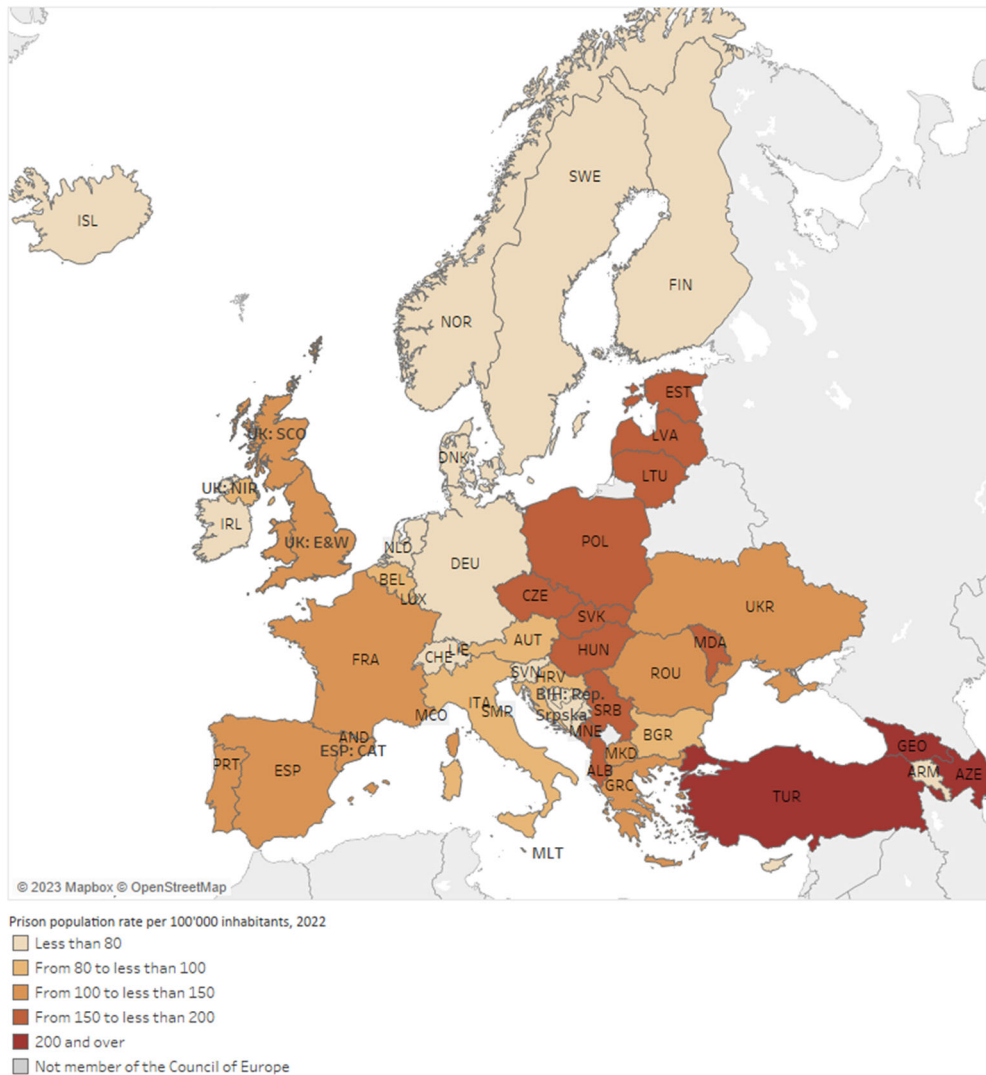


# Prisons and Prisoners in Europe 2022: Key Findings of the SPACE I survey

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**Map 1.** Prison population rates (number of inmates per 100,000 inhabitants) on 31 January 2022 (N=48)

### Suggested citation [APA Style 7<sup>th</sup> edition]

Aebi, M. F., Cocco, E. & Molnar, L. (2023). *Prisons and Prisoners in Europe 2022: Key Findings of the SPACE I report*. Series UNILCRIM 2023/2. Council of Europe and University of Lausanne.

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Series UNILCRIM - ISSN: 2673-1983



## 1. Introduction

This report summarises key findings from the 2022 *Council of Europe Annual Penal Statistics on Prison Populations*, better known as *SPACE I*, an acronym derived from its French name, *Statistiques Pénales Annuelles du Conseil de l'Europe*. A total of 48 out of the 51 prison administrations (PAs) across the 46 Council of Europe member states responded to the 2022 *SPACE I* questionnaire, thus contributing to this year's survey. This signifies a 94% participation rate. The sole administrations that refrained from replying were those of San Marino and two of the three administrations of Bosnia and Herzegovina, specifically the State PA and the Federation of Bosnia and Herzegovina PA.

Not all administrations responded to every question and, as far as the longitudinal analyses in this report are concerned, not all administrations have responded every year to the *SPACE I* questionnaire. Consequently, when interpreting the Figures of this report or comparing them with those of previous years, readers must consider the total number (N) of PAs included in each Figure and indicated in its title<sup>1</sup>. For example, the European average for the same indicator will vary from one Figure to another when the number of PAs included is not the same. Additionally, the Russian Federation's exclusion from the Council of Europe on 16 March 2022 results in its absence from the *SPACE* data collection from this survey onwards, impacting trend analyses. As a reminder, on 31 January 2021—the reference date for stock figures in the preceding *SPACE I* report—Europe housed 1,414,172 inmates, one third of which (478,714 inmates, or 34% of the total) were accommodated in Russian penal institutions. Furthermore, approximately 14% of the total budget expended by European PAs during the preceding year was accounted for by Russia. Thus, to maintain consistency in trend analyses, we also excluded the Russian Federation from the longitudinal analyses presented herein, recalculating all European average and median rates taken from prior reports.

The Figures featured in this report use ratios, percentages, and rates per 100,000 inhabitants, rather than relying solely on absolute numbers. These metrics are influenced not only by fluctuations in inmate counts, but also by natural population changes. Researchers from the Wittgenstein Centre for Demography and Global Human Capital have summarised the European population trends from 2000 to 2020 as follows: “Europe remains divided by long-term population trends. This division mostly follows the past geopolitical cleavage between Europe's East and West. Countries in the comparatively rich regions—the West, South, and North—continue to experience rising population, due to a combination of minor natural population increase and higher level of immigration than emigration. In contrast, almost all countries in Central, South-Eastern, and Eastern Europe saw substantial population declines, due to a combined effect of natural population decrease and emigration.”<sup>2</sup> Thus, while a PA's inmate count may remain constant over time, its incarceration rate will fluctuate based on the country's natural population changes. Similarly, prison data for Azerbaijan, Cyprus, Georgia, Moldova, and Ukraine exclude territories that are not under government control; however, their general population figures, which are used as a proxy for the population at risk of incarceration when calculating rates per 100,000 inhabitants, may not accurately account for this exclusion.

Last year's *SPACE I* report (2021) was notably affected by the global movement restrictions imposed to curtail the spread of the COVID-19 pandemic during 2020, particularly the lockdowns. These limitations altered the structure of opportunities to commit crimes, resulting in a decline in most offline offences<sup>3</sup> and a surge in certain types of online offences<sup>4</sup>; additionally, they disrupted the functioning of prosecution services and courts. These factors led to a reduction of the number of individuals entering penal institutions (*flow of admissions*). Coupled

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<sup>1</sup> The numerical discrepancy between the number of PAs indicated in the title of each Figure and the actual number of bars within the Figure arises from the inclusion of bars representing the European average, median, and the total for Spain. The latter combines data from both the State PA and the Catalanian PA. These additional bars are visually distinguished by being rendered in grey (for average and median values) and in a more subdued color (for the Spanish total). For instance, while Figure 1 consists of 51 bars, the “N” value refers specifically to the 48 unique PAs represented within it.

<sup>2</sup> Zeman, K. & Sobotka, T. (2020). Contribution of migration and natural population change to long-term population growth in Europe 2020-2040. In *European Demographic data sheet 2020*. Wittgenstein Centre for Demography and Global Human Capital. <https://eds2020.populationeurope.org/en/>

<sup>3</sup> Nivette, A. E. et al. (2021). A global analysis of the impact of COVID-19 stay-at-home restrictions on crime. *Nature Human Behaviour*, 5(7), 868-877.

<sup>4</sup> Kemp, S. et al (2021). Empty streets, busy internet: A time-series analysis of cybercrime and fraud trends during COVID-19. *Journal of Contemporary Criminal Justice*, 37(4), 480-501.

with the preventive measure of inmate release in some countries—whether temporary or permanent—this significantly reduced the number of inmates (*stock*) in detention during 2020<sup>5</sup>, resulting in lower prison populations on 31 January 2021 compared to one year earlier<sup>6</sup>. However, with the easing of movement restrictions in 2021, the structure of opportunities was largely restored, and the criminal justice system enabled to operate in a relatively normal way. As evident in this report, this resulted in an overall increase in the flow of admissions during 2021 and the number of inmates held in penal institutions as of 31 January 2022.

Rates and percentages are presented as rounded numbers unless they fall below 10. A few exceptions to that rule were introduced when we considered that the addition or subtraction of decimals could help the comprehension of the indicator under study. The original data, with one decimal point, can be consulted in Tables 3 and 4 of Section 7. In our analysis, we employ the arithmetic mean (average) and the median as indicators of the central tendencies observed in Europe. Our focus is primarily on countries with populations exceeding 1,000,000 when highlighting significant deviations from these indicators. In that perspective, we have distinguished the description of the data from their plausible interpretations by putting the latter in bullet points [•]. We did the same for some specific methodological issues that can help readers when interpreting the data. For a more comprehensive explanation, please refer to the Methodology section at the end of this report.

## 2. Stock indicators: Prisons and Prisoners on 31 January 2022

As of 31 January 2022, there were 981,575 inmates in the 48 PAs of the Council of Europe member states that participated in the SPACE I survey. When the number of inmates in each member state is put in relation with its number of inhabitants, it leads to an average European prison population rate of 118 inmates per 100,000 inhabitants, while the median figure is lower, at 104 inmates per 100,000 inhabitants. This is due to a positively skewed distribution of national prison population rates that can be observed in Figure 1. Approximately two thirds of the administrations reported comparatively low or median prison population rates (less than 125 inmates per 100,000 population); nevertheless, a small number of administrations display high rates—see the right side of Figure 1—resulting in an inflated average European prison population rate.

Significant variations in prison population rates can be observed across regions. Generally, countries in Eastern European and the Caucasus region, including Azerbaijan, Georgia, and Türkiye, exhibit considerably elevated prison population rates compared to their Western and Northern European counterparts. On the other end of the spectrum, countries such as Germany, the Netherlands, Slovenia, Switzerland, and the Nordic nations report remarkably low prison population rates.

- Since the 1980s, Scandinavian countries have been cited as examples of effective prison policy, with Finland often highlighted as a model for reducing prison populations.<sup>7</sup> Evidence shows that countries such as Germany, the Netherlands, and Switzerland have also achieved comparable success and maintain low prison population rates since the beginning of the 21<sup>st</sup> century, even if they do not share the Nordic culture, apply dissimilar prison policies, and are located in a different geographical context, which confronts them with different challenges in terms of cross-border movements of goods and persons. These countries can also provide useful insights on effective penal policies.

In Map 1, the spatial distribution of prison population rates is divided into five categories, ranging from less than 80 inmates to 200 or more inmates per 100,000 inhabitants. The highest and lowest rates are the ones mentioned above, but the Map also shows that several nations exhibit prison population rates inconsistent with regional trends. Hence, despite its geographical location in Central Europe, the Czech Republic and Hungary reported rates exceeding those of their geographical counterparts. Large deviations in both senses are also observed in the Balkan region, where the prison rates of Albania and Montenegro are relatively high compared to its regional peers, while those of Slovenia and the Republika Srpska in Bosnia and Herzegovina are among the lowest in Europe. Armenia clearly diverges from the high incarceration rates typically observed in the Caucasus,

<sup>5</sup> Aebi, M. F. & Tiago, M. M. (2020a). *Prisons and Prisoners in Europe in Pandemic Times: An evaluation of the short-term impact of the COVID-19 on prison populations*. Series UNILCRIM 2020/3. Council of Europe and University of Lausanne.

Aebi, M. F. & Tiago, M. M. (2020b). *Prisons and Prisoners in Europe in Pandemic Times: An evaluation of the medium-term impact of the COVID-19 on prison populations*. Series UNILCRIM 2020/4. Council of Europe and University of Lausanne.

<sup>6</sup> Aebi, M. F., Cocco, E., Molnar, L. & Tiago, M. M. (2022). *Prisons and Prisoners in Europe 2021: Key Findings of the SPACE I report*. Series UNILCRIM 2022/3. Council of Europe and University of Lausanne.

<sup>7</sup> Pratt, J. (2008). Scandinavian exceptionalism in an era of penal excess. Part I: The nature and roots of Scandinavian exceptionalism. *The British journal of criminology*, 48(2), 119-137.

instead aligning with countries recording the lowest prison population rates. Armenia's downward shift was first observed in 2019 and can be attributed to an amnesty pronounced in 2018 to commemorate the centennial of the Republic and, indirectly, to the impact of that year's Velvet Revolution.

Similarly certain nations with distinct regional administrations displayed internal variations in prison population rates. Spain, for instance, reported a higher rate in its State Administration compared to Catalonia. Within the United Kingdom, Scotland and England and Wales exhibited similar rates, significantly higher than that of Northern Ireland. In fact, the prison population of Northern Ireland is close to that of the Republic of Ireland.

- Our review or research shows that a wide variety of factors can influence prison population rates, that these factors are interconnected, and that their influences are complex and multi-layered. Obviously, countries with harsher penalties—such as mandatory minimum sentences, long sentences for certain crimes, or few alternatives to incarceration—should have higher incarceration rates. Conversely, in systems where judges have more flexibility in sentencing, they might choose more frequently options like probation or community service instead of prison sentences. Prison population rates are also influenced by law enforcement practices, such as ethnic profiling, the extent to which resources are focused on certain types of crimes or certain areas, and “tough on crime” policies, which typically lead to increased incarceration rates. Similarly, cultural attitudes towards crime and punishment and political systems can also play a role. For instance, autocratic societies tend to have higher incarceration rates than democratic societies. In that vein, Eastern European democracies inherited in the 1990s the high prison population rates that were typical of the previous Soviet penal system and, although they have decisively shifted directions, the rates remain still relatively high in some of them. Finally, prison population rates may also be affected by socioeconomic factors—poverty, inequality, levels of education, rates of substance abuse, age structure and gender ratio of the population, for instance—that have an impact on the structure of opportunities to commit crimes, which in turns affects the prison population rate.

Understanding prison population rates in any given country requires a nuanced and comprehensive analysis of these and other potential factors. As only few of them can be considered in this report, readers must proceed cautiously when analysing the classifications of countries that stem from the following Figures, as well as when proposing interpretations of their potential causes and consequences.

## 2.1. Characteristics of the inmates (detainees and sentenced prisoners) held in European penal institutions

### Age and imprisonment

The average age of inmates in European penal institutions as of 31 January 2022 is 38 years (see SPACE I, Table 6). In countries with over one million inhabitants, the average age of the prison population ranges from 31 to 44 years. The lowest average ages are observed in Bulgaria (31 years), Denmark (34), and France (34.5), while the highest are found in Georgia (44), Italy (42), Portugal (41), Estonia (40), and Spain (40).

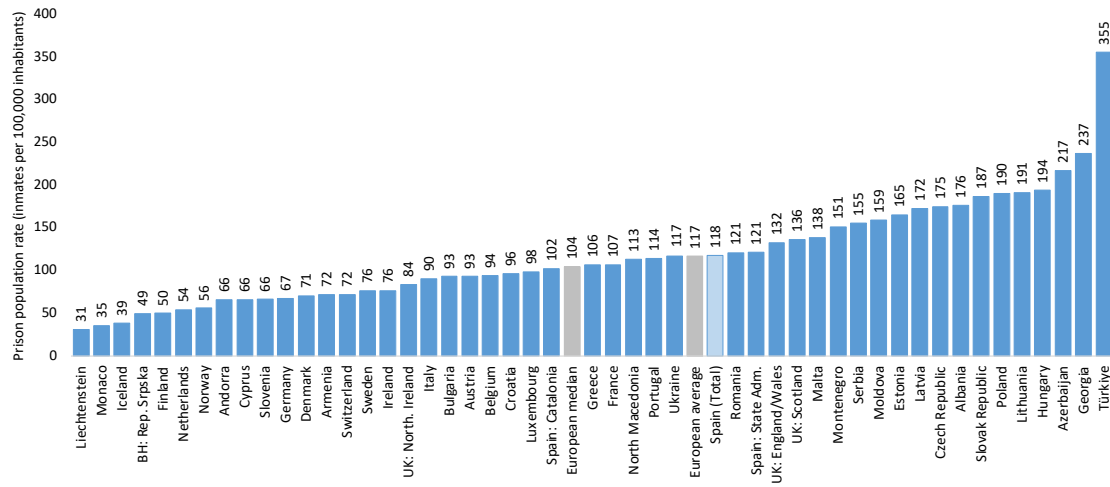
- Criminologists have established a consistent relation between age and crime, with criminal behaviour generally peaking in late adolescence and early adulthood and declining after 25 years of age. Most of the population engage in antisocial, deviant, or minor offences during adolescence, and this is reflected in self-reported delinquency surveys that show that the highest number of deviant behaviours is reported by those aged 16 and 17 years of age. For the subgroup of offenders engaged in serious, predominantly violent crimes, the peak occurs later, during the early twenties. This pattern, that can also be observed in police statistics, is known as the age-crime curve<sup>8</sup>. Notably, certain categories of offenders deviate from this pattern. For instance, white-collar criminals and leaders of organized crime networks, such as those engaged in narcotraffic and mafia-type organisations, are typically older. In contrast, the age distribution of cybercriminals remains under ongoing investigation.

The average age of inmates is higher than the peak age of criminal activity because prison statistics are an inaccurate indicator of crime, which means that prison populations do not represent the true population of offenders. Many crimes go undetected, unreported, or unsolved; the criminal justice system may be subject to biases leading to the under- or overrepresentation of specific population categories or types of crimes and their respective offenders; and trends in prison statistics are heavily affected by changes in legislation, criminal policies, and sentencing. Yet the pandemic-related lockdowns showed that trends in prison statistics are not completely independent of crime trends, because the decrease in offline crimes that took place at the beginning of the pandemic was mirrored immediately by a decrease in the number of inmates<sup>9</sup>. This is because prison populations are composed of sentenced prisoners —those who have been

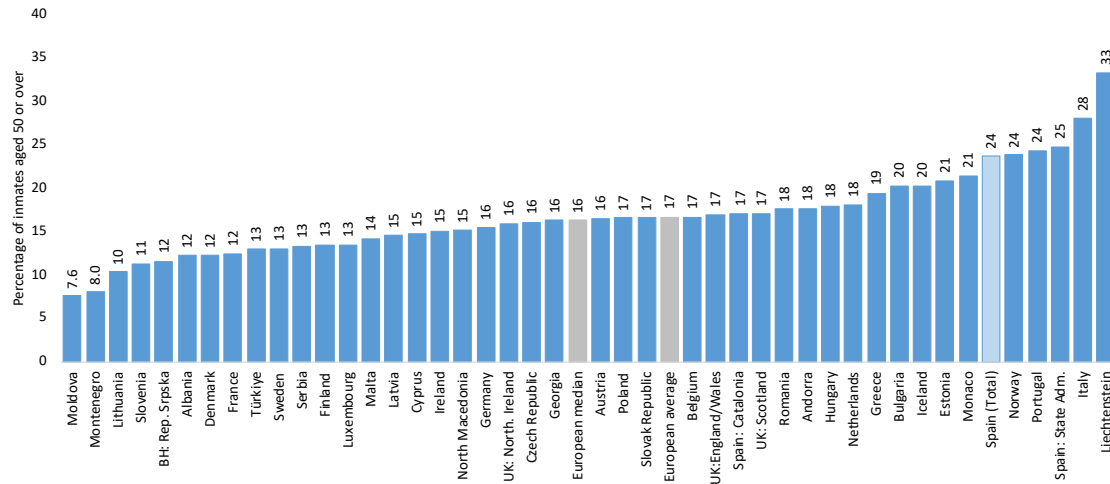
<sup>8</sup> Rocque, M., Posick, C., & Hoyle, J. (2016). Age and crime. In Jennings, W. G. (Ed.) *The encyclopedia of crime and punishment*. John Wiley & Sons.

<sup>9</sup> See the references provided in notes 3, 4 and 5.

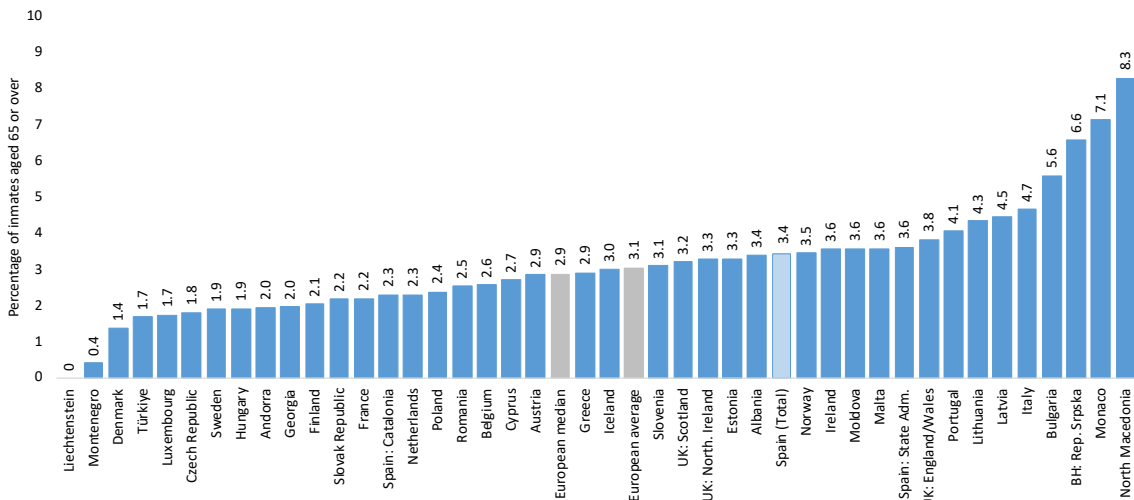
**Figure 1. Prison population rates (inmates per 100,000 inhabitants) on 31 January 2022 (N=48 PA)**



**Figure 2.1. Percentage of inmates aged 50 or over in the prison population on 31 January 2022 (N=43 PA)**



**Figure 2.2. Percentage of inmates aged 65 or over in the prison population on 31 January 2022 (N=41 PA)**





apprehended, convicted, and incarcerated— but also by detainees on remand, who are in fact suspects awaiting decisions from prosecutors about their detention or court judgments. A crime decrease entails a decrease in the number of offenders apprehended by the police and placed in pre-trial detention, which in turn leads to a decrease in the overall prison population as inmates continue to be released when their sentences end. This is precisely what happened during the pandemic<sup>10</sup>. Apart from that, cross-sectional research in Europe has consistently shown a correlation between prison rates and homicide rates in Europe, which means that countries with the highest homicide rates tend to be also among those with the highest prison population rates, and vice versa.<sup>11</sup>

Beyond the aforementioned factors, the average age of the prison population is influenced by the fact that imprisonment is the last resort of the criminal justice system, reserved for the most serious crimes that entail long sentences. Furthermore, that average age is affected by the presence of older inmates, such as recidivists and offenders involved in white-collar crimes, organized crime, or drug-trafficking offences. Therefore, the average age of sentenced prisoners is higher than that of the overall prison population, which encompasses a large proportion of younger individuals found among remand detainees awaiting judicial proceedings for less severe or first-time offences.

Approximately 16.5% of inmates are aged 50 or over, and 3% are aged 65 or over (see Figures 2.1 and 2.2 and SPACE I, Table 6). In countries with over one million inhabitants, the highest percentages of inmates aged 50 or over are found in Italy (28%), the State PA of Spain (25%), Portugal (24%), and Norway (24%). Meanwhile, the highest percentages of inmates aged 65 or over are found in North Macedonia (8.3%), the Republika Srpska in Bosnia and Herzegovina (6.6%), Bulgaria (5.6%), and Italy (4.7%).<sup>12</sup> It is noteworthy that the group of countries with the highest percentage of prisoners aged 50 or over and that with the highest percentage of prisoners aged 65 do not completely overlap, even though the latter group is a subset of the former.

- A plausible explanation is that the percentage of inmates aged 50 or over is related to the general structure of the prison population, while that of inmates aged 65 or over is linked to the presence of specific types of offenders. This hypothesis is supported by the fact that Italy, Portugal, and Spain are among the countries with the highest percentage of inmates aged 50 or over and also among those with the highest average age of the prison population. Furthermore, these countries are among those presenting long average lengths of detention (see Figure 13 below). The average length of detention in Europe is 11 months, but in Italy, it is 18 months; in the State PA of Spain, it is 20.5 months; and in Portugal, it is almost 31 months, which is in fact the maximum length of detention found in Europe.

Conversely, among inmates aged 65 or over, it is expected to find an overrepresentation of inmates serving indeterminate measures in the countries that foresee this kind of sanction, as well as of those serving life sentences — which in Europe does not mean perpetuity, because life imprisonment has a maximum duration that varies from country to country— and prisoners with the lengthiest sentences, such as those imposed on multi-recidivists or individuals convicted of violent offences, organized crime, or drug trafficking. These are specific groups whose age structure differs from that of the general prison population. For example, in Italy, a significant portion of prisoners aged 65 or more are former Mafia bosses sentenced to life imprisonment, and one could hypothesise that, in Serbia, there is a relatively high number of prisoners sentenced for war crimes. A notable example of the specific profile of inmates aged 65 or more compared to the overall age structure of the population is Bulgaria, which has the youngest average age of inmates, but where 5.6% of them are aged 65 or more.

Elderly inmates face significant challenges, including social isolation and physical and mental health problems that require specialised medical care. Data show that the percentage of this category of inmates remains low in Europe (3%); however, there is a consensus that prison populations are aging. This trend can be attributed to three main factors: the aging of the European general population, an increase in the average length of imprisonment, and an increase in the number of older individuals being incarcerated. The available data does not allow us to test the third factor. The second factor has been corroborated using SPACE I data, which showed an increase in the average length of imprisonment from 1983 to 2010<sup>13</sup>. Finally, life expectancy has experienced a significant increase in Europe since the 1950s and 1960s, primarily due to a combination of factors such as enhanced healthcare systems, improved nutrition, advances in medical technology, and overall progress in living conditions. This upward trend is evident also during the period covered by the

<sup>10</sup> For details, see the references provided in note 5.

<sup>11</sup> Lappi-Seppälä, T. (2011). Explaining imprisonment in Europe. *European Journal of Criminology*, 8(4), 303-328. Aebi, M. F., Linde, A., & Delgrande, N. (2015). Is There a Relationship Between Imprisonment and Crime in Western Europe? *European Journal on Criminal Policy and Research*, 21(3), 425-446.

<sup>12</sup> The second category (65 years or more) falls within the first one (50 years or more); however, the number of PAs providing data for both categories differ. Data on inmates aged 50 or over were supplied by 43 PAs (Figure 2.1), whereas information on inmates aged 65 or over was available from 41 administrations (Figure 2.2).

<sup>13</sup> Aebi, M. F., Linde, A., & Delgrande, N. (2015). Is there a relationship between Imprisonment and Crime in Western Europe? *European Journal on Criminal Policy and Research*, 21(3), 425-446.

SPACE I series, which began in 1983. For example, life expectancy in the UK rose from approximately 74 years in 1983 to around 81 years in 2019, while in France, it grew from nearly 76 years in 1983 to about 82.5 years in 2019. Other countries across Europe observed comparable changes from 1983 to 2019. For instance, in Poland, life expectancy increased from roughly 71.5 years in 1983 to 77.5 years in 2019, while in the Czech Republic, it surged from around 70.9 years in 1983 to 79.0 years in 2019. In this context, the increase in life expectancy in Europe should, at least indirectly, lead to an overall aging of the European prison populations.

Within the SPACE I project, data collection on the percentages of inmates aged more than 50 and 65 years old began in 2020. The aim is to monitor the aging of prison populations in Europe. However, reliable statistical analyses will not be possible until more years of data have been collected.

## Gender and Imprisonment

In European penal institutions, the overwhelming majority of inmates are men, representing approximately 95% of the total prison population. Conversely, women account for a mere 5% of inmates (see SPACE I, Table 7). Although variations exist across PAs, Figure 3 illustrates the consistent underrepresentation of women in penal institutions throughout Europe. Among countries with over one million inhabitants, the lowest percentages of female inmates (below 3%) are observed in Albania (1.2%), the Republika Srpska in Bosnia and Herzegovina (2.1%), Azerbaijan (2.8%), and Armenia (2.9%). In contrast, the highest percentages (exceeding 7.5%) are found in Cyprus (9.5%), Latvia (8.4%), Czech Republic (8.1%), and Hungary (7.6%).

- Criminologists have identified a persistent relationship between gender and imprisonment on a global scale. Men are more likely to be incarcerated than women, comprising approximately 93% of the worldwide imprisoned population.<sup>14</sup> This discrepancy can be attributed to various factors, including differences in criminal behaviour, gender biases within the criminal justice system, societal expectations, gender roles, and neurobiological distinctions between men and women.

Empirical evidence indicates that men are considerably more likely to engage in violent behaviours, a primary category of offences resulting in imprisonment in Europe. This observation can be partially attributed to societal expectations and gender roles, which play a significant role in shaping the types of crimes men and women commonly commit and how they are perceived and treated within the criminal justice system. It is also a consequence of neurobiological factors such as the earlier development of the prefrontal cortex in women—approximately two years ahead of men—which plays a crucial role in regulating violent impulses<sup>15</sup>. This relation exemplifies the intricate interplay between biological and environmental factors in shaping human behaviour.

Research also reveals gender disparities in sentencing, with women generally receiving more lenient sentences than men for similar offences<sup>16</sup>. One example of this is the courts' consideration of women's primary caregiver status for their children, which often results in the imposition of community-based sanctions and measures rather than incarceration. Data suggests that this phenomenon could be taking place in Europe, where the percentage of women serving community-based sanctions and measures (see SPACE II, Table 20) is more than twice the percentage of those incarcerated (see Figure 3). According to the 2022 SPACE II report<sup>17</sup>, as of 31 January 2022, women represented on average 11.9% of probationers in Europe, but only 5.1% of the inmates.<sup>18</sup>

## Citizenship and Imprisonment

On average, 25% of inmates in European prisons are foreigners; however, this percentage varies significantly across PAs, as depicted in Figure 4.1. In Eastern European PAs, the proportion is typically lower than 5%, while in Central and Western European ones, it is at least 10% and, in some PAs, it exceeds 40% (Table 4.1). Among the latter are Switzerland (70%), Greece (59%), Cyprus (52%), Austria (49%), the PA of Catalonia (48%), Belgium (43%), and four PAs in countries with populations under one million. The lowest percentages of foreign inmates

<sup>14</sup> UNODC (2021). Nearly twelve million people imprisoned globally, nearly one-third unsentenced, with prisons overcrowded in half of all countries. *Data matters*, 1. Available at [https://www.unodc.org/documents/data-and-analysis/statistics/DataMatters1\\_prison.pdf](https://www.unodc.org/documents/data-and-analysis/statistics/DataMatters1_prison.pdf).

<sup>15</sup> Blakemore, S.-J. (2018). *Inventing Ourselves: The Secret Life of the Teenage Brain*. Doubleday.

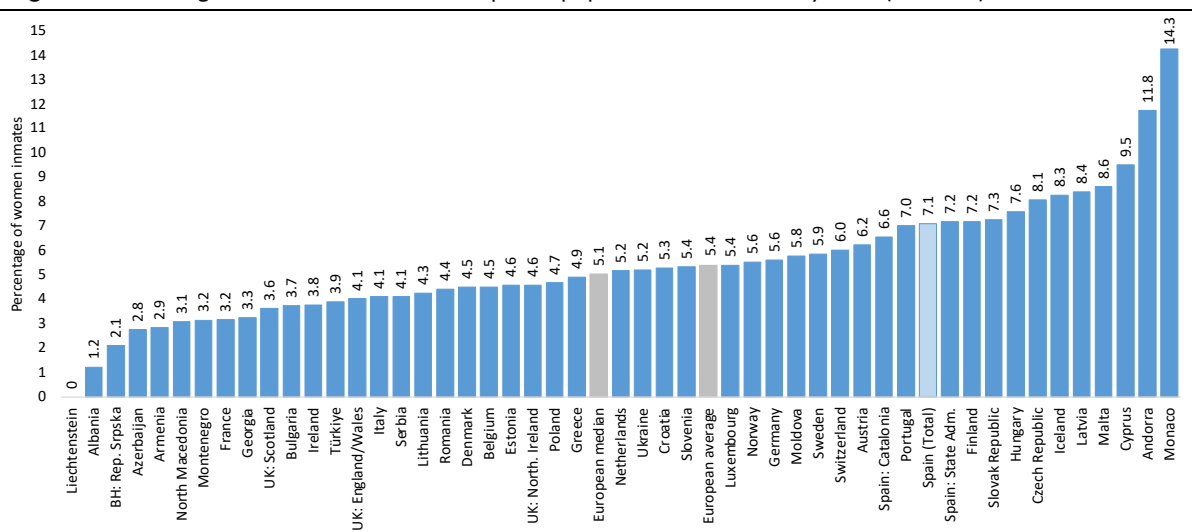
<sup>16</sup> Bontrager, S., Barrick, K., & Stupi, E. (2013). Gender and sentencing: A meta-analysis of contemporary research. *The Journal of Gender, Race & Justice*, 16(2), 349-372. Readers must bear in mind that this meta-analysis is based only on research conducted in the United States and that robust empirical research on this topic is rare in Europe. A noteworthy exception is Páez-Mérida, A. (2021). Estado de la cuestión del estudio de la influencia del género en la toma de decisiones judiciales. *Revista Española De Investigación Criminológica*, 19(1), 1-25.

<sup>17</sup> Aebi, M. F., & Hashimoto, Y. Z. (2023). SPACE II – 2022 – Council of Europe Annual Penal Statistics: Persons under the supervision of probation agencies. Council of Europe.

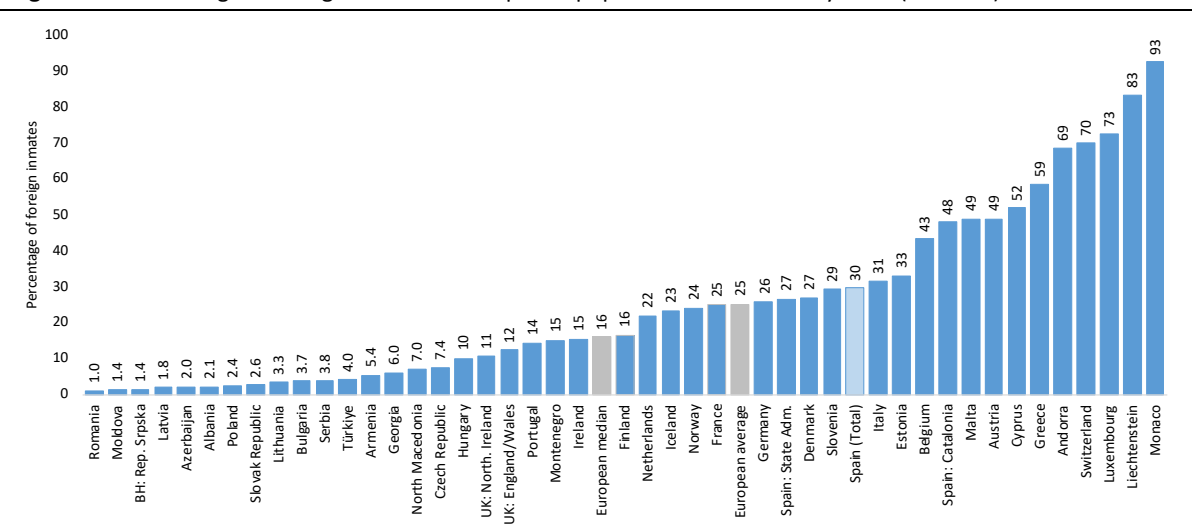
<sup>18</sup> Aebi, M. F., Cocco, E. & Hashimoto, Y. Z. (2023). *Probation and Prisons in Europe 2022: Key Findings of the SPACE reports*. Series UNILCRIM 2023/3. Council of Europe and University of Lausanne. See Figure 7.



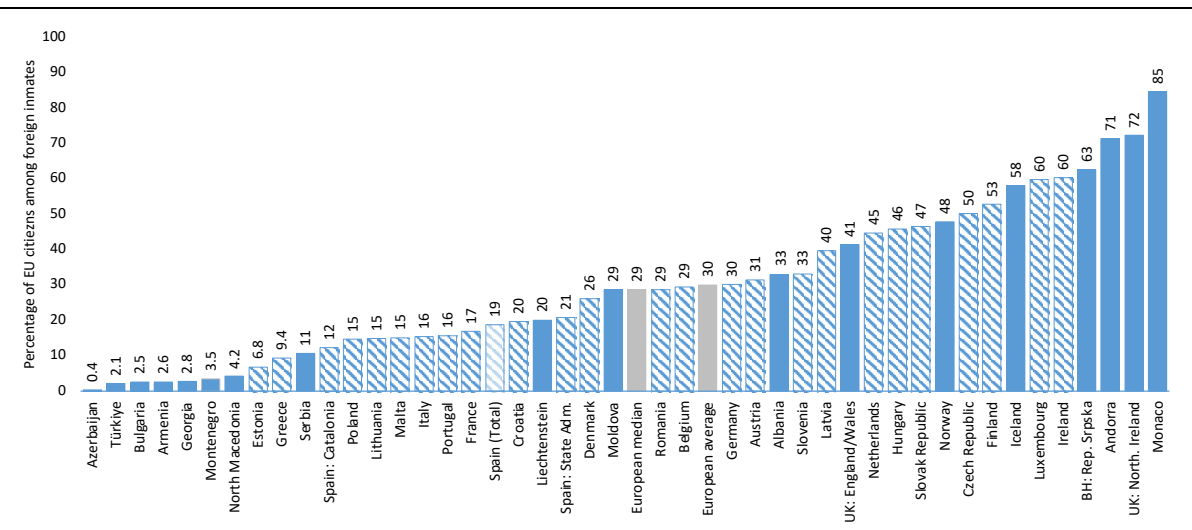
**Figure 3.** Percentage of women inmates in the prison population on 31 January 2022 (N=48 PA)



**Figure 4.1.** Percentage of foreign inmates in the prison population on 31 January 2022 (N=44 PA)



**Figure 4.2.** Percentage of EU citizens among foreign inmates on 31 January 2022 (N=44 PA, of which 25 EU)



Note to Figure 4.2: PAs of EU countries are presented in blue stripes.

(below 2%) are observed in Romania (1%), Moldova (1.4%), the Republika Srpska in Bosnia and Herzegovina (1.4%) and Latvia (1.8%). This pattern overlaps with that of the natural movement of European populations since the 2000s —rising populations in the West, South and North and decreasing populations in the Centre, South-East, and East of Europe— quoted in the Introduction.

This uneven distribution is reflected in the European median, which indicates that half of the PAs have fewer than 16% foreign inmates, while the other half have more than that. This 16% median figure corresponds to only two thirds of the European average (25%), highlighting the considerable disparities in the percentages of foreign inmates across European prison systems. In this context, it is important to consider the various agreements that interlink EU countries, allowing for open borders and free movement. These arrangements not only enable internal migration and trade, thereby fostering regional economic growth, but they may also inadvertently facilitate cross-border criminal activities, thus increasing the likelihood of foreign nationals being imprisoned.

On average, 30% of foreign inmates hold citizenship from a European Union member state, as depicted in Figure 4.2. This proportion has seen a decline from the previous year, likely attributed to the completion of the Brexit transition by the PAs. This change reclassifies citizens of the United Kingdom as non-EU citizens. Year-on-year fluctuations of primary stock and flow indicators are provided in Table 2. However, readers should take into account that these variations are only applicable to PAs that have submitted data for both years under consideration. For instance, the median value for European PAs, based on data from the 44 PAs that provided data for 2022, indicates that 29% of foreign inmates are EU citizens, as shown in Figure 4.2. However, when we base this statistic on the 37 PAs that provided data for both years, this proportion decreases to 26%, which is lower compared to the 31% recorded in 2021.

Finally, Figure 4.3 shows that eleven PAs collect data on the resident status of the foreigners held in their prisons. Among them, the percentage of those who have a legal resident status also fluctuates considerably, ranging from 1 to 91%.

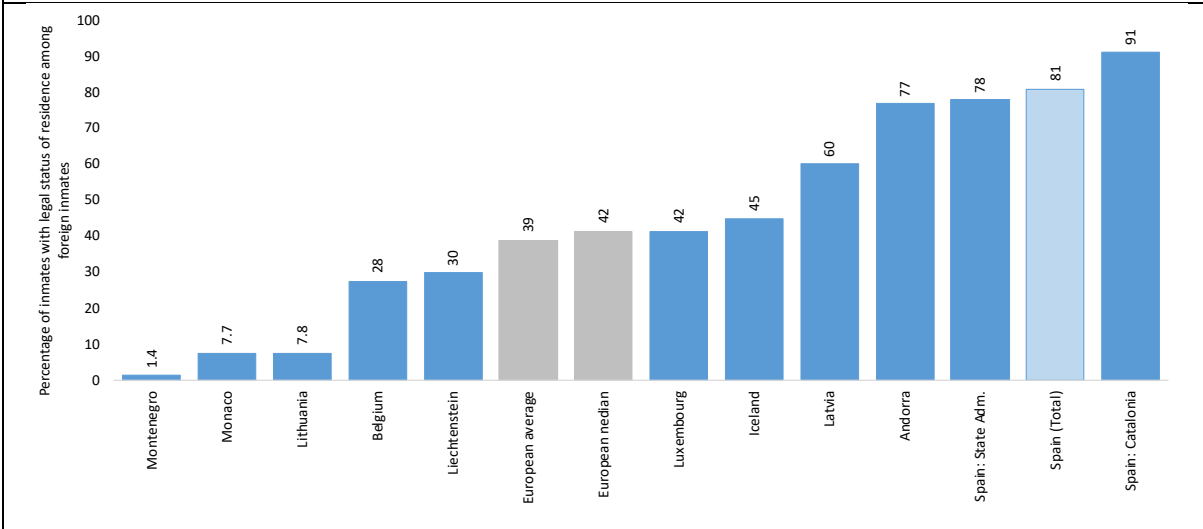
- Many controversies on this topic stem from a confusion between the overarching category of foreigners with the specific subcategory on immigrants. *Foreigners* are all those persons who do not have the citizenship of the country in which they are incarcerated. Among them, there are some who have a legal status of permanent residence in that country. These are the *immigrants*, characterised by the fact that they moved to that country with the intention of establishing their long-term residence there, forming new communities, or joining existing ones. Yet the category of foreign inmates encompasses people in various other situations, such as tourists, individuals in transit or temporarily in the country for work or private affairs, as well as undocumented migrants, asylum seekers, and offenders involved in transnational crime. Crime and criminal justice statistics —including prison statistics— do not make that distinction and use only the overall category of foreigners. Still, any explanation of the overrepresentation of foreign citizens among inmates observed in several Western countries must take into account the distinction introduced above<sup>19</sup>. Otherwise, there is a risk of engaging in simplistic, and often demagogic explanations.

To complicate things, some of the European research on this topic apply the theoretical frameworks developed in the United States in the first half of the 20<sup>th</sup> century, which were crafted having in mind the *immigrants* established under the umbrella of a series of policies aimed at increasing the population of that country. This kind of research on *immigration and crime* suggests that language barriers, unfamiliarity with local laws, the lack of a network of family and friends, and socio-economic factors, such as a limited access to resources, are challenges faced by all non-nationals that might increase the risk of entering in contact with the criminal justice system. In addition, discrimination and bias in the criminal justice system might contribute to higher arrest rates for foreign nationals compared to local citizens. These challenges exist in Europe for citizens of the European Union (EU) who, after filling a series of requirements, can establish themselves in other EU countries, as well as for the few citizens of third countries that succeed in obtaining a permit of residence.

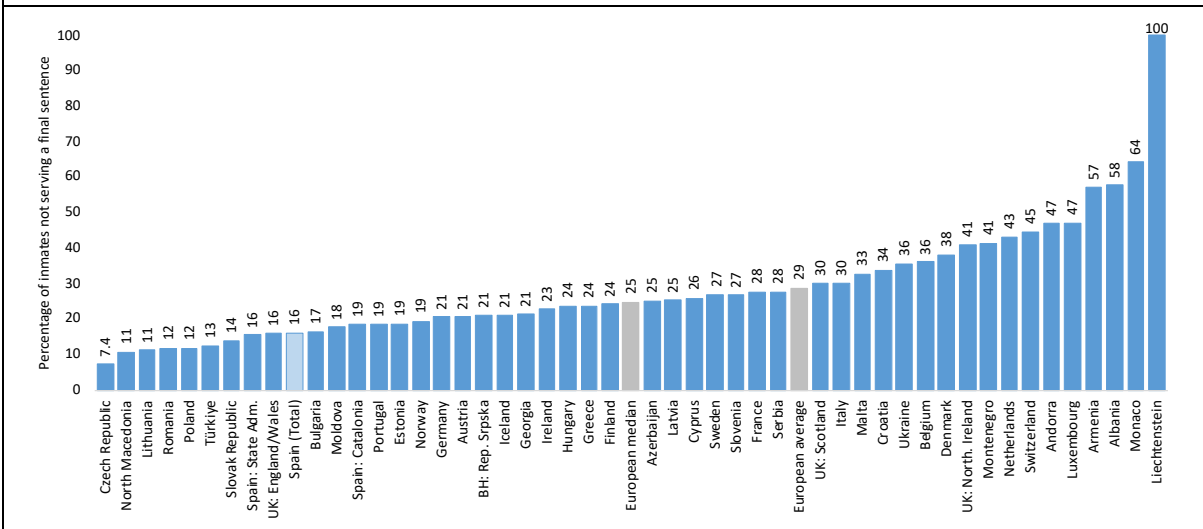
For foreigners who are not in that situation, integration is even more challenging. Undocumented foreigners or those with an irregular legal status may want to remain on the continent, but do not have access to legal jobs and housing. These persons face a higher risk of detention due to their precarious situation and to the fact that in some countries illegal immigration, also known as irregular entry or stay, is considered an offence, and may result in sanctions or measures. In fact, some countries (see SPACE I, Table 2.1). Furthermore—and this is a key difference with immigrants—

<sup>19</sup> Aebi, M. F. (2005). Immigration et délinquance: Le mythe du conflit des cultures. In Queloz, N. et al. (Eds.). *Délinquance des jeunes et justice des mineurs: Les défis des migrations et de la pluralité ethnique*. Berne: Staempfli & Bruylant. Aebi, M. F. (2016). Inmigración y delincuencia. In Aebi M. F. et al. (2016). Aspectos esenciales de la Criminología actual (pp. 64-100). Editorial UOC.

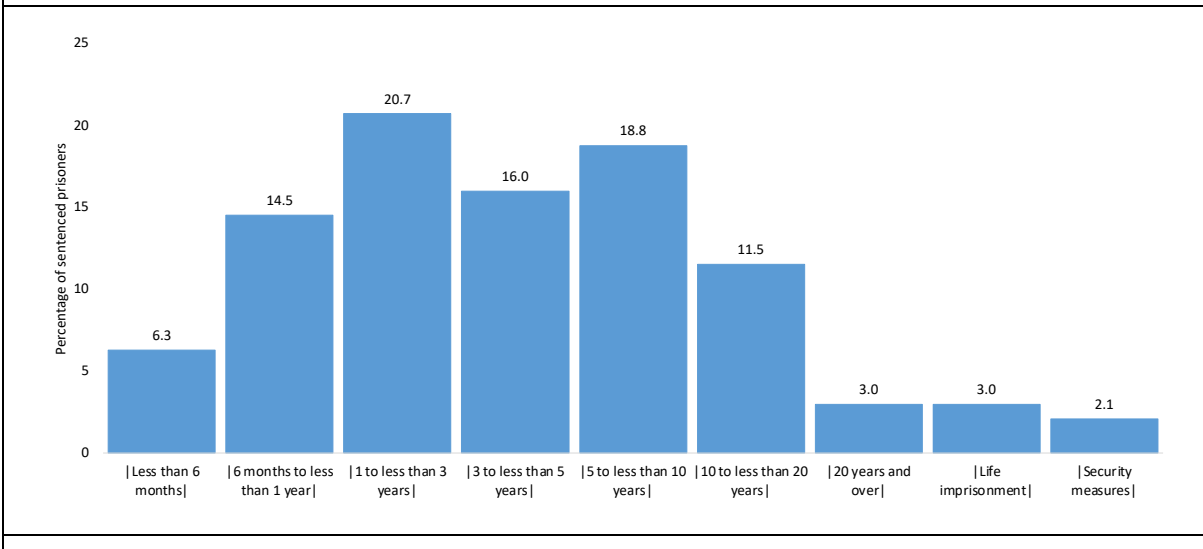
**Figure 4.3.** Percentage of inmates with legal status of residence among foreign inmates on 31.01.2022 (N=10 PA)



**Figure 5.** Percentage of inmates not serving a final sentence in the prison population on 31.01.2022 (N=48 PA)



**Figure 6.** Breakdown of sentenced prisoners by sentence length on 31 January 2022, in percentages (N=45 PA)



they cannot make long-term plans, and that increases the likelihood of getting involved in activities—legal or illegal—that produce short-term benefits. The overall situation also increases the risk for undocumented foreigners of becoming *victims* of crime, as long as they would have troubles reporting those crimes to the authorities of the criminal justice system without revealing their irregular status of residence.

### Inmate's Legal Status of Detention: Distinguishing Between Detainees and Sentenced Prisoners

European PAs report, on average, that 29% of the inmate population on 31 January 2022 are individuals not serving a final sentence (see SPACE I, Table 8 for additional details). Adopting the Council of Europe's terminology, these inmates should be referred to as *detainees placed in remand on custody* (Committee of Ministers Recommendation Rec (2006)13). In practice, these individuals are often referred to as *inmates in pre-trial detention*, *pre-trial detainees* or simply as *detainees*.

Figure 5 provides a detailed breakdown of the percentage of inmates classified as detainees in remand on custody in 48 European PAs. It exhibits significant variations in these proportions between different PAs. The European median indicates that half of these administrations have less than 25% of their detainees in remand on custody, while the remaining half has a higher percentage. Furthermore, the gap between the PAs with the highest and the lowest percentages is substantial.

In countries with populations exceeding 1,000,000, the administrations reporting the lowest percentages of detainees on remand in custody (less than 12%) include the Czech Republic, North Macedonia, Lithuania, Romania, and Poland. On the other hand, the administrations with the highest proportions (exceeding 40%) are those of Albania, Armenia, Switzerland, the Netherlands, and Northern Ireland.

No clear regional patterns are discernible in the data. For instance, Albania and Armenia report notably high percentages of inmates without a final sentence (58% and 57% respectively), while other nations in the Central and Eastern European region such as Romania, Bulgaria, and Poland report substantially lower percentages (12%, 17%, and 12% respectively). Similarly, significant variations exist between neighbouring countries. For example, Austria (21%) and Germany (21%) have comparatively lower rates than Belgium and Switzerland (36% and 45% respectively). These dissimilarities seem indicative of country-specific circumstances that are influencing the distribution of inmates by their legal status of detention.

- Criminologists tend to perceive high percentages of detainees on remand in custody as an indicator of potential inefficiencies within the legal system, frequently relating to slow court procedures, resource inadequacies, or even the reliance on pre-trial detention as a punitive rather than precautionary measure. However, these interpretations are generalisations, and the actual circumstances can be more nuanced and influenced by a multitude of country-specific factors. For instance, countries with a high proportion of foreign inmates, such as Switzerland, may find it necessary to keep those without a legal residence status in pre-trial detention due to the risk of absconding.

Conversely, a low percentage of detainees in remand on custody is traditionally viewed as a potential indicator of an efficient legal system with prompt case processing, resulting in a reduced proportion of pre-trial detainees. It might also be reflective of policies and practices favouring non-custodial measures for individuals awaiting trial.

**Disclaimer:** Some countries classify inmates as sentenced prisoners as soon as they receive their initial sentence, irrespective of any pending appeal processes. Therefore, individuals who have lodged an appeal or are within the statutory limits to do so are not incorporated within the total number of detainees not serving a final sentence. Consequently, interpreting the differences observed in Figure 5 requires careful consideration and must consider country-specific indications (see SPACE I, Table 8 and accompanying notes for additional information).

## 2.2. Characteristics of the sentenced prisoners held in European penal institutions

### Sentenced prison population: Breakdown by sentence length

Having distinguished between detainees and sentenced prisoners, we now focus on the latter to examine the length of sentences they are currently serving. Figure 6 illustrates this breakdown, representing the proportion of inmates in European prisons by each length of the sentence. The total percentage does not amount to 100%, owing to slight variations in the number of PAs included when calculating each sentence length.

Predominantly, prisoners are serving "medium-term" sentences, spanning between 1 and less than 10 years. At both ends of the distribution spectrum, we observe two groups that roughly comprise a fifth of the prison population each, serving either short sentences (less than one year) or long sentences (10 years or more).

Among the predominant group of inmates, the main group (21%) are serving sentences from 1 to less than 3 years, closely followed by those sentenced to 5 to less than 10 years (19%), and 3 to 5 years (16%). On the lower end of the distribution, approximately 14.5% of prisoners are serving sentences of 6 months to less than a year, with about 6.3% serving sentences of less than 6 months.

Additionally, the SPACE I survey reveals that several countries with high prison population rates often have percentages of inmates serving sentences under 6 months near or below the European average (3.9%). For instance, Türkiye, the Czech Republic, and Slovakia all report percentages around 4%, while Albania and Georgia report 2.3% and 0.6% respectively (see SPACE I, Table 11). Contrastingly, several countries with low prison population rates tend to have higher percentages of prisoners serving sentences under 6 months. Notably, the Netherlands and Switzerland report 23% and 22% respectively, far exceeding the European average. Nordic countries are also well above that average of 3.9%, as prisoners serving sentences under 6 months represent 13% of the Norwegian prison population, 11% of the Finnish, 10% of the Danish, and 8% of the Swedish.

- The proposal of abolishing short-term sentences has sparked debates among theoretical jurists and criminologists for contrasting reasons. Franz von Liszt (1851-1919) saw them as counterproductive for "occasional offenders" and insufficiently long for a proper rehabilitation of "reformable offenders."<sup>20</sup> Conversely, abolitionists since the 1970s view their elimination as a step towards dismantling an inherently unjust prison system.

Empirical evidence from countries including Austria, Germany, Greece, and Portugal, which limited the use of short-term sentences in the 1970s and 1980s, especially those under six months, suggests a backlash effect. The initial reduction in prison population was short-lived as judges imposed harsher sentences, leading to an increase in the prison population.<sup>21</sup> This consequence seems to stem from judges feeling obliged to impose longer sentences, particularly when they perceive incarceration as necessary, such as in cases of repeat offenders. The media's role in advocating for harsher punishment can exert similar effects.

These findings suggest that, in the absence of a cultural shift towards rehabilitation and reintegration, abolishing short sentences entails the risk of leading to longer sentences.

At the higher end of the sentence length spectrum, the proportion of inmates serving longer sentences gradually decreases. Specifically, 11.5% are serving sentences of 10 to less than 20 years, 3.0% are serving sentences of 20 years and over, and an additional 3.0% are serving life sentences.

- According to the latest factsheet on *life imprisonment* and the European Convention of Human Rights (ECHR), the European Court of Human Rights deems compatible life imprisonment with the ECHR, as long as prisoners have both a chance of being released and a possibility for their sentences to be reviewed<sup>22</sup>. Therefore, in the countries reporting life sentences in Table 11 of SPACE I report, prisoners face a prescribed maximum sentence duration after which they can apply for parole or an equivalent release mechanism, such as a pardon, or a release on compassionate grounds or through executive clemency.

For instance, in Switzerland, a life-sentenced offender is eligible for parole after 10 or 15 years, depending on circumstances. Similar provisions exist in Denmark (12 years), Germany (15 years), Sweden (10 years, but the sentence can be converted to a fixed sentence after 10 years), Italy (21 or 26 years), France (18 to 22 years), Spain (25 or 35 years), and Belgium (15, 19, or 23 years).

Finally, we note that 2.1% of inmates are subject to security measures (see SPACE I, Table 11 for further details).

- Security measures aim to prevent future crime by incapacitating or treating offenders considered as a high risk to society (*dangerous offenders*), sometimes due to mental disorders. While these measures are generally indeterminate, legislation typically includes control mechanisms that may lead to eventual release. *Recommendation CM/Rec(2014)3* of the Committee of Ministers to Member States concerning dangerous offenders treats them under the denomination of Secure preventive detention and Preventive supervision.

<sup>20</sup> Kempe, D. T. (1969). Franz von Liszt und die Kriminologie. In *Franz von Liszt zum Gedächtnis: zur 50. Wiederkehr seines Todestages am 21. Juni 1919* (pp. 260–280). De Gruyter.

<sup>21</sup> Kuhn, A. (2000). *Detenus: Combien? Pourquoi? Que faire?* Haupt.

<sup>22</sup> <https://rm.coe.int/thematic-factsheet-life-imprisonment-eng/1680ab3b93>.

The application of security measures varies across countries. In Belgium, for example, inmates declared irresponsible by the court are treated in forensic psychiatric centres separate from the prison administration and are not included in the total inmate count. In contrast, the Czech Republic's forensic detention facilities fall under the prison administration, and individuals within them are included in the total inmate count. Portugal applies security measures to individuals found irresponsible, housing them in psychiatric institutions or hospitals that can be inside or outside prison facilities, but counting them in both cases as inmates under the responsibility of the prison administration.

Ten countries provided figures on inmates under security measures, 13 indicated having no inmates under such measures, while the remaining countries stated these measures do not exist within their system. The true absence of these measures in the 13 countries reporting zero inmates remains uncertain. If that absence means in fact that security measures do not exist in their legal system (*i.e.*, the answer should have been not applicable instead of non-available) the average percentage of inmates under such measures would increase to around 6% from the current 2.1%. On a final note for this section, let us remark that several countries, including Belgium, Denmark, Italy, and Switzerland, implement both indeterminate measures and life imprisonment with the possibility of parole.

### Sentenced prison population: Breakdown by main offence

Figure 7 presents an analysis of the population of sentenced prisoners in Europe, distributed by the principal offence for which they have been convicted. The offence categories include drug offences, theft, homicide (including attempts), robbery, assault and battery, sexual offences, rape, road traffic offences, economic and financial offences, and other miscellaneous crimes.

- Criminology research uses one of two methods to determine the distribution of sentenced prisoners by offence: the principal offence rule or the count-all-offences rule. Under the principal offence rule, only the most severe crime is considered in instances where an individual is convicted of multiple offences. Typically, the severity of an offence is judged by the maximum penalty defined by law. This approach provides a streamlined, but simplified, overview of the crime distribution among prisoners, emphasising the most serious crimes leading to convictions. However, it can inadvertently underrepresent less severe but frequently associated crimes.

On the other hand, the count-all-offences rule involves acknowledging all offences that an individual has been convicted of, without prioritising their severity. This method offers a more holistic understanding of the crime distribution known by the latest stage of the criminal justice system, considering both minor and major offences. However, it introduces the issue of *double-counting*, where individuals convicted of multiple crimes are counted more than once.

The SPACE I questionnaire asks to Council of Europe member states to provide their distribution of sentenced prisoners applying the principal offence rule. This method is also commonly employed by most of those states for their prison statistics. Yet, certain PAs—namely Belgium, Latvia, Malta, Monaco, and Türkiye—deviate from this rule and count all offences.

Figure 7 shows that drug offences are the most common main conviction among prisoners, with these offenders constituting 19% of the total sentenced population. Theft-related convictions form the second largest category, with a proportion of 15%, closely followed by homicide, including attempted homicide, at 14%. Sexual offences (including rape), robbery and assault and battery crimes make up the next significant proportions, at 11%, 11% and 10% respectively. The categories of road traffic offences, and economic or financial offences comprise a smaller percentage of the overall prison population, with figures at 4.6%, and 3.9% respectively. All other offences under criminal law contribute to 11% of the total sentenced population.

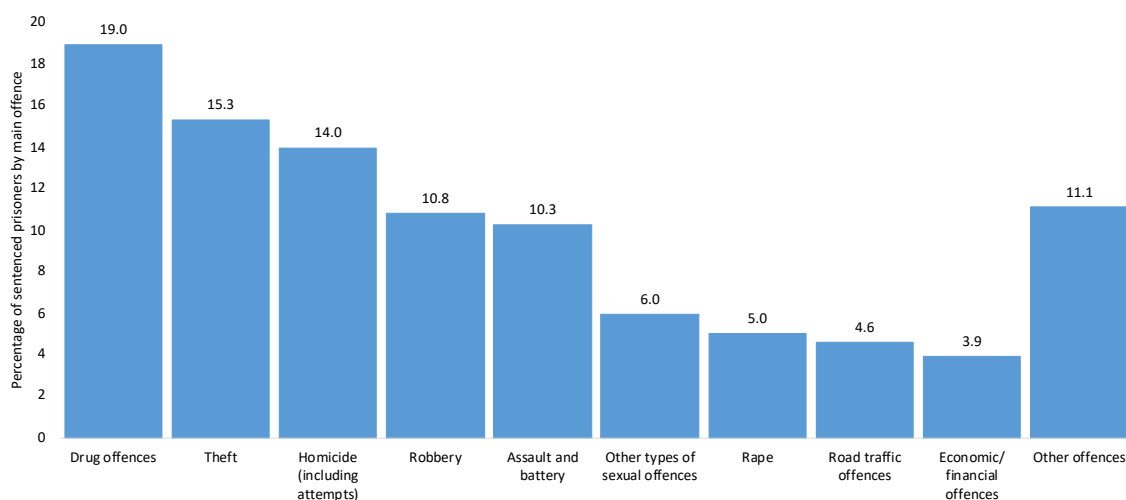
A significant insight here is the prominence of violent crimes in prison populations, with homicide, robbery, assault and battery, and sexual offences (including rape) collectively accounting for around 46% of the total offences. This highlights the critical impact of violent crime on prison populations.

Furthermore, the fact that drug offences account for the highest proportion of prisoners suggests potential underlying issues of widespread drug misuse in the European population. This indirectly influences organized crime, primarily through drug trafficking, a subject we will delve into later in this section.

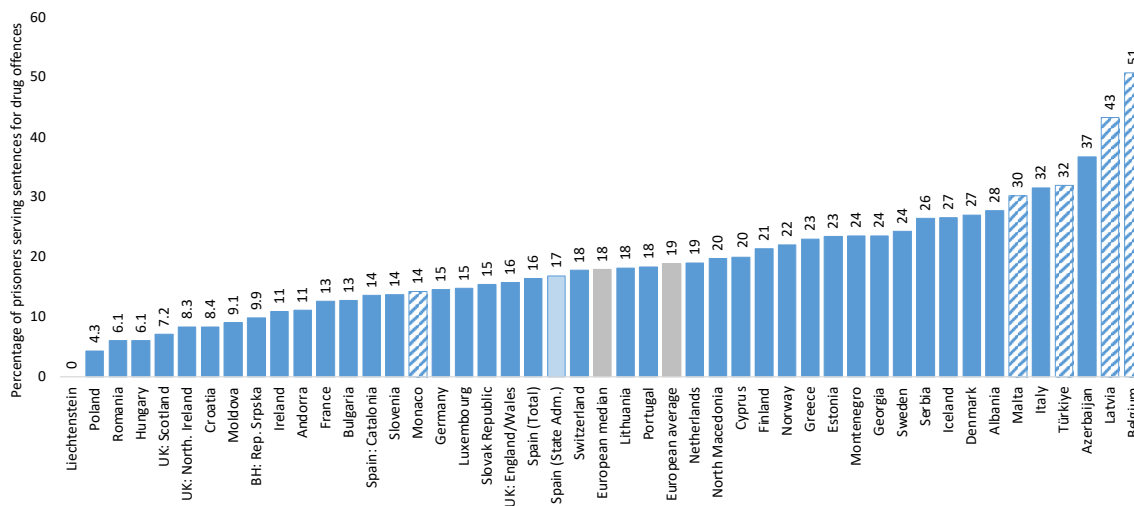
Cumulatively, violent and drug offences represent two thirds of the crimes for which European prisoners are serving sentences. The remaining third comprises a variety of offences, with each category representing a relatively small percentage of the sentenced prison population.



**Figure 7. Breakdown of sentenced prisoners by principal offence on 31 January 2022, in percentages (N=46 PA)**

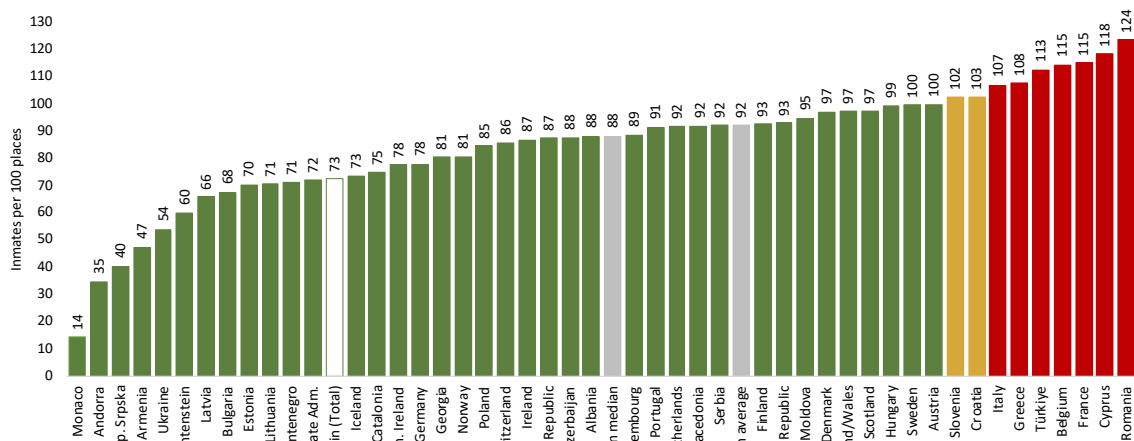


**Figure 8. Percentage of sentenced prisoners serving sentences for drug offences on 31 January 2022 (N=44 PA)**



**Note to Figure 8:** PAs that do not apply the principal offence rule are presented in blue stripes.

**Figure 9. Prison density (number of inmates per 100 detention places) on 31 January 2022 (N=47 PA)**



- The relatively low proportion of the “other offences” category can be attributed to several factors such as the relative frequency of these crimes, the efficacy of preventive measures, and the criminal justice system's approach towards these crimes. The latter might involve favouring penalties like fines, community service, or other non-custodial sentences over imprisonment. This distribution seems to suggest that prison sentences are primarily reserved for the most severe crimes, as recommended by the Council of Europe and fundamental to democratic societies.

Four out of the five PAs that do not apply the principal offence rule provided a comprehensive breakdown of all sentenced prisoners, including those falling into the *other offences* residual category (see SPACE I, Table 8 for further details). These data allow us to calculate the ratio of the number of offences to offenders, thereby illustrating the average number of offences included in each offender's sentence. This ratio varies significantly from country to country. For example, in Belgium, there are 3.4 times more offences than offenders, in Latvia it is 2.4 times, in Malta 2.1 times, and in Monaco 1.6 times. This implies that, on average, every offender sentenced to prison in Belgium is convicted for 3.4 offences, in Latvia for 2.4, in Malta for 2.1, and in Monaco for 1.6. However, the ratios for Malta and Monaco are less reliable due to their comparatively smaller numbers of offences and offenders. Türkiye, on the other hand, did not provide data for the *other offences* residual category, which can often be substantial in some countries, yet still presents a ratio of 1.2.

The impact of both the principal offence rule and the count-all-offences rule is visualised in Figure 8. This figure represents the percentage of prisoners serving sentences for drug offences, which are the principal offences leading to imprisonment in Europe, averaging 19% and presenting a median of 18% of sentenced prisoners. In Figure 8, the countries not applying the principal offence rule are represented with blue stripes. Interestingly, four of these countries fall among the six administrations with the highest percentages of prisoners sentenced for drug offences. Belgium, for instance, has a drug offence rate of 51%, suggesting that—unless some prisoners have been sentenced for more than one drug offence simultaneously—approximately half of Belgium's detainees are serving sentences for drug offences. Surely some of them were imposed together with convictions for other crimes, of which some would entail a longer prison sentence, and that would have made the drug offence disappear from the statistics if the principal offence rule had been applied. Similarly, among countries with populations exceeding one million, 43% of the sentenced prisoners in Latvia and 32% of those in Türkiye had been convicted for drug offences. These are good examples of how both counting rules provide different kinds of relevant information.

The remaining countries, which do not apply the principal offence rule, still display relatively high percentages of prisoners sentenced for drug offences. This pattern raises the hypothesis that the number of prisoners serving sentences that include at least one drug offence could be significantly higher, further emphasising the role of drug misuse and drug trafficking within the European context.

- The challenge posed by drug use and misuse in a Democratic Europe extends to all demographic segments and impacts millions of individuals, arguably making it a top priority for criminal policy. In December 2020, the Council of the European Union adopted a new EU Drugs Strategy for 2021–2025, structured around three pillars: drug supply reduction, drug demand reduction, and harm reduction<sup>23</sup>. This strategy aligns closely with the “four pillars policy” (law enforcement, prevention, therapy, and harm reduction) introduced by Switzerland in 1991 and endorsed by almost 70% of the Swiss population in a 2008 referendum<sup>24</sup>. The resultant decline in drug-related crime and deaths by overdose could serve as a potential blueprint for policymakers in Europe and beyond.

### 2.3. Prison density

Figure 9 ranks 47 PAs according to their prison density on 31 January 2022. The prison density is a measure of how crowded a prison system is. It is expressed as the number of inmates per 100 available places in penal institutions. If the prison density is greater than 100, that means there are more prisoners than available places, indicating overcrowding. Conversely, if the prison density is less than 100, that suggests that there are fewer prisoners than available places, and the prison system is not overcrowded.

- The estimation of the prison density is contingent on the method used to calculate the number of places available in a penal institution. Two main metrics are utilised for this purpose, namely, *design capacity* and *operational capacity*.

<sup>23</sup> <https://data.consilium.europa.eu/doc/document/ST-14178-2020-INIT/en/pdf>.

<sup>24</sup> <https://www.bag.admin.ch/bag/en/home/strategie-und-politik/politische-auftraege-und-aktionsplaene/drogenpolitik.html>

However, each country has its own interpretation and method of calculating these capacities, leading to inconsistencies in cross-country comparisons.

*Design capacity* refers to the number of inmates that a penal institution was originally designed to accommodate. It is typically based on the architect's intended number of occupants for each cell and for the prison as a whole. For example, if a prison was built with 100 cells, each designed to accommodate one inmate, the design capacity of the prison would be 100.

*Operational capacity*, in contrast, is a flexible metric subject to change over time and takes into account additional factors beyond the prison's original design. These factors can include shifts in policy regarding the acceptable number of inmates per cell, modifications to the prison's physical structure, or temporary measures like the use of extra beds in cells or communal spaces. Thus, a prison might have a design capacity of 100 but an operational capacity of 110, for instance.

Utilising the operational capacity metric renders prison density estimations unstable and makes cross-country comparisons highly unreliable. For example, a prison operating at 100% of its operational capacity (prison density=100) may appear suitably populated. Still, if it is operating beyond its design capacity, it should be considered overcrowded. Overcrowding in penal institutions raises concern due to its potential to worsen living conditions (impacting sanitation and privacy), escalate tension or violence among prisoners, and limit prison staff's capacity to effectively manage inmates and deliver appropriate rehabilitation and reintegration programs.

Some countries fix through their national laws the number of square or cubic metres per inmate. The result is similar to that obtain when applying the concept of *design capacity*.

The SPACE questionnaire requests PAs to estimate their number of available places using the design capacity concept, yet several administrations do not employ this method (see SPACE I, Table 15).

Of the 47 PAs included in Figure 9, nine reported a prison density surpassing 100 inmates per 100 places. Among these, two administrations, presented in yellow in the Figure, had a density greater than 100 but less than 105. Seven administrations, highlighted in red, exhibited serious overcrowding with rates exceeding 105 inmates per 100 spaces. The remaining administrations, represented in green, reported no overcrowding, although some are right on the edge of it.

The countries with the most severe overcrowding are Romania (124 inmates per 100 places), Cyprus (118), France (115), Belgium (115), Türkiye (113), Greece (108), and Italy (107). Croatia (103) and Slovenia (102) report slight overcrowding. Austria, Sweden, and Hungary are operating at full capacity with 100, 99.7, and 99.5 inmates per 100 available places, respectively.

**Disclaimer:** We remind that data on prison density and overcrowding should be interpreted with caution since countries employ different counting rules to estimate available places. This discrepancy affects the reliability of cross-country comparisons of prison density.

## 2.4. Prison staff

Figure 10 presents the inmate-to-staff ratios in 47 European PAs. This represents the number of inmates that each staff member is responsible for, which can be an important factor when evaluating prison conditions, staff workload, and the capacity for effective prison management, rehabilitation programs, and safety measures.

- High ratios can burden staff members with excessive workloads, leading to increased stress, burnout, and potentially higher turnover rates. The stability of the prison system could be affected, with potential adverse effects on management quality and the provision of rehabilitation services. Moreover, elevated inmate-to-staff ratios may pose safety risks, as maintaining order and security could become challenging, increasing the likelihood of violence or other disturbances. Furthermore, such ratios could negatively influence the quality of interaction between staff and inmates. Overworked and stressed staff may have less personal and positive interaction with inmates, which could affect inmate behavior and the overall prison climate.

In contrast, prisons with lower inmate-to-staff ratios may experience more efficient operation as staff can allocate more time to administrative tasks, inmate management, rapport building, and problem-solving. This could result in a better-organised and more humane prison environment.

Of all the administrations surveyed, Türkiye reports the highest ratio, with 4.2 inmates per staff member. This means that each staff member is responsible for managing over 4 prisoners. Following Türkiye are Georgia with a ratio of 2.9, and Greece with 2.6.

At the other end of the spectrum, the Republika Srpska in Bosnia and Herzegovina, the Netherlands, Norway, and Sweden have ratios below 1, while Iceland, Ireland, Denmark, and Northern Ireland report a staff-to-inmate ratio of 1. This suggests a more manageable workload for prison staff and potentially better conditions for inmate management and rehabilitation.

The countries reporting the highest inmate-to-staff ratios, such as Türkiye and Georgia, also have the highest prison population rates. Conversely, several countries with the lowest ratios, including the Netherlands, Norway, and Denmark, are also among those with the lowest prison population rates.

- Although this correlation is noteworthy, one must be cautious about drawing causal conclusions. A low ratio can indicate a well-balanced system or successful rehabilitation programs leading to reduced recidivism. It does not simply imply an adequate staff number due to a low inmate population, and vice versa.

It is also crucial to consider the varying definitions and classifications of prison staff across different countries. The term *staff member* can encompass a range of roles, from security personnel to those offering health services, educational instruction, or rehabilitation program coordination, to individuals handling administrative tasks. Consequently, the ratios between non-custodial and custodial staff can vary widely across PAs. Furthermore, among the custodial staff, some individuals might focus exclusively on custody duties, while others might also undertake additional responsibilities.

In this light, Figure 10 shows the median European inmate-to-staff ratio at 1.4. However, the ratio tends to increase when considering specific staff categories. For instance, focusing on custodial staff only, the median European ratio rises to 2.5 inmates per custodian. Further narrowing the scope to custodial staff primarily dedicated to maintaining safety and security within penal institutions, the ratio increases slightly to 2.6 inmates per custodian solely focused on custody (as per the terminology used in the SPACE I questionnaire, please refer to SPACE I, Table 21).

### 3. Flow indicators for the year 2021

#### 3.1. Admissions into penal institutions in 2021

Figure 11 presents the rate of admissions per 100,000 inhabitants in the penal institutions of 46 European PAs during the year 2021. According to the standard definition provided in the SPACE questionnaire, admissions refer to all entries of inmates into penal institutions that are not related to an ongoing detention. The counting unit is the number of admissions. This means that some inmates may contribute multiple admissions within a year if they are detained, released, and subsequently detained again. Cyprus, the Netherlands, Sweden, Switzerland, and Scotland (UK) employ a different definition of admissions incompatible with that of SPACE I. Thus, their rates are non-comparable to the rest and are marked distinctly with a striped pattern (see SPACE I, Table 22)<sup>25</sup>.

For 2021, the 46 PAs documented a total of 1,176,700 admissions. This equates to a European average of 165 admissions per 100,000 inhabitants and a median rate of 148 (see SPACE I, Table 23). Türkiye topped the list with the highest admission rate of 417 per 100,000 inhabitants, contrasting sharply with Portugal and Italy, which recorded some of the lowest rates at 45 and 61, respectively. The considerable range of rates—Türkiye's rate is almost ten times higher than that of Portugal—underscores the extensive variation observed throughout this report across Europe.

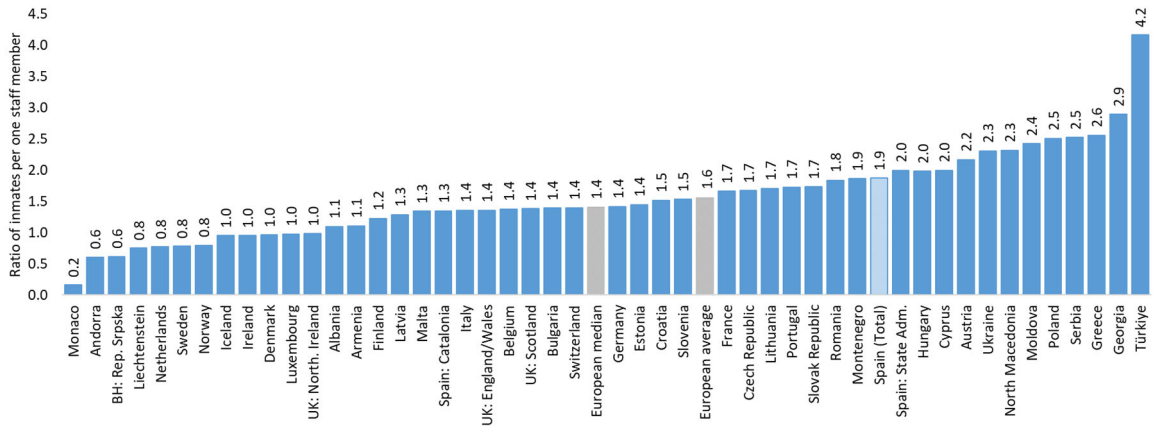
Central and Eastern European countries tend to be overrepresented among administrations reporting higher admission rates, whereas Western countries are slightly more prevalent among those with lower rates. However, several exceptions blur this regional pattern, indicating that it is not consistent.

- It is crucial to keep in mind that these rates simply represent the frequency of prison admissions and are only indirectly related to the effectiveness of a country's criminal justice system or the prevalence of crime. While it is true that

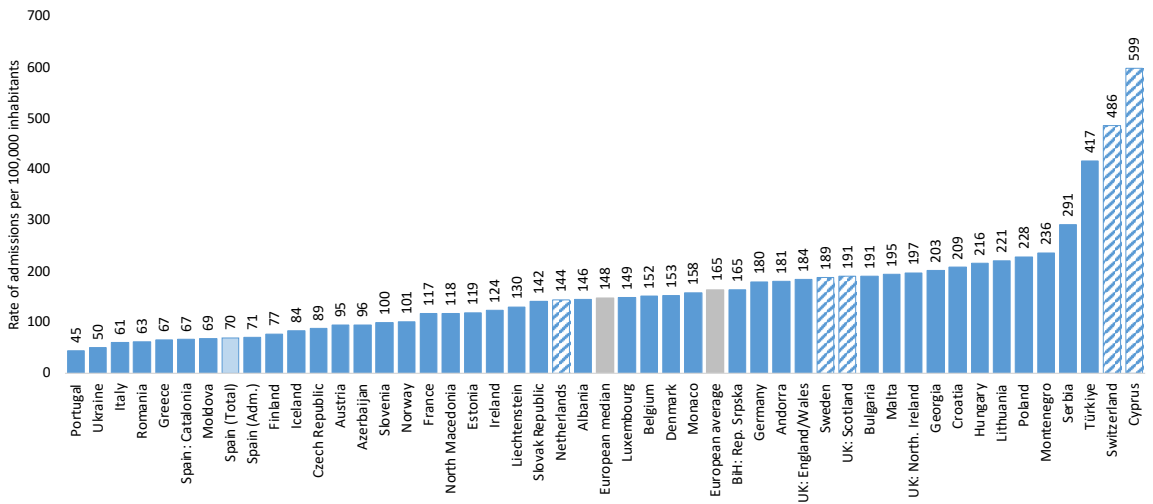
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<sup>25</sup> For example, Switzerland counts as releases and admissions the transfers of inmates from one Swiss penal institution to another, which increases artificially the total number of admissions and releases.

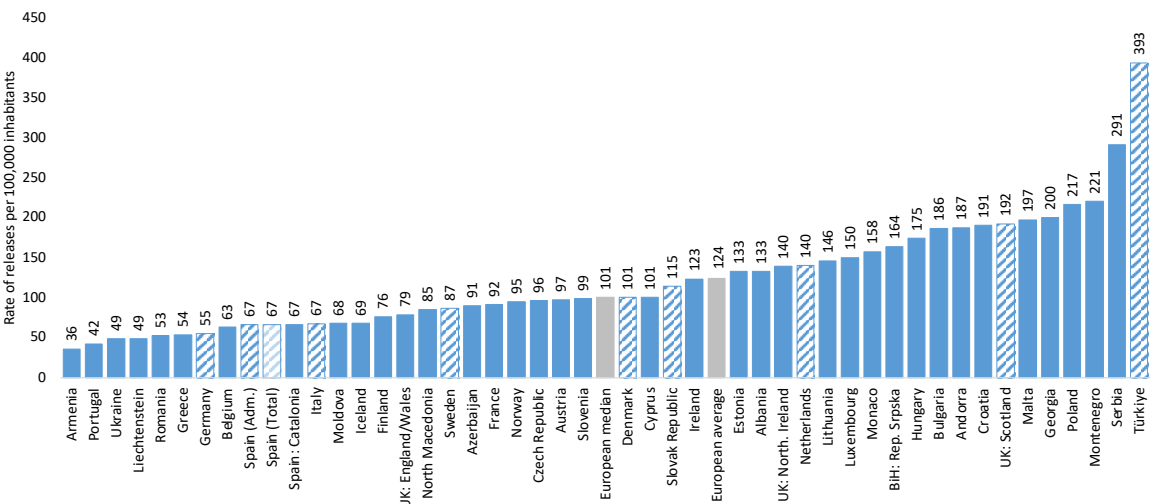
**Figure 10.** Ratio of inmates per one prison staff member on 31 January 2022 (N47 PA)



**Figure 11.** Rate of admissions in penal institutions, per 100,000 inhabitants, during 2021 (N=46 PA)



**Figure 12.** Rate of releases from penal institutions, per 100,000 inhabitants, during 2021 (N=46 PA)



admission rates decreased during the first year of the pandemic due to lockdown-induced crime reduction<sup>26</sup>, these circumstances were exceptional and usually the relation between both rates is much more complex and indirect.

Similarly, the relation with the prison population rates presented in Figure 1 is complex and inconsistent across countries. For instance, Türkiye records high rates for both prison population and admissions, and Norway low values for both; but Spain and Portugal show low admission rates despite having prison population rates above the average and median. In sum, no consistent correlation exists between the prison population rate and the rate of admissions across all countries. Yet, assessing both rates in conjunction can yield valuable insights into the average length of detention. This metric will be explored in Figure 13, following an analysis of release rates in Figure 12.

### 3.2. Releases from penal institutions in 2021

In the SPACE questionnaire, exits from penal institutions include releases, deaths, and escapes. These three types of exits are not necessarily registered using the same counting unit (the person, the incident, etc.); however, if one produces an artificial total by adding them, deaths and escapes account for less than 1% of all exits. All other exits are due to releases from penal institutions. Consequently, we will concentrate herein on them.

Figure 12 presents the rate of releases per 100,000 inhabitants in the penal institutions of 46 European PAs during the year 2021. Releases—like admissions—refer to all releases of inmates from penal institutions that are not related to an ongoing detention (transfers, for example, are not included), meaning an individual can be released more than once throughout the year. Germany, the State Administration of Spain, Italy, Sweden, Denmark, the Slovak Republic, the Netherlands, Scotland (UK) and Türkiye reported using a different definition of exits. Thus, their rates are non-comparable to the rest and are marked distinctly with a striped pattern (see SPACE I, Table 22)<sup>27</sup>.

As expected, the rates of admissions and exits per 100,000 inhabitants vary significantly between the countries. However, for most of the countries, the rates of exits are fairly close to the rates of admissions. This can be appreciated, for example, in the similar ranking of PAs in Figures 11 and 12. This pattern suggests a certain degree of consistency in each prison system. Theoretically, the inmate turnover—that will be estimated empirically later—might be high, with many individuals entering and leaving the prison system within the year, but the overall prison population might remain stable. Conversely, significant discrepancies between the admission and exit rates should logically suggest (a) a growing prison population (if admissions outpace exits) or (b) a shrinking one (if exits outpace admissions). The second scenario was observed in the previous 2021 SPACE report, which contains flow data for 2020, the first year of the COVID-19 pandemic.

### 3.3. Average length of imprisonment

Figure 13 provides an indicator of the average length of imprisonment (IALI), in months, across 46 European PAs in 2021. This is an estimate of the duration for which individuals, on average, are incarcerated.

- Research suggests that lengthy detentions are usually correlated with the punitiveness of a criminal justice system or with its slowness. Swift criminal justice systems are characterised by short criminal procedures, while the less punitive criminal justice systems tend to impose short sentences and facilitate the liberation of inmates. Moreover, there is consensus that an effective approach to reducing prison population rates is to diminish the duration of incarceration.

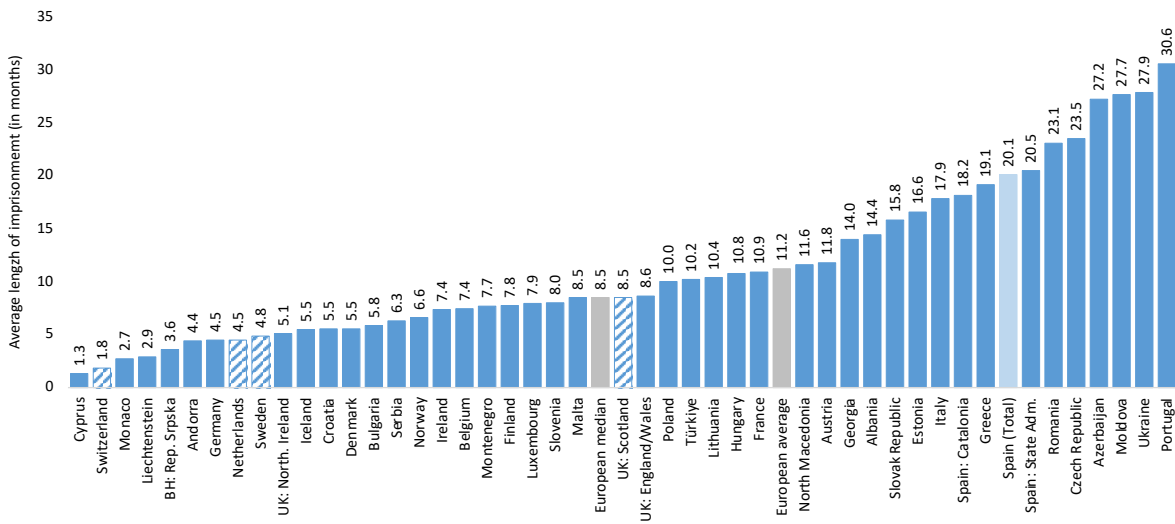
The SPACE questionnaire asks for the *number of days spent in penal institutions* during the year of reference (2021), which corresponds to the sum of the days—in practice, most countries count the number of overnights—spent in any penal institution by every inmate. Dividing that number by 365 (366 in leap years), one obtains the *average number of inmates* during that year. Combining these two measures one can obtain an indicator or the average length of imprisonment (IALI). However, as some countries do not provide data on the number of days spent in penal institutions—or provide a figure that does not seem reliable—an alternative indicator of the average length of imprisonment can be estimated using the stationary population model applied in demography. According to the latter, the stock is the product of the flow multiplied by the

<sup>26</sup> Aebi, M. F., Cocco, E., Molnar, L. & Tiago, M. M. (2022). *Prisons and Prisoners in Europe 2021: Key Findings of the SPACE I report*. Series UNILCRIM 2022/3. Council of Europe and University of Lausanne.

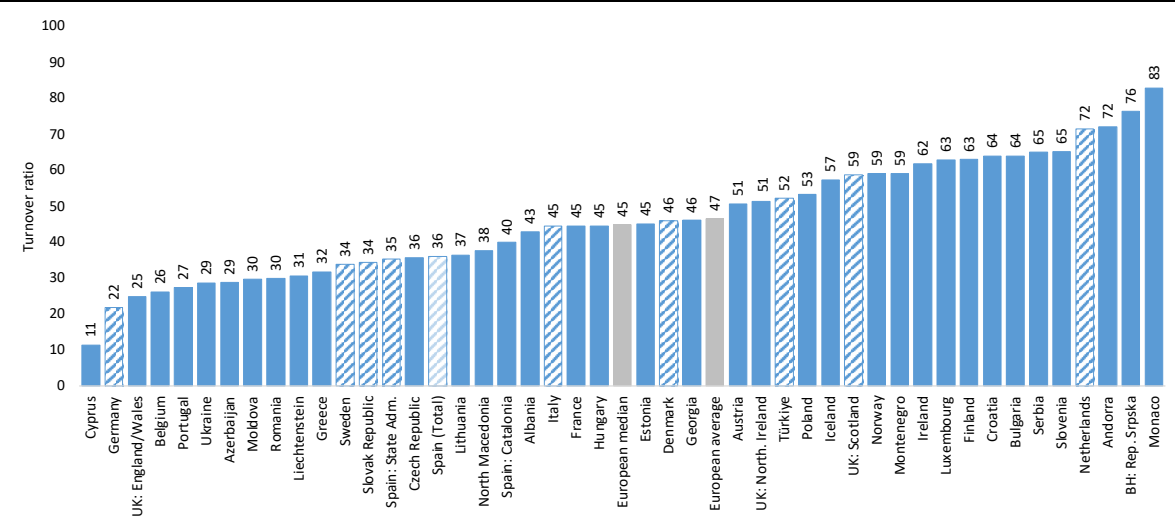
<sup>27</sup> For example, Switzerland counts as releases and admissions the transfers of inmates from one Swiss penal institution to another, which increases artificially the total number of admissions and releases.



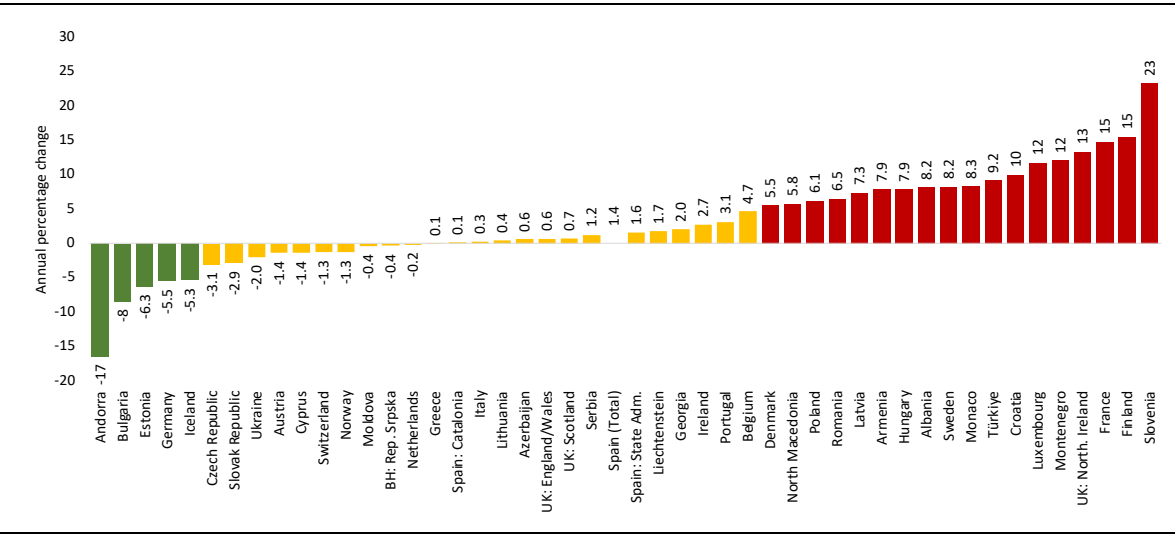
**Figure 13. Average length of imprisonment in 2021, based on the stock and flow of inmates (N=46 PA)**



**Figure 14. Turnover ratio in 2021 (N=44 PA)**



**Figure 15: Annual percentage change in prison population rates: 2022 compared to 2021 (N=47 PA)**



length. Applying the division property of equality, this means that the length is the quotient of the stock (on 31 January 2022) divided by the flow of admissions (in 2021) and multiplied by 12 to express it in months (see SPACE I, Part E for further details). This indicator remains an estimate and must be interpreted cautiously because the counting unit for the stock is the person and that for the flow is the admission. However, it provides estimates that are usually quite close to those obtained with the original formula while allowing for the inclusion of a larger number of PAs. This year, for instance, the IALI according to the original formula indicates 10.7 months, against 11.2 with the formula based on the stock and flow.

The average length of imprisonment across all surveyed European countries is approximately 11.2 months, with a median of 8.5 months. This suggests that the average imprisonment length for most countries is close to this range, although there are outliers that considerably shift the mean.

Once again, Switzerland, Sweden, the Netherlands, and Scotland are illustrated in a striped pattern, as their definition of flow (utilised to estimate the IALI) does not align with that of SPACE I. Consequently, their estimated imprisonment durations are not comparable with those of the other prison administrations (see SPACE I, Table 22).

Prison Administrations (PAs) with a long average imprisonment duration (over 25 months) include Portugal, Ukraine, Moldova, and Azerbaijan. On the other hand, PAs with the shortest average sentences (under 6 months) are Cyprus, the Republika Srpska in Bosnia and Herzegovina, Germany, Northern Ireland, Croatia, Denmark, and Bulgaria. No definitive regional patterns are evident, as nations within the same geographical area exhibit different average imprisonment lengths. For instance, among the 10 PAs with the longest average incarceration durations, there are three from Mediterranean, Central, and Eastern regions.

When Figure 13's IALI is compared with the prison population rates shown in Figure 1, no obvious correlation is discernible. However, a distinct pattern appears to surface: PAs with the shortest incarceration lengths tend to have lower prison population rates, while those with longer sentences often display medium-to-high prison population rates.

### 3.4. Turnover ratio

The turnover ratio is an estimation of the release rate per 100 potential releases, essentially the proportion of actual releases from the total number of potential releases. It is calculated using raw data: the prison population (stock), the number of admissions (flow of admissions) and the number of releases (flow of releases). Specifically, the sum of the stock on 31 January 2021 (taken from SPACE I 2021) and the flow of admissions throughout the year provides an estimate of the total number of who are potentially due for release in 2021. This figure is then juxtaposed with the actual number of releases that took place during the year. A low turnover ratio (below 50%) suggests extended periods of detention and could thus be seen as an early warning sign of the risk of prison overcrowding (See SPACE I, Table 27).

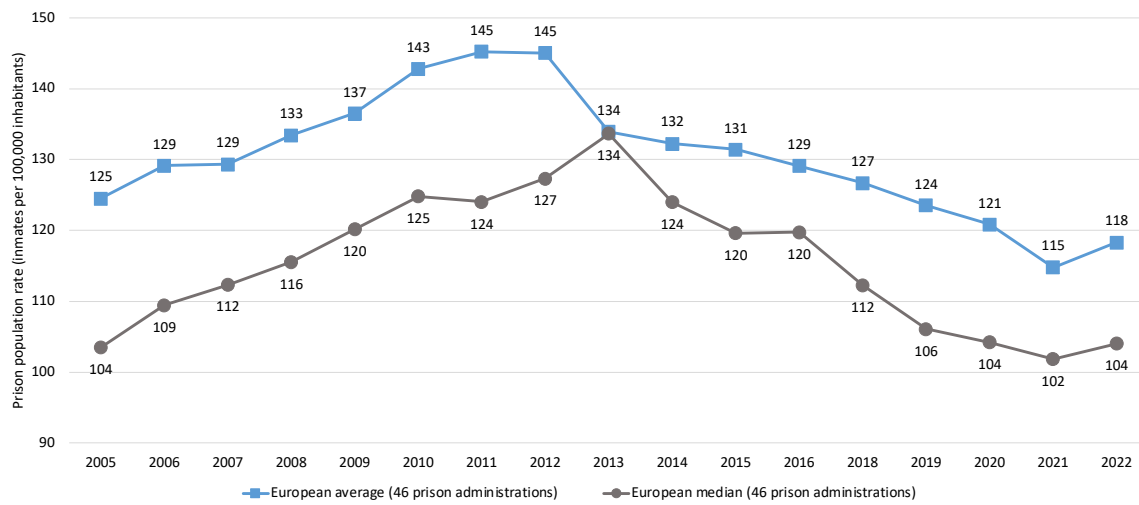
Figure 14 reveals that the average turnover ratio for the European prison population in 2021 stood at 47%. PAs with definitions of admissions or releases that do not concur with those of SPACE I are represented in a striped pattern, indicating that their turnover ratios are not comparable with those of the other PAs (see SPACE I, Table 22).

Generally, an emerging trend is noticeable when examining countries with a population of exceeding one million and comparing their turnover ratio with their prison population rates. With a few deviations, countries exhibiting the lowest turnover ratios tend to have high or exceedingly high prison population rates, and the converse is also true.

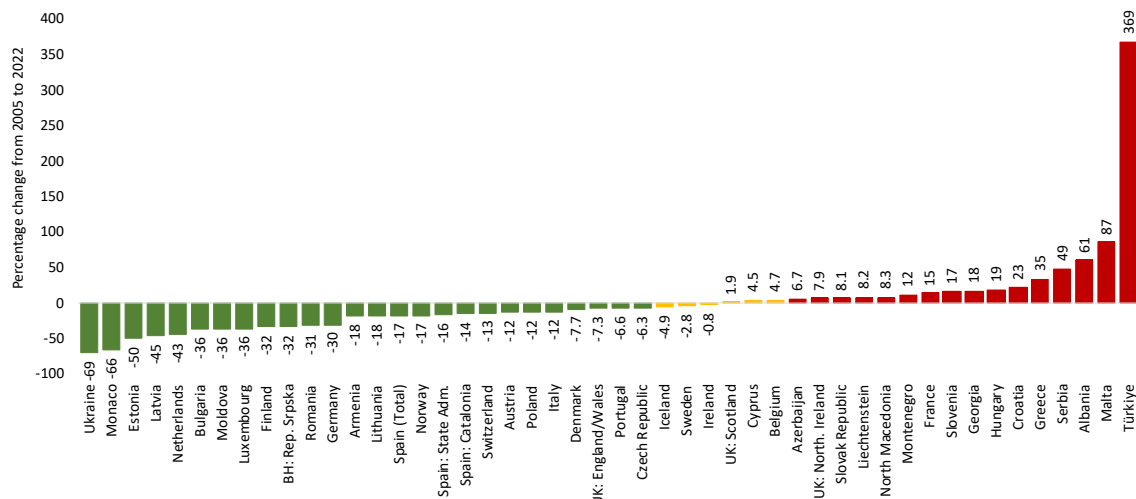
## 4. Trends from 2005 to 2022

Figure 15 presents the annual variation of the prison population rate, from 31 January 2021 to 31 January 2022, across 47 PAs. Of the nations with a population exceeding one million, only three (Bulgaria, Estonia, and Germany) reported a noteworthy decrease (greater than -5%) in their prison population rate. Conversely, 24 countries maintained stable prison population rates, while 18 experienced a substantial increase (exceeding 5%).

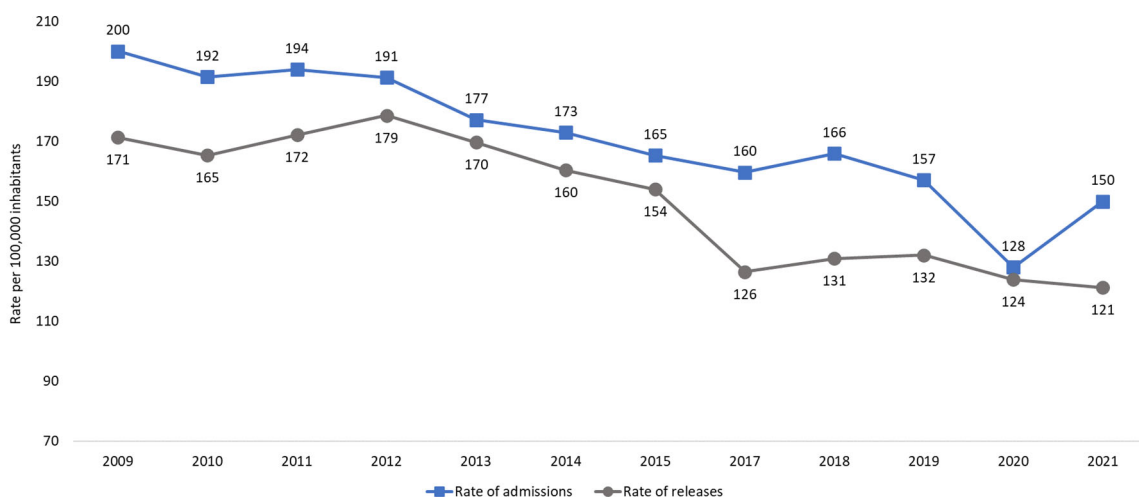
**Figure 16. Trends in prison population rates from 2005 to 2022 (N=46 PA)**



**Figure 17. Percentage change in prison population rates from 2005 to 2022 (N=47 PA)**



**Figure 18. Trends in admissions and releases rates from 2009 to 2022 (N=37 PA): European average rate**



This pattern starkly contrasts the trend observed from 31 January 2020 to 31 January 2021. As highlighted in the introduction, the overall upward trajectory aligns with the bounce-back effect from the COVID-19 related lockdowns implemented in 2020. Therefore, even though additional year-on-year comparisons are available in Section 5 of this report, we chose to focus this section on the trends noticed from 2005 to 2022. This approach provides a broader context, facilitating a more comprehensive understanding of the pandemic's impact.

Figure 16 presents the average and median prison population rates per 100,000 inhabitants for 46 PAs spanning 2005 to 2022. The average European prison population rate shows a general decline since 2011. The year 2005 had an average of 125, which rose steadily until it peaked in 2011 at 145. This high was followed by a steep decline to 134 in 2013. Subsequently, the average rate has experienced a slow, somewhat consistent decrease, intensified slightly in 2021 due to the effects of COVID-19 related lockdowns. Therefore, the minor increase to 118 in 2022 reflects the return to a relative normality—in social life and in the functioning of the criminal justice system—and exemplifies the phenomenon known as statistical regression to the mean often noted by statisticians specialized in the natural, social or life sciences. Indeed, the 2022 rate remains lower than that of 2020, suggesting the continuation of the consistent decline observed since 2011.

The median rate's trend mirrors that of the average to some extent, albeit with minor deviations. It reached a high in 2012, a year later than the average, at 134 but dropped sharply to 124 in 2014. It then fell to its lowest at 102 in 2021 but, akin to the average, experienced a slight increase to 104 in 2022 due to the same COVID-19 related factors, aligning it with its 2020 level.

Overall, both average and median rates reveal that over these years, European nations have witnessed a decline in the proportion of their total populations in prison. Figure 17, which showcases the percentage change in prison population rates from 2005 to 2022 for 47 PAs, provides further clarity. A majority of PAs (26 out of 47) have seen a significant drop in prison population rates, while 16 PAs have recorded a considerable increase.

Among countries with populations exceeding one million, Estonia, Latvia, the Netherlands, Bulgaria, and Moldova lead the group with the steepest reductions (-50%, -45%, -43%, -36%, and -36% respectively). On the other hand, notable spikes were observed in Türkiye (369%), Albania (61%), Serbia (49%), and Greece (35%).

To conclude, although the majority of the analysed countries experienced a decline in prison population rates between 2005 and 2022, a significant proportion saw increases, sometimes substantial. These trends likely reflect a complex matrix of societal, economic, legislative, and law enforcement changes over this period. These trends can be compared with admission and release rates from penal institutions—data available from 2009 when SPACE initiated its data collection on releases—as illustrated in Figure 18. Admissions have consistently been on the decline from 2009 to 2022, while releases followed a similar pattern from 2012.

As emphasized in the Introduction, understanding prison population rates—and their trends—requires a nuanced and comprehensive analysis of many potential factors. In that perspective, the downward trend in admissions coincides with a period of decreasing offline traditional crime rates. For instance, in the UK and the USA, offline crime has generally been declining since the early 1990s. In continental Europe, homicide and property offenses began to decrease around the same time, but for the rest of the offline offenses, the downturn began nearly two decades later in most countries.

Concurrently, it is indisputable that the frequency of online offenses, or cybercrimes, has been steadily increasing since the advent of the internet in 1992, and more significantly since the introduction of smartphones in 2007. However, data on these offenses is not easily accessible, and although they may currently represent between one-third and half of all offenses, inmates convicted for them constitute a minuscule fraction of all inmates. This disparity is not solely attributable to a low clearance rate, but also to the fact that many offenders are convicted for “traditional” offenses such as fraud, with an often overlooked cyber component not reflected in prison statistics.

Additionally, the period of declining prison population rates coincides with the financial crisis that started in 2008. In that context, criminological theories present conflicting predictions. Marxist criminologists posit that economic crises should trigger an increase in prison population rates. Conversely, criminologists influenced by opportunity-based theories argue that growing economies create more opportunities, thus increasing crime and, indirectly, prison population rates. This further suggest that economic crises, at least in economically developed

countries, diminish opportunities and consequently should result in fewer crimes and a decrease in prison population rates.

The data presented in this report leans toward the latter hypothesis. However, rigorous testing of this hypothesis would necessitate more intricate analyses and supplementary data—particularly economic indicators.

## 5. Overview of the main indicators by country

Table 1 shows the relative position of each European prison administration according to their score in a series of selected indicators. The prison administrations are divided in five clusters according to their score on each of these indicators:

1. **Very high:** This cluster includes the prison administrations whose score is more than 25% higher than the European median value.
2. **High:** This cluster includes the prison administrations whose score is between 5.1% and 25% higher than the European median value.
3. **Close:** This cluster includes the prison administrations whose score is similar (*i.e.*, between -5% and +5%) to the European median value.
4. **Low:** This cluster includes the prison administrations whose score is between 5.1% and 25% lower than the European median value.
5. **Very Low:** This cluster includes the prison administrations whose score is more than 25% lower than the European median value.

For each indicator, both Tables specify the number of prison administrations (PA) for which data are available (e.g., the prison population rate is available for 48 PA, but the average age of the prison population is available only for 42 of them). This is due to the fact that there are countries that did not provide data for every indicator. Three countries (Bosnia and Herzegovina, Spain and the United Kingdom) have more than one prison administration. Consequently, each prison administration is mentioned separately in Table B, except when all of them are in the same cluster. In this case, only the name of the country is mentioned.

**Table 1.** Ranking of countries according to the main prison indicators, 2022 and 2021<sup>28</sup>

	Very high (The score is more than 25% higher than the European median value)	High (The score is between 5.1% and 25% higher than the European median value)	Medium (The score is close to the European median value: i.e., between -5% and +5%)	Low (The score is between 5.1% and 25% lower than the European median value)	Very low (The score is more than 25% lower than the European median value)	No data available
<b>STOCK indicators on 31<sup>st</sup> January 2022</b>						
<b>Prison population rate per 100,000 inhabitants (N=48)</b>	Türkiye, Georgia, Azerbaijan, Hungary, Lithuania, Poland, Slovak Republic, Albania, Czech Republic, Latvia, Estonia, Moldova, Serbia, Montenegro, Malta, UK: Scotland, UK: England & Wales.	Spain state administration, Romania, Portugal, Ukraine, North Macedonia.	France, Greece, Spain (Catalonia).	Luxembourg, Croatia, Belgium, Austria, Bulgaria, Italy, UK: Northern Ireland.	Ireland, Sweden, Switzerland, Armenia, Denmark, Germany, Slovenia, Cyprus Andorra, Norway, Netherlands, Finland, BiH: Rep. Srpska, Iceland, Monaco, Liechtenstein.	BiH: State level and Fed. of BiH, San Marino.
<b>N</b>	16	6	3	7	16	
<b>% of female inmates in the prison population (N= 47)</b>	Monaco, Andorra, Cyprus, Malta, Latvia, Iceland, Czech Republic, Hungary, Slovak Republic, Finland, Spain, Portugal.	Austria, Switzerland, Sweden, Moldova, Germany, Norway, Luxembourg, Slovenia.	Croatia, Ukraine, Netherlands, Greece.	Poland, UK: Northern Ireland, Estonia, Belgium, Denmark, Romania, Lithuania, Serbia, Italy, UK: England & Wales, Türkiye.	Ireland, Bulgaria, UK: Scotland, Georgia, France, Montenegro, North Macedonia, Armenia, Azerbaijan, BiH: Rep. Srpska, Albania.	BiH: State level and Fed. of BiH, Liechtenstein, San Marino.
<b>N</b>	13	8	4	11	11	
<b>% of foreign inmates in the prison population (N= 45)</b>	Monaco, Liechtenstein, Luxembourg, Switzerland, Andorra, Greece, Cyprus, Austria, Malta, Belgium, Estonia, Italy, Spain, Slovenia, Denmark, Germany, France, Norway, Iceland, Netherlands.	Finland.	Ireland, Montenegro.	Portugal, UK: England & Wales, Croatia.	UK: Northern Ireland, Hungary, Czech Republic, North Macedonia, Georgia, Armenia, Türkiye, Serbia, Bulgaria, Lithuania, Slovak Republic, Poland, Albania, Azerbaijan, Latvia, BiH: Rep. Srpska, Moldova, Romania.	BiH: State level and Fed. of BiH, San Marino, Sweden, Ukraine, UK: Scotland.
<b>N</b>	21	1	2	3	18	
<b>% of inmates aged 50 or over in the prison population (N= 43)</b>	Liechtenstein, Italy, Spain state administration, Portugal, Norway, Monaco, Estonia.	Iceland, Bulgaria, Greece, Netherlands, Hungary, Andorra, Romania, UK: Scotland.	Spain (Catalonia), UK: England & Wales, Belgium, Slovak Republic, Poland, Austria, Georgia, Czech Republic, UK: Northern Ireland, Germany.	North Macedonia, Ireland, Cyprus, Latvia, Malta, Luxembourg, Finland, Serbia, Sweden, Türkiye, France, Denmark, Albania.	BiH: Rep. Srpska, Slovenia, Lithuania, Montenegro, Moldova.	Armenia, Azerbaijan, BiH: State level and Fed. of BiH, Croatia, San Marino, Switzerland, Ukraine.
<b>N</b>	7	8	10	13	5	

<sup>28</sup> Inside each cell of Table B, countries are ranked in descending order according to their rate or percentage in the corresponding variable. For example, in the first cell, Türkiye is presented first because it has the highest prison population rate (355.2 per 100,000 inhabitants), followed by the Georgia (236.6 per 100,000 inhabitants), Azerbaijan (216.8 per 100,000 inhabitants), and so on.



	<b>Very high</b> (The score is more than 25% higher than the European median value)	<b>High</b> (The score is between 5.1% and 25% higher than the European median value)	<b>Medium</b> (The score is close to the European median value: i.e., between -5% and +5%)	<b>Low</b> (The score is between 5.1% and 25% lower than the European median value)	<b>Very low</b> (The score is more than 25% lower than the European median value)	<b>No data available</b>
<b>% of inmates not serving a final sentence in the prison population (N= 48)</b>	Liechtenstein, Monaco, Albania, Armenia, Luxembourg, Andorra, Switzerland, Netherlands, Montenegro, UK: Northern Ireland, Denmark, Belgium, Ukraine, Croatia, Malta.	Italy, UK:Scotland, Serbia, France, Slovenia, Sweden.	Cyprus, Latvia, Azerbaijan, Finland, Greece, Hungary.	Ireland, Georgia, Iceland, BiH: Rep. Srpska, Austria, Germany, Norway, Estonia.	Portugal, Moldova, Bulgaria, Spain, UK: England & Wales, Slovak Republic, Türkiye, Poland, Romania, Lithuania, North Macedonia, Czech Republic.	BiH: State level and Fed. of BiH, San Marino.
<b>n</b>	15	6	6	8	13	
<b>Prison density per 100 places (N= 46)</b>	Romania, Cyprus, France, Belgium, Türkiye.	Greece, Italy, Croatia, Slovenia, Austria, Sweden, Hungary, UK: Scotland, UK:England & Wales, Moldova, Czech Republic, Finland.	Serbia, North Macedonia, Netherlands, Portugal, Luxembourg, Albania, Azerbaijan, Slovak Republic, Ireland, Switzerland, Poland.	Norway, Georgia, Germany, UK: Northern Ireland, Iceland, Spain, Montenegro, Lithuania, Estonia, Bulgaria.	Latvia, Liechtenstein, Ukraine, Armenia, BiH: Rep. Srpska, Andorra, Monaco.	BiH: State level and Fed. of BiH, Denmark, Malta, San Marino.
<b>N</b>	5	12	11	11	7	
<b>Ratio of inmates per one staff member (N= 47)</b>	Türkiye, Georgia, Greece, Serbia, Poland, Moldova, North Macedonia, Ukraine, Austria, Cyprus, Spain (State Adm.), Hungary, Spain (Total), Montenegro, Romania.	Slovak Republic, Portugal, Lithuania, Czech Republic, France, Slovenia, Croatia.	Estonia, Germany, Switzerland, Bulgaria, UK: Scotland, Belgium, UK: England & Wales, Italy, Spain (Catalonia), Malta.	Latvia, Finland, Armenia, Albania.	UK: Northern Ireland, Luxembourg, Denmark, Ireland, Iceland, Norway, Sweden, Netherlands, Liechtenstein, BiH: Rep. Srpska, Andorra, Monaco.	Azerbaijan, BiH: State level and Fed. of BiH, San Marino.
<b>N</b>	14	7	10	4	12	

\*When the table only indicates « Spain » it means that the classification is the same for Spain (State Administration), Spain (Catalonia) and Spain (total).

	Very high (The score is more than 25% higher than the European median value)	High (The score is between 5.1% and 25% higher than the European median value)	Medium (The score is close to the European median value, i.e. between -5% and +5%)	Low (The score is between 5.1% and 25% lower than the European median value)	Very low (The score is more than 25% lower than the European median value)	No data available
<b>FLOW indicators for the year 2021</b>						
<b>Rate of admissions per 100,000 inhabitants in 2021 (N= 46)</b>	Cyprus, Switzerland, Türkiye, Serbia, Montenegro, Poland, Lithuania, Hungary, Croatia, Georgia, UK: Northern Ireland, Malta, Bulgaria, UK: Scotland, Sweden.	UK: England & Wales, Andorra, Germany, BiH: Rep. Srpska, Monaco.	Denmark, Belgium, Luxembourg, Albania, Netherlands.	Slovak Republic, Liechtenstein, Ireland, Estonia, North Macedonia, France.	Norway, Slovenia, Azerbaijan, Austria, Czech Republic, Iceland, Finland, Spain, Moldova, Greece, Romania, Italy, Ukraine, Portugal.	Armenia, BiH: State level and Fed. of BiH, Latvia, San Marino.
N	15	5	5	6	15	
<b>Rate of releases per 100,000 inhabitants in 2021 (N= 46)</b>	Türkiye, Serbia, Montenegro, Poland, Georgia, Malta, UK: Scotland, Croatia, Andorra, Bulgaria, Hungary, BiH: Rep. Srpska, Monaco, Luxembourg, Lithuania, Netherlands, UK: Northern Ireland, Albania, Estonia.	Ireland, Slovak Republic.	Cyprus, Denmark, Slovenia, Austria, Czech Republic.	Norway, France, Azerbaijan, Sweden, North Macedonia, UK: England & Wales, Finland.	Iceland, Moldova, Italy, Spain, Belgium, Germany, Greece, Romania, Liechtenstein, Ukraine, Portugal, Armenia.	BiH: State level and Fed. of BiH, Latvia, San Marino, Switzerland.
N	19	2	5	7	13	
<b>Suicide rate per 10,000 inmates in 2021 (N= 45)</b>	Malta, Estonia, Slovenia, Latvia, Finland, BiH: Rep. Srpska, Germany, Austria, Norway, France, UK: Scotland, Luxembourg, Spain (Spain (Catalonia)), Armenia, Netherlands, Switzerland, Denmark, Slovak Republic.	UK: England & Wales, Montenegro, Italy.	Portugal, Moldova, Ukraine, Belgium.	Spain (State Administration)	Serbia, Czech Republic, Lithuania, Azerbaijan, Croatia, Hungary, North Macedonia, Albania, Romania, Greece, Georgia, Poland, Sweden, Türkiye, Monaco, Liechtenstein, Iceland, Cyprus, Andorra.	BiH: State level and Fed. of BiH, Bulgaria, Ireland, San Marino, UK: Northern Ireland.
n	18	3	4	1	19	
<b>Rate of escapes per 10,000 inmates in 2021(N= 46)</b>	Luxembourg, Finland, Netherlands, North Macedonia, Switzerland, Sweden, Denmark, Austria, France, Lithuania, Croatia, Ireland, Germany, Montenegro, Norway, Italy, Portugal, Spain (Catalonia), Belgium, Moldova, Greece, Armenia.		Ukraine, Spain (State Administration).	Latvia.	Hungary, Romania, UK: England & Wales, Czech Republic, Türkiye, Poland, UK: Scotland, UK: Northern Ireland, Slovenia, Slovak Republic, Monaco, Malta, Liechtenstein, Iceland, Georgia, Estonia, Cyprus, BiH: Rep. Srpska, Azerbaijan, Andorra, Albania.	BiH: State level and Fed. of BiH, Bulgaria, San Marino, Serbia.
n	22	0	2	1	21	
<b>Average length of imprisonment, in months [based on the stock and flow] (N= 46)</b>	Portugal, Ukraine, Moldova, Azerbaijan, Czech Republic, Romania, Spain, Greece, Italy, Estonia, Slovak Republic, Albania, Georgia, Austria, North Macedonia, France, Hungary.	Lithuania, Türkiye, Poland.	UK: England & Wales, UK: Scotland, Malta.	Slovenia, Luxembourg, Finland, Montenegro, Belgium, Ireland, Norway.	Serbia, Bulgaria, Denmark, Croatia, Iceland, UK: Northern Ireland, Sweden, Netherlands, Germany, Andorra, BiH: Rep. Srpska, Liechtenstein, Monaco, Switzerland, Cyprus.	Armenia, BiH: State level and Fed. of BiH, Latvia, San Marino.
n	18	3	3	7	15	

\*When the table only indicates « Spain » it means that the classification is the same for Spain (State Administration), Spain (Catalonia) and Spain (total).

## 6. Annual variation in stock (2021-2022) and flow (2020-2021) indicators

Table 2 presents the year-on-year variations of both stock indicators (comparing 2021 to 2022) and flow indicators (comparing 2020 to 2021). These comparisons are limited to PAs of countries with over one million inhabitants and that provided data for the trend analysis (see Section 4 of this report). As such, the figures displayed in this Table may not align perfectly with those contained in the SPACE I report or other sections of this document. For instance, while the current SPACE I report includes data on both admissions and releases across 47 PAs in 2021 (see Figure 11 above), only 40 of these have been providing the relevant data since 2005 and are in countries with populations exceeding one million. Consequently, comparisons are only feasible for these 40 PAs. The total number of PAs contributing data for both years is indicated within brackets beside each indicator.

**Table 2.** Annual variations in the median rates of stock (2021 to 2022) and flow (2020 to 2021) indicators in PAs of countries with over one million inhabitants and data for the trend analysis of Section 4

	2021	2022	% change 2021-2022
<b>Stock indicators</b>			
Prison population rate per 100,000 inhabitants (40 PA)	104.0	106.4	2.3
% of female inmates in the prison population (40 PA)	4.67	4.65	-0.4
% of foreign inmates in the prison population (38 PA)	11.5	12.2	6.0
<i>Of which:</i> % of foreign inmates from EU countries (31 PA)	27.5	20.8	-24.3
% of inmates not serving a final sentence in the prison populations (40 PA)	20.8	23.3	12.0
Prison density per 100 places (39 PA)	87.4	91.6	4.8
Number of overcrowded prison administrations (more than 100 inmates per 100 places) (40 PA)	9	9	0
Ratio of inmates per one staff member (39 PA)	1.49	1.48	-0.6
Ratio of inmates per custodian solely dedicated to custody (35 PA)	2.6	2.7	3.4
<b>Sentenced prisoners by offence</b>			
% of prisoners sentenced for drug offences (36 PA)	17.2	17.8	3.5
% of prisoners sentenced for theft (36 PA)	12.7	11.6	-8.8
% of prisoners sentenced for homicide (36 PA)	14.0	13.5	-3.6
<b>Sentenced prisoners by length of sentence imposed</b>			
% of prisoners sentenced to less than one year (37 PA)	11.8	12.2	3.2
% of prisoners sentenced from 1 to less than 3 years (36 PA)	23.4	22.7	-3.1
% of prisoners sentenced from 3 to less than 5 years (36 PA)	19.0	18.2	-3.9
% of prisoners sentenced from 5 to less than 10 years (36 PA)	23.2	23.1	-0.5
	2020	2021	% change 2020-2021
<b>Flow indicators</b>			
Rate of admissions per 100,000 inhabitants (38 PA)	142.3	144.9	1.9
Rate of releases per 100,000 inhabitants (37 PA)	102.2	97.2	-5.0
Average length of imprisonment in months (based on the stock and flow) (38 PA)	11.0	10.1	-7.6
<b>Cost indicator</b>			
Total budget spent by the prison administrations (36 PA)	209 940 527.00 €	242 102 802.00 €	15.3

**Notes:**

PA: Prison administration.

The number between brackets indicates the number of PAs that provided data for both years.

Considering that increases up to +5% or decreases up to -5% reflect stability, the annual variations observed at the *European level* are summarised below.

The following indicators *remained relatively stable*:

- Prison population rate per 100,000 inhabitants (2.3%)
- % of female inmates in the prison population (-0.4%)
- Prison density per 100 places (4.8%)
- Number of overcrowded prison administrations (more than 100 inmates per 100 places) (0%)
- Ratio of inmates per one staff member (-0.6%)
- Ratio of inmates per custodian solely dedicated to custody (3.4%)
- % of prisoners sentenced for drug offences (3.5%)
- % of prisoners sentenced for homicide (-3.6%)
- % of prisoners sentenced to less than one year (3.2%)
- % of prisoners sentenced from 1 to less than 3 years (-3.1%)
- % of prisoners sentenced from 3 to less than 5 years (-3.9%)
- % of prisoners sentenced from 5 to less than 10 years (-0.5%)
- Rate of admissions per 100,000 inhabitants (1.9%)
- Rate of releases per 100,000 inhabitants (-5.0%)

The following indicators registered a *decrease*:

- % of foreign inmates from EU countries based on the total number of foreign inmates (-24.3%)
- % of prisoners sentenced for theft (-8.8%)
- Average length of imprisonment in months (based on the stock and flow) (-7.6%)

Finally, the following indicators that registered an *increase*:

- % of foreign inmates in the prison population (6.0%)
- % of inmates not serving a final sentence in the prison populations (12.0%)
- Total budget spent by the prison administrations (15.3%)

- The decrease in the percentage of foreign inmates from EU countries could be related to the fact that inmates from the United Kingdom are now counted as non-EU citizens.
- Several indicators registered changes that are within the bracket of the -5 to +5% annual change and are therefore considered as relatively stable. Nevertheless, a closer look to them suggests that they reflect a rebound effect from the changes observed in the key findings of the previous (2021) SPACE I report. The latter were an indirect result of COVID-19 lockdown measures, which led to a decrease in street crime, slowed down the operation of the criminal justice system, and increased the number of releases from some penal institutions as a measure to limit the spread of the pandemic. The return to a relatively normal situation during 2021 is reflected in the slight increases of the prison population rate (2.3%) the rate of admissions (4.5%) and the prison density (4.8%), as well as in the decrease of the rate of releases (-5%).

## 7. Tables

**Table 3.** Stock indicators on 31<sup>st</sup> January 2022

Country	Total number of inmates (including pre-trial detainees)	Prison population rate per 100,000 inhabitants	% of female inmates in the prison pop.	% of foreign inmates in the prison pop.	% of inmates aged 50 or over in the prison pop.	% of inmates aged 65 or over in the prison pop.	% of inmates without a final sentence in the prison pop.	% of prisoners sentenced for homicide (including attempts)	% of prisoners sentenced for theft	% of prisoners sentenced for drug offences	% of prisoners sentenced from 1 to less than 3 years	% of prisoners sentenced from 3 to less than 5 years	% of prisoners sentenced from 5 to less than 10 years	Prison density per 100 places	Ratio of inmates per one staff member
Albania	5 037	175.7	1.2	2.1	12.2	3.4	57.8	31.5	7.7	27.9	8.2	17.3	26.6	88.2	1.1
Andorra	51	65.8	11.8	68.6	17.6	2.0	47.1	7.4	11.1	11.1	18.5	14.8	7.4	34.7	0.6
Armenia	2 128	71.6	2.9	5.4	***	***	57.2							47.4	1.1
Austria	8 474	93.5	6.2	49.0	16.5	2.9	20.7				27.5	16.2	14.0	100.0	2.2
Azerbaijan	22 334	216.8	2.8	2.0	***	***	25.3	13.9	11.6	36.8	12.6	39.9	32.7	87.7	
Belgium	10 960	93.9	4.5	43.4	16.7	2.6	36.2	22.1	67.4	50.9	5.8	23.3	33.6	114.6	1.4
<i>BH: BiH (total)</i>															
BH: Rep. Srpska	562	49.5	2.1	1.4	11.6	6.6	21.0	27.5	20.5	9.9	[19.4]	[15.5]	[23.9]	40.3	0.6
Bulgaria	6 386	93.3	3.7	3.7	20.2	5.6	16.6	14.5	24.4	12.8	28.9	13.5	13.7	67.6	1.4
Croatia	3 905	96.2	5.3	12.0			33.6	12.5	20.3	8.4	32.7	17.9	12.9	102.6	1.5
Cyprus	808	66.0	9.5	52.1	14.7	2.7	25.9	11.7	5.2	20.0	20.7	12.7	20.5	118.5	2.0
Czech Rep.	18 748	174.6	8.1	7.4	16.0	1.8	7.4	***	***	***	38.1	16.6	15.3	93.2	1.7
Denmark	4 114	70.5	4.5	27.0	12.3	1.4	38.2	7.2	6.5	27.1	29.4	15.7	19.4	97.1	1.0
Estonia	2 181	165.0	4.6	33.1	20.9	3.3	18.7	16.0	9.1	23.4	27.9	21.4	26.6	70.4	1.4
Finland	2 776	50.0	7.2	16.4	13.4	2.1	24.4	21.7	7.8	21.5	28.4	20.7	16.6	92.8	1.2
France	69 964	106.7	3.2	25.0	12.5	2.2	27.6	9.1	14.8	12.7	36.9	13.2	12.1	115.3	1.7
Georgia	9 389	236.6	3.3	6.0	16.3	2.0	21.4	16.2	11.5	23.6	21.0	23.9	33.4	80.6	2.9
Germany	56 294	67.1	5.6	25.8	15.5	***	20.6	8.8	22.0	14.6	***	***	***	77.9	1.4
Greece	10 952	106.2	4.9	58.6	19.4	2.9	23.7	9.4	14.7	23.1	***	***	34.5	107.6	2.6
Hungary	18 619	193.8	7.6	10.0	18.0	1.9	23.7	9.0	17.9	6.1	27.8	18.4	23.8	99.5	2.0
Iceland	133	38.5	8.3	23.3	20.3	3.0	21.1	10.5	13.3	26.7	34.3	14.3	8.6	73.5	1.0
Ireland	3 835	76.4	3.8	15.4	15.1	3.6	22.9	14.2	14.7	11.0	21.1	22.4	24.1	86.7	1.0
Italy	54 372	90.2	4.1	31.5	28.1	4.7	30.1	18.1	5.0	31.6	16.0	22.2	29.5	106.9	1.4
Latvia	3 183	172.2	8.4	1.8	14.5	4.5	25.4	21.7	46.2	43.4	16.4	18.9	27.9	66.0	1.3
Liechtenstein	12	31.3	0.0	83.3	33.3	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.8
Lithuania	5 086	191.1	4.3	3.3	10.3	4.3	11.3	28.5	11.7	18.2	18.8	15.0	23.7	70.6	1.7
Luxembourg	630	98.1	5.4	72.5	13.5	1.7	47.1	16.4	21.2	14.8	35.8	10.0	13.9	88.6	1.0

Country	Total number of inmates (including pre-trial detainees)	Prison population rate per 100,000 inhabitants	% of female inmates in the prison pop.	% of foreign inmates in the prison pop.	% of inmates aged 50 or over in the prison pop.	% of inmates aged 65 or over in the prison pop.	% of inmates without a final sentence in the prison pop.	% of prisoners sentenced for homicide (including attempts)	% of prisoners sentenced for theft	% of prisoners sentenced for drug offences	% of prisoners sentenced from 1 to less than 3 years	% of prisoners sentenced from 3 to less than 5 years	% of prisoners sentenced from 5 to less than 10 years	Prison density per 100 places	Ratio of inmates per one staff member
Malta	613	138.1	8.6	48.9	14.2	3.6	32.8	14.0	6.8	30.3	63.5	35.5	24.8	[20433.3]	1.3
Moldova	6 385	159.1	5.8	1.4	7.6	3.6	17.8	29.4	8.6	9.1	9.0	16.8	35.2	94.8	2.4
Monaco	14	35.2	14.3	92.9	21.4	7.1	64.3	0.0	28.6	14.3	14.3	14.3	14.3	14.4	0.2
Montenegro	948	151.0	3.2	15.1	8.0	0.4	41.4	12.8	13.7	23.6	22.7	10.6	15.5	71.1	1.9
Netherlands	9 256	53.8	5.2	21.8	18.1	2.3	43.2	16.8	10.5	19.1	26.3	11.2	13.3	91.7	0.8
North Macedonia	2 362	113.5	3.1	7.0	15.1	8.3	10.7	11.6	19.8	19.8	23.7	22.5	20.1	91.8	2.3
Norway	3 081	55.9	5.6	24.1	23.8	3.5	19.3	9.0	4.0	22.1	25.1	18.3	19.7	80.7	0.8
Poland	71 874	190.4	4.7	2.4	16.6	2.4	11.8	6.6	23.2	4.3				84.6	2.5
Portugal	11 588	114.3	7.0	14.3	24.3	4.1	18.5	10.0	11.5	18.5	13.8	19.2	36.9	91.4	1.7
Romania	23 010	120.9	4.4	1.0	17.6	2.5	11.8	24.9	19.1	6.1	24.0	25.8	25.9	123.6	1.8
San Marino															
Serbia	10 557	155.3	4.1	3.8	13.3	***	27.8	11.4	23.8	26.5	30.2	25.0	18.0	92.2	2.5
Slovak Rep.	10 185	186.5	7.3	2.6	16.6	2.2	14.0	7.0	9.7	15.5	24.9	18.2	29.2	87.4	1.7
Slovenia	1 380	66.4	5.4	29.3	11.3	3.1	26.9	9.6	24.5	13.8	31.5	17.4	16.9	102.4	1.5
Spain (Total)	55 095	117.9	7.1	29.6	23.7	3.4	16.1	8.1	3.2	16.4	19.0	20.7	25.9	72.5	1.9
Spain: State Admin.	47 425	121.0	7.2	26.6	24.7	3.6	15.7	7.6	2.2	16.9	19.3	20.5	25.5	72.1	2.0
Spain: Catalonia	7 670	102.0	6.6	48.0	17.0	2.3	18.5	11.4	9.7	13.7	16.9	21.8	28.5	74.9	1.3
Sweden	7 776	76.1	5.9	***	13.1	1.9	26.9	14.3	3.9	24.4	35.1	20.8	18.1	99.7	0.8
Switzerland	6 310	71.9	6.0	70.1	***	***	44.7	13.9	19.5	17.8	13.3	18.6	9.1	86.0	1.4
Türkiye	303 945	355.2	3.9	4.0	13.0	1.7	12.6	13.1	26.4	32.0	9.3	7.9	22.4	112.6	4.2
Ukraine	48 038	117.2	5.2	***	***	***	35.6	***	***	***	***	***	***	54.0	2.3
UK: England & Wales	79 092	132.3	4.1	12.4	17.0	3.8	16.1	11.4	9.6	15.8	14.3	10.2	18.9	97.3	1.4
UK: Northern Ireland	1 610	83.6	4.6	10.6	15.9	3.3	41.0	16.1	9.8	8.3	28.4	13.2	14.5	77.8	1.0
UK: Scotland	7 523	135.8	3.6	***	17.1	3.2	30.0	15.9	5.4	7.2	21.7	15.8	24.2	97.4	1.4
<b>Average</b>		<b>117.2</b>	<b>5.4</b>	<b>24.8</b>	<b>16.6</b>	<b>3.1</b>	<b>28.9</b>	<b>14.0</b>	<b>15.3</b>	<b>19.0</b>	<b>23.2</b>	<b>17.9</b>	<b>21.0</b>	<b>84.8</b>	<b>1.6</b>
<b>Median</b>		<b>104.1</b>	<b>5.1</b>	<b>15.4</b>	<b>16.3</b>	<b>2.9</b>	<b>24.8</b>	<b>12.9</b>	<b>11.7</b>	<b>18.0</b>	<b>23.2</b>	<b>17.7</b>	<b>20.1</b>	<b>88.2</b>	<b>1.4</b>
<b>Minimum</b>		<b>31.3</b>	<b>0.0</b>	<b>1.0</b>	<b>7.6</b>	<b>0.0</b>	<b>7.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>14.4</b>	<b>0.2</b>
<b>Maximum</b>		<b>355.2</b>	<b>14.3</b>	<b>92.9</b>	<b>33.3</b>	<b>8.3</b>	<b>100.0</b>	<b>31.5</b>	<b>67.4</b>	<b>50.9</b>	<b>63.5</b>	<b>39.9</b>	<b>36.9</b>	<b>123.6</b>	<b>4.2</b>



**Table 4.** Flow indicators for the year 2021

Country	Rate of admissions per 100,000 inhabitants	Rate of releases per 100,000 inhabitants	Turnover ratio	Suicide rate per 10,000 inmates	Rate of escapes per 10,000 inmates	Average length of imprisonment (based on the stock and the flow)	Total budget spent by the prison administration
Albania	145.9	133.1	42.9	4.0	0.0	14.4	47 360 976.00 €
Andorra	180.7	187.4	72.1	0.0	0.0	4.4	3 764 792.22 €
Armenia	***	35.7	***	14.1	4.7	***	26 426 907.00 €
Austria	95.2	97.2	50.8	17.7	107.4	12	557 775 000.00 €
Azerbaijan	95.6	90.6	28.9	5.4	0.0	27.2	64 838 679.00 €
Belgium	151.5	63.3	26.1	9.1	8.2	7.4	555 768 533.57 €
<i>BH: BiH (total)</i>							
BH: Rep. Srpska	164.8	163.9	76.4	17.8	0.0	3.6	15 798 612.53 €
Bulgaria	191.5	187.3	64.0	***	***	5.8	13 910 000.00 €
Croatia	209.3	190.7	64.0	5.1	87.1	5.5	78 080 207.45 €
Cyprus	599.0	101.0	11.4	0.0	0.0	1.3	20 632 731.88 €
Czech Rep.	89.1	96.4	35.8	6.4	0.5	24	513 731 636.00 €
Denmark	153.0	100.9	45.9	12.2	114.2	5.5	480 850 000.00 €
Estonia	119.3	132.9	45.1	22.9	0.0	16.6	70 596 706.00 €
Finland	77.3	76.3	63.1	18.0	273.8	7.8	198 390 000.00 €
France	117.3	92.2	44.5	16.0	104.9	10.9	3 093 989 559.92 €
Georgia	202.9	200.3	46.1	3.2	0.0	14	40 817 019.00 €
Germany	179.9	55.1	21.8	17.8	44.1	4.5	3 849 179 958.39 €
Greece	66.6	54.1	31.8	3.7	5.5	19.1	34 175 585.82 €
Hungary	215.8	175.0	44.6	4.3	2.1	10.8	242 102 802.00 €
Iceland	84.3	68.6	57.4	0.0	0.0	5.5	15 196 477.00 €
Ireland	124.2	123.2	62.0	***	60.0	7.4	420 000 000.00 €
Italy	60.6	67.5	44.5	10.5	11.0	17.9	3 001 175 633.04 €
Latvia	***	***	***	18.9	3.1	***	58 023 561.00 €
Liechtenstein	130.3	48.6	30.6	0.0	0.0	2.9	232 927.00 €
Lithuania	221.2	146.4	36.5	5.9	96.3	10.4	85 021 961.75 €
Luxembourg	149.0	150.0	62.9	15.9	460.3	7.9	71 428 860.99 €
Malta	195.3	197.1		48.9	0.0	8.5	30 550 149.00 €
Moldova	69.0	68.1	29.8	9.4	6.3	27.7	30 807 800.00 €
Monaco	158.4	157.5	82.9	0.0	0.0	2.7	5 016 882.82 €
Montenegro	236.0	221.2	59.2	10.5	31.6	7.7	10 357 168.53 €
Netherlands	143.9	140.3	71.7	14.0	249.6	4.5	844 875 000.00 €
North Macedonia	117.6	85.3	37.8	4.2	211.7	11.6	20 068 026.00 €
Norway	101.4	94.8	59.1	16.2	22.7	6.6	423 661 597.00 €
Poland	228.2	216.9	53.4	2.9	0.1	10	3 567 020.87 €
Portugal	44.9	42.5	27.4	9.5	9.5	30.6	
Romania	62.8	52.8	30.0	3.9	1.7	23.1	317 571 189.00 €
San Marino							
Serbia	297.2	180.0	65.1	6.6	***	6.3	123 228 130.00 €
Slovak Rep.	141.6	114.8	34.4	11.8	0.0	15.8	246 583 013.00 €
Slovenia	99.6	99.3	65.3	21.7	0.0	8.0	56 644 635.48 €
Spain (Total)	70.3	67.0	36.1	8.3	4.4	20	1 735 230 283.80 €
Spain: State Admin.	70.8	67.0	35.4	7.4	3.6	20.5	1 236 553 350.80 €
Spain: Catalonia	67.4	67.1	40.1	14.3	9.1	18.2	498 676 933.00 €
Sweden	189.1	86.8	33.8	2.6	182.6	4.8	867 613 481.00 €
Switzerland	485.8	***	***	12.7	185.4	1.8	NA
Türkiye	417.3	393.5	52.3	1.6	0.2	10.2	573 939 352.92 €
Ukraine	50.4	48.5	28.6	9.4	3.7	27.9	46 621 565.25 €
UK: England & Wales	184.2	79.1	25.0	11.0	1.3	8.6	3 753 000 000.00 €
UK: Northern Ireland	197.5	140.0	51.5	***	0.0	5.1	136 408 541.86 €
UK: Scotland	191.4	192.4	58.8	16.0	0.0	8.5	445 500 000.00 €
<b>Average</b>	<b>164.7</b>	<b>121.4</b>	<b>46.6</b>	<b>10.3</b>	<b>50.1</b>	<b>11.2</b>	
<b>Median</b>	<b>147.5</b>	<b>100.1</b>	<b>44.8</b>	<b>9.4</b>	<b>3.7</b>	<b>8.5</b>	
<b>Minimum</b>	<b>44.9</b>	<b>35.7</b>	<b>11.4</b>	<b>0.0</b>	<b>0.0</b>	<b>1.3</b>	
<b>Maximum</b>	<b>599.0</b>	<b>393.5</b>	<b>82.9</b>	<b>48.9</b>	<b>460.3</b>	<b>30.6</b>	

## 8. Methodology

This document uses European *average* and *median* rates. The median is the value that divides the data in two equal groups so that 50% of the countries are above the median and 50% are below it. The median is preferred to the *arithmetic mean* (commonly referred to as the *average*) because the latter is extremely sensitive to very high or very low values (technically known as *outliers*), which entail unreliable indicators. Outliers are quite common in the sample of countries included in the SPACE report because some member states, like Andorra, Liechtenstein, Monaco, or San Marino, have a very small population and, as a consequence, a change in only one person can have a big impact on its percentages, rates, and trends. That is why the comments focus only on countries with populations exceeding one million.

For example, San Marino only had 1 inmate on 31<sup>st</sup> January 2019, and that person was a national citizen who had received a final sentence. This corresponds to percentages of 100% for national inmates and 100% for sentenced inmates; but the addition of only one inmate could decrease these percentages by 50% (if the additional inmate was a foreign citizen not serving a final sentence). Conversely, as San Marino has a population of 34,590 inhabitants, its prison population rate corresponds to 2.9 inmates per 100,000 inhabitants (*i.e.*, it is higher than the real number of inmates and inhabitants), but the addition of only one inmate would increase it to 5.8 per 100,000 inhabitants. This problem is particularly relevant in a longitudinal perspective (*i.e.*, when establishing time series or trends), because if a similar increase (in one inmate) takes place from one year to the other, it would represent a growth of 100% of the prison population. In addition, when calculating indicators for the continent, the inclusion of a percentage of 100% for one country artificially increases the European average for the indicator being measured. Something similar happens with other indicators such as the rate of escapes, which in the case of San Marino reached in 2019 the absurd number of 20,000 escapes per 10,000 inmates because there was one person deprived of freedom on 31<sup>st</sup> January 2019, but two had escaped during 2018.

The European average and median rates are weighted according to the population and the number of inmates in each country. This means that they are estimated on the basis of the percentages and rates per 100,000 inhabitants of each country and not on the absolute numbers for the whole continent. Using the latter would produce different values, which could hide the diversity observed across countries. For example, on 31<sup>st</sup> January 2022, there were 1,414,172 inmates in the penal institutions of the 49 PA of the Council of Europe member states whose data on prison population rates are presented in the 2022 SPACE I report. At the same time, the total population of the territories in which these PA are located was 871 million inhabitants, which would lead to a prison population rate of 162 inmates per 100,000 inhabitants. However, when the European median value is weighted on the basis of the population and the number of inmates of each country (*i.e.*, on the basis of the prison population rate of each country), it corresponds to 104 inmates per 100,000 inhabitants, as stated at the beginning of this document.

To facilitate the reading, all values equal or superior to 10 are in principle presented in round numbers (*i.e.*, without decimals), while those inferior to 10 are presented with one decimal. The percentage changes, however, are estimated using all decimals, which may explain slight differences if the reader calculates on its own those percentages using the figures without decimals included in this publication. The original figures, with decimals, can be found in the 2022 SPACE I report.

To avoid duplication of data, the total for the whole territory of Spain (which corresponds to the addition of the data for the State Central Administration and the Catalan Administration) is not included in the computation of the average and median European values<sup>29</sup>.

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<sup>29</sup> Two questionnaires were received from Spain, one for the PA of the Autonomous Community of Catalonia and one for the State PA. In the latter, most items refer to the whole territory of Spain, but some do not include Catalonia. Therefore, and as it has been done since the mid-2000s, we have estimated the indicators for three entities: Catalonia, the whole country, and the latter without the inmates under the authority of the Catalan PA.

For a few figures the data validation procedure revealed inconsistencies that cannot be explained. These figures are presented between brackets in Tables 3 and 4 and were not considered in the calculation of European average and median values.

Since the 2018 SPACE I report, the date of reference for stock indicators refers to 31<sup>st</sup> January of the year preceding the publication instead of 1<sup>st</sup> September of the year before that one, as it was the case from 1983 to 2016. The aim of that change of date is to publish the latest available data. This means that there are no data available for 31<sup>st</sup> January 2017, although the data on 1<sup>st</sup> September 2016 could be considered as an acceptable proxy of the situation on 31<sup>st</sup> January 2017. In the case of flow indicators, the consequence of the change of date is that there are no data available for the year 2016. Researchers interested in establishing time series can interpolate the value for 2016 on the basis of those observed in 2015 and 2017.

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