Czech Republic
Supreme Audit Office

AREAS AND INDICATORS FOR INTERNATIONAL COMPARISON

All developed countries promote comparison and, its most advanced form, benchmarking in public administration. These methods bring invaluable and irreplaceable information that would otherwise be out of reach. For that reason supreme audit institutions should focus increasing attention on comparisons and benchmarking. That is because they can help the custodians of public money provide up-to-date and, above all, more comprehensive, contextualised information. Information that can enable audited organisations to improve their performance and the standard of their work.

But supreme audit institutions should not merely seek to compare various auditees within a particular country: international comparison is also beneficial. We should be able to provide auditees with examples of good practice and show the differences between good practice and specific procedures in various countries.

To achieve this goal, however, we need to share accurate and comparable data. The way to do this is by creating a data sharing method that would allow us to make maximum use of the data's potential in our audits. You are now reading some materials drawn up by SAO auditors. These give examples setting out how comparisons and benchmarking can be approached and outlining the possibilities that data and information sharing using a common methodology could open up for us. I am confident that these examples will be an inspiration to you and could in future become a basis for cooperation.

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Immovable infrastructure

Area of comparison: Utilisation of real estate

Sub-area: Management of the utilisation of the buildings of government offices and agencies

Indicator: efficiency of use of administrative space

What does this indicator tell us and how can it help?

This indicator can help us find out how efficient the use of office space is or where, for example, there is room for improvement in the management of the state's real estate infrastructure. The indicator can be used to help define a new strategy for real estate management. If it is necessary to respond to changes in government offices' personnel resources it makes it possible to identify any spare space for rational relocation of employees. It can also be used to identify buildings that could be abandoned or let to other public or private sector entities.

Sources we used:

- *Full Time Equivalent (FTE) - data from civil service information systems;*
- *office space (KPI) - Central Register of Administrative Buildings information system;*
- *heading closing accounts of ministries;*
- *annual reports of ministries;*
- *ad hoc analyses commissioned by the government;*
- *Ministry of the Interior of the Slovak Republic - Analysis of the Work and Efficiency of State Administration, and Proposed Rationalisation and Reorganisation Measures;*
- *ECA Special Report No. 07/16 - The European External Action Service's Management of its Buildings around the World;*
- *UK Cabinet Office: Government's Estate Strategy 2014.*

What is the benchmark value?

The figure found at selected government offices by SAO audit ranged from **11.0 m²** to **15.3 m²** per FTE in 2013.

The KPI recommended by the Government National Economic Council (GNEC) in 2012 was 17.52 m2 per employee (FTE), if the government will decide to regulate only the maximum net office space per employee. The identified average excess of the KPI was 9.87 m2 and the theoretically possible space saving totalled 467,778 m2. The possible financial saving in expenditure on operation in connection with the possible space saving was CZK 310.6 million per year, according to GNEC's estimate.

Slovak Republic: The minimum area per employee should range from 6 to 8 m² per employee. In the state administration there is as much as 15.9 m² of floorspace per employee of a first-tier authority and 15 m² per employee of a second-tier authority. Both these values are around double the upper limit for optimal area. The biggest office space area - 40.42 m² per employee - is in territorial military administrations, with the smallest area - 7.9 m² per employee - found in customs offices.

United Kingdom: For the purposes of government strategy the UK government's real estate advisor found that in March 2012 the average space per FTE was 13 m². A year later it was just 11.9 m². The new goal is to reduce office space per FTE to an average of just 8 m² by the end of March 2018.

Foreign representations of the European Commission: Regarding real estate, the European External Action Service (EEAS) recommends that offices of European Commission delegations should not exceed a maximum size of 35 m² per person (the maximum under real estate policy before 2013 was 42 m²). In 2014, 14 of the approximately 85 delegations exceeded the defined maximum space per person, which was 35 m². The average floorspace per person was 41 m²; this figure fell to 40 m² when 200 interns were included. The delegations with the most office space per person were the delegation to the United Nations in New York with 90 m² per person and the delegation to the United Nations in Geneva with 104 m² per person.

What should be kept in mind when setting a benchmark?

The comparability of institutions in terms of the tasks they carry out and the specific local, regional and national factors or technical standards and regulations influencing the values should be taken into account. These include home-office use, hygiene standards for the minimum floorspace for various categories of employees by type of work, prices on the office space real estate market, the age of buildings and their historical significance or heritage protection. In addition, the indicator calculation method must be taken into account: methods can differ considerably, for example what spaces can be included in the "administrative" area used to calculate the "communal spaces, technical spaces, hygiene spaces" indicator and what employees can be included in the FTE calculation - i.e. core employees or non-core employees. Another factor is whether the calculation was done using merely a sample of institutions or encompasses the entire real estate infrastructure of the government sector used for public purposes.

Example of usable data from the Czech Republic for international comparison:

The SAO acquired and verified the following data when scrutinising real estate in selected state organisations in audit no. 13/40:

Table 1: Numbers of administrative buildings of the audited ministries in the territory of Prague

Audited entity	Number of buildings
Ministry of Finance (MoF)	8
Ministry of Defence (MoD)	19
Ministry of Labour and Social Affairs (MoLSA)	3
Ministry of Regional Development (MoRD)	7
Ministry of Education, Youth and Sports (MoEYS)	7
Ministry of the Interior (MoI)	18

Source: information of the audited entities for 2013.

Table 2: Overview of office space used by the audited ministries in the territory of Prague for 2013 (m²)

	MF	MoD	MoLSA	MoRD	MoEYS	MoI	Total
Total office space in the buildings of the audited entity	19 034	76 532	11 304	9 491	6 116	39 020	**161 497**
of which:							
- used by employees of the audited entity	15,203	76 532	8 407	9 044	5 725	35 366	**150 277**
- let to another entity	2,288	0	2 897	447	391	3 654	**9 677**
- unused	1,543	0	0	0	0	0	**1 543**
Office space of other entities used	4 200	1 131	2 703	0	3 943	**19 194**	**31 171**
Total office space used by the audited entity	19 403	77 663	11 110	9 044	9 668	54 560	**181 448**
Number of employees in these spaces	1 371	5 955	893	590	878	**4 064**	**13 751**
Number of m² of office space per employee	14,2	13,0	12,4	15,3	11,0	**13,4**	**x**

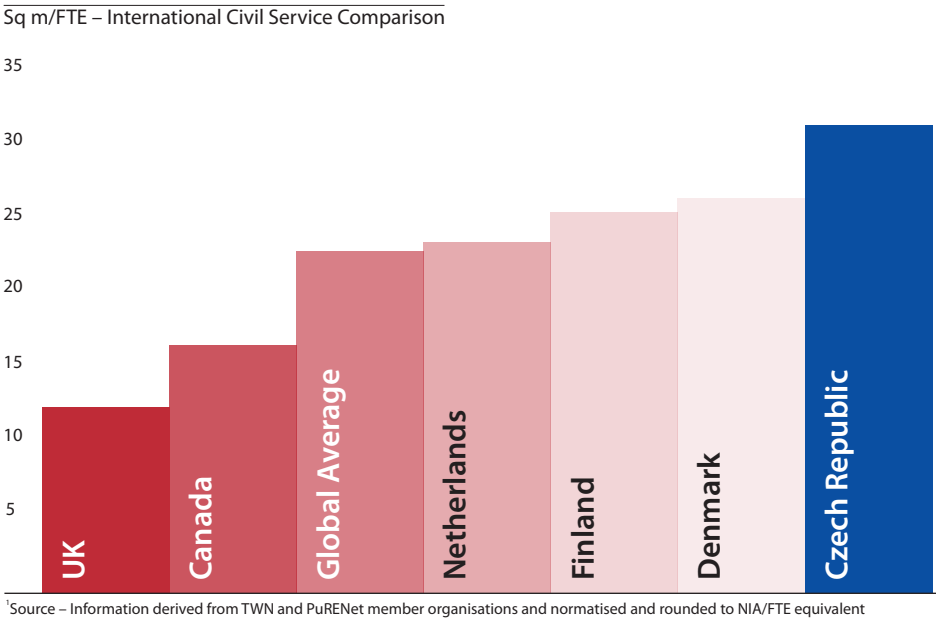
Source: information of the audited entities for 2013.

NB: The values for the MoI and MoD were compiled solely for buildings for which the SAO audit team was provided with the appropriate input data, partly with regard to the protection of classified information.

Example of comparison from an external source with no possibility of verification:

The following graph shows an international comparison used in an official government document. This document does not explain the method by which the data were collected and analysed, however. The data for the Czech Republic differ significantly from the data the SAO possesses.

Graph 1: International comparison of m²/FTE indicator. Example of available comparison



[1]Source – Information derived from TWN and PuRENet member organisations and normatised and rounded to NIA/FTE equivalent

Source: UK Government's Estate Strategy (2014).

Education

Area of comparison: Progress towards the education goals of Europe 2020 Strategy

Sub-area: Reducing the number of schoolchildren leaving education or vocational training early to below 10%

Indicator: number of schoolchildren leaving education or vocational training early

The education system should define and ensure minimum standards of skills and knowledge that every schoolchild should know when leaving school. Early termination of schooling or vocational training is verified using a sample of the population aged 18 to 24 to see what proportion of this population attained at most lower secondary education (ISCED 2) and did not take part in a further educational process or further vocational training. In Europe 2020 the EU set a target of reducing early leaving to below 10%. It was up to each member state to set a national target that would help achieve the Europe 2020 target. Early leaving is natural for the education system and need not always be undesirable. It is not possible to state categorically whether the 5.5% national target in the Czech Republic, for example, is too much or too little.

What does this indicator tell us and how can it help?

The reason for monitoring the early school leaving indicator is the public money spent on the pupils' education. For that reason monitoring the indicator should not be restricted to ascertaining the proportion of early leavers from education: it should seek to find out the reasons for leaving the education system early and whether a given pupil will re-enter the system in time.

In the 2010/11 academic year[2] there were 532,000 children in secondary schools in the Czech Republic; CZK 31.3 billion was spent on secondary education out of the state budget[3]; and the average spend per pupil was therefore over CZK 58,000. According to the National Institute for Education[4], 13.1% of pupils left school early in the 2010/11 academic year. In that year state budget expenditure on pupils who left secondary school early could amount to the equivalent of as much as CZK 4.1 billion[5].

2 Official data on early leavers from secondary schools are not available. Neither the Czech Statistical Office nor Eurostat monitors this information for secondary schools separately.

3 This is expenditure on pay, contributions and non-investment expenditure. This does not include investment spending done by school founders (regions, municipalities) under transferred competence. It also does not include finances from subsidy programmes (subsidies from the EU and other supranational organisations and state budget subsidies).

4 See http://www.nuv.cz/uploads/Vzdelavani_a_TP/PREDCASNE_ODCHODY_pro_www_final.pdf.

5 This is solely expenditure for the given academic year. This does not include spending on a pupil in previous years. E.g. a pupil in 3rd grade finishes secondary school; in the example we only include expenditure on the 3rd grade, not on the 1st and 2nd years of secondary school.

The following were the reasons for leaving school early in the 2010/11 academic year:

» 38.4% of pupils left secondary school without taking the final exam or did not meet the conditions for taking this exam;

» 36.0% of pupils voluntarily dropped out;

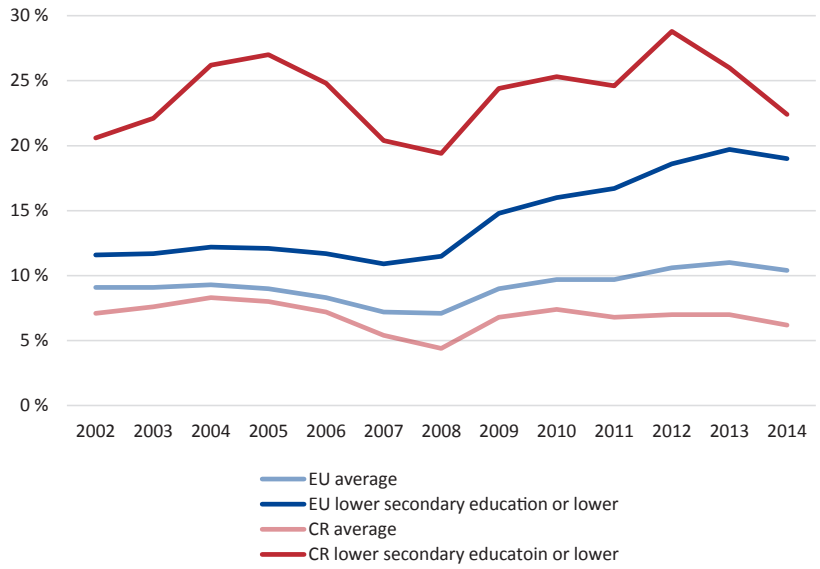
» 24.3% of pupils left school because they did not proceed to the next grade;

» 1.3% of pupils were expelled from secondary school.

Knowing the reasons for this indicator's results can help understand how the situation is evolving and evaluate the effectiveness of changes in education policy.

Like in other EU states, in the Czech Republic a higher level of education affords greater protection against the risk of unemployment and a significantly better position on the labour market compared to unqualified school-leavers. ECA Special Report No. 16/2016 also states that the level of educational attainment has a direct link to the rate of unemployment. The graph shows a significantly higher rate of unemployment among the population with lower secondary education or lower compared to the average rate. In 2014 this difference amounted to 16.2% in the Czech Republic and 8.6% in the EU as a whole.

Graph 2: Rate of unemployment among the population with lower secondary education or lower (CR, EU)



Source: own calculation based on Eurostat data.

Sources we used:

Primary data:

» *Eurostat;*

» *Czech Statistical Office;*

» *statistics authorities of compared countries;*

» *MoEYS schools register;*

» *schools registers of central authorities of compared countries (where existent).*

Secondary data and information - national documents:

» *closing account of the budget heading of the Ministry of Education, Youth and Sports (MoEYS);*

» *MoEYS annual report;*

» *Early Leaving from Secondary School (National Institute for Education, 2013);*

» *Early Leaving from Education in the Czech Republic (National Institute for Education, 2013).*

Foreign documents:

» *ECA Special Report No. 16/2016 - EU education objectives: programmes aligned but shortcomings in performance measurement;*

» *National Testing of Pupils in Europe: Objectives, Organisation and Use of Results (Eurydice, 2011);*

» *Europe 2020 strategy;*

» *reports on countries participating in the European semester;*

» *European Council country-specific recommendations within the framework of the European semester.*

What is the benchmark value?

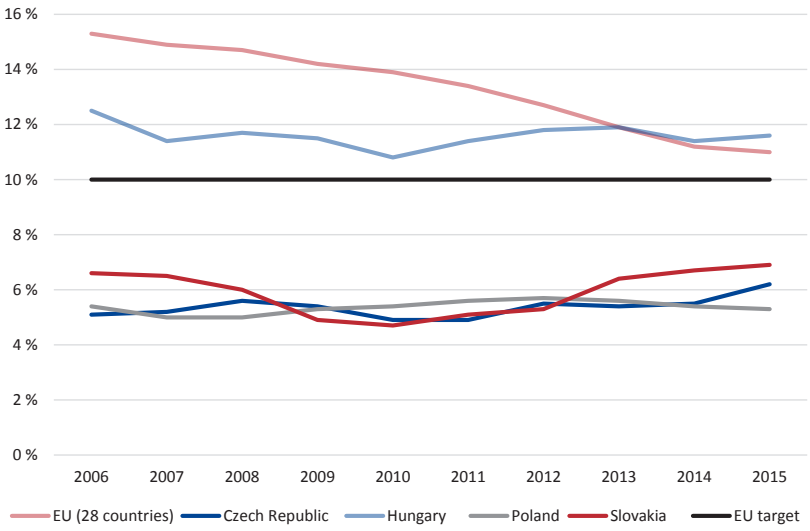
The figure identified by the SAO for 2015 in the Czech Republic was 6.2%, with the understanding that the trend has been one of a growing proportion of the population leaving education or training early since 2011, when the figure was 4.9%. The Czech Republic set a national target of 5.5% for the year 2020, so in 2015 the country fell short of the national target set for implementing the Europe 2020 strategy.

Slovakia set a national target of 6% or lower for the rate of early leaving from education for 2020. Like in the Czech Republic, the value of this indicator has been growing since 2010, when it stood at 4.7%. In 2015 it was 6.9%. Slovakia therefore fell short of its national Europe 2020 target in 2015.

Poland set a national target of 4.5% for early leaving from education for 2020. Since 2011, when the indicator stood at 5.6%, this indicator has largely fallen, reaching 5.3% in 2015, but Poland also fell short of its national Europe 2020 target in 2015.

Hungary set a national target of 10% for early leaving from education for 2020. Since 2011, when the indicator stood at 11.4%, it has risen and fallen before reaching 11.6% in 2015. Hungary therefore also fell short of its national Europe 2020 target in 2015.

Graph 3: Number of pupils who left the education system early in the population aged 18-24. Comparison of the European average and V4 countries



Source: Eurostat, SAO's own data processing.

What should be kept in mind when setting a benchmark?

In the Europe 2020 strategy the EU set a target of reducing early leaving to below 10%, which is a level that the Czech Republic has so far achieved without difficulty. One of the approaches to assessing early leaving should therefore be to scrutinise the efficiency of spending on educating pupils who leave this education early with regard to the tools this education system uses to eliminate the risk of inefficient spending.

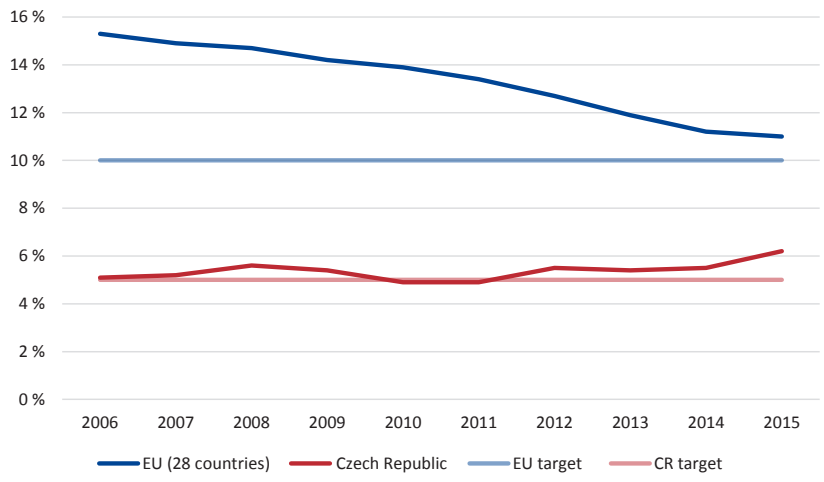
The unavailability of data is a risk for monitoring early leaving. Although the MoEYS operates a schools register in the Czech Republic, the register does not contain data that can be used to monitor the "education path" of a pupil and whether an early leaver returns to the education system.

One way to eliminate inefficient spending on education is to introduce national testing of skills and knowledge at key stages in education, such as the progression between various levels of education like the 5th and 9th grades or completion of secondary schooling. This national testing could be one of the criteria for progress to the next level of education.

The equivalent tool in the CR is the state school-leaving exam in secondary education, adopted in the 2010/11 academic year. Although the rate of early leaving in the CR according to Eurostat methodology was relatively low in the CR in 2010, this indicator increased in the following years (by 1.3% between 2011 and 2015 - see Graph 4). One factor driving this increase was the uniform state school-leaving exam: after its introduction the failure rate of pupils studying school-leaving exam subjects completing secondary school increased.

Uniform secondary-school entrance exams are another new tool in the Czech Republic. These could prevent progress to secondary education for pupils who do not attain the required knowledge and skills. Although this kind of tool could increase the rate of early leaving according to Eurostat methodology[6], it could also prevent increased early leaving at the level of secondary education. The effectiveness of this kind of tool would be measurable over time in the context of reductions in the amount of spending on pupils leaving early. The reduction in early leaving from secondary school after the introduction of uniform entrance exams could be tracked, for example.

Graph 4: Number of pupils who left the education system early in the CR among the population aged 18-24 compared to the EU average



Source: Eurostat, SAO's own data processing.

6 Pupils who complete basic education and do not go on to secondary school are included in the category of early leavers from education.

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Social housing

Area of comparison: Intervention in social inclusion

Sub-area: Efficiency of support for social housing as part of social inclusion policy

Indicator: number of types of benefit intended to support social housing

What does this indicator tell us and how can it help?

The indicator tells us about the complexity of the system for resolving problems in social housing. It is generally fair to say that the higher the number of social benefits, or benefits in material need, the more complicated the system as a whole. The more complicated the system, the higher its administrative costs. In a more complicated system it is also more likely that there will be weaknesses in the approval process, so it will be less efficient overall.[7]

Reducing or minimising the value of this indicator and good practice in the system for providing equivalent benefits can help make the social housing support system more efficient.

Sources we used:

- *Act No. 111/2006 Coll., on assistance in material need;*
- *Act No. 117/1995 Coll., on state social support;*
- *Concept of the Prevention of and Tackling of the Issue of Homelessness in the CR up to 2020;*
- *Social Housing Concept of the CR 2015-2025;*
- *Social Inclusion Strategy 2014-2020;*
- *Strategy for Combating Social Exclusion 2011-2015;*
- *website of the Ministry of Labour and Social Affairs.*

What is the value of the benchmark?

We set the benchmark at **2**. The value is based on the fact that two types of benefit are disbursed in support of social housing in the Czech Republic: housing allowance and housing top-up payment.

What should be kept in mind when setting a benchmark?

We propose that the optimal value of this benchmark should be between **0** and **1**. No benefit associated with social housing support would mean that this support is provided in the context of a different (standardised) multi-purpose benefit or that social housing support is systematically addressed in some other way. One type of benefit would provide an administratively very efficient solution to this issue, assuming that it is well safeguarded against abuse. A higher number of types of these benefits would not provide administratively and systemically efficient support for social housing and would very likely be a more costly system.

7 The Ministry of Labour and Social Affairs considered reducing the number of social benefits from a total of 18 roughly by half back in 2011, but this was not supposed to entail a reduction of support in any area. The reason was savings on administrative costs. (Ministry of Labour and Social Affairs 2011: http://www.mpsv.cz/cs/10153).

It is fundamental to take into account the systemic approach to benefits intended to support social housing. A risk of distortion may arise in situations where social housing support was dealt with in a “non-benefits” manner. In the case of state housing whose inhabitants are not on benefits, this social housing support system could be more costly in terms of investment and operation than providing social benefits. The same applies to direct cooperation between private entities. If the state did nothing to support social housing, although this would be the least expensive option in terms of administration it would be absolutely unacceptable from a societal point of view. That, however, should be reflected by the values of other criteria and indicators.

Indicator: time limit for awarding benefits intended to support social housing[8]

What does this indicator tell us and how can it help?

The indicator follows up the preceding indicator and broadens the overall efficiency of social housing support to include the flexibility of state administration, with particular regard to the convenience of services for citizens. It judges the speed with which applications for social housing support benefits are processed, i.e. the number of days between receipt of the application and award of the benefit. A more suitable indicator in this context might be the number of days between applications for benefits and the disbursement of these benefits but this entails the risk that the legislation does not regulate this time limit. In the Czech Republic, for example, benefits are as a rule paid out in the same month in which the benefit is awarded. Theoretically, the maximum length of time between the application for a benefit and its disbursement is a full 61 days, where the applicant files an application on April 2, the authorities award it on May 1 and it is disbursed on May 31. Here, however, we assume that the benefit is provided without undue delay and that these benefits are paid out on a monthly basis.

Sources we used:

- *Act No. 111/2006 Coll., on assistance in material need;*
- *Act No. 117/1995 Coll., on state social support;*
- *Social Housing Concept of the CR 2015-2025;*
- *Concept of the Prevention of and Tackling of the Issue of Homelessness in the CR up to 2020;*
- *Social Inclusion Strategy 2014-2020;*
- *Strategy for Combating Social Exclusion 2011-2015.*

What is the value of the indicator?

We set the benchmark in the Czech Republic at **30** days. That is the length of time from the filing of an application to the award of the benefit.

What should be kept in mind when setting a benchmark?

We propose that the optimal value of this indicator should be up to 7 days. The main reason is that paying rent in a situation where the tenant does not have enough money because of other external influences cannot be deferred. At the same time we should not forget the time required for checks to see if applications are well-founded. In the ideal case the burden of proof is transferred to applicants for this support.

8 This is not the length of time between disbursement of a benefit to an applicant after it was awarded.

Indicator: proportion of the volume of all social benefits accounted for by the volume of social benefits linked to housing

What does this indicator tell us and how can it help?

The indicator tells us about the magnitude and current importance of the issue of social housing in society and thus also about the effectiveness of the fight against social exclusion in the field of social housing. If the values of these indicators are tracked every year it becomes possible to portray a trend and thus assess the success of state policy in this area from this perspective.

Sources we used:

- *closing account of the budget heading of the Ministry of Labour and Social Affairs;*
- *Czech Statistical Office data;*
- *Ministry of Labour and Social Affairs data;*
- *Social Housing Concept of the CR 2015-2025;*

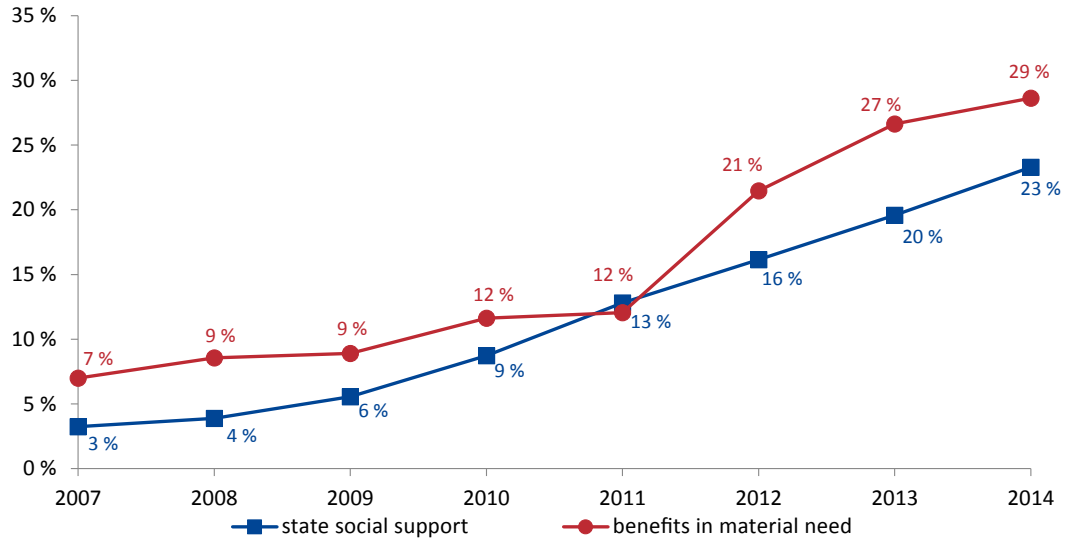
What is the value of the indicator?

The value of the indicator in the Czech Republic in 2014 was **28.6%** in the case of benefits in material need and **23.3%** in the case of social support. The weighted average is **24.51%**. We propose that the optimal value of this indicator should range from **0** to **15%**.

What should be kept in mind when setting a benchmark?

We propose the optimal benchmark as one that can be deemed sustainable in the long term. In the Czech Republic, for example, housing allowance in times of economic growth accounted for **5%** to **10%** of total social expenditure. This allowance grew after the economic crisis (after 2009), but this growth was to some extent justifiable in consequence of the macroeconomic situation. The same applies to the housing top-up payment.

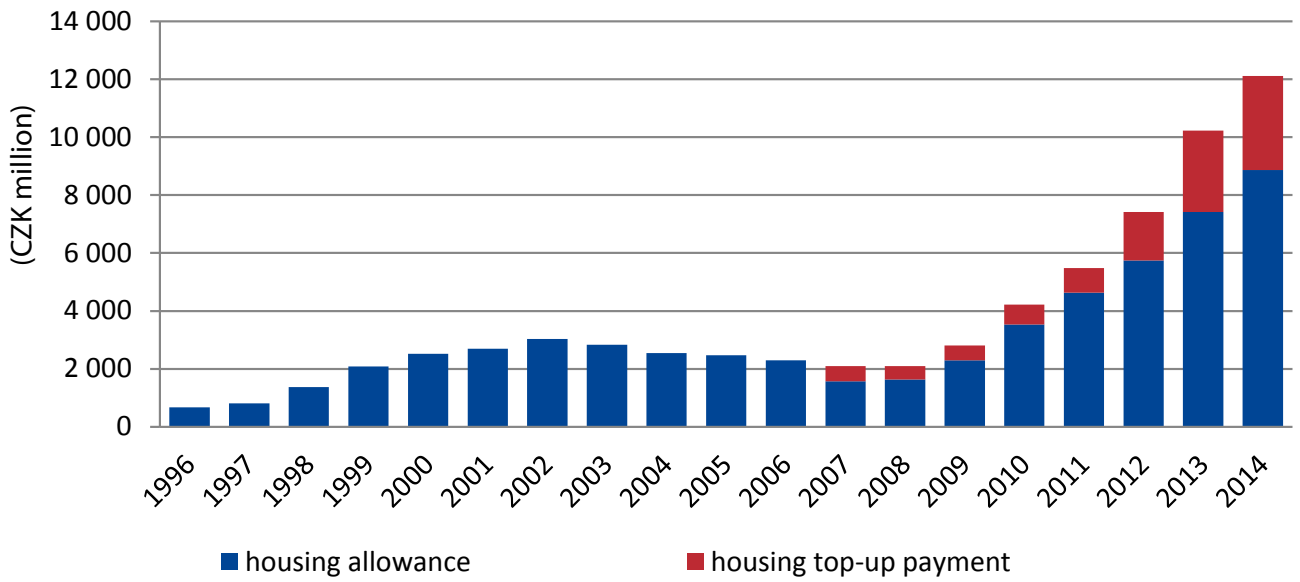
Graph 5: Evolution of the proportion of social benefits accounted for by housing allowance and of benefits in material need by the housing top-up payment



Source: SAO's own data processing based on the closing accounts of the Ministry of Labour and Social Affairs budget heading from 2007 to 2014.

As the proportion of social benefits and benefits in material need accounted for by both benefits has been growing inordinately in recent years, the current trend can be deemed unsustainable. This is borne out by the absolute amounts of provided benefits:

Graph 6: Level of housing top-up payment and housing allowance



Source: SAO's own data processing based on the closing accounts of the Ministry of Labour and Social Affairs budget heading from 1996 to 2014.

If this indicator is increasing or remains inordinately high, there is a risk that the state is not tackling social housing effectively. Either the burden is merely shifted to the state or the state is unable to spend this money effectively and efficiently or to check its use.

When performing international comparison, the types of benefits have to be strictly defined to ensure they reflect their real target area as accurately as possible, other benefits are not lumped together with housing-related benefits or, conversely, certain benefits are left out.

Indicator: proportion of persons at risk of poverty or social exclusion

What does this indicator tell us and how can it help?

One of the goals of the *Europe 2020* strategy is to cut the number of Europeans living below the national poverty line by a quarter. That would lift over 20 million people out of poverty.

The fight against poverty and social exclusion is founded on increasing employment and on modern and effective social protection and social policy. This policy's main components are targeted education, social care, health and housing. The European Union is to earmark a fifth of European Social Fund finances for these areas in the fight against poverty and social exclusion.

Monitoring this indicator provides pertinent data or information necessary for assessing the targets set at national level.

Sources we used:

- *Eurostat (SILC);*
- *OECD;*
- *Social Housing Concept of the CR 2015-2025;*
- *Concept of the Prevention of and Tackling of the Issue of Homelessness in the CR up to 2020;*
- *final reports of ministries;*
- *Czech Statistical Office data;*
- *final assessment reports on the implementation of inclusiveness strategies;*
- *Housing Policy Concept up to 2020;*
- *Social Inclusion Strategy 2014-2020;*
- *Strategy for Combating Social Exclusion 2011-2015;*
- *Europe 2020 strategy.*

What is the value of the indicator?

The value of the indicator in the Czech Republic for 2014 is **14.8%**. That is the proportion of people at risk of poverty in the Czech Republic.

What should be kept in mind when setting a benchmark?

We propose that the optimal value of this benchmark should range from **0** to **15%**. This range reflects the best results achieved by European countries in 2014. The lowest percentage of people at risk of poverty or social exclusion is Iceland's 11% to 13%.

Table 3: Proportion of persons at risk of poverty or social exclusion in V4+2 countries **(%)**

Country/year	2010	2011	2012	2013	2014	2015[9]
Austria	18,9	19,2	18,5	18,8	19,2	18,3
Czech Republic	14,4	15,3	15,4	14,6	14,8	–
Hungary	29,9	31,5	33,5	34,8	31,8	28,2
Poland	27,8	27,2	26,7	25,8	24,7	–
Slovakia	20,6	20,6	20,5	19,8	18,4	–
Slovenia	18,3	19,3	19,6	20,4	20,4	19,2
EU total (28 countries)	23,8	24,3	24,7	24,6	24,4	–

Source: Eurostat.

As this involves a harmonised calculation of the values of this indicator throughout the European Union, there is no risk of an incorrect calculation or misleading interpretation.

9 The data were not available at the time of writing.

Proposed composite indicator: effectiveness of social housing support

None of the above indicators by itself gives sufficient information about the effectiveness of state support in the field of social housing. For that reason we propose a composite indicator.

If we went no further than the indicators listed above, we would run into numerous problems. A low number of benefits, for example, could indicate that the benefits provision system is simple or it could be an indication of ineffectiveness and inefficiency that might be reflected in another value - e.g. in the level of expenditure in this area.

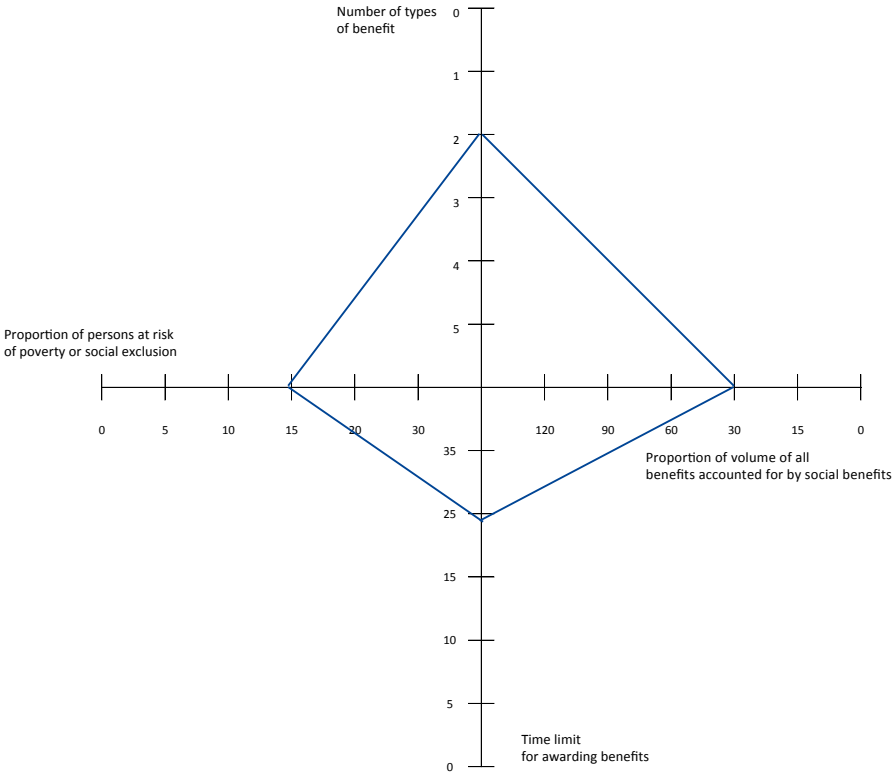
The same is true for the speed of award of the benefit. The fact that benefits are awarded swiftly might be proof of an efficiently working state administration, but it could also mean insufficient checking whether the expenditure serves the purpose it is supposed to.

Only monitoring the proportion of the volume of all social benefits accounted for by the volume of social benefits linked to housing would also be problematic. If this proportion is small, it could mean that social housing is not a significant social problem in the country in question. But it could also be a sign of a disastrous underestimation of the issue of social housing, which could in turn be reflected in a large number of people at risk of poverty or social exclusion.

Again, focusing entirely on the proportion of the population vulnerable to poverty or social exclusion, which is the standardised Eurostat indicator, does not provide a comprehensive benchmark of the success of state policy in the field of social housing. A low proportion might be the upshot of generous social support verging on wastefulness, which is reflected in the number of benefits, for example, or in the proportion of all benefits they account for. Conversely, a high proportion of people vulnerable to poverty or social exclusion might indicate "cautious" policy that is not efficient in terms of administrative demands and the achieved outputs for fulfilling the public interest in the context of social policy.

For these reasons we propose using a composite indicator as an overall assessment of the effectiveness of social housing support as part of social inclusion policy. We present this composite indicator by means of a "magic rectangle", which incorporates the assessment of all the indicators described above and makes it possible to see how these indicators interact. The bigger the area of the polygon (in this case a quadrilateral), the more efficient the support for social housing.

Graph 7: Graphic representation of the composite indicator of the effectiveness of social housing support



Source: SAO's own data processing.

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eGovernment

Area of comparison: Information and communication technology in public administration

Sub-area A: Development of eGovernment

Indicator: digitisation of public administration services

What does this indicator tell us and how can it help?

The public administration services digitisation indicator is a composite indicator assessing a particular complex phenomenon - the development of eGovernment. This development cannot be directly measured. In the real environment of public administration it is a combination of various factors that affect the measured phenomenon, where these factors can differ or even work in opposition to one another. The indicator was created by the European Commission and is supposed to judge EU member states' progress in the digital agenda. The indicator is sensitive to latent factors that are not directly observable and can only be measured by means of several indicators.

Using this indicator we can compare the level of electronisation of public services in selected countries.

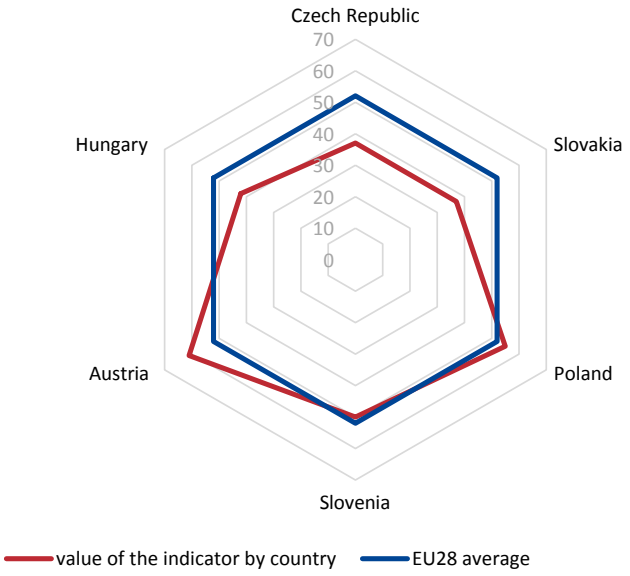
Sources we used:

» *European Commission: research for Digital Economy and Society Index (DESI).*

What is the benchmark value?

The average benchmark value in V4+2 countries is 47, which is below the European Union average. Austria, with significantly above-average value of 61, came out best.

Graph 8: Digital Economy and Society Index – 5. Dimension: Digitisation of public administration



Source: European Commission.

What should be kept in mind when setting a benchmark?

When setting the benchmark we should take into consideration the levels of digitisation in various countries. The average EU28 value can be regarded as a suitable benchmark for the Czech Republic. In the case of Austria it would be more suitable to choose the index value attained by Denmark or Finland (76-81 points), which top the rankings. We also have to reckon with the fact that the structure and roles of public administration authorities differ from one member state to the next. In the Czech Republic, for example, neither healthcare facilities nor doctors are public administration authorities, but the development of eHealth is one of the Ministry of Health's priorities.

What is this indicator composed of?

The composite indicator is composed of two different indicators. The first is the indicator comprising the area of eGovernment, which has a weight of 67%. The second is the indicator concerning eHealth, with a weight of 33%.

Sub-indicators coming under the eGovernment indicator are:

1) the number of users who sent the public authorities a completed online form in the last 12 months;

2) the quantity of pre-entered data in the online forms of public services;

3) the proportion of actions in the context of public services that can be done online;

4) the score as per the European PSI (Public Service Information) table that shows the status, usability and possibility of reuse of (open) data in the EU.

Sub-indicators coming under the eHealth indicator are:

5) the number of users who looked for information about health, e.g. injuries, illnesses, nutrition or improving health, online in the last three months;

6) the number of users who arranged a visit to the doctor on the Internet in the last three months;

7) the percentage of general practitioners who send prescriptions to pharmacists electronically;

8) the percentage of general practitioners who use electronic networks to share data on patients with other healthcare providers and specialists.

Sub-area B: Expenditure on information and communication technology

Indicator: total per capita expenditure on ICT in state administration in the Czech Republic

What does this indicator tell us and how can it help?

The indicator tells us how much state budget money is spent in a year on organisational components of the state in the field of ICT.

Sources we used:

» *data on state budget expenditure from the Integration Information System of the State Treasury of the Czech Republic (IISST).*

What is the benchmark value?

Based on the available data, we computed the value of the indicator at **CZK 1,000**. This value corresponds to the amount spent by organisational components of the state on ICT per inhabitant of the Czech Republic.

Table 4: Per capita ICT expenditure 2012-2015

Year	Population of the CR	ICT expenditure by organisational components of the state	Expenditure per capita
2012	10 516 125	CZK 7,066,316,792	CZK 672
2013	10 512 419	CZK 6,404,917,781	CZK 609
2014	10 538 275	CZK 9,860,418,468	CZK 936
2015	10 553 843	CZK 11,354,652,711	CZK 1,076

Source: IISST.

What should be kept in mind when setting a benchmark?

Current and capital expenditure recorded under six state budget items defining the ICT area are included in ICT expenditure.

The following items come under current expenditure:

» rewards for the use of computer programmes;
» telecommunication and radio communication services;
» data processing and services linked to information and communication technologies;
» software.

The following items come under capital expenditure:

» software;
» computer technology.

The indicator makes it possible to compare ICT expenditure by organisational components of the state on a per capita basis. ICT expenditure can also form part of general budgetary items; it is not possible to determine the scale of this expenditure. In the Czech Republic, for example, ICT expenditure may appear in the item *Purchases of Other*

Services or in Miscellaneous Purchases Not Mentioned Elsewhere or Miscellaneous Purchases of Fixed Intangible Assets. V4+2 countries undoubtedly have differences in the composition of their budgets, which complicates any comparison of equivalent budgetary items.

Example for comparing usable outputs from external sources:

Data from external sources can also be used for comparisons. One example is the comparison of ICT expenditure per capita among selected countries based on data from the company IDC.

IDC uses the term "projects", but part of the expenditure on ICT, especially current expenditure, is not attributed to any project. IDC gave no further information on the methodology of its analysis.

Table 5: Visegrad 4 and IT expenditure in 2012 (USD million)

Country	Number of central projects	Number of regional projects	IT spending per citizen (USD)
Czech Republic	495.9	151.7	61.6
Hungary	224.8	47.0	27.4
Poland	837.1	259.8	28.5
Slovakia	193.2	54.6	45.8

Source: IDC 2014.

Example for comparing usable outputs from the SAO and EUROSTAT:

Comparing expenditure on information and communication technology could also be done at departmental level. The SAO obtained the necessary data from the IISST.

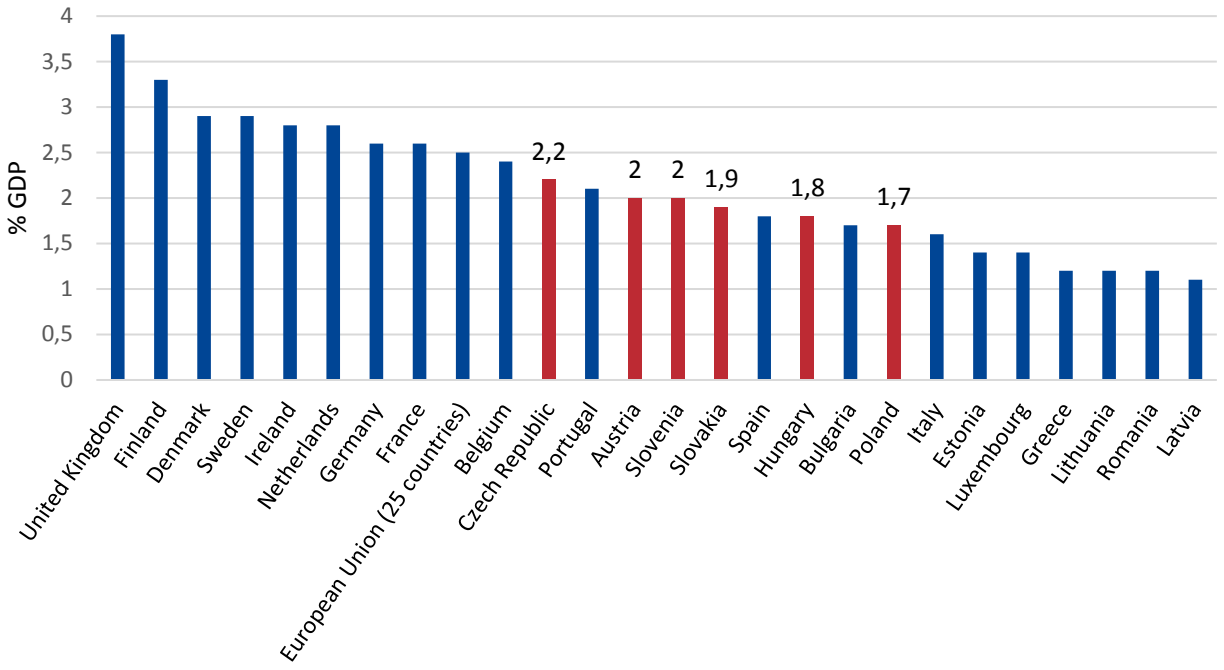
Table 6: Spending on ICT in government departments in 2015 (CZK million)

Department	Spending on ICT	Share of total expenditure
Ministry of the Interior	CZK 3,939	5.50%
Ministry of Finance	CZK 2,152	8.54%
Ministry of Labour and Social Affairs	CZK 1,536	0.16%
Ministry of Defence	CZK 604	1.17%
Ministry of Justice	CZK 543	1.97%
Ministry of Agriculture	CZK 509	0.55%
Ministry of Regional Development	CZK 452	0.87%
Ministry of Transport	CZK 251	0.29%
Ministry of Foreign Affairs	CZK 186	2.57%
Ministry of Health	CZK 132	1.00%
Ministry of Industry and Trade	CZK 77	0.09%
Ministry of the Environment	CZK 65	0.08%
Ministry of Education, Youth and Sports	CZK 52	0.03%
Ministry of Culture	CZK 31	0.25%

Source: IISST, SAO's own data processing.

We can also compare expenditure on information and communication technology relative to GDP, as Graph 2 shows. Eurostat performed one such comparison in 2010. However, in our view it is problematic that expenditure that may concern ICT but the SAO has no authority to check might also be included in ICT expenditure. Comparisons in relation to total state budget could also be considered.

Graph 9: ICT spending as a percentage of GDP in 2010



Source: Eurostat.

Sub-area C: ICT public procurement by state administration authorities

Indicator: proportion of all public contracts awarded by organisational components of the state accounted for by ICT public contracts

What does this indicator tell us and how can it help?

The indicator shows how the proportion of the number and value of public contracts awarded by organisational components of the state accounted for by ICT public contracts is evolving. The indicator makes it possible to track these proportions from year to year and identify trends that enable priorities to be set for audit work. By combining the proportion of the number of public contracts accounted for by ICT contracts and the proportion of the value of public contracts accounted for by ICT contracts, we can ascertain whether fewer contracts are awarded in ICT for more money or more contracts for less money compared to other areas.

Sources we used:

- *public procurement data from the Public Procurement Information System;*
- *list of CPV codes for the ICT area.*

What is the benchmark value?

The proportion of the value of all public contracts awarded by organisational components of the state accounted for by ICT contracts was 43% in the Czech Republic in 2015; in terms of the number of contracts, ICT contracts account for 38% of the total awarded by these authorities.

What should be kept in mind when setting a benchmark?

When comparing data from various countries we have to take into consideration what types of public contracts are included in the data set (e.g. small-scale contracts etc.). Uniform CPV codes for all countries should be defined for ICT to allow comparison of ICT public contracts. This approach does not eliminate the risk, however, that the comparison could be compromised by the quality of the data. This quality is influenced, for example, by contracting organisations entering the wrong CPV code or a different contract value in the Public Contracts Bulletin. We described such cases in SAO audit no. 15/10, for example. This audit scrutinised whether the Ministry of Regional Development spent money on the national infrastructure for electronic public procurement effectively and efficiently.

Example of usable data from the CR for international comparison:

The SAO has long monitored data on public procurement and the evolution of public procurement in various segments of three public procurement markets: supplies, services and building work.

Table 7: Proportion of public contracts awarded by organisational components of the state accounted for by ICT contracts 2012-201

Year	Proportion of the number of public contracts	Proportion of the value of public contracts
2012	27 %	41 %
2013	34 %	45 %
2014	26 %	43 %
2015	38 %	43 %

Source: Public Procurement Information System, SAO's own data processing.

Czech Republic
Supreme Audit Office

Imprisonment

Area of comparison: Prisons

Sub-area: Use of alternative punishments

BIndicator: prison population rate; prison occupancy level and the use of house arrest as a punishment

What do the indicators tell us and how can they help?

The International Centre for Prison Studies created an indicator that can be used to compare the number of people serving non-suspended prison sentences per 100,000 inhabitants (the Prison Population Rate) in different countries. The Centre also monitors the state of prison capacities (the Occupancy Level). Using the Occupancy Level index we can draw attention to shortages of space for prisoners and infringements of their human rights. At the same time, this index can, in our opinion, indirectly show how successfully alternative punishments to imprisonment are being promoted. These alternative punishments could free up part of prisons' capacities and cut the costs engendered by imprisonment. House arrest is one alternative punishment, for example. Monitoring the use of this type of punishment could be an indicator incorporated into a composite indicator providing a broader view of the problem of the efficiency of the prison service.

Sources we used:

- *study by the Institute for Criminology and Social Prevention;*
- *statistical yearbooks of the Prison Service of the CR;*
- *closing accounts of the Ministry of Justice;*
- *data from the International Centre for Prison Studies.*

What is the value of the indicator?

Prison Population Rate for 1Q 2016

The value of the total population of a country as taken from Eurostat is used for the Prison Population Rate.

Table 8: European countries by prison population rate (per 100,000 inhabitants)

Order	Country	Number of people in prison per 100,000 inhabitants
1	Russia	451
2	Belarus	306
3	Georgia	262
4	Lithuania	254
5	Turkey	238
6	Azerbaijan	236
7	Latvia	224
8	Estonia	223
9	Moldova	222
10	**Czech Republic**	**205**
...		
12	**Poland**	**188**
13	**Slovakia**	**186**
14	**Hungary**	**183**
...		
34	**Austria**	**97**
...		
45	**Slovenia**	**73**

Source: International Centre for Prison Studies.

Table 9: Prison Occupancy Level for 1Q 2016

Order	Country	Occupancy of prisons in per cent
1	Macedonia	136,0
2	**Hungary**	**130,5**
3	Albania	125,6
4	**Slovenia**	**114,3**
5	France	113,9
6	Portugal	112,4
7	Cyprus	112,3
8	Belgium	111,1
9	Great Britain (England and Wales)	111,0
10	Italy	108,4
...		
12	**Czech Republic**	**104,4**
...		
21	**Austria**	**95,1**
...		
28	**Slovakia**	**90,4**
...		
33	**Poland**	**86,7**

Source: International Centre for Prison Studies.

House arrest

House arrest as an alternative punishment to imprisonment has been applied in the Czech Republic since 2010. According to the closing accounts of the Ministry of Justice, there have been at least 1,379 sentences of house arrest and conditional releases from prison to house arrest from 2010 to 2015. We were unable to find data on the incidence of the use of house arrest in V4+2 countries at the time of writing, but we expect that acquiring these data will not be a problem for SAIs.

The effective use of house arrest has always been linked to the problem of checking compliance with the terms of the sentence, i.e. checking whether the person in question stays at home. The gradual introduction of systems for electronic monitoring of people under house arrest would be one solution. In July 2016 in the Czech Republic, despite several attempts, there still has not been a successful tender for a supplier of an electronic monitoring system and electronic bracelets.

Table 10: Overview of the use of electronic monitoring in selected European countries

Country	Technology	Start of operation
England and Wales	RF[11], voice recognition	1995
Belgium	RF, voice recognition	2000
Denmark	RF, mobile phone	2005
Estonia	RF, GPS	2007
Finland	GPS, mobile phone	not published
France	RF, GPS	2000
Ireland	RF, GPS	2009
Lithuania	RF	not published
Luxembourg	RF	2006
Germany	RF, GPS	2010
The Netherlands	RF, GPS	1995
Norway	RF, GPS	2008
Poland	RF, GPS	2009
Portugal	RF, GPS	2002
Austria	RF, GPS	2008
Scotland	RF, GPS	1998
Serbia	RF	not published
Spain	RF, voice recognition, GPS	2000
Sweden	RF	1994
Switzerland	RF	1995

Source: Ministry of Justice (2012).

What should be kept in mind when setting a benchmark?

When setting a benchmark we have to take into consideration the different rules governing electronic monitoring of prisoners from country to country. For example, the consent of the person under house arrest is not required for electronic monitoring in Serbia, Poland and Germany. The duration of the electronic monitoring of people under house arrest is longest in Germany (5 years), with the exceptional possibility of extending this to life, to be reviewed every two years. The lowest limit for the duration of monitoring is in the order of days and applies in Sweden or Switzerland, for example. Electronic monitoring in Austria is one of the few systems enabling remote alcohol testing in the person being monitored.

11 Radio-frequency monitoring technology.

Electronic monitoring of people under house arrest in Europe is most commonly used for perpetrators of sexual and violent crime, theft, driving under the influence of an addictive substance, drug-related crime and various misdemeanours.

Various government authorities and also private companies are involved in the electronic monitoring process - it always depends on the specific legislation in the given country. The entities most commonly involved are the probation service, prison service and a private entity which, in many countries, provides the monitoring devices and operates the monitoring centre.

Example of usable data from the Czech Republic for international comparison

In 2014 there were on average 17,681 people in Czech prisons per day. According to the statistical yearbook of the Prison Service of the CR, for one prison the average daily cost[12] per prisoner was CZK 954, and CZK 1,221 for the entire Prison Service. Compared to 2011 the average daily cost per prisoner increased by 22% per organisational unit and by 61% for the Prison Service as a whole. In 2011 these average daily costs were CZK 758. For house arrest the Ministry of Justice calculated that the average daily cost was CZK 250. This cost included the introduction of the electronic monitoring service.

12 The data on average daily costs were taken from statistical yearbooks of the prison service. It was not possible to extrapolate from the publicly available sources the individual budgetary items that were included in the calculation (e.g. buying food, clothing, energy et al.).