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Obsah

Current and target state of ICT management in the Czech Republic

The entire MRICT document is formulated to maximally motivate the target group of its primary beneficiaries to read, perceive and actively use the recommendations contained therein. The key assumptions and intentions underlying this are:

- Eliminate concerns:
  - the scale of the goals and objectives arising for them from the ICR and the ongoing digital transformation of public administration,
  - the risks associated, particularly in the last decade, with investments in the development of computerisation
- to encourage the willingness of the heads of ICT departments of authorities to seize the opportunity and:
  - to further develop and improve, within the framework of their own responsibility, the informatics of "their" office and the department
  - step out of the current IT shadow and gain a substantial share in the overall digital transformation of "their" office and the whole public administration.

Each of the readers may have only some of these motivations, or even quite different ones, but in any case the recommendations of the MIRCT should be helpful in mitigating or eliminating other concerns and risks and in enhancing or fulfilling the hopes and opportunities for a future, better state of authority informatics and its role in digital transformation.

Simplified characteristics of current ICT in the Czech Republic

Key positives

The public administration of the Czech Republic has thousands of employees. Some of them work in departments providing ICT support and there are highly professional specialists among them. All of them are ready to participate in the digital transformation of their offices. However, electronization represents a change in the way the office operates, so here the staff in ICT services can contribute with their expertise, not by creating and choosing an approach or strategy alone.

ICT is one of the few areas where a centralised solution for carefully selected activities very quickly and efficiently improves quality and reduces labour.

ICT in the Czech Republic and the eGovernment supported by it currently has:

- built:
  - a secure and reliable common communication base - KIVS,
  - one common interconnection node of the public Internet and data networks of individual OVS, which also serves as a security and monitoring centre - CMS,
  - common access points - self-service Public Administration Portal and assisted Czech POINT,
- centralised key reference data (Basic registers)
- published series:
  - legislative documents (e.g.: Act No. 365/2000 Coll., ...),
  - binding standards (e.g. eGon Service Bus)
- in operation a number of digital services used by both VS officials and citizens, e.g..:
  - Czech POINT,
  - Data boxes,
  - National Identity Authority.

Key shortcomings

Based on the ICT Benchmark (Digital Czech Republic, 2018), international comparisons and own investigations of the MŘICT author team, it appears that the level of ICT in the public administration of the Czech Republic and its support for the development of eGovernment and digital transformation of public administration is far from the level common in other sectors of social life in the Czech Republic. The delay in comparison with the level legitimately expected by the clients of public administration in comparison with, for example, electronification of banking, insurance or telecommunications in the territory of the Czech Republic or with the public administration of developed countries (Nordic EU countries, Korea, USA, New Zealand and others) reaches 10 years or more.

Rapid progress can be achieved simply by applying best practices from these fields and countries. The causes are known, the main factors for the delay and inefficiency of ICT investments to date are:

1. ambiguity and inconsistency of competences (responsibilities) of individual actors in managing both the whole ICT VS and individual services and systems, especially the current setup:
    - the mutual competences of the statutory (continuous) line management of the public administration of the Czech Republic and the programme management of the digital transformation of the authorities,
    - the differences in the autonomy of different types of VS authorities, i.e. the differences in their legal status and the resulting different rights and obligations,
2. the underestimation of IT and informatics as a profession and service field due to their responsibility for the operation of the necessary conditions for the performance of public administration services and the untapped high potential in the digital transformation of legislation, services and authorities themselves,
3. high risk management of ICT investments,
4. frequent reshuffling and reorganisation of ICT departments, which also results in several months of paralysis and inactivity, or failure to carry out development (investment) tasks and only basic maintenance of ICT services,
5. frequent changes and inadequate pressure on ICT departments, which leads especially highly professional and motivated staff to leave or to lose motivation and burn out, generally leading to defensive activities of ICT management and loss of ability to lead, conceptually develop and innovate, very often resulting in proxy reasons for dismissal of a given manager or representative,
6. in the framework of the personnel policy, all available mechanisms to increase the motivational factors of the employee are very often not used [1)], in terms of training, training for ICT staff is seen as expensive and therefore unfeasible, secondly, the employee does not grow professionally and his motivation decreases,
7. in terms of budget, ICT services are seen as excessive and costly due to the lack of trust and the mentioned riskiness of ICT services. Thus, critical cuts are regularly made primarily in operational - i.e. mandated - expenditures (where most commitments are longer than 1 year), not excluding capital expenditures, mostly without negotiation with the ICT representative, who does not have any tool to defend his budget. This leads to undersizing of services and their obsolescence, which ultimately means unreliability for the client and security breaches, e.g. in the form of security vulnerabilities that the contracting party does not have sufficient financial resources to remedy.
8. in the area of investment cuts, the vision and tasks of the political leadership of the Authority are not being fulfilled (neither new IS nor changes to existing ones are being implemented), and secondly, there is a deepening distrust of ICT as such. Often there is also an inability to implement legal changes or errors in procurement, where the contracting authority is forced to work with a different, reduced budget and therefore not all the original requirements of the internal contracting authority are, and cannot be, served.
9. In the area of budget reduction, the appearance of the interface (UI/UX) for the user and for the client of the VS digital services is usually impoverished and neglected (a pleasant and intuitive environment is crucial for the satisfaction of the VS client). These effects can subsequently lead to dissatisfaction of the VS client with the service, pressure on the office management and subsequent dissatisfaction with the ICT management.
10. Lack of enforcement of even valid obligations in the area of ICT management and eGovernment

development,

11. the inability of the public administration to operate in an equal and balanced partnership with suppliers of ICT solutions and services, in particular:
    - lack of competent human resources and information on the part of the OVS, in particular:
        - for planning and managing the development of individual solutions (architecture) and
        - for planning and managing the delivery of large-scale solution changes (project management).
        - for planning and managing the operation of individual solutions (service management, etc.)
    - completely unbalanced contractual and licensing relationships,
12. lack of linkage of the state budget spending to the size of the contribution and the level of activity involved in the implementation of the state eGovernment strategy,
13. the inability of the management and members of ICT units to articulate and promote their achievements and contributions to the OVS and its department in a human manner,
14. the absence of a central catalogue of ICT services to be shared (also shareable services). This will be partially solved by a catalogue of services according to law no. 12/2020 Coll., but a catalogue of public administration services will not replace a catalogue of ICT services, which may cause:
    - limited use and slow transition of OVS to the use of already centrally provided shared public administration ICT services,
    - centrally uncoordinated spending of state budget funds on ICT VS and thus a significantly lower than possible level of synergy of ICT projects of individual OVS,
15. absence of:
    - a uniformly applied methodology for assessing the need for and benefits of ICT projects [2)]) for meeting the strategic objectives of the Czech Republic, as a basis for centrally coordinated:
        - decision-making on prioritisation of the use of state budget funds,
        - objective evaluation of the benefits of ICT projects/actions[3)],
    - defining responsibilities and rights of key roles (subject administrator, technical administrator, operator) in legislation,
16. Insufficient definition of rights and responsibilities between the different levels of VS management and between the different VS departments, in particular:
    - services providing:
        - strategic development of VS at the national level / for the development of eGovernment,
        - methodological management and execution of specific VS agendas (role of the substantive administrator),
    - services responsible for providing information support to these agendas (role of technical administrator),
17. the insufficient level of specialisation and motivation of ICT staff in the SS,
18. problematic:
    - filling of positions with higher qualification requirements in the field of ICT and sustainability of staff in these positions.
    - there may be a solution that is unique but at the same time best for the needs of the authority. In such a case, all the advantages and disadvantages of the best solution need to be weighed against the possible vendor lock-in, but also the obligation not to discriminate given by Section 6 Law No. 134/2016 Coll., on Public Procurement, as amended,
    - long-term underfunding - both investment and operational, ICT VS,
    - unbinding from historical contracts that are disadvantageous for the VS authorities (vendor-lock).

The **MŘICT introduces/applies** in the first phase **exclusively measures to address the most pressing of the above causes, in such a way that they are immediately applicable on the basis of valid strategic documents approved by the Government of the Czech Republic, i.e. those for which requiring their application is not conditional on the implementation of any legislative changes.**

Definition, mission and vision of computerisation of the offices of

the Ministry of Justice of the Czech Republic

Definitions:

Information services[4)] or also information systems and information/communication technology services are services provided by those public administration departments and organisations (and their external suppliers) that have such technologies to those departments or organisations that need information support for the effective performance of public services.

The development of information support for the performance of public administration, also known as informatics for short, is called informatisation of public administration. Informatisation is a key prerequisite and an integral part of the digital transformation of public administration and the implementation of the ICCR. MŘICT is one of the tools creating an environment ("ecosystem") for information sharing, standardisation and growth of ICT departments within the Public Service of the Czech Republic.

Sending:

The mission of ICT departments in the public administration of the CR is to support public administration services through secure, cost-effective, innovative, shared and quality technologies.

Vision:

ICT professionals in the public administration of the Czech Republic are trusted and respected strategic partners to the leadership of their organisations, informing them of innovative ICT opportunities and providing them with conceptual, quality and secure ICT services, supporting both better public administration services to citizens and businesses and streamlining internal public administration processes.

They effectively share their knowledge and approaches with each other through the environment created and maintained by the MIRCT.

General principles of ICT management from the ICCR

The Information Concept of the Czech Republic in its text presents, besides the objectives and architectural principles of building eGovernment, also "General principles of acquisition, creation, management and operation of public administration information systems" aka the basic principles of management of the IT units of the OVS and the life cycle of the ISVS. These principles represent the minimum mandatory prerequisites for ensuring the coordinated development and successful implementation of changes in the ICT services of individual PSCs and

eGovernment, designed according to the above-mentioned principles of the ICCR and fulfilling its objectives.

Table of general principles for the acquisition, development, management and operation of public administration information systems according to ICCR document

ID	Name of ICT management principle	
Z 1	The client comes first	
Z 2	Standards for ICT planning and management	
Z 3	Strategic management using IK OVS	
Z 4	Architecture Management	
Z 5	Requirements and Change Management	
Z 6	Performance and Quality Management	
Z 7	Service and Systems Accountability Management	
Z 8	Service Catalog Management	
Z 9	Maintenance of internal competencies	
Z 10	Process Management	
Z 11	Benefit and Value Management	
Z 12	Resource Capacity Management	
Z 13	Independence of design, management and quality control	
Z 14	The relationship between informatics and legislation	
Z 15	Management of ICT funding	
Z 16	Use of open source software and standards	
Z 17	Supporting balanced partnerships with suppliers	Z 17

The above principles should thus be respected as a key starting point for managing the entire ICT lifecycle of the Authority, from the establishment of criteria for taking stock of the current ICT status of the Authority, including the evaluation of changes compared to the previous year (see Procedure and Change Implementation Plan), through project procurement and change management, to the evaluation of their results, at all levels of management.

At the same time, the MIRCT contains basic information on a substantial part of the management methods needed for the implementation of these principles in the context of managing not only the overall capabilities of the Authority and its IT unit, but also the life cycle management of the individual ISVs managed by the Authority. The descriptions of the various methods will be further developed in subsequent editions of the MCICT and, in particular, continuously improved in annexes and appendices published on an ongoing basis through the Knowledge base.

Detailed descriptions of each principle in a structure similar to the NAR description of architectural principles, plus checklists with supporting questions and other accelerators, including backward mapping of how each method contributes to the goals and principles of the ICCR, will also be part of the Knowledge base.

The client

Z1 - IT decision making is focused on the delivery of effective services that represent distinct value to external and internal clients, beneficiaries and users of these ICT services in support of the delivery of public administration services. This means, among other things, that the newly built information systems are not to be a mere record (filing cabinet) of legally imposed data, but are to be a means of effective support of the processes of public administration agenda service performance. Both by supporting the work of the official and by supporting the self-service process on the part of the public administration client.

This general principle has two components, one is directed towards the actual management of ICT based on a

balanced relationship between the substantive and technical administrators of the solution, where the substantive administrator is the ICT client and represents the end clients of the authority (officials and citizens/organisations).

The second component overlaps with architectural principles in the business and application architecture layers and changes the purpose and way of supporting the performance of public administration services and the operation of authorities with IS application services.

The most common appropriate methods for fulfilling the principle:

- Customer Relationship Managemente(external and internal)m
- Enterprise Architecture (EA)Enterprise Architecture
- ITIL/ITSM IT Service Management (part)
- Business Process Management (BPM)

ICT Planning and Management Standards

Z2 - Service development is managed using established Enterprise Architecture and other related standards. Standardised procedures comply with the specification of methodological standards and recommendations issued by the Ministry of Interior, in particular the National Architecture Framework with the possibility of using other related international standards (TOGAF, ArchiMate, COBIT, ITIL, IT4IT, UML...) for the management of EA and ICT processes and services.

This general principle states that the Authority's ICT planning and management processes and procedures are not at the discretion of the Authority and the IT manager, but that the relevant parts of international standards are to be introduced into the Authority's regulations and practices alongside, or as extensions of, the MIRCT and NAR.

The most common methods in which the principle is applied are:

- IT Service Management ITIL/ITSM, IT4IT
- Performance management (Cobit)
- Risk management (CoSO)
- Architecture management (TOGAF, ArchiMate, UML)
- Project management (PRINCE2, PMI)
- and more

Strategic Management with IK OVS

Z3 - The development of the IS of an OVS is guided by a long-term plan - Information concept of the OVS. This includes both strategic changes, process optimization needs and needs resulting from the state of ICT. The IK of the OVS sets objectives oriented towards improving services to external clients (public) and internal clients (improvement of the entity). The third recommended group consists of objectives oriented towards IT improvement (service management).

The Information Concept of the OVS must support the realisation of the objectives of the entity's concept/strategy, if set, must support the realisation of the objectives of the Information Concept of the CR and must reflect the principles and principles set by the latter.

The objectives must meet the "SMART" specification, i.e. specificity/concreteness, measurability, achievability (there must be an allocation of financial and human resources for the realisation of the objective), relevance and time-bound.

This general principle underscores the fundamental change that:

- the management of ICT OVM must not be reactive but planned.
- the IK OVM document is not a "paper in a drawer" but an essential management tool.

The Information Concept is a document capturing the management plan through the Enterprise Architecture method. It builds on the objectives set out, in particular, in the internal "Authority Development Strategy" and the "Authority ICT Strategy" (if developed separately), as well as the objectives of the ICD, the Government Programme Statement and the Departmental and Authority Sector Strategies. The objectives set out in these strategies (in particular for the development of the Authority and ICT) must be SMART, i.e. according to the Strategic Management Method, incl. Balanced ScoreCard.

The most common appropriate methods for fulfilling the principle:

- Enterprise Architecture (EA)Enterprise Architecture
- Strategic Management + BSC (Balanced ScoreCard)

Architecture Management

Z4 - The architecture of individual ICT solutions must be designed according to the business architecture of the agenda, in context to the architecture of the whole OSS and the whole eGovernment. In particular, the shared services of OVS and eGovernment and the potential for further sharing must be taken into account.

Each entity is required to maintain its EA model up-to-date, at a level of detail appropriate to its size, and consistent with the mandatory content specified by the Home Office that represents common shared services and architecture elements, and consistent with the content of its Information Concept.

The architecture is four-layered, i.e. for each process/agenda there is a link to the relevant ISVS applications (and/or operational systems) that support the process, then a link to the relevant technology and communications infrastructure in which the systems are implemented and operated.

Parts of the National Model (NAP) specifying the architecture of shared services must be incorporated into the EA model of the OVS. If an OVS provides a shared service, it must publish its EA model via the MV/OHA.

This general principle refines the previous principle Z3. The most common appropriate methods for fulfilling the principle:

- Enterprise Architecture (EA)Enterprise Architecture

Requirements and Change Management

Z5 - Evaluating feedback, incidents and service requests. A functional requirements lifecycle management process (for new features, changes, risk elimination measures) is critical from an information services and architecture change management perspective. Requirements must be continuously recorded, evaluated and incorporated into updates of information concept of the entity, programme documents, investment plans, projects or minor change plans.

This general principle requires the implementation of several processes from the ICT Service Delivery Management (ITIL/ITSM) methods.

At the same time, it involves complementary management of small changes (in operational support) and large

changes (in project management mode) following the IK OVS Roadmap.

The most common appropriate methods for fulfilling the principle:

- Requirements management in the context of ITIL/ITSM ICT service management
- Enterprise Architecture (EA)Enterprise Architecture
- Programme and Project Management

Performance and Quality Management

Z6 - Performance and quality evaluation, at a minimum, the principles of measurability and feedback, will be embedded in all processes/procedures, as well as the role, position of the Quality Manager (independence of IT performance and quality from IT development and operations management).

The quality, performance and accountability in the management of ICT OSS will be regularly verified through audit and benchmarking.

This general principle highlights several key aspects of IT service performance and quality management and the performance of the public administration and operations services supported by IT services.

The most common appropriate methods for fulfilling the principle are:

- Quality management
- Performance management
- Customer relationship management
- Enterprise ArchitectureAuthority Architecture (EA)
- Audit IT
- Benchmark

Service and Systems Accountability Management

Z7 - Each agenda/process and its service must have an owner (person) who determines the structure and execution of the process/agenda and is responsible for improvement, across all supporting IS.

Each ISMS (or operational system) has a defined sponsor/manager (substantive and technical) and operator, across all supported agendas and services.

This general principle redefines the unambiguous obligation for an authority to have defined external and internal processes and services for both administration and operations. And further, the obligation to have one person responsible for each identified process and service responsible for their quality and continuous improvement.

At the same time, this principle materializes the solution to the traditional problem of the relationship between professional and IT departments of the obligation of the Authority to have a pair of knowledgeable and responsible persons, a subject matter manager and a technical manager, for each information system.

The most common appropriate methods for implementing the principle are:

- Quality management
- Customer relationship management (internal and external)
- Service management

- IT Service Management (ITIL/ITSM)
- Process management (BPM)
- Architecture of Authority (EA)

Service Catalogue Management

Z8 - IT support to OVS is managed through a catalogue of ICT services (mainly application services, but also technology and infrastructure services) that support the performance processes of the Authority's internal and external public administration services (traditional and digital). Each entity updates, publishes and promotes its catalogue of public-facing electronic/digital services on the Internet and a similar catalogue of internal digital services on the intranet.

The external digital services catalogue is linked to relevant life/business events/situations. This catalogue is subsequently consolidated and published by the Ministry of the Interior on the public administration portal. Local authorities use part of the catalogue with templates created by the Ministry of the Interior within their delegated competences.

The catalogue of internal ICT services of the OVS also includes services available to it as shared services from different levels of public administration.

This general principle is complementary to the previous principle (on responsibilities) and imposes an obligation on the Authority to keep up-to-date and use both the Authority's catalogue of (business) services (both VS performance and operations) and specifically the catalogue of services of the ICT unit and its external sub-contractors in the management of the Authority. The catalogue of ICT services is a subset and integral part of the catalogue of the Authority's internal (operational) services, together with the services of property management, accounting, HR, purchasing, administration, legal department and others).

The catalogue serves both to manage the quality and performance of the delivery of these services and to manage their development, but also as a means of their use (consumption) on the Authority's intranet.

The most common appropriate methods for fulfilling the policy are:

- Quality management
- Customer relationship management (internal and external)
- Service management
- IT Service Management (ITIL/ITSM)
- Process management (BPM)
- Architecture of Authority (EA)

Maintaining internal competencies

Z9 - OVS has created internal positions for all key eGovernment service management and IT management roles. This is essential to maintain independence from suppliers, continuity and a holistic view, and most importantly accountability. Staff in these roles maintain competence by actively engaging in all supplier-related activities and taking on their skills (Learning by doing).

This general principle leads the Authority to fulfil one of the many prerequisites of being able to transform and develop flexibly without depending on external suppliers, in this case without depending on their capacity and their expertise.

The principle stresses that the Authority must ensure both sufficient capacity (filled positions) and sufficient competences acquired through experience. In practice, this means that the staff who are to be the bearers of certain knowledge must be freed for a significant part of their time to work actively in projects with external contractors, and that their main objective throughout their time in the project, in addition to the successful completion of the project, is to take over, document and share internally the maximum of the contractor's knowledge.

The most common appropriate methods for fulfilling the principle:

- Project and portfolio management (part - capacity management)
- Knowledge Management (KM)
- Human Resource Management (HR)

Process Management

Z10 - Process management will be implemented not only in IT but in all agencies/processes. This means, among other things, that each process has an owner/guarantor and defined outputs (services, products). Furthermore, there are defined tools (ISVS for agendas) and roles that use them and perform individual activities of the process/agenda. A role is not an organizational position. The supervisor/subordinate organizational structure hierarchy is not a process approach and is intended to address only emergencies that are not part of standard procedures.

This general principle further deepens principle Z7 (Accountability) by encouraging the introduction of true procedural management in offices, independent of rigid organisational hierarchy (line management). Transitionally, this can be facilitated by changing the organisation to a so-called process-oriented one, i.e. one in which the hierarchy of responsibilities replicates the hierarchy of process decomposition.

The general principle expects that the ICT unit will be a pioneer in the introduction of process management (as a prerequisite for service delivery management) throughout the Authority, and that at the same time the ICT management model will be in line with the concept of future process and service management throughout the Authority (co-defining it).

The most common appropriate methods for fulfilling the principle:

- ICT Service Management (ITIL/ITSM)
- Organisational management (part of HR)
- Process management (BPM)
- Authority Architecture (EA)
- Quality Management

Benefits and Value Management

Z11 - All decision making is guided by the rules of "Good Housekeeping" and "Value for Money". All ISVS projects must (along with the OHA form) have a developed "business case" type investment plan with clearly identified benefits to the public and/or the Authority. The OHA methodology of the Ministry of the Interior of the Czech Republic, enriched with proven elements of methodologies of other ministries, such as the logical framework methods from the methodology of the Ministry of Labour and Social Affairs of the Czech Republic.

This general principle introduces into the Office the ability to assess each change plan (and usually expenditure)

on the basis of an honest financial and non-financial comparison of the value of benefits (outputs, outcomes, but especially impacts - " what is it good for") and the need for resources (capacity, knowledge, finance), taking into account the elimination of risks.

The most common appropriate methods for fulfilling the principle:

- Business Case
- Logical framework (FogFrame)
- Performance and cost management - TCO, ROI, PublicROI indicators
- IT Controlling

Resource Capacity Management

Z12 - OVS is continuously preparing to ensure that sufficient quantity and quality of internal capacity of process/agenda owners, system sponsors/managers, project managers and architects is available, commensurate with their anticipated release to transformational change programmes and projects.

The projects must then ensure that sufficient capacity is available in the sponsor's key personnel (OVS) who hold the know-how of the performance of each process, the use of existing (successor and/or replacement) systems and the operational/security standards of the sponsor. These capacities must be realistically allocated (transferred) to the project in proportion to their roles and project phases. This will, among other things, ensure the necessary transfer of knowledge from the project and from the contractor to the line structures of the OVS.

This general principle builds on Z9 (... obtaining knowledge from the contractor ...), but in terms of ensuring internal capacity and internal knowledge, thus complementing it.

The principle commits the Authority not to embark on transformation and ICT projects until it has sufficient capacity of sufficiently knowledgeable staff to release to the change project. The principle emphasises the long-term and ongoing nature of preparing such capacity and competence as an investment in change and thus in line with Objective 4.6 Country Information Concept.

The most common appropriate methods for fulfilling the principle:

- Project and portfolio management (part - capacity management)
- Knowledge Management (KM)
- Human Resource Management (HR)
- Organizational Management (part of HR)

Independence of design, management and quality control

Z13 - The project must be managed according to standard project methodology by an internal PM with sufficient allocated capacity and qualifications throughout the design, implementation and handover of the ISVS to the operation, or by an external PM (from the competence centre). Only in case of unavailability of internal resources and competence centre resources, it is possible to outsource the PM role to an external entity by competition. The selected bidder must not have a relationship with the supplier or the operator.

Similarly, it is useful to have an element of independent quality control in projects, both in terms of the quality of project management and the quality of the design and delivery of the solution.

Key roles in the project must be separated. In the case of componentisation, the system integrator, component suppliers and operator(s) must be independent of each other. The acquiring and operating

entity must not have a relationship with an external entity providing design or implementation. The Accepting and Operating Entity must be included in the acceptance management of the implementation.

This general principle emphasises the irreplaceable role of the project manager on the procuring entity side. At the same time, it introduces an element of independent supervision and quality control on the part of the contracting authority.

In doing so, the principle emphasises the need for legal, contractual and de facto independence of certain roles in the delivery of solutions and services. The most common appropriate methods for implementing the principle are:

- Project and portfolio management (part - capacity management)
- Procurement and contract management
- Management of ICT service delivery (ITIL/ITSM)

Relationship between IT and legislation

Z14 - Proposals for IT support options for legislation should be developed in conjunction with proposals for the adoption of legislation or amendments to legislation so that they interact towards the development of modern and workable provisions.

Information support for legislative amendments should be prepared and verified during the legislative process, not only when the law is in force or even in force.

This general principle highlights the new role of ICT professionals in ensuring a high probability of feasibility of legislative amendments, most of which at the current stage of human society and government development need some degree of ICT support.

The most common appropriate methods for fulfilling the principle are:

- ICT Service Management (ITIL/ITSM)
- Legislative process management
- Project management
- Organisational management (part of HR)
- Process management (BPM)
- Architecture of the Authority (EA)
- Authority Architecture (SA)
- SW development management - here part of prototyping, proof of concept (PoC - Proof of Concept, SandBox)

ICT Funding Management

Z15 - Long-term professional management of financial resources and use of EU funds is an integral principle for all OSS. It is necessary to work with the methodology of financial calculations based on the profitability index/CBA (benefit-cost analysis) and TCO (total cost of ownership of ICT), including building the competence to economically calculate the optimal efficiency and performance of an agenda (process) with different levels of the ratio of personnel costs for its execution and the costs of its IT support. Improvements need to be made not only in the area of investment management, but also in long-term financial planning for infrastructure renewal and operational support of systems

.

This general principle builds on Principle Z11 (Benefit and Value Management) and adds the obligation for the Authority to have the capacity and competence to manage and finance ICT investments.

The most common appropriate methods for meeting the principle are:

- Managing the planning and financing of investments
- Investment plan (Business Case)
- Logical framework (FogFrame)
- Performance and cost management - TCO, ROI, PublicROI indicators
- IT Controlling

Use of open source software and standards

Z16 - State uses open software and open standards to avoid high long-term costs and risks. Therefore, the ISVS manager will leverage existing open source projects or leave new source code open and reusable, publish it under appropriate licenses, and/or provide a compelling explanation for a specific piece of code for which this cannot be done. If the use of open source code is not possible or appropriate for the implementation of the ISVS, then the Z17 principle of balanced partnership with suppliers shall be followed for such solutions.

This general principle for central eGovernment and ICT coordinating bodies obliges them to create, collect and publish shareable parts of solutions and applicable standards.

For other authorities, it represents an obligation to (a) know and apply such resources when designing solutions and (b) provide resources and experience to the central authority after successfully developing their own solutions.

The most common appropriate methods for fulfilling the principle are:

- ICT Service Management (ITIL/ITSM)
- Project management
- Software development management
- Knowledge management

Promoting balanced partnerships with suppliers

Z17 - The ISVS manager must ensure that it always has the ISVS source code, detailed ISVS documentation, ISVS licensing rights (rights to use copyrighted work) and the inherent ability to make decisions about the ISVS so that the system can be modified and managed by third parties independent of the original supplier or ISVS manager.

This general principle builds on Principles Z9 (internal competencies) and Z13 (independent roles) and highlights the other necessary elements to achieve contractual relationships and realistic projects and service delivery in a situation of balanced partnership with suppliers.

The principle in the managerial area complements (together with Z16 and others) the architectural principles P9, P10, P16 and especially P17 Information Concept CR.

The most common appropriate methods for fulfilling the principle:

- Project and portfolio management (part - capacity management)
- Procurement and contract management
- Management of ICT service delivery (ITIL/ITSM)
- Knowledge Management (KM)

Prerequisites for successful digital transformation of public administration

The European Commission in its "EU eGovernment Action Plan 2016-2020" states that "Modern and efficient public administrations need to guarantee fast and high quality services for citizens and a friendly environment for businesses, as recognised in recent annual growth analyses. Public administrations need to transform their facilities, rethink and redesign existing processes and services, and make their data and services accessible to other administrations and, where possible, to businesses and civil society."[5)]

This acceleration and improvement can happen even without changes to the current legislation.

In order to realise the above assumption, the following changes in particular need to be implemented:

- to introduce conceptual and strategic planning and management of the development of ICT services of the OVS according to the needs of clients from their professional departments, without exceptions for the entire OVS, in the long term, i.e.:
  - overall architecture of the office, central architectural office, chief architect of OVS and its department
  - IT architecture of individual solutions,
  - management of process, application and technology portfolios,
  - all driven by the OVS information concept,
- to establish a rigorous programme and project management of the planning and implementation of ICT service changes, both on the scope and resource side and on the benefits side, this primarily means:
  - overall unified management of all (IT and non-IT) projects and programmes of the Authority,
  - central programme and project office,
  - professional project managers managing portfolios of projects, including across the Authority,
- to ensure that VS ICT projects can be compared with each other, objectively and easily, i.e. in particular to establish simple, uniform rules for the submission and approval of ICT projects by each VS office and to ensure that they are consistently followed. The rules must include in particular:
  - clear guidance on what to approve,
  - who (at what level of government) will approve or comment on the project,
  - a clear definition of the project, in particular
  - the substantive objective of the project, including well measurable criteria, whereby the substantive objective should not be the purposeless acquisition of technology, but should always serve to achieve specific effects either for users of VS or clients of VS services, it may be:
    - ensuring the public interest
    - meeting a statutory requirement,
    - increasing accessibility,
    - reducing burdens,
    - increase quality for the VS client
    - increase the safety of the service
    - The substantive objective should include in particular:
      - a brief specification of the contribution to the fulfilment of national (republican) and EU strategic objectives, e.g. the objectives of the Digital Czech Republic programme, etc., and the objectives of the OVS,
      - an analysis or other qualified estimate of the economic or other positive effect within a time horizon of 5 or 7 years.
- Introduce a central, uniform prioritisation of development projects at the national level based on their contribution to national (republican) strategic objectives,

- operationalize key management catalogues, in particular:
  - Catalogue of digital services or centrally provided shared ICT VS services,
  - Catalogue of ICT and VS transformation plans/projects containing the introduction of:
    - the purpose and main objectives of the plan/project, including to which (sub-)objective of the Digital Czech Republic it is to contribute,
    - which ICT services / ISVS are involved in the plan/project, including the indication of their substantive administrator,
    - the current state of the plan/project,
    - the amount of resources the project requires, has allocated or has already consumed.
- Generally relax budget rules enough to give individual OVSs a greater degree of authority to make flexible funding changes. Based on a consistent and objective assessment of the effectiveness of internally and externally provided ICT services, they can then respond more flexibly to changing needs and satisfy clients and users more quickly and efficiently, in particular:
  - the possibility to reasonably increase the share of outsourced services (i.e. not to insist on the proportions of investments and operating expenses specified in the financial plans),
  - to reasonably shift allocated resources between approved projects.

Structure of the description of the desired future state

As a document primarily addressed to the heads (managers) of the ICT units of the VS authorities, the MIRCTs are practice-oriented and therefore first provide essential information on how to manage and how to use the different methods in two areas, levels of management:

- in the management within the life cycle of each ISVS,
- in the management of assets, projects, processes and IT capabilities of the authority as a whole,

Subsequently, information is provided on the necessary other capabilities of the Authority that the IT Service Manager can and must rely on and naturally build upon (economics, HR, security, real estate, purchasing, etc.). These capabilities are drawn upon by the IT manager as a service to other operational units of the Authority, see Collaboration with other offices and eGovernment units.

All of the following information is de facto a description of the target (desired, optimised) future state of ICT management in the Ministry of the Interior and other institutions, which can be achieved by implementing these recommendations in individual OSS and by creating central assumptions.

The theoretical background of the proposed ICT management system, key information on its position in the hierarchy of public administration management of the Czech Republic and other detailed and additional information on which the MŘICT are based are presented separately in Knowledge base.

Starting with the next edition, based on the feedback received from the expert community, one more level of management detail will be gradually added to the MŘICT, namely the life cycle management procedures of individual sub-application/information system services. The current edition of the MIRICT focuses on all changed services of one IS together, according to its life cycle.

1)
for example, the institute of key employee, see the analysis of the RVIS.
2)
Instead of using internationally recognized, clearly quantifiable qualitative indicators, irrelevant quantitative indicators are commonly used.
3)
Currently the most common is evaluation only according to the fulfilment of the planned use of funds.
4)
Based on the following definition of service: 'A service is a function of an office/department, provided by a specific provider to a specific recipient of a service according to a predefined formal agreement (law, decree, service level agreement - SLA), such that it delivers perceived value to the recipient for which he/she would be willing to pay a reasonable price.

5)

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