

No. 01 — 2026

FORESIGHT

PERSPECTIVES ON CORRECTIONAL SECURITY

EN

FORESIGHT

means looking ahead. That is exactly what we do in this magazine: We listen, ask questions and keep an eye on developments in correctional security. After all, if you want to know what will matter tomorrow, you need to understand what is happening today.



14

Update for Cell Block B

Heritage conservation meets high security at Bützow Prison

20

Retrofitting

HSLretro integrates new locking technology into existing doors

08

Special feature

Existing structures, future solutions

No. 01 — 2026

FORESIGHT

PERSPECTIVES ON CORRECTIONAL SECURITY

Photo: Christoph Edelhoff



Photo: Jan Hosan

Dear partners,
Dear friends,
Dear security enthusiasts,

EDITORIAL

Many of us know one another and meet regularly at ICPA, at trade fairs or at other international industry events. Our community is relatively small, and even within it, high-security locks are quite a niche topic. Some people might well ask: What's actually so exciting about it?
I'm happy to make the case for it. What I'm particularly pleased about is that we also have architectural practices, experts and partners on board, all contributing their perspectives on security. After all, high-security technology is anything but boring! First and foremost, it is a health and safety issue – people working in the prison service must be able to rely on doors, locks and access systems to work properly. At the same time, effective security measures protect inmates and ensure the smooth running of a prison. Whether on a very small scale in locking systems or on a very large scale in architecture, technical decisions shape not only security but also opportunities for reintegration into society.
This magazine shows just how people-centred technical decisions can be. We also devote space to innovation, as security benefits greatly from technological advances. When I look ten years ahead, there's one thing in particular I can see disappearing: that big bunch of keys on my belt. For a first glimpse of what that might look like, turn to page 50. But more on SmartPrison in the next issue!
Sometimes, progress lies precisely in not doing everything from scratch. With HSLretro, we develop highly customised solutions for existing doors and systems. Our special feature on 'Working with existing buildings' shows how buildings and serviceable components can continue to be used – and why this not only eases the burden on public finances but can also save materials and resources.

We hope you enjoy reading this first issue of **FORESIGHT!**



Andreas Kupka, Geschäftsführer

Contents

SPECIAL FEATURE

08 **Existing structures, future solutions**

How much transformation is needed – and feasible – to make historic prisons fit for the future?

BÜTZOW PRISON

Fit for the future 14

From a listed building in need of refurbishment to a modern high-security facility: Major refurbishment of Cell Block B

STUV RETROFIT

20 **A new lease of life for old doors**

Replacing a cell door that's still in working order, just because the lock has reached the end of its useful life? Retrofit offers an alternative

PLÖTZENSEE PRISON, BERLIN

Not a run-of-the-mill lock 24

Some of the doors date back to the 19th century. Rather than replacing them, the locks were adapted to the existing doors



INNOVATION

30 **The prison of tomorrow**

What will the prison of the future look like? Innovation doesn't start with new buildings – it starts with technology

KNOWLEDGE & EXCHANGE

STUV Academy 32

This is where procurement professionals, planners, operators and technical staff are trained

Photos: Stefan Hanke, Daniel Elke



36

EXPERTISE: LIGHT & SPACE

Designplan Lighting

In an interview, lighting expert Daniel Wecker explains how modern lighting concepts play a decisive role in security

SECURITY & REHABILITATION

Architecture of Opportunity

How can a prison be designed to support successful rehabilitation while genuinely protecting victims?

40

44

STUV GLOBAL

From all over the world

A sense of optimism in Zimbabwe, Eswatini and Brunei: How challenges are being tackled around the world

A CHANGE OF PERSPECTIVE

An oasis behind bars

Behind historic prison walls, the Hotel Liberty offers a genuinely welcoming atmosphere

48







NO ROOM FOR COMPROMISE.

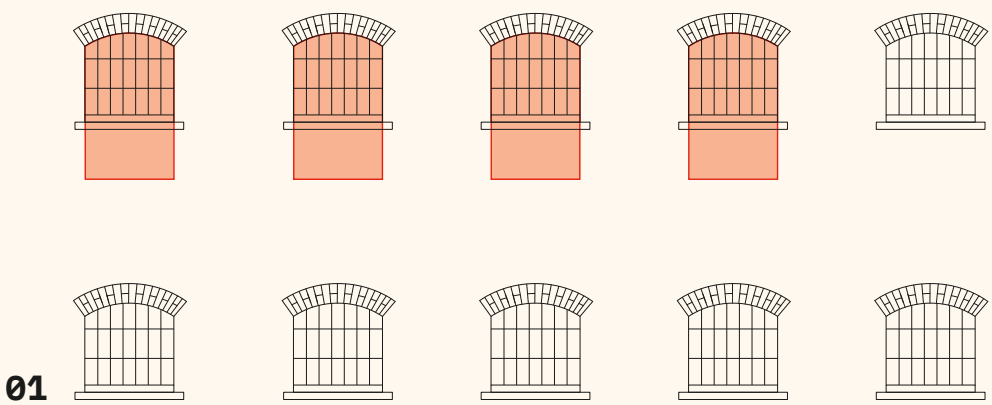
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How much change can existing structures handle?



01

Striking the balance between heritage conservation and new construction: How much transformation is needed – and feasible – to make historic prisons fit for the future? Taking stock

01 —— View of a historic prison building prior to façade refurbishment by DÖMGES ARCHITEKTEN

02 —— DÖMGES ARCHITEKTEN were responsible for the refurbishment and extension of the Chemnitz Justice Centre

Photos: Florian Hammerich (Porträt) und Stefan Hanke (Justizzentrum Chemnitz)



doemges.de

THOMAS ECKERT, MEMBER OF THE EXECUTIVE BOARD, DÖMGES ARCHITEKTEN AG

As a shareholder and Chairman of the Executive Board, the architect heads the Regensburg practice, which has established itself as a trusted specialist in prison design throughout Germany.

“In my view, the trend is towards greater openness and transparency, warmer and more robust materials such as brick, more colour and clearer layouts.“

Thomas Eckert, architect

Hardly any other area of public-sector construction is as complex as working with existing buildings for justice and forensic psychiatric facilities. Here, the demands placed on modern detention centres and uncompromising security clash with listed but often dilapidated historic building fabric. Many prisons date from the late 19th or early 20th century and are therefore outdated. But when is it worth modernising existing facilities to bring them up to today’s standards? And what are the limitations when it comes to proactively adjusting capacity, modernising buildings to provide single-occupancy accommodation and bringing them up to date with the latest technology, whilst at the same time meeting strict climate protection targets? “Historic justice buildings in particular often have layouts that are difficult to reconcile with today’s requirements,” points out architect Ludwig Karl. The founder of karlundp has many years’ experience in the construction of prisons. Sonia Bom, an architect at Alex Poulsen Architects in Denmark, also has a wealth of experience in striking a balance between historic building fabric, stringent security ›

Working with existing buildings is about preserving embodied energy. How do you reconcile the extreme demands of concrete construction and high-security design with modern energy efficiency and sustainability standards?
Sustainability also means durability; in that respect, there is no contradiction with concrete. Modern concrete containing recycled aggregates and low-portland cements is already making a significant contribution to energy efficiency and sustainability. The use of fired bricks as a cladding material instead of precast concrete curtain wall panels helps to improve recyclability and conserve resources.

Can your expertise in modular construction – such as ready-to-install detention cells – be used to quickly expand existing facilities whilst they remain in operation, or to replace wings?
The modular construction method, consisting mainly of concrete room modules, is particularly cost-effective for the construction of prison accommodation. With planning that has been fine-tuned down to the last detail – albeit requiring additional effort in the run-up to the project – the construction period and the disruption caused to the prison are significantly reduced. This can be a decisive advantage in new builds or extensions carried out whilst operations are ongoing.



To what extent can historic prison architecture be adapted to promote rehabilitation?
We repeatedly receive feedback that architecture designed with care and attention to detail is also appreciated by the inmates. For them, this is particularly evident in the materials, the lighting, the colours and the overall atmosphere of the rooms. A carefully designed environment conveys the message that, despite being incarcerated, a person is not viewed solely as a security risk. In this way, it can convey a certain degree of respect. Of course, the options are often limited when working with existing buildings. Nevertheless, even architecture that was originally designed with confinement and isolation in mind can be further developed. An environment that promotes reintegration into society is therefore possible in both new and existing buildings.

What materials do you use to combine the required robustness with a welcoming atmosphere?
For example, we use very sturdy furniture made from firmly glued laminated timber or glued veneers. These can withstand heavy use and, thanks to the use of wood, still convey warmth and a natural feel. Even exposed brickwork that has been skilfully laid can work very well in high-traffic corridors or communal areas. It is hard-wearing, so minor marks are less noticeable, and the room doesn't immediately look untidy. Even traditional lime plaster can give a space a real sense of quality when combined with a well-designed colour scheme. For us, what matters is not necessarily whether a material is particularly innovative. What matters more is that it is well specified and installed, remains durable and ages well even after many years.



LUDWIG KARL, FOUNDER, KARLUNDP ARCHITECTS

The architect, founding partner and managing partner of the Munich-based practice seeks surprising and sustainable solutions, even for complex building projects.

karlundp.de

requirements and therapeutic design. "If the aim is both to renovate and to improve conditions so as to create a more humane environment, this means that the old structures must be transformed, not merely renovated," she emphasises. However, this has implications for space efficiency: For example, the creation of larger cells, private sanitary facilities and new communal and leisure areas often leads to a reduction in capacity of between 30 and 40 per cent. A typical example is detention cells without a separate toilet cubicle. "If these are retrofitted, the remaining space will quickly become too small," explains Ludwig Karl. "One possible solution is to turn three cells into two and use the middle one for the sanitary facilities. "This improves the quality of the individual cells, but at the same time reduces overall capacity."

Letting in more light
In the case of listed buildings, the limited amount of natural light – and consequently the design of the windows – is also an important consideration. "The existing openings are often too small, so a solution for enlarging them has to be developed in consultation with the heritage authority," explains Thomas Eckert, Executive Board member at DÖMGES ARCHITEKTEN. Dömges has made a name for itself through projects including the Chemnitz Justice Centre and the prisons in Hof and Augsburg-Gablingen (in collaboration with karlundp). A good example is the current refurbishment of the historic buildings at the listed Nuremberg Prison, carried out by DÖMGES ARCHITEKTEN. By lowering the window sills and replacing the existing windows with high-security, thermally insulated glazing, it is possible, for example, to significantly enlarge the typically small windows found in brick façades.

Photos: Orla Connolly (Porträt), Stefan Hanke, karlundp Architekten



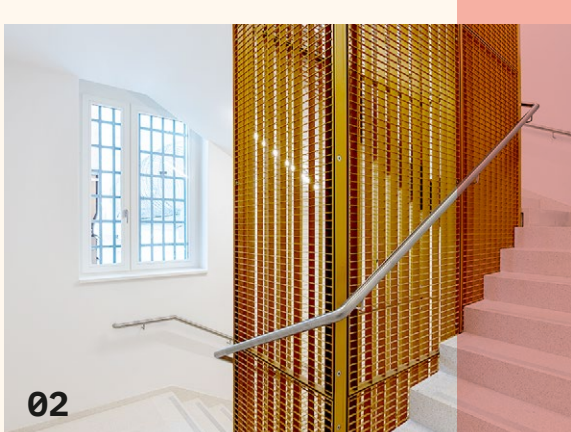
01 —— At Regensburg Prison, karlundp was responsible, amongst other things, for the conversion, refurbishment and repair of the listed south wing, as well as for the new west wing

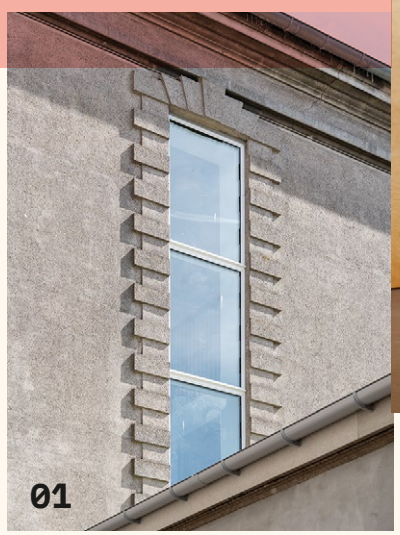
02 —— In the south wing, the demolition and reconstruction of the stairwell were necessary for fire safety reasons

> **Modern technology must not simply be squeezed into an already finished interior design concept at the last minute. “It must be part of the overall architectural concept right from the start.”**
>
> Ludwig Karl, architect

High tech meets history

Furthermore, integrating modern technology and digital equipment can be a real challenge. “In principle, it is technically possible to bring a historic building up to the same standard as a new build. The difficulty lies not so much in the systems and technologies themselves as in the space they require,” says Ludwig Karl. Many existing buildings lack sufficient space, service ducts and suitable service routes. At the same time, today’s standards for fire safety, security, ventilation, electrical systems and communications technology must of course be met. This makes it all the more important that architecture, engineering, structural design, fire safety, heritage conservation and operational organisation are planned jointly right from the start. “Modern technology must not simply be squeezed into an already completed interior design concept at the last minute. It must be part of the overall architectural concept right from the start,” insists the Munich-based architect. Ultimately, each case has to be weighed up carefully: What can be retained and adapted at a reasonable cost, and where will ›





01



02

this ultimately only result in costly compromises? “What matters is an honest assessment of the existing building to determine whether it can genuinely be developed for the future, or whether considerable effort will merely produce a result that still falls short of the quality of a new build,” says Ludwig Karl. The amount of technical infrastructure has been increasing for years, and the space it requires makes buildings larger and more expensive. That’s where existing buildings often reach their limits,” agrees Thomas Eckert. It is therefore not uncommon for a new build to be the better solution. “A facility designed from scratch can benefit from a more spacious layout and – at least in the short term – be more cost-effective,” adds Sonia Bom. However, particularly in the case of listed buildings, demolition is often ruled out or very difficult to secure approval for. In that case, an extension using modern prefabricated modules could also be a solution. “This makes sense where sufficient space is available and neither internal expansion nor adding another storey is possible,” explains Thomas Eckert. The advantage of prefabricated concrete room modules: Construction time and disruption caused by the building works can be significantly reduced. However, the real measure of success goes beyond construction technology: Successful rehabilitation depends to a large extent on well-being and a consistent focus on meaningful daily routines. “The most important achievement is the creation of a normalised environment that safeguards the privacy of the individual without causing isolation, promotes self-regulation and personal responsibility, and ultimately fosters safe interpersonal relationships,” emphasises Sonia Bom. Ludwig Karl sums it up: “Good lighting design, well-thought-out colour schemes and materials that are both robust and of high quality can make all the difference here!” ×



03

01 —— The former Maribo prison, built in 1865, has been converted into a modern open prison

02 —— As part of the modernisation of the medical centre at Vestre Prison, the staff meeting room was also redesigned by APA

03 —— The refurbishment of the prison by APA also includedthe sanitary facilities

Photos: Alex Poulsen Architects



SONIA BOM, PARTNER, ALEX POULSEN ARCHITECTS (APA)

The architect specialises in high-security architecture and design, with her expertise further strengthened by her active involvement in expert networks for security technology.

alexpoulsenarchitects.com

Alex Poulsen Architects are renowned for striking a balance between security requirements and therapeutic design. To what extent can existing architecture, which was designed for detention and isolation, be transformed into an environment that promotes rehabilitation?

I am convinced that existing facilities can be redesigned to a very high standard to create a humane, trauma-sensitive environment. We have already successfully applied these principles in numerous projects. However, this is only possible if the client is prepared to make the necessary investments and to accept a reduction in capacity.
The most important thing here is to create a normalised environment that safeguards the privacy of the individual without causing isolation, promotes self-regulation and personal responsibility, and ultimately fosters secure interpersonal relationships. Successful rehabilitation depends to a large extent on well-being and a consistent focus on meaningful daily routines – all of which can also be achieved very successfully in modernised existing buildings.

> **“The most important thing is to create a normalised environment.”**
>
> Sonia Bom, architect

The Danish system places great emphasis on close relationships between staff and inmates. How should interiors – particularly in space-constrained existing buildings – be designed to encourage this interaction while also providing staff with safe areas and places to withdraw?

The proximity of staff plays a key role in the Danish system and in the principles of dynamic security as a whole. In many existing Danish prisons, staff workstations have been set up in a similar way to those in new-build projects. These typically feature reception and administrative areas which are connected vertically to a central staff centre or, where possible, to shared staff rooms. The specific configuration varies from facility to facility and, within each facility, depends on the geometry of the individual wings.

Denmark is regarded worldwide as a model for humane prisons. How has the concept developed internationally? Where do you see the biggest differences?

Denmark began early on to transform its prisons into more humane environments – starting with the construction of Ringe Prison in the 1970s. It was one of the first modern prisons to introduce the principles of normalisation and personal responsibility. The biggest differences we still see internationally lie in the Danish legal framework. This is intended to ensure that detention does not result in a violation of human dignity, but rather that the rights of detainees are, for the most part, the same as those of all citizens. Although the punishment consists of deprivation of liberty within a secure facility, prisons are required to provide a daily routine that is as close as possible to life outside. Furthermore, regardless of the offence, they must ensure equal opportunities. As architects, our most important task is to design spaces that are both safe and comfortable, because well-being is a fundamental right and should not be a luxury.

Fit for the future

From a listed building in need of refurbishment to a modern high-security facility: The major refurbishment of Cell Block B at Bützow Prison also significantly improved conditions for prisoners

Bützow Prison is one of the oldest prisons in Germany – its listed, star-shaped building remains an impressive historic landmark to this day. Yet behind the thick brick walls of Cell Block B, built in 1839, time had stood still. As many aspects had long since ceased to comply with the Prison Act, a comprehensive refurbishment became essential. Alongside the structural refurbishment, conditions for prisoners were also to be significantly improved. As a result, the accommodation areas were reorganised, detention cells were fitted with separate toilet facilities, and the supervision and service areas were adapted to meet the requirements of a modern prison system. The major refurbishment created 63 places in single- and double-occupancy cells – 45 in the women's wing and 18 in the transport unit – as well as new recreation rooms and communal kitchens. The female prisoners were also given their own courtyard with a garden. ›

Photo: Christoph Edelhoff

Cell Block B underwent major refurbishment from March 2020 – including its historic brick façade.




01

De-escalation through design
From a bleak prison environment to a calmer, de-escalating atmosphere: The team of architects at A&P Wismar – project managers Onno Folkerts and Frauke Folkerts – opted for welcoming, warm materials, light colours, natural finishes and pleasant lighting. Together with a clear spatial layout, the new ambience is intended to help reduce stress and make it easier to find your way around. At the same time, vandal-resistant components, secure fittings and low-maintenance, robust materials ensure a long service life and cost-effective operation. “Modernising a listed building in this way requires a great deal of sensitivity,” explains architect Frauke Folkerts. “Whilst a new build offers greater design freedom, existing buildings allow for the responsible use of available resources and often result in unique architectural solutions with a strong sense of identity. Older buildings often feature architectural details and spatial qualities that are difficult to replicate in new buildings.”

> “Older buildings have spatial qualities and historical details that are difficult to replicate in a new build.”
>
> Frauke Folkerts, architect A&P Wismar

Striking a balance between heritage and modern standards
The challenge for Cell Block B was to preserve its historic character while bringing its technology and security systems up to the latest standards. “One particular challenge was that the existing building structure only allowed for limited alterations,” says Onno Folkerts. “New technical installations, modern security systems and building services therefore had to be integrated with the utmost care.” This was particularly

Photos: Christoph Edelhoff

challenging because the building, which is a good 190 years old, had a few surprises in store: virtually no wall was straight, and no two measurements were the same. Historical wall thicknesses, irregular geometries and a variety of materials often called for bespoke solutions rather than standard ones. “It was only once work was under way that the wall constructions,

23.3 Mio. €

Total construction cost for Cell Block B

foundations, floor structures and earlier alterations became fully apparent. As a result, numerous details had to be adjusted time and again at short notice.” This made close coordination between the client, the heritage conservation authorities, the specialist planners and the contractors all the more important.
In order to incorporate a state-of-the-art technical upgrade into the historic building fabric in a way that is both invisible and safe, existing cavities and service spaces were utilised, and new service routes were kept to the absolute minimum. Where intervention was unavoidable, it was kept as discreet as possible and closely coordinated with heritage conservation requirements. The loads from the heavy security and cell doors were transferred into the masonry via new steel frames, rather than being carried by the historic wooden frames. This preserves the historic building fabric and appearance, while the new structure carries the loads and fulfils the necessary security functions. Technical components have also been integrated in such a way that they remain largely invisible in everyday life. On the important issue of natural light, too, the planners managed to strike a balance ›

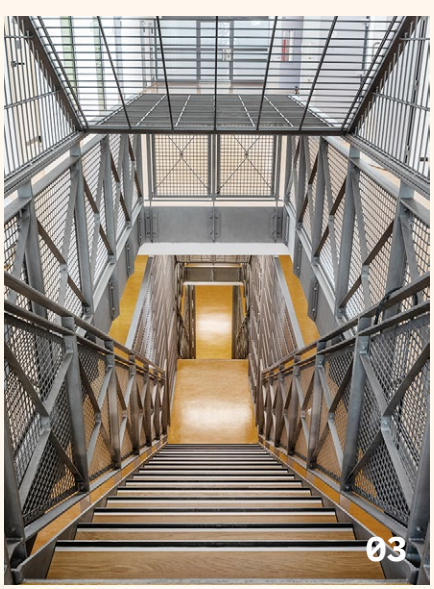


02

01 —— The refurbished Cell Block B in the right-hand section of the building – in the foreground, the new recreation courtyard with a small playing pitch

02 —— New floor coverings made of linoleum, epoxy resin or tiles have been laid throughout the building

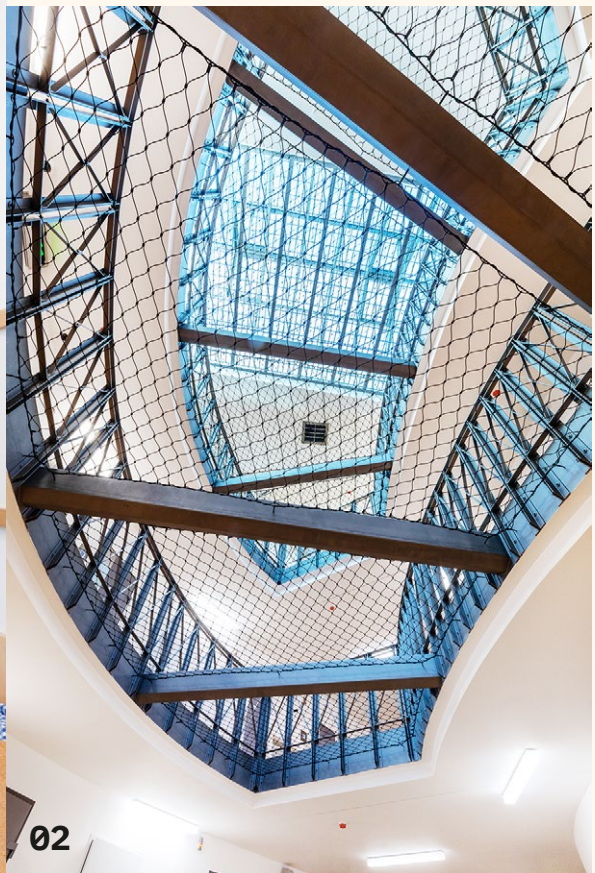
03 —— Connecting staircase: Here, too, robust materials have been combined with a warm, inviting colour scheme



03



01



02



03

01 —— More daylight: The window openings in the new detention cells have also been made larger

02 —— The gallery areas were replaced with new reinforced concrete slabs. The panoptic system remained largely intact

03 —— As a result of the reorganisation, all detention cells have been fitted with their own sanitary facilities

Photos: Christoph Edelhoff, A&P Wismar Architekten

45 18

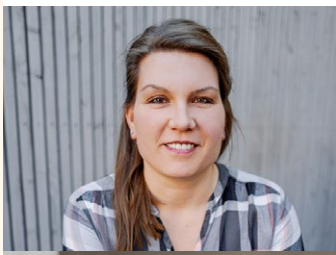
The building accommodates 45 places for women, as well as a transport unit with 18 places

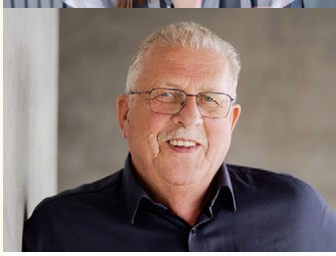
between the historic fabric and modern prison standards The cell windows were significantly enlarged and constructed with laminated timber frames and insulating glazing. However, carrying out the building work while the prison remained operational posed significant logistical challenges: To avoid disrupting overall operations, dust barriers sealed off the connections to the star-shaped building, while the secure vehicle entrance had to be upgraded to accommodate heavy construction vehicles.

Bespoke security solutions

Where heritage conservation meets high security, locking technology comes into its own: STUV supplied 190 locks for the project, which cost a total of 23 million euros. “Eight different types of lock were installed – from cell-door and inspection-hatch locks that lock from one side, to passage-door locks that lock from both sides, and HSL-series motorised locks for mechanical and electronic operation with a control system,” explains Markus Gester, who oversaw the Bützow project for STUV. “Five different types of lock were used for the passage doors alone. This alone shows that this was anything but an off-the-shelf project: the planning had to accommodate a wide range of requirements.” One notable feature, for example, is that 30 of the fitted locks are ‘electro-mechanical’. Although these models are locked manually using a key, they contain a circuit board which monitors the position of the lock and transmits this information to the control centre. “This means the control centre immediately detects if a lock has not been properly secured – whether deliberately or accidentally. Especially when staffing levels are low, this eliminates the need for inspection rounds and provides a cost-effective alternative to fully automated motorised units, which are operated entirely from the control centre at the touch of a button,” says Gester.

“The result is a building that retains its historic identity on the outside, while inside it features modern design and contemporary technical infrastructure that meets the stringent requirements of a modern prison in terms of security, fire safety, accessibility, building services and energy efficiency,” concludes Onno Folkerts. After just over a year in operation, Jens Kötz, Head of Property Management at Bützow Prison, agrees with him wholeheartedly: “The B Wing has proved its worth both in terms of the significantly improved standard of accommodation and the organisational possibilities it offers. The different forms of accommodation cater far better to individual requirements and enable the prison regime to be delivered in a way that is both tailored to those needs and secure.” ×





A&P WISMAR ARCHITECTS

At the heart of A&P Wismar lies a passion for heritage conservation and new challenges: In many building projects, the architectural team led by Onno and Frauke Folkerts combines expertise in working with existing buildings, accessibility and modern architecture with character.

ap-projekte.de

PROJECT DETAILS

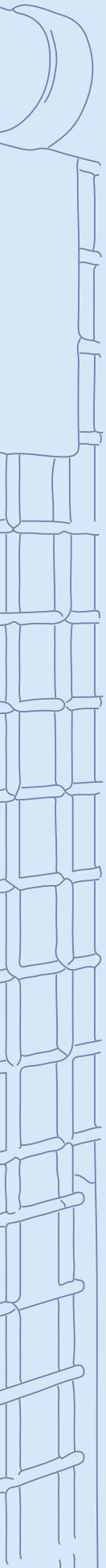
Location
Kühlungsborner Straße 29
18246 Bützow

Period of modernisation
03/2020–03/2025

GFA
3,712 square metres of gross floor area



Photo: STUV



A new lease of life for old doors

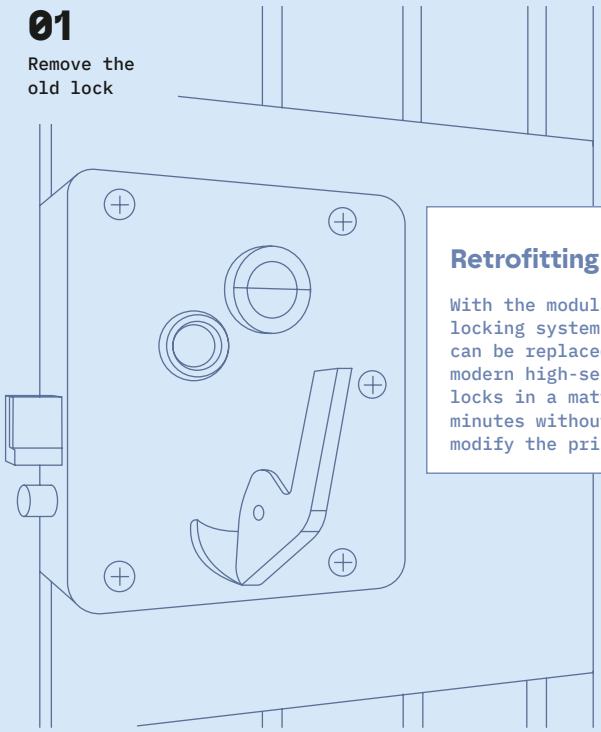
Replacing a perfectly serviceable cell door simply because the lock has reached the end of its useful life costs time and money – and often takes a cell out of service. Retrofit offers an alternative: The door stays; the locking mechanism is replaced

"The doors are usually in good condition. They are sturdy steel doors, solid-panel doors," says Mike Walter, Product Manager for Prison Solutions at STUV. The lock, on the other hand, may be worn out after 40, 50 or 60 years, no longer meet today's requirements, or be impossible to repair due to a lack of spare parts. With a retrofit, the door leaf remains in place; only the lock is replaced. Depending on the amount of work involved, the replacement takes between 20 minutes and two hours; a team can retrofit up to eight doors in a working day This eliminates the need for dismantling, transport, welding, painting and lengthy closures. The heavy door leaf, which is often still intact, also remains in the building. The European Environment Agency identifies extending service life through repair and retrofitting as an effective circular approach to reducing material use and embodied emissions. In the case of listed doors, preservation is often not a choice but a requirement.

A trial lock

"A replacement lock is not a universal part in our range." Before design work begins, a team surveys every door: "Make, lock type and function, door gap and rebate clearance, hinges and direction of opening, as well as the points at which the bolt and latch protrude," explains Mike Walter. Depending on the distances involved, a team can survey between 300 and 500 doors a week. Some doors fail this assessment – particularly shallow older locks may leave insufficient space for modern locking technology, while a revised fire safety concept may also require the door itself to be replaced. Before the ›

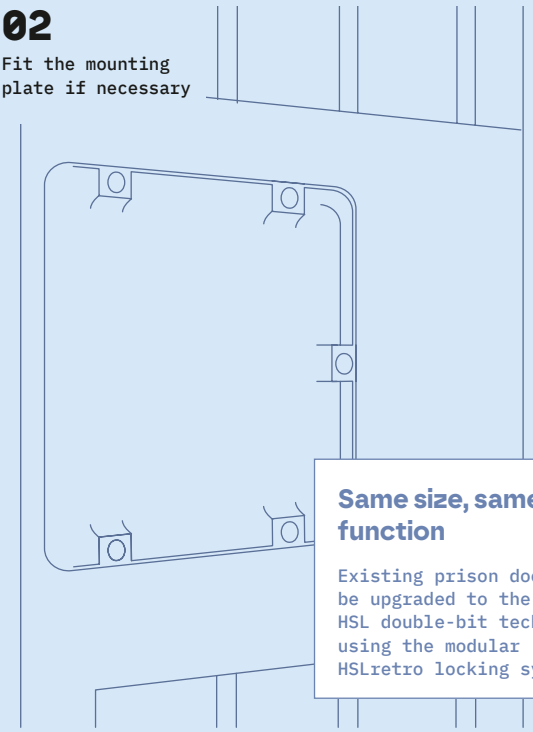
01
Remove the old lock



Retrofitting

With the modular HSLretro locking system, old locks can be replaced with modern high-security locks in a matter of minutes without having to modify the prison doors.

02
Fit the mounting plate if necessary



Same size, same function

Existing prison doors can be upgraded to the latest HSL double-bit technology using the modular HSLretro locking system.

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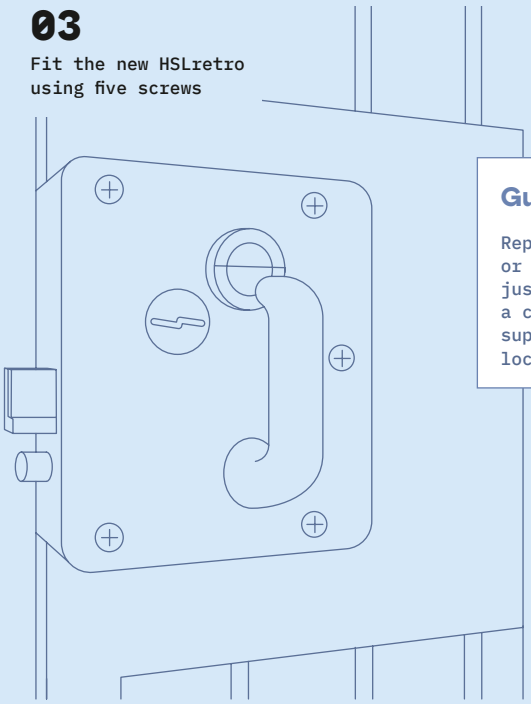
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03

Fit the new HSLretro using five screws



Guaranteed

Replacing the hatch lock or inspection-flap lock is just as easy as replacing a cell-door lock. STUV supplies the new hatch lock.

Made easy

Replacing old passage-door locks with new HSLretro locks is also very straight-forward. The key guides on both sides of the passage-door locks are aligned on the same axis.

tender process and production begin, it must therefore be determined which doors can remain and where replacements are required. STUV then uses the measurement data to develop a prototype. It will be fitted to a representative door and inspected by the technical management. Only once the dimensions and functionality are correct does series production begin. At the testing centre, HSLretro locks undergo up to 1.5 million locking cycles. STUV estimates that a new development will take between three and six months, whilst a medium-sized project will take between six and nine months from the time the order is placed to the first installation.

One more key is one too many

In facilities with common locking groups, depending on the locking system, one key may open all cell doors while another opens the passage doors. “That’s why, when one lock is replaced, all the locks often have to be replaced,” explains Mike Walter. After all, a single new lock would mean an extra key on the key ring – unthinkable in an emergency, when every move has to be just right. The two locking groups can nevertheless be modernised in stages: all cell doors first, for example, followed by the passage doors in a subsequent financial year. This turns an otherwise barely affordable wholesale conversion into a manageable project that can be implemented in stages.

A new lock, new possibilities

Replacing the lock can also add functions that the old lock did not offer: recoding after a key is lost, monitored lock status or prisoner-operated locking. Prisoners can leave their cells independently and lock them against access by others; staff retain overriding locking authority and can deactivate this function during night-time lock-up. Easy from start to finish: The job doesn’t end with installation – if a cell-door lock jams, the door has to be opened within minutes. That is why spare locks are kept on site, trained designated personnel carry out replacements themselves, and removed components are sent to Heiligenhaus for repair; some prisons also have service agreements with terms of up to ten years. “We don’t have any catalogues. Our business is project-based, and every project is different. Almost every project results in a new type of lock,” says Mike Walter. ×



MIKE WALTER

As Product Manager for Prison Solutions at STUV, he oversees projects from the initial enquiry through to the finished product, acting as the link between sales, design, production and marketing.

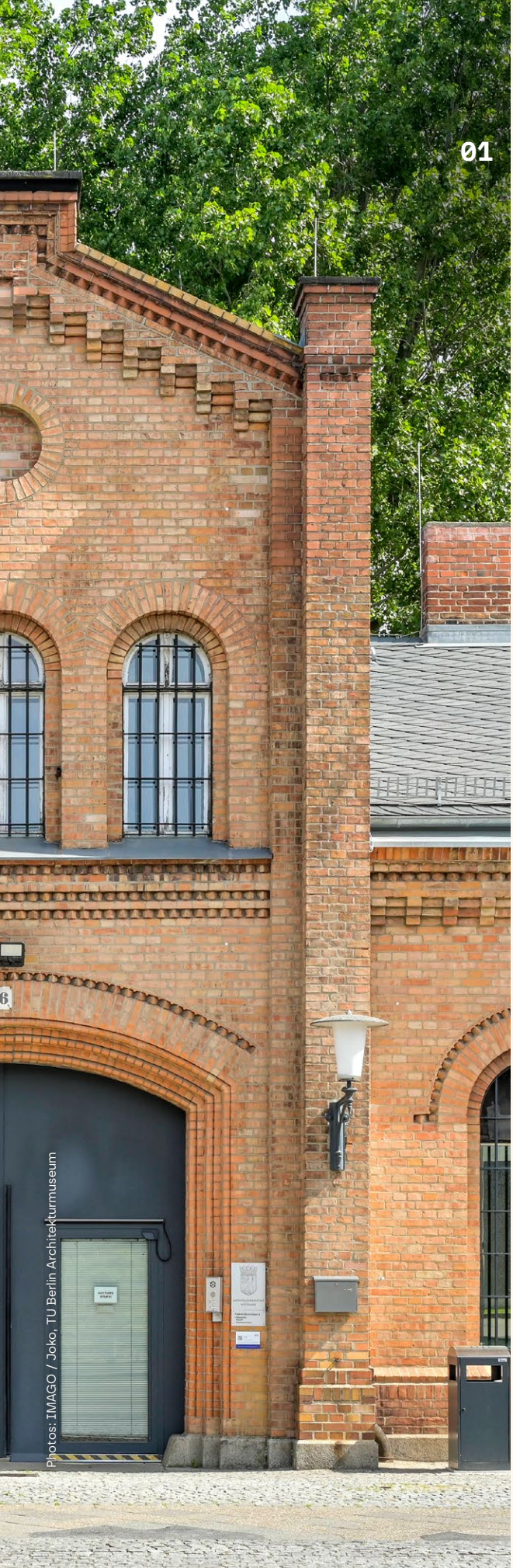
m.walter@stuv.de

stuv.de

Photo: STUV

Not a run-of-the-mill lock

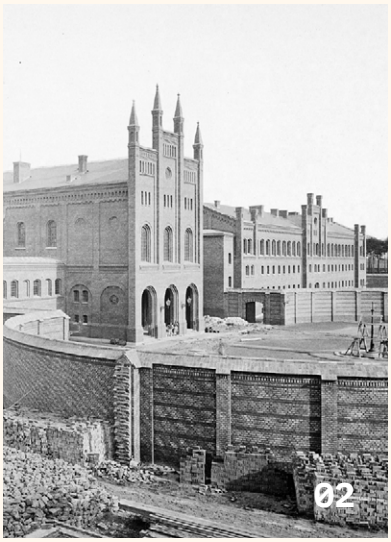




Photos: IMAGO / Joko, TU Berlin Architekturmuseum

01 —— Brick behind bars: Gate I forms part of the listed complex

02 —— Plötzensee in 1871: This historical view shows the administrative building and the church



Some of the doors at Plötzensee Prison still date from when the prison was built in the 19th century. Rather than replacing them, the locks were adapted to fit the existing doors: 2,160 locks in 39 variants

When Plötzensee Prison opened in 1879, it was still situated outside Berlin, on a plot of land in the Tegel Forest. It was not until 1920 that the area became part of Greater Berlin. A prison town was built on 25.68 hectares, modelled on the then-progressive pavilion system, complete with a waterworks, a gasworks, a church and accommodation for staff. Today, large parts of the brick complex are heritage-listed. The Nazi era marks a profound rupture in the history of the site: During this period, Plötzensee became the central execution site Since 2024, a memorial trail within the prison has documented the history of the site. Since 2013, the former Plötzensee Prison, Charlottenburg Prison and the Prison Hospital ›

> **Because STUV developed locks to fit the existing lock pockets, we were able to keep costs significantly lower.”**
>
> Philipp Prüwer, JSP ARCHITEKTEN

have formed a single institution. The architectural spectrum is correspondingly broad: ranging from the 19th-century listed brick complex to the section of the institution south of Friedrich-Olbricht-Damm, which was completed in 1983. This historic complex is one of Berlin’s earliest prison buildings, built as a more open, dispersed complex in exposed brick Instead of a single star-shaped cell block, several buildings with large enclosed courtyards were constructed (page 28).

Not all old doors are alike

In 2020, JSP Architects were awarded the planning contract for the modernisation of the locking system. In the listed part, it was clear that: “Demolition is simply not an option here,” says construction engineer Philipp Prüwer. For him, therefore, the modernisation process began by asking questions about the existing building: Which doors are still in working order, which ones need replacing, and how much will the refurbishment cost? Decades can separate two doors at Plötzensee – original timber doors stand alongside steel doors from later construction phases, as well as heavy external doors and an old door leading to the former church. Philipp Prüwer estimates that in the historic part alone, there are still around 250 doors dating from the time the building was constructed. “The doors come from every era of door manufacturing,” confirms Holger Tacke, Head of Operations and Technology at STUV. “There weren’t just three door models. That would have been nice.” Many of the doors had already undergone alterations even before the current modernisation. Different prison locks had already been fitted into the original door leaves decades earlier; according to Tacke, some doors had been modified two or three times. Instead of a round key guide, the welded-on key-guide sleeves had been fitted to the door leaf They had to be removed; afterwards, depending on the door, the doors were drilled, milled, riveted, sealed and painted. “Our team really had to work their magic there,” says Holger Tacke. The parts list shows that this was far from an isolated case: Each of the 2,160 HSLretro locks was a custom or special version; a total of 39 different lock types were produced. One alternative was initially on the table: removing each door, cutting out the existing lock recess – that is, the cut-out in the door leaf – welding in a new, uniform one, and fitting a standard lock. JSP compared the two methods. “Because STUV developed locks to fit the existing lock pockets, the solution was significantly cheaper and required far less intervention,” says Prüwer. Looking back, he estimates that the lock replacement costs roughly a third of what a complete door replacement would cost. The contract was put out to tender publicly, and STUV was awarded the contract. This resulted in 39 HSLretro models. To do this, the existing doors were surveyed one by one over a period of several weeks: door gap, rebate clearance, opening ›

Photos: Alamy (Bildagentur-online), Holger Tacke, Philipp Prüwer



01



03

2.160

Total number of locks replaced



02

01 —— The historic door was retained; the locking mechanism was replaced

02 —— From brick to concrete: Today's prison combines different phases of construction

03 —— Historic reception: The entrance hall in the gatehouse at Plötzensee Prison

04 —— New within the old walls: The new lock integrates seamlessly with the existing door



04



PHILIPP PRÜWER, JSP ARCHITECTS

The firm was founded in 2001 and operates from Dresden, Berlin and Leipzig, delivering integrated planning, building, refurbishment and project development services JSP Architects operates throughout Germany and in neighbouring European countries, and employs a multicultural team.

jsp-architekten.eu

PROJECT DETAILS

Location
Friedrich-Olbricht-Damm
13627 Berlin

Period of modernisation
01/2022–09/2025

Opening
1879



direction, hinges, existing lock and condition of the door leaf. An existing directory was not sufficient for this. New lock designs were developed from the measurement data and initially built as prototypes. The prototypes were taken back to Plötzensee, and only after successful installation in a door were endurance tests carried out on the STUV test bench and series production started.

01 —— Two eras, one prison: On the left is the historic part of the building; on the right is the newer section

02 —— Before and after: The old lock at the top has been replaced with an HSLretro version

No ordinary installation site

Access alone makes this no ordinary installation site: Staff are screened in advance, and passing through security each day is part of the routine. Mobile phones must be left outside; photography is only permitted in exceptional circumstances. The installation was carried out according to plan, building by building and from top to bottom. At times, six STUV fitters worked simultaneously in three teams of two. For each door, the removal, modification and refitting took between 30 minutes and two hours. Meanwhile, the prison remained operational. “At Plötzensee, prisoners were moving around the corridors. They would sometimes stand beside us, watching and even offering installation tips,” Tacke recalls with a smile. The results of the modernisation are now evident even on the key ring. “Instead of three to five heavy keys, today it’s just one or two,” says Prüwer. ×



Photos: Till Schuster (Porträt), ullstein bild (ullstein bild), Andreas Laudy (Porträt)

“Our team really had to work their magic.”

Historic fabric meets high-security technology: In Plötzensee, the new lock had to fit the existing door, not the other way round. We put the question to Holger Tacke, Head of Operations & Technology at STUV: How does ‘doesn’t fit’ end up becoming ‘fits perfectly’?

Mr Tacke, 2,160 locks and 39 variants: Why did Plötzensee need so many?

The doors date from all periods of door manufacture. There were models from the time of construction, others from the 1930s, 1950s or 1960s, as well as a variety of materials and functions. Even whether a door is left- or right-hinged makes a difference to the lock.

How does this become a suitable retrofit lock?

We survey every door and take the relevant measurements: Door gap, rebate clearance, DIN left or right, hinges, existing lock. We also check whether the door is still in working order. The design is derived from the data. Then we build a prototype and test it on site in one of the doors. If everything fits, the lock is put through its paces. Only then does production take place, followed by final assembly in Heiligenhaus.

Standardisation and high-security locks – do they even go together?

In Germany, the prison system is a matter for the federal states, and each federal state has its own philosophy and operational guidelines regarding the use of locks. That is why almost every new project gives rise to a new type of lock. Some prisons switch their locking system to a new key set once a year; others do so four times a year. Others rely more heavily on electronics. Decisions like these are reflected directly in the lock itself.

If the new lock is the same size, why does the door still need work done on it?

At Plötzensee, that came down to the individual door. With some third-party locks, there was no round opening for our key guide; instead, welded-on key-guide sleeves had been fitted. They had to be removed and the opening re-cut. In some cases, the door had to be milled, riveted, filled and repainted. With a cell-door lock, we could be finished in 20 minutes. For special doors requiring drilling, it could take up to two hours.



HOLGER TACKE

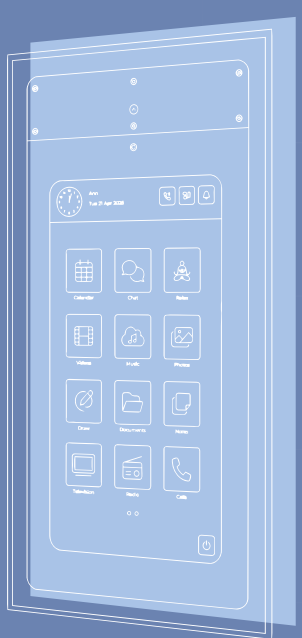
Holger Tacke is Head of Operations and Technology at STUV. He has been working on projects in prisons for around 20 years. In Plötzensee, his department was responsible for installing the HSLretro locks.

h.tacke@stuv.de

The future? Secure.

What will the prison of the future look like? Innovation doesn't start with new buildings – it is already transforming existing facilities, with technology that identifies risks earlier and makes security less imposing

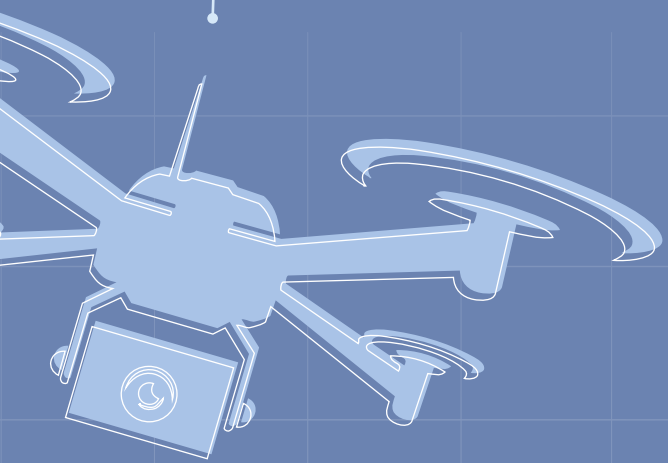
RECORNECT



The Cell goes online

A media wall is a highly secure media system integrated flush into the wall. It gives residents secure access to telephone services, digital learning resources, approved content, applications to public authorities and pastoral care, restoring a degree of autonomy. At the same time, it relieves staff of routine administrative tasks, freeing up valuable time for personal support and interaction. Recornect tailors its **CoWin** system precisely to different security requirements: from **Halo** for acute high-security settings to **Horizon** for targeted prevention and rehabilitation.

recornect.com



SECURITON

Look up

Small drones have become a modern challenge for perimeter security. The prison of the future therefore extends its security perimeter into the third dimension. Effective defence starts with comprehensive detection: Modern detection systems combine radio-frequency scanners with sophisticated multi-sensor technology to detect and precisely locate unauthorised aircraft at an early stage. Securiton brings this comprehensive 3D protection together under its **Dome Security** concept – from the high-performance stationary **SecuriDrone Fortress** platform to the flexible mobile Companion solution.

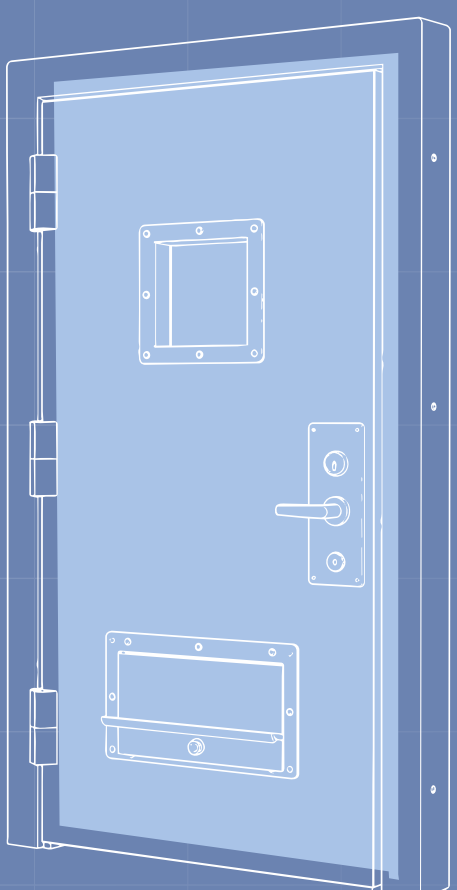
securiton.de

ERIBEL.

Tough as timber

Above all, a cell door must be able to withstand one thing: attempts to break through it. It is no longer a requirement that it be made of steel. Eribel, a Belgian specialist in certified doors, manufactures solid timber doors that are tested together with their frames as complete units for resistance to fire, forced entry and gunfire. It also offers a dedicated security range for prisons and other high-security applications. A certified timber cell door can therefore achieve the same resistance ratings as its metal counterpart – without looking like one. The choice of material is no accident. Studies on biophilic design show that wood in interiors reduces stress and improves concentration.

eribel.com



From the conference table to the door

The STUV Academy provides hands-on training for procurement professionals, planners, operators and technical staff using real security equipment – with bespoke programmes available on request



01

Just a few steps are all it takes: At the STUV Academy, you go straight from the conference table to the sample door. In the centre of excellence, the exhibition is situated right next to the conference area. STUV locks are fitted to doors from various manufacturers and connected to control systems This allows participants not only to examine individual components, but also to test how they interact with the door and control system. What does the control centre report when the door is open, locked or tampered with? Windows, cell equipment, key management, personal alarm systems, cameras and drone detection systems are also set up in realistic application environments and can be tried out. For staff responsible for locks and technical staff, the programme goes a step further: The instructors open up the locks. Participants then practise removing and installing them themselves – including those from planning and administration. “Sometimes we deliberately get the office staff to do the drilling,” says Felix Becker, Head of the STUV Academy, with a smile. This gives them first-hand experience of the demands ›

Photo: Daniel Elke

01 —— A small key, a wide selection: The HSL double-bit locking mechanism offers up to 35 million possible combinations

02 —— Hands-on experience: The lock cases are passed around the conference table before being tested in the door

03 —— Which door is right for the project? The different makes are displayed side by side in the centre of excellence

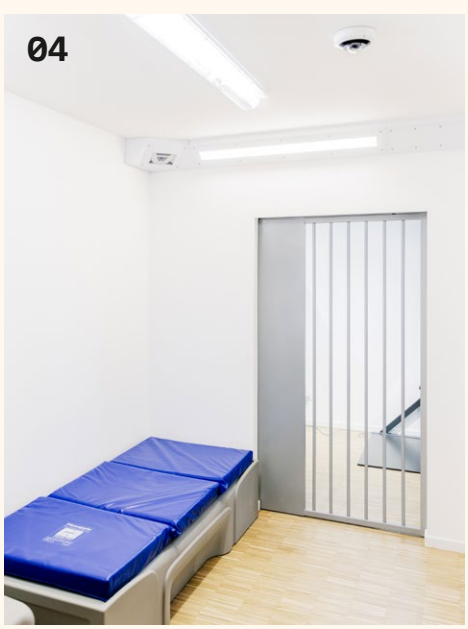
04 —— The real thing inside, too: The model cell is fitted with genuine prison furniture, right down to the camera mounted beneath the ceiling



“From fitting and removing locks to specialist topics relating to the prison: The sessions are tailored precisely to our needs. In the evenings, there’s time for networking.”

Participant: Manuel Lukrawka, Hodapp



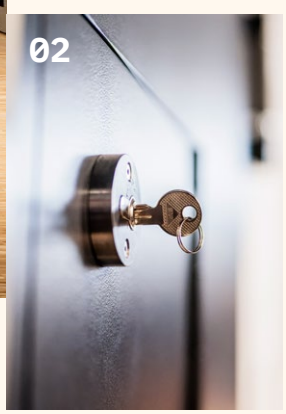




01 —— Plenty of space for expertise: Experts from around the world come together for training

02 —— The food hatch is also secured with its own profile cylinder lock

03 —— Connections come naturally: Close collaboration builds networks



encountered on site and helps them better assess what is involved when providing advice and preparing cost estimates later on.

What would you like to know?

What participants need from the training depends on the decisions they will ultimately be making. Staff responsible for locks, who maintain the doors at their prison, spend three days practising lock removal and installation, inspection and door technology. Security officers from the forensic psychiatric service are less concerned with the mechanics of the system and more with suicide-prevention fittings, and with how much security can be achieved without bars. And the planners decide on the doors and windows long before anyone fits them. Alongside independent experts, specialists from the companies exhibiting next door also give presentations. An expert from the modular construction company explains how a cell is assembled on site. When the weather is good, drone detection training moves outdoors. There, participants can test the detection system themselves using a real drone.

The emergency opening

For staff responsible for locks, the final part goes into even greater detail: For the final exercise in the practical seminar, the instructors prepare a door – the bolt is jammed, no key will work, but it still has to be opened. An angle grinder will open it quickly, but it cuts through the bolt and door hinges, leaving the cell unusable for the time being. “It’ll be a battle for every cell door,” says Becker. Anyone familiar with the locking mechanism, on the other hand, will take a gentler approach and will have the door back in working order more quickly afterwards. That is exactly what the participants are practising here. ×

Photos: Daniel Elke, Fotostudio Keiner (Porträt)



You're very welcome to visit us – for a week or even just a day. If anyone can't come, we'll visit them."

Felix Becker, Head of the STUV Academy

What can visitors see here that no catalogue can show?

The interplay. We do not show locks in isolation, but in the context of doors and control systems. Solutions from other specialist areas are also shown in their typical application environments and can be tried out.

The exhibition features doors, locks and control systems from various manufacturers. What advice would you give before making a purchase?

Do pop in and try out the locks to see how they work with different doors. We don't recommend any of the manufacturers exhibiting here; we remain neutral and answer any questions that arise. We can offer advice on locks.

What if the journey is too far for international guests?

Then we'll come to you. We have locations around the world, with our local colleagues providing support. When someone says: If someone says, 'Come out – we're having problems, take a look,' we'll organise it.



Felix Becker,
Head of the STUV
Academy

What's on your agenda?

Whether it's a new build, new security technology or existing locking systems: Felix Becker will develop a bespoke Academy programme for you – wherever you are in the world.

f.becker@stuv.de

stuv.de/en-GB/academy

“Good lighting is essential for safety and security”



In future, crisis intervention rooms equipped with CCTV are also set to use AI to detect and prevent suicide attempts at an early stage. These rooms must be lit appropriately

Photos: Ingo Böger, Designplan Leuchten



IN CONVERSATION WITH DANIEL WECKER

After ten years as General Manager at Designplan, Daniel Wecker became Managing Director of the German business in 2024. Thanks to his many years' experience in the lighting sector (including at ERCO , Oktalite and OLIGO), he helped establish the brand as a B2B lighting specialist across the DACH region – true to the motto 'Light that changes lives'.

designplan.co.uk

Company
Designplan Lighting, Berlin

Products
Vandal-proof, highly efficient and durable lighting solutions

Sectors
Detention and custody, psychiatry and forensic psychiatric care, railways and transport, cities and local authorities

In prisons and forensic psychiatric facilities, lighting has to meet the highest standards. It plays a crucial role in safety and security, but also has a significant impact on living and working conditions. In this interview, lighting expert Daniel Wecker, Managing Director of Designplan Leuchten and a long-standing STUV partner, explains how modern lighting concepts strike a balance between protection against vandalism, suicide prevention and therapeutic benefits.

What particular challenges do prison cells and high-security buildings pose when it comes to ensuring the right lighting?

In both prisons and forensic psychiatric facilities, luminaires must be tamper-resistant, designed to prevent concealment and particularly resistant to vandalism. Ligature resistance – in other words, eliminating potential attachment points that could be used in a suicide attempt – plays a very important role in suicide prevention, as people deprived of their liberty may be at a significantly increased risk of suicide. We therefore design products for high-risk areas in such a way that they cannot be used to cause self-harm or harm to others In practice, prisons and forensic psychiatric institutions also differ in that, in the latter, the products should have as little of an institutional appearance as possible, in order to support the therapeutic approach. In prison settings in particular, fully transparent products make it possible to avoid the time-consuming task of opening light fittings during cell inspections, as it is immediately apparent whether they are being used as hiding places.

However, light affects not only safety and security, but also emotions, biorhythms and the treatment environment. To what extent is the effect of light taken into account in these sensitive areas today?

In therapeutic settings, light should promote and support treatment. DIN/TS 67600:2022-08 is a technical specification that deals with biologically effective lighting and, in particular, takes the human circadian rhythm into account. It outlines the planning principles for lighting systems that support or simulate the natural progression of daylight, and provides recommendations on the colour, intensity and timing of artificial light. To date, such approaches have mainly been used in therapy and crisis intervention rooms. Staff working shifts also benefit from such human-centric lighting solutions.

The social climate also plays a role when it comes to prisoners' living conditions and mental health, as well as their reintegration into society. To what extent are you, as a manufacturer, brought in at an early stage as a specialist partner for interior lighting design?

Although we are now involved at an earlier stage in the planning process more often, this still happens far too rarely. In many sectors, lighting is not yet recognised for what it should be: an essential element of security architecture. Lighting not only provides functional benefits, but also enhances the design of a space, aids wayfinding, emphasises structures and helps to create areas that are both safe and pleasant to spend time in.

Lighting design in existing buildings often means dealing with small windows, limited natural light and carrying out work while the facility remains operational. How do you address these complex constraints?

One option here is to use tunable-white solutions, which support the natural day-night cycle. As colour temperature and light levels can be ›

01 —— In the case of specially secured cells (bgH), the security measures are even more specific. Particularly in the case of existing buildings, a careful analysis of their use is required in order to achieve the best possible lighting

02 —— All products are tested in our in-house test laboratory and can be fitted with lighting control as an option

dynamically adjusted throughout the day, natural conditions can be replicated and well-being promoted. At the same time, existing building structures, ongoing operations, limited installation space and outdated infrastructure call for bespoke solutions and close coordination with operators and security managers.

A high-security building cannot simply be closed temporarily for refurbishment. How do you plan and coordinate refurbishment work while the facility remains operational?

Implementation usually takes place in carefully planned stages. Work is concentrated on specific areas, while other parts of the building remain fully operational. Our project management team then liaises closely with the site management to ensure that, through precise scheduling, installation times are kept as short as possible and the process runs smoothly.

High-security luminaires often operate around the clock. How can old, energy-inefficient systems in existing buildings be retrofitted with highly efficient LED and control technology without overloading the building's existing electrical wiring?

We have been developing our products with quick-change gear trays for decades. These are connected to the housing via a plug-and-socket system. This enables our customers to upgrade older luminaires to modern LED technology in a matter of minutes or to upgrade existing systems. Depending on the location, users can expect at least 11 years of maintenance-free operation, even with continuous 24/7 use. LED lights are around 60 per cent more efficient than fluorescent lamps. Sensors and other control technology can deliver further savings. Despite these efficiency benefits, many facilities still have large stocks of fluorescent lamps and are reluctant to switch over, despite the short payback period. There is considerable potential for cost savings here for operators.

What role do smart lighting technologies already play in the prison sector?

They are playing an increasingly important role, particularly in contexts where energy efficiency, safety and security, and the quality of the environment are considered together. Human-centric lighting, daylight-responsive control, presence detection and zoned control systems can help to use light in line with requirements whilst reducing operating costs. Under the amended EU Energy Performance of Buildings Directive (EPBD), automatic, occupancy-based lighting controls are also explicitly required in new non-residential buildings and in major refurbishments. As a result, networked lighting systems, sensor technology and intelligent control concepts are increasingly coming to the fore. It is crucial that such systems are designed to be secure, robust and compatible with the existing infrastructure. ×

> **Light enhances the design of a space, supports wayfinding, enhances safety and improves the quality of the environment."**
>
> Daniel Wecker, Managing Director of Designplan Leuchten

01



02

60%

LED luminaires use around 60 per cent less energy than fluorescent lighting

Photos: Thomas Kleiner, Designplan Leuchten



Transparent and open to the city: The Leoben Justice Centre brings together the Regional Court, District Court and Public Prosecutor's Office in an open courthouse, with the prison, protected by multiple layers of security, situated behind it

Architecture of Opportunity

40 per cent of all prisoners in Germany reoffend after their release. The more restrictive the prison regime, the higher the rate. So how can a prison be designed to support successful rehabilitation while genuinely protecting victims?

Photos: Paul Ott, pierer.net

> **We consider security right from the start. Integrated in façades and details, it recedes visually into the background."**

Karlheinz Boiger,
CEO of Hohensinn Architektur

The punishment is the deprivation of liberty – not the living conditions behind prison walls. That is why rehabilitation is not a luxury, but a clear mandate. Key steps towards reintegration into society can be taken as early as the construction and design stages. This is because humane architecture creates spaces in which staff and prisoners can interact safely and constructively, which ultimately leads to a noticeable reduction in the reoffending rate.
A study by the Potsdam University of Applied Sciences shows that good architecture has a positive impact on both rehabilitation and staff working conditions. Furthermore, research carried out by the University of Cambridge shows that: A positive institutional environment can make treatment programmes more successful, lower the risk of reoffending and mitigate the risk of violence and suicide.
Whilst functional, often standardised concrete construction still dominated around the year 2000, a shift in thinking took place from the mid-2000s onwards – largely heralded by architect Josef Hohensinn's design for the Leoben Justice Centre. Opened in 2005, the building is now an internationally recognised benchmark. And Hohensinn is regarded as a pioneer of humane, light-filled justice architecture. His benchmark is Article 10 of the UN Convention on Human Rights, which he had inscribed next to the entrance to the Justice Centre. "Spaces always shape behaviour: natural light, clear wayfinding and a high-quality environment have a de-escalating effect and enable a daily routine that resembles life outside prison," explains architect Karlheinz Boiger, CEO of Hohensinn Architektur. "Those who experience dignity, personal responsibility and social structures whilst in prison are better equipped to live in society after their release."

High security meets transparency
The Leoben Justice Centre brings together the court and the public prosecutor's office in an open building, with the prison situated behind it. The detention units are designed like shared accommodation, each accommodating up to fifteen people – including single rooms with en-suite facilities, a communal kitchen and outdoor areas. People can visit work and leisure facilities unaccompanied, which helps prevent disempowerment and eases the burden of day-to-day work. In this way, all parties involved benefit from the transparent design: Clear lines of sight help to reduce conflict, and involving staff at an early stage in the planning process has been shown to reduce sick leave. "The biggest challenge was to combine uncompromising security requirements with the highest possible quality of the living environment," Boiger sums up. The Heidering Prison in Berlin, which opened in 2012 – also designed by Hohensinn – takes the concept to a larger scale, with a total capacity of ›

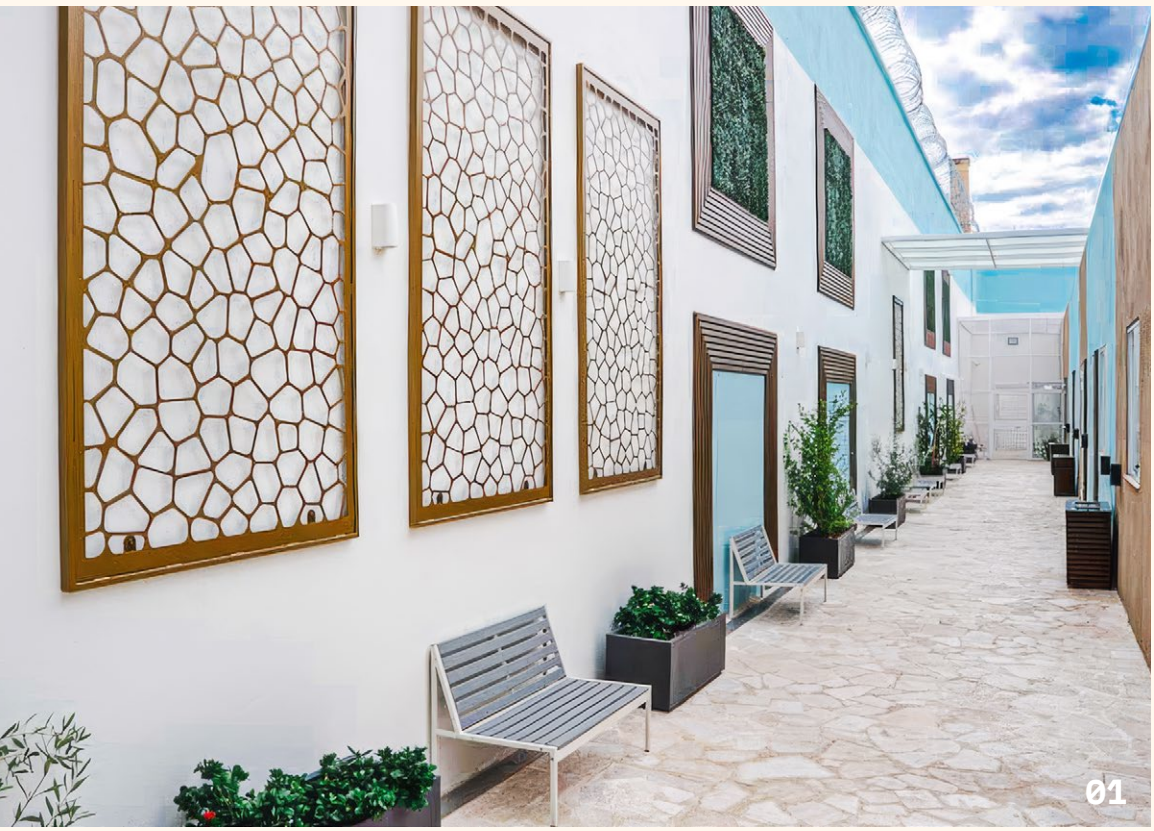


KARLHEINZ BOIGER, CHIEF EXECUTIVE OFFICER, HOHENSINN ARCHITEKTUR

The architect and qualified engineer has been a key figure at the Graz office since 1999 and has been CEO since 2017. Boiger and Hohensinn Architects are synonymous with sustainable innovation in the built environment, harmoniously combining people, the environment and technical precision.

hohensinn-architektur.at

View the study
'The impact of prison architecture on daily life and reintegration into society'



01 —— A trauma-sensitive and well-designed environment promotes dignity and safety. Siegersma therefore had many areas of the Corradino Correctional Facility modernised with great care

02 —— Natural light, warm, residential-style materials and colour now characterise the cells – creating humane conditions in which rehabilitation becomes a more realistic prospect

600 places. There, too, the prisoners are accommodated in residential units spread across three separate prison units, connected by a glass corridor. But how can the conflict between high security and transparency be resolved? How can locking systems, sensor technology and mechanical barriers function effectively whilst remaining as inconspicuous as possible to prisoners? Architect Karlheinz Boiger explains the approach as follows: “Security focuses on the outer shell. This creates a sense of freedom of movement, natural light, views and warm, residential-style materials inside.” And he adds: “We incorporate security technology right from the start; it is integrated into façades, window designs and details, and remains visually unobtrusive.”

However, a look abroad reveals the limitations such modern concepts face as a result of global problems such as chronic overcrowding. In our interview, Christopher Siegersma, CEO of the Maltese Corradino Correctional Facility, explains how this balancing act can be managed in day-to-day life and why construction alone is not enough. ×



Routes out of crisis

For many years, Malta's main prison faced criticism for serious failings. In this interview, Christopher Siegersma explains how, as CEO since 2023, he has been transforming the system from one of strict control to one that prioritises dignity, health and reintegration into society.

You have headed Corradino Correctional Facility since 2023. What were your most pressing tasks and objectives in the wake of those severe crises? Which of these have you already been able to put into practice?

When I took up the post in 2023, the initial focus was on stability, trust and confidence. Rather than merely exercising control, we sought to establish a model that combines security with dignity and rehabilitation. We have reviewed our procedures, stepped up training, raised awareness of mental health and introduced clearer safeguards, including measures to prevent and respond to violence. At the same time, we have refurbished cells, created new learning hubs, child-friendly visiting rooms, and modernised sports facilities, green spaces, the kitchen and medical infrastructure. Around 300 prisoners are now in work, and educational and rehabilitation programmes have also been expanded. But prison reform is never complete. It requires ongoing evaluation and adaptation.

You advocate a trauma-informed, person-centred approach to imprisonment. How do you translate this into the physical environment?

As a former psychiatric nurse, I know that: Behaviour cannot be separated from its environment. Many prisoners have histories of trauma, mental health conditions or addiction. A harsh environment exacerbates fear and aggression. A trauma-informed approach therefore also has an architectural dimension – natural light, colours and privacy have a direct influence on how people cope with anger, anxiety and stress. We have therefore created areas that appear orderly and peaceful, without disguising the fact that this remains a secure custodial environment. Good prison architecture fosters positive relationships and creates conditions in which rehabilitation becomes a realistic prospect.

Improvements to the premises also have a major impact on staff working conditions. How can you create more humane prison conditions without compromising the safety of prison staff?

Dignity and safety are not mutually exclusive. A well-designed and well-managed environment enhances both. Overly restrictive environments cause frustration and make staff's work potentially more dangerous. However, more open conditions must be introduced gradually and supported by risk assessments, adequate staffing, clear procedures and clear lines of sight.
We involve our staff directly because they know how spaces function in everyday life and during crises. We also invest in training in de-escalation and responding to mental health crises. The aim is to create a predictable environment in which staff feel supported and unnecessary confrontations are minimised.

In the past, Corradino Correctional Facility suffered from severe overcrowding. How can this problem be solved sustainably? Is construction alone enough?

Overcrowding cannot be resolved simply by adding more beds. New capacity will quickly be exhausted again if the system is not reformed.
I am convinced by European models featuring smaller residential units and a focus on the 'principle of normalisation'. Imprisonment is the punishment; daily life in prison must prepare inmates for their return to society. We also need more alternatives, such as electronic tagging, community service and specialist treatment centres. Prison architecture can support rehabilitation, but it cannot, on its own, compensate for unnecessary incarcerations and inadequate aftercare.



Photos: Correctional Services Agency

CHRISTOPHER SIEGERSMA

The former psychiatric nurse has served since 2023 as head of Malta's state-run correctional authority (CSA). Siegersma champions a people-centred prison culture and modern institutional reforms.

csa.gov.mt

From around the world

What does a lock have to withstand in a tropical climate? And what happens if a key gets lost? How challenges are being tackled around the world





Foto: Superintendent Fiat Nyachenje, the Chief Photographer for the Zimbabwe Prisons and Correctional Service (ZPCS)

Brunei

Mr Mpofu, initially only the administration block at Chikurubi was fitted with new high-security locks. Why this approach?

First, we wanted to assess the reliability and effectiveness of the locking technology offered by STUV. The trial installation allows us to assess the extent to which the technology can enhance security, improve operational efficiency and strengthen existing security processes and procedures.

What has become apparent since then in day-to-day operation?

The systems operate reliably, are easy to use and require very little maintenance.

What does this mean for your staff, and what would nationwide modernisation need to achieve?

Reliable security technology makes a significant contribution to staff safety by reducing operational risks and enhancing security throughout the facility. Beyond Chikurubi, the Zimbabwe Prisons and Correctional Service (ZPCS) is gradually modernising its prison infrastructure by strengthening security systems, repairing and maintaining facilities, adopting digital technology and investing in sustainable, resilient infrastructure.

Sheperd Mpofu, Zimbabwe Prisons and Correctional Service

> **Losing keys was a recurring problem for us. It could take months to have the lock and key replaced. STUV's recoding system has solved this problem."**
>
> Brunei Department of Corrections

ZIMBABWE

A spirit of change: Modernisation on trial

The Zimbabwe Prisons and Correctional Service (ZPCS) is currently upgrading its locking technology in stages, with the long-term aim of replacing the existing locks across all its facilities. As part of this process, HSL C175 and HSL C801X locking systems were installed on a trial basis in the administration area to test their reliability and suitability under operating conditions. The pilot installation is intended to show whether existing locking technology can be replaced while the facility remains operational and what benefits this can bring in terms of security, operational efficiency and workflows. The aim is clear: to improve security and operational processes. The results will determine whether, and to what extent, the rest of the facility will also be equipped with the new technology.

Chikurubi Maximum Prison, Zimbabwe





ESWATINI

Seven facilities, one system

Not just one facility, but seven at once: In 2024, His Majesty's Correctional Services in Eswatini installed 137 locks of the HSL C801X and HSL C175 types. Some of the facilities are showing their age, and until the retrofit they relied on conventional mechanical locking technology. The system remains mechanical after the retrofit, but is now supplemented by a recoding system: If a key is lost, the locking configuration can be changed instead of having to replace the entire lock. For HMCS, what matters most is the outcome: Since installation, there have been no problems with lost keys or defective locks, and not a single lock has required maintenance. The new facility currently under construction is also set to be fitted with STUV locks.

His Majesty's Correctional Services, Eswatini

Photos: Chikurubi Maximum Prison, His Majesty's Correctional Services, Maraburong Prison facility

BRUNEI

The key disappears, the lock stays

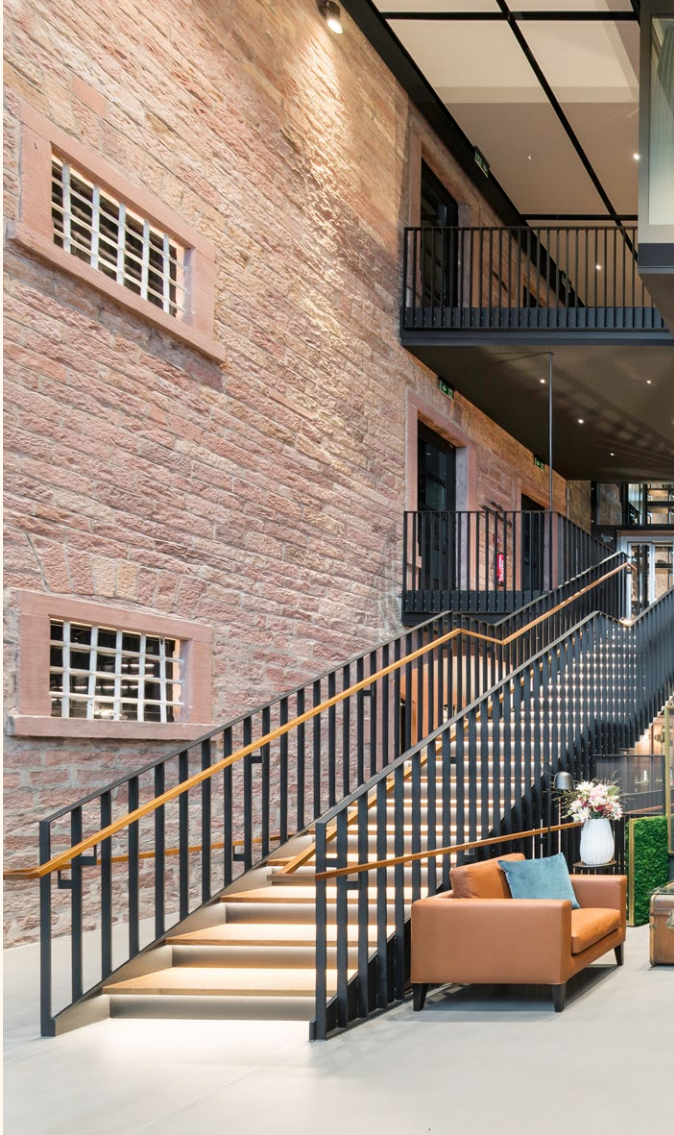
Until now, losing a key could mean waiting months: The lock and key had to be reordered, leaving a security gap until the replacements arrived. The construction of the new Maraburong Prison is set to change that. For the project, 150 HSL C801X and HSL C175 locks were selected, marking STUV's first contract in the Sultanate's prison sector. Mechanical locking technology remains the preferred solution there. What is new is the recoding system: The locking configuration can be changed on site so that the lost key no longer works. The lock itself stays exactly where it is. There is another detail that is particularly important in a tropical climate: The locks are made entirely of stainless steel, making them resistant to corrosion.

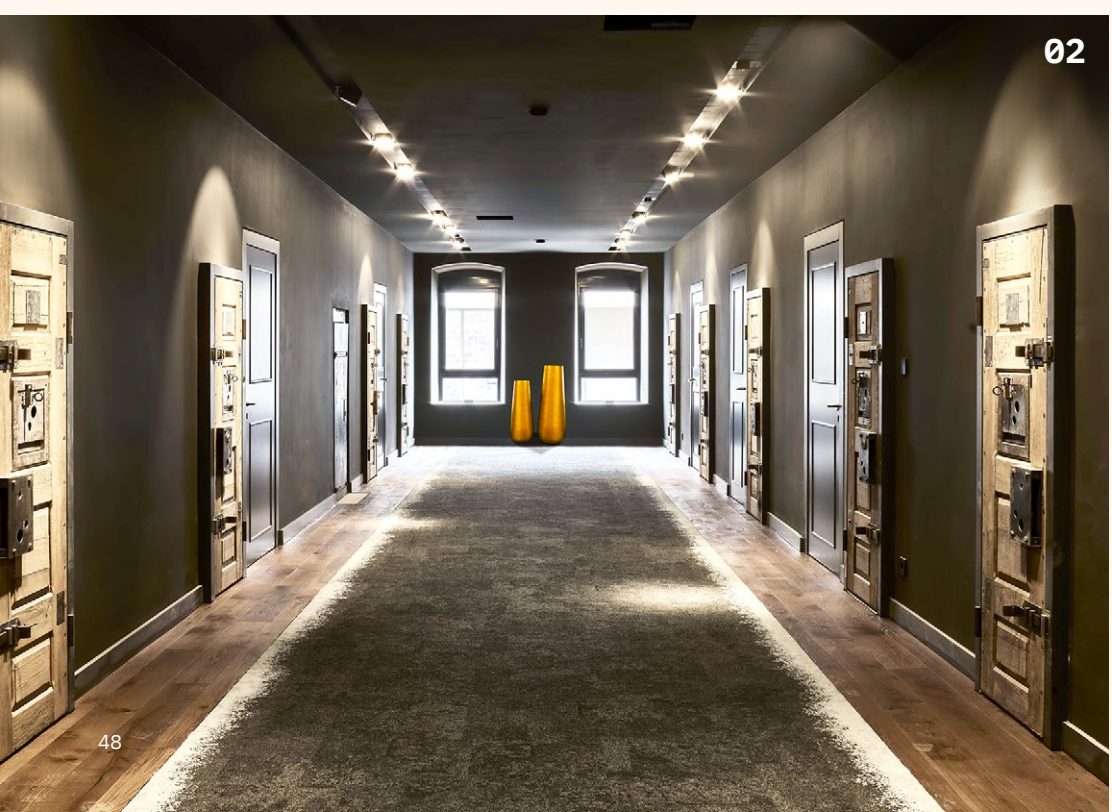
Maraburong Prison facility, Brunei



An oasis behind bars

Going to prison of your own free will? Of course! At least in Offenburg, Germany. Behind its historic prison walls, Hotel Liberty offers a genuine feel-good atmosphere, modern luxury and first-class service





02 —— Numerous walls had to be removed to transform the former cells into 38 rooms and suites. The solid architecture, with its heavy doors, remains visible without appearing oppressive

03 —— Whether enjoying fine cuisine in the ‘Wasser & Brot’ restaurant, cocktails at the ‘StrafBar’ or selected wines in the cellar beneath historic vaults, the hotel’s unique atmosphere is ever-present

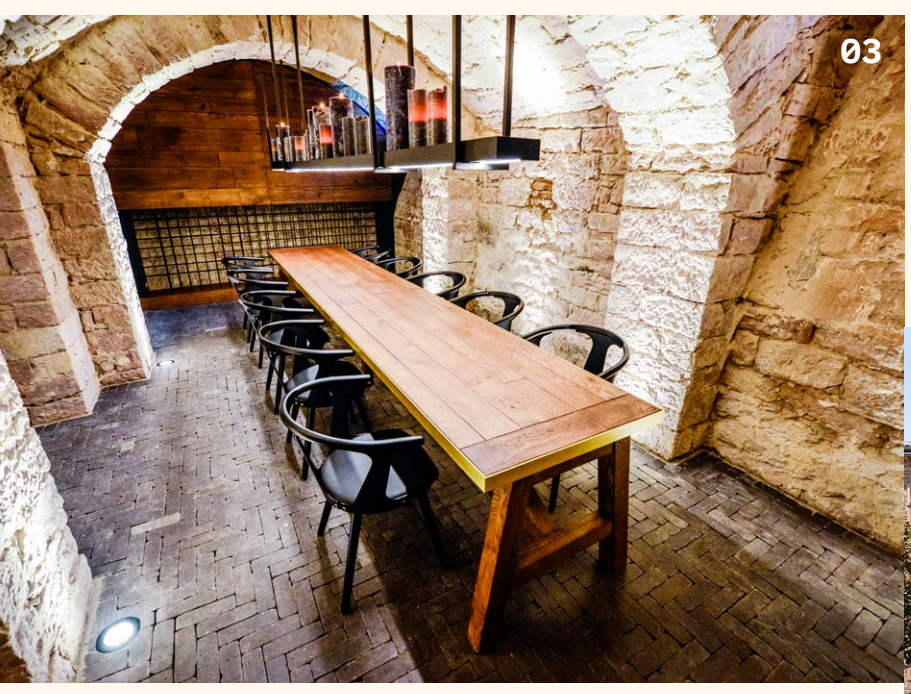
04 —— An exciting blend of old sandstone walls and contemporary architecture: A modern glass cube spans the former prison courtyard and connects the two historic cell blocks

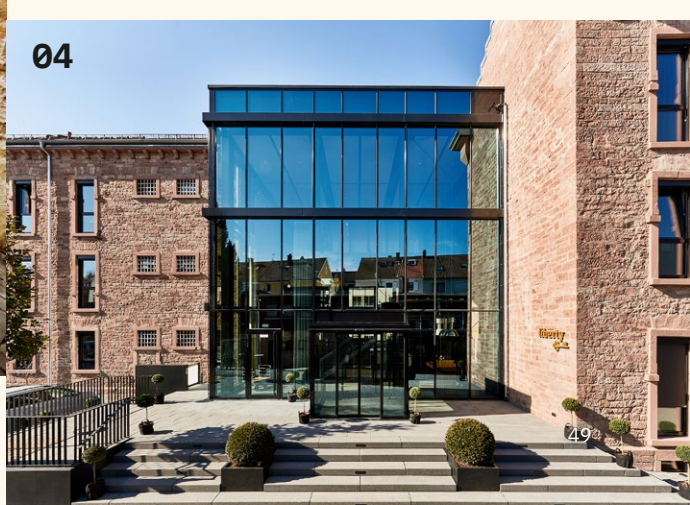
Photos: Hotel Liberty

01 —— Escape the everyday – and check into prison: Behind the imposing walls, a spacious reception area with lounge, restaurant, grill and bar welcomes its ‘inmates’. Built in 1840 as a prison for visionary freedom fighters, the building has been trans-formed with great care and respect for its history to create an extraordinary atmosphere. As well as paying a fitting tribute to the past, this boutique hotel offers exclusive amenities for discerning guests

1840

built as a prison and transformed with care and respect







NEW — PYLOCX® MOGUL CYLINDER

A smart upgrade for Mogul locks

The PYLOCX® Mogul Cylinder adds smart functionality to existing Mogul technology. The new high-security cylinder directly replaces the existing Mogul cylinder within the existing lock. The door and lock case remain in place. The lock is opened using the electronic PYKEY®; access rights can be assigned flexibly, and access events can be tracked in the event log. An optional two-person authorisation principle can also be implemented. The cylinder itself does not require a battery. This allows established Mogul infrastructure in US correctional facilities in particular to be upgraded with modern electronic access-control functions without completely replacing the proven locking system. A relatively minor modification that adds smart access-control functions to existing technology.

More about the product in the next issue.

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stuv.de/en-GB/prison-solutions/foresight

Photo: STUV

You have the final say

What did you think of the first issue? Is there a project, an experience or a topic that you would like to see featured in FORESIGHT? You can use the QR code to tell us about this and sign up to receive the magazine regularly.

We look forward to your feedback.

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The top of security.