



Double your competitive strength!

Improvement Maturity in Operational Organizations

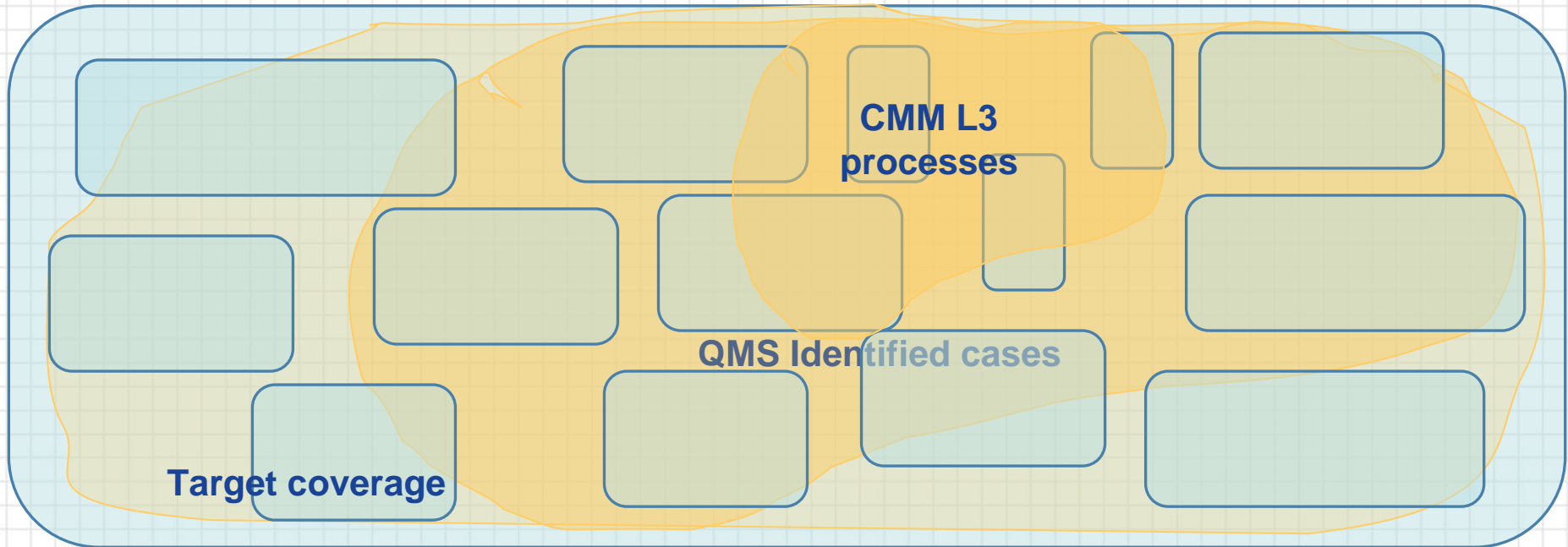
Experience Report
Oleksandr Tarasenko



- **History: success and challenges**
- **CMMI and other Process Frameworks**
- **Process Dimension**
- **Capability Dimension**
- **Lessons Learned**

- **Miratech is an IT Company, who passed SEI SW-CMM level 3 in year 2003. Later on, the nature of business changed, and the application of “classical” SEI SW-CMM Framework has been restricted. The Challenge for our company is to provide efficient interpretation of CMMI framework and to make a deployment in accordance to the Company Strategy.**

Business Development	Project/Service Delivery	Resources
Product/Service lines	Operational Models	Core competences



This diagram illustrates entities, related to each category, and coverage by QMS of control elements, related to these entities

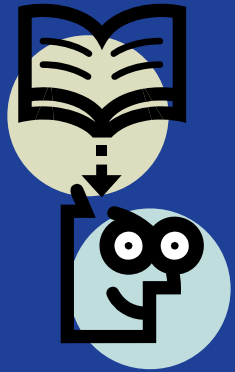
- **Partial control:**
 - **Some processes are performed on Customer side**
 - **Some processes at Miratech side are controlled by the Customer**
- **Heterogeneous process assets**
 - **Process Performance Models**
- **ROI for Process Improvement**
 - **Trade-offs on labor market**
 - **Minimization of cycle-time**
 - **Variations**

- **Miratech plans institutionalization and improvements, taking into account added value and ROI in med- and long- term business situation.**
- **Miratech plans to validate adequacy of internal Process Framework to the requirements of CMMI Level 5**

- **IDEAL™ is a baseline framework**
- **“Initiating” phase was revisited**
- **New role of SEPG**
- **Bottom-up: description of observations**
- **Iterative implementation**
- **Active involvement of stakeholders**
- **Mappings for CMMI framework and SCAMPI Class C appraisals**
- **Involvement of consultants**

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- **BS15000, ITIL**
 - IT service oriented framework
- **eSCM-SP –**
 - eSourcing Capability Model for Service Providers; includes people and contracting areas
- **SPICE, ISO 15504:2004**
 - applies capability evaluation to the process framework, quoted as a sample of LC
- **COPC**
 - Customer Operations Performance Center's Performance Management Framework for Customer Service Provider (CSP); contains strategy and business development areas



**No one process framework
could be applied “as is”**

**Efficient Process
framework could use them
as an informational asset,
but should be derived
from business specific
values**

- **SEI CMMI plays a role of “Integrating” framework:**
 - **CMMI allows embedding of other standards, and could be tuned for customer processes.**
 - **More flexible approach to outsourcing services companies, - CMMI is applicable even in IT services domain, and may be embedded into frameworks like ITIL.**
 - **Is supported with SCAMPI appraisals classes A, B, C, - with extended possibilities for intermediate benchmarking and verifications**

- 1. CMU/SEI-2003-TN-005, Herndon, M.; Moore, R.; Phillips, M.; Walker, J.; "Interpreting Capability Maturity Model® Integration (CMMI[R]) for Service Organizations—a Systems Engineering and Integration Services Example"**
- 2. CMU/SEI-2002-TN-006, Gallagher, B. "Interpreting Capability Maturity Model® Integration (CMMI®) for Operational Organizations"**
- 3. CMMI For Services
April 2005
Raytheon RIS CMMI® Service Initiative**

- **The challenge is to map CMMI Framework to Strategically proved Operational Models**
- **Observations of target practices, are based on stakeholder needs**
- **Observations are verified over CMMI Process framework (PIID), and become a Reference Model**
- **Iterative benchmarking of organizational practices vs. Reference Model**

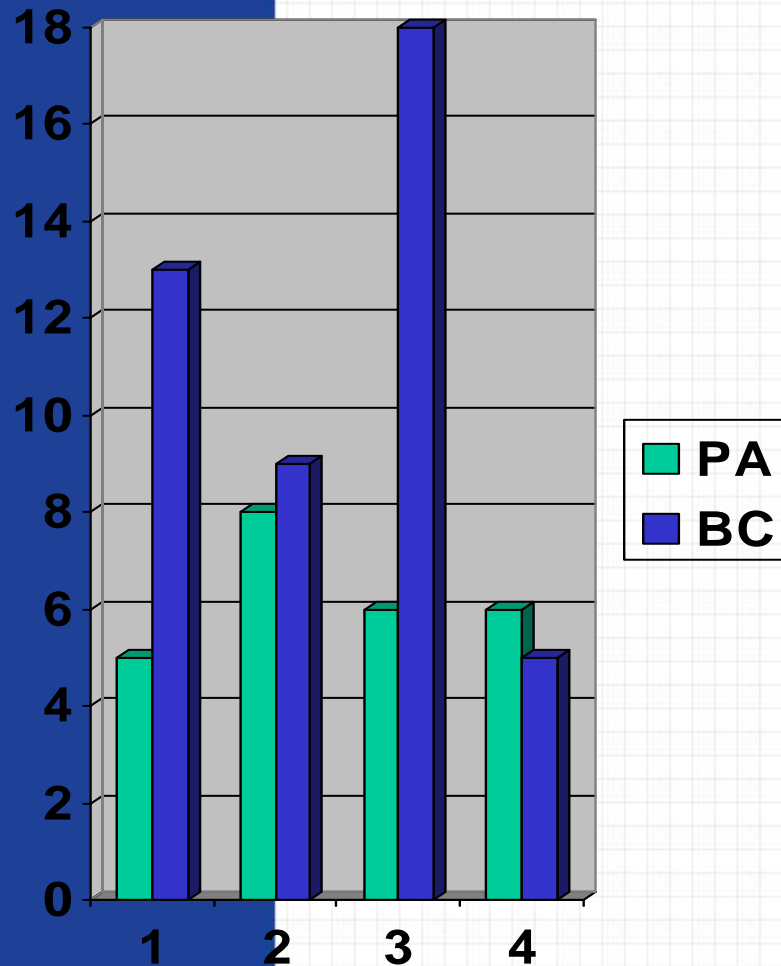
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- **In 2003 Miratech performed more than 80% of operations within the life-cycle of “Scope-based projects”.**
- **In 2005 Miratech acts in the following models:**
 - **Scope-based SWE projects**
 - **Scope-based QA and maintenance projects**
 - **SLA-based projects**
 - **Offshore servicing**
- **In med term the new models to be elaborated, with a target of vertical integration of business**

- **Miratech identifies core Business cases, as recurrent activities, as derived from Values, sufficient for Customer**
- **Identification of correct set of Business Cases helps to improve performance at critical paths**
- **Map of processes helps in**
 - **Inter-group coordination**
 - **DAR**



Dr. Deming made an important observation. He observed that when each part of a system is optimized, the result is often that the system itself is sub-optimized. That is, when each group is working in a way that makes its particular job come out in the best possible way, the result can be that the sum total of all of the work is not what is best for the organization! For this reason, he preached that we should not seek to optimize our own jobs. But rather, that we should do what is necessary in our own jobs to optimize the result for the entire company.



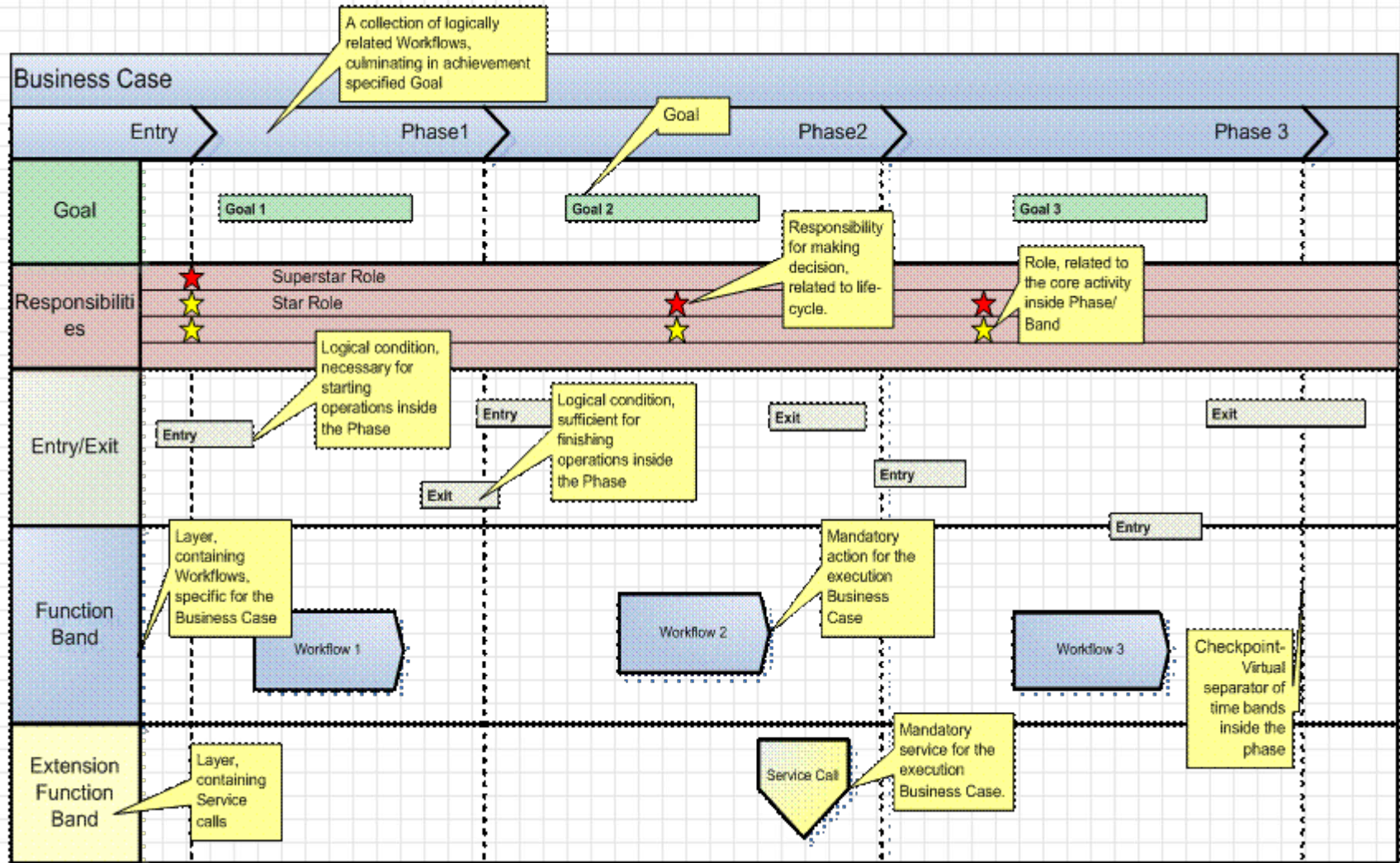
CMMI Process areas:

1. Process man-t
2. Project man-t
3. Support
4. Engineering

BC categories:

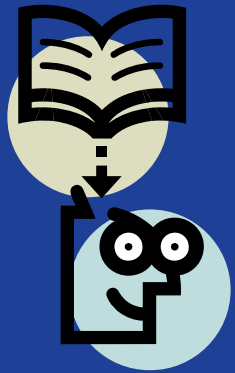
1. Project and Operational Management
2. Process and Organization Management
3. Resources & Support
4. Engineering BoK

- The Miratech' operational model is formulated in terms of Business cases and Organizational functions.
- **Business Cases** is the repeated operation, related to core Miratech business.
- Each **Business Case** is considered as company wide project with assigned manager, life-cycle, success criteria, entry/exit criteria, budget and similar.
- The diagram presents **Business Cases'** model description.



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- **Capability of Organization has drill-down namely into
Capability of Business Cases
(not capability of Departments, or
Functions, or Processes)**
- **Maturity of Organization is provided
by sufficient Capability in core
Business Cases**

List of Business cases

- Define scope of work
- Ownership

Business Case diagram

- Inputs / Entry criteria
- Outputs / Exit criteria
- Base workflows (related to reaching outputs) are performed

LO

L1

Business Case diagram

- Intergroup coordination (dependencies between work products)
- Training/adaptation people
- Base workflows (related to reaching outputs) are performed
- Senior Management reviews

Extensions (BC description)

- Checklists (requirements + verifications)
- Measurements

L1

L2

Business Case diagram

- Tailoring
- Smart links to the asset library and Frameworks

- Roles (vs. responsibilities)

Asset Library

- Lessons learned
- Recommended samples
- Referenced from the "Primary" QMS

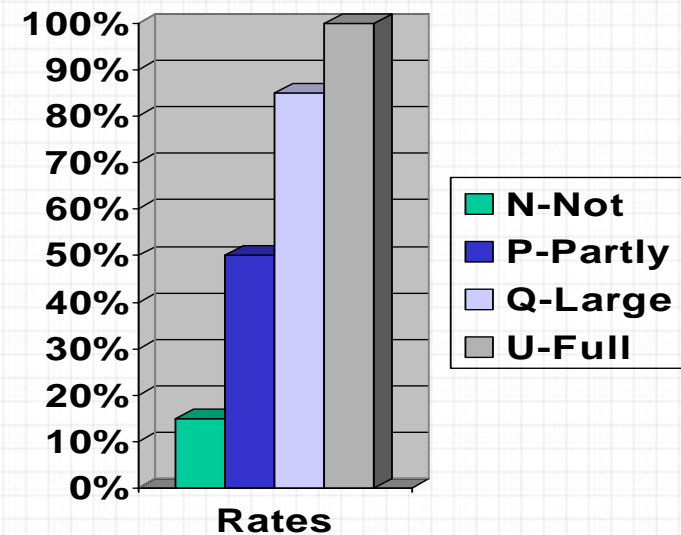
Frameworks

- For the next improvements, consider traceability between QMS, Tracking systems and Measurement repository.

L2

L3

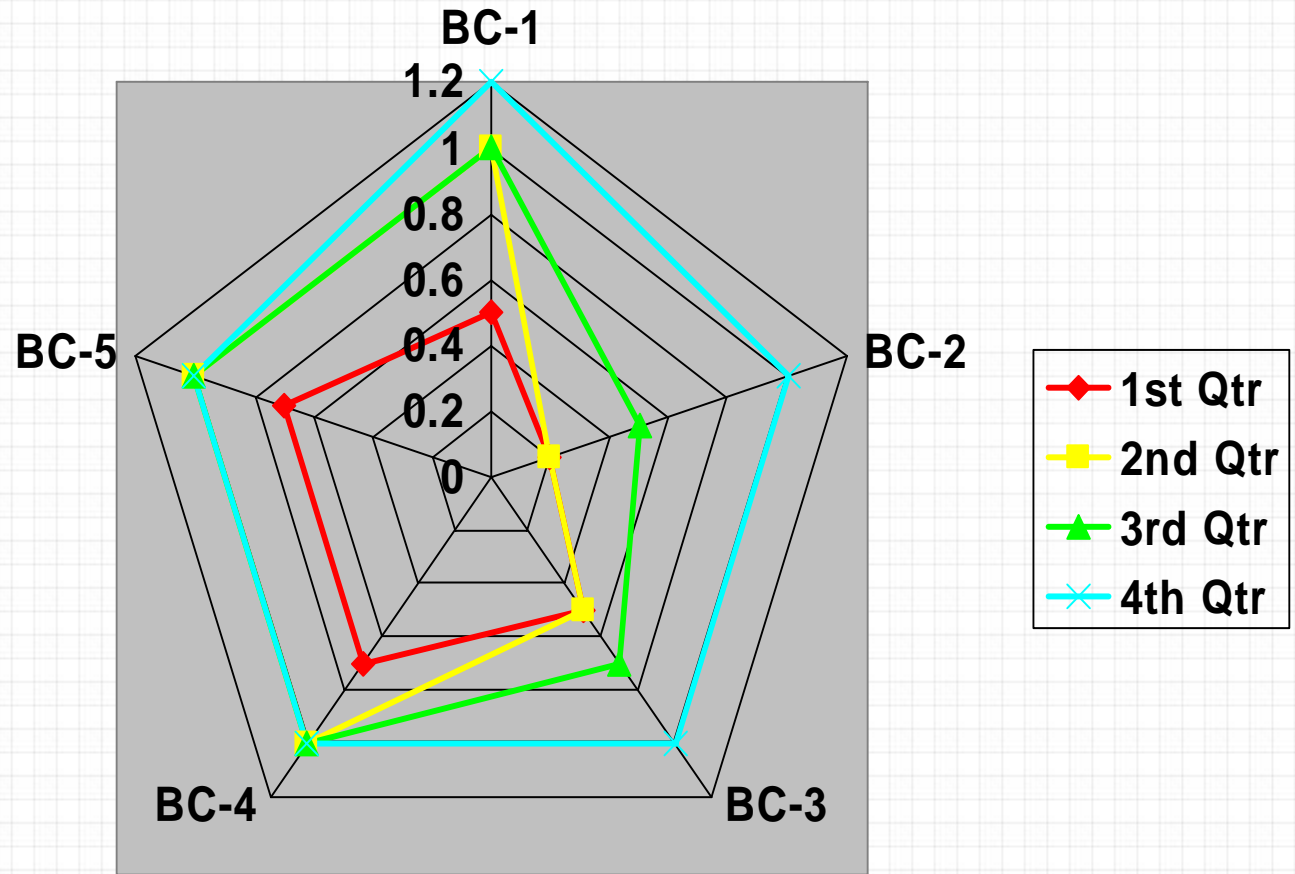
- **Common appraisal procedure for all business cases**
- **Based on ISO 15504 Taxonomy of Capability Attributes**
- **Allows Rates for each attribute value**



	Indicator	Rate	%
PA 1.1	Process performance attribute	Q	53%
	MP 1.1.1 Identify input and output work products.	P	33%
	MP 1.1.2 Ensure that the scope of work is identified	U	85%
	MP 1.1.3 Ensure that base practices are implemented ...	P	41%
	For each process, there is evidence that base practices are actually performed.	N	15%
	The base practices of a process achieve the defined purpose and process outcome.	P	50%
	The base practices of a process produce the output work products.	P	50%
	Work products produced satisfy the purpose of the process.	P	50%



- **Each MP is drilled-down into Observations, specific for each BC**
- **Weights are calibrated by expert marks**
- **BC capability evaluation is made as**
 - **Mean value for all the instances of this process (e.g. all occasions of Hiring), or as**
 - **Benchmarking value, made by >2 experts, with application of Delphi technique**
- **Performance measurement**
 - **Applies the same framework, but to the Specific Goals (instead of Generic Goals)**
 - **Scope of OPP is driven by Business Startegy**



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- **Consolidation common vision on Business Models and Operations**
- **Eliciting core business cases and making customized Process Framework. This helps to prevent resistance to process improvement**
- **Illustrating Business Cases with diagrams in customized notation (easier than IDEF0) is attractive to newcomers, and helps to manage Intergroup Coordination**
- **The single framework is used for Capability and Performance measurement**
- **Planning improvements in correspondence to the Business Strategy.**

Thank You!

Questions?



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