

Geneva Challenge 2023

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A strategic framework of spatial interventions  
for the prison environment

# The Social Blueprint

# Abstract

Loneliness leads to many far-reaching detrimental effects, especially on mental and physical health. Among the most frequently overlooked populations that are particularly vulnerable to loneliness are incarcerated individuals. Due to additional challenges that prisoners experience, addressing loneliness in prisons is a matter of respecting human rights and preserving human dignity. As a possible solution, the Social Blueprint introduces a strategic framework of spatial interventions in the prison environment. Its aim is to increase and facilitate opportunities for meaningful, group-based social interactions among the prisoners, as well as between the prisoners and members of staff. There are two stages to this intervention: the first includes a set of suggestions focused on the quick and cost-effective spatial modification of the common spaces; the second, a proposition for a participatory design activity that would involve prisoners deciding on the arrangement of their living space. This project has significant personal implications, from helping people establish vital support networks and contributing to their well-being, to preparing individuals for successful reintegration into society and leading meaningful lives. More broadly, the Social Blueprint can help mitigate economic and social consequences of loneliness, like public spending on healthcare or recidivism levels. The suggested framework initially uses European prisons as a reference while inviting future global adaptations.



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# Acknowledgements

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# Introduction

During the two years of the Covid-19 pandemic, existing profound inequalities in our societies were accentuated, aggravated, and reinforced (Battilana & Sheppard-Jones, 2022). While we all experienced some levels of social and physical distancing during Covid-19, research consistently shows the pandemic exacerbated levels of loneliness among those who felt lonely prior to the epidemic and/or those who are more susceptible to loneliness (What Works Wellbeing, 2020; Arpino et al., 2022; Ernst et al., 2022). Loneliness bears many far-reaching negative consequences, from mental and physical health problems to premature death (Fried et al., 2020; Leigh-Hunt et al., 2017). Therefore, there is an urgent need to reduce loneliness in post-Covid societies. This necessity also corresponds with several of the United Nations Sustainable Development Goals (SDG), like the Good Health and Well-Being (SDG 3) and Reduced Inequalities (SDG 10).

One of the most-frequently overlooked populations, which is particularly vulnerable to loneliness, is incarcerated individuals (Schliehe et al., 2022). Addressing loneliness in prisons is not only a matter of respecting human rights but also preserving human dignity. Despite their loss of freedom, people with convictions retain the fundamental right to humane treatment - this includes opportunities for

social interaction and the preservation of their mental and physical health. Additionally, loneliness among prisoners has severe consequences for the rehabilitation process (Brown & Day, 2008). It can hinder successful integration into society upon release, increase recidivism rates across various types of crimes, including sexual offences, and lead to unemployment and health problems after their release (Johns, 2018; Liem & Weggemans, 2018).

Although prison environments may facilitate various forms of social interaction, it is paramount to recognise that not all interactions are of high quality or conducive to desired social connections (Crewe, 2009). Therefore, loneliness should be defined not merely as the absence of social contact but as a sense of dissatisfaction with the quality or quantity of one's social relationships (Heinrich & Gullone, 2006). Additionally, loneliness can manifest in different ways among prisoners, such as feelings of abandonment, dehumanisation, or even a sense of being "alone in the crowd" (Schliehe, Laursen & Crewe, 2022, p. 1603). While some prisoners experience loneliness as a result of being ostracised by other inmates, others isolate themselves due to a perceived lack of belonging or an inability to form meaningful connections within the prison environment. Scholars have referred to this phenomenon

as “ethical loneliness” (Stauffer, 2015).

The Social Blueprint aims to introduce a strategic framework of spatial interventions in the prison environment, in the hope of increasing and facilitating opportunities for meaningful, group-based social interactions both among the prisoners and between the prisoners and members of staff. Admittedly, any spatial intervention should be considered as complementary to a holistic plan which would include among others, psychological, sociological, and legal approaches to tackle the problem of loneliness in prisons. Given this wide scope, this project will focus on the spatial approach, taking into consideration the social, educational and recreational activities that occur in given common spaces within the prison environment. The relationship between the inmates’ wellbeing and the spatial formation of the prison environment has been studied on different levels, from the spatial arrangement of the individual cell, to the position of the prison within the urban tissue (Bernheimer et al., 2017). Our project specifically targets the communal spaces of prisons, since they are crucial to the development of social ties among the prison population. The proposed interventions are divided into two stages: the first comprises of suggestions focused on the quick and cost-effective spatial modification of the

common spaces; the second includes a proposition for a participatory design activity which would involve prisoners determining the arrangement of their living space using modular elements of construction.

The suggested framework initially uses European prisons as a reference, while inviting future global adaptations. The European context was selected due to the commonalities found in the legal and penal systems of European states, the prison regulations, as well as in the prison typologies across the centuries (Fairweather & McConville, 2000). This geographical focus can be seen as a stepping stone for a potential global outreach, with caution in what concerns the prison regimes and spatial typologies of prisons in different parts of the world. The historical and cultural aspects of prison design should also be taken into consideration when attempting to replicate a given set of suggestions globally.

This project has significant personal and policy implications. Experiencing loneliness has a profound negative social impact, like eroding social connections and hindering meaningful interactions. The result of these could lead to a sense of exclusion, social withdrawal, and a lack of belonging. Therefore, our project ultimately helps

individuals establish a vital support network, contributes to their well-being and prepares people for a successful reintegration into society. Moreover, we aim to mitigate the wider detrimental economic consequences of loneliness. One example would be a reduction of financial costs related to healthcare, since research consistently links loneliness with a plethora of physical and mental health problems. Another positive effect would be decreased recidivism and productivity rates of those people who were formerly incarcerated.

The structure of our project is as follows: The Problem outlines what loneliness is, before examining the drivers, consequences, and interventions for loneliness in the context of prisons. The Opportunity examines legal regulations and policies for European prisons, current theoretical frameworks for rehabilitation practices, reference prisons of our proposal and the digital gap between prisons and wider society. The Solution presents the two stages of our solution. The proposal ends with the Conclusion, where future solutions to the limitations of the Social Blueprint are offered.

# The Problem

## What is Loneliness

Evolutionary speaking, humans require not simply the presence of others but the presence of others who “value them, whom they can trust, and with whom they can communicate, plan, and work together to survive” (Masi et al., 2011, p. 2). The sense of longing for meaningful relationships is, therefore, a universal characteristic of human beings. So, it may come as no surprise that loneliness has become a major reason for concern in many countries, with its negative consequences affecting various demographic groups, such as the young and old (Alpass & Neville, 2003; Cacioppo et al., 2015).

*Loneliness* can be conceptualised as the “discrepancy between actual and desired social relationships” (Mesi et al., 2011, p. 1). As this definition makes clear, loneliness is a subjective feeling stemming from a lack of adequate relationships with others. Others, like Perlman et al. (1984, p. 15), interpret loneliness to be “the unpleasant experience that occurs when a person’s network of social relationships is significantly deficient in either quality or quantity”. While loneliness and social isolation may be perceived as analogous, they are, in fact, distinct concepts that only share a certain level of connection. *Social isolation* is

broadly defined as “the objective lack or paucity of social contacts and interactions with family members, friends or the wider community” (Valtorta & Hanratty, 2012, p. 518). Therefore, contrary to the common understanding of the term ‘loneliness’, one can feel lonely when surrounded by many people, and one can be socially isolated but not feel lonely.

## Loneliness in the Prison Context

When individuals perceive their meaningful social connections to be severed or unavailable, the experience of loneliness can harm cognition and behaviour (Cacioppo & Hawkley, 2005). These detrimental effects, in turn, contribute to the increased likelihood of loneliness persisting as a chronic condition (Cacioppo & Hawkley, 2009). One population which suffers from such detrimental effects caused by their experience with chronic loneliness is the population of prisoners worldwide. This is the case since mental health problems, more generally, and loneliness specifically, are common in prison, as loneliness is reported to be a stressor associated with the prison environment (Brown & Day, 2008). People are prone to feeling lonely in prisons often because the environment hinders



them from forming and maintaining meaningful relationships with others. In their study, Brown and Day (2008) found that prisoners who reported higher levels of loneliness also experienced lower levels of social support. This, in turn, meant they were more likely to exhibit suicidal behaviour. Conversely, in a 1991 study by Desmond, which aimed to explore the connection between loneliness and social interaction among female prisoners, it was found that participants who reported having a friend in prison perceived themselves as less lonely than those without a friend. In addition, the study found a positive correlation between the number of friends a woman reported having in prison and their level of loneliness.

Loneliness can also impair executive functioning, in part, by triggering a state of implicit hypervigilance towards social threats (Cacioppo & Hawkley, 2009). The term hypervigilance can be defined as “the feeling of being constantly on guard for the purpose of detecting potential danger, even when the risk of danger is low” (Smith et al., 2019, p. 1662). This means that individuals experiencing loneliness become more sensitive to potential negative social cues. As a result, their attention and cognitive processes tend to be biased towards the negative aspects of their social environment.

These social biases subtly influence their behaviour, social interactions, and emotions, further reinforcing feelings of sadness and loneliness. Many prisoners experience such hypervigilance in prison due to the constant possibility of significant dangers. Therefore, people in prisons quickly learn to adopt a state of heightened vigilance and constant alertness, actively searching for signs of potential threats or risks to their safety (Haney, 2003). This state of excessive hypervigilance can have deleterious effects on incarcerated individuals who experience it. This is because hypervigilance has been associated with various adverse effects on cognition and behaviour, including attentional bias, impaired memory, and difficulties with emotional regulation (Smith et al., 2019).

Unfortunately, the phenomenon of loneliness is not a recent detection in the discipline of penology (Schliehe, Laursen & Crewe, 2022). The isolation prisoners feel is often “built right into the physical plant, such as locked doors, high walls, barbed wire, cliffs, water, forests, or moors” (Goffman, 1961, p. 4). Furthermore, the restrictions on movement within a secure institution setting contribute to an increased sense of isolation. Rules regarding floor transitions and limitations on mobility hinder the formation of intimate relationships and lead to

the separation of existing friendships (Pageau et al., 2022). As emphasised previously, individuals may feel lonely even in intensely social environments, and loneliness can also be found in crowded sections of the prison, in open prisons, and even after prisoners are released. As Schliehe, Laursen and Crewe (2022, p. 1596) maintain, “some prisoners report feeling lonely despite or even because of the many people around them, to whom they may not be able to relate”. Prisoners’ experiences with loneliness may also stem from their physical and emotional exclusion from friends, family, and the communities they once belonged to. Although most inmates spend time around other people in the criminal justice system and only some choose to keep to themselves, all are separated from loved ones, making both more likely to experience loneliness (Brown & Day, 2008). In that sense, imprisonment amalgamates loneliness with social isolation, making the experience of serving a sentence even more challenging. This fact paints a bleak picture for people in jails – a population whose punishment is defined by their isolation from society.

The phenomenon of loneliness among prisoners is alarming considering the suggested prevalence rates. While existent evidence regarding the prevalence

of loneliness in prisons is limited, current research strongly indicates that it is a widespread phenomenon within correctional settings. For instance, among 93 older prisoners interviewed in 16 prisons in the Dutch-speaking region of Belgium during a 2017 study conducted by De Smet et al., it was found that 75.3 percent identified themselves as experiencing feelings of loneliness. One should also consider the unwillingness of some to acknowledge their feelings of loneliness and report it. As Schliehe, Laursen and Crewe (2022, p. 1596) noted, loneliness is “concealed by a veil of silence”. Therefore, the current known prevalence rates may not reflect the true full magnitude of this issue. Notwithstanding, even the suggested range is worrying. Additionally, loneliness observed within prison environments is a worrisome phenomenon considering how prison research has linked loneliness to outcomes such as suicide (Brown & Day, 2008), bullying (Ireland & Qualter, 2008) and sexual offending (Marshall, 1989). The phenomenon of self-harm in prisons, more generally, has led authors Lester and Danto (1993) to conclude that it is an issue that warrants serious consideration. Suicide rates in prisons, particularly, have become a pressing public health concern of critical magnitude worldwide (Brown & Day, 2008). In her theoretical model of a prisoner’s pathway to suicide, Liebling (1999) suggests that

various factors directly associated with loneliness make this population more likely to commit suicide. The isolation from family and friends, as well as a lack of meaningful friendships in prison, hold the potential to make a prisoner more vulnerable to suicide.

### **Consequences of Loneliness**

Due to the pervasiveness of the issue of loneliness, many disciplines have centred their research on this topic (Dykstra, 2009; Rokach et al., 2002; Wilson et al., 2007). Such widespread interest could be attributed to the indications that loneliness “influences virtually every aspect of life in our social species” (Masi et al., 2011, p. 3). For example, several studies have reported the link between loneliness and depression (Adams et al., 2004; Isik et al., 2021). In addition, longitudinal studies have reported the increased likelihood of those who encountered social isolation during their childhood to experience risk factors for cardiovascular disease later on, including high total cholesterol, being overweight, low high-density lipoprotein cholesterol, high blood pressure, low maximum oxygen consumption, and high glycated haemoglobin (Caspi et al., 2006). Loneliness has even been described as a

“silent killer” by researchers, such as Cacioppo et al. (2003) and Hawkley and Cacioppo (2003), due to its long-term impact on the body’s physiology. Their results show that over extended period of time, loneliness can lead to stress-related consequences such as high blood pressure, sleep deprivation, and impaired repair of various physiological processes. Furthermore, merely contemplating the prospect of experiencing social isolation can have detrimental effects on one’s cognitive abilities, as demonstrated by a study that manipulated participants’ thoughts (Baumeister et al., 2005). The findings indicated that individuals subjected to this manipulation exhibited impaired executive functioning compared to the control group.

### **Tackling the Issue**

It becomes evident that the consequences of loneliness more broadly, as well as additional challenges in prisoners’ experience, highlight the paramount need to prioritise this area as a matter of significant importance. Moreover, it is clear that there is a need for a pragmatic solution to aid this understudied and marginalised population. The limited availability of mental health services in prisons means that alternative methods

must be utilised in order to combat loneliness. Interventions aimed at reducing levels of loneliness typically involve four primary strategies: 1) improving social skills, 2) enhancing social support, 3) increasing opportunities for social interaction, and 4) addressing maladaptive social cognition (Masi et al., 2011). Our proposal suggests utilising the strategy of increasing opportunities for social interaction in the prison context. While we chose to focus on this strategy specifically, we also hypothesise that increasing the prisoners' opportunities for social interaction will also help them improve their social skills, as it will enhance their social support network and address any maladaptive social cognition. Thus, we believe the four strategies are not mutually exclusive but are rather complementary.

The strategy of increasing opportunities for social interactions is promising, as evidenced by the study conducted by Pilisuk and Minkler (1980), where they used a program aimed to assess older individuals residing in single-room hotels. Despite the residents' tendency to stay isolated in their rooms due to physical limitations and safety concerns, the program successfully fostered increased social interaction within the hotel lobbies. As a result, participants gradually formed connections,

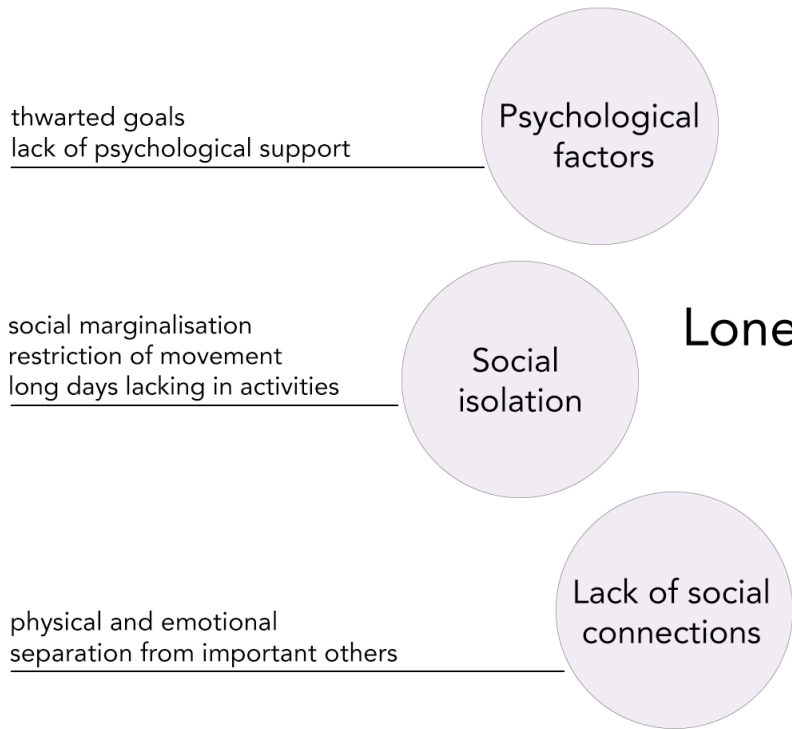
identified common interests, and engaged more with one another over time. One possible way to increase opportunities for social interaction is via befriending – “an activity that aims to develop a relationship between individuals” (Cox, 1993, p. 9). Furthermore, befriending aims to improve quality of life, reduce social isolation, help people meet emotional needs, and promote and maintain mental health (Andrews et al., 2003). The success of this specific intervention corresponds with the finding that those interventions which aim to improve social interaction by implementing group activities or utilising group-based approaches tend to be more effective (Cattan et al., 2005). Moreover, by focusing on the formation of the social bonds between prisoners and staff, there is the potential to aid those with and without a meaningful network of social support outside of prison, making our target population even larger.

Furthermore, authors and academics, such as Brown and Day (2008, p. 444), who have examined the relationship between loneliness and known predictors of self-harm, have generally concluded that there is an urgent need for “strategies which incorporate the promotion of positive relationships, communication and social interaction among prisoners, staff and visitors”.

The current project, therefore, addresses this exact need highlighted in the present literature. By doing so, the Social Blueprint offers a real solution to an important and relevant social problem. Stronger social bonds can help with the early identification of mental distress among incarcerated individuals, the improvement of this population's overall well-being, and ultimately the reduction of suicide and self-harm rates. Addressing loneliness in prisons is crucial because a study found that people experience loneliness even after their release from the criminal justice system (Schliehe, Laursen & Crewe, 2022). Moreover, global incarceration rates have risen steadily, leading to an alarming number of over ten million individuals imprisoned worldwide by 2020 (Iglesias-Osores, 2020). Experts in the field of penal studies have gone as far as characterising this surge in incarceration rates as a crisis, with prisons in some countries reporting an overpopulation of prisoners (Haney, 2003). Therefore, now more than ever, there is a need for an intervention that can potentially improve the lives of countless individuals. Regarding suicide, more specifically, it is possible that prisoners who feel supported will be more likely to disclose their hardships and suicidal ideation to someone. By doing so, it is possible that potential cases of suicide will be prevented. Lastly, the social importance

of tackling loneliness among prisoners is further supported by the reported correlation between recidivism and loneliness (Rokach, 1997).

drivers



# Loneliness

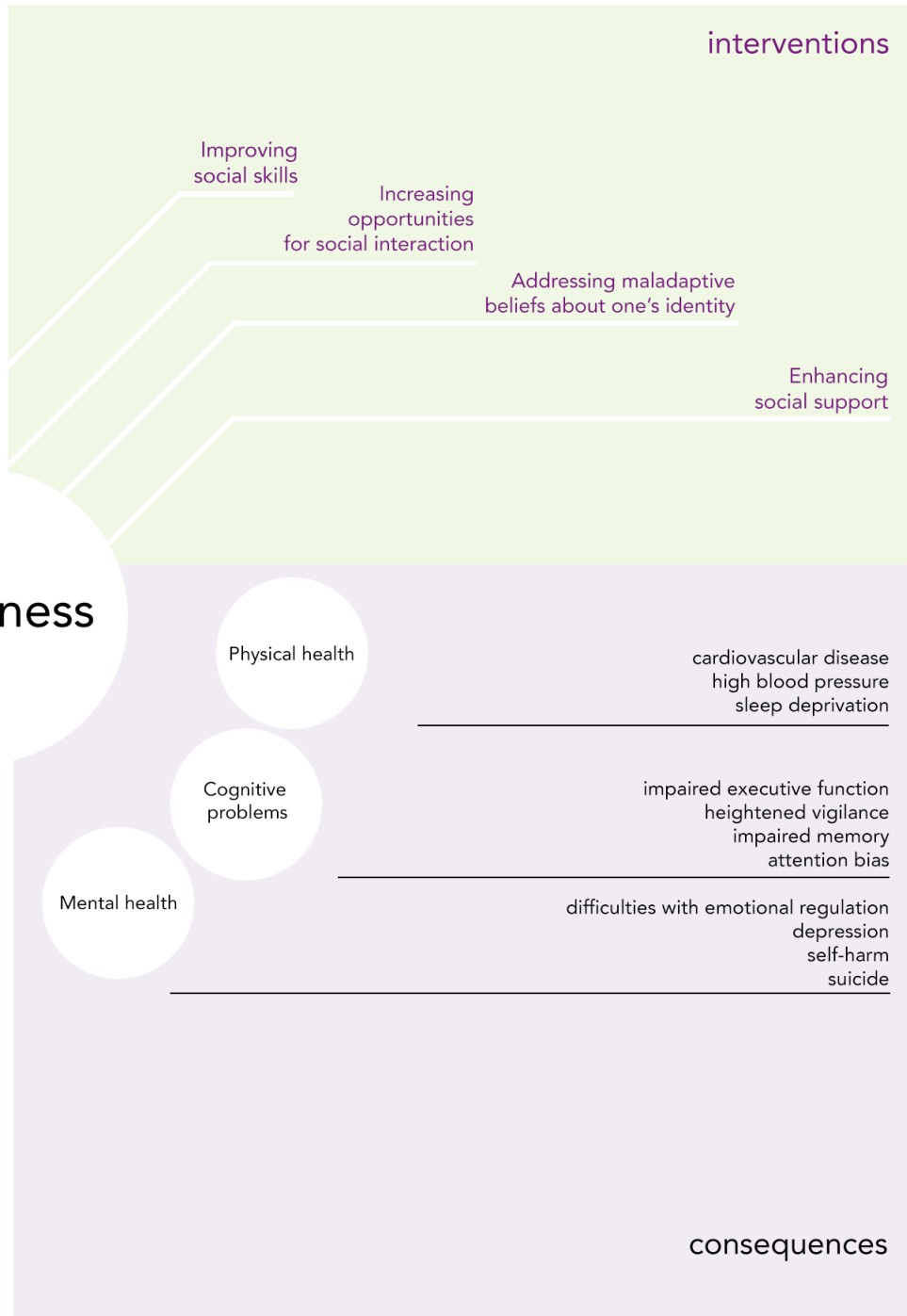


Fig 1. Drivers, Consequences and Interventions for tackling loneliness

# The Opportunity

## **EU and UN regulations**

The EU countries have adopted a rehabilitation-focused approach in their prison systems. This approach aims to support prisoners in refraining from criminal behaviour and preparing them for life after incarceration (Reisdorf & DeCook, 2018). The basis for this approach can be traced back to the European Convention of Human Rights, which emphasises the importance of rehabilitation (Meijer, 2017). However, the concept of rehabilitation lacks a universal definition across disciplines and European states (Morgenstern, 2015; Meijer, 2017). While punishment still holds a place in the objectives of imprisoning offenders, European policy and legislation have increasingly prioritised rehabilitative practices. As these practices differ across the continent, there is a need for a flexible framework that prioritises rehabilitation and can be adapted by various prison systems.

The management of prisons and their inmates in European countries is subject to two distinct legal frameworks. The first framework comprises of national or domestic laws, codes, and regulations established by each country's legislative branch and prison system. The second framework to which this proposal

adheres to is the supranational human rights system based on the European Convention on Human Rights (ECHR). The ECHR, a legally binding treaty established in 1950 by the Council of Europe, encompasses 46 member states, including countries outside the EU. As the ECHR explicitly prohibits torture and other forms of inhuman and degrading treatment, the Council of Europe introduced the European Convention for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment in 1989. To accomplish its goals, the Council established the Committee for the Prevention of Torture (CPT).

The Committee for the Prevention of Torture (CPT) plays a crucial role in monitoring European prisons through regular visits and the publication of annual reports. These reports provide a comprehensive overview of the findings and recommendations related to the prevention of torture and the treatment of detainees in the countries visited. In recent years, the CPT's recommendations have increasingly highlighted the need for more psychologists and psychiatrists to address mental health issues among inmates (CPT, 2020). Furthermore, these recommendations have emphasised the importance of providing rehabilitative activities based on psycho-social treatment and rehabilitation, with the aim of reducing the risk of mental

illness (CPT, 2019). Such measures also increase the likelihood of successful social integration upon release. Additionally, CPT reports have consistently denounced the use of solitary confinement and similar punitive measures, which the United Nations Standard Minimum Rules for the Treatment of Prisoners, adopted in 2015 by the UN, equate to torture.

There is a significant variation in legislation and policies regarding the emphasis placed on promoting meaningful social interactions within prisons at the national level. However, there is a shifting international focus towards increasing opportunities for social interaction. The goal of these measures is to reduce mental illness and recidivism rates among both current and former prisoners. This shift is evident in the European supranational human rights system, the efforts of organisations like Rethinking Rehabilitation, a Dutch NGO that offers various programs to help prisoners reconnect with their families and communities, and The Ex-Prisoners' Forum, a European NGO that advocates for support groups for ex-prisoners.

In sum, the international and supranational human rights system promoted by the UN and the European Council, through recommendations and legally binding treaties,

has pushed in recent years to address the consequences of loneliness amongst the incarcerated population as well as those who have already purged their sentences. Additionally, NGOs and activists throughout the continent have facilitated the spread of awareness on this issue, thus contributing to a new assessment of how the justice and penal systems could have a more positive impact on society. Our proposal, therefore, not only observes the international and European legal standards regarding the treatment of prisoners, but also pushes for the configuration of a new understanding of their rehabilitation processes, establishing mechanisms to promote meaningful social interactions while precluding from harmful and counter-productive measures such as solitary confinement or any similar form of confinement or punishments.

### **Theoretical frameworks**

Outdated models of correctional facilities often construe the concept of crime from a positivist perspective, shifting the blame and responsibility for offending from wider socioeconomic inequalities to an individual (Radzinowicz, 1966; Nelken, 1994). Consequently, those breaking the law were seen to possess flawed personalities.



However, critical theorists contested the belief that depriving prisoners of basic social and cultural needs effectively “fixes” individuals and prevents reoffending.

Consequently, since 1990, a Risk-Need-Responsibility (RNR) model was adopted and became the most influential framework for rehabilitating both adults and adolescents globally (Andrews & Bonta, 2010; Vitopoulos et al., 2012). This evidence-based model evolves around three core principles: risk, need and responsibility. The former principle aligns an individual’s risk for re-offending with the level of service at prison; the “*need*” is purported to assess and treat criminogenic needs; while “*responsibility*” tailors cognitive behavioural treatment and intervention to the offender, to maximise their learning from rehabilitation (Andrews et al., 2011; Bonta & Andrews, 2007).

In 2003, RNR was criticised for neglecting the fundamental human needs essential for personal fulfilment (Ward & Stewart, 2003). As a result, the Good Lives Model (GLM) was developed as a supplement to RNR, particularly to maximise the role of individual motivations, pay sufficient attention to personal identity and rigorously uphold human rights (Ward & Brown, 2004; Ward & Birgden, 2004; Ward et al., 2007; Ward & Willis, 2010).

The GLM advocates to focus on the knowledge and skills of offenders, which would help them enjoy a better life. The GLM is a strength-based method which offers inmates agency over their capabilities, values and aspirations in ways that are personally meaningful and socially acceptable, in addition to risks, deficits and problems which the RNR model addresses (Vandevælde et al., 2017; Ward & Brown, 2004). The focus of rehabilitation, thus, becomes dual: decreasing the risk of reoffending and meeting the basic human needs of those involved in the criminal justice system (Ward, 2002).

### **European Prisons**

In the European context, there are prisons where activities that facilitate meaningful social relations are either already in place or set to be implemented. For example, at Rye Hill prison in the UK (<https://hmpryehill.co.uk/>), (i) extended sports facilities are offered to the individuals in both an outdoor and an indoor setting, (ii) educational programs equip inmates with practical and academic skillsets, while at the same time (iii) community engaging schemes are implemented with a strong focus on addressing substance misuse,

alcoholism and mental health issues. There is also an uncommon intervention in place involving dogs (Pets-As-Therapy dogs), through which prisoners come in contact with animals and enjoy companionship and friendship.

Similarly, in continental Europe, inmates residing on an island at Bastøy prison in Norway take care of animals and their own living spaces, can access digital technologies and operate their own workshops in a community setting rather than in an enclosed, cut-off establishment ([www.theguardian.com/society/2013/feb/25/norwegian-prison-inmates-treated-like-people](http://www.theguardian.com/society/2013/feb/25/norwegian-prison-inmates-treated-like-people)). Justizvollzugsanstalt (JVA) Fuhlsbüttel prison in Germany, still not in operation, offers a great example of how a rehabilitation-based prison regime can support prisoners throughout their sentence and post-release. This prison will offer vocational and life-skills training, humane living conditions, socialisation-based leisure activities, therapy, and the possibility of gardening activities in an environmentally friendly rooftop garden ([www.hamburg.de/bjv/justizvollzugsanstalten/166196/justizvollzugsanstalt-fuhlsbuettel/](http://www.hamburg.de/bjv/justizvollzugsanstalten/166196/justizvollzugsanstalt-fuhlsbuettel/)).



Fig 2. PAT dogs program in Rye Hill prison  
<https://hmpryehill.co.uk/>



Fig 3. Living quarters in Bastøy prison  
<https://allthatsinteresting.com/bastoy-prison#2>

## Digitalisation

Current rehabilitation practices and re-entry preparations almost exclusively focus on offline mechanisms, with very little consideration for inmates' digital literacy (Jewkes & Reisdorf, 2016; Pulido, 2021). Exclusion from the online realm further marginalises offenders and prevents them from utilising digital tools 'to access justice, preserve family ties, and participate in initiatives that will improve their post-prison life and rehabilitation' (Zivanai & Mahlangu, 2022). Thus, recent research by McKay (2022) and Rantanen et al. (2021) highlights how access to digital technology can positively impact inmates' social skills, self-esteem in addition to reintegration into society. This is because people inside prisons can use the Internet to contact their relatives and peers, as well as connect with social services and healthcare providers - all of which reduce the chances of isolation and loneliness to arise (Järveläinen & Rantanen, 2021).

This is particularly important because illiteracy rates and social marginalisation are high among individuals who enter prisons, and particularly those who are older or serving long sentences are adverse to new technology (Jewkes & Reisdorf, 2016).

So, introducing technology in common areas and increasing inmates' dependence on some technical devices, such as touchscreen kiosks used for ordering canteen food or booking family visits, can decrease the stress of embracing the digital society. Additionally, digital tools can provide autonomy for prisoners and prepare them to face interactions with machines in life outside prisons (Crewe, 2007, 2009).

Digital technology can also create divides in penal systems on micro and macro levels. Some prisons use digital technologies as an incentive or earned privilege, allowing 'privileged' prisoners to yield 'soft' power among peers and become gatekeepers to accessing technology (Crewe, 2007). Differences in the use of technology between prisons can also make some prisons (e.g. private) that embrace innovation and improve people's quality of life during and post-incarceration seem more lucrative than those prisons which are unwilling or unable to have the digital infrastructure (Meyrowitz, 2005; Jewkes & Reisdorf, 2016).

Another problem that arose in incarcerated facilities which embraced digital technologies, like Skype or video chats, is a lack of privacy. For instance, if computers

are placed in a room adjacent to the staff office with thin walls, or facing a glass door, the lack of privacy disincentivises inmates from interacting with the person on the other end of the screen (Jewkes & Reisdorf, 2016). Therefore, the lack of privacy when using digital technology can lead to the degradation of relationships between people inside and outside prisons, and decrease the quality of inmates' social networks. As outlined in the previous section, these factors can increase the proclivity for loneliness.

Therefore, the solution we propose to the challenges outlined above is in line with current EU prison regulations and rehabilitation frameworks, such as the Good Lives Model. We strongly believe that to reduce problematic levels of loneliness in prisons, the solution has to be easily implementable and sustainable within an already existing penal policy, as well as corresponding to theoretical frameworks based on research with strong empirical support. Lastly, since digitalisation is bound to enter and transform the criminal justice system (Van De Steene & Knight, 2017), future solutions for mitigating loneliness in prisons should not only allow but also promote the integration of e-rehabilitation into the incarcerated landscape (Monteiro et al., 2015). However, the balance between security

concerns, where threatening online behaviour can be interrupted, and permitting individuals within prison systems to enhance their digital capabilities to lead more regular lives is beyond the scope of this project (Zivanai & Mahlangu, 2022).

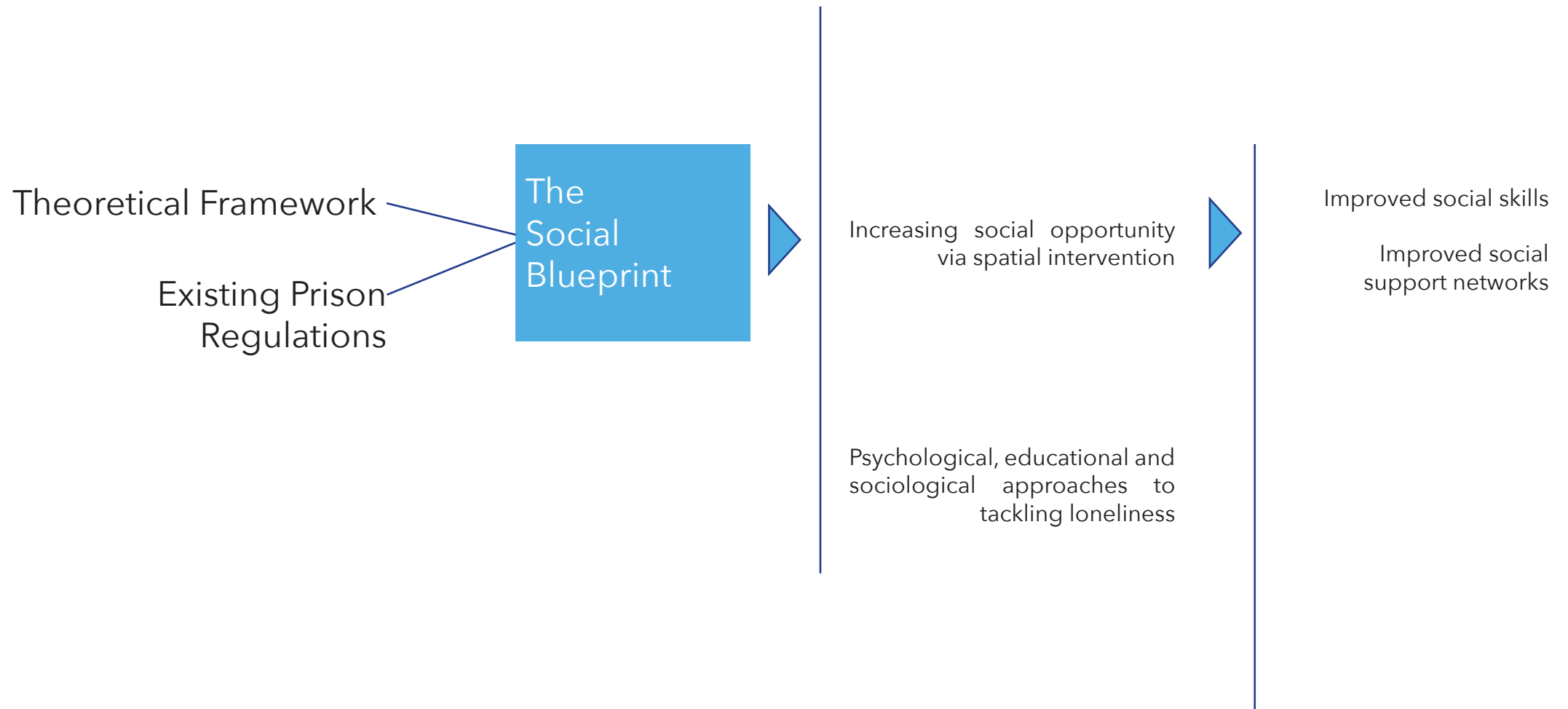


Fig 4. The Social Blueprint

# The Solution

Within the theoretical and legal reality outlined above, we propose the introduction of a strategic framework of spatial interventions in the common spaces of the prison environment, which aims to reduce loneliness by increasing the opportunity for meaningful social interaction. The goal is to alter the physical environment in ways that accommodate educational, recreational and community-involving activities and at the same time facilitate the building of social ties among:

- i. prisoners
- ii. prisoners and staff
- iii. prisoners and the community

When applied, to the extent possible for each prison's needs and abilities, the loneliness of the inmate population can be reduced by the effective execution of these activities, given adequate staff compliance and support, prisoner engagement, appropriate equipment, community engagement and available spaces.

Drawing from the examples discussed previously, some prisons in Europe already have incorporated these types of activities in their day-to-day operation, but unfortunately it is still not commonplace for all prison institutions across the continent. Ideally, the first step to effectively

reduce loneliness in prisons would be to engage more institutions in offering positive programs for social integration to prisoners. However, this is conditional to the availability of staff, their engagement, the political will of respective states, the availability of human and material capital, and the Correctional Codes in place, and therefore remains beyond the scope of this project. Consequently, the suggested strategic framework of spatial interventions would target prisons where relevant programs are already in place. Admittedly, in cases where prisons are planning or even are willing to engage in these activities, our framework could be used as a guideline for designing the new spaces that can accommodate them.

These activities can be grouped into five broad categories that comprise various functions with specific spatial requirements:

- i. Recreational or Educational activities in a group setting
- ii. Recreational or Educational activities in an individual setting
- iii. Outdoor activities
- iv. Activities that involve the community
- v. Religious practice

The vast majority of these activities occur in the common spaces of the prison environment, and therefore for this project, we decided to focus on the common spaces of a prison, rather than the individual spaces (single or double cells). Even among common spaces, there are functions with particular spatial requirements, for example, dining, practising religion, care provision and physical exercise. These functions demand a specific architectural program, and provide few opportunities for spatial alterations. In contrast, spaces where prisoners spend the majority of their time outside their cells during association are usually multifunctional with few restrictive elements, and therefore can be subjected to more substantive spatial modifications. These spaces are the target for our framework, which will provide a set of suggestions regarding the spatial arrangement of functions within the space, aesthetics and the choice of fixed and moveable equipment. Notably, the physical environment cannot be treated irrespective of the social environment, highlighting the importance of a holistic approach to tackling the issue of loneliness in prisons.



Fig 5. Activities in a positive prison environment

The suggested framework is destined to firstly address the physical environment of the prison and in a second level its interaction with the social environment, mainly through the introduction of socially conducive participatory activities. This is planned to occur in two stages, the first one including a set of suggestions focused on the quick and cost-effective spatial modification of the common spaces, and the second one including a proposition for a participatory design activity that would involve prisoners deciding on the arrangement of their living space. reduce loneliness in prisons would be to engage more institutions in offering positive programs for social integration to prisoners.

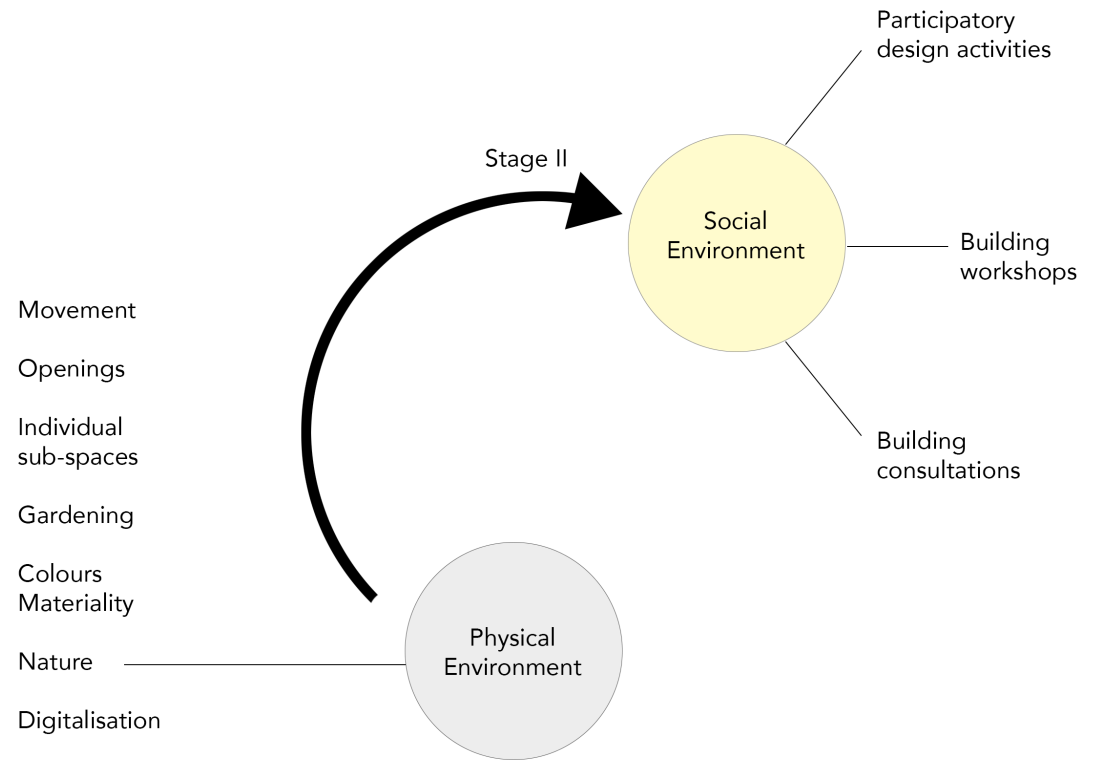


Fig 6. Stages of the Social Blueprint



## Stage 1

During the first stage of applying the framework, the intervention is focused solely on the physical environment. A set of spatial alterations in the common spaces of the prison is suggested, dependent on the availability, shape, capacity and structural restrictions of each particular space. Acknowledging the limitations, restrictions and particularities of prisons' common spaces, our framework is presented against a "model space", an imaginary, non-dimensional, but scaled space. The suggested model space includes a set of functions that either already happen, or are beneficial to the wellbeing and social encouragement of the prisoners and therefore should find a place in the everyday life of a positive and rehabilitation-focused contemporary prison. Given that each prison offers at least some of these functions to the inmates (e.g., leisure, library), the suggestions within our framework can hopefully be adopted, to the extent to which they are considered applicable to each prison's context.

### *Movement*

- There should be two entry points into the communal space, in order to avoid feelings of excessive control. In cases where this is impossible, the entry point should be visible and wide enough for individual accessibility, but not strictly or obviously regulated (Bernheimer et al., 2017)
- There should be a clear and unobstructed zone of movement across the entry points, and across the different functions existing in the space
- The movement zone should work as a conceptual divider between the primary character of the different functions, the divide between individual and collective functions
- Furniture should be moveable to the extent possible, so that movement between different functions can be restructured based on the specific needs of a space (e.g., classes)

### *Openings*

- A common space should have openings to the exterior, for natural lighting, ventilation and visual contact with the outside areas. In cases where that is not possible, roof-lights (Bernheimer et al., 2017), ventilators and glass brick constructions could be used in order to simulate comfortable conditions
- Openings should also be introduced to face the indoor spaces from where access to the common space is occurring, in order to establish visual contact and minimise feelings of seclusion
- To the extent possible, openings should extend from floor to ceiling, so that the physical barrier between the inside and the outside of the space can be visually softened

### *Individual sub-spaces*

- In the individual sub-spaces, there should be specific areas furnished appropriately for individual study (e.g., benches, bookshelves, desks)
- Computers and private pods for virtual communications with loved ones should be provided, and privacy should be offered by soundproof materials
- Walls, floors and all structural components of these spaces should be painted in appropriate colours, light and uniform, in order to create a safer and calmer atmosphere, distinct to the expected vibrance of other common spaces (e.g., gym, leisure activities)
- The physical dividers between the individual and group sub-spaces should be present, but not imposing: walls can be substituted by ceiling-high perforated furniture (e.g., bookshelves mounted to the ceiling), that allow for visual contact, while at the same time clearly marking the different functions taking place

### *Nature*

- A separate indoor gardening area should be introduced, where inmates can take care of plants, and enjoy the psychological benefits of contact with nature, even in an indoor setting
- Sitting areas should be positioned next to the "garden", so that inmates not actively participating in gardening activities can enjoy a different social space
- Where possible, these areas should be positioned next to openings towards the exterior, which will provide ventilation and natural lighting

### *Colours and materiality*

- An appropriate use of colours should include differentiation of the colour palette depending on the function of a space, to either signify calmness or vibrance (Bernheimer et al., 2017)
- Soundproof materials should be used as much as possible, to reduce noise distress and loss of focus
- Wood should be preferred in furniture, or adjustable structural elements (e.g., dividers, new doors and fixed equipment)
- Parts of the walls should be customisable, in the sense that prisoners can hang notices, art, or anything self-expressive

### *Digitalisation*

- Digital technologies should be available for individual and group use, in the form of secured internet, TV and radio access to encourage shared media consumption in hope of creating social bonds over shared interests, and allowing for the inmate population to stay informed about current affairs

### *Staff*

- Areas where staff is positioned should not be central to the common space, to avoid feelings of intrusion and constant supervision
- Staff-prisoner relations can be encouraged when the two parties share a social space, and even recreational activities (e.g., shared media consumption)

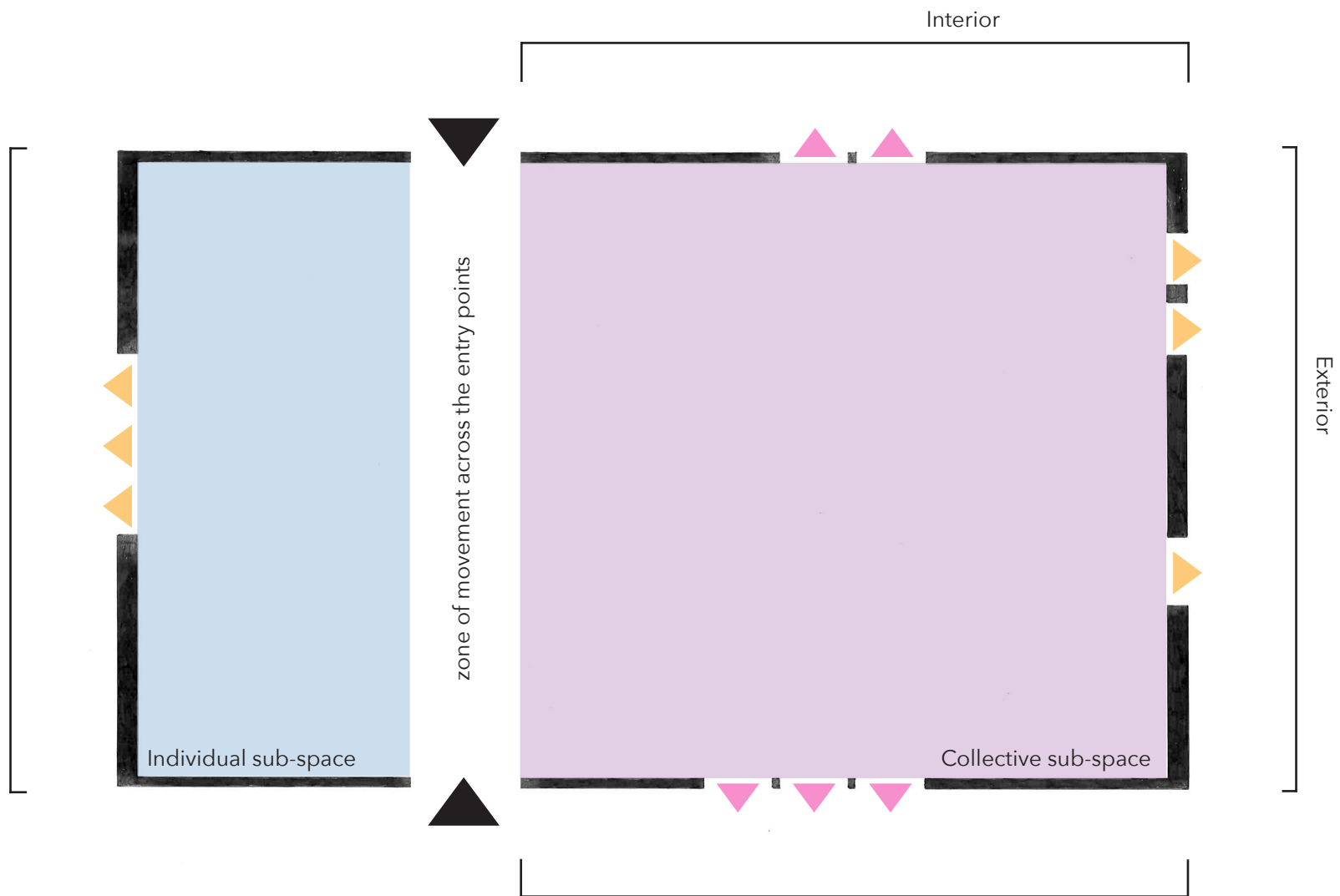


Fig 7. Conceptual spatial arrangement, basic principles

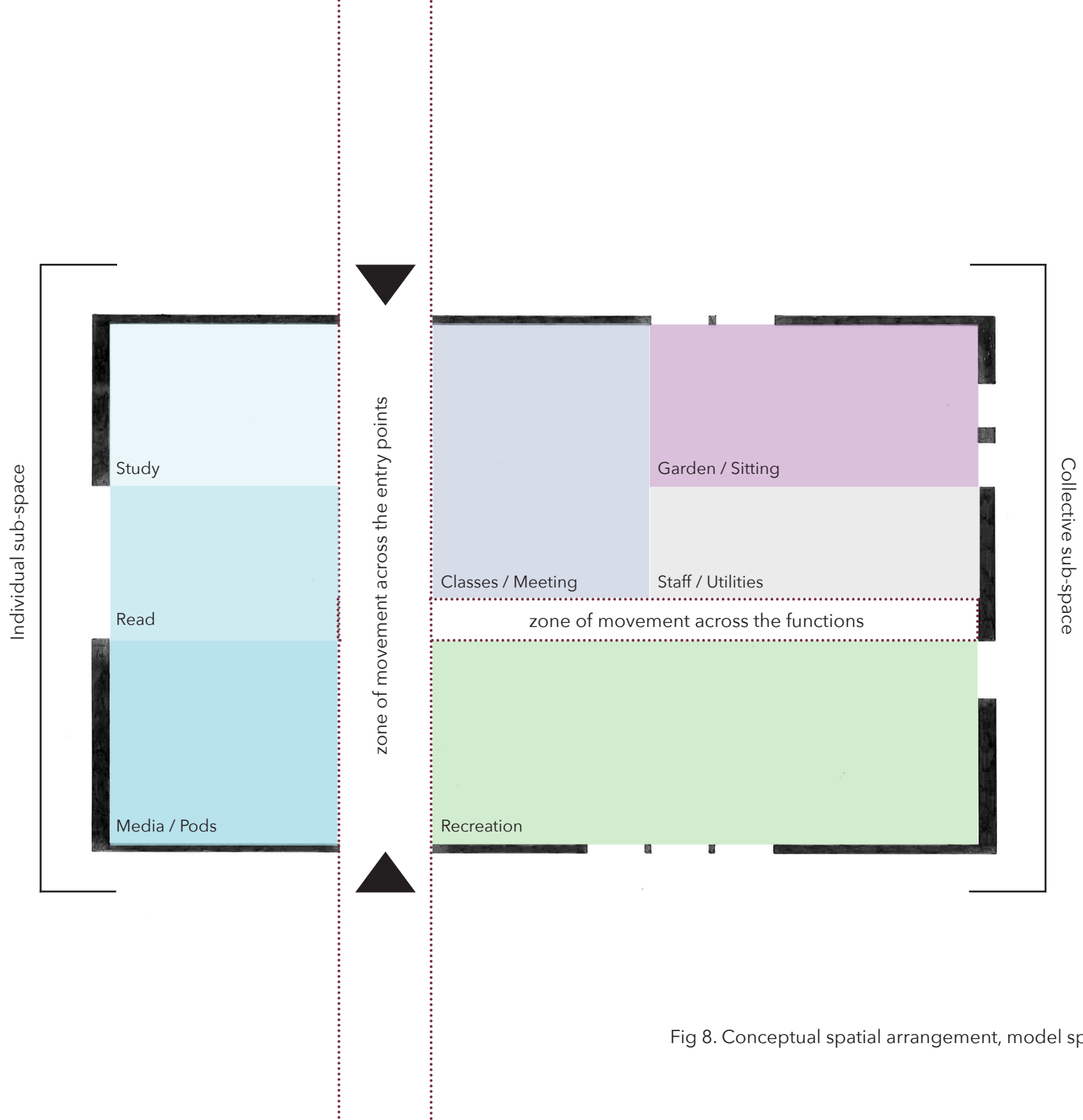


Fig 8. Conceptual spatial arrangement, model space

## Stage 2

During the second stage of applying the framework, the intervention is focused on the interaction between the physical and social environment. Within the model space described above, we introduce a participatory design plan, where prisoners can use modular elements to design the space they will eventually use. Insulated wooden building blocks that can be easily assembled will allow them to alter the space according to their needs, in ways that an outsider could not predict or even imagine. In what concerns the construction or the supply of these blocks, there are companies around Europe that promote self-building approaches to construction, using modular structural elements. One of them, Gablok ([www.gablokuk.co.uk/](http://www.gablokuk.co.uk/)), used eight wooden insulated structural elements to assemble the complete frame of a construction, given load-bearing restrictions. This type of building block (as well as some of the other building elements) could be used as the building unit to create furniture, walls, half-walls, dividers, or whatever is deemed necessary for the needs of the community.

In this stage, where the spatial alterations of the first stage are considered given, the prisoners can hold meetings/assemblies, for example weekly, and decide on the spatial arrangement the functions they select to engage with require. This would instil a sense of individuality and agency, fundamental to an effective rehabilitation. Additionally, community engagement can also be cultivated by organising design workshops with professionals, that could provide prisoners with the opportunity to acquire a skill set and potentially explore a new interest.



Fig 9. Gablok modular elements  
[www.gablokuk.co.uk/](http://www.gablokuk.co.uk/)

# Conclusion

While the Social Blueprint was designed to minimise implementation challenges, it is important to address its potential limitations. These limitations can be categorised into two main areas: endogenous circumstances within the prison system and exogenous factors that may affect scalability and political willingness.

Endogenous limitations may arise from the reluctance of prison management to fully embrace the Social Blueprint's potential. Although ample evidence highlights the relevance of prisoners' mental health for the overall goals of the penitentiary system, prison management often prioritises measures focused on control and maintaining the status quo (Devilley et al., 2005). This also corresponds to the traditional ways in which offenders are treated as passive receivers of a rehabilitative treatment (Kerish, 1975). So, projects that empower prisoners are not always enthusiastically received by the management and staff. Therefore, we suggest the successful implementation of the Social Blueprint by a group of prisons, both nationally and internationally, would provide empirical proof that tackling the pressing issue of loneliness among the incarcerated population aligns with the overarching goals of prisons.

Exogenous circumstances bear similar impediments. The willingness of politicians and decision-makers to support the implementation of this project may be low due to the prevailing notion that prisoners should not receive any consideration for their dignity. This belief, often shared by sizeable portions of the population, can lead to the exclusion and neglect of prisoners within society. However, it is essential to recognise that prisons and those incarcerated within them deserve to have their dignity preserved, along with adequate mental and physical health care. These undesirable outcomes, like suicide, mental illnesses, recidivism, and unemployment after release, persist in prison systems that fail to consider the impact of loneliness on prisoners, regardless of whether they are in Europe or elsewhere, as loneliness and its consequences are a universal experience. So, it is necessary for public policy to consider evidence-based approaches that are driven by research and field experts rather than populism.

Furthermore, the material conditions of prisons, such as inadequate spaces for activities like gardening, or limited budgets may hinder the full implementation of the intervention. Additionally, adaptations to the project may have to be done for high-security prisons, where the management may be hesitant to implement these interventions,



due to stricter security regulations and a more limited range of activities aimed at preventing harm to others or escape attempts. These restrictions could result in only a small portion of the prison population being able to participate, potentially leading to feelings of exclusion and ostracism among those unable to join. However, the Social Blueprint is not a prescriptive or rigid framework. Rather, it was designed with the intention of being very flexible, in order to be adopted by diverse prison regimes, compatible with various spatial typologies of prison, and suitable for different historical and cultural contexts. Both stages of the solution that we propose to tackle loneliness are intended to be made in consultation with people living in and working in prison environments. These discussions are very important for adapting the Social Blueprint for individual incarcerated environments.

In conclusion, the Social Blueprint offers a practical and feasible strategic framework of spatial interventions in common spaces within prison environment to reduce loneliness. Developed in line with two strong evidence-based theoretical penal frameworks, the Risk-Need-Responsibility and the Good Lives Model, our project aims to fill gaps and meet the needs in the current European penal landscape. This project has significant

benefits on an individual level: from helping people establish a vital support network and contributing to their well-being, to preparing individuals for a successful reintegration into society and leading meaningful lives. On a broader level: the Social Blueprint can be helpful in mitigating economic and social consequences of loneliness, like public spending on healthcare or recidivism levels.

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