

# IT Development in 2017

## ■ Plans?

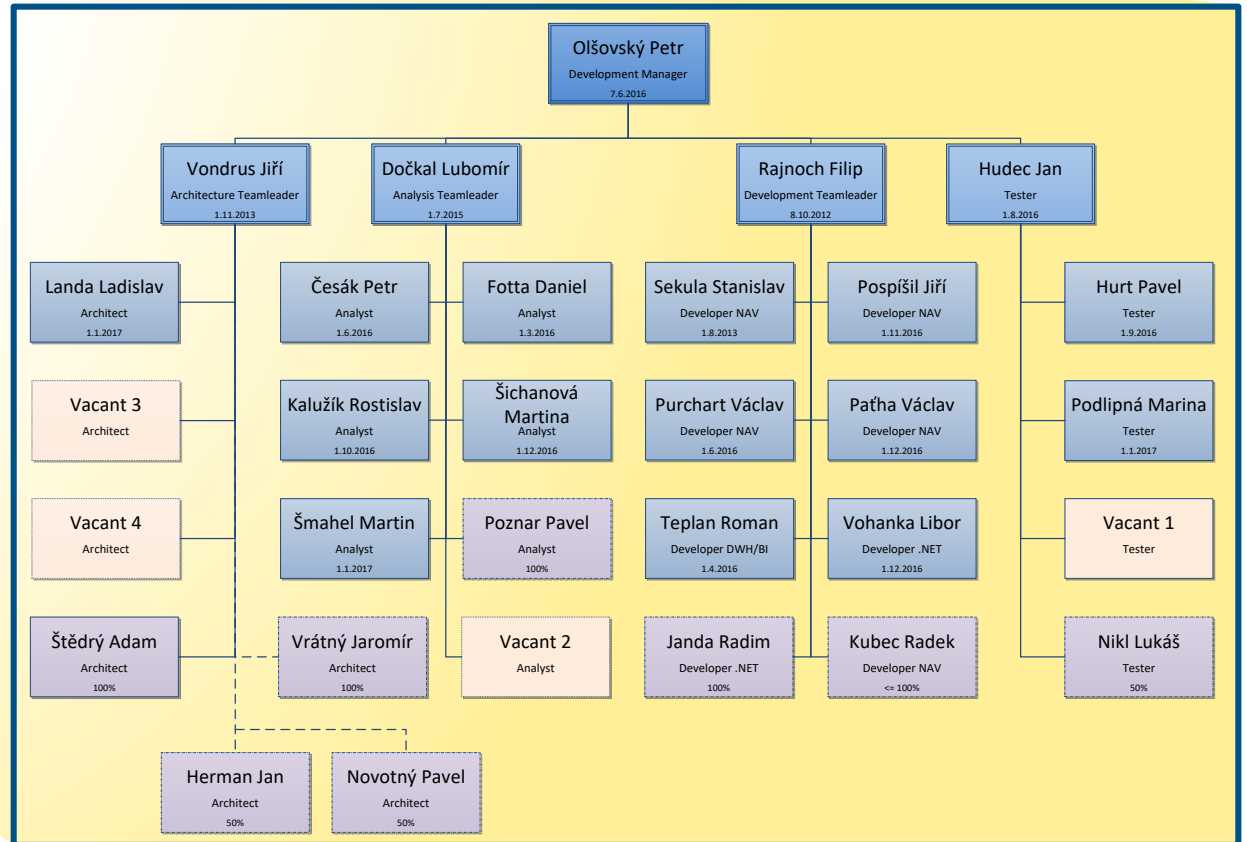
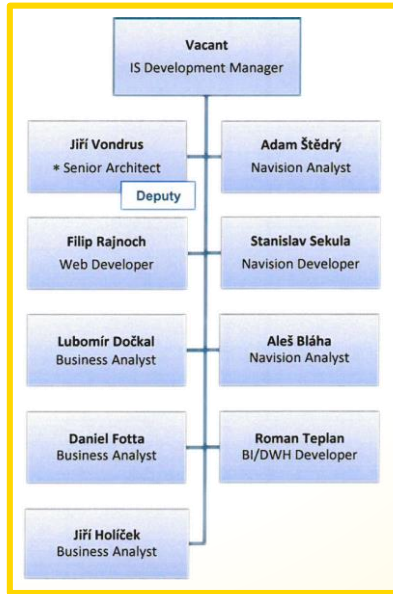
- Projects, transformation
- Change requests
- Incidents
- Service requests

„Year of stabilization“

„Improvements? Other plans?“



# IT Development – May 2016 to Jan 2017



# Management of IT Development team

## ■ Team and sources

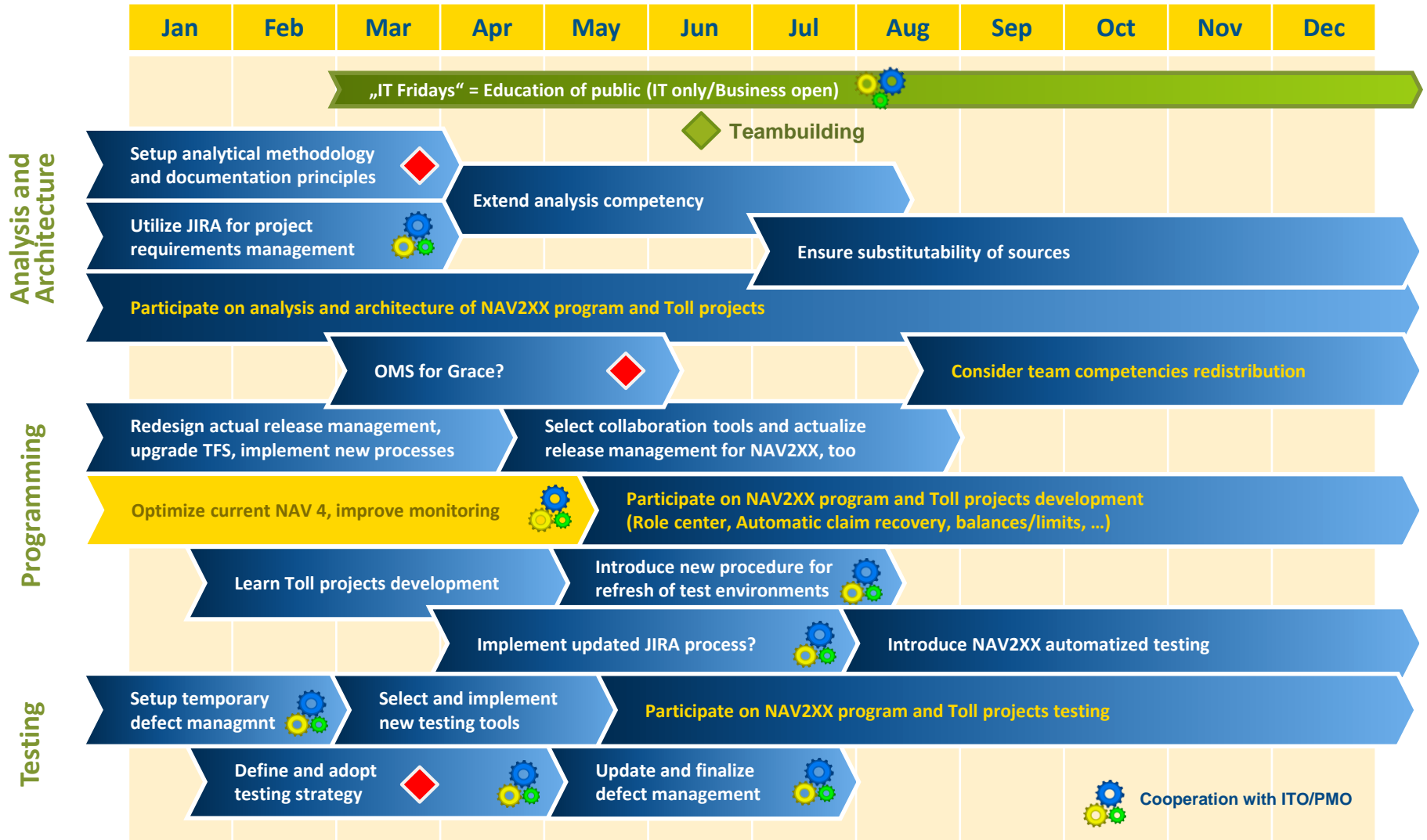
- Complete, stabilize, retain and develop internal team
- Control vendors and contractors
- Improve and automatize utilization and provisioning of sources
- Closely cooperate esp. with PMO and IT Operations

## ■ Open positions & recruitment

- IT Architect/Senior consultant – integrations
- IT Architect/Senior consultant – ERP systems
- IT/BA Analyst
- Senior tester/QA specialist
- MS Dynamics 2013+ Developer
- MS .NET Senior Developer
- Testers – contractors (up to 6 persons)

} 2016

# IT Development in 2017



**SAMPLE**

# Release management redesign (NAV4)

## ■ Timing

- Rigid milestones: End of development, End of testing, End of deployment preparation
- Minimization of exceptional releases

## ■ Web deployment

- Upgrade of TFS to latest version
- 3+ separate code branches for „separate“ environments (DEV, TEST, PROD)
- 1 person responsible for deployment in PROD

## ■ NAV4 deployment

- Implementation of new logic in collaboration table + development of controlling application
- Collaboration table cleansing, migration into new solution
- 1 person responsible for deployment in PROD, merging of deployed objects in advance

## ■ High CDL Systems participation

**SAMPLE**

# Implement updated JIRA process

## ■ Demand management

- Separate ideas and features required in future from the real change requests
- Apply cost-benefit analysis

## ■ Change management

- Register project-related requirements
- Redesigning current projects/queues
- Implement real Testing step in process

## ■ Other improvements

- Separate development incidents/service request from production ones
- Allow bugs/defects to be linked to systems/projects/changes
- ?

**SAMPLE**

# Optimize current NAV 4

## ■ Analysis of database

- Quality/performance of used views, queries, stored procedures
- Possibility to archive or delete obsolete data
- Maintenance and DB optimization: reindexation, partitioning/clustering, data-locking, ...

## ■ Schedulers

- Inventory of tasks: functionality, frequency, duration, errorness, alerting, logging
- Replanning

## ■ Navision implementation

- Check/optimize all demanding/time-consuming functionalities, code-units, procedures
- Apply ADO instead of NAV-native DB technology wherever possible
- ?

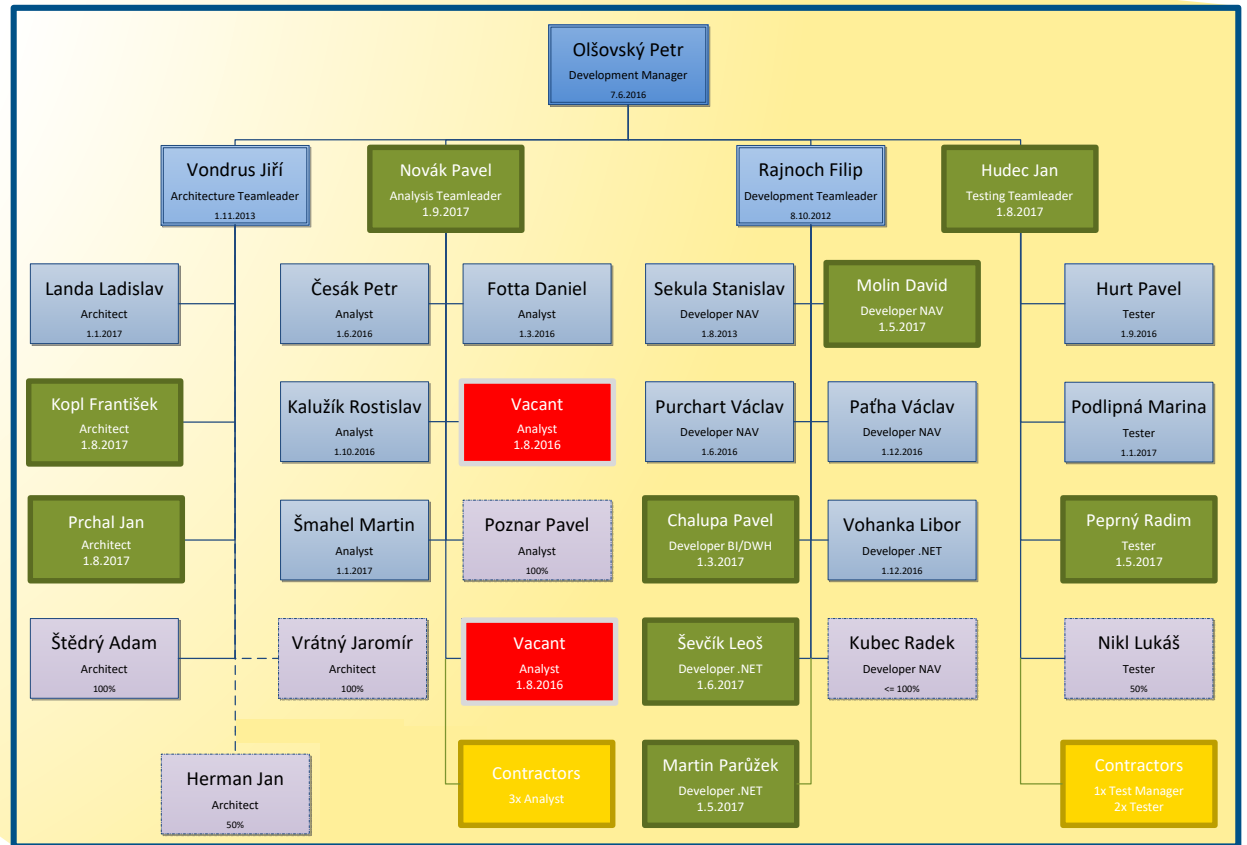
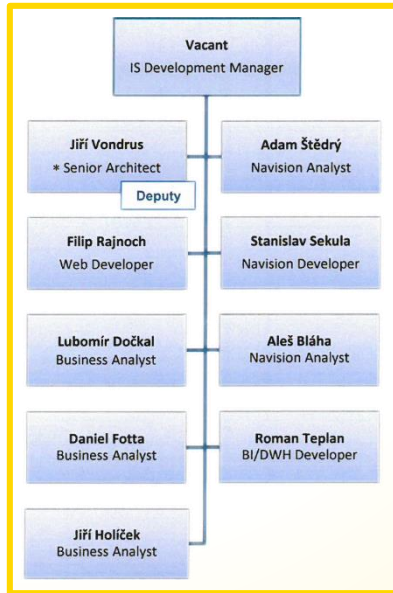
## ■ Monitoring

**July 2017**

**Mid-term review**



# IT Dev – Recruitment



# IT Dev – Management of the team

## ■ Open positions & recruitment

- **IT Analysts**
- Further recruitment: MS .NET Senior Developers, BI/DWH Developers

## ■ Team and sources

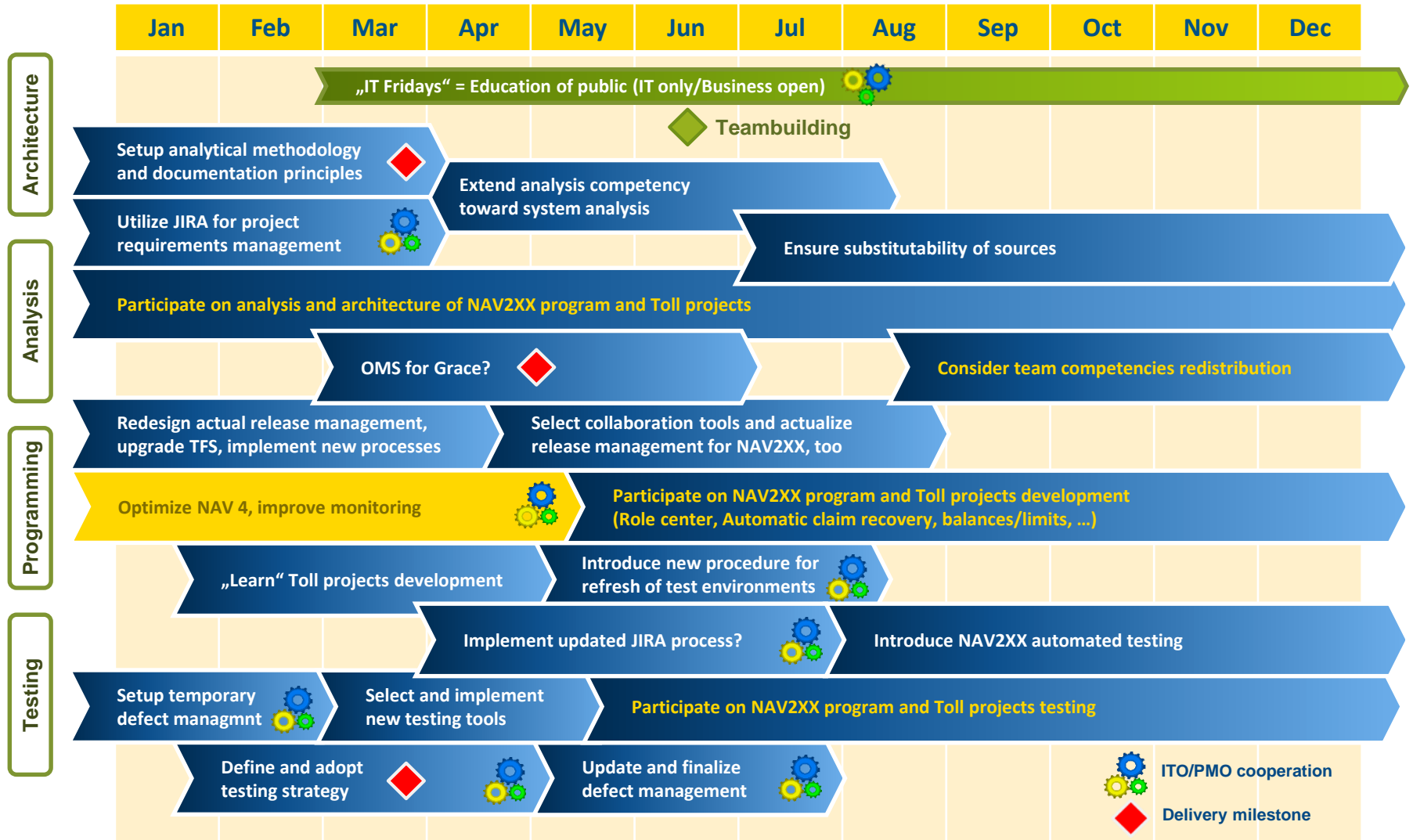
- Team built – Stabilize, retain and develop it!
- Control vendors and contractors
- Improve utilization and provisioning of resources (cooperation with PMO)



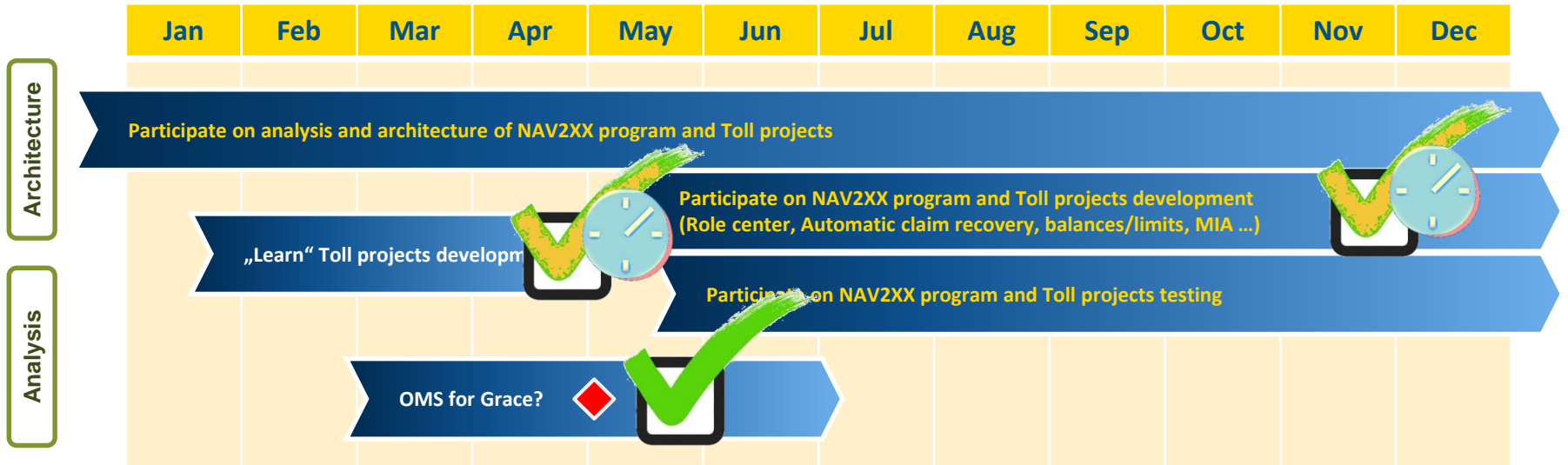
The screenshot displays an Excel spreadsheet titled 'Resources IT Dev 2017.xlsx'. The spreadsheet is a resource utilization matrix with columns for months from August 2017 to May 2018. The rows list various projects and activities, such as 'ERP1 - EMI Central' and 'Overhead, Non-CK, IT projects'. Each cell contains a numerical value representing resource utilization, with some cells highlighted in red to indicate over-allocation. A 'Lock Change' dialog box is open in the top right corner, showing options for 'Select Resource' and 'Select Project'. The spreadsheet also includes a 'Macros' tab and a 'Table Tools' ribbon.

Project/CR/Activity	Role	Resource	Week 26	Week 27	Week 28	Week 29	Week 30	Week 31	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	
ERP1 - EMI Central	Paederka	WAG_IT_DEV_ARCH	Vondrus	0,30				0,10	0,10	0,10	0,10	0,10	0,10						
ERP1 - EMI Central	Paederka	WAG_IT_DEV_ARCH	Landa	0,05															
ERP1 - EMI Central	Paederka	WAG_IT_DEV_ARCH	Štěpý	0,80	0,80	0,80	0,80	0,80	0,80	0,80	0,80	0,80	0,80						
ERP1 - EMI Central	Paederka	WAG_IT_DEV_ARCH	Třeček																
ERP1 - EMI Central	Paederka	WAG_IT_DEV_ARCH	Vrškňý	0,10	0,10	0,10	0,10	0,10											
ERP1 - EMI Central	Paederka	WAG_IT_DEV_ARCH	Herman	0,40	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20						
ERP1 - EMI Central	Paederka	WAG_IT_DEV_ANAL	Šichanová	0,20	0,20														
ERP1 - EMI Central	Paederka	WAG_IT_DEV_ANAL	Kučalík			0,40	0,40	0,40	0,40	0,50	0,50	0,50	0,50						
ERP1 - EMI Central	Paederka	WAG_IT_DEV_ANAL	Poznar																
Overhead, Non-CK, IT projects	Vondrus	WAG_IT_DEV_ARCH	Vondrus	0,20				0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20			
Overhead, Non-CK, IT projects	Vondrus	WAG_IT_DEV_ARCH	Landa	0,20		0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20			
Overhead, Non-CK, IT projects	Vondrus	WAG_IT_DEV_ARCH	Třeček	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20			
Overhead, Non-CK, IT projects	Vondrus	WAG_IT_DEV_ARCH	Štěpý																
Change requests	Vondrus	WAG_IT_DEV_ARCH	Vondrus	-0,10				0,70	0,70	0,70	0,70	0,65	0,65	0,65	0,40	0,80	0,80	1,00	
Change requests	Vondrus	WAG_IT_DEV_ARCH	Landa	0,25				0,30	0,30	0,30	0,30	0,80	0,75	0,75	0,75	0,70	0,80	0,80	1,00
Change requests	Vondrus	WAG_IT_DEV_ARCH	Štěpý	-0,40				-0,50	-0,50	-0,50	-0,50	-0,50	-0,65	-0,55	-0,75	-0,80	-1,00	-1,00	1,00
Variation/Education	Dočkal	WAG_IT_DEV_ANAL	Dočkal					0,20				0,10							
Variation/Education	Dočkal	WAG_IT_DEV_ANAL	Ensl					0,60											
Variation/Education	Dočkal	WAG_IT_DEV_ANAL	Fotta					1,00	1,00										
Variation/Education	Dočkal	WAG_IT_DEV_ANAL	Kučalík					0,80											
Variation/Education	Dočkal	WAG_IT_DEV_ANAL	Poznar																
Variation/Education	Dočkal	WAG_IT_DEV_ANAL	Šichanová					0,80	0,20	0,20	0,60	0,40							
Variation/Education	Dočkal	WAG_IT_DEV_ANAL	Šmahel					0,80	1,00										

# Plan of IT Dev activities in 2017



# IT Dev – Contribution to projects



## ■ Participation on projects (architecture, analysis, development)

- **ERP:** A. Štědrý, M. Šichanová, R. Kalužík, V. Pařha, M. Parůžek, S. Sekula, Physter
- **FRED:** L. Landa, K. Třeček, M. Smahel, R. Kalužík
- **AEQ:** J. Vondrus, J. Herman, L. Dočkal, D. Dřevojánek, Physter
- **DWH:** P. Chalupa
- **Tolls:** P. Česák, V. Purchart, L. Vohanka

## ■ Testing unit

- J: Hudec, P. Hurt, R. Peprný, M. Podlipná, L. Nikl + 4 contractors

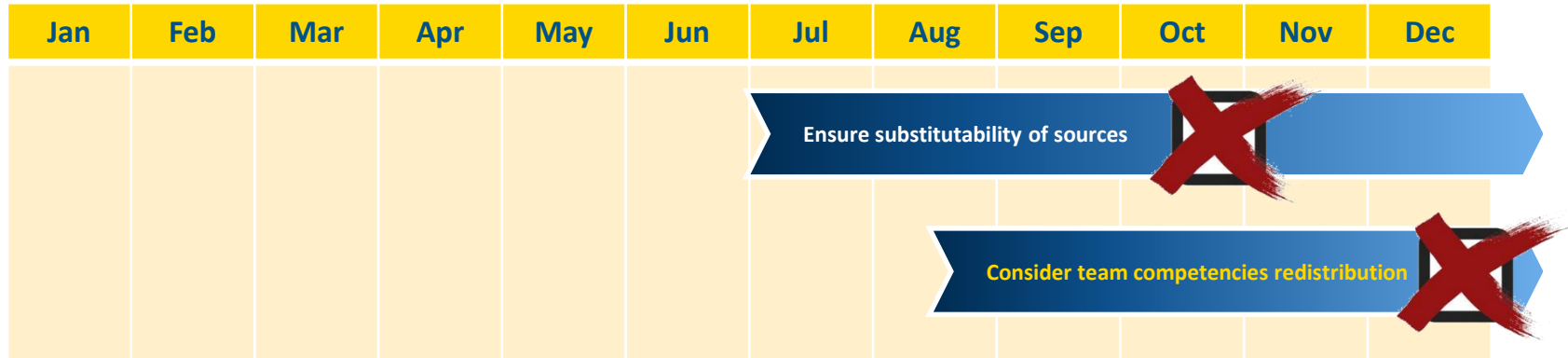
# IT Dev – Team reconstruction

Architecture

Analysis

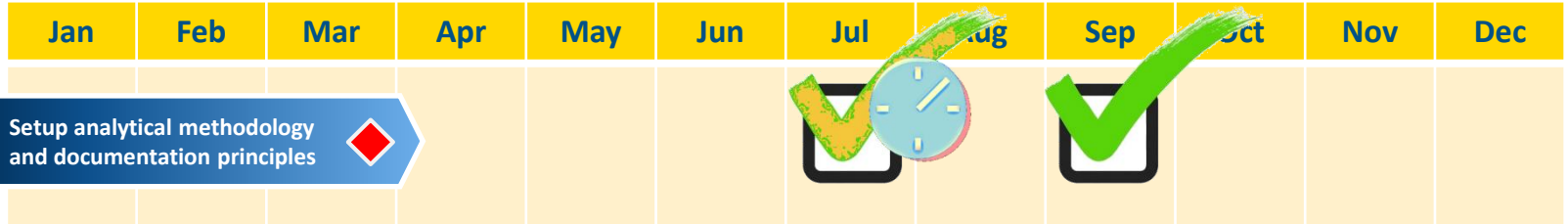
Programming

Testing



- **Internal wish to start already in spring**
- Caused by a lack of sources
- Not started yet
- **Not late**

# IT Dev – Analytical methodology



Architecture

Analysis

Programming

Testing

- Draft developed in Dec 2016, continuously improved

- For the first time applied in contract with CDL for ERP I in March 2017

- Publication several times postponed, last version prepared on 11th May

- Available at [Team public documents](#) on **New intranet** Teams webpage

- Implemented in Enterprise Architect

- New improved repository
- Versioning/merging, validation, stencils
- RegID (web client for view/approval)

- Next steps:

- Review/approval of methodology
- Upgrade to EA v13, launch of RegID

**DOCUMENTATION**

Minimal content of analytical documentation

1. Introduction
  - Description of affected systems/elements what it serves for
  - Overview of documentation used
2. Business specification
  - Detailed free text description of delivery from a business perspective containing also:

Artifact	Format
Business requirements (functional and non-functional)	Table (MS) /
Business requirements (behavioral and non-functional)	Table (MS) /
AS400 business processes (current state of working)	EA
TOBE business processes (target state of working)	EA
Use cases (behavior, other than as implemented)	UML
TOBE use cases (behavior of system from user perspective)	EA + RUP
TOBE entity model (class diagram of target implementation)	EA
Terminology (defined terms for easier communication)	Table (MS)
3. Solution concept (or Functional Specification)
  - Detailed free text description of delivery from an IT perspective containing:

Artifact	Format
Solution requirements (non-functional description)	Table (MS) /
Architecture (scope of SOA/other layers)	UML pictures
Global systems (behavior of system from user perspective)	EA
State diagrams (behavior of system)	EA
State transition diagrams and their perspectives	EA + Table (MS)
4. Interface agreement
  - Description of business usage of interfaces (which data is transferred, which way, etc.)
  - Example:

W.A. document solution v.1  
 W.A. document solution v.1  
 W.A. document solution v.1  
 W.A. document solution v.1

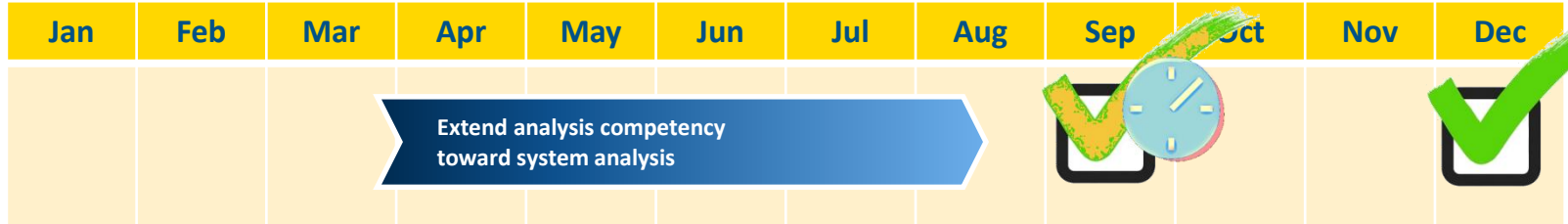
# IT Dev – IT System analysis

Architecture

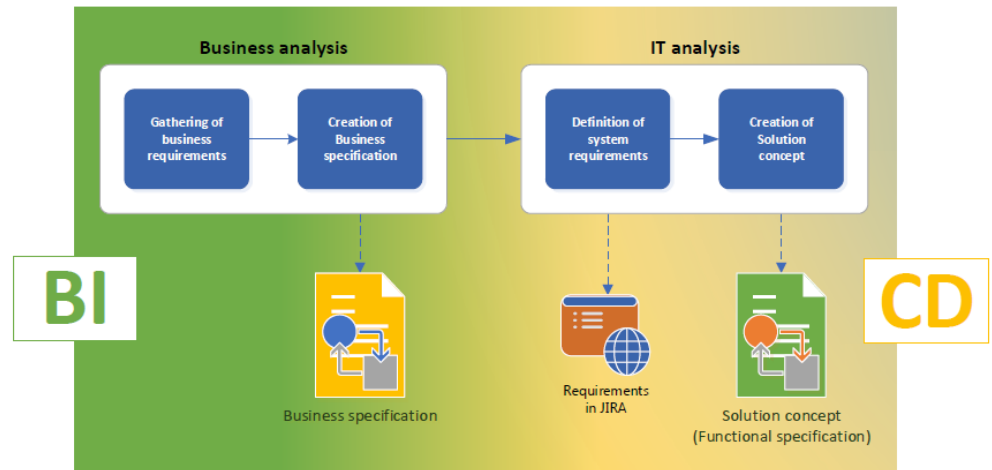
Analysis

Programming

Testing



- **Defined competencies and split between BI – IT Analysis – Programmers**
- Continuous process requiring a longer time and additional trainings
- Unclear finish date
- **Next steps**
  - IT Analysis teamleader boarding (September 2017)
  - Accelerated recruitment of system analysts
  - Training



# IT Dev – Processing of requirements



Analysis

- **Solution designed and implemented in Jira**
- Import XLS template developed and tested
- Partially used/tested in ShopGoods and Aequitas projects
- ERP and FRED requirements processed using this solution
- Evaluated as complicated and not so user friendly → **Not to be used now**

Programming

## ■ Next steps

- Consider another solution probably based on Enterprise architect
- Unification of requirement processing across all the company and projects

Testing



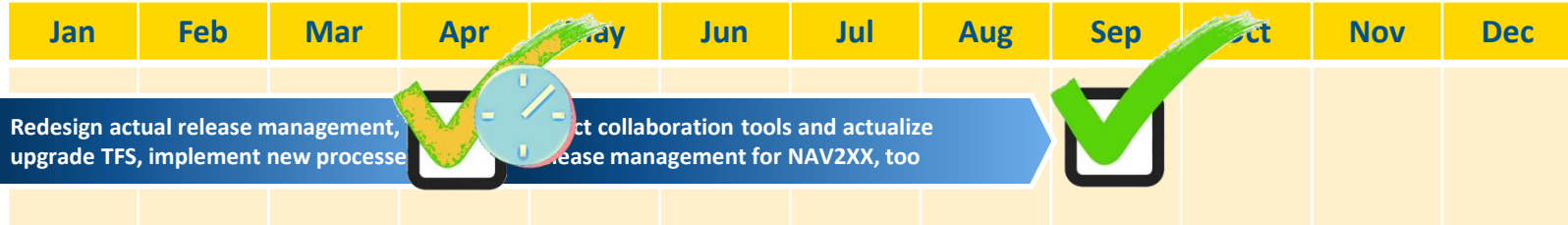
# IT Dev – Release management improvement

Architecture

Analysis

Programming

Testing



## ■ NAV 4

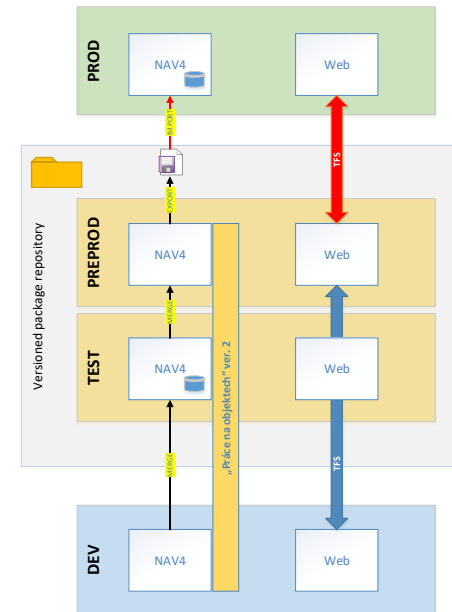
- „Cooperation on objects“ ver. 2 implemented
- Process changed
- Speed significantly increased
  - „Continuous“ release preparation & bulk deployment
  - Hours to 5 minutes!
- No conflicts, decreased error-rate, **enhanced security**
- Already used by internal dev. team and also by CDL

## ■ NAV 2016

- OMA (Object Manager Advanced) implemented

## ■ .NET (Web)

- TFS installed, new basic process implemented
- Planned participation of CDL



# IT Dev – Optimization of NAV 4 (but not only)



## ■ Achievements so far

- DB maintenance and tuning (indexes, archivation)
- Scheduled tasks optimization (replanning, elimination of unused)
- Pricelists calculation/archivation (partitioning, hours to minutes)
- Pricelists loading in webbrowser (SNAD TO ZAFUNGUJE 😊 8-15+ → 1 secs)
- Fuel transactions import (acelerated from 15 to 5 secs)
- Regular refund file imports (8 hours to 15 minutes)
- Fluctuating maturity calculation (20 to 10 minutes)
- Automatic check and repair od PDF generation process
- Orders generation logging, manual jobs logging
- Hiding of document in case of any issue
- Control of SMS/e-mail channels (switch on/of, better management and testing)
- Whitelists processing (improvements, 85 MB to ~1 MB filesize)
- ...

Architecture

Analysis

Programming

Testing

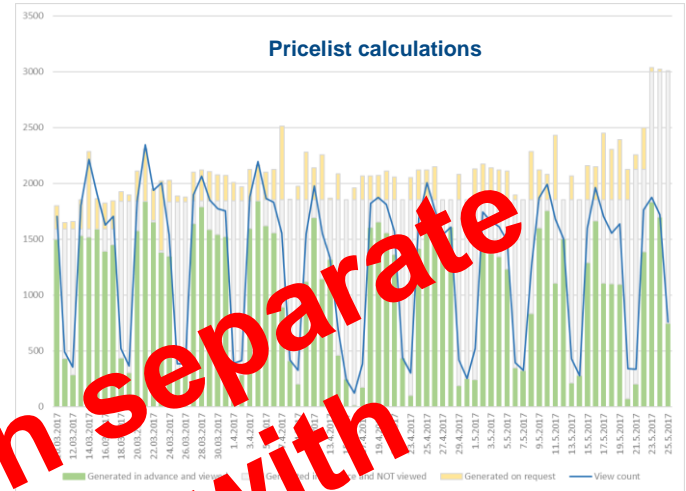
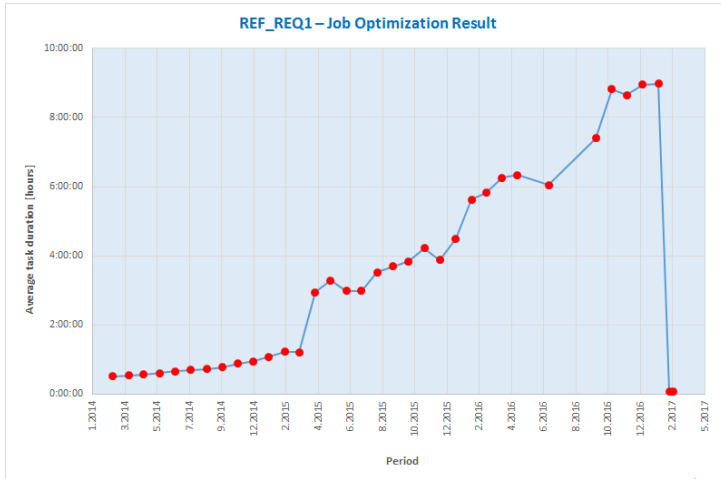
# IT Dev – Optimization in pictures

Architecture

Analysis

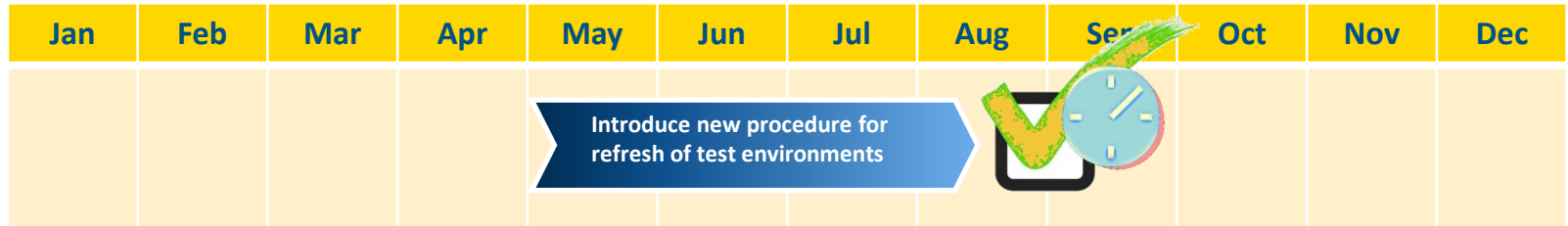
Programming

Testing



Available in separate presentation with more details 😊

# IT Dev – Refresh of test environment



Architecture

Analysis

Programming

Testing

## ■ NAV 4 refresh

- Considered improvement options
- Rename of companies accelerated (from 4 to 2 days)

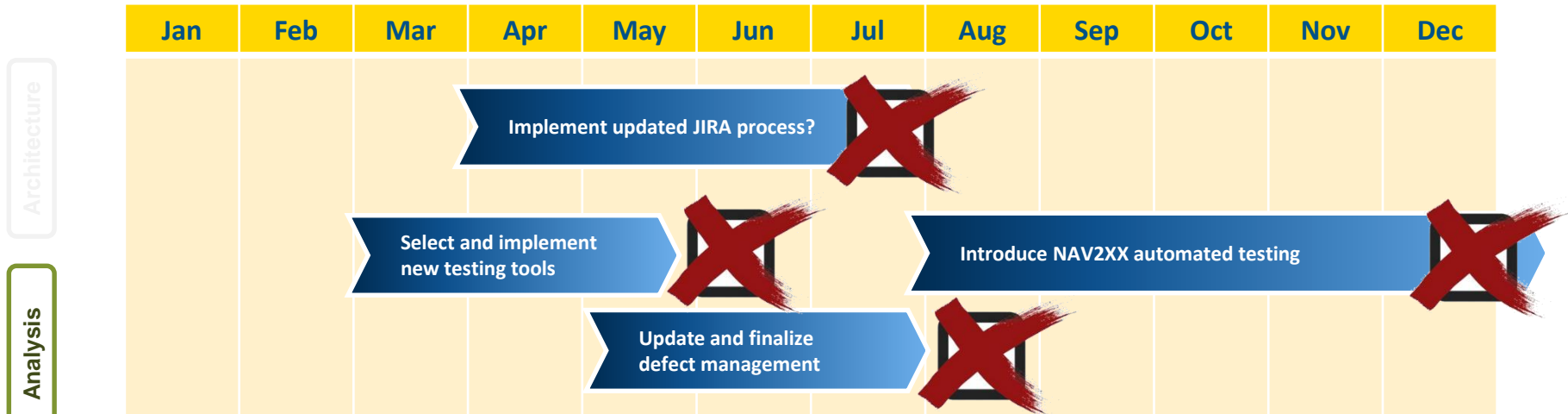
## ■ Next steps

- Better coordination of other systems refresh (S602, Aequitas, SCRM...)
- Business needs refinement (All data? Companies?)
- Increased automation (scripts, one Code unit)

## ■ New platform refresh

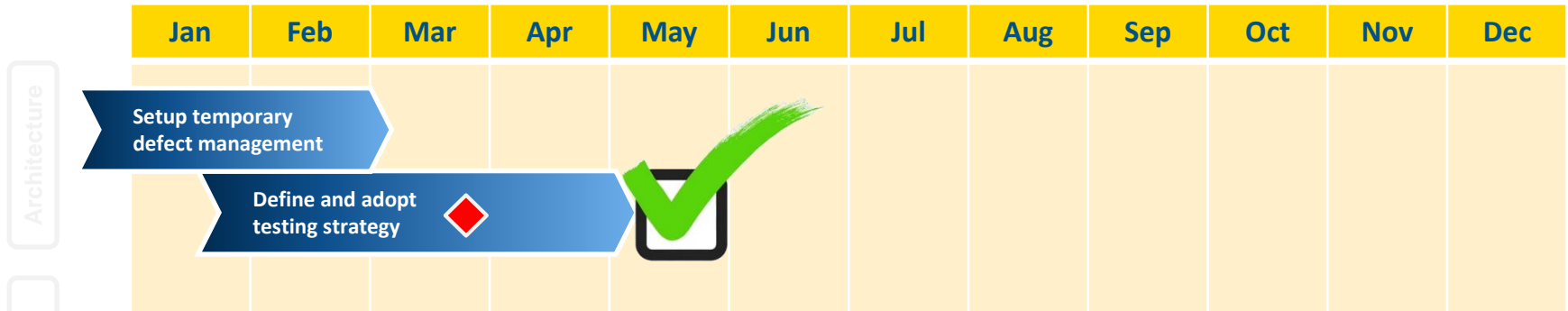
- In development

# IT Dev – ChM/RM update, testing tools



- **Postponed due to JIRA vendor replacement and system upgrade**
- **Updated JIRA process**
  - Analysis performed, solution design draft prepared
- **Testing activities**
  - Tried systems not tested and evaluated (NO test environment available)
- **Automated testing**
  - Not late yet
  - Trial of GUI Master by Globtech

# IT Dev – Testing strategy



## ■ Temporary defect management

- Aequitas I
- Business WF
- ERP I

## ■ Testing strategy

- Prepared in time and required quality
- Immediately applied
- Available at [Team public documents](#) on New intranet Teams webpage

Architecture

Analysis

Programming

Testing

# IT Dev – „IT Fridays“

Architecture

Analysis

Programming

Testing



„IT Fridays“ = Education of public (IT only/Business open)  

## ■ Technical Fridays:

- Introduced
- Planned
- Realized

## ■ Participants:

- IT Dev
- IT Ops
- PMO

## ■ Next steps:

- Use broadcasting
- Open to anybody
- Improve it

Technical Friday (TF) - PLAN			
Planned date for TF	Themes	Presenter	TF result
3.2.	Statical Prism - part 1	V. Purchart	TF completed
17.2.	Statical Prism - part 2	V. Purchart	TF completed
3.3.	Verzování, mergování v EA (+ EA obecně) SSRS - analýza reportů	P. Poznar R. Kalužik	TF completed
17.3.	New STENCIL - WAG BPMN 2.0 Power BI	P. Poznar R. Kalužik	TF completed
31.3.	Business workflow (DMS for APPROVAL WORKFLOWS) Collectora - New software for late collections	P. Česák, P. Hurt P. Česák, P. Hurt	TF completed
21.4.	Intro - představení a záměr Technických Fridays. Tabulka zdrojů, dokumentace na programu. Programme management	P. Olšovský H. Opalkova	TF completed
12.5.	Shop goods	K. Třeček	TF completed
26.5.	AFS - antifraud systém	J. Vondrus	TF completed
30.6.	Aequitas - Phase 1	J. Hudec	TF completed
July-August summer TF break			
1.9. or 8.9.			
		* INFO: Podklady pro odprezentovaná témata v rámci TFs naleznete ve složce <a href="#">Podklady k prezentacím.</a>	
<b>other themes for TF:</b>			
	RegID	P. Poznar	
	Nová metodika business analýzy	L. Dočkal	
	Import Transformation requirements to Jira	R. Kalužik, L. Dočkal	
	Synchronise requirements JIRA x EA	P. Poznar	
	NAV16 - Phase 0 EWMC with P-Pro	R. Kalužik, M. Šichanová	
	BI/DWH - Phase 1 GL all	R. Kalužik, D. Fotta	

# IT Dev - Teambuilding

Architecture

Analysis

Programming

Testing

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					◆ Teambuilding						

- Rafting on the rivers Salza and Enns, Austria
- 22 people





# IT Development in 2017

## Business generated activities

- Projects, transformation
- Change requests
- Incidents
- Service requests

„Year of stabilization“

„Improvements? IT internal activities?“

