

Deliverable

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Author(s)	Dr. Eberhard Bluemel (IFF), Dr. Michael Boronowsky (UniB), Prof. Janis Grundspenkis (RTU), Prof. Yuri Merkuryev (RTU), Dr. Antanas Mitasiunas, resp.(MITSOFT), Prof. Leonid Novickis (RTU), Mrs. Svetlana Vinitsenko (LTR)

Abstract

This report includes a description of the generalization of EU research projects results, particularly done by the Consortium EU Partners, for further adaptation, piloting and testing of adequacy in local conditions of **eINTERASIA** Central Asia Partners.

Document Approval

Person	Role	Partner
Michael Boronowsky	PQAM	UniB / TZI

Revision History

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0.1	Draft	L. Novickis	29.05.2013	Template for Initial draft
0.2	Draft	IFF, LTR MITSOFT RTU, UniB	26.08.2013	Additions to the initial draft
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0.4	Revised version	M. Boronowsky Woronowicz	14.06.2013	Improve quality
0.5	Revised version	L. Novickis	19.06.2013	Update version

Executive Summary

The main goal of eINTERASIA project is creating of an innovative ICT Transfer Concept and business models for adaptation, dissemination and local exploitation of EU research results. The first step to achieve this goal is the generalization of EU research projects results done by the Consortium EU Partners, for further adaptation, piloting and testing of adequacy in local conditions of **eINTERASIA** Central Asia Partners.

This deliverable provides description of a collection of projects performed by Consortium Partners: University of Bremen, Riga Technical University, MitSoft Ltd, Fraunhofer IFF Institute for Factory Operation and Automation and Logitrans Consult Ltd. Based on projects description provided Partners will select most suitable projects for piloting an innovative ICT Transfer Concept and testing adequacy of business models proposed.

It is expected that these products will be greatly demanded in the Central Asian (CA) region. This demand is stipulated by a high education level of the population, availability of many research institutes, universities, technical vocational education and training facilities, as well the by the policy of economic modernization implemented by the governments of CA countries. In particular, a large-scale state program of an accelerated industrial and innovative development has been implemented in Kazakhstan. Education reforms have been carried out, new science management model is being developed, small and medium business development is actively stimulated. Important socio-economic transformations have been taking place in Uzbekistan, Tajikistan, and Kyrgyzstan. All that implies that the eINTERASIA Project is of high relevance for business, for governments, academic circles and public organizations of Central Asian countries.

A collection of these projects covers next classes of application areas, generic or horizontal solutions:

- Transfer process capability oriented activity modeling, assessment and improvement;
- eLogistics – management of logistics supply chain and transport freight route by ICT means;
- Generic methodology for development of Web and multi-agent Applied Software Systems;
- Methods of Virtual and Augmented Reality and its applications;
- Wearable and Mobile Computing for real time ICT based individuals support in working environment;
- Horizontal solutions for national platform of electronic documents having legal power equivalent to the hand signed documents.

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Introduction

The main goal of eINTERASIA project is creating of an innovative ICT Transfer Concept and business models for adaptation, dissemination and local exploitation of EU research results. The first step to achieve this goal is the generalization of EU research projects results done by the Consortium EU Partners, for further adaptation, piloting and testing of adequacy in local conditions of **eINTERASIA** Central Asia Partners.

This deliverable provides description of a collection of projects performed by Consortium Partners: University of Bremen, Riga Technical University, MitSoft Ltd, Fraunhofer IFF Institute for Factory Operation and Automation and Logitrans Consult Ltd. Based on projects description provided Partners will select most suitable projects for piloting an innovative ICT Transfer Concept and testing adequacy of business models proposed.

Among these projects the particular role is devoted to the project BONITA that generated SPICE conformant innovation, knowledge and technology transfer model innoSPICE as a generic background for transfer methodology. In support to project BONITA for modeling of transfer related process oriented activity other two projects Enterprise SPICE and ProVis are included into collection of projects description.

eLogistics is the main target application area for eINTERASIA project. This target application area is represented in the collection of projects description by projects: eLOGMAR-M, SIMLOG and ECLIPS. eLogistics as vertical application area is supported by generic purpose projects ASS and IASS applicable to eLogistics too.

The class of projects representing virtual and augmented reality: ManuVAR, VIDET and ViVERA, of course, are applicable in eLogistics solutions and, in fact, has unlimited area of applicability.

IT based real time support in working environment, including eLogistics, is addressed by the project SiWear.

Finally, project Signa provides eServices for electronic documents horizontal solutions to any vertical application area, including eLogistics, individuals, public and private sectors.

1. BONITA – Baltic Organization and Network of Innovation Transfer Associations

Project title/ acronym	Consortium partner
BONITA: Baltic Organization and Network of Innovation Transfer Associations	University of Bremen (coordinator), Riga Technical University, VU/MitSoft Ltd
<p data-bbox="228 394 461 426">Brief description</p> <p data-bbox="154 478 1395 569">The main results of BONITA project are developed Enhanced Innovation and Technology Transfer Model and established network of show-rooms in partners' institutions.</p> <p data-bbox="154 590 1395 785">The goal of the <i>Enhanced Innovation and Technology Transfer Model</i> is to provide the basis to implement the regional innovation and technology transfer models for the BONITA partners' Baltic countries and regions, and to facilitate the creation and operational running of the transnational network.</p> <p data-bbox="154 806 1395 951">The <i>Enhanced Innovation and Technology Transfer Model</i> is developed based on Process Capability Maturity Models elaborated by the software engineering community and on best practices of real innovation and technology transfer activities.</p> <p data-bbox="154 972 1395 1224">The technology transfer process typically includes a set of components, starting with investment in R&D, the actual R&D performance, decision how to handle intellectual property, building a prototype to demonstrate the technology, the further development needed for commercialization and finally resulting in the successful introduction of a product or service on the market.</p> <p data-bbox="154 1245 1395 1556">The success of technology transfer depends on the interaction between all actors: technology developers, technology transfer drivers and technology acquirers and their ability to tackle a number of challenges along the way, e.g., they must prove that the technology or concept works, decide when to patent, negotiate licensing terms, secure necessary capital investment in several stages, put together a skilled management team, identify the value or utility to the user/customer, create a business plan and a strategy for going to market.</p> <p data-bbox="154 1577 1395 1887">Description presents continuous and staged architecture of the model. Process dimension of continuous architecture provides process capability maturity reference and process assessment models and shows how an approach taken is inspired by and contributes to these frameworks. The <i>Enhanced Innovation and Technology Transfer Model</i> structure and a description of its associated processes grouped according to their process categories. Staged representation of the <i>Enhanced Innovation and Technology Transfer Capability Maturity Model</i> and the attribution of</p>	

the processes to the particular maturity level is provided too. Model contains full description of process reference model and process assessment model.

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Contact person

Dr.-Ing. Michael Boronowsky

Managing Director

TZI - Technologie-Zentrum Informatik und Informationstechnik Universität Bremen

E-Mail: mb@tzi.de

www : <http://www.tzi.de/>

Phone : +49-421-218-~~64092~~ /-~~64090~~

Fax : +49-421-218-7196

Skype : michael.boronowsky

Mail : P.O. Box: 33 04 40, D-28359 Bremen

Office: Am Fallturm 1, Entry E, Room 0.36, Bremen

Annex (any other information, that could be useful for potential user)

2. SiWear – Secure wearable systems for picking of industrial goods and for diagnosis, maintenance and repair

Project title/ acronym	Consortium partner
<p>SiWear: Sichere Wearable Systeme zur Kommissionierung industrieller Güter sowie für Diagnose, Wartung und Reperatur (Secure wearable systems for picking of industrial goods and for diagnosis, maintenance and repair.)</p>	<p>University of Bremen (coordinator), SAP, Daimler, NEO and teXXmo</p>
<p>Brief description</p> <p>The project has created test implementations of safety-related, organizationally efficient and practical wearable computing solutions for selected areas of applications such as consignment sale, diagnostics, maintenance and repair. It was funded by the German federal ministry of economy within the SimoBit programme.</p> <p>The project paved the ground for the application of mobile “wearable” ICT in industry and after-sales divisions. Computer systems worn on body during usage, comparable to a watch, bear the opportunity to bring information technologies deeper into working processes and to integrate them into present infrastructure and process support without disruption. “Wearable and Mobile Computing” follows the paradigm to provide information and business processes at any time and anywhere without drawing the user’s primary attention to the system. The main obstacles in achieving the existing potentials are missing user acceptance of the new wearable technology, among others because of security concerns, insufficient process integration, and hardware not robust enough for an industry surrounding. Therefore usability studies achieved custom-designed systems using COTS components (commercial-off-the-shelf) obtaining an increase in user acceptance assuring the required usability of systems in industrial applications.</p> <p>The project SiWear continued the work carried out in the European Integrated Project wearIT@work – Empowering the mobile worker with wearable computing. The main objective of the wearIT@work project was to achieve the break-through of pervasive wearable computing to efficiently and easily support the professional mobile workers in their daily work. wearIT@work was funded in the EU 6th Framework Programme for Research</p>	

and Technological Development. 36 partners from 15 countries collaborated in wearIT@work since June 2004. The main idea behind wearable computing for mobile worker (within wearIT@work) is the performance of their primary tasks on real objects, such as aircraft maintenance, supported by (wearable) computers instead of working on virtual objects on computers as their primary tasks (e.g. such as in software development). This completely changes the requirements on user interfaces and ergonomics. Neither the wearable computers nor the input and output devices are allowed to hinder their work usually done through the use of both hands. Therefore, generally a wearable computer is completely different from a portable computer and so differs from a PDA or a TabletPC. In order to evaluate and promote wearable computing in realistic scenarios a user centered design (UCD) approach was followed within wearIT@work by involving partners from four different application scenarios: firefighting, aircraft maintenance, automobile production and medical services in the hospital.

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Contact person

Dr.-Ing. Michael Boronowsky

Managing Director

TZI - Technologie-Zentrum Informatik und Informationstechnik Universität Bremen

E-Mail: mb@tzi.de

www : <http://www.tzi.de/>

Phone : +49-421-218-~~64092~~ /-~~64090~~

Fax : +49-421-218-7196

Skype : michael.boronowsky

Mail : P.O. Box: 33 04 40, D-28359 Bremen

Office: Am Fallturm 1, Entry E, Room 0.36, Bremen

Annex (any other information, that could be useful for potential user)

3. eLOGMAR-M – Web-Based and Mobile Solutions for Collaborative Work Environment with Logistics and Maritime Applications

Project title/ acronym	Consortium partner
<p>eLOGMAR – M: Web-Based and Mobile Solutions for Collaborative Work Environment with Logistics and Maritime Applications</p>	<p>Fraunhofer IFF Riga Technical University Logitrans Consult Ltd</p>
<p>Brief description</p> <p>IST 6th FP project ran from 2004 to 2006, customization and exploitation phases - from 2007 to 2013.</p> <p>Functioning of the market economy depends on the effective information provision of the transport services. It is really important to reach synchronization of business processes, cargo and data flows and integrity among different activities accompanying cargo transportation along the selected freight route. In 2004 the eLOGMAR-M project funded by the European Commission within the Sixth Framework Programme (DG INFSO), has been started.</p> <p>Main goal of eLOGMAR-M project was to create a Web-portal for information providing to transport services consumers. The major idea from logistics point of view is to estimate a start-to-finish rate of cargo transportation and to select the most suitable supply chain.</p> <p>Actors from two major target groups are involved in cargo transportation process:</p> <ol style="list-style-type: none"> 1) Transportation group: deep sea and feeder shipping lines, ship owners, terminal operators, block train operators, forwarding companies, multimodal transportation operators, freight brokers 2) Cargo group: cargo owners, traders. <p>HTML (WHL) and PHP languages and MySQL DBMS are used for Web-portal development and data storage.</p> <p>The main approach has been customized into www.elogmar.eu web portal.</p> <p>MAIN FEATURES OF THE PORTAL:</p> <ol style="list-style-type: none"> 1. For cargo owners: <ul style="list-style-type: none"> - Exporters / Importers; - Brokers; - Traders. 	

The portal enables users:

- To calculate transportation cost of cargo (bought goods) from purchasing place to the destination in accordance with Incoterms 2000
- To estimate expected transit time of cargo delivery to the destination.
- To choose the transport company, which corresponds to your requirements and is engaged in transportation of containers.
- To assess service level of selected company engaged in cargo transportation.

2. For transport companies:

- Agents of a shipping lines;
- Railway freight agents;
- Freight forwarders;
- Road carriers;
- Block train operators,
- Transport;
- Logistics companies.

The portal enables users:

- To involve new clients and to increase container cargo turnover
- To increase profitability of your business using modern Internet technologies
- To reduce workload of experts of a company «to a basket» offering prospective clients freight rates on the portal which has already been calculated but not required for some reasons.

3. Except for this, all users of the portal can receive “Useful information” about transport logistics and related areas:

- Schedule of shipping lines and container block trains between selected points of departure and arrival
- IT and mobile solutions
- Education and training.

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<p>Contact person</p> <p>1) Dr. E.Bluemel, Fraunhofer IFF, email: eberhard.bluemel@iff.fraunhofer.de 2) Prof. L.Novickis, RTU, email: lnovickis@gmail.com 3) Mrs S.Vinichenko, Logitrans Consult, email: svetlana@logitrans.ee</p>
<p>Annex (any other information, that could be useful for potential user)</p> <p>Project flyers</p>

4. ECLIPS – Extended Collaborative Integrated Life Cycle Supply Chain Planning System

<p>Project title/ acronym</p> <p>ECLIPS: Extended Collaborative Integrated Life Cycle Supply Chain Planning System</p>	<p>Consortium partner</p> <p>Riga Technical University</p>
<p>Brief description</p> <p>ECLIPS - EU research project under FP6 ran from 2006 to 2009.</p> <p>Objectives:</p> <ul style="list-style-type: none"> • To globalize supply chains while reducing inventory investments. Globalization is an opportunity for both selling and sourcing but it increases lead times and their variability. As such it increases inventories and working capital. To meet competition in a global economy it is necessary to reduce working capital needs; • To deliver ever-more customized and up-to-date products, again while reducing inventory investments. Today, product introduction and end-of-life stages are typically poorly supported and managed, resulting in excess inventories. To meet the demand of a global but more individualized customer it is important to increase the pace of product introductions while decreasing working capital needs. <p>Key value of the project is to improve and automate product life cycle management over multiple levels in a supply chain. The consortium proposes breakthrough innovation for the different stages (introduction/ maturity/ end-of-life). In a next step the integration of these stages are addressed. Automated switching from one technique to another is important in sustaining shortening product life cycles.</p> <p>Key value of the project is to improve and automate product life cycle management over</p>	

multiple levels in a supply chain. The consortium proposes breakthrough innovation for the different stages (introduction/ maturity/ end-of-life). In a next step the integration of these stages are addressed. Automated switching from one technique to another is important in sustaining shortening product life cycles.

This automated switching is a green field from both an academic and a business perspective. The consortium developed optimization components and package them into an add-on that can easily be integrated with existing ERP and APS packages.

Consortium:

Coordinator: Mobius Business Redesign NV (Belgique- Belgium)

Participants: Rigas Tehniska Universitate (Latvija)

Euro Decision (France)

Huntsman Advanced Materials GMBH (Deutschland)

Loqutus NV (Belgique-Belgium)

Pliva-Lachema Diagnostica S.R.O. (Ceska Republika)

Target groups: logistics companies

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Contact person

Prof. Y. Merkuryev, RTU

Email: merkur@itl.rtu.lv

Annex (any other information, that could be useful for potential user)

5. ASS & IASS – Development of Web-Based Applied Software Systems & Development of Models and Methods Based on Distributed Artificial Intelligence, Knowledge Management and Applied Web Technologies for Applied Intelligent Software

Project title/ acronym	Consortium partner
<p>ASS: Development of Web-Based Applied Software Systems (2005-2008)</p> <p>IASS: Development of Models and Methods Based on Distributed Artificial Intelligence, Knowledge Management and Advanced Web Technologies for Applied Intelligent Software (2009-2012)</p>	<p>Riga Technical University</p>
<p>Brief description</p> <p>Both grants ASS and IASS were funded by the Latvian Scientific Council and aimed at Development of Applied Intelligence Software Systems.</p> <p><i>Project objectives</i></p> <p>Project objectives are aimed at creation of new knowledge, promote technological knowledge, which can be beyond the scope of the immediate industrial and commercial use and development, support new and competitive (excellent) scientific research implementation applied by scientists:</p> <ul style="list-style-type: none"> • Develop general design methodology and system architecture and framework prototype for integration of the multi-agent system, ontologies and service-oriented architecture. • Create general methodology for development of the applied intelligent software that combines multi-agent and knowledge management models, methods for the web technologies based applied software development, Model Driven Approach (MDA) and procedural knowledge modeling in the Computation Independent Model (CIM). • Develop knowledge management approach that allows to ensure a targeted circulation of information within work systems' and organizations' networks identifying, configuring or creating necessary data and knowledge structure for performing specific with the help of models. • Approbate the methodologies, models and approaches in the development of the intelligent tutoring, business process management and transport logistics systems. • Approbate the general methodology and programming tools for applied software and portal development in the field of education and transport logistics. <p>The achieve the Project goal the research was conducted in several closely related branches:</p> <ul style="list-style-type: none"> • The development of generic design methodology and architecture of an integrated system 	

that comprises multi-agent system (including mobile agent architecture) modeling, ontology design and service oriented architecture in order to establish the basis for implementing a framework prototype, which would support experiments with incomplete data and communication structures between software agent, that model components of business process, intelligent tutoring and transportation and logistics systems.

- The development of generic applied intelligent software development methodology, which amalgamates multi-agent and knowledge management models, Web technologies based applied software development methods, and MDA approach and modeling of procedural knowledge in its computation independent model CIM.
- The development of knowledge management approach that enables transparent purposeful information circulation in the network of work systems by model based identification, configuration or generation/ creation of data and knowledge structures needed for performance of particular tasks. This research branch is based on the hypothesis that knowledge management problems of inter-organizational information systems can at least partly be solved by interpreting intra-and inter-organizational networks as networks of work systems.
- Approbation of developed methodologies and approaches in the development of intelligent tutoring, business process management and transportation and logistics systems.

Target groups: IT companies, e-learning, e-logistics

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Contact person

Prof. J. Grundspenķis. E-mail : janis.grundspenkis@rtu.lv
Prof. L. Novickis. E-mail: lnovickis@gmail.com

Annex (any other information, that could be useful for potential user)

6. SIMLOG – Simulation-Based Optimization of Intelligent Logistics and e-Services

<p>Project title/ acronym</p> <p>SIMLOG : Simulation-Based Optimization of Intelligent Logistics and e-Services</p>	<p>Consortium partner</p> <p>Riga Technical University</p>
<p>Brief description</p> <p>The project ran from 2009 to 2012 and was funded by Latvian Scientific Council.</p> <p>Simulation is widely used in supply chain management (SCM). In particular, it is employed to support strategic, tactical and operational SCM decisions, to validate new developed supply chain management methods, to demonstrate efficiency of taken decision, and to support education and training.</p> <p>The main research subjects of the project were related to the minimization of inventories during the different phases of the lifecycle of a product.</p> <p>The aim of the project was to develop methods concerning essential decreasing of total inventories through the supply chain, in particular, with regard to : (1) demand forecasting at the introduction and outtroduction phases of a product life-cycle, (2) implications of using cyclic planning techniques during the maturity phase, (3) automating the detection of life cycle changes.</p> <p>Multi-echelon cyclic planning was used for organizing supply chain operation at the maturity phase. A multi-echelon environment considers multiple processes and multiple stock point.</p> <p>The underlying idea of <i>cyclic planning</i> in a multi-echelon environment is to use cyclic schedules for long term planning at each echelon and synchronizations with one-another. Every process in the supply chain, whether it is a purchasing, production or distribution process, is planned on a repetitive, “cyclic” basis, and the process cycles are synchronized and fir together. Cyclical schedules are preferred for the constant demand lot sizing problems. When demands are dynamic, flexibility in spacing production periods permits non- cyclical planning policy may differ from the theoretical one. More complex policies are less efficient in practice. Practical benefits are typically lower than theoretical ones. Cyclic schedules offer practical benefits in term of easy planning and control and reduce administrative costs for monitoring planning policy. Cyclic long term benefits result in reduction of safety stock buffers between echelons,</p>	

time and costs of material handling; expected order and production lead times and costs, etc.

The focus of the multi-echelon cyclic planning research during the project was the development of techniques for multi-echelon cyclic planning at the tactical level, during the product maturity phase. It was based on an integrated approach that allows both analytical and simulation techniques in order to solve the problem.

Simulation was used in the project to support solving of the following tasks:

1. to back up decision making and optimization processes (simulation-based analysis of the optimality gap between planning policies, in order to decide about switching to the cyclic planning and simulation-based optimization of supply chain management parameters during the maturity phase, in order to perform the cyclic planning)
2. to validate developed algorithms
3. to demonstrate efficiency of the developed approach to potential users
4. to provide training in use of the developed algorithms.

Target groups: Logistics companies, supply chain management companies.

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Contact person

Prof. Yuri Merkuryev
E-mail : merkur@itl.rtu.lv

Annex (any other information, that could be useful for potential user)

7. SIGNA – A Product line Signa® for electronic documents creation and verification

Project title/ acronym	Consortium partner
<p>SIGNA: A Product line Signa® for electronic documents, having legal power equivalent to the hand signed documents, creation and verification</p>	<p>MitSoft Ltd</p>
<p>Brief description</p> <p>MitSoft has developed product line Signa® that allows creation and verification of electronic documents that are signed with qualified electronic signatures according to specification ADOC for unstructured human readable electronic documents and specification MDOC for structured computer readable electronic documents:</p> <ul style="list-style-type: none"> • Signa® Desktop – Windows OS application available to download from www.mitsoft.lt • Signa® Web – web application available at https://signa.mitsoft.lt • Signa® Docs – web application for enterprises featuring multiple users, electronic document workflows and the ability to sign with qualified signatures multiple electronic documents in bulk • Signa® SDK – a set of application libraries for Java and .NET platforms that implement XAdES standards and allow integrating Signa® functionality to external software systems. <p>Product line Signa® supports the whole lifecycle of electronic documents, starting from document creation and signing up to archiving. It supports most known secure signature creation device types: integrated circuit cards, USB tokens, mobile operator SIM cards.</p> <p>MitSoft’s solution for signed electronic documents is flexible and universal – it can be easily used by individuals, small businesses, corporate customers and public sector organizations. For example, a citizen of Lithuania would need only her national identity card containing her qualified certificate in order to sign an electronic document. With the identity card and a USB reader she would be able to use our web application available at http://signa.mitsoft.lt to create, sign or verify an electronic document. Such document would then contain individual’s signature and would serve as a trusted input for the recipient, as they would be able to verify authenticity of the received document. Alternatively, both parties can download and install Signa® Desktop application.</p> <p>Based on Product line Signa® UAB “MIT-SOFT” has created or contributed with</p>	

numerous software application systems for managing electronic documents signed with electronic signatures, such as:

- The EDAS system of the State Social Insurance Fund Board of the Republic of Lithuania in 2006-2007, which allowed provision and receipt of electronic social insurance declarations having full legal power as well as including the data contained therein to the information system databases. The EDAS is the pioneer system in Lithuania, using a qualified e-Signature technology, which ensures the legal validity of electronic documents, as required by the Lithuanian and the EU legislation. International Social Security Association mentioned EDAS system among 10 best social security projects in Europe.
- UAB “MIT-SOFT” in 2008-2011 participated in development of EAIS information system for the Chief Archivist of Lithuania to create and manage electronic documents. EAIS is probably the first and so far the only known software system of this kind in the world that is used for electronic document management and preservation at the state level.
- Structured document creation and verification system for electronic declarations EDS of State Tax Inspectorate of the Republic of Lithuania in 2009-2011.
- Developed ELPAS software system, provided for the Government of the Republic of Lithuania in September 2011, which allowed the Government, while drawing and passing its legal acts, to completely abandon paper copies and use electronic documents and signatures instead. ELPAS is one of the first systems used by state government to manage documents signed with qualified electronic signatures according to requirements of CWA 14170.



Andrius Kubilius Prime Minister of the Republic of Lithuania signs first electronic document, September 6, 2011

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www.mitsoft.lt

Contact person

Dr. Antanas Mitasiunas
Managing Director UAB “MIT-SOFT”
E-Mail: antanas.mitasiunas@mitsoft.lt
www : <http://www.mitsoft.lt>
Phone : +370-611-52966
Fax : +370-5-213 6191
Skype : mitasiunas1
Mail : P.O. Box: LT-08316 Vilnius, Lithuania
Office: Str. Kalvariju 276-100

Annex (any other information, that could be useful for potential user):

Product line Signa® - the winner of national contest of “Innovative Product 2011”

Specifications ADOC and MDOC were awarded as main strategic innovation in Lithuania 2010.

8. Enterprise SPICE – A Domain Independent Integrated Model for Enterprise-wide Assessment and Improvement

Project title/ acronym	Consortium partner
Enterprise SPICE: A Domain Independent Integrated Model for Enterprise-Wide Assessment and Improvement	MitSoft Ltd
<p data-bbox="228 464 461 491">Brief description</p> <p data-bbox="152 548 1396 800">The Enterprise SPICE model integrates and harmonizes selected process models and standards into a single enterprise improvement model. By bringing together best practices from several disciplines and several models and standards into a comprehensive improvement model, Enterprise SPICE provides an efficient effective mechanism for assessing and improving processes deployed across a typical, large or small, enterprise.</p> <p data-bbox="224 825 334 852">Benefits</p> <p data-bbox="224 877 1110 905">Enterprise SPICE will provide the following benefits to stakeholders:</p> <ul data-bbox="152 930 1386 1898" style="list-style-type: none"> • Single Unified Model: the model integrates practices from the widely recognized standards and sources of best practice; no need to use many separate standards and models concurrently - they are consolidated into a single unified model • Pick and Choose: select from the model those areas relevant to your business needs • Authoritative: provides best guidance available drawn from widely recognized standards and sources, with detailed mapping tables tracing each practice to sources if further information is desired/required • Comprehensive: addresses a broad, and expanding, range of disciplines • Synergized: the sources are integrated, harmonized, and synergized; each source contributes important perspectives • Reduced Costs: <ul data-bbox="201 1409 1377 1650" style="list-style-type: none"> ○ Training on one model, not several ○ Improvement using one model, not several, leading to simultaneous improvement vs. all sources; compliant processes address best practice from multiple standards concurrently ○ Avoids duplication of effort ○ Appraisals vs. one model, not several, leading to simultaneous multiple ratings/ certification if desired, assuming required assessment practices are followed • Enhanced Effectiveness via Integrated Guidance: <ul data-bbox="201 1703 854 1898" style="list-style-type: none"> ○ For all levels from enterprise to team processes ○ For large or small business units ○ Across disciplines for multidisciplinary teams ○ Aligns business and technical processes ○ Across all product and service life cycle phases/activities 	

- Improvement initiatives can be aligned across the enterprise
- **Certification:** certification services from accredited bodies

Determining Model Scope

The model was built on an existing baseline enterprise model, the Federal Aviation Administration (FAA) integrated Capability Maturity Model[®] (iCMM[®]) v2.0, which integrated a set of disciplines and source standards/models. Additional disciplines and sources were identified via a formal survey of all project participants. These were then vetted against a set of criteria and a smaller set chosen for integration into the initial release of Enterprise SPICE. The criteria used to select material for the initial release are as follows.

Initial Model Scope

Disciplines integrated: enterprise management, investment management, general management, service management, human resource management, acquisition, quality management systems, full lifecycle engineering for products and services, knowledge management, environment, safety and security, and core supporting disciplines.

Sources: FAA-iCMM (baseline model, integrating ISO 9001, ISO/IEC 12207, ISO/IEC 15288, ISO/IEC 15504, Malcolm Baldrige National Quality Award, CMMI[®], EIA 731, previous CMMs, MIL-STD-882C, MIL-STD-882D, IEC 61508: DEF STAN 00-56, ISO 17799, ISO 15408, ISO/IEC 21827, NIST 800-30).

Additional sources: ITIL[®]; ISO/IEC 20000; CobIT[®]; People-CMM; ITIM, ISO 14000.

Additional references: ISO 31000, eSCM-CL, eSCM-SP, PMI Standard for Portfolio Management, PMBOK, and FEA Practice Guidance.

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Contact person

Dr. Antanas Mitasiunas
Managing Director UAB “MIT-SOFT”
E-Mail: antanas.mitasiunas@mitsoft.lt
www : <http://www.mitsoft.lt>
Phone : +370-611-52966
Fax : +370-5-213 6191
Skype : mitasiunas 1
Mail : P.O. Box: LT-08316 Vilnius, Lithuania
Office: Str. Kalvariju 276-100

Annex (any other information, that could be useful for potential user)

9. ManuVAR – Manual Work Support throughout System Lifecycle by exploiting Virtual and Augmented Reality

Project title/ acronym	Consortium partner
<p>ManuVAR: Manual Work Support throughout System Lifecycle by exploiting Virtual and Augmented Reality</p>	<p>Fraunhofer IFF</p>
<p>Brief description</p> <p>The ManuVAR project was launched in May 2009 under the EU 7th Framework Programme. This project demonstrates that bundled expert knowledge in business companies can improve the competitiveness of EU industries.</p> <p>Offshoring is a natural phenomenon. It will exist while there are large differences in labour costs. But European industries could focus on the business that cannot be offshored - unique or deeply customized products, maintenance of fixed installations, operation and maintenance of machinery. This business relies on the knowledge and skills of people rather than on minimizing labour costs. ManuVAR has contributed to highlighting how manual work can be an opportunity for Europe.</p> <p>The objectives of ManuVAR are to develop an innovative technology platform and a framework to support and improve the whole product lifecycle. ManuVAR will cover ergonomics, safety, work assistance and training issues. It includes various people from designers to factory workers, logistics experts, operators, maintenance personnel, and end-users.</p> <p>The key objectives of ManuVAR are to:</p> <ul style="list-style-type: none"> • Improve EU industry competitiveness via knowledge-based business models, • Increase productivity and quality and reduce cost, • Reduce the need for global outsourcing, • Support efficient knowledge and skill management through the lifecycle, • Facilitate adaptation to customized products and customer services. <p>The ManuVAR consortium has developed the following instruments to improve manual work:</p> <ul style="list-style-type: none"> • Technological: the platform of reconfigurable and modular virtual and augmented reality tools, system architecture, tested technical prototypes • Methodological: the ManuVAR PLM model, its application methodology, framework of ergonomics methods to support manual work throughout the system lifecycle 	

- **Policy:** recommendations and evidence for policy makers (industry, community, political) that high knowledge high value manual work can be an opportunity for European industries.

The results were made during ManuVAR are potential adaptable for other industries and service sectors. The need of succeed in global competition is existentially for any global acting company, especially in the field of logistics and transportation.

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Contact person

Dr. Boris Krassi
Senior Research Scientist, Project Coordinator
VTT Technical Research Center of Finland
E-Mail: boris.krassi(at)vtt.fi

Annex (any other information, that could be useful for potential user)

10.ProVis – Process-oriented and integrated knowledge management in SMEs

<p>Project title/ acronym</p> <p>ProWis: Process-oriented and integrated knowledge management in SMEs</p>	<p>Consortium partner</p> <p>Fraunhofer IFF</p>
<p>Brief description</p> <p>Large companies in particular have recognized the importance of the resource knowledge and the necessity of managing it. Since small and medium-sized enterprises (SMEs) have hardly made this issue a priority yet, the Federal Ministry of Economics and Technology (BMWi) launched the initiative “Fit for Knowledge Competition”, which also supported the project ProWis.</p> <p>The objective of ProWis was to develop an approach to knowledge management suitable for SMEs and put it to use in SMEs. In the first phase, an approach consisting of five phases was developed. It centered on two proven methods of analysis, which were simplified in the project. The approach was tested by fifteen SMEs and “readied for üproduction”. A collection of knowledge management solutions, the ProWis-Shop containing approximately fifty methods and tools, was additionally developed.</p> <p>In the second phase, the deliverables were transferred to practice to a greater extent. The approach was taught in seminars. Companies exchanged views on potential approaches and formulas for success at networking events, e.g. ProWis Connect. The ProWis Shop was also developed further and now contains not only descriptions of methods but also concrete instructions on implementing knowledge management and aids to apply the methods of analysis. The ProWis Shop’s range of solutions is available to anyone interested free of charge.</p> <p>The resource knowledge is considered to be a fourth production factor. According to current studies, its optimal use is instrumental to business success. Companies must have fast access to available knowledge and related information, constantly refine it and protect it from loss. Knowledge management encompasses all of the systems, methods, instruments and tools, which facilitate systematic treatment of knowledge in all of a company’s units. The Fraunhofer IFF’s approach is applied and starts with a company’s value adding processes to attain improvements.</p>	

Process-oriented and integrated knowledge management is implemented in five steps:

1. *Initialization*: Since the cornerstone for success is laid at the start, a pilot unit is selected, a team is assembled and a sponsor from management is sought.
2. *Analysis*: Employees from the company or a pilot unit are surveyed quantitatively and processes are analyzed qualitatively to identify potentials for improvement and effective approaches.
3. *Goals and solutions*: Goals are specified concretely based on the results of the analysis and fields of actions are prioritized before concrete solutions (methods, IT tools) can be selected.
4. *Implementation*: Once the individual steps have been planned, the selected knowledge management methods or tools are implemented. The implementation phase includes training sessions or supporting communication actions (internal marketing).
5. *Evaluation*: Success is assessed at the end of the project base on the goals set. If necessary, follow-up improvement actions can be devised and initiated. The scope of our support hinges fully on specific needs and prior experience and can be scaled accordingly. A collection of Web-based knowledge management solutions was also developed in the project.

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Contact person

Dipl.-Ing. Holger Seidel
Manager, Logistics Factory Systems Business Unit
Fraunhofer Institute for Factory Operation and Automation IFF
Mail: Sandtorstraße 22, 39106 Magdeburg, Germany
E-Mail: holger.seidel(at)iff.fraunhofer.de
www: <http://www.iff.fraunhofer.de>
Phone: +49 391 4090 123
Fax: +49 391 4090 93 123

Annex (any other information, that could be useful for potential user)

11. VIDET – Virtual Development, Engineering and Training Innovation Cluster

Project title/ acronym	Consortium partner
VIDET: Virtual Development, Engineering and Training, Magdeburg	Fraunhofer IFF
<p>Brief description</p> <p>Virtual Reality shortens and simplifies the development of new products. The innovation cluster <i>Virtual Development, Engineering and Training</i> (VIDET) will enhance the availability of VR-technologies for mechanical and plant engineering in Saxony-Anhalt. Therefore the innovation cluster VIDET bundles the expert knowledge of the Fraunhofer IFF, the Otto von Guericke University Magdeburg and several regional companies of mechanical and plant engineering.</p> <p>New products are common developed by using computer technologies. They are digitally designed, constructed, tested and enhanced. By using computers for test purposes, mechanical engineers are able to prove new machines without building expensive prototypes. The interactive 3D model allows running virtual production processes, to discover possible failures or potential weak spots as well as to train the staff. New methods and technologies such as virtual engineering and virtual reality make it possible.</p> <p>Fields of research:</p> <ul style="list-style-type: none"> • Virtual Engineering (VE) • Virtual Reality (VR) • Education, qualification and training for regional giant equipment and plant engineering • Product development: Virtual Engineering, virtual prototypes, virtual commissioning • Digital factory and process design: custom-made qualification solutions, qualification and worker assistance on demand <p>The innovation cluster VIDET will enhance the already existing economic potentials of engineering and process industry, will promote innovative product ideas and will support the safeguard employment.</p> <p>Therefore VIDET provides a regional Virtual Reality-based platform for research and business. To collaborate on the development of new products, their manufacturing and transportation for the regional industry. Beside the support of efficient industrial production via virtual process design the cluster partners of VIDET help to establish innovative technologies for</p>	

logistics, maintenance and qualification especially in SME.

For instance the researchers of Fraunhofer support the development process of equipment by using virtual models from CAD systems. To reduce the development time of equipment the commissioning phase can be virtualized, to perform functional tests early as possible without completing the Design Engineering. By using a virtual prototype several development tasks can proceed simultaneously (Simultaneous Engineering). Digital models provide the opportunity to start functional tests while the machine is still being manufactured.

Beyond the development process all information about the product model can be used for diverse applications, e.g. operator training or CNC programmer training as well as the shipping process.

Moreover, VIDET considers that interactive visualization and simulation are increasingly growing in importance for marketing and sales. In the planning and design phase, a machinery manufacturer's client can be involved in the broader development and production process so that the product is customized for a client's specific needs. Adapted for industries in general it means an enormous increase of client enthusiasm based on realistic visualization via virtual models.

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Contact person

Prof. Dr. Ulrich Schmucker
Manager, Virtual Engineering Business Unit
Fraunhofer Institute for Factory Operation and Automation IFF
Mail: Sandtorstraße 22, 39106 Magdeburg, Germany
E-Mail: ulrich.schmucker(at)iff.fraunhofer.de
www: <http://www.iff.fraunhofer.de>
Phone: +49 391 4090 201
Fax: +49 391 4090 250

Annex (any other information, that could be useful for potential user)

12. ViVERA – Virtual Excellence Network for Virtual and Augmented Reality

Project title/ acronym	Consortium partner
ViVERA: Virtual Excellence Network for Virtual and Augmented Reality	Fraunhofer IFF
<p>Brief description</p> <p>Virtual and augmented reality technologies have made enormous advances in recent years: Germany holds a leading position internationally.</p> <p>The project acronym ViVERA stands for "Virtual Competence Network for Virtual and Augmented Reality". The network combined ten institutes and universities' research resources in the field of virtual and augmented reality nationwide.</p> <p>ViVERA set itself the task of networking developers and users' expertise and experience and sustainably integrating virtual technologies in business and industry. Among other things, demonstrators were prototyped, which demonstrate the potential and diverse potential applications of VR and AR technologies in the widest variety of fields.</p> <p>Research results are documented in a knowledge base and integrated in the international research scene. They are thus made accessible to a wide circle of potential users. The Virtual Development and Training Centre of the Fraunhofer IFF serves as a contact for technology transfer and establish contact with the cooperating research partners.</p> <p>The excellence network of ViVERA is equipped with extensive experiences from already completed projects. The associates are developing customized applications together with their clients from the business communities. The researchers provide consulting when virtual technologies are being implemented in companies and develop individual software solutions completely made-to-order.</p>	
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Contact person

Dr. Marco Schumann

Manager, Virtual Interactive Training Business Unit

Fraunhofer Institute for Factory Operation and Automation IFF

Mail: Sandtorstraße 22, 39106 Magdeburg, Germany

E-Mail: marco.schumann(at)iff.fraunhofer.de

www: <http://www.iff.fraunhofer.de>

Phone: +49 391 4090 158

Fax: +49 391 4090 115

Annex (any other information, that could be useful for potential user)

Resume

This deliverable provides description of a collection of 13 projects performed by Consortium Partners: University of Bremen, Riga Technical University, MitSoft Ltd, Fraunhofer IFF Institute for Factory Operation and Automation, and Logitrans Consult Ltd. A collection of these processes covers next classes of application areas, generic or horizontal solutions:

- Transfer process capability oriented activity modeling, assessment and improvement;
- eLogistics – management of logistics supply chain and transport freight route by ICT means;
- Generic methodology for development of Web-and multiagent-based Applied Software Systems;
- Methods of Virtual and Augmented Reality and its applications;
- Wearable and Mobile Computing for real time individuals ICT based support in working environment;
- Horizontal solutions for national platform of electronic documents having legal power equivalent to hand signed documents.

Based on projects description provided most suitable projects will select for piloting an innovative ICT Transfer Concept and testing adequacy of business models proposed.

India	→	Finland	FROM 2640 USD
China	→	Estonia	FROM 2100 USD
Estonia	→	Russia	FROM 980 USD
USA	→	Estonia	FROM 2050 USD

For more details select Freight costs calculation



China	→	Ukraine	FROM 2650 USD
China	→	Latvia	FROM 2200 USD
Taiwan	→	Lithuania	FROM 2475 USD
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E-Logistics for Container Transportation

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Mobile version

Learn about on-line freight transportation cost of container cargo free of charge!

If you are engaged in transportations of cargoes in containers, our portal is designed specially for you! It helps to organize cooperation of users belonging to two target groups: Transport and Cargo.

MAIN FEATURES OF THE PORTAL:

1. For cargo owners:

- Exporters / Importers;
- Brokers;
- Traders.

The portal enables users:

- To calculate transportation cost of cargo (bought goods) from purchasing place to the destination in accordance with Incoterms 2000.
- To estimate expected transit time of cargo delivery to the destination.
- To choose the transport company, which corresponds to your requirements and is engaged in transportation of containers.
- To assess service level of selected company engaged in cargo transportation.

2. For transport companies:

- Agents of a shipping lines;
- Road carriers;
- Railway freight agents;
- Block train operators;
- Freight forwarders;
- Transport-logistics companies.

The portal enables users:

- To involve new clients and to increase container cargo turnover
- To increase profitability of your business using modern Internet technologies.
- To reduce workload of experts of a company «to a basket» offering prospective clients freight rates on the portal which has already been calculated but not required for some reasons.

3. Except for this, all users of the portal can receive Useful information about transport logistics and related areas:

- Schedule of shipping lines and container block trains between selected points of departure and arrival;
- IT and mobile solutions;
- Education and training.

CHOOSE THE MOST FAVOURABLE AND RELIABLE ROUTES OF TRANSPORTATION OF YOUR CARGO!

USE MODERN OPPORTUNITIES TO INCREASE PROFITABILITY OF YOUR BUSINESS CONNECTED WITH INTERNATIONAL CONTAINER TRANSPORTATION!



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Logistics & Supply Chains



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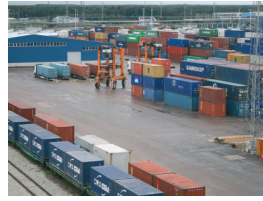
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China	→	Ukraine	OT 2650 USD
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Смотри подробнее Стоимость перевозки груза

Смотри подробнее Стоимость перевозки груза

Вход в систему

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Пароль:

Забыли пароль?

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Общее Меню

- Главная страница
- Регистрация
- Руководство пользователя

Транспортная логистика

- Стоимость перевозки груза
- Оценка уровня сервиса

Полезная информация

- Услуги судоходных линий
- Услуги контейнерных поездов
- ИТ и мобильные решения
- Образование и обучение
- Связанные Веб сайты
- Контакты

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Мобильная версия

Узнайте стоимость перевозки грузов в контейнерах в режиме он-лайн совершенно бесплатно!

Если Вы занимаетесь перевозками грузов в контейнерах, наш портал предназначен специально для ВАС! Он помогает организовать взаимодействие пользователей, принадлежащих к двум целевым группам: транспортной и грузовой.

ОСНОВНЫЕ ВОЗМОЖНОСТИ ПОРТАЛА:

1. Для грузовладельцев:

– экспортеров / импортеров; – брокеров; – трейдеров.

Использование портала позволит им:

- произвести расчет стоимости перевозки груза (покупаемого товара) от места закупки до места назначения, базируясь на условиях Инкотермс 2000;
- оценить ожидаемое транзитное время доставки груза в пункт назначения;
- выбрать наиболее соответствующую запросам транспортную компанию, занимающуюся транспортировкой контейнеров;
- оценить уровень сервиса выбранной компании, занимающейся экспедированием грузов.

2. Для транспортных компаний:

– агентов судоходных линий; – автоперевозчиков;
 – ж/д фрахтовых агентов; – экспедиторов;
 – операторов контейнерных поездов;
 – транспортно-логистических компаний.

Использование портала позволит им:

- привлечь новых клиентов и увеличить контейнерный грузооборот;
- увеличить рентабельность Вашего бизнеса, используя современные интернет технологии;
- сократить работу специалистов компании «на корзину», предлагая потенциальным клиентам веб портала уже прокотируемые, но не востребованные по каким-то причинам, ставки грузовых перевозок.

3. Кроме этого, все пользователи портала могут получить полезную информацию по транспортной логистике и связанных с ней областях:

- расписание движения судоходных линий и контейнерных поездов между выбранными пунктами отправления и назначения;
- ИТ и мобильные решения;
- Образование и обучение.

ВЫБЕРИТЕ НАИБОЛЕЕ ВЫГОДНЫЕ И НАДЕЖНЫЕ МАРШРУТЫ ТРАНСПОРТИРОВКИ ВАШЕГО ГРУЗА!

ИСПОЛЬЗУЙТЕ СОВРЕМЕННЫЕ ВОЗМОЖНОСТИ УВЕЛИЧЕНИЯ РЕНТАБЕЛЬНОСТИ ВАШЕГО БИЗНЕСА, СВЯЗАННОГО С МЕЖДУНАРОДНОЙ ПЕРЕВОЗКОЙ КОНТЕЙНЕРНЫХ ГРУЗОВ!



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