

Spending Review for IT 2.0

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Operačný program
**Efektívna
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Európska únia
Európsky sociálny fond

1. Introduction and summary

Slovak informatisation results keep improving, although the potential of digitalisation of the general government has not been used to the full extent. The DESI score, which monitors progress in digital competitiveness of EU countries keeps increasing since 2016. The difference in the score against the EU average has not changed significantly, Slovakia ranked 21st out of the EU-28. The strongest progress has been made in digital public services. According to DESI, the number of general government services provided online keeps growing. However, the extent of using the services is growing mainly among businesses but has a falling trend among individuals. Thus, the objective for the future, besides further digitalization, is to improve monitoring and use of the services.

The growing spending on state IT exerts higher pressure on the efficiency of informatisation. In 2016-2019, average annual spending on IT was EUR 488 mil.; the expected and budgeted average amount for 2020-22 is EUR 703 mil. The major budget item is the operation of systems, which in 2019 achieved the amount of EUR 337 mil. While large investments in public IT and building of systems are mostly financed from EU funds, the operation is financed from the state budget.

To improve the value for money, it is necessary to implement the measures from strategic documents. The National eGovernment Concept (NKIVS) defines 12 strategic goals and 10 priorities. The 2018 progress report can evaluate 21 out of 46 measurable indicators defined by NKIVS for progress monitoring. Yet, attainment of the target value is at risk for at least 13 of the indicators. In view of strategic objectives, the main priorities are strengthening internal resources and focusing not only on new projects but also efficient IT operation. Main technical priorities are better data management and data exchange and use of common central modules. Partial progress is seen in the reduction of the number of hardcopy confirmations that the citizens are required to bring to authorities (one-strike principle). Under the first and the second wave of combating bureaucracy the obligation of hard copy submission has been cancelled for 14 types of confirmations or statements and the same is planned in the third wave for another 8 types of documents¹.

Investment projects are better prepared. Thanks to the updated methodology, new investment projects apply uniform standards for feasibility studies and economic analyses, more detailed budgets and expert estimates of benefits have been replaced with measurement. Another positive thing, including when compared with other countries, is a publication of feasibility studies for projects co-financed from EU funds. The spending review proposes to strengthen the project preparation framework in the early phase of the project plan and the pilot solution. That will enable simplification of preparation and approving of feasibility studies. The spending review defines five principles for project preparation, aiming to make the solutions less expensive and implementation easier. Deputy Prime Minister's Office for Investments and Informatisation (ÚPVII) is to develop methodologies for agile procurement and development, in order to simplify the transition from large projects to the ongoing improvement of IT services and to increase benefits from informatisation to users.

There is still room for improvement in the selection and prioritization of investment projects. Compliance with objectives of the operational programme, objectives and architectonic principles of the National eGovernment Concept and the benefit/cost ratio higher than 1 are regarded as sufficient qualities for approval of projects financed from EU funds. Preconditions to approving projects financed from the state budget are even lower. Yet, selecting projects by priority is necessary not only to increase value for money, but also for the efficient operation of the state IT system. Thus, the existing project pipeline needs to be amended to include a schedule for preparation by the level of priority and to align it with the existing budget resources. Additionally, the project pipeline will be extended to include all planned investments, not only projects financed from EU funds.

The results achieved in informatisation need to be translated into the operation of the state and inform the public about the progress. During the next 10 years, eGovernment is expected to bring time savings for civil servants in the amount of EUR 100 mil. (equivalent to 4 690 FTE). Benefits for citizens and savings for the state should be measured based on actual data from information systems. Already, the functionalities of MetaIS portal largely enable transparent monitoring.

¹ <https://stopbyrokracii.sk/potvrdenia-a-vypisy/>

In a mid-term horizon, IT spending can be reduced by EUR 48-95 mil. without affecting the quality of the supported business services. Experience from abroad shows that implementation of analytical monitoring of IT spending and establishing managerial responsibility for the amount of the spending (IT financial management) helps to reduce the spending by 10-20% (EUR 48-95 mil.) within 2-4 years from implementation without impairing the quality of the supported business services. Better monitoring of IT spending in a uniform structure makes it possible to compare the spending between authorities and internationally. Implementing the managerial responsibility for amount of spending is the mechanism allowing to translate the identified saving into the budget.

Implementation of partial measures can reduce IT spending in the next few years by EUR 34.2-70.4 mil. IT financial management is a mid-term tool for the implementation of systematic management of IT spending. Implementation thereof in the next few years can be accompanied by the adoption of further cost-reduction measures with effects noticeable in the nearest future. The measures are focused mainly on establishing price limits for purchases of goods and services and reassessment of contracts for internal systems operation and development.

Attainment of some of the savings is conditional to making capital investments in selected key sectors, based on priorities defined during preparation of the programme budget, with involvement of the Ministry of Finance and the Deputy Prime Minister's Office for Investments and Informatisation. Specifically, it is necessary to centralise the support activities, which is conditional on having a suitable infrastructure (thin client, connection, SW for IT units). Moreover, savings from the efficient operation of the government cloud in the part of the migration to the government cloud can only be earned after migration of the information systems (most of the systems are not cloud-ready and need to be modified on application level). However, the spending review also suggests many savings resulting from changes in organisation and processes, which can be implemented more easily and in a shorter time.

Table 1: Estimated saving in IT costs by priorities

No.	Priority	Saving
6.1	Implementation of IT financial management	EUR 48-95 mil.
6.2	<i>Benchmarking – price limits for goods and services</i>	<i>EUR 7.1 – 30.3 mil.</i>
6.3	<i>Setup of proper SLA level</i>	<i>The saving will be</i>
6.4	<i>Manage and assess the cost efficiency of change requests</i>	<i>quantified upon</i>
		<i>assessment of contracts</i>
6.5	<i>Security</i>	<i>Will be known after</i>
		<i>quantification of</i>
		<i>expenditures on security</i>
6.6	<i>Purchase of software licences</i>	<i>EUR 5.2-5.6 mil.</i>
6.7	<i>Centralization of support activities</i>	<i>EUR 1.6-3.0 mil.</i>
6.8	<i>Change in the telecom services purchase model</i>	<i>EUR 1.5-4.4 mil.</i>
6.9	<i>Efficient operation of the government cloud</i>	<i>EUR 18.8-27.1 mil.²</i>

Major potential for improving the results and for reduction of costs is in building internal resources. The state often purchases IT services which can be generated internally at an equal quality and at lower costs. In the next two years, the state intends to hire 585 external staff at EUR 202 mil. to develop software for OP II projects. Not all activities can be done internally and doing so would be inefficient, therefore, a certain level of outsourcing in public IT is normal. However, while in other countries³ total outsourcing level is around 30%, (the percentage differs depending on the type of activity), in OPII projects only 6% of works are to be generated internally. The building of internal resources does not only bring direct cost savings for the state, but also gives the state a better understanding of its own processes and information systems. That will enable executing a part of the operation internally and better estimating the prices and labour intensiveness of externally provided services, in particular with respect to change requests.

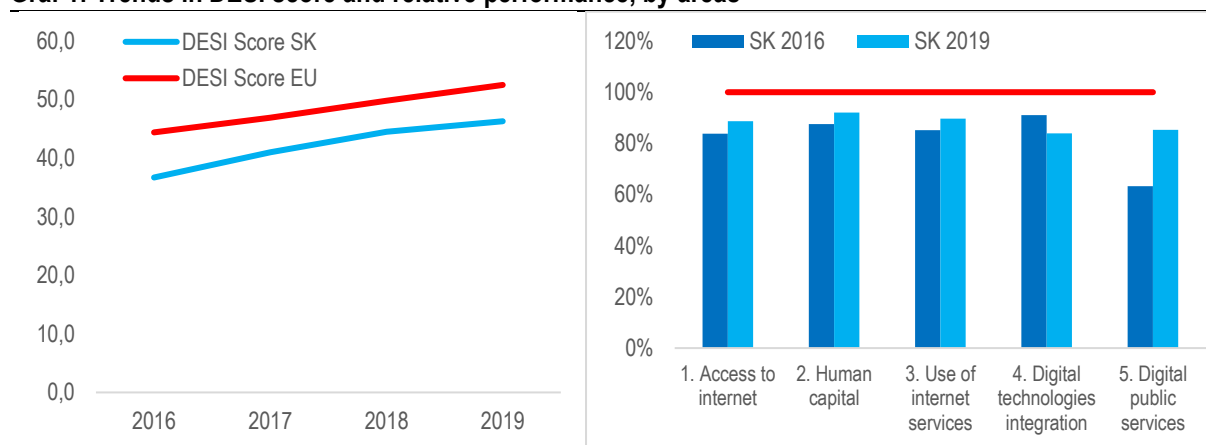
² The goal set by the National eGovernment Concept and the feasibility studies of extension of the government cloud capacity at DC Tajov and DC Kopčianska

³ Gartner IT Key Metrics Data 2018 - Government industry, NSW Government ICT Metrics Report 2016–17

2. Results of informatisation

Results of Slovak informatisation are improving, in international comparison, Slovakia lags behind the EU average. Since the adoption of the Spending Review of IT in 2016, the DESI score⁴ improved in all measured indicators, nevertheless the informatisation results lag behind the EU average and Slovakia's ranking among other countries is not getting better. Pursuant to DESI index, Slovakia in 2019 ranked 21st out of the 28 assessed countries. More pronounced progress has been made in the evaluation of digital and public services, to the overall outcome, however, remains below the EU average. Slovak informatisation is underperforming also under eGovernment benchmark⁵, ranking Slovakia among countries with the unconsolidated electronic general government. Such countries have a lower level of digitalization, a lower number of users of online services and, so far, did not make use of the existing ICT opportunities.

Graf 1: Trends in DESI score and relative performance, by areas



Source: Digital Economy and Society Index (2019), Prepared by ÚHP

Evaluation of the National eGovernment Concept concludes that results achieved by Slovakia in informatisation do not meet the ambitions. The Information about Progress Made in Implementation of the National eGovernment Concept provides a description of the present condition of IT, without assessment of achieved results and without defining priorities. Informatisation ambitions and goals are defined in the National eGovernment Concept⁶, and the progress in the fulfilment of the goals is annually presented in form of "Information about Progress Made in Implementation of the National eGovernment Concept of the Slovak Republic"⁷. The document provides a qualitative description of the present condition and the progress made in informatisation, without defining recommendations to achieve the desired condition.

The results of the implementation of the National eGovernment Concept are not visible from the data. From among 46 measurable indicators, only 21 indicators have available a measured value from 2018 and target value. Yet, attainment of the target value is regarded as being at risk for at least 13 of the indicators, and the values measured in 2018 considerably lag behind the 2020 target value. Most indicators in the National eGovernment Concept do not meet the requirements for performance indicators which can be used for assessment of progress made and for management of development.

The measures to improve informatisation management have not been adequately implemented. The National eGovernment Concept defines strategic measures necessary to improve informatisation management – implementation of the central management concept for the digitisation of central IT on strategic level, changes implementation and IT performance monitoring level, strengthening internal resources and sharing best practices from abroad. The desired outcome is a transparent and open management mechanism allowing for ongoing

⁴ The Digital Economy and Society Index monitoring overall digital performance of the EU and progress in digital competitiveness of countries <https://ec.europa.eu/digital-single-market/en/desi>

⁵ Assessment of availability and quality of digital public services in the EU <https://ec.europa.eu/digital-single-market/en/news/egovernment-benchmark-2018-digital-efforts-european-countries-are-visibly-paying>

⁶ <http://www.informatizacia.sk/narodna-koncepcia-informatizacie-verejnej-spravy--2016-/22662c>

⁷ Chýba zdroj

improvement and implementation of innovations in accordance with “Value for Money” principles. Besides other things, the National eGovernment Concept finds it necessary to implement agile project management and public testing of prototypes. Result indicators from the Information on Compliance with the National eGovernment Concept of the Slovak Republic imply that measures necessary for the improvement of the management are not implemented adequately and the results lag behind the target values.

It should be noted, however, that progress has been made in the centralization of IT through Act No. 95/2019 Coll. on information technologies in the general government, as amended, defining relations between the leading authority (Deputy Prime Minister's Office for Investments and Informatisation) and the managing authorities (public authorities) and specifically, their position of IT administrators. Slovakia implemented public comment proceedings on IT projects financed from EU funds. The open nature of IT projects is growing significantly with the public part of the Metainformation General Government System keeping a register of IT projects financed from EU funds, including the feasibility study. These rules apply to all projects financed from other public funds.

Table 2: Measurable indicators for the “Improvement of the public IT governance”

Indicator	Value 2017	Value 2018	Target value
Percentage of systems using Open source SW			40.0%
Percentage of public procurements with open competition (not direct negotiations)	70.8%	89.5%	95.0%
Percentage of projects in value lower than EUR 5 mil.	42.0%	32.0%	75.0%
Percentage of projects that underwent an independent assessment of value for money	100.0%	100.0%	100.0%
Percentage of projects under agile management			70.0%
Percentage of general government institutions operating the general government IS having the information environment modelled in enterprise architecture	20.8%	37.5%	80.0%
Percentage of electronic general government services which are subject to regular monitoring and feedback	57.4%	82.6%	90.0%

Source: Information about Progress Made in Implementation of the National eGovernment Concept, Prepared by ÚHP

In 2018 public digital services were used by at least 18% fewer persons than planned by the feasibility study. The feasibility study of the central general government portal⁸ estimated that in 2018 electronic services provided by the state would be used by 1.7 mil. persons. Based on the number of BOKs issued for electronic ID cards (eIDs), electronic submissions could have been made by a maximum 1.4 mil. persons. The actual number of users may be lower. The security personal code (BOK), which together with eID serves for authentication in an electronic communication is issued automatically and it is a prerequisite to using the electronic services. The data about the actual number of citizens using electronic services are not available.

There is a positive trend of gradual implementation of the “one strike” principle and online monitoring of results. However, owing to incomplete underlying data, total costs and benefits cannot be verified. One of the tools to increase the value of electronic services for both citizens and businesses is the “one strike” principle defined in the National eGovernment Concept. When providing services to citizens or businesses, general government authorities should not ask for data, that the general government already has available. The initial ambition was to implement this principle in all proceedings by the end of 2018.

The “one strike” principle is implemented gradually. In several rounds of the legislative process, the state imposed an obligation to no longer ask 21 statements or confirmations from citizens and businesses. The necessary information is obtained by the general government staff.

It has been estimated based on general government budget impact clauses that expenditures associated with the elimination of hardcopy statements and confirmations will by 2022 achieve EUR 18.4 mil. including VAT. The above-mentioned amount of expenditures may not be full. In the first round of elimination of the obligation to submit hardcopies, the amounts included in the budget impact clause were just personnel costs and lost revenues from administration fees. Expenditures associated with IS or integration interfaces have not been included in the clause

⁸ https://www.opis.gov.sk/data/files/4757_upvs-ii.pdf

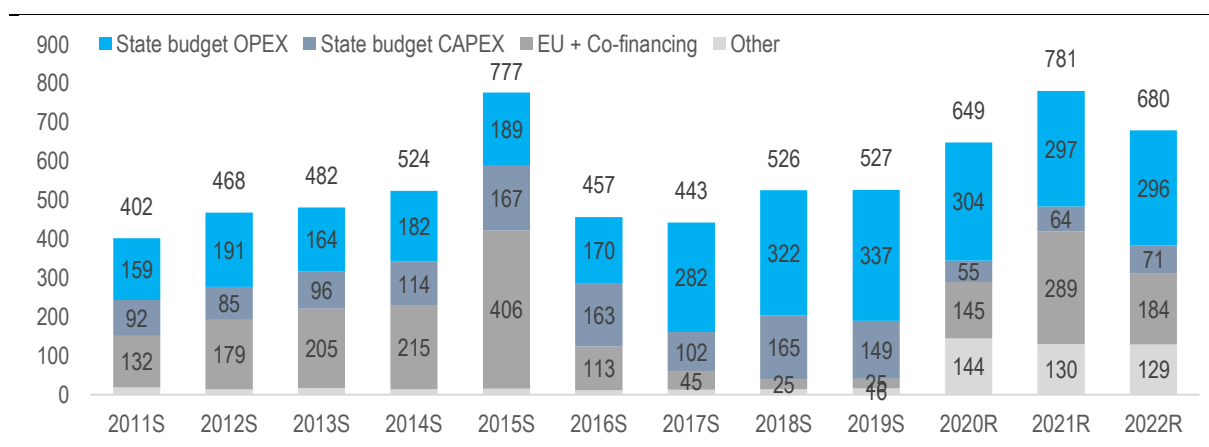
owing to the pending analysis. In the following rounds, expenditures on modification of ISs and integrations account for a major part of the total impact on the budget, however, the amount cannot be verified.

In 2019, pursuant to online monitoring⁹, benefits to citizens from time savings, travel costs and statement fees achieved the level of EUR 6.9 mil. Benefits for each type of submissions have been quantified in the budget impact clauses, which were prepared upon submitting legislative bills. Data about the number of submissions and the number of fees is based on statistic kept by authorities and systems monitoring. The data about time savings and travel costs, which are also used in online monitoring, are expert estimates, which cannot be verified.

3. Spending and budget

The total amount of IT spending is growing on a long-term basis, the amount budgeted for 2020-22 is EUR 703 mil. on average. For the long term, the major item is operating expenditures financed from the state budget, which between 2016 and 2019 doubled from EUR 170 mil. to EUR 337 mil. From 2019, a sharp increase in expenditures is expected due to the implementation of projects co-financed from EU funds.

Graph 2: Trend in total spending on informatisation (EUR mil.)



S = Actual, R = Budget; Source: RIS, Prepared by ÚHP

Necessary IT spending is estimated by the budget chapter administrator, controlled by the Deputy Prime Minister's Office for Investments and Informatisation (ÚPVII) and finalized by the MF SR. Entities involved in the preparation of IT budget include the budget chapter administrator, sponsor of interdepartmental programme 0EK (ÚPVII) and the MF SR. The budget chapter administrator prepares a breakdown of planned expenditures by the structure defined in the interdepartmental programme (current and capital expenditures, IT expenditures and projects, elements); opinion on the draft/proposal is prepared by the sponsor. Opinion on the detailed budget then serves as a supporting document for MF SR's negotiations with representants of each budget chapter.

Since 2017, IT spending is budgeted using a separate interdepartmental programme 0EK. Information systems with annual expenditures below EUR 100 thousand and expenditures for support infrastructure are budgeted at one of the three general components, and systems with annual expenditures above EUR 100 thousand are budgeted separately. In budget chapters accounting for 90% of IT spending, methodological guidance for 0EK is observed at the level of expenditure breakdown by general categories. Excluding 2 budget chapters, on average 76% of IT expenditures are budgeted on that level only without being assigned to any specific information system. Cost data is available for 144 ISs, although the MetaIS register shows that operated are 2583 ISs¹⁰. The goal is to record data for systems, which together account for at least 80 % of total IT spending.

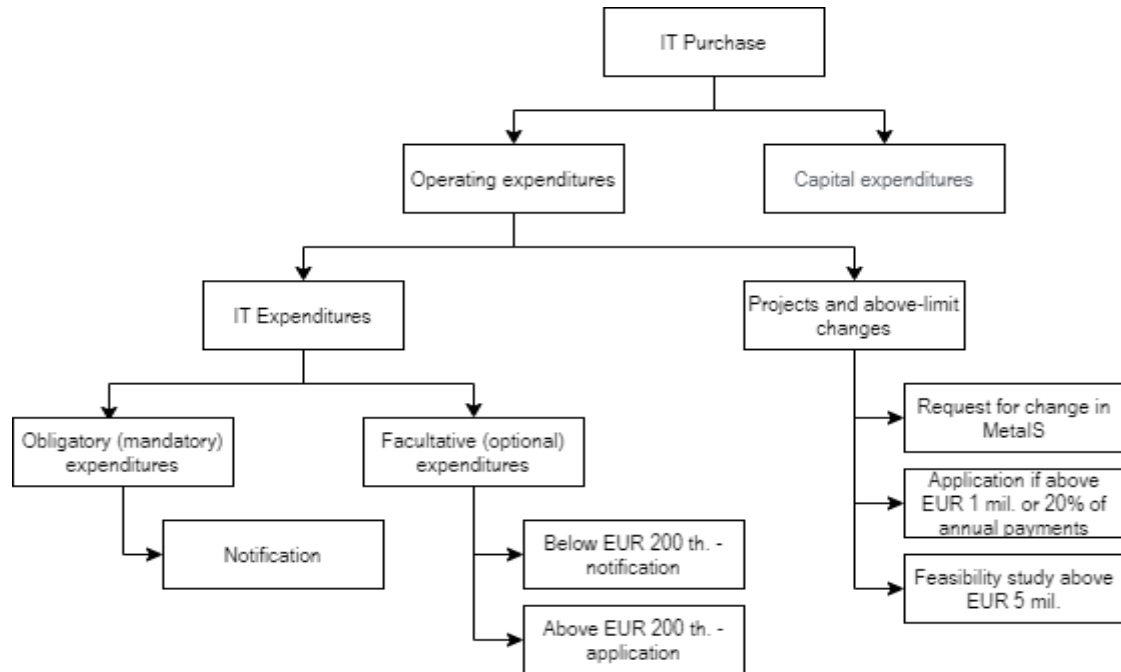
Competencies of Deputy Prime Minister's Office for Investments and Informatisation in the evaluation of IT are insufficient. The amount of approved IT spending for a given year is binding. The methodology of 0EK imposes an obligation on budget chapters' administrators to report changes in IT spending. Changes below EUR 200

⁹ <https://datalab.digital/dashboard-graf/>

¹⁰ <https://metais.vicepremier.gov.sk/cilist/ISVS>

thousand shall be reported to the Deputy Prime Minister's Office for Investments and Informatisation, and expenditures over EUR 200 thousand must be approved by the Deputy Prime Minister's Office. Thus, detailed documentation in accordance with the methodology for the preparation of IT investments can only be required by the Deputy Prime Minister's Office (ÚPVII) only for IT expenditures where fiscal measure needs to be issued by the Ministry of Finance for transfer of funds. Planned expenditures already included in the budget at the beginning of the year and not exceeding EUR 10 mil. including VAT, are not subject to such controls.

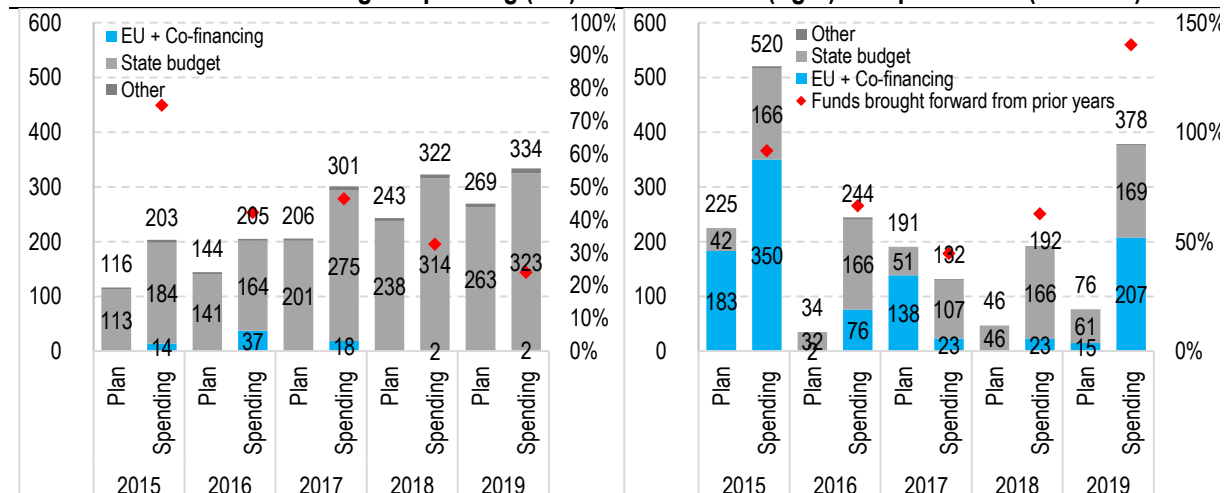
Graf 3: Change management in IT spending (equal rules for current and capital expenditures)



Source: Methodological guidance OEK, Prepared by ÚHP

In a long-term view, the amounts of investment and operating IT expenditures do not significantly differ from actual amounts. At the beginning of the year, IT operating expenditures are usually understated; since 2016 by 25-45%. A positive sign/signal is that the budgeted estimate keeps gradually improving. The number of investment expenditures planned at the beginning of the year is several times lower than the actual spending at the end of the year. A major source of inaccuracies in planning the number of IT investments is the ability to complete planned projects in time. For several years, less than 30 % of the investment budget is spent in accordance with the plan, the remaining portion of the funds is carried forward to the following years. Therefore, the prerequisite to effective management is a preparation of as precise a budget as possible.

Graf 4: Breakdown and drawing of operating (left) and investment (right) IT expenditures (EUR mil.)



The economic classification does not provide the necessary data to analyse the efficiency of IT expenditures. The structure of programme budgeting enables to monitor IT expenditures based on economic classification. The total amount of costs and comparison thereof based on the economic classification (e.g. costs per submission or costs per employee) are a convenient primary indicator of inefficiency. However, without an additional data layer (e.g. based on standardised services) it is not possible to compare the data either within the country or internationally and to identify specific opportunities for improvement, which need to be addressed or analysed, or to estimate the impact of the regulation of supported business services on IT spending.

MetalS should be the single information point about cost-effectiveness and use of public electronic services, however, the quality and reliability of the collected data are low. MetalS defines 1668 terminal electronic services which can be monitored for a frequency of use; other than 0 value is reported for 249 of the services (15%).