

LIFELONG LEARNING PROGRAMME

## International Internship AGORA (I2AGORA)

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# Lessons-learnt – Evaluation of Internship 2.0 by I2AGORA Partners

Deliverable D3.2.1.

WP3. – Internship 2.0- involvement of students in survey, modelling and implementation

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Confidential report

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Lifelong  
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## INTRODUCTION

The concept of Internship 2.0 is based on the concept of Web 2.0 and enhanced learning (eLearning). Internship 2.0 supports work placement programmes at local and international levels. In I2AGORA Internship 2.0 is based on Open Educational resources and the new Web 2.0 technologies which provide user-friendly, easy-to-adopt possibilities for the new „digital learners”, wishing to test/implement any of the virtual/blended internship models in their practice, even before their home university can/wishes to launch and support flexible modality work placement options.

In the I2AGORA project the Internship 2.0 problem area was analysed through a three dimensional framework which was named the Magic Cube. Magic Cube dimensions were one starting point for evaluation of Internship 2.0. In this report the Magic Cube dimensions were refined: Stakeholders dimension was refined to a multilayer purposeful system, Vertical chronological dimension was refined to Internship Application Stage, Beginning Stage, Internship and Tutoring Stage, Post-Internship Stage, Horizontal dimension was refined to Formal Features, Culture and Competences, Infrastructure and Technology Transfer. In addition to the refinements a Maturity Model was developed to support Internship 2.0 related development activities.

Another starting point was Internship 2.0 experiences extracted in the WP5, where I2AGORA partners analysed Internship related EU Projects. Third starting point was tacit Internship 2.0 knowledge of I2AGORA partners.

Students' involvement in in the I2AGORA development process is described in the “WP3. Internship 2.0-involvement of students in survey, modelling and implementation” report, which is one part of I2AGORA deliverables: D3.2 Lessons-learnt – evaluation of Internship 2.0.

This report is based on Internship 2.0 experiences related to I2AGORA related pilots and analysed Internship related EU projects (WP5) and tacit knowledge of I2AGORA project participants. The Pedagogical patterns are included in overall level. More of Pedagogical patterns are discussed in the public report “D5.1.3 WP5 -Guidelines and Pedagogical Patterns based on good practice examples”.

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# 1. SYSTEMIC UNDERSTANDING OF THE INTERNSHIP 2.0 PROBLEM AREA

## 1.1 THE PROBLEM DOMAIN

Internship 2.0 related collaboration is based on balanced coordination of: Teaching and Learning Activities, Research and Development Activities with The Needs of Work Life and Society. Internship 2.0 benefits from flexible combination of virtual and physical internships and the use of modern IT based collaboration technologies.

### The Problem Domain



Figure 1. Internship 2.0 Collaboration Maturity Domain

## 1.2 MULTILAYER PURPOSEFUL SYSTEM

Internships are based on networking entities where Higher Education (HE) collaborates with other institutions and work life locally, nationally and internationally. One specific HE Institution belongs to several collaboration networks with varying maturity levels. Higher Education Institutions can be understood as purposeful systems with interacting layers like:

- Layer of Collaboration Ecosystems Lifecycle Management
- Layer of University and its Collaboration Networks
- Layer of Faculties and Curriculum
- Layer of Internships, Courses and Learning Tasks

### 1.3 DEVELOPMENT VIEWPOINTS

Three view points on every layer cover most of the Internship 2.0 related development challenges:

- Formal features (Internship related Paradigms, Paradigm Shifts, Data and Metadata)
- Culture, Practices and Competences (Learning, Teaching, Tutoring, Collaboration)
- Infrastructure, tools and related support (Internship related Collaboration platforms, Generic Tools, Professional Tools and Information Management Systems)

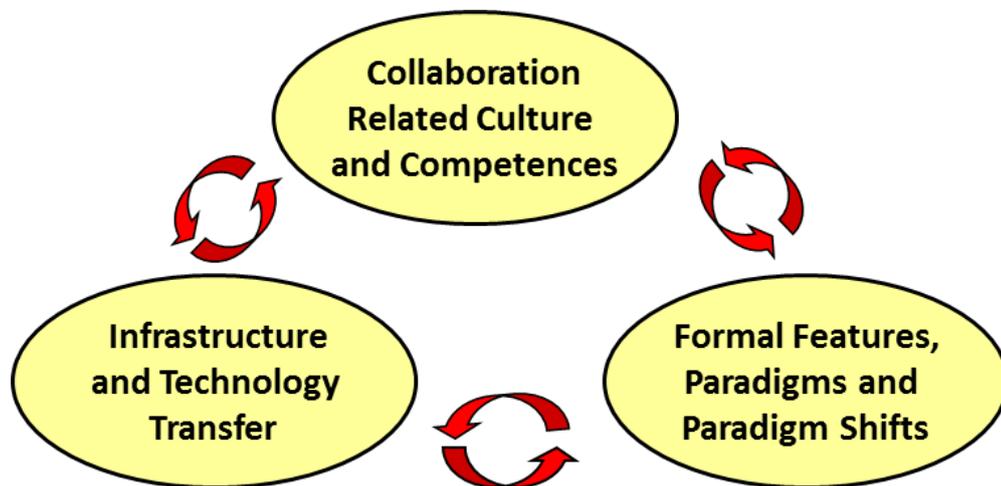


Figure 2. Development Viewpoints

These development viewpoints can be utilised in the evaluation of Internship Maturity Levels of networking educational organisations and in the specification of actionable development activities on networking layers.

## 1.4 INTERNSHIP COLLABORATION MATURITY

Internship collaboration maturity should be compatible on all layers of the networking organisation. This means that increase of collaboration maturity on one level increases the pressure for change on other layers. Internship related collaboration maturity levels could be classified as stages:

- **Stage 4: Advanced Collaboration.** Collaboration networks are created and guided systematically to achieve strategic competitive advantages.
- **Stage 3: Formally Organized Collaboration Culture.** Collaboration culture is based on formal practices which are in concordance with informal practices.
- **Stage 2: Informal Collaboration Culture.** Organisational culture supports collaborative networking, but collaboration is not formally guided.
- **Stage 1: Ad Hoc Collaboration.** Organisation takes part in collaboration networks weakly resourced and guided.
- **Stage 0: Minimal Collaboration.** Networking collaboration is based occasional interests of individual persons.

## 2. INTERNSHIP PROCESS

In this report Pre-Internship stage is divided in to two stages: Application Stage and Beginning Stage. The latter can overlap the actual internship also. This refinement was done because of the importance of Pedagogical Alignment in the Internship process. The Internship process could be divided in to following sections:

- **Internship Application Stage** Alignment of goals and assessment criteria to student's and work life needs
- **Beginning Stage** Ensuring sound start of the internship
- **Internship and Tutoring Stage** Tutoring paradigms, roles and responsibilities.  
Gradually increasing self-directness of the student.
- **Post-Internship Stage** Assessment and Metacognition of the results and Internship process

### 3. INTERACTING LAYERS

Internship related collaborative networks and structures of HE organisations can be described as a purposeful system with hierarchical interacting layers. These layers are managed in different level of organisation. Therefore the interaction between layers is important for different functions.

#### 3.1 LAYER OF COLLABORATIVE NETWORKS

Layer of Collaborative Networks is the base which facilitates development and utilisation of Internship 2.0 related features. Collaborative networks are ecosystems which have a life span and a maturity level. They reflect organisational learning on collaboration activities.

Integrating teaching and learning activities with research, development and innovation activities to serve society and work life is one of the critical success factors of universities. The layer is responsible of the designing, execution, evaluation and development of Internship collaboration settings in the value networks which the university participates. The layer responses the needs of 1) students' vocational growth, 2) work life requirements and 3) pedagogical development

This layer should cover all the activities of special action point in network. Action points are the points in which different organisation or actors meet and function. The notification of these action points is needed in order to manage and facilitate the collaboration.

#### 3.2 LAYER OF FACULTIES AND CURRICULUMS

Layer of Faculties and Curriculums frames Internship related possibilities in formal education. The level of strategic partnerships, collaboration culture and supporting technology and infrastructure describe collaboration maturity on this layer. In practical point of view, employees that do the actual work within internships are needed to have agreements on organisational level in order guide students and develop internship possibilities.

#### 3.3 LAYER OF INTERNSHIPS, COURSES AND LEARNING TASKS

Internships are directly connected to formal learning through courses and learning tasks. Courses and learning tasks develop the competences needed in internships. Internships can substitute courses or groups of courses. Internships include and are guided through learning tasks. Academic and work tutoring are essential facilitators.

## 4. DEVELOPMENT VIEW POINTS

Development viewpoints are applicable on every layer.

- Formal features
- Culture, Practices and Competences
- Infrastructure, tools and related support

In the sense of Soft System Methodology (Checkland, 1981) the specified layers and development viewpoints specify the world view of this analysis.

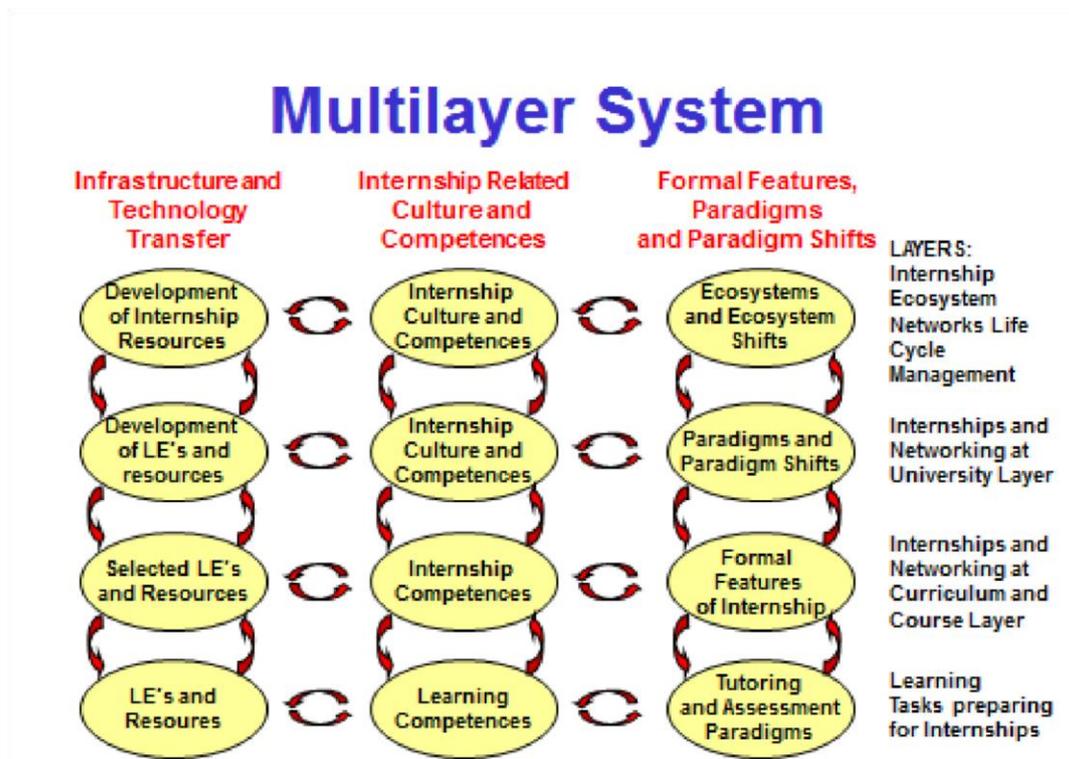


Figure 3. The Multilayer Purposeful System for Internship 2.0

### 4.1 INTERNSHIPS AND ORGANISATIONAL LEARNING

In this context organisational learning can be described through layer specific development of Collaboration culture and competences, Information technology development and user support, and Formal Internship collaboration related features. As part of organisational learning the aspect of culture becomes crucial. In Higher Educational Institutes the learning aspect of the students is their main target. But as you change the point of view to your own cultural beliefs and manners, you need to consider the way of doing things. As being also in collaboration within other cultures and learning capabilities, there is need to consider learning aspect as a strategic competence of an organisation.

## 5. THE IMPLEMENTATION OF INTERNSHIP 2.0

The implementation of Internship 2.0 in higher education collaboration networks is a multilayer innovation process with many simultaneous innovations. Most of the innovations can be classified to three viewpoints of this presentation. On a specific layer development activities should be in balance with other layers and these three viewpoints. Formal and Informal features of paradigm shifts are needed simultaneously for successful implementation. There are four preconditions for successful paradigm shifts:

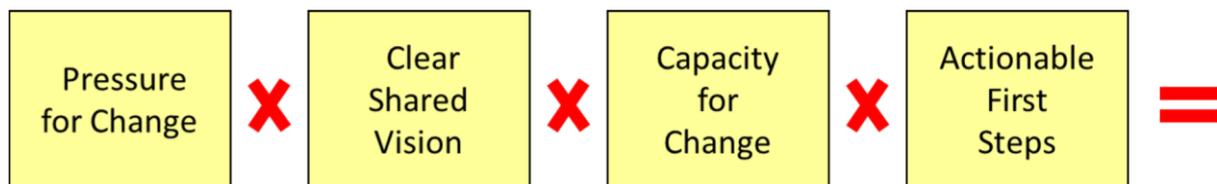


Figure 4. Successful Paradigm Shift

If any of these elements is missing, the paradigm shift will fail (de Woot 1996). Paradigms affect to what kind of Internship related resources are needed – And Internship resources affect to what kind of paradigms can be used or developed. Paradigm shifts, reorganizing of purposeful entities and development of resources are organizational development tools.

This is a clear implication of noticing the need of change in specific area of developing internships. This can be notified for example of the statistical and qualitative feedback from the student, entrepreneurs and collaborative organisations. The pressure for change is the power for actions.

Not going deeply to the shared vision, it is needed to discuss the vision also in the political, regional and organisational level. Every organisation takes into account the amount of resources that can be given to the development of internships. In different organisations the need for individual targets are more likely than common vision. It should be noticed that the time needed for the discussions of shared view with the internship partners is preferable in order to gain results in collaboration network. As in the level of organisational visions, single actor cannot decide the resources, but can make sure that the discussions within network are similar to the organisational vision.

Actionable steps depend on the capabilities of organisation, individual actor, students, mentors etc.

## 6. MATURITY STATUS AND DEVELOPMENT ACTIVITIES

Organisational shared understanding of layer specific collaboration maturity is needed to facilitate identification of actionable development steps. Actionable development steps are culturally acceptable and technically possible.

Levels	Current Maturity Level	Actionable Development Steps
Layer of Collaboration Ecosystems Life Cycle Management		
Layer of Networking Universities		
Collaboration at Curriculum and University Layer		
Collaboration at the Layer of Learning Tasks		

Table 1. Maturity Status and Actionable Development Steps

This table could be used to support purposeful Internship 2.0 Innovation process. The three development viewpoint should guide attention in the creation of shared understanding of Current Maturity Levels and Actionable Development Steps.

## 7. INTERNSHIP PROCESS AND LESSONS LEARNT

### 7.1 APPLICATION STAGE

Application Stage is based on Internship Call, if Internship is organised by university collaboration network. The Internship call contains information which supports purposeful recruitment and pedagogical alignment. It should give answers: How applicants verify or demonstrate required competences. How student, academic tutor and Internship tutor achieve shared understanding about Goal Objectives and Expected Outcomes. Shared understanding facilitates Internship related working, learning, guiding, mentoring, metacognition and assessment activities.

Experiences based on analysed EU projects, evaluating and analysing the objectives of the internship, is considered as the main tasks for every stakeholder like student, home university or mentor<sup>1</sup>. The learning objectives should be clear to all parties. First contact to student

<sup>1</sup> Note that in International work placement the mentor is the person who works in a company. In international exchange the Mentor can be the academic mentor in home or exchange HEI's.

mentor relationship needs to be facilitated. Before departure, quality check needs to be done. Student must have advisory personnel, who can answer to his/hers questions concerning the application procedure. Also the requirement level and content should be clearly specified (i.e. language, learning capabilities, social & cultural skills and independency of student). Working and learning plan is an important tool for student, but also to the organisation in which the student will be working/learning. Advisory personnel should clearly recognise the need for students financial, insurance and accommodation issues.

## 7.2 BEGINNING STAGE

Beginning Stage ensures sound start and running of the Internship process. If there is a gap between required skills and student's actual skills, that is a problem which we have to take seriously. These skills can be related to personal, informal (learning, independence) or formal skills like technical and language skills. Are we able to minimise the gap? What does it mean for student, academic tutor, Internship tutor and the whole Internship Process? This is called Pedagogical Alignment.

Blooms revised two-dimensional taxonomy could be used to describe the required skills and goal objectives. The taxonomy helps to describe the levels of knowledge and cognition related to required competences, internship related learning goals and Goal objectives.

## 7.3 INTERNSHIP AND TUTORING STAGE

During the Internship the host tutor plays main role in support learning. If problems arise, consultations with host tutor or mentor should be organised. In work placements meetings with co-workers at work place should be organised. In this stage advisory staff can prepare supporting materials in order support experimental learning to facilitate self-evaluation of learning results. This can be done also in virtual environment. Monitoring the learning process, online discussions helps the students get support from peer-to-peer and virtually from tutors. Online portfolio can be used as evaluation method but also as monitoring the internship.

## 7.4 POST-INTERNSHIP STAGE

Post internship stage includes all actions which should be taken care of after the internship is finished. Finalising the self-evaluation of the student, feedback from the host university and the company are important tools for developing internship processes. Practical issues like accommodation, integrating the student back to home university. Gathering the good

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practises and identifying learning outcomes is also important for students' point of view. Student, whose experience from abroad has been successful, will recommend studying abroad to other students. It should be noticed that the change in students' abilities and the learning outcomes does not necessary show immediately after the internship. Therefore it is important to be in contact with the student also when the time has gone in reasonable way. Keeping in touch with the company and foreign university helps maintain the network for other students and is important in the means of relationships.

In Figure 5. it is stated the meaning of the stages in the placement process.

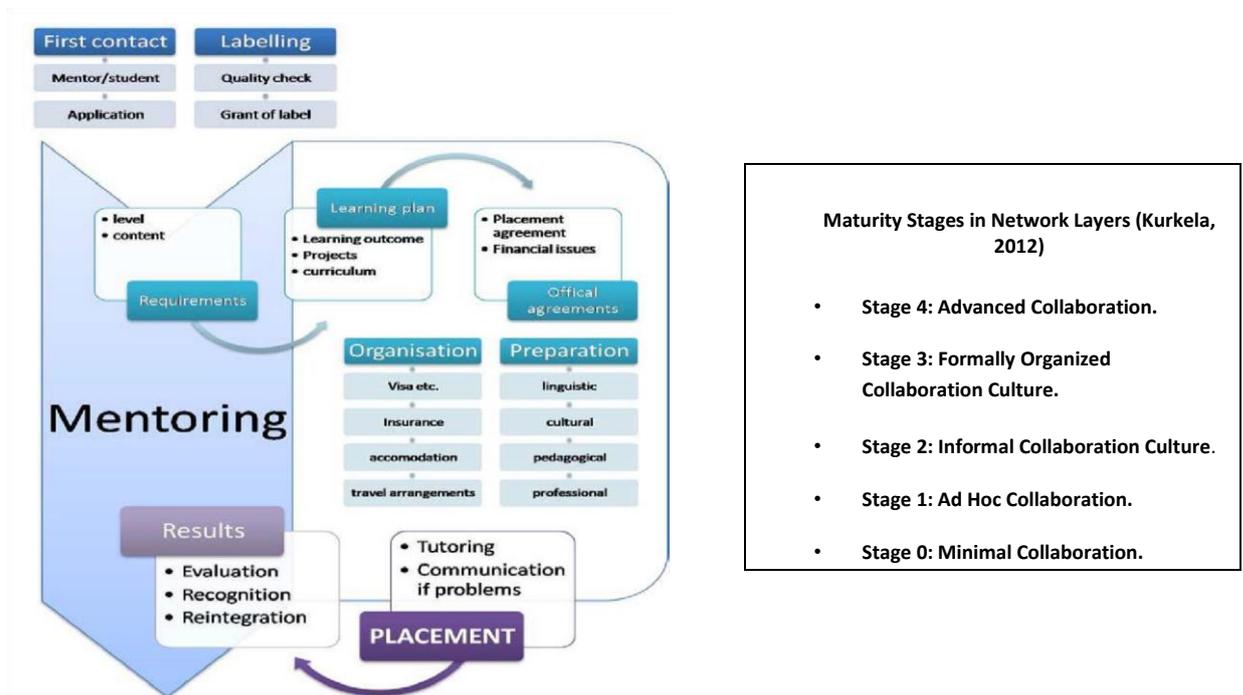


Figure 5. Flowchart as a checklist for organisation of placements (QPlanet, Quality Placement Network, Guidelines for organisation of student placements, 2010, 9., Kurkela 2012)

As mentioned in Figure 5, Q-Planet project described the process of work placement within three different levels in which the actors are mentor, tutor and the student. As evaluated in I2AGORA project this process can be interpreted as if there were three actors in placement process network. It includes collaborative networks, whose maturity level can be analysed as presented in Table 1 (Maturity Status) Internship Collaboration Maturity. This should be compatible on all layers of the networking organisation, but included also the Partner organisations which receive student for placement and international exchange.

In every step through the process there can be analysed different stages. With these tasks organisations can evaluate their development spots and make action plan that supports the process as a whole. This can help to identify the interdependencies between different actions and stages. At best, this kind of analysis helps to divide resources efficiently where they are most needed.

## 8. PEDAGOGICAL PATTERNS

Pedagogical Patterns were asked from the I2AGORA partnership network during summer 2012. Partners described different pedagogical patterns that were identified during the project evaluation. Partners were asked to fill in a form (attachment 1) in which each pattern was identified and described. Of 26 projects that were divided to different partners for analysis, there were identified 7 common pedagogical patterns that occur in different stages of the internship. In this report these pedagogical patterns are described as common practices and for future research. All patterns are qualitatively at the same level. Numbering different patterns is only for the reader to help him/her to get quick overview. Experiences based on analysed EU projects like Q-Planet, EUE-Net, ESMOS and TACTIC shows that Internships can and should be divided into different stages. Formal modelling helps involving partners to organize and develop Internships as a whole. Formal modelling also helps not to forget different stakeholder's actions in different stages.

Pedagogical patterns are described as follows:

### 1.) DEVELOPMENT OF THE QUALITY OF INTERNSHIP NETWORKS

European Network and standards for international placement is needed for common interest and acknowledgement of skills acquired during internship. The quality of internship networks includes good connections between organisations; both universities and companies. Main actors of developing the quality of internships are the tutors, mentors and educational designers in universities in the network. Home university needs to know where they are sending their students. Sometimes it is hard to know good company abroad for work placements. The quality of network means also, that basic common issues have been managed well. As an example the university abroad (or Quality Center) has already information about the company or institution where the student is planning to go. Quality Center abroad has also practical information of the local issues. Quality of networks also includes the network of disciplines like entrepreneurship, social sciences, technology, nursing or education.

### 2.) BLENDED SUPPORT FOR THE LEARNING PROCESS IN INTERNATIONAL PHYSICAL INTERNSHIPS

International student mobility (be it for study or for an internship abroad) requires long term commitment and careful planning from the student. To make the most of an international exchange, students should prepare well before and be able to reflect on their learning

experience during and after their exchange. Often the preparation of students who are going abroad is not sufficient and they lack information on practical arrangements, study or internship opportunities, learning outcomes, cultural aspects, etc. Also not only the more practical aspects of the exchange as such should be supported but the students' learning process as whole. Institutions should prepare students well before letting them go on an exchange and give as much information and support as possible. This can be done in many different ways and can also be done both face-to-face and online.

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### 3.) COLLABORATION MATURITY LEVELS AND INTERNSHIP PROCESS DEVELOPMENT

Collaboration Maturity on all levels of the networking universities has an effect on actionable development activities of the internship process. This Pattern outlines the Collaboration Maturity Levels and proposes a networking university specific maturity description from three development points of view which helps to find out shared understanding and actionable development activities of the problem area. Development of Internship related collaboration is an organisational learning and innovation process which affect all levels of networking universities. In a purposeful system the learning of one subsystem must be aligned to its current collaboration maturity and maturity of other subsystems of the networking university. The development process of Collaboration Maturity is an organisational learning process where parallel, coordinated, innovations proceed on several layer of the networking university. The problem of Maturity stages are described more precisely earlier in this report and it concerns every stage of the internship. There is no restriction to development question in process development.

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### 4.) INTERNSHIPS AND LEARNING OBJECTIVES

Collaboration Maturity on all levels of the networking universities has an effect on actionable development activities of the internship process. This Pattern outlines the Collaboration Maturity Levels and proposes a networking university specific maturity description from three development points of view which helps to find out shared understanding and actionable development activities of the problem area. Development of Internship related collaboration is an organisational learning and innovation process which affect all levels of networking universities. In a purposeful system the learning of one subsystem must be aligned to its current collaboration maturity and maturity of other subsystems of the networking university. The development process of Collaboration Maturity is an organisational learning process where parallel, coordinated, innovations proceed on several layer of the networking university. The problem of Maturity stages are described more precisely earlier in this report and it concerns every stage of the internship. There is no restriction to development question in process development.

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## 5.) RISK OF FAILURE AND PEDAGOGICAL ALIGNMENT

Pedagogical Alignment is a process where Internship related Goal Objectives, Internship Activities and Assessment of Outcomes are adapted to each other in a balanced way to support learner's vocational growth. Shortages in the Pedagogical Alignment Process lead to difficulties or failures in the Internship Process. Pedagogical Alignment is an important success factor for international internships. There are three main options related to Pedagogical alignment possibilities: 1) Internships within partner universities, 2) Internships within university-enterprise partners, 3) Direct student-enterprise internships.

Pedagogical Alignment is needed to balance:

- Compatibility between student's vocational growth and Internship experience
- Student's formal and non-formal competencies to Internship related competence requirements
- Intercultural differences
- Goal objectives to Assessment of Internship Outcomes

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## 6.) LEARNING IN ACTION IN INTERNATIONAL WORK PLACEMENTS

Practice must be defined, as part of curriculum, in terms of clear features. Learning objectives should be clear in mind of student and working life and academic tutors (mentors). Workplace learning gives opportunities in action learning processes to students and mentors. Workplace learning combines theoretic and practical knowledge. Aim of the work placement is to increase the working skills and enable the student gain skills that are needed in working life. It is important for higher educational institutions to plan and to create good placements for students in order to keep the quality of education in good level internationally. Therefore work placements needs to be planned carefully.

Especially in international work placements cultural differences may affect to learning outcomes. Students and universities use huge amount of effort to organize international work placements. To gain good experiences and notable skills it is important for students and HEI's that international work placements are successful.

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## 7.) EXPERIMENTAL LEARNING IN NON-FORMAL EDUCATION

In project meetings and the use of manual the pedagogical approach was based on non-formal education principles in which the participants are central in the learning process. It is presumable that also in case of virtual mobility the non-formal education is preferred. Students don't necessarily have non-formal communities in which they can create and innovate. There is also indicated methods of experimental learning i.e. discussions, simulations, role plays (role of mentor/tutor/trainees etc. In order to facilitate non-formal education, educational designers must take into consideration that during the internships students need help to settle in to the new environment. These non-formal situations are extremely important when creating trust and innovations in communities. Students can be shy at the beginning of internship and this stage is important for the whole success of internship experience.

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