KC Class presenting on CLASS 2012 – Bled, 23.-25. October

Facts, objectives, current results
Dalibor Baskovc, coordinator

National cloud computing CLASS project partners

Projects

P1 (IR) Cloud Infrastructure – IaaS

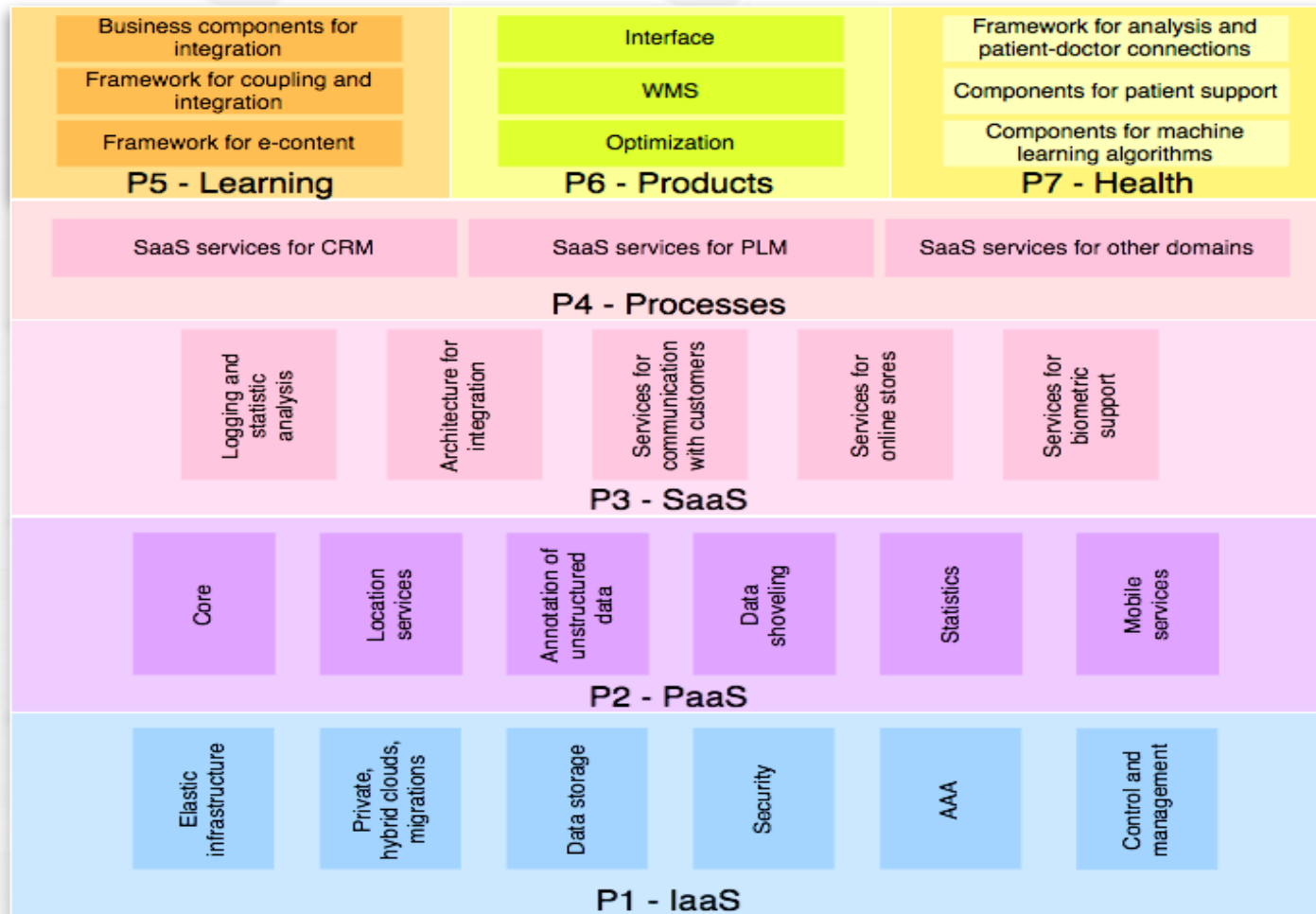P2 (IR) Cloud Platform – PaaS.

P3 (IR) SaaS Support Services

P4 (ER) Sustainable Growth and Quality of Life Support

P5 (ER) E-Learning Services in the Cloud

P6 (ER) Cost-efficient Vertical Integration of Logistics

P7 (ER) E-Health and Environmental Services in the Cloud

Objectives within projects

Business components for integration	**Interface**	**Framework for analysis and patient-doctor connections**
Framework for coupling and integration	**WMS**	**Components for patient support**
Framework for e-content	**Optimization**	**Components for machine learning algorithms**
P5 - Learning	**P6 - Products**	**P7 - Health**

SaaS services for CRM	SaaS services for PLM	SaaS services for other domains

P4 - Processes

Logging and statistic analysis | Architecture for integration | Services for communication with customers | Services for online stores | Services for biometric support

P3 - SaaS

Core | Location services | Annotation of unstructured data | Data shoveling | Statistics | Mobile services

P2 - PaaS

Elastic infrastructure | Private, hybrid clouds, migrations | Data storage | Security | AAA | Control and management

P1 - IaaS

Coordinator partner – Zavod e-Oblak

- Positioning Slovene cloud "brand" in EU and globally
- Creating EU certification program
- Demo room in Slovenia
- Internationalization & networking
- Project results dissemination

Main standardization bodies&certification

Selection	General	Cloud Computing	ICT, miscellaneous
Europe	ETSI	EuroCloud	enisa European Network and Information Security Agency
International	ISO	CSA cloud security alliance, OASIS, Open Cloud Consortium, OpenGridForum	ITU, IETF, SNIA, DMTF, tmforum, THE Open GROUP, W3C
USA	NIST		

Europe				
	CC	EuroCloud	Comprehensive guidelines on law, data privacy and compliance, EuroCloud Star Audit ("Cloud Service quality mark")
	ITC	ETSI (European Telecommunications Standard Institute)	Standards, analysis of gaps and testing systems for interoperability, specifications, use cases, co-ordination, standardization roadmap
	ITC	ENISIA (European Network and Information Security Agency)	Cloud Computing – SME Survey, Cloud Computing Information Assurance Framework, Cloud Computing Risk Assessment

Sources for Star Audit controls

EuroCloud certification competences

EuroCloud Star Audit

EuroCloud Self Assessment

EuroCloud SLA critieria catalog

EuroCloud Guidelines

EuroCloud
CLOUD QUALITY INFORMATION PYRAMID

EuroCloud Star Audit covers

» Statement about the reliability of the Cloud service, the service provider and involved sub-providers

» Examination of the specific contractual elements with view on

- commissioned data processing
- Data Protection Regulations
- Book Keeping Regulations

» Operational processes

» SLA compliance

» Lock In situations and vendor change options

» Training and support

» Interoperability

links

❖ CC Guidelines

  ❖ http://eurocloud.si/wp-content/uploads/EuroCloud-smernice-prevedeno-in-prilagojeno.pdf

❖ Data protections CC guidelines for Slovenia published by datacommisioner

  ❖ http://eurocloud.si/wp-content/uploads/Cloud-computing-and-data-protection-ENG-final1.pdf

  ❖ https://www.ip-rs.si/fileadmin/user_upload/Pdf/smernice/Smernice_rac_v_oblaku.pdf

❖ EuroCloud Star Audit SaaS

  ❖ www.saas-audit.eu

start:Cloud

A targeted educational accelerator program, designed for B2B apps to be launched on the local web app store.

in cooperation with: EuroCloud Slovenia, Si.Mobil, Hekovnik and Slovene Chamber of commerce - Zitex
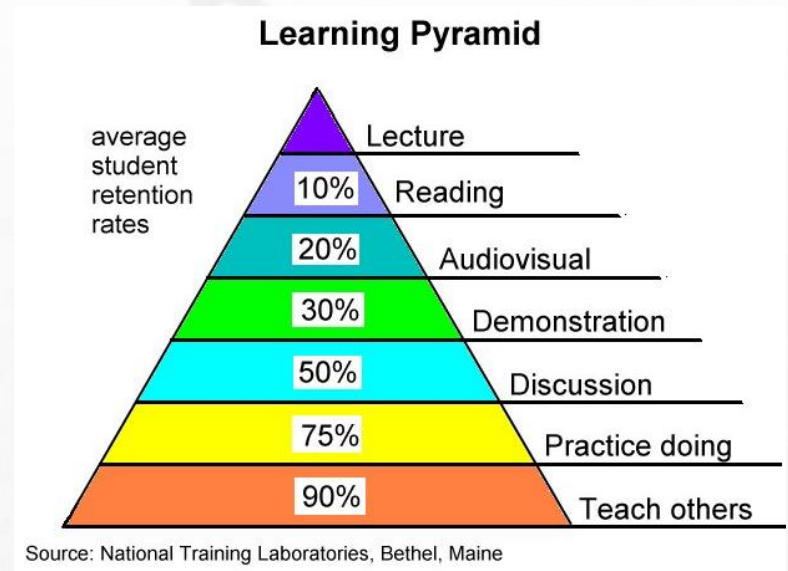
Target segments

- Students, researchers
  - Build a team and incorporate
- PreSeed startups
  - Accelerate product development
- Seed startups
  - Strategic positioning, internationalization

Curriculum

- The Curriculum is based on Hekovnik's *Toolbox* - a set of tools a startup needs to find their product-market fit.
  - Business Model Generation Canvas
  - Product/Feature/Benefit/$$$ Matrix
  - Empathy Map
  - Founders Pie Calculator
  - ...
- Lectures and workshops
  - Run twice a week.
  - *cf. Weekly events*
- Hands-on coaching – cloudHours
  - 3 mentors/3 teams - mentors rotate between teams.
  - Individual coaching increases retentions and lets us focus on each teams's specific problems either with understanding any of the concepts or hurdles during their startup's development.

Philosophy & Goals:

- Partnership with industry, knowledge providers, teams with inovative ideas

- Two-tier curriculum

- Time pressure

Learning Pyramid

average student retention rates

	Lecture	
10%	Reading	
20%	Audiovisual	
30%	Demonstration	
50%	Discussion	
75%	Practice doing	
90%	Teach others	

Source: National Training Laboratories, Bethel, Maine

Literature:

S. Blank & B. Dorf: The Startup Owner's Manual

Roundup 2012

17 teams entered

13 applications launched

Winners:

    needleFOUND (needlefound.com)

    Shopamine (shopamine.com)

    MetaKocka ()

    SmartHousekeeping (smarthousekeeping.com)

Two teams in Sillicon valey, one on EuroCloud congress 2012

http://www.youtube.com/watch?v=bvhyOlyAt6w&feature=plcp

Best startCloud teams 2012

EuroCloud yearly programs

Local and European Award program

In this program cloud suppliers strive for the award in several categories. Local winners automatically apply for the European contest

SLO Winners 2012

EU Winners 2012

EuroCloud yearly programs

EuroCloud Congress

In this 2 day event, organisations and politicians meet with each other, develop workgroup activities and get the latest insights on cloud development in Europe first hand

EuroCloud yearly programs

EuroCloud Day

The largest distributed cloud conference in Europe. Local EuroClouds organize an event and have Local speakers combined with online sessions provided by EuroCloud Europe.
Hear the visions from Politicians and CEO's of the largest cloud industries in Europe and internationally

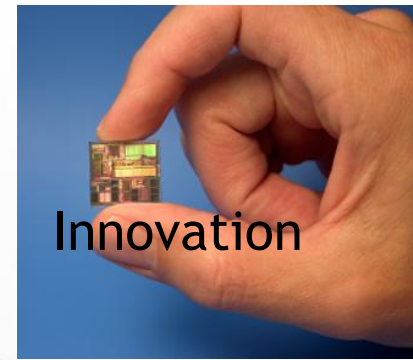# Digital Agenda drivers – 7 flagship iniciatives

Innovation

Single market

Access / Fast

Ease-of Use

Interoperability

Social application

Security

1'st. working group
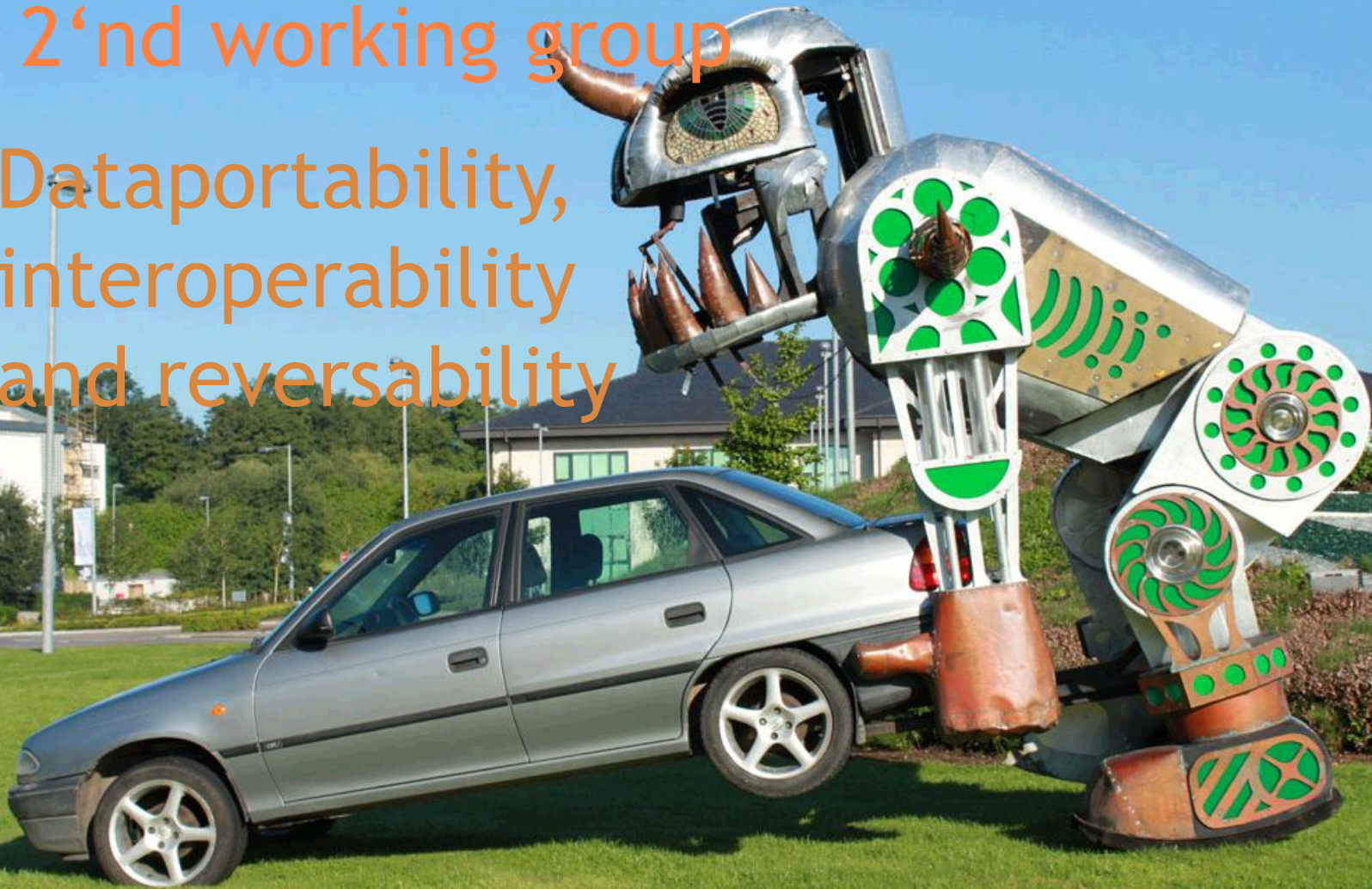
Innovation and Uptake

2'nd working group

Dataportability,
interoperability
and reversability
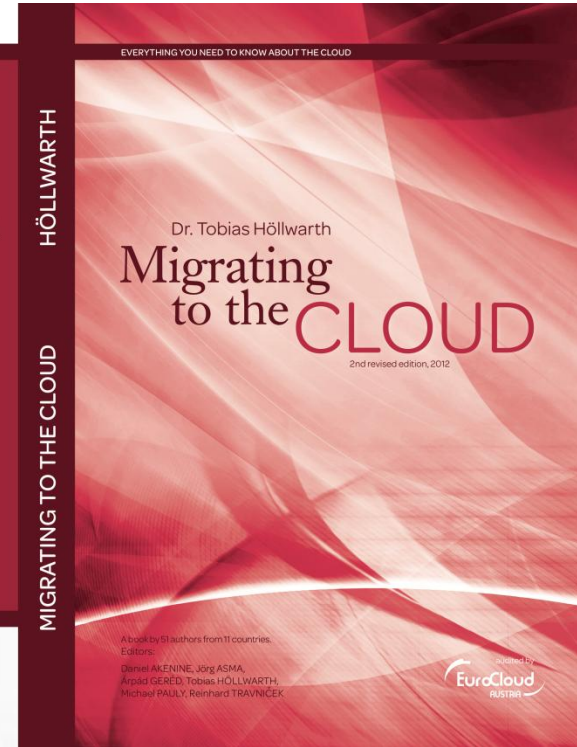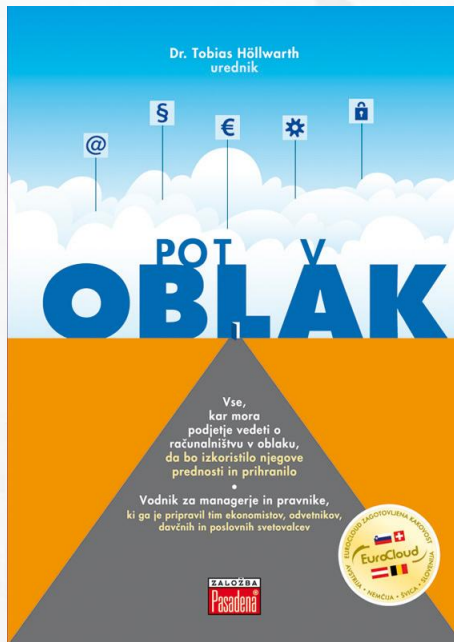
3'rd. working group

Data privacy,
governance
and ID

4'th working group

Security, trust and certification

Publishing cloud books in 2012

2nd edition of the book CLOUD-MIGRATION written by 51 authors from 11 countries

International activites 2012 (1)

- ## Chinese Institute of electronics
  - Xu Xiaolan, General Secretary
  - Liu Rulin, Vice Chairman
  - Lin Runhua, Vice General Secretary
  - Zhang Yimin

- ## Ministry of Industry and Information Technology
  - Xiao Hua, Planning Division

International activites 2012 (2)

European Purpose: To develop a program of Europe - China long term cooperation on cloud computing, that would enable exchange between Europe Cloud organization and China on the fields of (a)industry, (b)research and development, (c)innovation, (d) education

International activites 2012 (2)
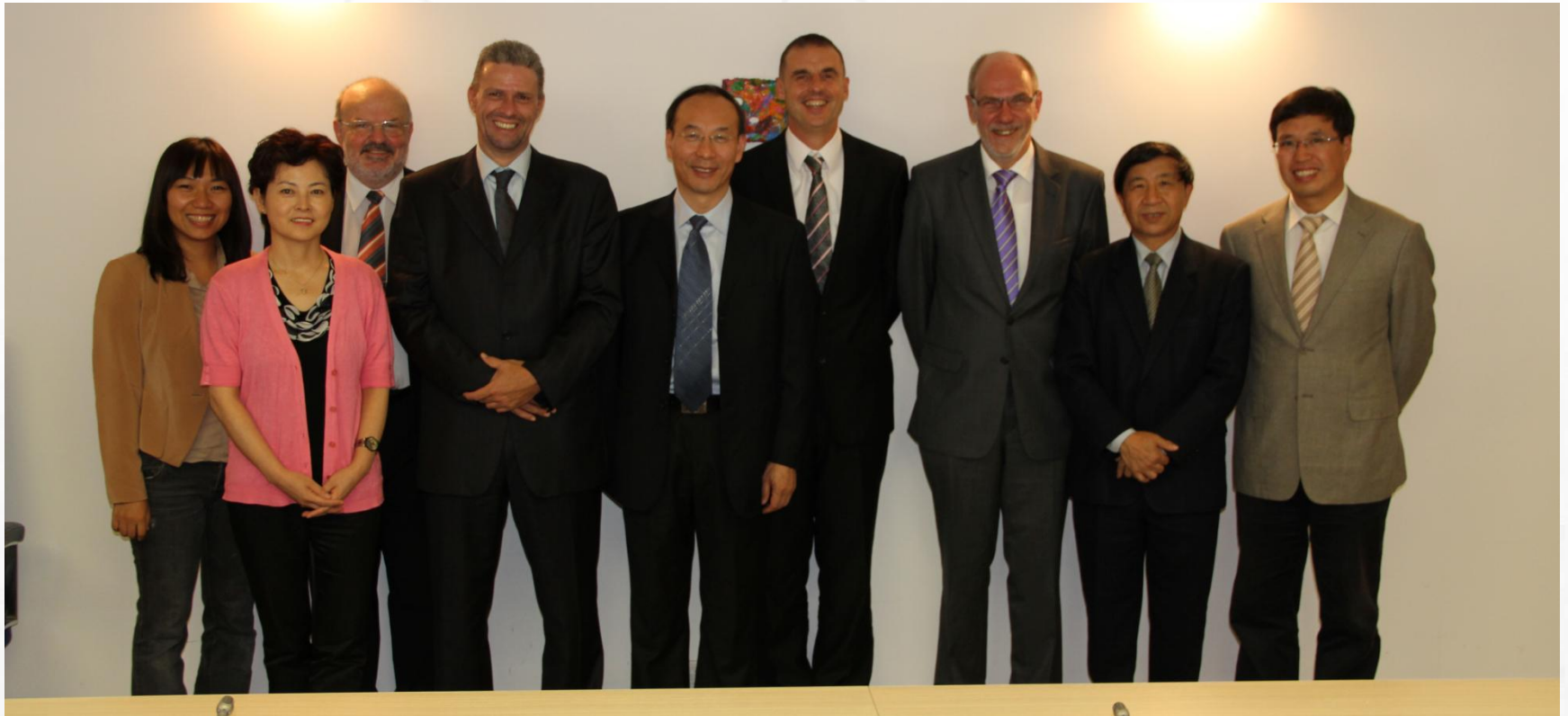
MO-BIZZ project - **main players in the mobile cloud market, to allow the development of an integrated approach, using a service platform together with different mobile cloud solutions provided on top of it.**

Other EU projects – CIP – just signed

Germany

Romania

s!mobil

France

Slovenia

Portugal

Spain

Greece

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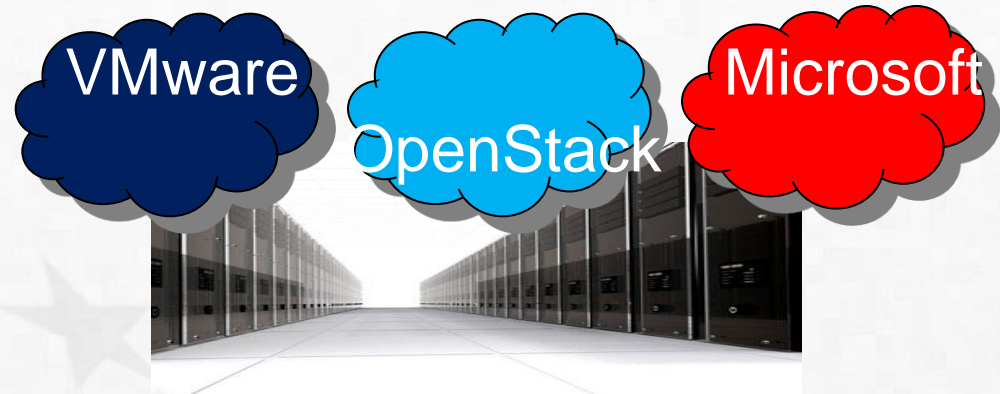
P1 Infrastructure in the cloud – IaaS

Project challenges

- elastic allocation of computer resources and shared use of hybrid clouds
- dynamically distributed storage
- secure shared use of resources (in the cloud) based on security schemes
- protecting data source contents
- monitoring and controlling individual components
- detecting extreme conditions and multi-level notification
- collecting and processing data for clearing services in the cloud

P1 Infrastructure in the cloud – IaaS
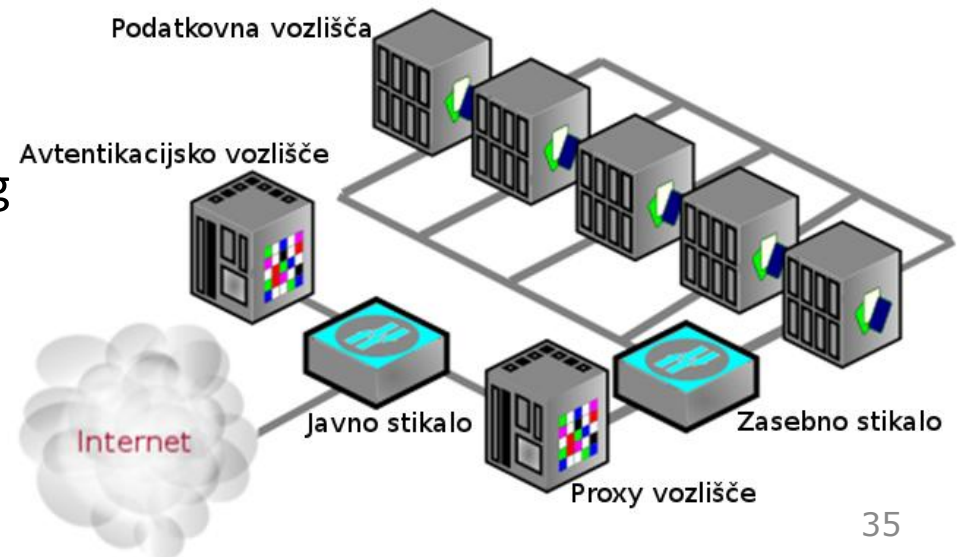
Elastic infrastructure

– Distributed physical resource clusters on multiple locations (CLASS/IaaS)

– OpenStack

– VMware vCloud Director

– Microsoft Private Cloud

P1 Infrastructure in the cloud – IaaS

Security and reliability

- Identity Management
  - attributes checking, levels of identity verifying, revocation of credentials, systems interoperability, protecting privacy,...
- Single sign-on
- Access tracking and recording
- Usability, scalability, availability, reliability

P1 Infrastructure in the cloud – IaaS

Main results:

Cloud Computing – elastic computing infrastructure

- Up and running in – OpenStack, vCloud in System Center

Migration of services between private and public clouds

- Performed on „expansion into Amazon.com" case

Petabyte magnitude data storage system

- Up and running

Security in the cloud

- Development of security check procedures

Authentication, authorization, tracking

- Developing solution – trial version

P1 Infrastructure in the cloud – IaaS

Planned innovations:

- Method and migration procedure between private and public clouds

- Architectural design of the CLASS/Hybrid

- System CLASS/PetaByte

- Method for verifying cloud security CLASS/Secure

- System CLASS/ AAA or CLASS/STest

- System CLASS/Monitor

RRP2: Platform as a Service – PaaS

Project goals

– Development of an anottation scheme for programms and plugins for software development environments as is Eclipse and NetBeans IDE

– Determine the locational information and spatial searches

– Augment the unstructured data

– Delivery of desired information

– Data recording and statistical analysis

– The possibility of the ERP systems integration

– Ensure support mechanisms for building social networks

– Support for mobile devices

P3 SaaS development support

Project challenges

- Logging and statistical analysis (on the trusted platform level),

- Data analysis, data processing and monitoring key indicators

- Integration Platform (enabled integration of ERP, CRM, PLM, SCM and other systems),

- Integration from social networks establishment

- Integration of mobile services

- Support for inclusion of multimedia services

- Support for biometric identification/authentication

P3 SaaS development support

Integration Architecture for the integration of SaaS and back-end (non-SaaS) applications

- Integration framework will focus on the generic mechanisms of weakly coupled integration with any ERP, CRM, SCM or PLM system.

- Generic client will be developed to provide a unified view of data and will use uniform interfaces.

P3 SaaS development support

Services for integrated communication with customers

- – Generic and support services will be designed and developed for integrated communication with customers.
- – For this purpose connectors will be developed between systems for communicating with customers.
- – Adapters and mediations will be developed for various systems such as Call Center, Internet, telecommunication networks, DTV, online media,…

P3 SaaS development support

Main results:

- Logging, statistical analysis and processing
  - Produced, available for partners
- Integration Architecture for integrating SaaS with back-end (non-SaaS) applications and with social networks and multimedia systems
  - Produced, available for partners
- Services for integrated communication with customers
  - In preparation
- Support services for internet and media stores
  - In preparation
- Security and biometric support services
  - In preparation

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P3 SaaS development support

Planned innovations:

- System for recording and statistical processing of CLASS/KPI in CLASS/SLA

- Integration architecture of CLASS/SaaS

- Connectors for integrated communication with customers

- Services for supporting internet and media stores

- CLASS/Biometrics

RRP4: Sustainable Growth and Quality of Life Support

Goals:

- Develop innovative process solutions in the area of Customer Relationship Management (CRM) and management of Product Life cycle Management (PLM)

Results:

- New generation of CRM software solutions and tools
- Advanced, cloud based PLM applications
- Services and support for other RRPs (i.e. sensor networks portal – P7)
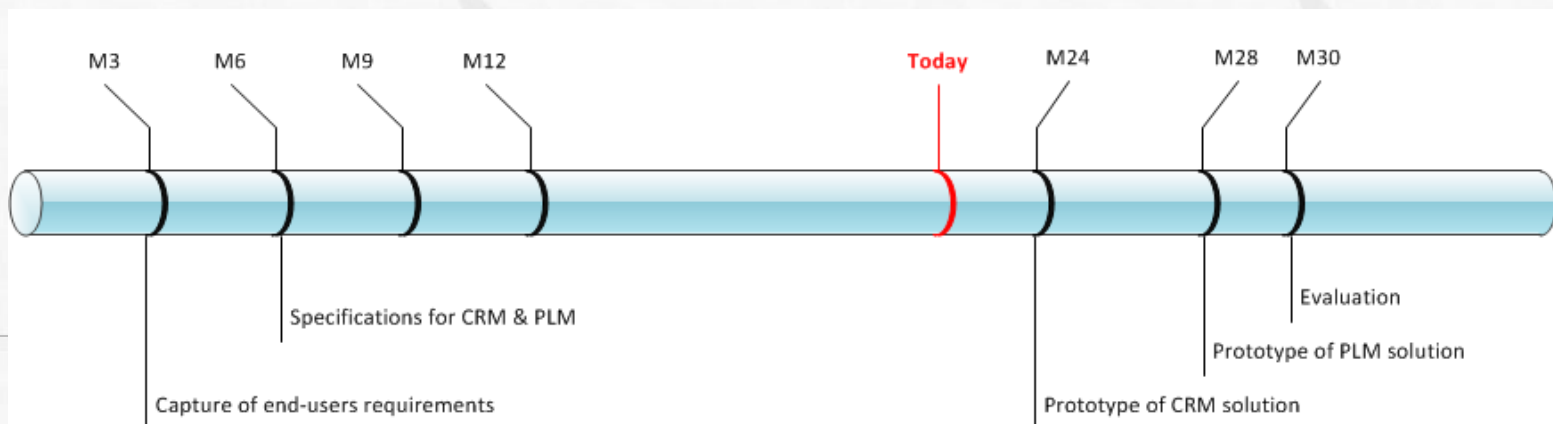
P5: E-learning „in the Cloud „ and ....

The „cloud", its infrastructure, todays' and tomorrow's applications and services create challenges and opportunities for the „e-learning" area

- The „LMS" - Learning Management Systems – have to adapt to take advantage of the cloud scalability benefits and to connect with cloud applications and services to enrich the learning experience and depth
- Upgrade its functionalities in the direction of „HCD" – Human Capital Development

P5: .... and „for the Cloud"

It is „pouring with rain" or better with new „cloud" technologies – and IT professionals will need to update and upgrade their skill sets ... To address that, the P5 addresses:

- Developing cirricula around technologies, which are used for „cloud building"
- The infrastructure of „virtual labs", which presents an enviroment for practical excercises with infrastructural components which assemble a „cloud"

RRP 06: Logistic Cloud - Cost effective vertical logistic integration

Project goals

Requirements gathering, analysis, design and development of Logistic cloud modules (SaaS):

- AtlasWMS – cloud enabled warehouse management solution
- Optimization module SaaS - cloud enabled calculation of cost-effective distribution of stock from a warehouse to multiple customers
- BPM and DMS modules - cloud enabled business process management and document management service
- E-learning platform e-cho – cloud enabled learning and support services for WMS users od WMS module

Interfaces specification, implementation and modules integration

Vertical integration of Logistic Cloud SaaS modules with underlying infrastructure platforms and SaaS modules from other RRPs.

RRP7: Cloud Services supporting health and environmental protection

Analyze challenges and best practices in Slovenia and worldwide and develop study and pilot versions of e-health and e-environment services

Project goals:

- Analyze the needs, weaknesses and opportunities in the Slovenian healthcare market
- Study implementations targeting different aspects of the patient and individuals that are interested in the environmental problems
- Special attention will be given to inform the public (different target groups, schools) about risks connected to the pollution
- Focusing on: safety, mobility, multi-tenancy, identity management, security, data management and open interfaces, anonymisation of data
- e-Health: optimization of queues, scheduling problems, computerizing specific healthcare processes (e.g. clinical e-pathways), medication scheduling, coordinating appointments with doctors
- e-Health: develop collaborative and social portal to allow patients to monitor and manage health, develop services that will enable the patient-doctor contact
- e-Environment: meteorological and environmental data gathering and visualization, prediction of health in relation to environmental conditions
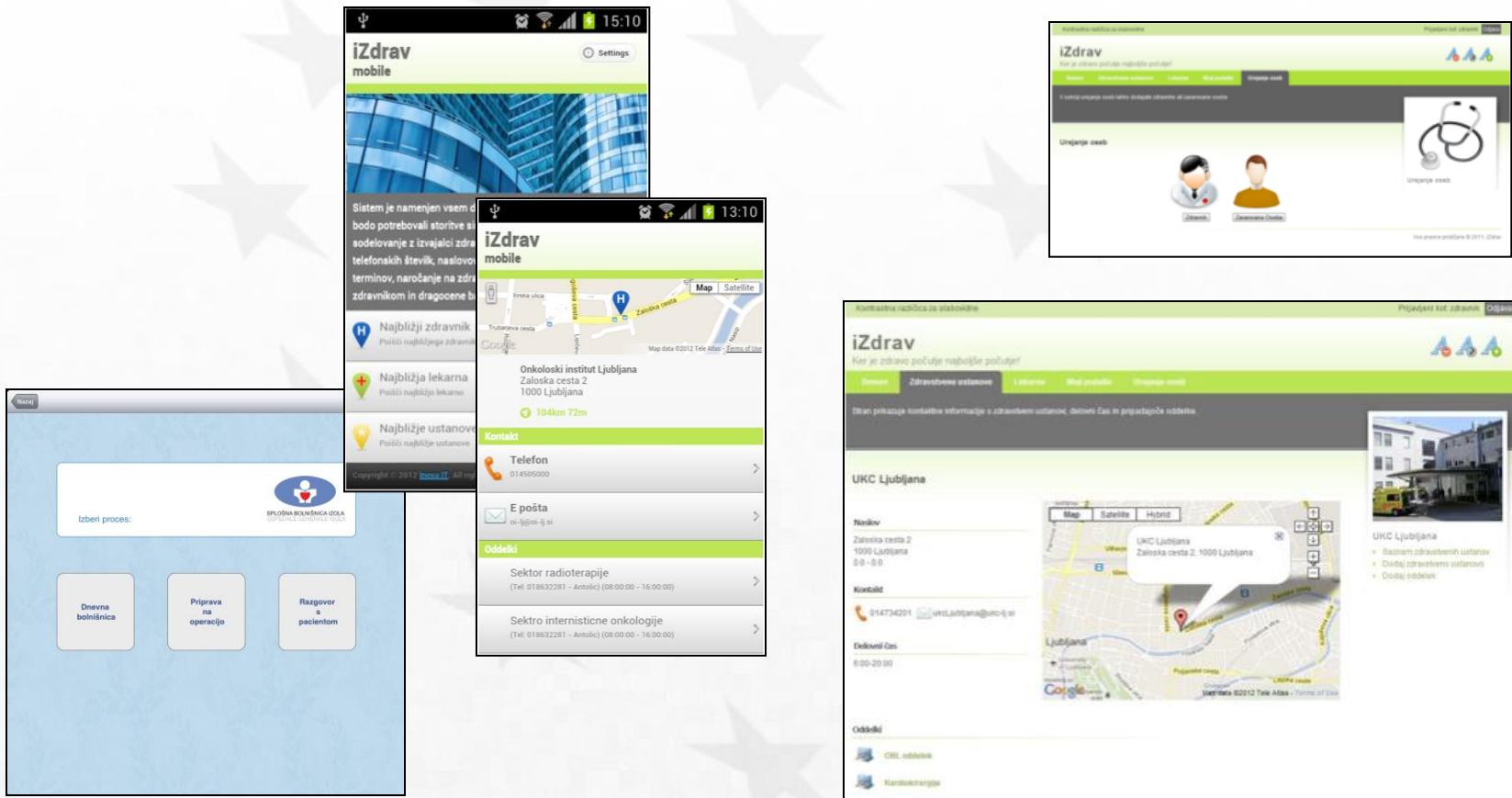
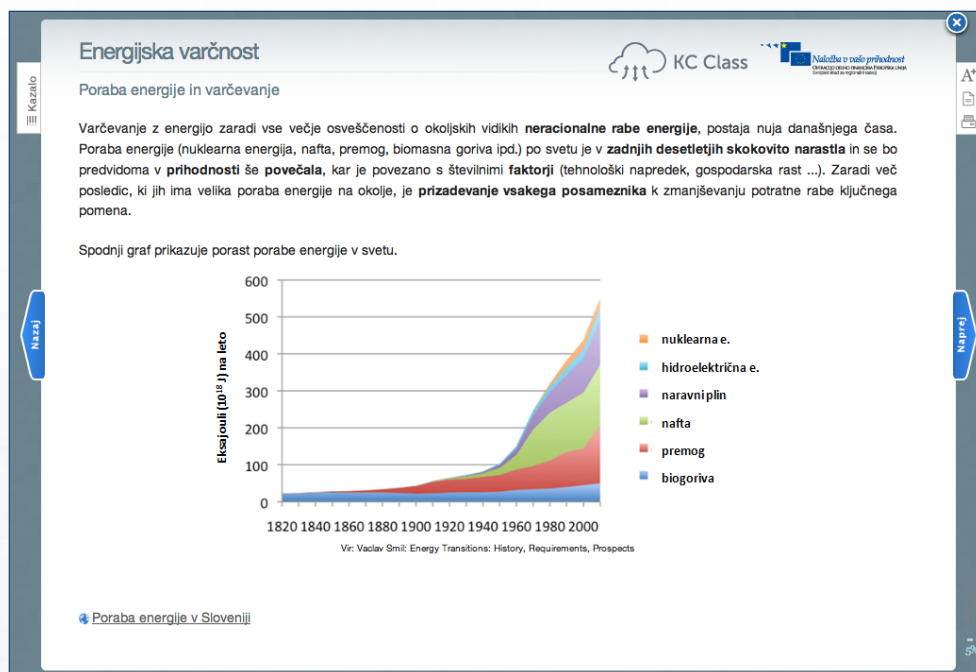# RRP7: Cloud Services supporting health and environmental protection

RRP7: Cloud Services supporting health and environmental protection

Thank you for your attention!

Any Questions???

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