based on the research, a model patient room has been created to reduce the risk of patient infection. For example, there is zoning in this patient room to avoid the overlapping, intensive use by different users of certain areas. The patient area is in the middle of the room, so it is close to both the bathroom and the window. Two patient bathrooms – each assigned to one patient – prevent cross-contamination.

In the course of the investigation it became clear: despite regular cleaning intervals, handrails, door handles or sanitary facilities represent fertile ground for pathogens, thereby increasing the risk of infection. This can be reduced by using high-quality materials, hygienic processing techniques and innovative functions. These effectively support hygiene and significantly reduce the risk of infection.

You can find more information about the KARMIN project by [clicking here](#), and in the HEWI MAG.

3.7 Hygiene is the be-all and end-all in the hospital environment



3.7 Hygiene is the be-all and end-all in the hospital environment



When planning buildings in the healthcare sector, one topic must not be neglected under any circumstances: Hygiene.

In Germany, hospital hygiene and infection prevention is the responsibility of the Robert Koch Institute. The Commission for Hospital Hygiene and Infection Prevention develops guidelines on hospital hygiene and infection prevention, which are published by the Robert Koch Institute. One of the most important pillars in preventing infections in the healthcare sector is hand disinfection. This makes it all the more important to keep reminding employees of the great importance of this measure.

The impact of well-being on patient recovery has already become clear. But this represents only one factor – issues of safety and hygiene are just as important for patients. For high hygiene standards, it is essential to use hygienic products in the hospital or nursing home. They must withstand changing climatic stresses. For example, products with smooth, closed surfaces without joints are advantageous, so that no dirt, lime or grime can accumulate. In addition, the products should have optimal cleaning properties and be impervious to harsh cleaning agents and disinfectants.

But what can you as a planner or architect do specifically to improve hygiene in hospitals and nursing homes? Answers to this question are provided by HEWI's free e-book "Hygiene as a task for society". In it, you will also find much more information on the subject of hygiene.





4 Funding opportunities for hospitals and nursing homes



It is not only aspects such as hygiene and healing architecture that are relevant in the design of healthcare buildings. It is equally important to make clinic operators aware of possible funding. There are different approaches that hospitals or nursing homes can take.

Modernisation of hospitals through the federal government – Hospital Futures Act

A federal government investment programme is designed to help hospitals get a digital update: since 1 January 2021, a total of three billion euro has been made available so that hospitals can invest in digitisation, IT security and modern emergency capacities. Further investment funds of 1.3 billion euro are to come from the federal states. The law was passed by the German government on 3 June 2020 as the “Hospitals of the Future Programme”. To this end, the Federal Social Security Office has established a Hospital Futures Fund (KHZF). States and/or hospital operators must cover 30 percent of the respective investment costs themselves. Hospital

operators have been able to begin implementing their projects and registering their funding needs with the federal states since as early as the beginning of September 2020. Funding not applied for will be returned to the federal government at the end of 2023. The existing Hospital Structure Fund (II) will be extended into 2024.

In particular, investments in modern emergency capacities and a digital infrastructure are being promoted. These include patient portals, electronic documentation of care and treatment services, digital medication management, etc. Hospitals that were particularly hard hit by the Corona pandemic and had to care for a large number of infected patients will receive 100 million euro to pay bonuses to employees. The bonus amount can be determined individually, up to 1,000 euro.

For more information, [click here](#).



support in organisation and management. Likewise, the focus is on topics such as intelligent consulting, whereby employees should also benefit from nursing- and care-related information and consulting services.

For more information, interested parties can visit: <https://gesundheit-wird-digital.de/>.

Hospital of the future - KfW funding

Investments are needed in the healthcare sector to meet the requirements for an efficient and high-quality healthcare system. KfW supports institutions with funding loans at favourable conditions, tailored to the specific needs of hospitals. In Germany, hospital financing is based on a dual system: The investment costs are covered by the federal states, and the operating costs are covered by health insurance companies and self-payers. When states do not have sufficient funds, investment declines. That's why many hospitals have some catching up to do, especially when it comes to digitisation, which also takes pressure off employees. Hospital operators receive funding from the KHZF for investments in digitisation, but generally have to pay a contribution of their own. Until 30 June 2023, they can apply for the "Digital Infrastructure Investment Loan (206)" from KfW.

digital@bw

Baden-Württemberg's digitisation strategy "digital@bw" aims to leverage the potential of digitisation. This specifically involves digitisation in medicine and care, which is why the Ministry of Social Affairs and Integration launched this strategy back in 2017. The state has allocated 11 million euro (as of July 2020) for implementation. A further 2 million euro was made available in 2021. As part of the strategy, the aim is to strengthen care by providing staff with digital

For more information, [click here](#).



Conclusion

One thing is clear: the demands on planners and architects are growing when it comes to the design and construction of healthcare buildings. In addition, it is enormously important that patients feel comfortable in the nursing home and hospital. After all, concepts like healing architecture illustrate how important this part of recovery is. This not only significantly reduces the length of stay per patient, but also significantly improves the work of all employees in hospitals and nursing homes. Because the good care of the patients can only be guaranteed when staff are happy in their work. At the same time, planners and architects must take into account the interests of a wide range of stakeholders. Added to this are the general challenges in the construction industry: rising interest rates, growing commodity prices and the shortage of skilled workers. This makes it all the more important to take advantage of the opportunities – such as those offered by subsidies – to relieve hospitals of their workload.



Planning service

Do you need assistance with healthcare building design? HEWI will be happy to advise you personally on all your questions regarding planning, equipment and product specifications. We are your partner for comprehensive property solutions and offer suitable products – both in the area of sanitary fittings and in building hardware.

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- Preparation of working drawings
- Tender assistance
- Explanation of the DIN as well as SIA and Ö-Norm
- Product recommendations
- Help with the realisation of project equipment

Feel free to contact us. We would be happy to support you in your projects.

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► **To the website**



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Issue 1

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