

poslovna
inteligencija

Information in action

Strategic ICT consulting



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1. Introduction - Information is asset

The crisis that has devastated the world and regional entrepreneurship in recent years has had a major impact on all businesses and public companies in the region, regardless of their size.

In the crisis are much higher operational risks, and it is very important to have quality and timely information for business management, in order to timely respond to market challenges. Commercial information along with quality employees is the most valuable asset of the company.

Information on the operations commonly can be found in a variety of operational applications, which are often in different locations or on different platforms. Sometimes some of these applications on outdated platforms, which in the short or medium term have to be replaced, since it does not meet the functional requirements and there are considerable difficulties in their maintenance.

To obtain high-quality and timely information, data from these applications have to be integrated. Very often the collection and processing of data from various business systems is made by hand, and process like that wastes valuable time and human resources. In this way, the maintenance costs rise, and we must not forget the end-user dissatisfaction with this situation.

CIO and Management have a various questions that have to be answered:

- How to standardize the information and communication infrastructure?
- How to ensure maximum stability, scalability, and integration of the system at minimum cost?
- How to ensure safety and availability of the system?
- How to choose a supplier that will help us realize quality implementation of systems?

The Chinese proverb says that every path of a thousand miles begins with the first step – therefore in process of finding solutions and answers to these questions, should have a partner you trust, who has long experience in dealing with these problems, and that can help in analyzing the current situation, defining strategies and help with the operational steps in solving the existing problems.

2. Information in action

The following picture shows the basic components of an approach based on "blocks" for optimal design and maintenance of complex ICT system, which we call information in action. The blocks are built like a house, from the bottom up. ICT Strategy is the foundation on which are build the definition and management of information assets, then the necessary infrastructure and action plans for implementation, monitoring and auditing.



ICT strategy establishes principles that will guide the organization in the process of creation and exploitation of information. ICT strategy provides a vision for all components of information and communication systems, and relies heavily on the overall business strategy of the organization. ICT strategy provides organizational framework and directing Development of ICT infrastructure through a series of principles, standards and guidelines, so that current and future investments in people, processes and technologies can be coordinated and supported to align business agility and flexibility.

Definition and Management of information is one of the biggest challenges facing the organization. Issues faced by organizations in this area are:

- What information do you have, where are they stored and how to update them?
- What is the level of accuracy?
- How the information is used and for what purpose?
- What is the real value of your information?
- How long do you keep the information and in what way?

If the organization does not have a full understanding of existing information, in line with the understanding of the business, it will be spending a precious resource for finding, cleaning and transforming data. The end result will be inefficient and slow response to evolving

business needs. If the definition and management of information separate from applications and projects, and make an independent basis for all business and IT initiatives, we will reduce costs by eliminating duplication of work, eliminate multiple data storage, and save on technology to store and retrieve data. Effective definition and information management can improve the quality, availability and integrity of organization's information by facilitating collaboration among different departments. This requires the definition of policies and best practices to manage and protect critical information assets of the organization throughout the life cycle.

Information infrastructure is a logical upgrade of the first two building blocks. In order to effectively manage their information as a strategic asset over time, organizations must continually invest in IT infrastructure. Not investing in infrastructure, results in significant operational inefficiencies, unsuccessful projects, and numerous other problems in the business. The information infrastructure identifies the technology required to integrate existing systems, investment in ongoing and future technologies, whether it is hardware or software technologies. In this way they ensure a better long term results and return on investment. Technologies involved include all the technologies needed for the functioning of a modern business system, in terms of operational and analytical applications, document management, content, master data or metadata. On the technical side, we are talking about systems that ensure accessibility, availability, archiving, and information security.

Action plans include short-term and long-term plans. In order to make plan to be most effective, the CIO needs to know the position of the organization in terms of maturity of the use of its information, and where to go in the future. Based on organizational goals and the available budget, defines the project priorities and managing implementation plans, and also the necessary internal and external requirements, in terms of knowledge and resources. The aim is to exploit and protect existing investments and to support long-term vision of transforming the organization into an organization that is based on the use of information.

Monitoring and auditing are the last building block which ensures organization that projects implementing information and communication systems are going in a given direction, of the deadlines and budgets. As with the construction of the house you should have an architect, executor and supervision, so it is recommended to have supervision for the performance of complex ICT projects. Quality control and audit ensure seamless integration of new systems and IT infrastructure, and the synchronization of internal and external activities in a number of projects that often take place in parallel.

Methodology is the heart of the system and runs through all the building blocks, and provides quick and quality problem solving. Our methodology includes:

- Standard project approach - our consultants have PMI certificate
- Knowledge of requirements of a certificate of quality and safety
- Rapid analysis of the existing situation through workshops and interviews with business and IT users
- Standard template documents we provide to clients

- Precise calculations of the total cost of ownership (TCO) and return on investment (ROI)

3. Methodology and delivery

With implementation of strategic consulting ICT projects we use access Information in action, whether it is a thorough and comprehensive approach that starts from the design strategy and ends with action plan and supervision, or that it is a single of the five components of integrated approach. Our strategic ICT consulting projects are focused on ICT infrastructure and organization, and include the basis for the construction, upgrading and strategic management of complex information systems.

Our approach to these projects is based on a phased and modular approach. Each phase / module has its own pre-defined expected results and delivery, which the user verifies.

The standard organization of our project consists of four phases:

- Phase 1 – Project preparation
- Phase 2 – Collection of relevant information
- Phase 3 - Analysis and consolidation of collected information
- Phase 4 - Creation and presentation of final documents

We will briefly describe the content of individual phases.

Project preparation

The following activities are implemented within this phase:

- Prepare examples of documentation for project management and delivery of the user for verification. This documentation will be used throughout the project to define project objectives, budgets, verifying the results of deliverables, and also in order to minimize risk.
- Creating a project plan
- Analysis of the material submitted by users
- Proposed respondents by role on the project - workshops with management board should be mandatory, while for other roles will be made a proposal on the basis of materials submitted by the user before the start of the project
- Preparation and agenda of workshops - for different participants will be prepared different agenda of the workshop
- Preparation and realization Kick-Off meetings

Deliverables of these phase are:

- Documentation of project management
- Detailed project plan
- Agenda for interviews / workshops
- Matrix of users for roles on the project
- Kick-Off materials

Collection of relevant information

The main purpose of this phase is to understand the business and IT requirements, and the overall environment for the user. During this phase are used following methods to gather all relevant information:

- Detailed interviews with management, analysts and branch IT managers
- Group workshops with key customers
- Detailed analysis of the users system:
 - Analysis of current system functionality
 - Analysis of the availability and connectivity of system
 - Analysis of data quality within the system

Deliveries of this phase:

- Reports from interviews
- Reports from group workshops
- Reports of a detailed system analysis

All activities within these phases take place at the customer location.

Users project manager has to organize a schedule of interviews and group workshops depending on the availability of key people (management, analysts, business and IT users), and provide room (s) for interviews and group workshops.

Analysis and consolidation of collected information

Within this phase will be to consolidate and analyze all the collected materials formed during the interviews, group workshops or submitted by users, all aimed at achieving links between business requirements and IT needs.

This phase will take place at the location of Poslovna inteligencija. Due to the possible need for additional information or clarification it should be provided with contact details of project team of users (e-mail, phone). The results of this phase will be included in the Feasibility Study document.

Creation and presentation of final documents

Within this phase will be created, delivered and presented the final project documentation, which may include the following sections:

- Analysis of the current state of IT (AS-IS) business processes and IT environments
- Assessment of future requirements for upgrading existing and introduction of new systems
- Proposed environment for system implementation
- Detailed architecture of the proposed new system
- Proposed required capacity of the hardware
- Framework Project plans with defined major deliverables, tasks and time performance and internal and external resources needed to implement defined tasks

- Terms of Reference
- Roadmap for further system improvement

4. Our team

Strategic ICT Consulting is a service we offer our clients with the most experienced consultants and selected external partners in certain specific areas. Our team members possess great expertise in understanding business processes in most industries, and in devising and implementing various types of business and IT strategies. Our leading consultants are:

Dražen Oreščanin is one of three founders and partners at Poslovna Inteligencija. His business career began in Zagrebačka banka where he participated in development of applications for credit risk assessment and risk management and in development of reporting systems. He worked in Zgrebačka banka from 1993 to 1998. After that he went into a Kaptol Bank group where he was vice president for information technology. From 2000 as deputy director of IT he was responsible for operational management of the information system segments in Agrokor. He is in Poslovna Inteligencija since 2001, first at the position of Director of Strategy and Development, and then, since 2010 he is President of the Board. He is responsible for the development of new markets, achieve and develop relationships with partners and potential strategic partners, and strategic development of new products and services. He participates in the most complex projects, primarily in the domain of strategic consulting and implementation of data integration and master data management in the role of project manager and designer of business and data solutions to clients such as Hrvatski Telekom, Crnogorski Telekom, Telenor, Telekom Slovenije, Vipnet, Makedonski telekom, RTV Slovenija and Tisak.

Lidija Karaga is one of three founders and partners at Poslovna Inteligencija. Her career began in Kaptol bank where she worked as IT designer for the decision-support systems since 1998. to 2000. After that, she worked at the same job position in Agrokor. From 2001 to 2002 she worked at SAS Croatia as consultant. She is at Poslovna Inteligencija since 2002, first at the position of Director of Consulting and since 2010. at the position of a Board member. She is responsible for the continuous improvement of internal knowledge and competence development of consultants, ensuring delivering quality on projects according to ISO 9001 standards, and resolving key issues related to project management. She participates in the most complex projects, primarily in planning support systems, financial consolidation and strategic consulting in the role of project manager, business analyst and chief solution designer, in companies such as Atlantic group, Dukat , Holcim, Hypo bank AD, PBZ Card, Ministry of Agriculture, Forestry and rural development.

Mladen Družetić began his career at the shipyard Uljanik in the department of development applications since 1988 to 1992 year. For the next seven years he worked at the company Informatika sistemi on the development and implementation of POS applications. After a year

spent in Konzum at the position head of IT department, since 2000 to 2004 he was in Allianz Insurance at the position head of application development department. He is in Poslovna inteligencija since 2004, first at the place of senior consultant and then as the Director of Consulting, responsible for infrastructure, applications and databases. He is also an internal ISO auditor. He participates in the most complex projects as a technical project manager, data and system analysts and solution designer, such as projects in the RTV Slovenije, T-Mobile Hrvatska, Tisak and Basler Osiguranje Zagreb.

Ivan Češković began his career in Hrvatska lutrija in IT department 2001 year, at the position of the leading developer-analyst, where he led the development department of five employees and dealt with the design, development and implementation of online payment system for gaming. Until February 2008 he worked in the company Vemil on the positions of Head of software development department and Head of information technology sector. After that, he comes in Poslovna inteligencija on the position of senior consultant, and then he becomes Director of Consulting responsible for developing Microsoft competencies. He possess PMP certificate. He participates in the most complex projects as project manager, data analyst, and solution designer, such as projects in AutoZubak, Atlantic Grupa, Crnogorski Telekom i Jadran Galenski Laboratorij.

Dejan Košutić (external collaborator) is one of the leading experts in the field of Information Security Management according to ISO / IEC 27001 and business continuity management by BS 25999-2. He has master's degree in business administration (MBA) at Henley Management College and holds certifications Certified Management Consultant, Lead Auditor for ISO / IEC 27001 standard, the Associate Business Continuity Professional and Lead Auditor for ISO 9001 standard. He is the author of a package of documents and e-learning tutorials Information Security & Business Continuity Academy. Has many years experience as a lecturer and a consultant - is an authorized tutor for ISMS Lead Auditor courses for the largest certification body SGS and across Europe held a variety of courses related to ISO 27001 and BS 25999-2, and online courses via webinar. As a consultant he worked for various organizations such as Erste & Steiermaerkische bank d.d., Croatia osiguranje d.d., HANFA, Karlovačka banka d.d., Grad Rijeka, APIS IT, Agencija za zaštitu okoliša etc.

William Bello (external collaborator) graduated in mathematics at the University of Zagreb. Since 1984 he worked for major companies in Croatia (Pliva and INA) as an IT director and head of IBM's BSP projects. From 1993 as the CEO manages the private company BELL specialized in the design and implementation of communication technologies (ATM, FR, TR, Ethernet). Together with the investment fund SEAF as CEO in SmartNet introduces management services telecommunications network control center. From 2006 as an independent consultant he is working in the company HESET to improve the quality of IT services to business customers as well as larger private companies and government agencies, and the introduction of process management (ITSM) within the ICT department in accordance with good practice described in the ITIL recommendations. He is the founder and secretary of the itSMF Croatia, branch of the international non-profit organization of IT

Service Management Forum, which promotes and publishes ITIL books. In the last few years the most important projects are in the Ministarstvo poljoprivrede, šumarstva i ruralnog razvoja i Hrvatska Carina.

Ranko Njegovan (external collaborator) graduated Organization at University of Zagreb. He started his career 1989th as a database administrator and programmer in Novogradnja. 1992nd he joins Biring where he is responsible for the implementation of Infor ERP in a number of companies owned by Agrokor. In 2002 he founded the company J.R.M. and is dedicated to the implementation of projects integrated Business Process Management cycle: from the definition and implementation of business strategies, modeling and analysis of business processes, definition of requirements for business process improvement, implementation of initiatives for improving, to the performance measurement of business processes. In past few years the most significant projects are in Zvijezda, Jamnica, Sarajevski Kiseljak, Altos, VG Komunalac, Rznica Distrikta Brčko, and with partner in Zagrebačka banka, Erste banka, PBZ banka and Hrvatska poštanska banka.

5. Examples of successfully implemented projects of strategic ICT consultancy

Ministarstvo poljoprivrede, ribarstva i ruralnog razvoja Republike Hrvatske in 2008 initiated project of development of Computer Center for processing, storing and providing access to large quantities of data and information, financed by the International Bank for Reconstruction and Development (IBRD). The objectives of the project in the first phase of analysis and specifications contained a detailed description of the need for people, equipment, work environment, system and application software and infrastructure, which included assessment of the current state of information systems at the Ministarstvo, recommended future conditions, assessment of future ICT applications to comprehensive information system management, Gap analysis and preparation of detailed guidelines for software development, specify construction, infrastructure, equipment and computer network of computer centers of the Ministarstvo in accordance with the guidelines of the project, the technical specifications for equipment of computer centre, preparation of a detailed work plan, and making three detailed Terms of Reference for the computer center, and for information systems for veterinary and phytosanitary inspections. Poslovna inteligencija has successfully realized the above phase of the project, and our experts participate as monitors in the next phases of the project.

Baby Centar is a company founded in 1990 and has become a leading company in Slovenia that sells products for children from birth to age eight. In Baby Centar stores you can choose between art equipment, quality accessories for babies and mothers, cosmetics, food, clothing, toys and furniture. In a joint group of companies also includes MiMaJa, a company that sells travel equipment, and Mr.Pet, that sells food and equipment for pets. In late 2009

the group was faced with the problem of further developing the system, since the existing applications proved inadequate for the increased volume of business. Poslovna inteligencija realized Feasibility Study for Baby Centar- a document that covered all the functional requirements and recommendations necessary to implement the optimal application of IT architecture in the short or medium term for ERP, CRM and DW / BI systems. Delivery of the project included a comparative analysis of existing solutions on the market in terms of required functionality, local support, and prices, and calculates the total cost of ownership.

Radio Televizija Slovenije has implemented DWH, BI and Planning Analysis System based on Oracle technology since 2008 to 2010. In some parts of the system was necessary changes that were observed in the DWH add manually to the structure of the planning system, which was not in line with expectations of the user. RTV Slovenija ordered from Poslovna inteligencija the audit of the project, which has shown that parts of the system were not implemented using best practices and all the functionality of the used software products that were available. Based on the audit results from the system vendor have been requested and implemented changes that have provided the required functionality at no additional cost to the user.

Vipnet Croatia has launched a redesign of an existing data warehouse with a preferred supplier. The database was Oracle 11g and platform for data integration was Informatica PowerCenter 8.6.1. After months of delay the first phase after 18 months with functional side was ready for testing and handover (UAT), but the performance of the procedure to load data were significantly lower than required - instead of the contractually defined in 4 hours, loading and after the supplier has exhausted all their knowledge and capabilities lasted an average of 8 hours each night. Poslovna inteligencija was engaged from the preferred supplier with the permission of Vipnet to make the tuning system performance, and bring in the required boxes. The task was completed within 35 days, the average load time was reduced and stabilized at 3.5 to 4 hours without interfering with the processing logic, but only by eliminating unnecessary processing. With that they met requirements for UAT. In addition, it was made the transfer of knowledge and best practices to developers of Vipnet preferred partners. In continuation of the project, Poslovna inteligencija was engaged for a logical reorganization process of uploading data to further reduce the duration of the loading process, and for technical management and design the next phase.

Hypo Alpe-Adria-Bank Mostar implemented new Temenos T24 core banking system. Implementer was the internal IT company of Hypo Group Zajednički Informacioni Sistemi (ZIS). Within the implementation ZIS also implemented and DW / BI system based on IBM DB2 database and Cognos BI platform. However, the system did not satisfy the needs of Hypo Bank in terms of integrity, reliability and timeliness of data. The biggest problem was the poor performance of the system, as a result of errors in design. Also, there were some restrictions for bank developers that prevented them the optimum use of system development. Poslovna inteligencija has developed an analysis and review of systems, and create recommendations for the establishment of a functional development environment for developers, for the necessary changes to the system design, and recommendations for the

definition of relationship between the bank as user and ZIS as supplier. By implementing these recommendations, all aspects of system functionality that were problematic have been significantly improved.

Zagrebački Holding was established in 2007 and is owned by the City of Zagreb. It consists of 18 branches and 6 trading companies and institutions that perform activities of the former municipal companies, and the total number of employees was about thirteen thousand. Branches affiliated to the Holding initially operated as separate companies and each of them had a separate IT system or multiple systems to support operations. Such a system as generating high costs, therefore it was necessary to establish a single database. The project of unifying the database began soon after the establishment of the Holding. Implemented unique database allows optimization of maintenance and operating costs, the implementation of business process integration, system control and the introduction of the unique payment document.

However, the existing single database does not contain all reference master data, since that all natural and legal persons are not users of all products and services. In order to optimize business processes, while reducing all unnecessary expenses, Holding has begun a project of implementation of solution for centralized Master Data Management – MDM about customer, location and facilities, and products and services that Holding offers to its clients. In first phase of the project Poslovna inteligencija realized for Holding a feasibility study for implementation of MDM system, which involved:

- Analysis of business processes and existing infrastructure in certain subsidiaries and at the whole company level
- Definition of functional requirements of the system
- Proposal for required system architecture and hardware, communications and software infrastructure
- Projection of costs for system implementation project
- Set up the framework of the project plan for the project implementation
- Creating Terms of Reference document

Based on feasibility study, Holding will in next phase of the project invite tenders for the selection of MDM platform.

Makedonski Telekom AD Skopje wanted to introduce an integrated data warehouse (DWH) and Business Intelligence (BI) solution to enable focus on customers as a strategic option, and ensure the leading position in the market. Poslovna inteligencija in 2005 prepared an initial feasibility study, which covered all the functional requirements, including:

- Identification of project goals
- Understanding business requirements
- Understanding IT requirements
- Identification of data sources
- Proposition for implementation strategy
- TCO and ROI analysis

- Proposition for RfP document

Based on the initial study from 2006 to 2008 was realized the implementation of the system concerned by the company Hewlett Packard.

6. Conclusion

Using access **Information in action** allows our customers synchronize ICT strategies, definitions and information management, information infrastructure, action plans and monitoring and auditing. Our customers in Poslovna inteligencija have a strategic partner of the trust, whether it is a complete process of managing the IT infrastructure of the company or individual projects in this area.

7. About Poslovna Inteligencija d.o.o.

Poslovna inteligencija d.o.o. is a regional leader in the implementation of intelligent information systems for decision support with over sixty users and over one hundred successfully completed projects for clients in Croatia, Slovenia, Bosnia Herzegovina, Serbia, Montenegro and Macedonia.

The company is focused on areas of strategic consulting, implementation of business intelligence, data warehousing, data integration and data quality management, performance management systems, system for planning and budgeting, risk management systems (Basel II, Solvency II), Balances Scorecard (BSC) and Master Data Management (MDM) systems.

Company in offices in Zagreb, Ljubljana, Belgrade, Sarajevo and Podgorica employs more than sixty certified professionals skilled for implementation of these systems. Poslovna inteligencija d.o.o. is regional distributor of Informatica, Software Value Plus Partner for IBM Cognos and IBM SPSS platform, Microsoft Gold Certified Partner, IBM Netezza partner, regional distributor of Panorama and Oracle Partner.

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