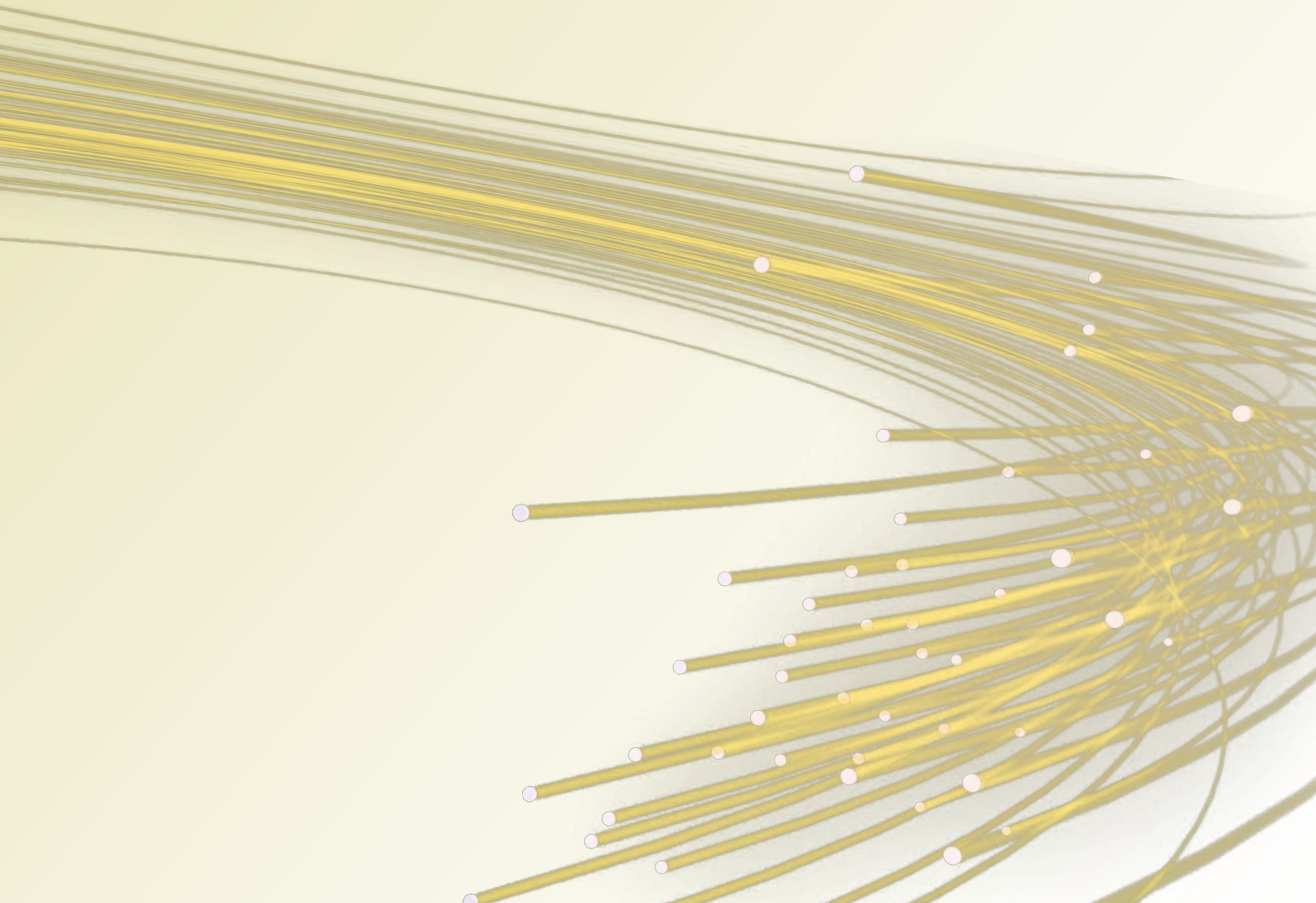


DEVELOPMENT STRATEGY FOR IT-SUPPORTED
COURT BUSINESS PROCESSES



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1. Introduction

In the last decade, we have witnessed a surge in the development of information technology, which has, as expected, resulted in information technology finding its way into nearly every facet of the business of Slovenian courts.

The computerisation of the courts has been constantly developing in recent years, under the aegis of the Supreme Court. However, this development has not merely followed the rapid development of information technology, but in many instances has brought on advanced solutions and technologies which only later developed into general information system development trends.

Today we can say that procedures in the judiciary are fully IT-supported, as courts process more than 95% of all received cases with the aid of one of the court information systems.

An essential part of achieving this was the clear vision and aims of information system development in the judiciary, as well as strategic guidelines and standards, on the basis of which a coordinated development of key centralised information systems in the judiciary has taken place at the Centre for Information Technology of the Supreme Court (hereinafter: the Centre) over the last fifteen years.

On the basis of past experience we can safely conclude that in the long term, the existence of vision, aims, strategic guidelines and standards alone does not guarantee sustainable development in this field.

It would have been virtually impossible to achieve these results without the close cooperation of the managers, operators and users of information systems and their commitment to common strategic aims.

A clear commitment to the common strategy at all levels is also the main reason that the elements of the original strategic principles are still current.

Nevertheless, a need has emerged to adapt common strategic guidelines to current times, which would also provide long-term strategic principles and guidelines for the introduction of up-to-date technologies, services and standards to the IT environment of the Slovenian judiciary.

1.1. Purpose of the strategy

The basic purpose of the Centre's strategy is to define strategic guidelines and standards for the development of IT support for court business processes, so that this support is long-term, of good quality and timely. In this the strategy takes into account and supplements the adopted strategic documents related to court business processes (strategic principles from the opening of the 2012 court year, justice administration strategy *Pravosodje 2020*).

1.2. Centre's vision

The Centre will maintain its role of a body responsible for the development of information systems in the judiciary. It will strengthen this role in the planning, development and introduction of innovative IT solutions and in the gathering and dissemination of knowledge, experience and good practice.

By implementing IT solutions, it will strive to:

- increase the accessibility of court services for all users;
- simplify court services for all users;
- gather and provide relevant information on court proceedings by using advanced technologies;
- increase data quality, timeliness and friendliness for all users of court services.

1.3. The role of information and communication technologies in the judiciary

Information technology as such cannot replace the basic activity of the judiciary – adjudication; however, it can help considerably, particularly by the following:

- optimising business processes, on the basis of a functional analysis in planning IT support for a procedure,

- supporting business decision-making and the subsequent verification of decisions with the use of business data collected by using information support for a procedure (identifying bottlenecks, lengthy tasks ...),
- accelerating business processes by using IT support for procedures, for example:
 - savings in data entry through the principle of "enter once, use many times",
 - savings due to easier file tracking,
 - savings due to the automatic generation of frequent writs (by using verified templates),
 - savings due to the optimisation and automation of logistics tasks,
 - better organisation of work due to uniform working methods,
 - easier access to data in external records that are required in court proceedings,
 - easier access and analysis of data collected in relation to individual proceedings.

The use of information systems can have many positive effects for the judiciary, however we have to keep in mind that their effectiveness and applicability depends mostly on their users, i.e. ourselves.

1.4. Key factors of success

During the implementation of information system development projects in the judiciary it has been confirmed that the introduction of a new information system itself does not guarantee the project's success. This depends directly on how well the following key components are coordinated in information system development projects:

1. technical components: the choice of architecture, technologies used, development method;
2. organisational components: the provision of appropriate human and financial resources, implementation plan, the plan for changes in the organisation of work when the new information system is introduced;
3. business components: clearly defined business objectives, a plan for measuring and achieving these objectives and the setting-up of a system for the continuous monitoring of the success of the project on the basis of measurable indicators;
4. regulatory components: compliance with regulations in force, proposals for adaptations of and amendments to regulations and business processes.

2. Organisational guidelines and principles

2.1. Organisation of the Centre

Pursuant to Article 70 of the Courts Act, the Centre is a special organisational unit of the Supreme Court and the key organisational unit responsible for uniform technological support for court business processes. The work of the Centre is mostly organised in projects.

The Centre answers to the president of the Supreme Court and as an organisational unit within the Registry Department also to the Head of the Registry Department.

It is organised into the following three units or sections responsible and competent for particular fields:

- **Production and Maintenance Section** responsible for:
 - central production environment,
 - infrastructure, including local computer networks,
 - user support,
 - desk computing,

- hardware maintenance,
- data backup;
- **Development Section** responsible for the technical part of projects:
 - the planning and development of information systems,
 - checking the suitability of new technologies for application in the information system of the judiciary,
 - ensuring the uniformity of architecture, information system development,
 - development of common building blocks – individual programme modules common to all information systems;
- **Public Procurement Section** responsible for:
 - planning and implementing public procurement,
 - keeping an equipment register,
 - controlling the conformity of contractual services provision,
 - drawing up financial plans.

2.1.1. Relationship between the Centre and the Supreme Court

The setting-up of the Centre as a special organisational unit of the Supreme Court, for reasons of the independence and autonomy of the Supreme Court, provided key conditions for the successful and unimpeded implementation of IT projects. These conditions are as follows:

- stable development environment,
- independence from external factors,
- possibility of long-term continuous development,
- long-term strategic planning,
- promotion of confidence in the courts,
- constant close cooperation with users.

The continuous support of and close relationship with the leadership of the Supreme Court, other courts and users are also essential for the successful operation of the Centre. On the basis of cooperation with these stakeholders, the Centre can take responsibility for the implementation of planned projects in accordance with the approved strategic guidelines determined by the Users' Council.

2.1.2. Relationship with courts

The Centre constantly strives to provide the highest level of service to courts. Above all, it provides the technical conditions for IT support for court business processes, particularly through the following:

- hardware purchase and supply,
- provision of warranty and post-warranty maintenance of equipment,
- provision of IT support for business processes at courts,
- participation in designing specifications,
- provision of user support (technical and substantive).

In providing services, the Centre promotes the participation of its representatives in regular visits to courts.

Cooperation with systems engineers and the heads of information technology services is essential in the relationship with the courts. This cooperation enables:

- coordinated development at all courts,
- uniform procedures and working methods.

The Centre, therefore, maintains regular contact with systems engineers in the form of monthly meetings.

2.1.3. Position within the justice administration

The Centre undoubtedly has a key role in IT support for justice administration procedures, and for this reason it cooperates with and promotes cooperation among all stakeholders in the justice administration.

The Centre will endeavour, within its competencies, to establish clear formal relationships between the competent ministry and the Supreme Court, which will delineate their competencies and responsibilities and thus enable them to cooperate freely in activities aimed at ensuring the conditions for the operation of Slovenian courts.

The prerequisite for such cooperation is a respectful and equal relationship among all those responsible for computerisation in the justice administration, which must be maintained through regular coordination meetings.

2.1.4. Relationship with outsourcers

The Centre will, particularly in the development of information systems, use the services of outsourcers selected through public tenders in accordance with the legislation on public procurement.

In cooperating with outsourcers, the Centre will strive for the development of partnerships, mutual understanding and clearly defined tasks, responsibilities and competencies.

In order to maintain unhindered and effective cooperation, the custodians of contracts will, together with respective outsourcers, ensure that the following are clearly defined:

- contractual scope and responsibilities,
- contractual obligations and deadlines,
- method of work with the outsourcer, which must be documented,
- method of project billing (fixed cost, time and material billing, etc.),
- method of ordering and billing of services (basic and additional).

2.1.5. Cooperation with external users

In accordance with its role as the body responsible for the development of IT in the judiciary, the Centre will determine the methods and ways of cooperation with external users at all levels:

- at the EU level it will promote active cooperation of the Centre's representatives in IT activities, particularly in the field of justice;
- at the national level it will promote closer cooperation among the stakeholders in the field of IT (Ministry of Public Administration, Ministry of Justice), and actively participate in the preparation of framework strategic documents and guidelines;
- at the professional level (Judicial Council, attorneys, notaries, faculties etc.) it will promote regular professional dialogue between the representatives of relevant disciplines and the Centre;
- it will provide channels of communication with its clients, both employees at courts and others.

2.2. Project organisation

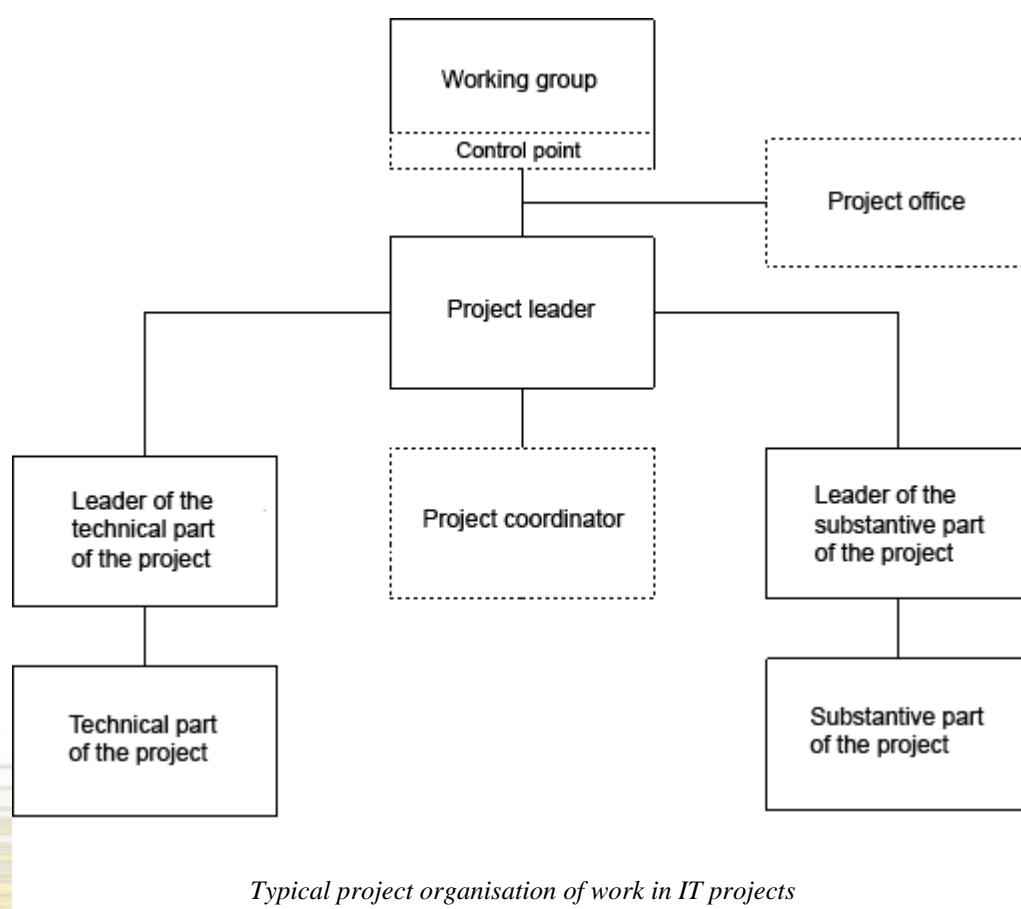
The implementation of project tasks within IT-support for the work of the courts provided by the Centre is ensured through the project organisation of work.

2.2.1. Project group

Generally, the project group consists of the following two parts:

- the *technical part of the project*, which deals with technical issues within the project, determines technical standards and solutions, checks the quality of software and communicates with outsourcers; and
- the *substantive part of the project* which deals with the functional specifications, user requirements, lists of business processes and organisational and legal frameworks.

Each of the two parts of the project group has a leader who is responsible for the group's work. One of the two leaders is also the leader of the entire project and is responsible for all project-related issues.



The project leader decides on the need to appoint a *project coordinator*, who (normally an outsourcer) brings new knowledge into the environment and is in charge of coordination among all stakeholders, of project control in accordance with the chosen project management methodology and also of the production and gathering of project documents.

The project leader provides project status reports to a *working group*, which normally consists of the representatives of all stakeholders for the project (e.g. representative of the Users' Group, representative of the Ministry of Justice, representative of the Ministry of Public Administration, Director of the Centre, Head of the Registry Department, etc.).

The project organisation described above ensures the following positive effects:

- prevents project group members from dealing with a field in which they are not proficient;
- enables project group parts to meet separately, so that proposals are adopted and enforced more quickly and efficiently;
- enables the leader of the substantive project part to be interpreted as the representative of the client and the leader of the technical part as the representative of the service provider and in this way facilitates a distinction between their obligations.

2.2.2. Working group

Working groups play the role of a supervisory and steering body for ongoing projects. They coordinate the relationships among all project components, propose solutions and adopt strategic decisions within a project. Working groups normally consist of:

- Head of the Registry Department,
- Director of the Centre,
- project leader,
- other appointed members.

Working groups usually meet once a month. If necessary, they also adopt decisions at separate meetings or meetings by correspondence.

In certain projects, where appropriate, a working group may introduce *control points*. Control points are intended for the more frequent and in-depth monitoring of a particular project. They are normally introduced in the period just before the conclusion of project development, and last until development activities for a project are concluded and the operative decision is adopted, which is related in particular to the implementation of a new IT system in target environments. Meetings at control points normally include members of the core working group, project leaders (substantive and technical) and project coordinator (if appointed).

2.2.3. Project office

In order to provide comprehensive project management, the possibility has to be considered of introducing a project office to take over certain project administration tasks, ensure uniform methodology for project implementation and deal with the gathering, sorting and storage of documents, the organisation of meetings, the provision of information on project status and the management of accumulated knowledge and experience from previous projects (project knowledge base).

2.3. Human resources management

A successful and efficient implementation of strategic guidelines in IT depends mainly on the employees, both at the Centre and at individual courts. The Centre regularly experiences difficulties in its efforts to guarantee the permanence and appropriate filling of jobs despite the continuous increase in the number and scope of tasks it performs. Inappropriate staffing can cause serious blockages in all of the Centre's activities, but most of all it overburdens the existing staff and results in the lower efficiency and quality of their work. Therefore, the following strategic guidelines need to be observed in order to solve the staff situation in the long term:

2.3.1. Rewarding of employees

The Centre will make every effort, within its competencies, to provide for the appropriate rewarding of judiciary employees involved in IT, with a view not only to keeping current employees but also increasing the interest in employment in this field.

2.3.2. Continuous training of employees

The Centre will make every effort to ensure continuous training for the employees in IT and thus enable them to perform their tasks better and faster, and also to maintain and build up the expert knowledge of the organisation. The Centre will focus particularly on the following types of training:

1. Training for employees of the Centre:
 - annually planned participation in specialised training for each employee,
 - provision of expert literature in their fields of work,
 - encouraging the acquisition of certificates and other appropriate evidence of the successful application of knowledge acquired in training,
 - promoting the equal distribution of training among all employees;
2. Training for judiciary employees involved in IT (the Centre and systems engineers):
 - expert training at least once a year with the aim of ensuring an equal level of knowledge in the computerisation of the judiciary,
 - encouraging the acquisition of certificates and other appropriate evidence of the successful application of knowledge acquired in training;
3. Training for the users of information systems in judiciary:
 - providing training in the use of information systems.

2.3.3. Knowledge management

The Centre will make every effort to maintain and build up the expert knowledge that the employees acquire in their work and training and at conferences. It will encourage the flow of knowledge among its employees, including through the use of information technology.

2.3.4. Transfer of knowledge and experience

The Centre will promote a continuous transfer of knowledge in the field of IT, both the acquisition of knowledge and experience from others as well as their transfer to others, particularly through the following:

- the constant monitoring and analysis of relevant good practices in Slovenia and abroad,
- promoting the exchange of information on new developments and own experience,
- the presentation of own achievements and experience.

2.3.5. Promoting the monitoring of new technologies

The Centre strives to remain the body shaping development in the justice administration and to be able to cope with the challenges of the future. Therefore, it will encourage employees to constantly monitor technological developments in their fields. This means providing the conditions for:

- constant monitoring of expert literature,
- attending presentations of new technological developments and products,
- testing new technologies, in particular in comparison with the existing ones,
- carrying out pilot projects and test configurations.

2.3.6. Tasking and authorising

The Centre promotes the independence of employees in the performance of their tasks.

Tasks will be assigned transparently and in a manner ensuring the precision and timeliness of their performance.

Employees will have appropriate authorisations to make decisions enabling them to perform their tasks unhindered. By making decisions, the employees also accept responsibility for them.

3. Strategic guidelines for providing IT support for court business processes

Set out below are the Centre's basic strategic guidelines regarding the provision of IT support for court business processes.

In the planning and implementation of IT support for court business processes, the Centre will take into account the strategic guidelines and principles that partly derive from the previous strategic guidelines or past experience and partly from the good practices and recommendations of the profession, and which are also, to a certain extent, the result of management decisions.

3.1. Ensuring the uniformity of IT solutions

In the planning and introduction of IT solutions in the judiciary, the Centre will focus on ensuring the uniformity of IT solutions applied. This means the uniformity of all elements constituting the information system of the judiciary:

- hardware,
- software,
- procedures and protocols.

By making IT solutions uniform, the principle is followed that a particular characteristic is implemented in the same way throughout the system. This makes the work of users, as well as system administrators, easier.

3.2. Professionalism, quality and timeliness

The Centre will perform its work in accordance with the highest criteria of the profession, it will perform it well and in good time.

3.3. The use of open standards

In providing IT support for court business processes, the Centre will use and promote the use particularly of those IT solutions that are based on open standards. Open standards are public, generally recognised and fully documented standards, on which users are free to rely when developing their products.

The result of this is the greater transparency and comparability of solutions in the market, which enables clients to choose from a number of vendors and prevents them from being too dependent on a particular vendor (vendor lock-in).

3.4. Avoiding vendor lock-ins

Avoiding vendor lock-ins is one of the fundamental strategic guidelines in the development and provision of IT support. When choosing a solution, it is very important to analyse the possibility of switching vendors and the consequences, particularly economic, of such a switch for the information system.

The principle of independence from any one vendor is closely related to the principle of open standards, as the latter ensures a larger number of comparable and compatible solutions from different vendors, which prevents vendor lock-ins.

3.5. Security

The Centre takes security very seriously. It applies the principle that any new solution must be considered

in terms of security. The chosen solution must at least maintain the current level of security and must in no way lower it.

In defining its security policy, the Centre will take into account the existing security standards and solutions (e.g. antivirus protection, firewalls) adopted by other state authorities with which the courts share the information infrastructure (e.g. the HKOM network).

In IT solutions, the Centre will normally ensure the security and integrity of data in information systems by using the technology of qualified digital certificates, public and personal keys and default encryption of sensitive data during transfer.

3.6. Reliability

The Centre will make every effort to ensure the reliable functioning of all information system components, while applying the following priority order:

1. central production environment, central applications and network that connects courts (HKOM);
2. local production environment of an individual court (local networks, servers);
3. user environment (workstations, workstation applications).

3.7. Traceability

The Centre will ensure that all information systems have the possibility of tracing the accessing and changing of data during transactions, so that data can be traced by times of changes back to the origin.

3.8. Cost-effectiveness

In planning IT solutions, the Centre will consider the costs and benefits of solutions and try to choose the one that brings the most benefits or has the most favourable benefit-cost ratio. It will also take into account synergies among the chosen solutions.

In addition, it will consider individual solutions in view of investment protection and cost control.

3.9. Capacity

Within the provision of IT support, the Centre will ensure at least the same or higher capacity of equipment and services in the entire lifetime foreseen in accordance with specifications.

3.10. Expandability (scalability)

When planning a solution, the Centre will assess the level of its adaptability to the increase in (escalation of) burden and choose those solutions that are less sensitive to additional burdens or can be adapted to such burdens with less effort.

3.11. Language support

When choosing an IT solution, the principle is applied that the user should be able to choose any user interface language, however the Slovenian language option must always be available. All solutions must support the Slovenian character set (č, š, ž) and character sets of minority languages.

3.12. Ergonomics

In choosing and planning information systems, the Centre will take into account the principle of ensuring ergonomic solutions. This principle mostly applies to the selection of appropriate hardware with the emphasis on individual parts of computer system:

- computer monitor,
- keyboard,
- compact assembly (restricted space, location on the desk),

- noise during operation.

It generally applies that by complying with this principle, the workplace in front of a computer is adapted as much as possible to being user-friendly and safe, with negligible impacts on users' health.

3.13. Environmental suitability

In providing IT support for business processes, the Centre will also apply the principle of environmental suitability, particularly in the purchase of hardware. It will take into account in particular the following parameters:

- electrical power consumption and efficiency,
- the quantity of heat emitted per unit of time,
- noise generation,
- the possibility of recycling or return of discarded equipment,
- the compliance of components with environmental legislation.

In assessing individual solutions, the Centre will try to ensure the application of solutions that have the least detrimental impact on the environment and users.

3.14. Compatibility

IT support for court business processes must enable cooperation among many participants from different environments. Therefore, the Centre will make every effort to standardise connectivity and formats for information exchange among users, systems and applications from different environments.

In applying the principle of compatibility, priority will be given to solutions based on the use of open standards that increase the compatibility with the widest possible circle of participants.

3.15. Manageability

In terms of management we mean in particular making certain systemic changes to information systems. Manageability tells us to what extent and with how much effort the changes can be made.

In systems with the lowest level of manageability, the changes must be made on each system separately and in general more frequently.

With a high level of manageability the same change can usually be made on several systems at once, preferably from one central location.

3.16. User-friendliness

User-friendliness is a subjective criterion, as each user assesses the friendliness of information technology in a different way.

This means that when choosing an IT solution, the opinions of end users on the friendliness of a solution must be taken into account.

Most often the friendliness is related to the user interface, where the solutions have to be designed in accordance with guidelines for user interface design, so as to achieve consistency in the application of chosen IT solutions.

4. Strategic guidelines in the development of IT solutions

In its work, the Centre takes into account certain technological guidelines which are partly based on strategic guidelines, and even more often on experiences in IT solution planning.

4.1. Uniform architecture of IT solution development

The Centre develops exclusively centralised information systems intended for simultaneous use at all

courts.

In developing IT solutions, the Centre consistently uses a uniform, three-tier architecture, which consists of (from top to bottom):

1. **user interface** for communication between the user and the system;
2. **service tier**, where the entire business logic of a solution can be found in the form of services that are also suitable for use in other IT solutions;
3. **database tier**, which represents a tool for permanent saving of and access to data in the information system.

4.2. Modular design of IT solutions

In the development of new IT solutions, each individual functionality has to be assessed in terms of whether it fulfils the criteria for its own independent software component or module.

The Centre consistently integrates functionalities or services that can be used by several systems simultaneously into service modules. Consistent enforcement of service-oriented architecture reduces the time taken to develop information systems and facilitates their maintenance.

With the demand for IT solutions accelerating, the planning of IT solutions requires constant effort to integrate functionalities into modules that could be used by existing IT solutions and thus expand their functionality.

4.3. Reusability

Three-tier architecture and module design are closely related to the reusability of a particular IT solution.

The Centre will strive to ensure the highest possible level of reusability of existing IT solutions (modules) in new information systems.

In general, reusability must always be at the forefront of IT solution planning, as it can also be implemented at other levels besides modules and services.

4.4. Interoperability

In planning information systems, the Centre gives particular attention to the interoperability of the planned system with other systems, both known ones and those expected to be applied in the future. Special attention should be given to data format, which has to be chosen so as to enable interoperability with the largest possible number of systems, and to the appropriate design of services to enable simple access to them while taking into account all other strategic and technical guidelines.

The Centre will generally use service-oriented architecture (SOAP, web service) in the form of service calls to achieve the interoperability of information systems.

4.5. Standard data exchange format

The Centre will generally use the XML data format for information exchange between different information systems.

4.6. Standard formats for processing and saving documents

The Slovenian judiciary uses Open Document Format (ODF), which is an open and internationally recognised standard for document records (ISO/IEC 26300), as a default data format for processing documents.

For saving final documents it uses the default document format PDF/A (ISO 19005-1), which ensures the long-term storage of documents.

4.7. Programme code ownership

The Centre will make every effort to ensure constant control and ownership (including the right to free use of the code for its own information systems) of outsourcers' programme codes. It will demand regular (at least weekly) transfers of programme codes to the common repository (SVN) located in the environment of the judiciary. In addition, programme solutions will always be built at the contracting authority (the Centre).

4.8. Programming languages and programming environment

The default programming language in which IT solutions for the support of court business processes are made is Java. All solutions are made for execution in the JEE (Java Enterprise Edition) programming environment.

5. Criteria for assessing IT solutions

The choosing of an IT solution that will form a building block of an information system is a complex task. The following issues at least have to be considered with regard to every possible choice that will affect several information system users:

- is it efficient or economically justified,
- is it technically feasible,
- is it in compliance with the adopted principles or strategic guidelines of the organisation,
- what are the possible consequences of the decision.

Qualitative assessment is based on the chosen criteria, which derive from the strategic and technical guidelines used in the planning of IT solutions.

Qualitative criteria are divided into the following four groups:

- the importance of the information technology project,
- improvement in the quality of the work performed,
- impact on users,
- compliance with strategic guidelines.

5.1.1. The importance of the information technology project

This group of qualitative criteria deals with the importance of the solution in the wider context of state administration, with a view to achieving the highest possible level of reusability of solutions already developed.

There are five criteria in this group:

- **Importance within IT guidelines:** the solution is assessed with regard to its importance within information technology guidelines for the entire state administration. The importance of the solution in the published public administration plans and strategies needs to be checked.
- **Compliance with the building of IT in the state administration:** assessment of the solution's compliance with the information system building method used in the state administration.
- **Pilot project character:** assessment of the solution with regard to its potential to become a pilot project for the entire state administration.
- **The use of existing technologies:** assessment of the extent to which the solution would use the existing information systems or technologies (reusability).
- **Vendor lock-in:** assessment of the level of vendor lock-in that the solution will entail.

5.1.2. Improvement in the quality of work

The criteria in this group relate in particular to assessment of the improvement in the quality and speed of work performance the solution in question would bring. The basis for this group of criteria is the general interest in increasing the efficiency of employees in the performance of their tasks through the introduction of new IT solutions:

- **Improved quality of work:** assessment of the quality of work performance with the solution in question. A solution is better if its effect on quality (e.g. less mistakes) is greater.
- **Faster work processes and tasks:** assessment of whether the introduction of the solution in question would mean the possibility for faster performance of work (more tasks performed per time unit).
- **Uniform management:** assessment of how much the solution would contribute to the uniform management of tasks in a certain field or to the uniform management of work processes.
- **Improved reputation:** assessment of how much the solution in question could contribute to enhancing the reputation of the courts. The possibility of the solution contributing to the public overcoming its impression of increasing judicial bureaucracy can also be assessed.

5.1.3. Impact on users

This group of qualitative criteria is applied to assess the impact the solution has internally, on system users, who are generally public employees.

- **Improved working conditions:** assessment of the solution's impact on users' working conditions. Working conditions directly affect the satisfaction and efficiency of users, therefore this assessment is also important in terms of minimising users' dislike for the introduction of new information systems.
- **Maintenance/expansion of knowledge and qualifications:** with the introduction of a new information system, users should acquire the new knowledge needed for its use. Furthermore, the introduction of a new information system can result in the expansion of users' fields of work, which requires additional training. Within this, the positive effects (acquisition of new knowledge and skills) of the solution are assessed.

6. Strategy for e-services

E-services have also become a permanent feature of the judiciary, as the number of court proceedings that support e-services is increasing. The Centre will make every effort to ensure the implementation of e-services in all fields where this is justifiable and feasible, as this improves the accessibility and transparency of court services.

6.1. Aims of e-services

1. **Greater accessibility of court services:** the possibility of electronic access to court services significantly eases access to these services, as most services can be made use of in full from one place.
2. **Greater transparency:** in principle, e-services enable better (generally remote) access to information on particular proceedings and at the same time the automation of certain procedures prevents errors and abuse.
3. **Information reuse:** e-services comply with the principle of original records, which means that data are entered in one single step and are simultaneously supplemented and verified with the data from original records.
4. **Faster processing of cases:** with e-services the management of cases is fully computerised, which in addition to a better overview of case status ensures simple access to all data and

documents in a particular case and the automation of certain administrative tasks (generation of writs, enquiries).

6.2. Principles of e-services

In addition to general principles, the Centre will comply with the following principles in the introduction and provision of e-services in the judiciary:

1. **Assessing the suitability of e-service introduction:** continuous assessment must be made as to which court proceedings are the most appropriate for the introduction of e-services to clients; the assessments must be evaluated on the basis of experience gained in the use of existing systems supporting e-services (eZK, CoVL) and economic viability and technical feasibility must be determined.
2. **Simplification and acceleration of procedures:** e-services must also accommodate the possibilities for the acceleration and simplification of procedures, and must in no way result in additional procedures and delays in the business process.
3. **Uniformity and standardisation of data exchange schemes:** the Centre will make every effort to comply with the adopted standards in e-services and to promote standardisation in those fields where no standards are available.
4. **Correct functioning:** one of the basic principles in the introduction of e-services is that the correct functioning of the system must be ensured. E-services usually result in the automation of the major part of business process, which can give rise to systemic errors that must be identified and remedied before the introduction of the system in accordance with the principles of software quality assurance.
5. **Security:** with the introduction of e-services the information system of the judiciary is exposed to a large number of users, which considerably increases security risk. Therefore, it is essential that a much wider set of potential threats is considered in the provision of security and a prevention plan is made for each threat when e-services are being introduced.
6. **Traceability:** the traceability of individual electronic tasks is one of the key components of every e-service. It must be possible to unambiguously reconstruct each event in the system, particularly those related to changes in data or status in the system, on the basis of audit trails recorded by the system.
7. **Unimpeded functioning:** the Centre will ensure the unimpeded functioning of judiciary information systems, enabling e-services to the best of its abilities and within the posted business hours.
8. **Method of e-service introduction:** the Centre gives priority to the model of gradual e-service introduction in court proceedings, while appropriately stimulating users to use e-services (lower costs, charges, etc.). Thus users have a sufficient transition period in which they can appropriately (according to their means) and adequately prepare for the new method of doing business.
9. **Maintaining the possibility of an alternative business method:** the introduction of e-services generally facilitates access to court proceedings, however it also introduces centralisation and thus the possibility of a failure of one of the system's central parts that is essential for the functioning of e-services at the national level. Therefore, the Centre will make every effort to maintain the possibility of alternative routes, usually in the form of "hard copy" business.
10. **Compliance with the legislation on e-services:** there are many regulations governing particular fields of e-services, which may also constitute an obstacle on the path to e-services. The Centre will strive to ensure the compliance of e-services with the regulations and good practices in this field.

6.3. Key building blocks of e-services in the judiciary

The following key building blocks, which together form the system of e-services, must be provided for the successful and comprehensive implementation of e-services in the judiciary.

6.3.1. Electronic filing (e-filing) system

The e-filing system provides services related to the filing of submissions in electronic form, which are becoming increasingly important with the introduction of e-services.

Some tasks can be considerably simplified by appropriate implementation of these services, which also represent an informal measure of user-friendliness of computerised court proceedings.

The e-filing system is based on the following services and principles:

1. **Security scheme:** provides the following services:
 - **user authentication:** the verification of user identity through the use of different security mechanisms. The principle of proportionality applies: the larger number of electronic tasks a user can perform brings with it stricter security mechanisms.
 - **user authorisation:** the classification of users according to their authorisations; access only enabled to those services for which they have authorisation.
 - **user administration:** keeping a list of users for a particular user group. The principle of multi-tier independent user group administration and authorising applies, which means that the umbrella administrator's authorisation is granted by the Supreme Court, and the administrator administers the users of his/her own user group.
2. **Filing a submission in electronic form:** the e-filing system must enable the filing of submissions in proceedings for which the user is authorised and for which e-filing is possible. In this the Centre will provide:
 - the service of electronic filing of submissions through an online form at the portal (for all proceedings);
 - standardised XML scheme of electronic submission and the possibility of package filing (for certain proceedings).
3. **The payment of court fees and other charges using the e-payment system:** the e-filing system must enable the electronic payment of court fees and other charges when submissions are filed.
4. **Access to case data:** it must be possible for a user to electronically access the key data on a case, at least in cases for which he/she has performed electronic tasks.

6.3.2. Electronic post register

Electronic post register ensures a single entry and exit point for e-services in the judiciary. It provides the following basic services:

1. **Traceability:** The electronic post register provides a unique audit trail with the key data for every submission or writ that enters or exits the information system of the judiciary.
2. **Support for several exit routes:** It enables the transfer of outgoing writs via several different routes: central printing (mail route), local printer, electronic serving.
3. **Sending information on serving:** It enables the acquisition and sending of information on serving for all outgoing dispatches for which this information is required.
4. **Secure Electronic Serving System:** It enables the serving of outgoing writs to users' safe e-mail boxes in accordance with the regulations on the serving of documents (Civil Procedure Act, Court Register Act, General Administrative Procedure Act).

6.3.3. Electronic case file

With the introduction of e-services the quantity of documents saved in the system in electronic (digital) form rises dramatically. In order to successfully manage and process such quantities of electronic documents, the following conditions must be met:

1. **Suitable system for storing large quantities of electronic documents:** enables reliable storage, regardless of the quantity, and access to documents and their metadata.
2. **Prescribed (uniform) method of document digitalisation upon entry:** clearly prescribed restrictions regarding size, format, resolution and metadata.
3. **Indivisibility:** documents in a system must be saved so as to allow access to a particular document, which cannot be divided into several documents.
4. **Possibility of optical recognition:** the possibility of optical recognition of the text must be ensured for digitalised documents.
5. **Possibility of full text search:** document search by text or part of the text must be ensured, if possible with the use of advanced search operators.

The key factors in e-services are the usability and friendliness of the system as perceived by users. It is up to them whether they will make a hard copy of an electronic case file or its parts at each step of the proceedings or conduct the entire proceeding solely in electronic form.

As court proceedings are based on case documents, which are managed in a file, e-services must provide at least equal functionality and also take advantage of all the new possibilities information technology offers.

The electronic case file is, in its essence, merely a method of displaying documents stored in electronic form that compose a particular case. It must allow at least the following:

1. **Different views of documents in a file:**
 - sorted: chronological view (documents sorted by date), by clients,
 - arranged in accordance with judicial regulations,
 - customised (view determined by user with the possibility of saving user settings),
 - filtered (e.g. without proof of service, enclosures),
 - bookmarks for quick browsing through an e-file;
2. **Search:**
 - by text (quick, advanced – full text search),
 - by document type,
 - by title or description;
3. **Markup:**
 - markup of documents (one or more – for viewing, for changing properties/metadata),
 - markup of parts of text (possibility of adding different types of tags, possibility of distinguishing tags by colour),
 - adding description/tag to a document or part of the text (annotation),
 - inserting hidden notes: the entry of private notes related to the tagged document or part of the text only visible to the user,

- inserting orders/instructions: visible to all users of the case management system who are authorised to access the document,
- tagging documents with metadata, managing metadata.

When the electronic case file is viewed or worked upon, the original documents are not changed, only their descriptive (meta) data and view settings at the user are changed.

6.4. Integrating information systems and records

The integration of information systems and data exchange are of key importance for effective IT support for business processes in the judiciary, particularly for the introduction of e-services. A basis for the integration of information systems is also laid down in the Courts Act (third paragraph of Article 13).

The transfer of information among the information systems in the judiciary can be greatly simplified with automatic data exchange, which is also a simple method of ensuring the correctness and credibility of the information transferred.

Another key factor in e-services is access to official original records of individual administrators, where the court information system can automatically verify the data for a certain case.

A higher data exchange level is the exchange of data on particular cases among the information systems of state authorities, which can have the result that the conclusion of a case in one system automatically initiates the opening of the case in another system (e.g. a sanction from a minor offence register automatically entered in the driver licence register).

In addition to technological standards (XML, schemes, transfer protocols), suitable standards for the security of personal data must be determined, as any integration of records increases the possibility of personal data abuse. These standards have to be sent to the relevant bodies for consideration.

7. Aims of IT support in the judiciary

Owing to rapid progress, the use of information technologies constantly faces new challenges, which have to be considered, studied and evaluated and suitable solutions found.

7.1. Reducing operating costs of courts using information technology

The Centre will constantly seek ways to use information technology to reduce operating costs in the judiciary. It will give particular attention to the following:

- relief for users (access to records, production of writs, aid with routine tasks, etc.),
- acceleration and simplification of business processes,
- centralisation of logistical tasks (production and dispatch of writs, postal services, digitalisation).

7.2. Providing data for business decision-making

Information systems in the judiciary gather and process a great quantity of data. The Centre will collect and process these data and ensure that they are transmitted to end users.

It will primarily provide data for the purposes of business intelligence, on the basis of which court management will be able to adopt policies and verify business decisions.

7.3. Providing conditions for work from home

Work from home is most often mentioned in connection with information technology, and it means that employees can perform their work with the same quality without being present at the workplace every day.

The Centre will provide the technical conditions for court employees whose jobs allow them to work from home.

Therefore, the technical and legal possibilities for the introduction of work from home where this is possible and desirable will have to be examined.

Detailed security standards for such work will have to be defined and produced, so that the current security level of court information systems is not lowered with the new form of work organisation.

7.4. Introducing new technologies into courtrooms

In accordance with the rapid advancement of technology, many technical solutions and technologies have been developed recently that can be used effectively in court rooms or the use of which will be prescribed by regulations.

In introducing these solutions, the same standards and principles must be applied as in the introduction of IT solutions. This means that it has to be checked if the planned solution is feasible, economically viable and compatible with the existing system.

The objectives of the implementing the solution and its expected results have to be clearly defined.

7.4.1. Video conference systems

Video conference systems have been used increasingly in court proceedings, allowing participants in the proceedings to be involved in a hearing from a remote location. This has positive effects in the form of savings in transport costs and also with regard to the safety of participants in proceedings.

Standards to be used within the chosen solution will have to be determined and impacts or additional requirements regarding the technological capacities of courts (network, power supply, computer equipment, connection capacity, etc.) will have to be studied.

A solution has to be chosen in such a way that the highest possible compatibility on a wider level (at least EU) is ensured and that the positive effects are as high as possible.

7.4.2. Recording hearings

Recording hearings is becoming an established practice. The Centre will strive to provide technical infrastructure for the capture and saving of recordings, and also to ensure that solutions for storing recordings and accessing the saved recordings are compatible with strategic and technical guidelines for computerisation in the judiciary.

7.4.3. Playing AV material

Lately, the courts have often encountered difficulties in the playing of audiovisual material during proceedings.

Difficulties particularly occur with regard to the following:

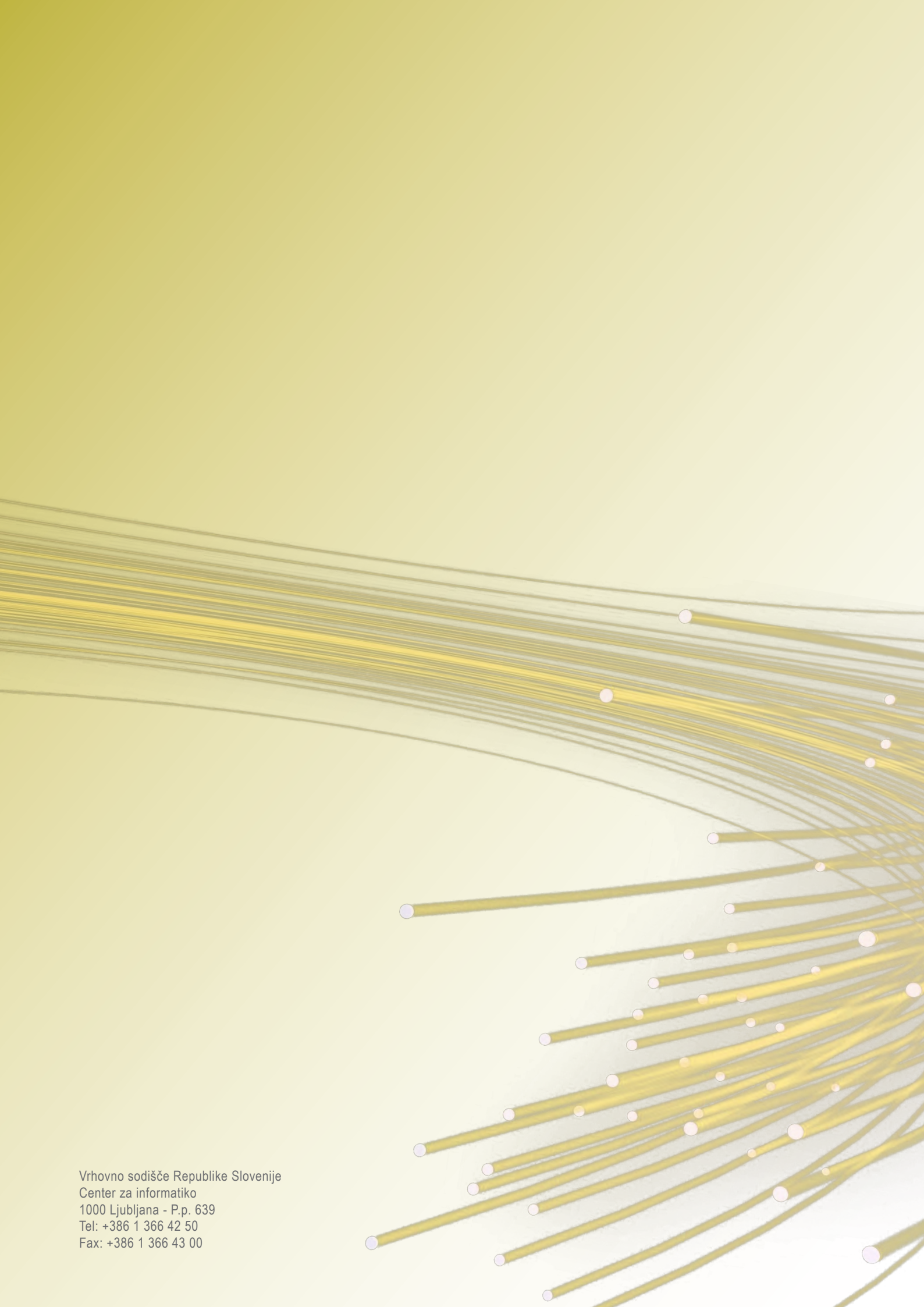
- the availability of audiovisual equipment,
- different formats of audiovisual material,
- skill in operating audiovisual equipment.

The Centre supports all efforts towards the fitting of courtrooms with audiovisual equipment, however at least the following principles have to be applied:

- the uniform equipping of courts – enables more favourable purchasing conditions and facilitates maintenance,
- suitability for the intended purpose,
- capacity, reliability and easy handling,
- compatibility with at least the most frequent formats of audiovisual material.

In addition, consensus needs to be reached on the set of formats of audiovisual material the courts can play. Courts often deal with material (particularly material from video surveillance systems), for which players are not available for general use. The set of audiovisual formats also determines the type and quantity of audiovisual equipment that has to be provided for this purpose. It is the view of the judiciary that the courts should have the possibility to play those formats, which would require a minimum number of different audiovisual devices to be owned by courts.

Support for other formats of audiovisual material should be provided by those who submit the material, so that they provide suitable equipment at the time of playing. The only responsibility of the court in such a case would be to provide suitable installations for connecting the equipment to the existing projection and playing equipment.



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