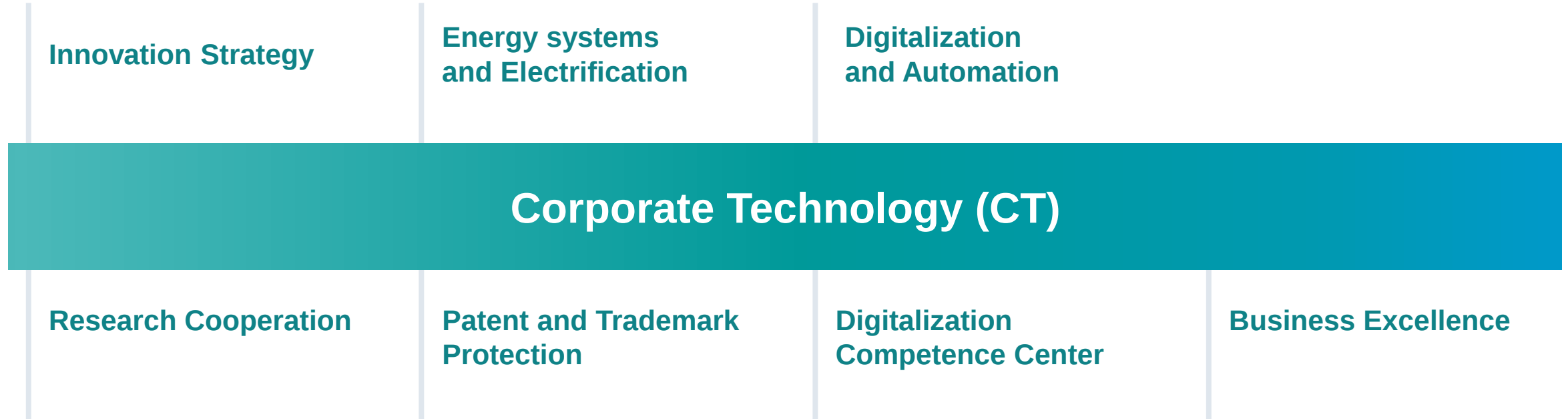


ÜRÜN/YAZILIM GELİŞTİRME PRATİKLERİNİZİN OLGUNLUĞUNU NASIL ÖLÇEBİLİRSİNİZ?

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SIEMENS KURUMSAL TEKNOLOJİ

Siemens'in merkezi AR-GE birimi



Develops innovations and contributes to Siemens' success with high-quality research, development, consulting services

CT TR İSTANBUL

CT TR employees, FC 2018 : ~ 530 emps

Digitalization
→ Leader

Automation
→ Global No. 1

MindSphere & Digitalization

~ **230** employees

SIMATIC, SINUMERIK, SIRIUS,
SIMOCRANE

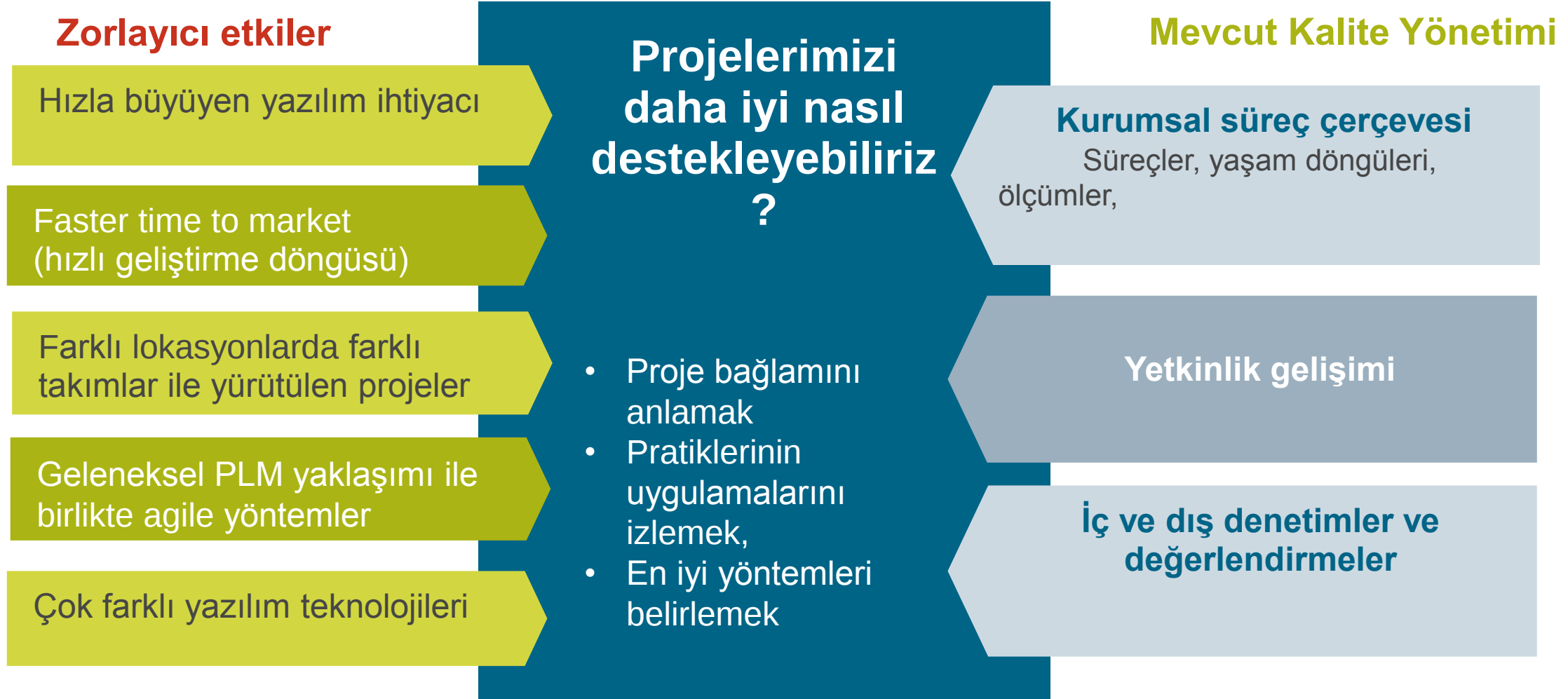
~ **300** employees

- 70% agile pratikler
- Ortalama yaş < 30
- 30% kadın mühendisler

DF HC : 440	FA	PC Based Automation; SW Controller TIA Portal Engineering Platform Profinet development kit & applications SIMATIC HMI ; Basic, Mobile & Comfort
	PL	MindSphere ; Connectivity & Edge Common Remote Service Platform
	MC	SINUMERIK Edge Platform MindApp & Edge Application Center
	CP	TIA Portal Device Integration
PD HC : 90	PA	SIMATIC S7 & PC Communication Processors Scalance Switches
	LD	Crane Management & Advanced Aut.
Digitalization Expert Office & Research ; DES, Analytics, Cybersecurity, Simulation, Connectivity & Edge Technologies		



KALITE YÖNETİMİ MEVCUT DURUM

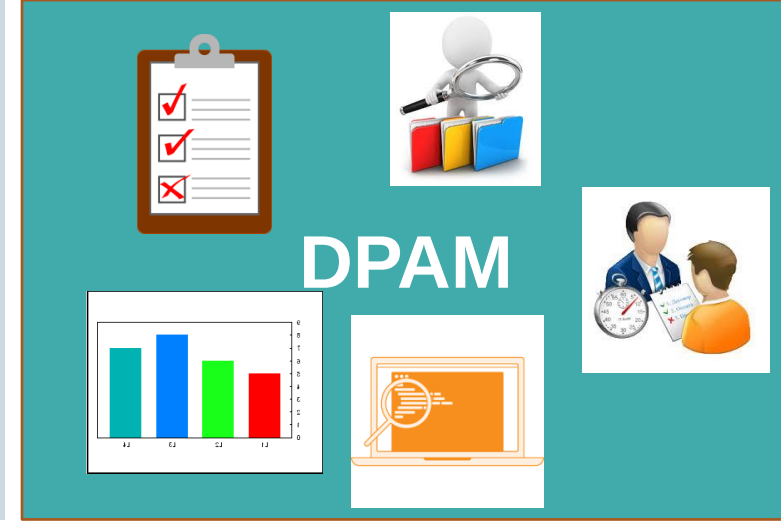


MOTIVASYON

Proje	Pratiklerin projelerdeki uygulamalarına odaklı
Bütünleşik	Geleneksel ve agile projelerde kullanılacak bütünleşik bir yaklaşım
Lean	İyileştirme döngülerini hızlandıracak, lean bir yaklaşım
Pull	Takımlar tarafından kabul edilecek bir yaklaşım
Açık çerçeve	Farklı projelerde uygulanabilecek açık bir yaklaşım

DPAM NEDİR ?

- DS Check for Practice Agility and Maturity
 - Proje pratiklerini gözden geçirmek için bir araç
 - Projenin mevcut durumunu anlamak
 - Proje ekibine iyileştirme önerileri sunmak
 - En iyi pratikleri belirlemek ve yaygınlaştırmak



DPAM TEMELLERİ: PROJELERDEN BEKLENTİLER

Tanımlı geliştirme metodolojisi/çerçevesi

PLM, Siemens Development System, Scrum, LeSS,, SAFe, Kanban, Agile

SEM etc

Profesyonel proje yönetimi

R&D PM@Siemens, PM@Siemens, PMI

Uygun kalite güvence pratikleri

Testing, reviews, static code analysis, quality metrics, quality monitoring

etc

Profesyonel mühendislik uygulamaları

Requirements, architecture, coding guidelines, TDD, refactoring, etc.

Yetkin geliştirme takımı

Scrum master, SWA, R&D Project manager, etc.

Mevcut süreç yapıları ile uyum

DS Process handbook, Country tailoring, processes of Siemens divisions

Projenin
mevcut
durumu

DPAM: NASIL TASARLANDI

Pratiklerin
belirlenmesi

Soru tablosu

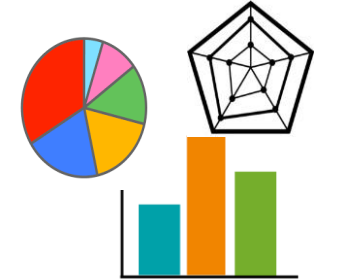
Değerlendirme
yöntemi

Geri bildirim
yapısı

- CMMI
- DPAM temelleri
- Mevcut süreç yapıları
- Agile checks/ methods

A	B	C	D	E	F	G	H
ID	Group	Statement	Guide to DPAM Assessor	Level	Focus Area	Status (Y/N/P/A)	Comments
	PC	Project Context					
	PC_RLP	High Level Planning					
PC001	PC_RLP	A local Project Manager/Team Leader with appropriate skills is assigned to the project.	Check the skills of the PM/TL with respect to the project category. For Cat A and B look for PM@Siemens certification. For others check the qualifications (PM@Siemens, RACI@Siemens, PM etc.)	Basic	People		
PC002	PC_RLP	Responsibilities of the local PM/TL are defined.	As an evidence of the assignment, check for Organizational chart, job descriptions, etc. For evidence, check Project handbooks, Project charter or organizational project wide definition of roles and responsibilities.	Basic	People		
PC003	PC_RLP	The local PM/TL defines and documents a high level project management plan using an organizational template.	For projects/services with a team of 5 or more people, there should be a high-level plan which is defined using one of the following templates: - Business partner's template - A template as defined by IT process infrastructure - A locally tailored version of one of the above - Project charter as established by the business partner, or locally If there is a project plan but documented in a completely different way, check for rationale and if there is no satisfactory explanation mark as PARTIAL.	Basic	Process		
PC004	PC_RLP	Roles and responsibilities of project's stakeholders are defined.	Business partners, PO, PL, GM etc. A short definition of the roles, what are their relationship to the project.	Basic	People		

$$\frac{\# \text{ of YES} + \# \text{ of PARTIAL} \times 0.5}{\# \text{ of YES} + \# \text{ of NO} + \# \text{ of PARTIAL}}$$



DPAM İFADELERİ (STATEMENT)

ID	Practice Area	Statement	Guide to DPAM Assessor	Level	Subject Area	Status (Y/N/P/N/A)	Comments
1	PC	Project Initiation					
2	PC_HLP	High Level Planning					
3	PC_HLP1	A local Project Manager/Team Leader with appropriate skills is assigned to the project	Check the skills of the PM/TL with respect to the project category. For Cat A and B look for PM@Siemens certification. For others check the qualifications (PM@Siemens, R&DPM@Siemens, PMI etc.) As an evidence of the assignment: check for Organizational chart, offer document, emails, circular etc.	Basic	People		
4	PC_HLP2	Responsibilities of the local PM/TL are defined.	For evidence: check Project handbook; Project wiki/portal; or organizational/project wide definition of roles and responsibilities	Basic	People		
5	PC_HLP3	The local PM/TL defines and documents a high level project management plan using an organizational template	For projects/services with a team of 5 or more people, there should be a high-level plan which is defined using one of the following templates: - Business partner's template - A template as defined by CT process infrastructure - A locally tailored version of one of the above - Project wiki/portal as established by the business partner, or locally If there is a project plan but documented in a completely different way, check for rationale and if there is no satisfactory explanation mark as PARTIAL	Basic	Process		
6	PC_HLP4	Roles and responsibilities of project's stakeholders are defined	Business partners, PO, PL, QM etc. A short definition of the roles, what are their relationship to the project	Basic	People		
7	PC_HLP5	Communication and collaboration mechanisms with the stakeholders are defined	Communication hierarchy, whom to contact when issues arise. Meetings/Ceremonies to be performed with the stakeholders If conflict resolution and escalation are not addressed mark as PARTIAL	Basic	People		
8	PC_HLP6	Critical dependencies of the	Dependencies to external entities/systems, vendors, products etc.	Inter	Project		

DPAM ifadesi pratiğin uygulanma durumunu kontrol eder

- Delil esaslı
- Değerlendirme için açıklamalar

Her ifade için üç farklı sınıflandırma (üç bakış açısı)

- Pratik alanı
- Konu alanı
- Seviye

DPAM V1.7 contains 123 statements

DPAM İFADELERİ

ID Practice Area Statement Guide for the reviewer Level Subject area

PCHLP7	PC_HLP	The roles and responsibilities of the team members are defined	If the responsibilities are not defined either within the project context or within the local processes, mark as PARTIAL	Basic	People
--------	--------	--	--	-------	--------

Project Context- High Level Planning

EPSP10	EP_SP	Each requirement/feature has a size and/or effort estimate	Check the specifications of requirements/features/user stories for estimates e.g. Story points, person-hour etc.	Inter.	Project
--------	-------	--	--	--------	---------

Execute Project- Sprint Planning

DPAM: PRATIK ALANLARI

PROJECT INITIATION

- High level planning of the project
- Investigates whether the project context is defined
- Practices applied during initial phases of a project

PROJECT EXECUTION

- Sprint/increment planning practices
- Statements address both traditional and agile methodologies
- Project monitoring practices
- Project closure practices

PRODUCT DEVELOPMENT

- Engineering practices
- Statement address both traditional and agile methodologies
- To be marked as NA if not in project scope

Practice Area	Statement	Guide to DPAM A
PC	Project Initiation	
PC_HLP	High Level Planning	
PC_QA	Quality Assurance	
PC_CM	Configuration Management	
PC_RP	Risk Planning	
EP	Project Execution	
EP_PM	Project Monitoring	
EP_SP	Sprint/Iteration Planning	
EP_PC	Project Closure	
DP	Product Development	
DP_RE	Requirements Engineering	
DP_AD	Architecture and Design	
DP_IM	Implementation	
DP_IN	Integration	
DP_TE	Testing	

DPAM: KONUS ALANLARI

Konu alanlarındaki ifadelere örnekler

Project

- Critical dependencies of the project to external entities and/or systems are identified and documented
- Progress review meetings are performed as planned

Product

- The requirements/features are reviewed by the team members
- Software architectural principles and guidelines are defined

People

- Roles and responsibilities of project's stakeholders are defined
- There is an agreed upon "Code of practice" for the project team.

Process

- The methodology (life cycle) to be used is selected and/or tailored from the DS or local process library
- Data for project measures defined are collected and analyzed

Infrastructure

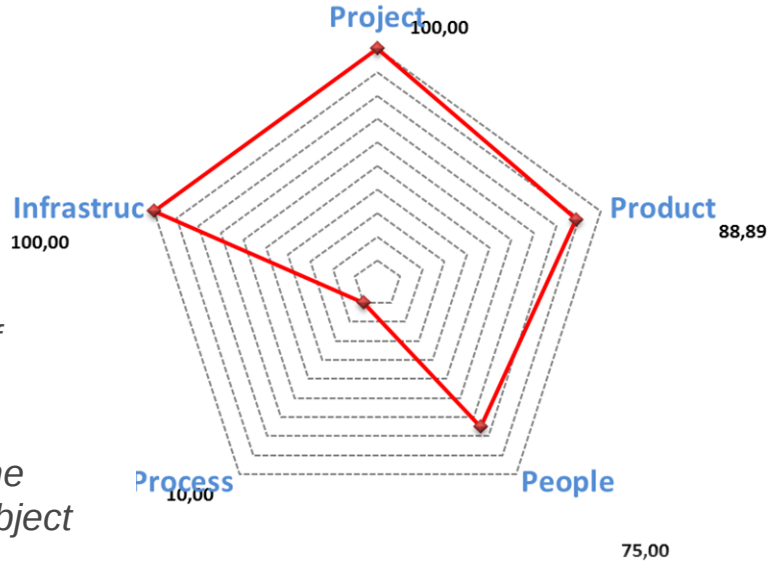
- Project's work environment is established

DPAM: İFADELERİN SEVİYELERİ

Her ifade için bir seviye tanımlanmıştır

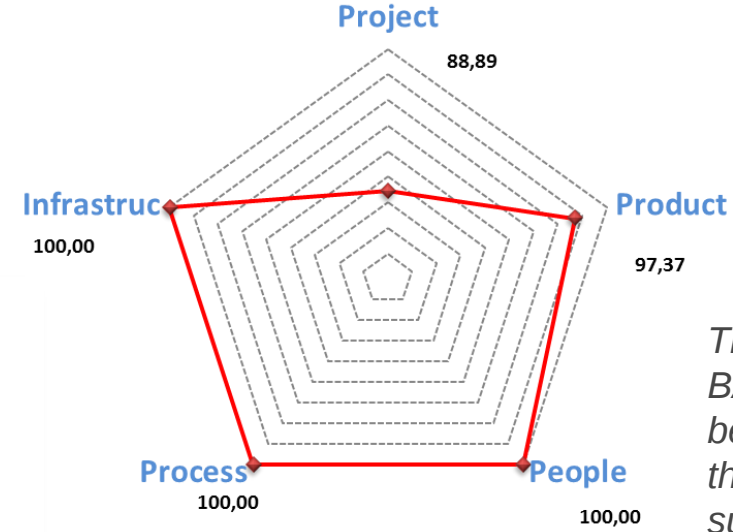
- Basic
- Intermediate
- Advance

Graph 11: Advance Level % achievement



The percentage of ADVANCE level practices being implemented by the project at each subject level

Graph 9: Basic Level % achievement



The percentage of BASIC level practices being implemented by the project at each subject level

DPAM ESASLI DEĞERLENDİRME SÜRECİ



DPAM: BULGULARIN DEĞERLENDİRİLMESİ

Interview Results Count	Yes	No	Partial	NA	Blank	
	81	20	17	5	0	
Basic	47	3	3	1	0	53
Inter.	23	10	11	2	0	44
Advance	11	7	3	2	0	21
Total	81	20	17	5	0	118
Project	25	9	4	1		38
Product	33	2	10	4		45
People	13	3	0	0		16
Process	5	6	1	0		12
Infrastruc	5	0	2	0		7
Total	81	20	17	5		118
	Y	N	P	NA		
Project Initiation	32	5	3	0		40
Project Execution	18	10	3	0		31
Product Development	31	4	11	5		46
	81	19	17	5		117

1

Her ifade değerlendirilir:

Yes: uygulama kanıtı var

No: uygulama yok

Partial: kısmi uygulama

Not applicable: proje kapsamında değil

2

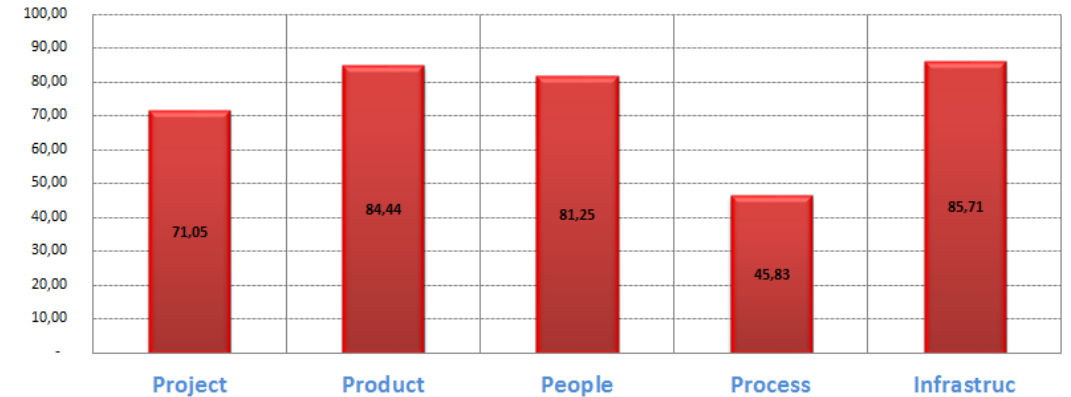
Bir bakış açısında, sonuç hesaplanır:

$$\frac{\# \text{ of YES} + \# \text{ of PARTIAL} \times 0.5}{\# \text{ of YES} + \# \text{ of NO} + \# \text{ of PARTIAL}}$$

Graph3: Overall % achievement with respect to subject areas

Project	71,05
Product	84,44
People	81,25
Process	45,83
Infrastruc	85,71

Graph3: Overall % achievement with respect to subject areas

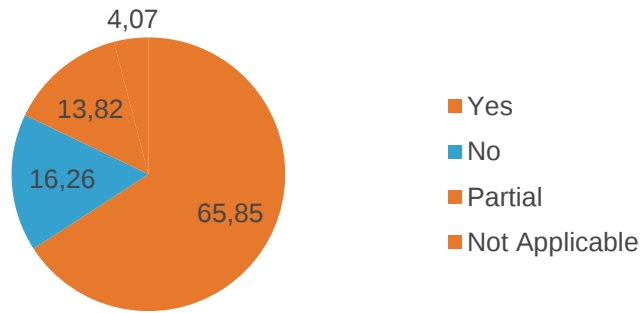


3

Sonuçlara göre grafikler oluşturulur

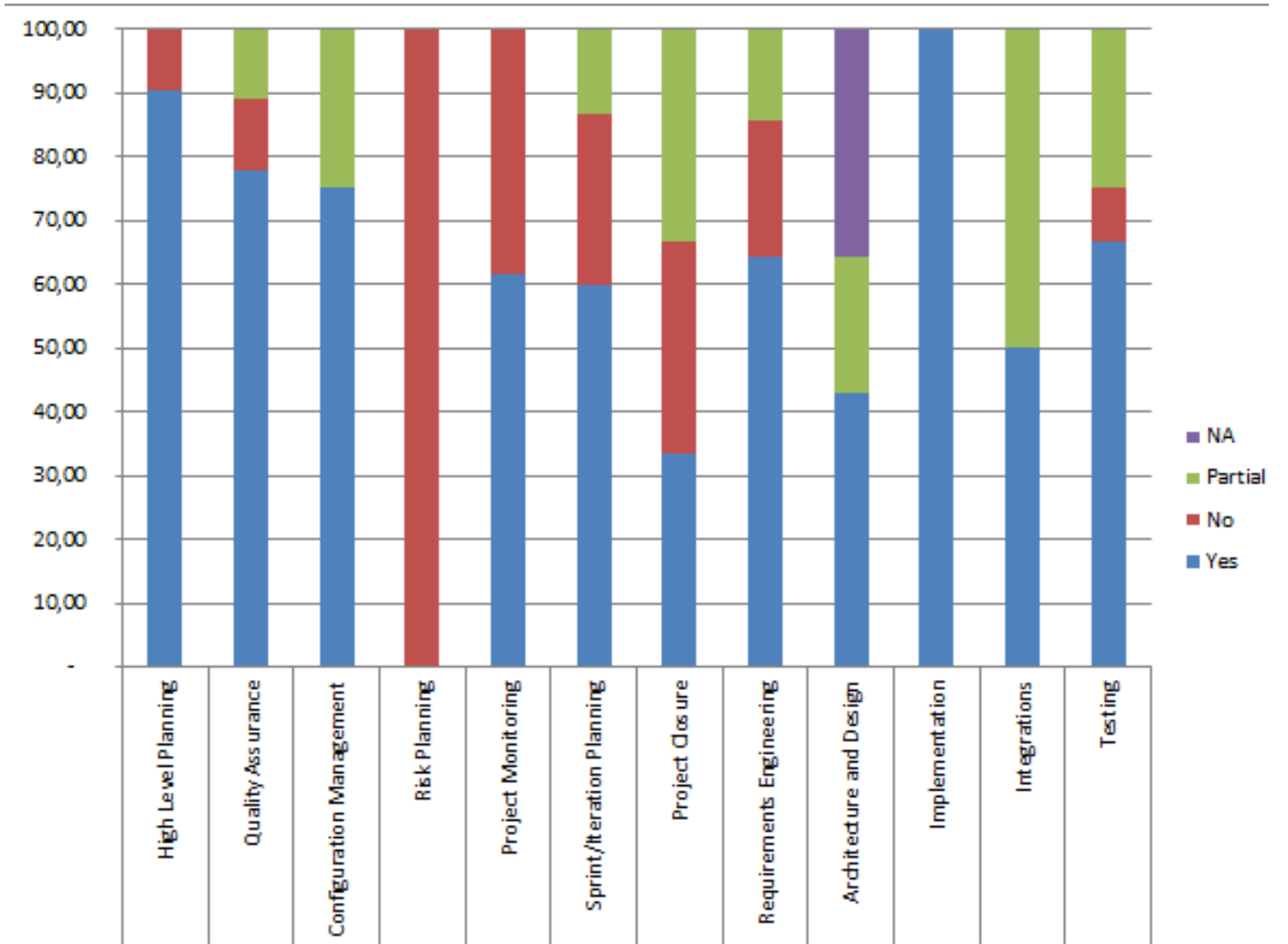
DPAM: SONUÇLARI

DPAM Overall Result



Overall DPAM achievement

Overall DPAM achievement for each practice area



PILOTS performed : 15 projects from 3 different regions

- Using different methodologies (Scrum, PLM, mixed)
- Different business domains

Data on review process :

- Preparation time for the review:
 - max 1 man-day/project
 - gets shorter with experience
- Review meeting time:
 - 2-4 hours
- Consolidation and providing feedback:
 - 2-3 man-hour

Feedback of the project teams

- All positive feedback, a number of improvements related to the coverage
- Highlights
 - Relaxed atmosphere of the review
 - No preparation
 - Open discussion of issues
 - Chance to communicate their best practices

“As a procedure, I felt its very relaxed one where no compliance is checked instead auditors tried to understand the existing practices in your project and then suggest improvements based on that – Basically it’s the LEAN way. Also the areas covered are quite extensive. Best part is that this is the single audit covering all focus areas”

Project QM on her pilot experience

Feedback of the reviewers

- Easy to implement with little training
- A chance to learn about project realities
- Fast review cycle
- Opens up communication channels with the QMs and project teams
- Agile/lean approach

DPAM ÖNEMLİ NOKTALAR

Lean/Agile yaklaşım: takımı fazla meşgul etmeden hızlı gözden geçirme döngüsü

Tüm projelerin gözden geçirilmesi

Yapısal ve kanıt esaslı olmasına rağmen rahat, informal bir değerlendirme yaklaşımı

Çok farklı yazılım projelerinin değerlendirilmesi

Olası iyileştirmeler ile ilgili hızlı geri bildirim

Endüstri standartlarına dayalı (CMMI, ISO vs)

Geleneksel ve agile projeler için tek bir yaklaşım

DPAM etkin
bir proje
değerlendirm
e yöntemi