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Aktivnost: A3.3. Razvoj modela procjene zrelosti organizacije/institucije i uspješnosti primjene strategije

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D3.3. Model procjene zrelosti organizacije/institucije i uspješnosti primjene strategije

D3.3. Development of the model for the organizations/institutions assessment maturity for the strategy implementation

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1. Introduction

This report is related to the research results in the (first and) second project year (M: 9-12, 13-20) **D3.3. Development of the model for the organizations/institutions assessment maturity for the strategy implementation** which provides a basis for research results in the second (and third) project year (M: 21-30) **D3.4. Development of methodology for implementation and monitoring of strategic decisions**.

The process of implementation and monitoring of strategic decisions is a very complex process due to its establishing, definition and continual improvement within the organization. Accordingly, it is necessary to develop model that enables the HEI to identify processes for implementation and monitoring of strategic decisions, to conduct the assessment of its actual maturity for implementation and monitoring of strategic decisions and to define the improvements considering the target maturity level. With the regards to the research results in the (first and) second project year, two models were used: Standard based Organization Maturity Model (OMM) (Kirinić & Kozina, 2016) and Scientifically-based model with practical implementation (Pažur Aničić & Divjak, 2016). Using both models, the authors attempted to describe similarities and differences in the application of these models for the assessment HEI's maturity for the strategy implementation and provided a basis for development of methodology for implementation and monitoring of strategic decisions.

Standard based Organization Maturity Model (OMM) enables the HEI to:

- a) identify processes for implementation and monitoring of strategic decisions and to assign these processes to the relevant maturity levels (ML);
- b) to conduct the maturity assessment for implementation and monitoring of strategic decisions based on the OMM;
- c) plan the improvements for implementation and monitoring of strategic decisions.

Second model, scientifically based maturity model with practical implementation, based on the maturity model design methodology (Mettler, 2010) and design science paradigm (Hevner 2004, Carcary 2011), including practices organized around main key process areas and capability dimensions that were detected by the real case studies conducted at several higher education institutions. This approach was developed by the PhD student Katarina Pažur Aničić and will be described in detail in her PhD thesis „Supporting higher education graduates' early careers: strategic framework and maturity model for the field of information and communication technologies“, which is in the process of publishing. Initially, this approach was described in the research paper from the authors Pažur Aničić and Divjak (2015).

2. Description of maturity models

2.1. Standard based Organization Maturity Model (OMM)

The key steps for development of the methodology are:

A. Development of HEI's OMM for implementation and monitoring of strategic decisions. It is necessary

to:

1. identify the basic processes for implementation and monitoring of strategic decisions;
2. identify extended processes for implementation and monitoring of strategic decisions;
3. identified processes need to be assigned to the relevant maturity levels;
4. define HEI's Organization Maturity Model (OMM).

For the purpose of development, the HEI's Organization Maturity Model (OMM), the standard ISO/IEC 33004:2015 and its requirements were used in the research within the paper of (Kirinić, Kozina, 2016). Further, the Balanced Scorecard method (BSC) was used in order to identify the basic processes for implementation and monitoring of strategic decisions. According to the Balanced Scorecard method (BSC) HEI should develop its strategic plan aligned with the strategic decisions. This process includes the following important activities: definition of BSC perspectives; definition of strategic goals through these perspectives; definition of the key performance indicators (KPI's); definition of the critical success factor (CSF) and definition the cause-effect relationships between the leading and lagging strategic goals. The second basic process is *Definition of action plans* as a support to the achievement the strategic goals.

Except the basic processes, it is necessary identify extended processes for implementation and monitoring of strategic decisions. Identified extended processes also need to be assigned to the relevant maturity levels (ML2 – ML5) within the Organization Maturity Model (OMM) depending on their contribution to each maturity level as well as on the business goals of the organization/institution (**shown in Fig.1**).

Maturity levels		Process areas	Capability levels				
ML	Basic process set (minimum)	Basic process set (additional)	CL1	CL2	CL3	CL4	CL5
1	Strategic plan development Definition of perspectives Definition of strategic goals Definition of critical success factors (CSF) Definition of cause-effect Definition of actions plans	Communication on strategic plan	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>		
	ML1						
ML	Extended process set (minimum)	Extended process set (additional)		ML2	<div><div></div></div>		
2	Configuration Management Decision Management Information Management Risk Management Project assessment and control Project Planing		<div><div></div></div>				
	ML	Extended process set (minimum)	Extended process set (additional)		<div><div></div></div>		
3	Human Resource Management Infrastructure Management Organization Management Quality Management Measurement	Project Portfolio Management	<div><div></div></div>				
	CL=0		<div><div></div></div>				
ML	Extended process set (minimum)	Extended process set (additional)		<div><div></div></div>	ML4	+ at least one process from the basic set must have CL4	
4	Quantitative performance Management		<div><div></div></div>				
ML	Extended process set (minimum)	Extended process set (additional)		<div><div></div></div>	ML5	+ at least one process from the basic set must have CL5	
5	Change Management (Innovation)	Knowledge Management	<div><div></div></div>				

Figure 1. Theoretical (standard-based) model structure

Maturity level ML1 includes core processes for implementation and monitoring of strategic decisions.

Maturity level ML2 includes additional processes whose main objective is to support CORE processes for implementation and monitoring of strategic decisions in the context of planning and monitoring activities, risk assessment. **Maturity Level ML3** includes additional processes aimed at achieving integration, standardization and quality of implementation and monitoring of strategic decision throughout the institution. **Maturity levels ML4 and ML5** include additional processes aimed at implementing and monitoring of strategic decisions to the highest level of quality including quantitative management, innovation, change management, knowledge management.

- B. In further research, as an upgrading of above results, it is necessary to conduct the maturity assessment for implementation and monitoring of strategic decisions according to the HEI's OMM. It includes the following :

1. HEI should define its target maturity level for implementation and monitoring of strategic decisions;
2. HEI should assess its actual maturity level for implementation and monitoring of strategic decisions;

In order to assess HEI's actual maturity level for implementation and monitoring of strategic decisions, it is necessary to **assess the capability level for each process** assigned to the maturity levels from ML1 to ML5 within the OMM.

According to the maturity model, **taken from Cobit 4.1 framework (ITGI, Cobit 4.1, 2007)**, we can differ **six process capabilities (CL)**. Capability level CL0 is related to the **non existent** process. This process is not implemented or fails to achieve its process purpose. Capability level CL1 is related to the **initial** process. This is an implemented process that achieves its process purpose. Capability level CL2 is related to the **repeatable but intuitive** process. Processes take place by recurring procedure for a specific goal based on the intuition of individuals. Capability level CL3 is related to the **defined** process that is capable of achieving its process outcomes. Capability level CL4 is related to the **managed** process. The previously described defined process operates within defined limits to achieve its process outcomes. Capability level CL5 is related to the **optimized** process. The previously described managed process is continuously improved in order to achieve business goals.

In order to assess the capability level for each process within HEI's OMM, **the maturity model from Cobit 4.1 framework (ITGI, Cobit 4.1, 2007)** are used. This model includes the following generic attributes **for the assessment of process capability**:

1. Awareness and Communication (AC);
2. Policies, Plans and Procedures (PPP);
3. Tools and Automation (TA);
4. Skills and Expertise (SE);
5. Responsibility and Accountability (RA);
6. Goal Setting and Measurement (GM).

These generic attributes are described in **the Table 1** and provide the basis for the development of the assessment indicators for each process within HEI's OMM.

The definition of the assessment indicators on the example of the ***Strategic plan development*** process is described in **the Table 2**. Additional indicators (not defined in COBIT 4.1) depending on specificity of the processes are marked with *. **The equal procedure for the development of the** assessment indicators for other processes within HEI's OMM should be used.

Table 1. Generic attributes according capability levels to be used to assess a process (based on COBIT 4.1)

General Attributes GA		Capability Level 0 CL 0	Capability Level 1 CL 1	Capability Level 2 CL 2	Capability Level 3 CL 3	Capability Level 4 CL4	Capability Level 5 CL5
Awareness and Communication (AC)	Awareness	Does not exist	Awareness of the need for the process	Awareness of the need to act	Understanding of the need to act	Understanding of the full requirements	Forward-looking understanding of the full requirements
	Communication	Does not exist	Occasional, sporadic	Informal communication at the level of management	Formal communication at the level of management	Mature, formal communication across the whole institution	Proactive communication across the whole institution
Policies, Plans and Procedures (PPP)	Policies, Plans	Do not exists	Undefined	Informal	Defined and documented	Approved, focused on the best internal practices	Focused on the best external practices
	Procedures	Do not exists	Ad hoc	Intuitive, based on previous (similar) experiences, informal	Defined and documented	Standardized	Integrated, used for (general) improvement
Tools and Automati	Tools	Do not exists	Standard tools	Vendor tools	Not integrated	Partially integrated	Fully integrated on the level of the institution

General Attributes GA		Capability Level 0 CL 0	Capability Level 1 CL 1	Capability Level 2 CL 2	Capability Level 3 CL 3	Capability Level 4 CL4	Capability Level 5 CL5
	Automation	Does not exist	Unplanned	Individual approach	Planed	Automation of implementation and monitoring activities	Improvement of implementation and monitoring
Skills and Expertise (SE)	Skills	Do not exist/not identified	Not identified	Minimal skills for key areas defined	Skills for key areas defined and documented	Skills requirements are upgrading for keys areas	Continual improvement of skills accordingly with institutional goals
	Expertise	Does not exist	No plan for training, no formal training	As needed, informal training	Formal training planned, initiated by individuals	Mature training techniques applied, knowledge sharing, internal experts involved, training plan assessed	External training and education best practices used, knowledge database used

General Attributes GA		Capability Level 0 CL 0	Capability Level 1 CL 1	Capability Level 2 CL 2	Capability Level 3 CL 3	Capability Level 4 CL4	Capability Level 5 CL5
Responsibility and Accountability (RA)	Responsibility and Accountability	Does not exist	Roles and responsibilities are not defined, responsibilities based/taken on the individual initiative	Roles and responsibilities are not formally defined, there could be confusion in taking responsibilities	Roles and responsibilities are defined, process owners are defined but without complete responsibility	Roles and responsibilities are defined and accepted, process owners have complete responsibility, rewarding is used for motivation	Process owners have complete responsibility for decision making and acting; accepted responsibilities are cascaded through the institution consistently
Goal Setting and Measurement (GM)	Goal Setting and Measurement	Does not exist	Goals are not clearly defined and measurement is not planned	Some goals and some financial metrics are defined and known only by top management, some measurements are applied	Some effectiveness goals and metrics are defined but not communicated, measurements are applied inconsistently, IT BSC (Balanced Scorecard) are initially adopted	Efficiency and effectiveness are measured, goals and metrics are aligned with institutional goals and planes, IT BSC is partly applied, continuous improvement is emerging	Integrated performance measurement system is integrated and links business and IT, continuous improvement is applied

Table 2: Assessment indicators for each capability level of the Strategic plan development process

STRATEGIC PLAN DEVELOPMENT						
The purpose of the strategic plan development process is to develop strategic goals within the Balanced Scorecard perspectives, to define critical success factors, to define key performance indicators and to determine the cause-effect relationship between goals.						
Level CL	General Attributes GA	INDICATORS	Agreement with statement			
			Not at all	A little	Quite a lot	Completely
0	AC	There is no awareness of the importance of developing a strategic plan.				
	PPP	The process of developing a strategic plan is not being implemented. There are no policies or plans.				
Number of statements: 2		$\Sigma(\text{capability level 0}):$	0	0	0	0
Level CL	General Attributes GA	INDICATORS	Not at all	A little	Quite a lot	Completely
1	AC	There is awareness of the need to develop a strategic plan.				
	PPP	The development of the strategic plan is implemented <i>ad hoc</i> .				
	PPP	The strategic plan is not aligned with other institution plans.				
	SE	There is no formal education for the development of a strategic plan.				
	RA	There are no defined responsibilities for the development of a strategic plan.				
	*	Risk assessment is not included in the development of a strategic plan.				
	*	There are evidences (eg. documents, records, ...) for substantiating of the claims above (where applicable).				
Number of statements: 7		$\Sigma(\text{capability level 1}):$	0	0	0	0

Table 2: Assessment indicators for each capability level of the Strategic plan development process (cont.)

STRATEGIC PLAN DEVELOPMENT						
The purpose of the strategic plan development process is to develop strategic goals within the Balanced Scorecard perspectives, to define critical success factors, to define key performance indicators and to determine the cause-effect relationship between goals.						
Level CL	General Attributes GA	INDICATORS	Not at all	A little	Quite a lot	Completely
2	AC	There is awareness that a strategic plan needs to be developed.				
	AC	There is informal communication at the level of management that a strategic plan needs to be developed.				
	PPP	The procedure for developing a strategic plan is informal, intuitive and recurring.				
	RA	There are no formally defined roles and responsibilities for the development of a strategic plan.				
	SE	Minimum skills and knowledge in the field of strategic planning have been defined.				
	*	Risks are managed in an intuitive way.				
	*	There are evidences (eg. documents, records, ...) for substantiating of the claims above (where applicable).				
Number of statements: 7		Σ (capability level 2):	0	0	0	0

Table 2: Assessment indicators for each capability level of the Strategic plan development process (cont.)

STRATEGIC PLAN DEVELOPMENT						
The purpose of the strategic plan development process is to develop strategic goals within the Balanced Scorecard perspectives, to define critical success factors, to define key performance indicators and to determine the cause-effect relationship between goals.						
Level CL	General Attributes GA	INDICATORS	Not at all	A little	Quite a lot	Completely
3	PPP	There is a policy of developing a strategic plan.				
	PPP	The development of the strategic plan is aligned with the other plans of the institution.				
	PPP	There is a defined procedure for developing a strategic plan.				
	RA	Roles and responsibilities are defined for the development of a strategic plan.				
	SE	There are defined and documented skills and knowledge in the area of strategic planning.				
	SE	There is formal education for the development of a strategic plan.				
	TA	The tools for developing a strategic plan are used.				
	*	Risks are managed in a consistent manner.				
	*	There are evidences (eg. documents, records, ...) for substantiating of the claims above (where applicable).				
Number of statements: 9		Σ (capability level 3):	0	0	0	0

Table 2: Assessment indicators for each capability level of the Strategic plan development process (cont.)

STRATEGIC PLAN DEVELOPMENT						
The purpose of the strategic plan development process is to develop strategic goals within the Balanced Scorecard perspectives, to define critical success factors, to define key performance indicators and to determine the cause-effect relationship between goals.						
Level CL	General Attributes GA	INDICATORS	Not at all	A little	Quite a lot	Completely
4	PPP	Policies for developing a strategic plan are approved and focused on internal best practices.				
	PPP	There is a standardized procedure for developing a strategic plan.				
	TA	Tools that automate the development of a strategic plan are used.				
	SE	Roles and responsibilities for the development of the strategic plan are fully accepted.				
	RA	The necessary knowledge and skills in the area of strategic planning are being upgraded.				
	GM	The top management evaluates the success of the strategic plan development process.				
	*	All the resources required for the development of a strategic plan have been defined as well as the ways in which they are managed.				
	*	There are evidences (eg. documents, records, ...) for substantiating of the claims above (where applicable).				
Number of statements: 8		Σ(capability level 4):	0	0	0	0

Table 2: Assessment indicators for each capability level of the Strategic plan development process (cont.)

STRATEGIC PLAN DEVELOPMENT						
The purpose of the strategic plan development process is to develop strategic goals within the Balanced Scorecard perspectives, to define critical success factors, to define key performance indicators and to determine the cause-effect relationship between goals.						
Level CL	General Attributes GA	INDICATORS	Not at all	A little	Quite a lot	Completely
5	PPP	Policies for the development of a strategic plan are focused on external best practices.				
	PPP	The procedure for developing a strategic plan is completely sophisticated and documented.				
	TA	Tools that enable the improvement of the strategic plan development process are being used.				
	RA	All accepted responsibilities are cascaded throughout the institution.				
	SE	External best practices for implementing education for the development of a strategic plan are used.				
	SE	The necessary knowledge and skills in the area of strategic planning are continually improving.				
	GM	Modern Balanced Scorecard approaches to the development of a strategic plan and its connection with ICT are used.				
	*	Risks are continually managed.				
	*	There are evidences (eg. documents, records, ...) for substantiating of the claims above (where applicable).				
Number of statements: 9		Σ(capability level 5):	0	0	0	0

How to determine the HEI's total maturity level for implementation and monitoring of strategic decisions according to the OMM (ISO/IEC 33004:2015)?

The lowest maturity **level ML0 is IMMATURE**.

To generate the maturity level from assessed process capabilities according to the following rules (ISO/IEC 33004, 2015):

To achieve organizational maturity **ML1 (Basic)**, all processes assigned to level ML1 should achieve capability CL1 or more;

To achieve organizational maturity **ML2 (Managed)**, all processes assigned to level ML1 and ML2 should achieve capability CL2 or more;

To achieve organizational maturity **ML3 (Established)**, all processes assigned to level ML1, ML2 and ML3 should achieve capability CL3 or more;

To achieve organizational maturity **ML4 (Predictable)**, all processes assigned to level ML1, ML2, ML3 and ML4 should achieve capability CL3 or more; however at least one basic process set should achieve capability CL4 or more;

To achieve organizational maturity **ML5 (Innovating)**, all processes assigned to level ML1, ML2, ML3, ML4 and ML5 should achieve capability CL3 or more; however at least one basic process set should achieve capability CL5 or more.

- C. **In further research**, it is necessary to plan the improvements for implementation and monitoring of strategic decisions.

HEI should identify all weaknesses in the practice of implementation and monitoring of strategic decisions and define how to achieve the target maturity level.

2.2. Scientifically-based model with practical implementation

The second approach to the maturity model development is based on the design science paradigm and five-step methodology, as described in the paper from Pažur Aničić and Divjak (2015). The five-step methodology includes following steps, according to (Mettler 2010):

1. Identify a new need or opportunity
2. Define the scope
3. Design the model
4. Evaluate the design and
5. Reflect the evolution.

The final maturity model developed in the scope of the PhD thesis of Katarina Pažur Aničić contains 65 practices within four main key process areas: 13 within strategic planning, 26 within curriculum design and development, 16 within student support and 10 within extra-curricular activities. The final model was applied to four HEIs in Croatia. For the purpose of the goal D.3.3 and D.3.4 the key process are Strategic planning will further be elaborated and compared with the standard-based model described in 2.1. The strategic planning area contains 13 practices that are organized according to the four capability dimensions, based on the Deming PDCA cycle (Plan-Do-Check-Act). For each of the practice, there is a textual description of capability assessment criteria, also known as maturity levels, *on a kind of Likert scale as proposed by Marshall (2006a, p. 5; 2006b, p. 13): not assessed, not adequate, partially adequate, largely adequate and fully adequate. Maturity model elements are shown in Figure 2.*

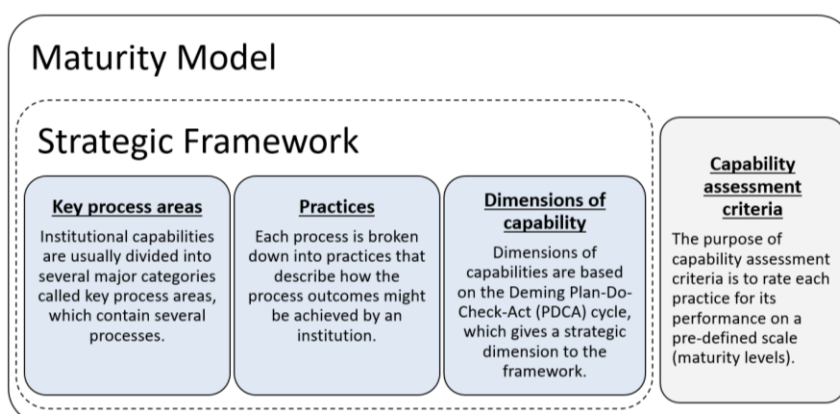


Figure 2. Elements of scientifically-based maturity model, [from (Pažur Aničić & Divjak 2015)]¹

¹ This figure is presented in the booklet “How to prepare students for the labour market challenges?” resulted from the project *Development of a model for supporting graduates’ early careers*

3. Comparison of two different approaches

Both of the described approaches (standard-based and scientifically-based) show some similarities – they both recognized strategy implementation as an iterative process which may be described with four phases of strategic decision making based on the Deming *plan-do-check-act* cycle. Within the theoretical model those steps represent maturity levels of the identified processes, while within the practical model they represent the capability dimensions of practices. Some of the main similarities and differences of the two described approaches are summarized within Table 3.

Table 3. Comparison of two approaches to strategy implementation

CRITERIA	Standard based OMM	Scientifically based with practical implementation
1 Backgrounds	Balanced Scorecard (BSC) method ISO/IEC 15504-7:2008 replaced by ISO/IEC 33004:2015 ISO/IEC 15289:2011 Cobit 4.1	Guidelines for design science in Information Systems Research (Hevner et al. 2004) Requirements for the development of maturity models (Becker et al. 2009) Elements of the design process of maturity models (Mettler 2010) CMM by Paulk, Weber, et al. (1993) E-learning maturity model (eMM) (Marshall 2006a; Marshall 2006b)
2 Process dimension and PDCA concept The key processes of strategy implementation assigned to the maturity levels from ML1 to ML5 within standard-based model and practices organized around main key process areas within scientifically-based model . Generally both approaches include planning phase, implementation, monitoring and evaluation (continuous improvement) (PDCA concept)	<u>PLAN</u> Strategic decision operationalization Definition of the strategic decision implementation plan (processes at maturity level 1 and maturity level 2) <u>DO</u> Communication of the strategic decision implementation plan (processes at maturity level 2 and maturity level 3) <u>CHECK</u> Control of strategic decision implementation activities	<u>PLAN</u> Procedures for (re)development of institutional strategies are defined. Institutional strategies are accompanied with action plans <u>DO</u> Institutional strategies are communicated across the HEI. <u>CHECK</u> Monitoring procedures regarding the implementation of institutional strategies are defined.

	<p>(processes at maturity level 2, maturity level 3 and maturity level 4)</p> <p><u>ACT</u> Improvement of strategic decision implementation activities</p> <p>(processes at maturity level 4 and maturity level 5)</p>	<p><u>ACT</u> Strategy success is analyzed before starting a new strategic planning process.</p>
3 Measurement framework	<p><u>2.1. MATURITY LEVELS</u> ML0 = immature; ML1 = basic ML2= managed ML3= established ML4= predictable ML5= innovating</p> <p><u>2.2. CAPABILITY LEVELS</u> CL0= non existent CL1= initial CL2= reputable/intuitive CL3= defined CL4= managed CL5= optimised</p> <p><u>2.3 GENERIC ATTRIBUTES FOR ASSESSMENT AND INDICATORS</u> 1. Awareness and Communication (AC) 2. Policies, Plans and Procedures (PPP) 3. Tools and Automation (TA) 4. Skills and Expertise (SE) 5. Responsibility and Accountability (RA) 6. Goal Setting and Measurement (GM)</p>	<p><u>CAPABILITY ASSESSMENT CRITERIA</u> Textual descriptions of each maturity level for each practice at five maturity levels: Not assessed, Initial Partially adequate, Largely adequate Fully adequate</p> <p><u>CAPABILITY DIMENSIONS</u> Plan Do Check Act</p>

	<u>2.4 SCALE</u>	<u>SCALE (CAPABILITY ASSESSMENT CRITERIA/MATURITY LEVELS):</u>
	A special rating scale (NA – not applied (0-15%); PA – partially achieved (15-50%); LA – largely achieved (50-85%); FA – fully achieved (85-100%)) was used for the assessment.	Not assessed Initial Partially adequate Largely adequate Fully adequate
4. Quality management – both models contain quality management approach as they assess the current maturity level and provide guidelines for further improvements	Included as one of the main processes	Contained within all key process areas in model, as the practices are divided into four steps that characterize quality assurance – plan, do, check and act

4. Initial set of indicators for the strategy implementation and monitoring

This chapter presents the **initial set of assessment indicators** for strategy implementation and monitoring based on the combination from the highest level of maturity for practices from the scientifically-based model and the indicators from the standard-based model. Indicators are presented in a form which can serve as a checklist for higher education institution to analyse their process of strategy implementation and monitoring.

PLANNING PHASE (PLAN)

1. Procedures for (re)development of institutional strategies are defined, defining key components of the organizational structure - roles, responsibilities, communication.

- ☐ There is awareness of the importance of developing a strategic plan (AC).
- ☐ Procedures for (re)development of institutional strategies are formally defined - There is a policy of developing a strategic plan (PPP).
- ☐ Procedures for developing a strategic plan are standardized available to all staff, used consistently in defined timeframes and the process of their application is documented for further improvements (PPP).
- ☐ The procedure for developing a strategic plan is completely sophisticated and documented (PPP).
- ☐ Policies for the development of a strategic plan are focused on external best practices (PPP).
- ☐ Relevant internal (students, teaching and non-teaching staff) and external stakeholders (alumni, employers) are included in the process of strategy planning (AC).

IMPLEMENTATION PHASE (DO)

2. Institutional strategies are accompanied with action plans that links strategic objectives with potential strategic initiatives and define the ways they can be realized.

- ☐ Institutional strategies are supported by formal action plans (PPP).
- ☐ Action plans are approved by institutional management (AC).
- ☐ Action plans cover all aspects of strategy, including the strict definition of activities, goals and deadlines (critical success factors and key performance indicator), as well as reporting instructions (PPP).
- ☐ The development of the strategic plan is aligned with the other plans of the institution (PPP).

3. Institutional strategies are communicated across the HEI to ensure the awareness and understanding of business objectives and ways to achieve them.

- ☐ Institutional strategies are available through an institutional document repository (AC).

- ☐ Information about the availability of strategic plans is distributed across the institution (AC).
- ☐ All accepted responsibilities are cascaded throughout the institution (RA).
- ☐ Instructions on the expected use of strategy by particular organizational units are provided, supported by guidelines and reporting documentation regarding strategy success (PPP).

MONITORING PHASE (CHECK)

4. Monitoring procedures regarding the implementation of institutional strategies are defined, they ensure the execution of the measurement and other evaluation processes for the purpose of reporting on the progress of implementing strategic decisions and improvement possibilities

- ☐ Institution has formally defined procedures based on the reports from action plans (PPP).
- ☐ Those procedure are available to the staff (AC).
- ☐ Procedures are used consistently for monitoring of strategy implementation (PPP/GM).
- ☐ The results of monitoring are documented for further improvements (PPP/GM).
- ☐ There are evidences (eg. documents, records, ...) for substantiating of the claims above (where applicable) *.

5. Reports on success of action plans are collected from different organizational units.

- ☐ Success reports of action plans are collected annually from all organizational units (PPP).
- ☐ Those reports are prepared according to formal instructions and including information about all the set activities, goals and deadlines (PPP).
- ☐ The top management evaluates the success of the strategic plan development process (GM).

CONTINUOUS IMPROVEMENT PHASE (ACT)

6. Compliance of strategy with changes in the external and internal environment is checked.

- ☐ Compliance of strategy with changes in the external or internal environment is formally checked on a regular basis (AC).
- ☐ Results are used consistently to guide decisions about further improvements, with documented reflection (GM).
- ☐ External best practices for implementing education for the development of a strategic plan are used (SE).

7. Strategy success is analyzed before starting a new strategic planning process in order to successfully (on time, with minimal risks, taking into account all aspects and affected processes and stakeholders) improves the process of strategic decision implementation and improves the strategic map based on the analysis of control results.

- ☐ Strategy success is formally analyzed, including all the data from reports on action plans (PPP).
- ☐ Based on the analysis of actions plans, the documented suggestions for improvements in the next strategic planning cycle are prepared (GM).
- ☐ Tools that enable the improvement of the strategic plan development process are being used (TA).
- ☐ The necessary knowledge and skills in the area of strategic planning are continually improving (SE).

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