

EBS implementation at NPP

KRSKO



**Zeljko Reljic, project manager
BBM d.o.o.**



Zeljko Reljic - Brief overview



- *Since 2009* - ORACLE- member of eAM customer advisory board
 - ORACLE- member of NPG SIG (co-founder)
 - ORACLE- member of Fusion Asset Strategy Forum
 - SIOUG-SA- Applications SIG- president
 - SIOUG-SO- member
- *Since 2007* - Project manager for EBS & eAM implementation at NEK
- *Since 1997* - SIOUG - member and cofounder
 - SIOUG - IO- member
- *Since 1982* - CIO, NEK
- *Since 1978* - IT Superintendent, Westinghouse - during construction of NEK

Agenda



- NPP KRŠKO – general plant data
- Legacy system challenges and limitations
- Project goals
- Relationship with ORACLE
 - Memorandum of understanding
 - Nuclear Power Generation Special Interest Group (NPGSIG)
 - Competence Centre
- ORACLE applications in scope
 - WANO technical exchange visit
 - Nuclear specifics
- EBS implementation
- PARALLEL activities
- PROJECT ORGANIZATION
- GO-LIVE and contingency plan
- 2 month after go live
- PROJECT CLOSURE

KRSKO NPP - General Plant Data



- *Westinghouse 2 loop Pressurized water reactor (PWR) of 2.000 MW thermal power. The power plant's net electrical power is 696 MW. It is connected to the 400kV grid supplying power to consumer centers in Slovenia and Croatia.*
- *Investment of two governments (Slovenia & Croatia), utilities*
- *Gilbert architect engineer*
- *Plant history:*
 - *construction start in 1975*
 - *September 1981 first criticality*
 - *Januar 1983 commercial operation*
- *Number of employees: <600*
- *NEK generates over five billion (10^9) kWh of electrical energy per year, which represents approximately 40% of the total electricity produced in Slovenia, and 17% in CROATIA.*
- *fuel cycle: eighteen months. This is the operational orientation of the power plant*

Current business process challenges or system limitations



- Number of NEK internal requirements for maintenance management SW
- Existing applications upgrades & maintenance-Lack of professional IT-resources (even for maintaining existing scope of current legacy system- Aging workforce & availability of key skills)
- Improvement of NEK processes (management & e-business). Number of additional requirements for new IT solution.
- New business related legislations (EU)
- International Accounting Standards

NEK Project Goals



- *New process considers NEK good practices and **industry good practices** (WANO, IAEA, INPO, EPRI)*
- ***Long term IT solution** to support continuous plant effort to improve plant safety and reliability as well as cost effectiveness of plant operation by having proper business processes management tool*
- *To assure NEK IT personnel and subcontractor knowledge necessary for **long term local support**.*
- *To bring **NPP specifics** requirements based on NEK and industry good practices to become generally accepted standard*
- *New acquisition important for NEK: **ORACLE & Primavera***

NEK-Oracle relationship



- NEK has used Oracle technology since 1986
- Primavera since 1999
- Implementation of eBS/EAM since 2009

NEK main concern

- How ORACLE will prove its commitment to follow-up nuclear industry requirements in the future (like WANO, INPO, IAEA, EPRI, ..).



WORLD ASSOCIATION OF NUCLEAR OPERATORS



Institute of Nuclear Power Operations



Relationship NEK & Oracle

MEMORANDUM OF UNDERSTANDING



- **Weekly Calls with EAM Product Strategy group Oracle**
- **initiation Nuclear Power Generation Special Interest Group (NPGSIG)**
- **NEK continuing participation in Health and Safety Feature Design (permits, isolations, locks and tags)**
- **NEK participation in eAM Customer Advisory Board**
 - **Enhancement Priorities (a list of requirements)-voting**
 - **NEK Goal: To bring NPP specific requirements in the future as standard solution**



- *To implement IT solution around which we can to gather other NPPs*
- *It is NEK interest to supporting Oracle in gathering other users from industry. By this the NPG SIG would become more influent on development path of standard EBS(eAM) solution. **We are sure, that many practices from nuclear industry would be helpful to other industries.***
- *It is NPG SIG interest to follow-up nuclear industry requirements in the future (like WANO, INPO, IAEA, EPRI, ..).*
- *Oracle Nuclear Interest Group can influent software development in direction to improve nuclear safety, industrial safety, and reliability of the utilities that use Oracle products.*
- *Oracle invited NEK to become member of Fusion Asset Strategy Forum*

NEK inputs to the partnership



- *Know-how of the nuclear standard processes in the industry.*
- *NEK active membership in industry organization:*
 - *WANO Paris center*
 - *INPO Atlanta center as IPAC member,*
 - *WOG Westinghouse owner group,*
 - *EPRI Electric Power Research Institute,*
 - ...
- *NEK may assure WANO technical support mission in test phase of project to evaluate appropriateness of the product vs. standards of processes in NPPs.*
- *NEK is actively involved in benchmarking processes to other EU and USA nuclear power plants.*
- *NEK is active user of Oracle technologies and Primavera for planning the projects. NEK has connected Work orders system (Oracle) and Primavera projects since 1999.*

Engagement of NEK on ORACLE HQ (2010)

- **ORACLE-San Francisco - 4th Annual Customer Maintenance Summit – March 2010 - speaker**
- **ORACLE – San Francisco - 2nd Nuclear Power Generation Special Interest Group (NPG SIG) event - March , 2010 - founder**
- **ORACLE – San Francisco - Customer Advisory Board (EAM) – March, 2010 - member**
 - Aim to get priority in development for nuclear functional enhancements in EAM
 - To bring **NPP specifics** requirements based on NEK and industry good practices to become generally accepted standard
- **ORACLE open world – San Francisco, August, 2010 – speaker**
- **ORACLE open world – Beijing, December – speaker**
- **ORACLE – Orlando - 5th Annual Customer Maintenance Summit – March, 2011 - speaker**
- **ORACLE – Orlando - Customer Advisory Board (EAM) – March, 2011 - member**
 - Aim to get priority in development for nuclear functional enhancements in EAM
 - To bring **NPP specifics** requirements based on NEK and industry good practices to become generally accepted standard



NEK - activities

- **China National Nuclear Corporation (CNNC) – Beijing, China, December 11-18, 2010**
 - CNNC Hunan Taohuajiang Nuclear Power Company
 - **EAM- Asset Modeling**
 - The main goal is to start building asset hierarchy from the beginning of NPP construction process
- **ENEC (Emirates Nuclear Energy Corporation) – Abu Dhabi, UAE, May 30- June 1, 2010**
 - **EAM- Asset Modeling**
 - The main goal is to start building asset hierarchy from the beginning of NPP construction process
- **Nuclear Maintenance and Plant Modernization - Brussels, Belgium, May 25-26, 2011**
- **Promcon, Škoda, MM Energy, Worley Parsons**
 - **Temelin unit 3&4 – April 19-20, 2011**
 - Site Visit - opening NEKs doors to meetings -Two days presentations
 - **EAM- Asset Modeling**
 - **Safety and Criticality Classification**
 - Equipment configuration control
 - The main goal is to start building asset hierarchy from the beginning of NPP construction process (Suppliers have to prepare data for every component according to the predefined specifications in agreement between them and NPP in construction.)



Nuclear Power Generation Special Interest Group (NPGSIG):

- was established on October 16th 2009 at Oracle Open World in San Francisco
- by Oracle, NEK , OSIR ...

NPGSIG key goals:

The purpose and goals of NPGSIG are to join existing and future Oracle Applications users in nuclear power generation organizations, to exchange experiences with implementation and using of Oracle Applications, to establish best practices models and to set up the competence centre for using Oracle Applications in nuclear power plants.

Some statistics data:

- More than 1280 members of NPGSIG community (1283)
- More than 300 members from 53 nuclear power plants from all around the world
- More than 250 members from nuclear power generation industry (IAEA, INPO, WANO, EPRI, Westinghouse, Areva, GE energy, AMEC, ...)
- More than 3000 visitors of www.nogsig.org from 114 countries all around the world
- Communication of possible cooperation with: Taohuajiang Power and Guangdong Corporation(China), ENEC (UAE), Rosatom (Russia)

NPGSIG Group Members

Members (322) from NPP (53):

Entergy, USA
First Energy, USA
Constellation, USA
Progress Energy, USA
Exelon Nuclear, USA
FPL, USA
TVA, USA
American Electric Power, USA
Ontario Power Generation, Canada
Bruce Power, Canada
EDF, France
GDF-SUEZ, France
Comex Nuclear, France
Magnox North, GB
Quest Nuclear, GB
Rosatom, Russia
NNEGC Energoatom, Ukraina
SN Nuclearelectrica, Romania
Alstom Power, Romania
ESKOM, South Africa
PBMR, South Africa
Dhruva Nuclear Reactor, India
NPP Krsko, Slovenia
RWE, Germany
GEN energija, Slovenia

Members from other NPP related companies:

Westinghouse, USA
Shaw Group, USA
GE Energy, USA
CSC, USA
Wiz Nucleus, Usa
PTC, USA
Atomic Energy of Canada
AMEC NCL, Canada
AMEC, UK
Areva NP, France
Hitach Nuclear, Japan
Mitsubishi Heavy Industry, Japan
Electrebel, Belgium
Alstom Power, Switzerland
Alstom Power, Romunia
CANDU, Canada
IAEA, Austria
INPO, USA
EPRI, USA,
WANO, USA
APTUS, France
Bhabha Atomic Research Center, India

NPGSIG web page



The screenshot shows a Windows Internet Explorer browser window displaying the NPGSIG website. The browser's address bar shows the URL <http://www.npgsig.org/>. The website header features the NPGSIG logo and the text "Nuclear Power Generation Special Interest Group". A navigation menu includes links for "NPGSIG home", "Discussion Groups", "News", "Conferences & Webinars", "Product applications", "Documents", and "Links", along with "Register account" and "Log In" options. The main content area is divided into two columns. The left column, titled "NPGSIG home", contains a photograph of a nuclear power plant and a text block describing the group's establishment in October 2009 and its purpose. The right column, titled "What is new?", lists two recent events: an invitation to a meeting on September 21st and NPGSIG's participation at Oracle OpenWorld 2010. The Windows taskbar at the bottom shows several open applications, including Microsoft Office and the NPGSIG website.

NPGSIG
Nuclear Power Generation Special Interest Group

[NPGSIG home](#) | [Discussion Groups](#) | [News](#) | [Conferences & Webinars](#) | [Product applications](#) | [Documents](#) | [Links](#) | [Register account](#) | [Log In](#)

 
Nuclear Power Generation
Special Interest Group

 **NPGSIG home**

The Nuclear Power Generation Special Interest Group (NPGSIG) was established on October 16, 2009 in Redwood Shores (CA). The initiative came from Oracle and Krsko Nuclear Power plant (NEK). The founding meeting brought together participants from Oracle, NEK, nuclear power plants representatives and Oracle partners.

The purpose and goals of NPGSIG are to join existing and future Oracle Applications users in nuclear power generation organizations to exchange experience with implementation and use of Oracle Applications, to establish best practice models and to set up a competence centre for using Oracle Applications in nuclear power plants. One of the important goals of NPG SIG is to support Oracle in adjusting its standard applications to nuclear industry requirements today and in the future (initiatives coming from WANO, INPO, IAFA, FPRI...).

What is new?

- Invitation to 3rd NPGSIG Meeting on Tuesday, September 21st at 5 PM in San Francisco
- NPGSIG at Oracle OpenWorld 2010

Internet 100% 5:49

Competence Centre purpose and goals:

- Organize reference visit for potential users from nuclear power generation industry.
- Organize training for nuclear power generation specific functionalities in eAM and other modules (Purchasing, Inventory, ...).
- Organize workshops where participants can find answers on specific questions.
- Execute functionality and stress testing for potential users.
- Execute Pilot according to specification and requirements.

Demo System Set-up (to speed up future EBS implementation in nuclear power plants using EBS preconfigured instance)

- Demo System will be based on solution we are currently implementing in Nuclear Power Plant (NEK) in Slovenia.
- In NPG Demo System will be included:
 - Nuclear Specific functionalities (Permits, Shift Supervisor Screen, Nekomat, ...),
 - Nuclear specific workflows and approvals,
 - Nuclear specific cases for NPP generalized processes,
 -

Oracle Applications in Scope



- *Financials*
 - *General Ledger*
 - *Payables*
 - *Receivables*
 - *Cash Management*
 - *Assets*
 - *BI Applications - Oracle Financials Analytics Fusion Edition*
- *Procurement*
 - *Purchasing*
 - *Sourcing*
 - *Services Procurement*
 - *Procurement Contracts*
 - *iProcurement*
 - *BI Applications - Oracle Procurement & Spend Analytics Fusion Edition*
- *Inventory Management*
 - *Inventory*
- *Projects*
 - *Project Costing*
 - *Project Portfolio Analysis*
 - *Project Management*
 - *BI Applications Projects Analytics*
- *Enterprise Asset Management (eAM)*
 - *Asset Management*
 - *Maintenance Budgeting*
 - *Work Order Requests*
 - *Work Order/Work Management*
 - *EAM Cost Management*
- *EAM supporting modules*
 - *Bills of Material*
 - *Cost Management*
 - *Quality*
 - *Work in Process*
- *HRMS*
- *Approval Management Engine (AME)*
- *User Productivity Kit (UPK)*



For the purpose of eBS implementation evaluation Krsko NPP asked for WANO technical exchange visit (TEV).

TEV was performed from May 24-28, 2010 and it focused on:

- work management,
- especially software implementation, and
- equipment reliability.



- Areas with recommendations are as follows:

Identification of Critical Components and Critical Spares

Materials Management

Work Planning and Scheduling Improvement

Preventive Maintenance

Operability Determinations

Quality Inspections

Change Management and Project Implementation

Software Modifications

- All the recommendations are fulfilled within eBS implementation



- Discussions about:
 - Intended functionalities
 - Proposed design reviews
 - Technical problems and challenges
- Discussions are very fruitful and many issues are being solved.

EAM Nuclear Specifics



- Asset Modeling
- Supporting Specific Equipment Attributes
- Bills of Materials
- Safety and Criticality Classification
- Computer Kiosk Application
- Main Control Room Shift Supervisor Overview
- Scheduling Synchronization with Primavera P6 r7
- Safety Permits
- SCB-safety and criticality classification module

EAM Nuc Specifics Summary



- Most of requirements were covered with standard functionalities
 - Oracle EBS DFF & personalization capabilities were crucial
 - Small PL/SQL extensions
- Specifics were covered with custom bolt-on applications
- Business processes workflows are combined with Approval Management Engine (AME)

EBS implementation



- Assessment, Designe, Build, Transition phase
- Pilot-1, Pilot-2, Pilot-3, UAT
- Nuclear specific customisations
- SLO localization
 - New business related legislations (EU)
 - International Accounting Standards

Huge project

PARALLEL activities



EBS implementation

PARALLEL activities-1

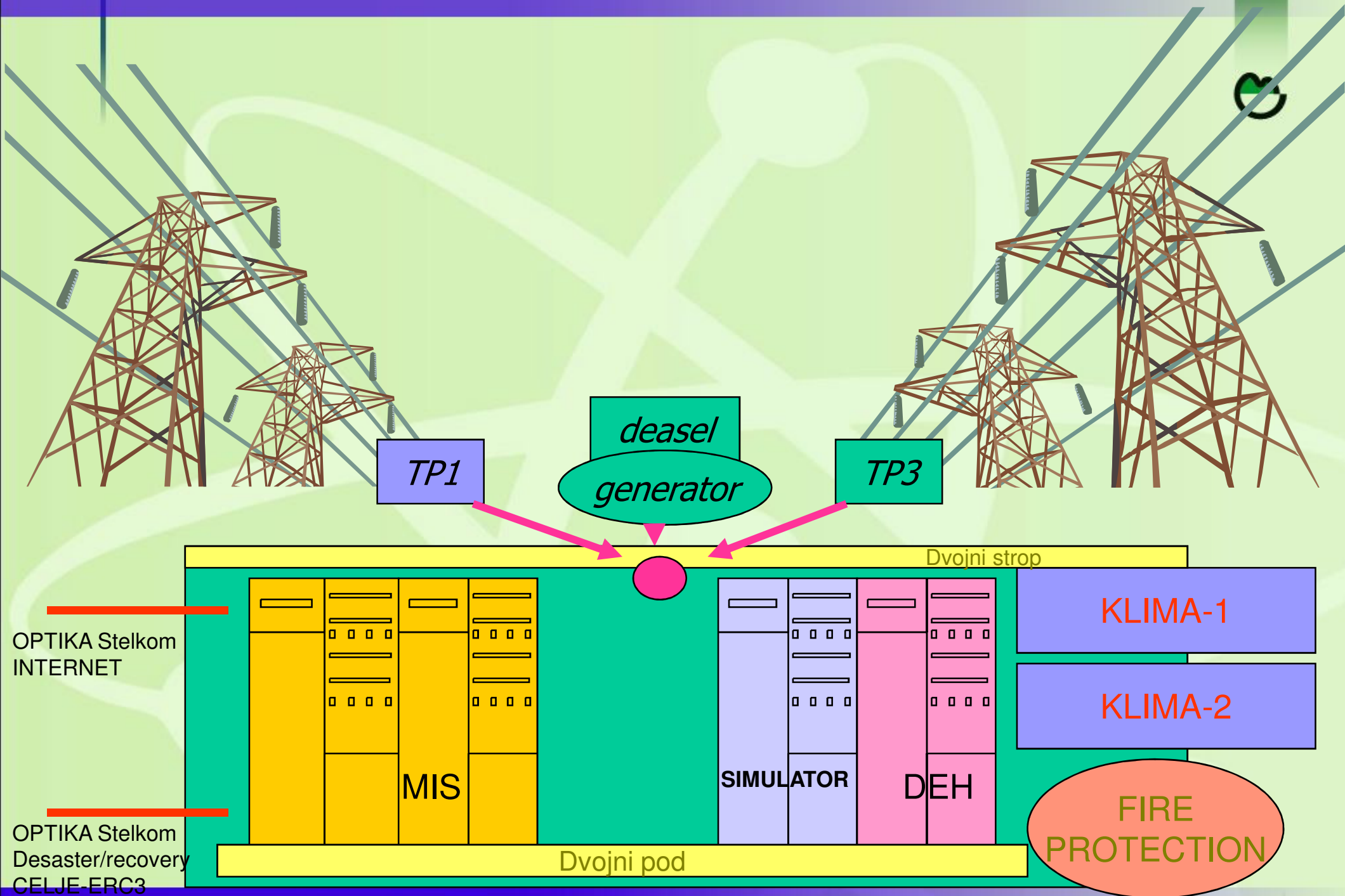
EBS implementation

HW&SW infrastructure
high availability

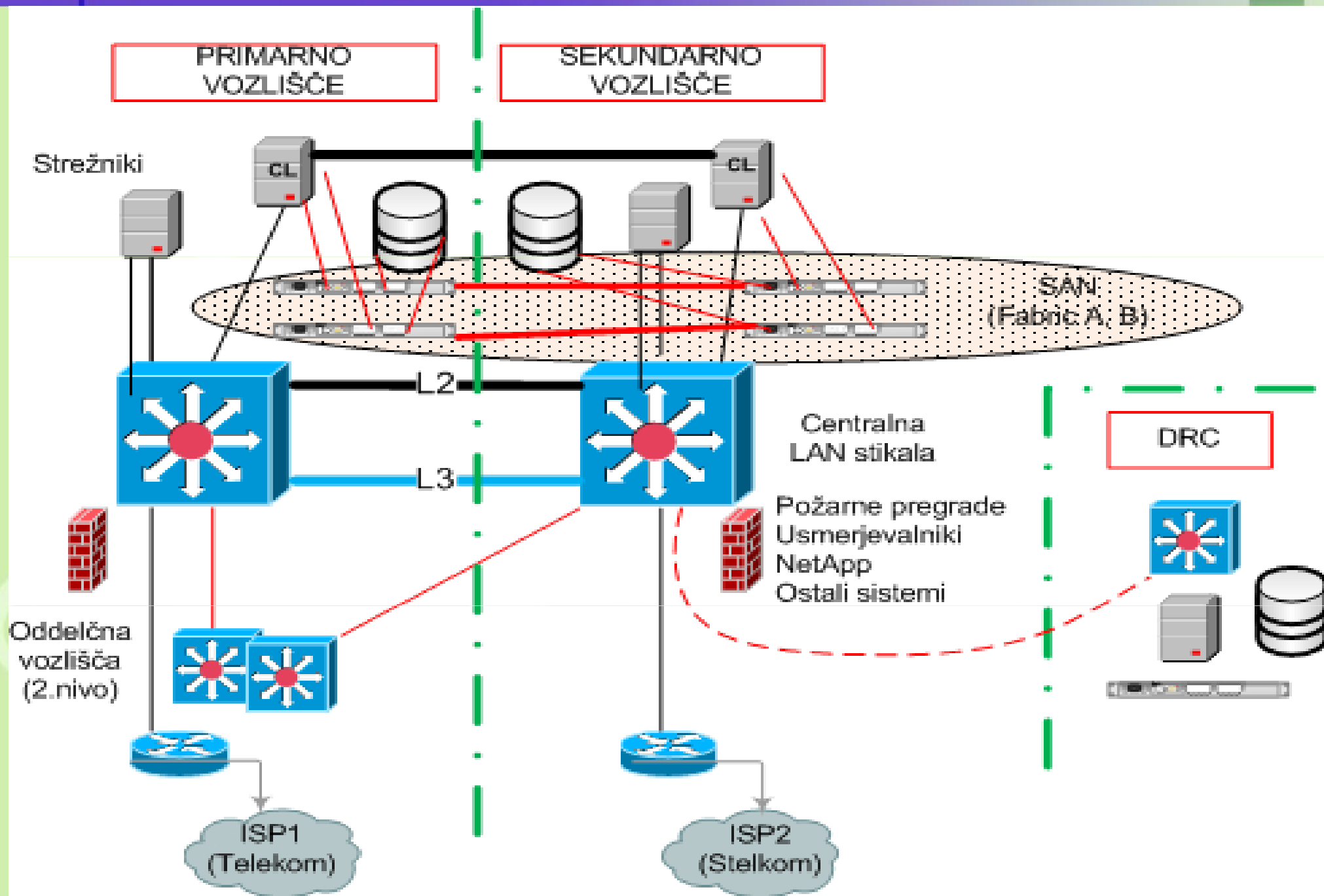
HW&SW infrastructure- high availability

- Production architecture strategy
- ERC-1, ERC-2
- DB server, APP server, BI Aps server clusters
- Redundant switches
- Provider independent internet
- Disaster recovery center (DRC)

ERC-2

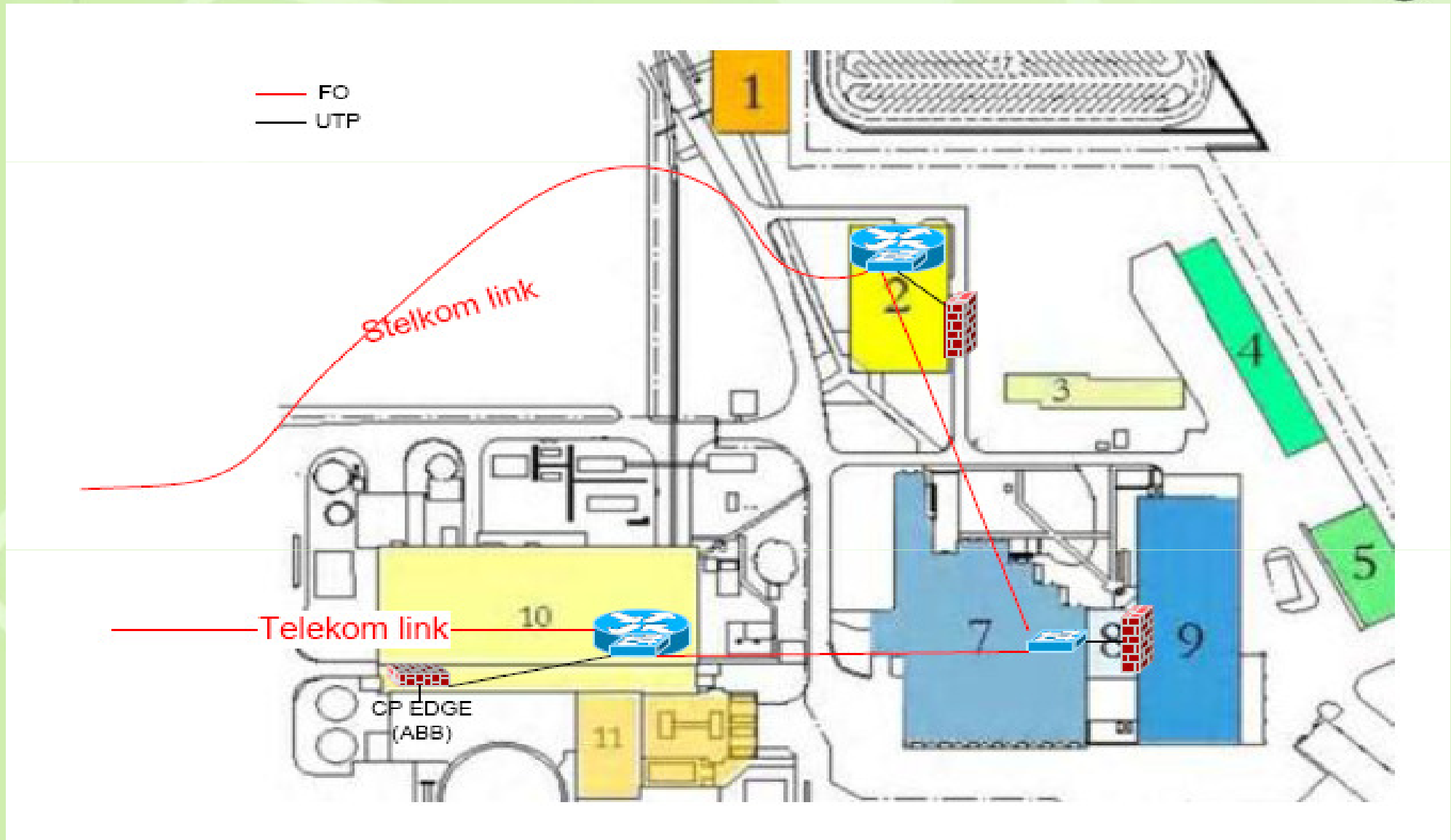


Network infrastructure (LAN)

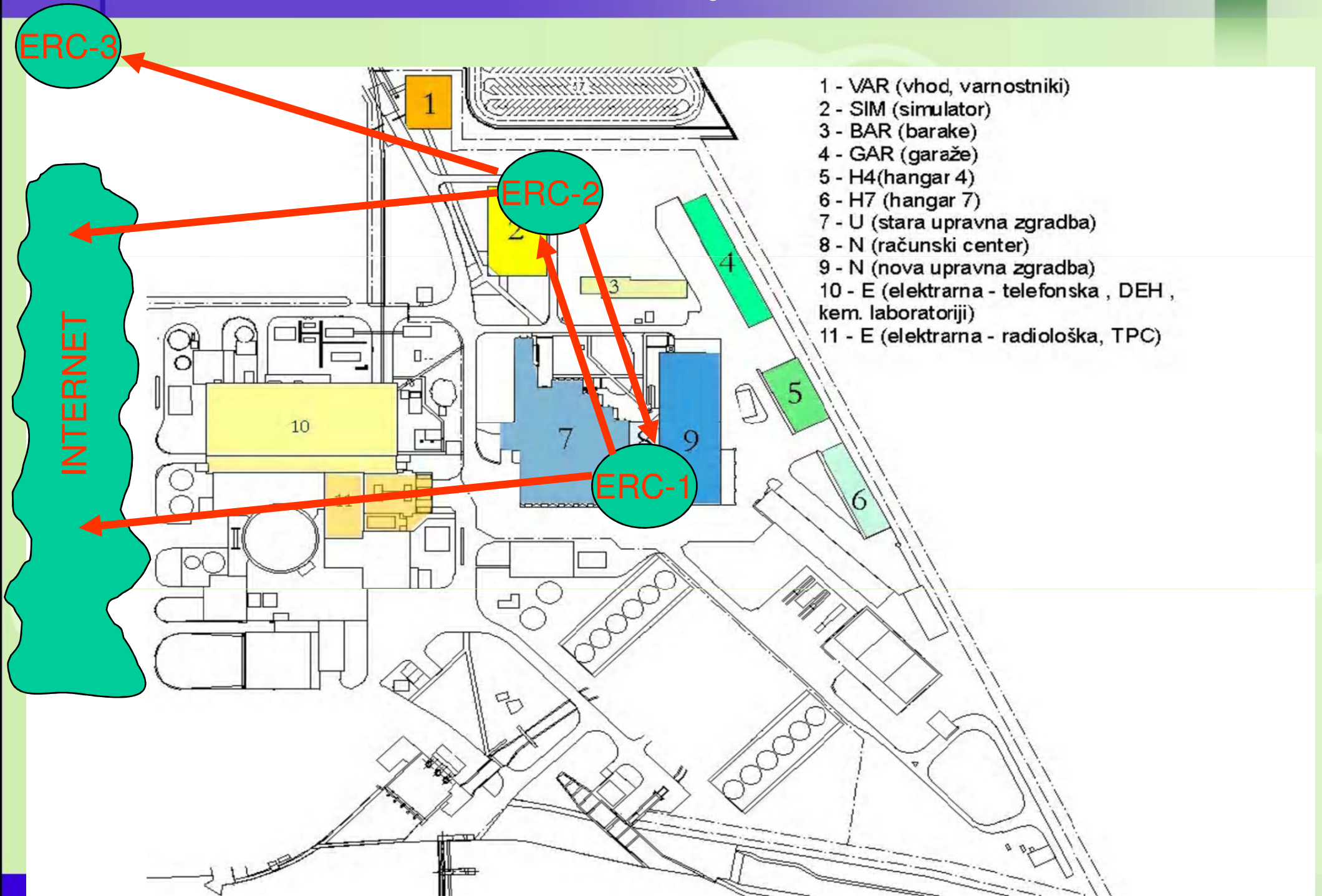


INTERNET – Provider independent

(Priklop na dva ponudnika internetnih storitev)



Disaster recovery center



PARALLEL activities-2

EBS implementation

HW&SW infrastructure
high availability

e-bussines strategy
Security profiles

e-bussines strategy

- Varnostna politika
- Notranja pravila
- E-arhiva

Security profiles stream

- Security profiles strategy
- Roles and assigned responsibilities

PARALLEL activities-3



EBS implementation

HW&SW infrastructure
high availability

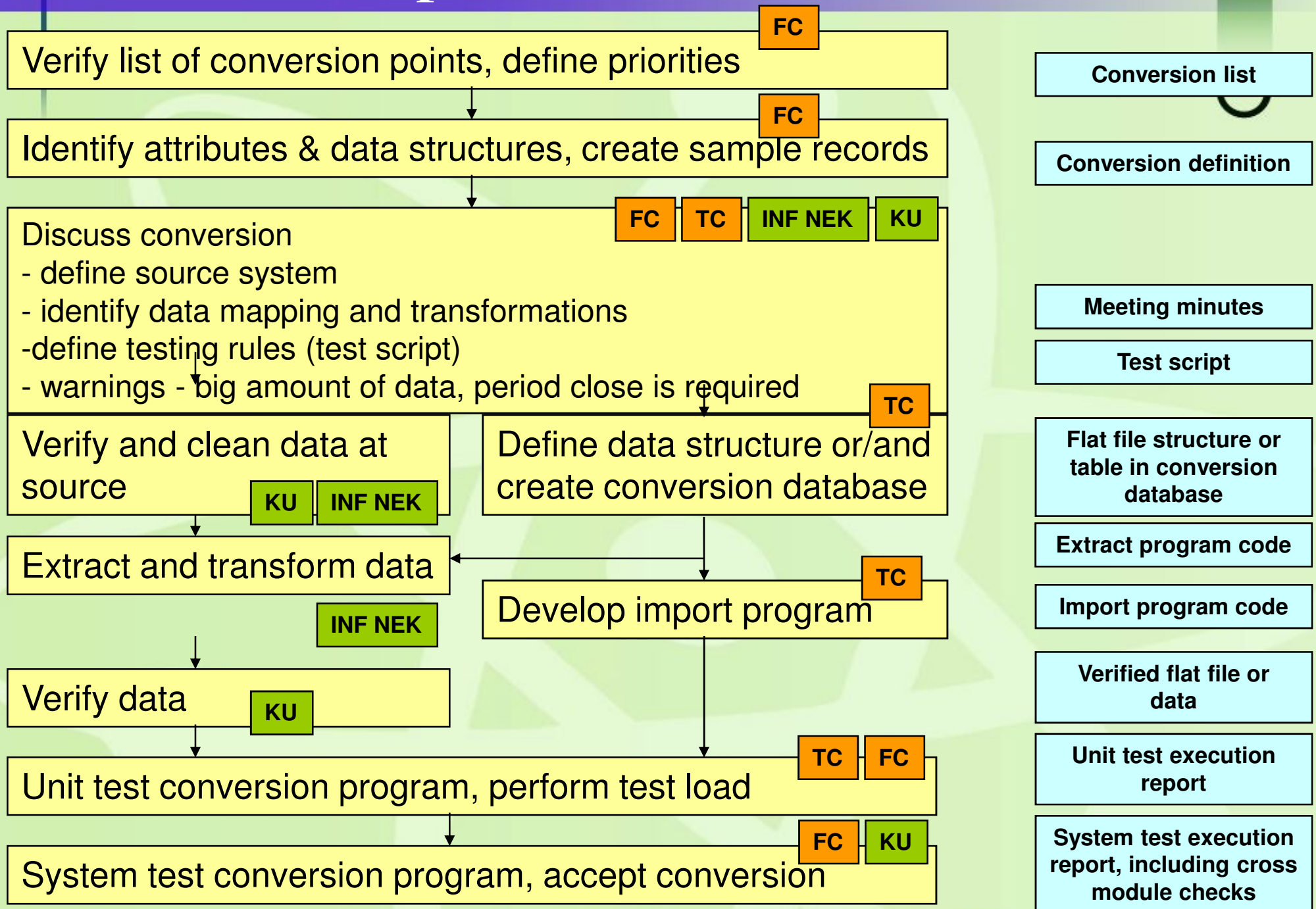
e-bussines strategy
Security profiles

Migration stream

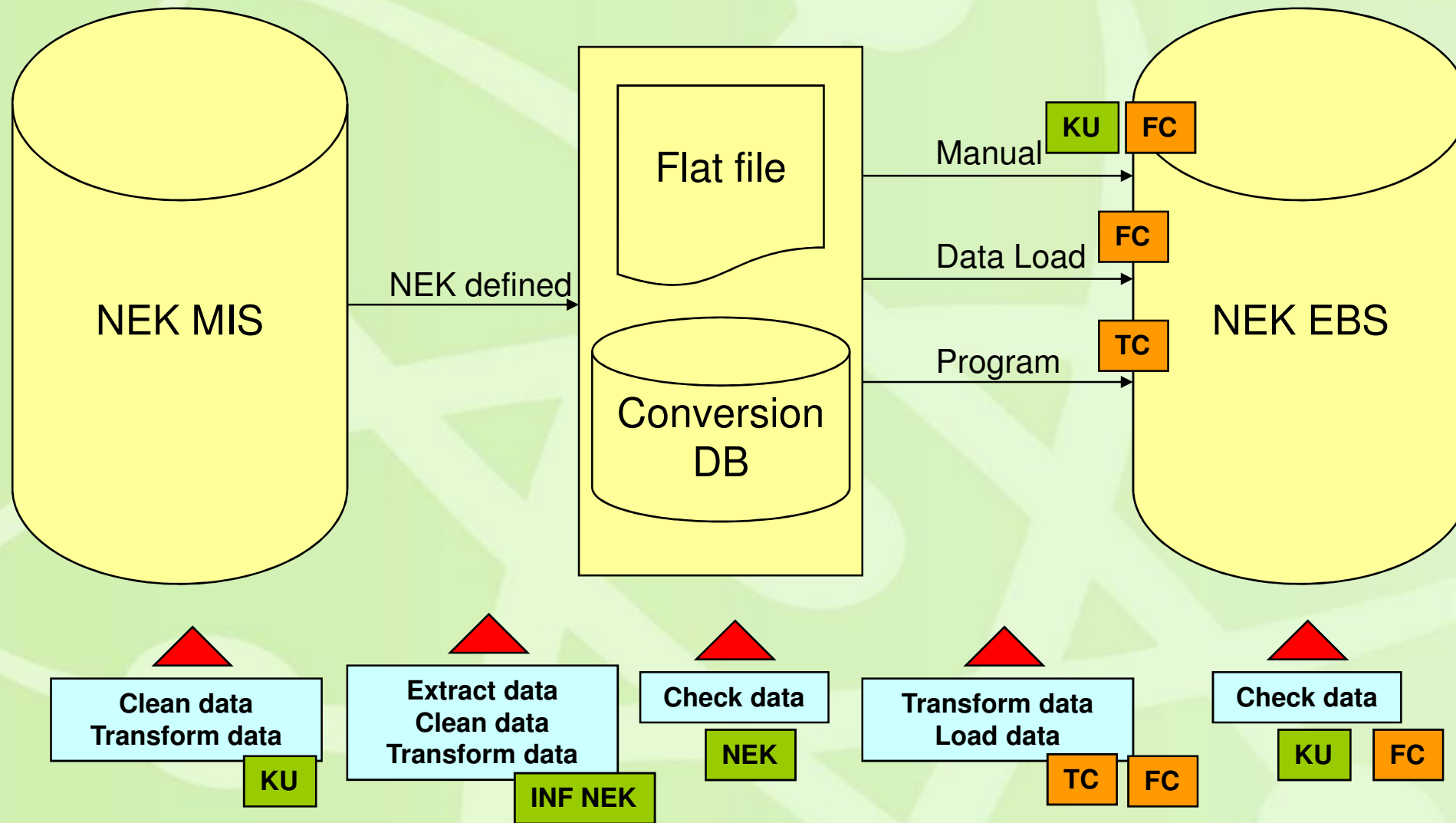
Migration stream

- Mapping documents
- Huge terminology challenge!
- Export programs/import programs
- Data conversion
- Data cleansing

Conversion process



Conversion schema



PARALLEL activities-4



EBS implementation

HW&SW infrastructure
high availability

e-bussines strategy
Security profiles

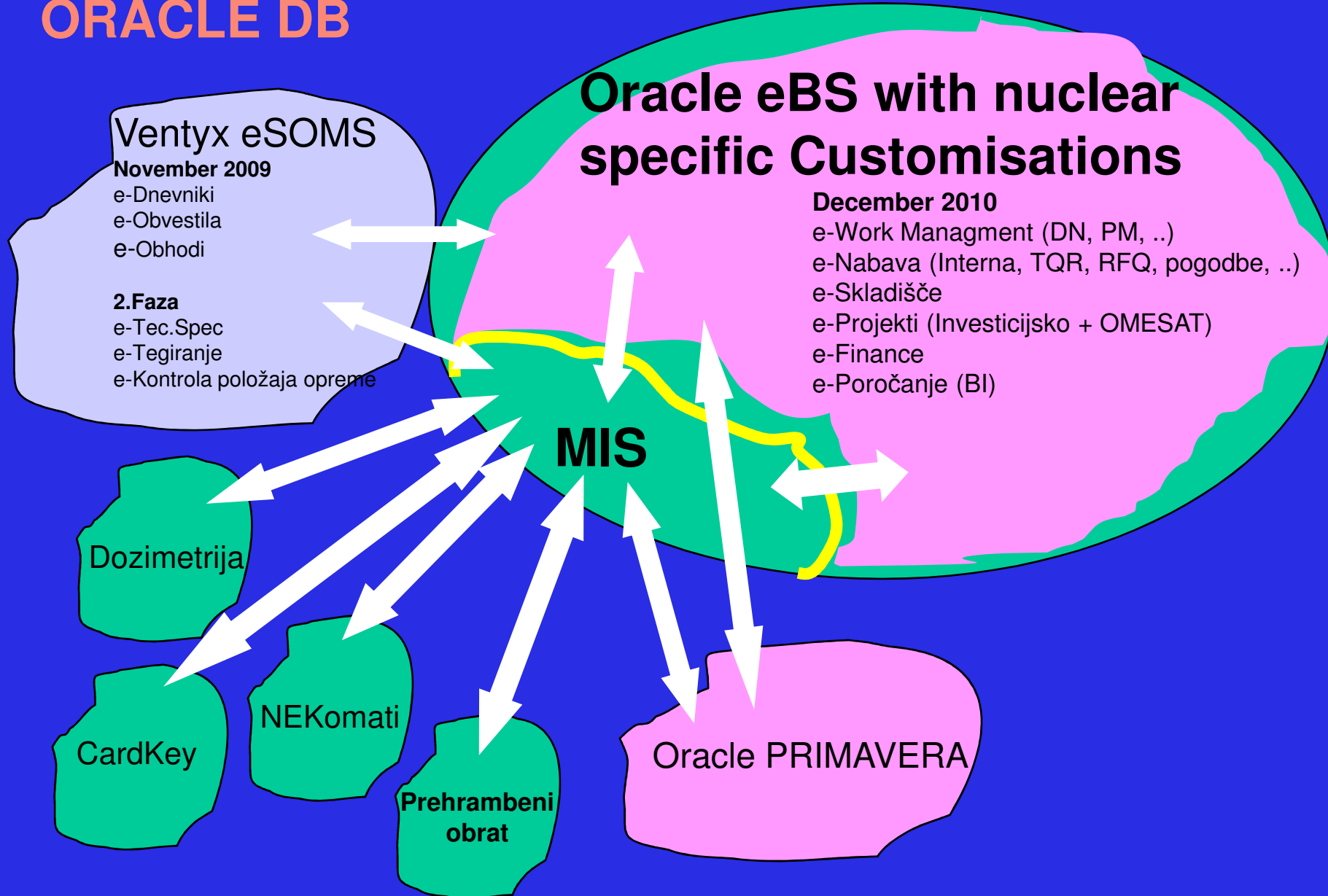
Migration stream

Decommissioning study

- Decommissioning study
 - Interfaces EBS/leagacy system

Future applications structure at NEK

ORACLE DB



PARALLEL activities-5



EBS implementation

HW&SW infrastructure
high availability

e-bussines strategy
Security profiles

Migration stream

Decommissioning study

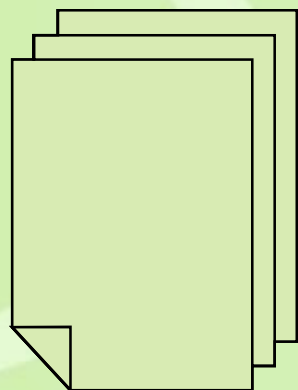
Procedure revisions

- Procedure revisions (**48**)
- Procedure approval

Revizija postopkov

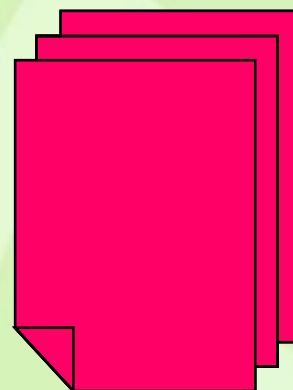


MIS



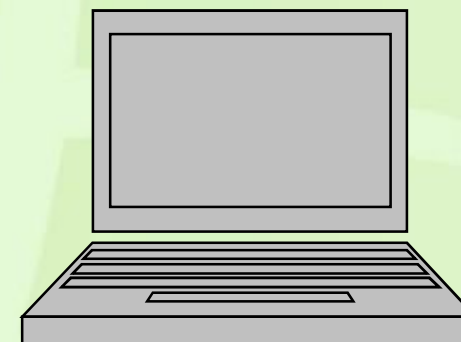
**Administrativni
postopki**

EBS



**Revidirani
administrativni
postopki**

+

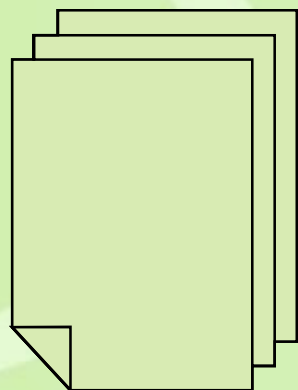


**E-uporabniški
Priročnik
UPK**

Revizija postopkov

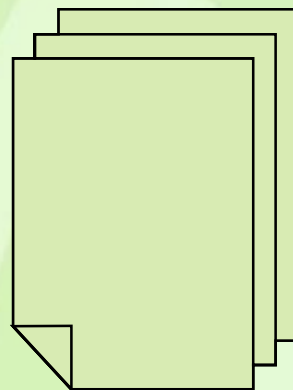


MIS



**Administrativni
postopki**

EBS



**Revidirani
administrativni
postopki**

+



**E-uporabniški
Priročniki
(User Prod. Kit)
UPK**

E-uporabniški Priročniki



search

- 01. Sredstva
 - 01. Vnos novega sredstva
 - 02. Pregled sredstva
 - 05. MTE
 - 01. Kreiranje obnovljivega sredstva za M&TE
 - 02. Kreiranje obnovljivega sredstva
 - 03. Dodajanje MTE sredstva v vir oddelka
 - 04. Kreiranje operacije na obstoječem DN
 - 05. Dodajanje opreme (če ni znana v 04.) po končanem izvajanju
 - 06. Sledljivost skozi ogled podrobnosti opreme/uporabe virov
 - 07. Ročno kreiranje kalibracijskega DN
 - 08. M&TE Prijava/Odjava sredstva
 - 08. BOM (SCB)
- 02. Preventivno vzdrževanje
 - 01. Vnos aktivnosti, razporeda
 - 1.2.1 Kreiranje aktivnosti
 - 06. Nadzorni test
 - 06.1. Kreiranje navideznega sredstva (Asset Route)
 - 06.2. Delovni nalog za nadzorni test
- 03. Delovni nalogi
 - 01. Priprava
 - 01. Priprava glave DN**
 - 02. Priprava operacij DN
 - 03. Priprava materialov na DN
 - 04. Dovolilnice
 - Dovolilnice - Varstvo pri delu
 - Dovolilnice - Osamitve
 - Dovolilnice - Posebna občasna aktivnost
 - Dovolilnice - Delo v zaprtih prostorih
 - Dovolilnice - Delo s kromati
 - Dovolilnice - Dvig in prenos bremena
 - Dovolilnice - Vnos nevarnih snovi v kontrolirano območje
 - Dovolilnice - Požarna zaščita
 - Dovolilnice - Delo pod nizko napetostjo
 - 05. Sinhronizacija s Primavera
 - 02. Odobravanje
 - 01. Tehnolog nosilne discipline
 - 02.1. Vodja OE Klasifikacija naloga A ali B
 - 02.2. Vodja OE Klasifikacija naloga C ali D

See It! Try It! Know It? Do It! Print It!

Ta lekcija prikazuje, kako se ročno kreira delovni nalog v EBS - Priprava glave delovnega naloga.

(User Prod. Kit) UPK

E-uporabniški Priročniki

NEK UAT TEST **Upravljanje s sredstvi**

Krmar ▾ Prijubljene ▾ Domov Odjava Preference Pomoč Prilagoditev strani Diagnostika

Domov **Sredstva** **Zahteve za delo** **Delovni nalogi** **Skladišča** **Napovedi proračuna** **Analiza okvare** **Enote izdelave** **Upravljanje varnosti**

Vse | Zahteve | Hitro delo | Razpored ekipe | Množičen vnos časa

Trenutna organizacija : **SKL**

Delovni nalogi

Iskanje besedila Shrani iskanje

Enostavno iskanje

Bodite pozorni, saj iskanje razlikuje velike in male črke.

Delovni nalog Datum začetka od **Napredno iskanje** **Prilagojeno iskanje**
Številka sredstva Do Oddelek Status
Vključi podrejena sredstva **Pojdi** **Počisti**

[Prikaži dodatne možnosti iskanja](#)

Pripravi delovni nalog Izvozi delovni nalog Izvozi razpored Uvozi razpored Print Work Orders Run Request

Izberi Delovni nalog	Številka sredstva	Skupina sredstev	Opis	Predvideni datum začetka	Trajanje (ure)	Lastniški oddelek	Status	Posodobitev delovnega naloga	Poročaj o delovnem nalogu
Ni izvedenega isk	ja								

Iskanje besedila Shrani iskanje

Domov Sredstva O tej strani Skladišča Napovedi proračuna Analiza okvare Enote izdelave Upravljanje varnosti Domov Odjava Preference Pomoč Prilagoditev strani Diagnostika

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See It! Actions X

S klikom na gumb **Pripravi delovni nalog** se odpre stran za pripravo DN.

[Pause](#)

PARALLEL activities-6



EBS implementation

HW&SW infrastructure
high availability

e-bussines strategy
Security profiles

Migration stream

Decommissioning study

Procedure revisions

Competence & trainig center

- Competence center
- Training preparation (UPK scenarios)
- End-User-Training (cca 400 users)

End-User-Training



NEK eBS IMPLEMENTATION								
URNIK za END USER TRAINING (EUT) - MAJ 2011								
SU - P5								
CUV - VP (velika predavalnica)								
CUV - MP (mala predavalnica)								
		ponedeljek	torek	sreda	četrtek	petek	sobota	nedelja
		2	3	4	5	6	7	8
SU - N5								
		ponedeljek	torek	sreda	četrtek	petek	sobota	nedelja
		2	3	4	5	6	7	8
		9	10	11	12	13	14	15
		16	17	18	19	20	21	22
		EAM MECL	Inventory items	Skladišče				
		EAM MECL	Inventory items	Skladišče				
		23	24	25	26	27	28	29
		Nabava	Nabava	Nabava				
		Nabava	Nabava					
		30	31					

PROJECT ORGANIZATION

STEERING COMMITTEE										
S. Rožman	H. Perharič	D. Kavšek	P. Širola	B. Krajnc	Z. Heruc	A. Binsley	C. Schauman	E. Vrbanek	R. Novak	J. Božič
SPONSORS										
H. Perharič	E. Vrbanek									

PROJECT OFFICE	
Z. Bregar	A. Hribar

PROJECT MANAGEMENT			
Ž. Reljič	D. Blažević	T. Čurin	G. Chaikalis

QUALITY ASSURANCE
J. Nowakowska

SOLUTION ARCHITECTS		
F. Škaler	S. Jurečič	M. Arumugam

DATA CONVERSION TEAM LEADERS	
K. Plačko	A. Toth Vano

TESTING TEAM LEADERS	
P. Gorjan	R. Kaisersberger

BUSINESS AREA	EAM Eterprise Asset Management	FIN Finance	PO Purchasing	INV Inventory	QA Quality	PA Projects	HRMS Human Resources
Process Owner	Širola P.	Mlinarič R.	Heruc Z.	Androjna F.	Kavšek D.	Krajnc B.	
Key User	Hafner A. Gligič T. Zec Z. (MECL)	Pirc A.	Plačko K.	Preskar D. Zec Z. (M.Item)	Nemčič K.	Cerjak J.	
Team Member	Habinc M. Kunej A. Lovrenčič P. M.Podhraški	Molan Vida Bajc Češnovar	Zec Z. Nemčič K. Vukšič Lidija Stanič Vinko		Lovrenčič P. Zec Z.	B. Sušin D. Vehovar	
NEK IT	Gorjan P. Kovačič N.	Štrubelj M.	Divjak G. Gorjan P.	Krabonja B. Divjak G. Štrubelj M.	Gorjan P.	Kovačič N.	
Consultants	S. Jurečič D. Urbič D. Begovič	F. Kolanović L. Bajt M. Kovačič	M. Perko D. Antunović	M. Sladoljev B. Birgmajer		I. Kordić Z. Alvir	D. Begivič

Development Customizations	Development Data Conversion	BI Apps	Apps DBA
J. Banda	A. Toth Vano	G. Sremec	R. Rački
A. Komatar	W. Belinszky	S. Kavčič	G. Divjak
M. Miklavčič	S. Nagy	A. Cvitaš	R. Ceglar
I. Miloš	M. Kirn	A. Vukšič	
B. Debič	Divjak G.	Divjak G.	
Krabonja B.			

PROJECT ORGANIZATION



- Steering Committee 13
- Project management 7
 - Proj. mngmt
 - QA
 - Office
- Engineers 59
 - Solution architects
 - Functional consultants
 - NEK key users
- Developers 22
 - Customizations
 - Data conversion
 - BI Apps
 - Apps DBA

176 m/years

2009

2010

2011

GO LIVE & Contingency Plan



- **Go or not go live on the 1-July-2011**
 - To prepare serious decision document.
 - To evaluate the document by management.
 - To present the status of the project.
 - For NEK to decide to go or not to go live.
 - **Documentation:** NEK requires all relevant documentation for the update of the procedures and for the Production platform architecture to be updated and delivered before we go-Live. This is a prerequisite for production since NEK can't operate without the approved and signed internal working procedures.
 - **HW&SW performance:** NEK expressed concerns regarding current HW & SW stability and performance. End users reported several issues on EUT, which made NEK questioning stability and readiness on production platform. Further testing is required (Performance tests, stress tests)
 - **iTracker resolution of open issues**
 - **Data Conversion:** Was the data conversion consistently prepared and tested?
 - **EBS:** Was the EBS enough tested? (Testing strategy, testing scripts, testing data, performance test)?
 - **Multi-System Functionality:** Were there prepared any rules between MIS, ESOMS and EBS how to maintain the common data resulting from the Multi-System functionality?
 - **Help Desk:** Is there a common understanding between MIS, ESOMS and EBS how will the helpdesk work during the first 60 days after go live?

2 MONTH AFTER GO LIVE

SSP – Strokovni Svet Pogona – ANALIZA:
UVAJANJE EBS IN VPLIV NA OBSTOJEČE PROCESSE



- Vse delovne aktivnosti podprte z eBS-om je potrebno izvajati v skladu z definiranimi procesi in s podpornimi orodji, ki so v funkciji. Na težave pri tem je potrebno opozoriti z ZKP-ji in korektivno ukrepati.

GO LIVE!

AKCIJSKI PLAN:



- **Uprava NEK** - sklep o izvajanju delavnic. Na delavnicah morajo biti prisotni nosilci procesov.
- **Proces prilagajanja EBS ni zaprt.**
- **Temeljni projektni dokument BR-030 in ADP** postopke morajo nosilci procesov pripeljati **do stopnje odobritve.**
- **Nosilec procesa koordinira delavnico** in nosi polno odgovornost za doseg ciljev delavnice. Delavnice se morajo izvajati v stalnem sestavu. Če na delavnici med udeleženci ni soglasja, se kot skrajna rešitev lahko predlaga usklajeno sedanje stanje procesa/načina dela. Potrebno bo redefiniranje ciljev in življenjska prilagoditev. Uprava sprejema odločitve, kjer ni soglasja na delavnicah.
- **Procesiranje odločitev oziroma sklepov sprejetih na delavnicah s strani nosilcev procesov** - Premišljene in argumentirane sklepe nosilcev procesa mora poslovna informatika implementirati.
- **Posodobiti UPK**
- **Revidirati prevode v slovenščino**
- **Potrebno je pripraviti navodilo** o preverjanju doslednosti izvajanja kritičnih faz delovnih procesov, ki imajo vpliv na jedrsko varnost in na zdravje in varnost ljudi (pregled osamitev, pričetek del, zaključevanje del). Odgovorni nosilci delovnih nalogov morajo s komunikacijo z vodjo izmene potrditi, da je stanje v aplikaciji resnično.
- **Ovrednotiti vpliv uvedbe EBSa na učinkovitost dela med remontom** v dveh fazah (preliminarni in končni).

AKCIJSKI PLAN:



- **Nestabilnost - nezanesljivost orodja** - Pri neustreznih odzivih EBS kot so potencialno neustrezni podatki ali sumu v orodje za kontrolo konfiguracije je nujno poiskati odgovore za tovrstno obnašanje. Ne smemo priti v situacijo, da rečemo: "podatki se menjajo pa ne vemo zakaj". Če pride do takih sumov, je potrebno takoj sprožiti ZKP in analizo ter ugotoviti izvorni vzrok.
- **Posodobiti UPK** - uporabniški priročnik in izvesti trening - Obstoječi UPK je potrebno nemudoma posodobiti in izvesti trening. Zadolžena je INFO skupaj s ključnimi uporabniki.
- **Zagotoviti ustrezno število kompetentnih konzultantov**, ki bodo pomagali uporabnikom - Potrebno je zagotoviti ustrezno število kompetentnih konzultantov, ki bodo pomagali uporabnikom NEK pri dnevni težavi. Število konzultantov se kasneje lahko manjša z uporabo in spoznavanjem uporabnikov s programskim orodjem. Intenzivna vključitev lastnih delavcev informatike v projekt in prevzemanje vloge je nujna.
- **Revidirati prevode v slovenščino** - Prevodi v slovenščino so dostikrat nesprejemljivi in povzročajo slabo voljo. Razloga za to sta v ustaljeni angleški terminologiji pri našem delu in prevodih, ki niso bili dovolj preiščeni ali pa nimajo pravega konteksta. Če ostanemo pri slovenščini je nujno potrebno vse prevode podrobno pregledati in popraviti.
- **Potrebno je pripraviti navodilo** o preverjanju doslednosti izvajanja kritičnih faz delovnih procesov, ki imajo vpliv na jedrsko varnost in na zdravje in varnost ljudi (pregled osamitev, pričetek del, zaključevanje del). Odgovorni nosilci delovnih nalogov morajo s komunikacijo z vodjo izmene potrditi, da je stanje v aplikaciji resnično.
- **Ovrednotiti vpliv uvedbe EBSa na učinkovitost dela med remontom** v dveh fazah (preliminarni in končni). Delovne naloge za remont je potrebno pisati v skladu s planom predremontnih aktivnosti.

Pregledan bo plan predremontnih aktivnosti glede postavljenih rokov.

PROJECT CLOSURE



- The Project will be closed when NEK takes the **System into production use** and the **closing report is accepted by the NEK**
- Steering Committee
- Prerequisites (EBS IMPLEMENTATION PROJECT TURNOVER AND CLOSEOUT DOCUMENT):
 - NEK requires all relevant documentation for the update of the procedures and for the Production platform architecture to be updated and delivered before project closure.
 - NEK requires all relevant production HW & SW stability and performance (Performance tests, stress tests).
 - iTracker resolution of open issues (list of issues to be solved in warranty period)
 - Corrections and approval of BR.030 documents
 - Corrections and approval of ADM-procedures
 - POST-GO-LIVE maintenance contract in place(**long term local support**)

