

Frances Watts, Amparo García-Carbonell &  
M<sup>a</sup> Ángeles Andreu-Andrés (eds.)

# INNOVATION COMPETENCIES DEVELOPMENT

INCODE Barometer  
and User Guide



TURUN AMMATTIKORKEAKOULU  
TURKU UNIVERSITY OF APPLIED SCIENCES

Frances Watts, Amparo García-Carbonell &  
M<sup>a</sup> Ángeles Andreu-Andrés (eds.)

# INNOVATION COMPETENCIES DEVELOPMENT

INCODE Barometer  
and User Guide



Hochschule für Angewandte  
Wissenschaften Hamburg  
*Hamburg University of Applied Sciences*



Innovation Competencies Development – INCODE  
518132-LLP-I-2011-I-FI-ERASMUS-FEXI

The project has been funded with support from the European Commission. The publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Course Material from Turku University of Applied Sciences 82

Turku University of Applied Sciences  
Turku 2013

ISBN 978-952-216-415-5 (printed)

ISSN 1457-7933 (printed)

Printed by Suomen yliopistopaino – Juvenes Print Oy, Tampere 2013

ISBN 978-952-216-425-4 (PDF, 2. edition)

ISSN 1796-9972 (electronic)

Distribution: <http://loki.turkuamk.fi>



# THE INCODE PROJECT TEAMS

## TURKU UNIVERSITY OF APPLIED SCIENCES – FINLAND

Liisa Kairisto-Mertanen  
Jouko Lehtonen  
Ari Putkonen

Annariikka Kyllönen  
Sami Lyytinen  
Jussi Riihiranta

Harri Lappalainen  
Taru Penttilä  
Meiju Räsänen

## HAMBURG UNIVERSITY OF APPLIED SCIENCES – GERMANY

Helmut Helker

Helmut Laberenz

Christiane Stange

## KAREL DE GROTE UNIVERSITY COLLEGE ANTWERP – BELGIUM

Emiel Billiet  
Rudi Penne

Jef De Wachter  
Erwin Smet

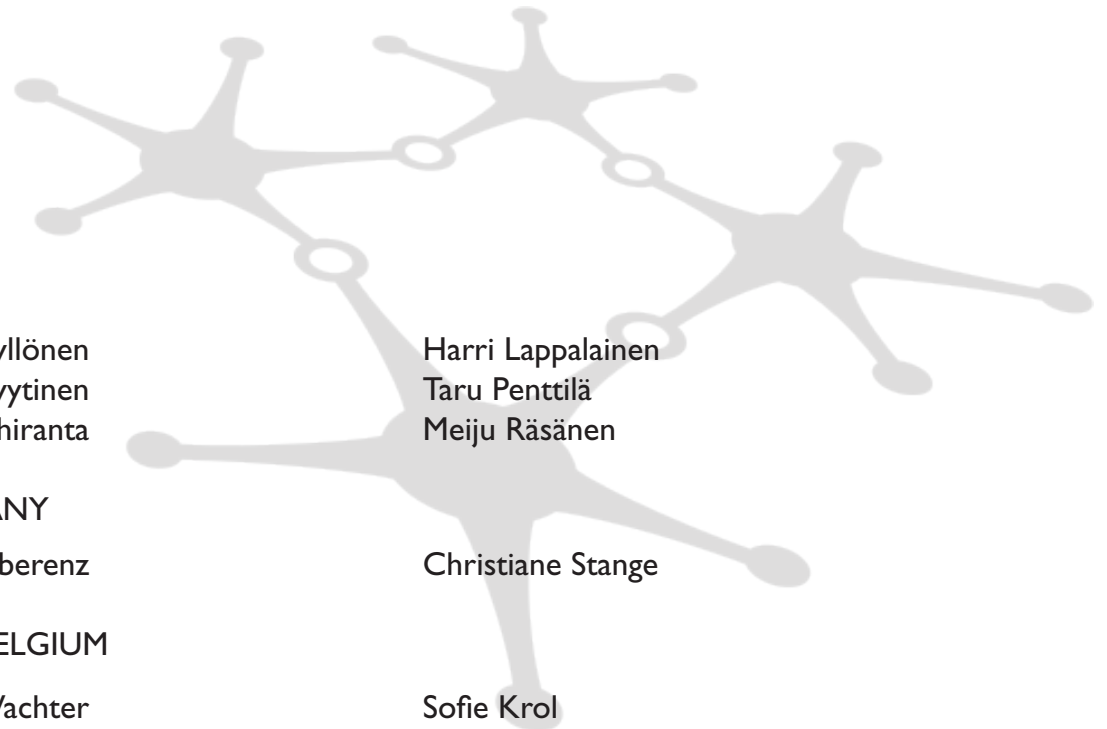
Sofie Krol  
Jan Trommelmans

## UNIVERSITAT POLITÈCNICA DE VALÈNCIA – SPAIN

M<sup>a</sup> Ángeles Andreu-Andrés  
Amparo Fernández March  
Juan A. Marín-García  
María José Pérez Peñalver

Lorena Atarés  
Amparo García-Carbonell  
Begoña Montero  
Isidora Sanz-Berzosa

Lourdes E. Aznar-Mas  
Fernando González-Ladrón-de-Guevara  
Javier Orozco-Messana  
Frances Watts





# USING THE INNOVATION COMPETENCIES DEVELOPMENT BAROMETER

The planning of a curriculum design includes the setting of learning objectives and intended outcomes, which in turn gives way to the selection of teaching methods and the design of assessment tasks that will lead to the expected outcome, as in the case of the innovation competence development.

“Innovation” means different things to different people. For some, it is the introduction of a novelty, something radically new, an idea, a method, a device, an invention. For others, innovation is the improvement of something that already exists. For still others, to be considered innovation, that something must be useful to people, or organisations, and meet their needs. In other words, innovation has an inherent social dimension that makes it transcend mere invention or enhancement of a product or process. The competence for innovation in its diverse facets can thus be considered a cluster of separate, at times overlapping, competences, capacities and skills, which all together can be regarded as innovation competence.

The Innovation Competencies Development (INCODE) Barometer is intended to aid in the development and assessment of innovation competence in a higher education setting. It can be used in self-assessment for formative purposes to engage students in directing their own learning through reflection on what innovation competence entails. Likewise, providing the opportunities for peer assessment in the process of learning within a course encourages collaborative learning and helps students learn to give and receive feedback. The INCODE Barometer can be used by the teacher from the design phase of a course to the different activities of formative assessment throughout the course and of summative assessment, in which decisions must be made regarding the achievement of learning objectives and the awarding of final grades.

In keeping with the definition of innovation competence, the INCODE Barometer is a scoring rubric that considers three dimensions of capacities and skills: individual, interpersonal and networking<sup>1</sup>. The individual capacity integrates the behaviours or skills that allow a person to innovate in the personal execution of tasks. The interpersonal capacity enhances the individual ability to innovate through the interaction with a group and represents the behaviours or skills that make others move towards the objective. The networking capacity represents the behaviours or skills that enable a group to find appropriate solutions in the process of completing tasks in a broader environment than usual.

To help train the rater, the INCODE Barometer can be aligned with the context of the discipline in which it is used by adding representative written or video-recorded examples that show the different dimensions, capacities and skills in context. Three examples are presented here following the rubrics. Providing raters with a frame of reference will help to prevent them from making arbitrary inferences about performance. Training teachers and students to use the INCODE Barometer to rate performance is of utmost importance. Rater training, therefore, should be integrated into curriculum design to facilitate and assure the quality of results.

---

1. Different scales and descriptors of behaviour in self, peer or teacher assessment can be adjusted to fit the purpose and context of use.

# WHAT DOES THE INCODE BAROMETER AND USER GUIDE INCLUDE?

The INCODE Barometer and User Guide includes an Innovation Competencies Barometer to assess innovation competence performance in teacher/peer assessment (rubrics 1, 2 & 3) and self assessment (rubrics 4, 5 & 6). The rubrics offer a choice of scale, with points 1–10 and a category for *Not observed* or *Not demonstrated* (pages 6 & 9), as well as five descriptors of behaviour which adjusts the scale to five points (pages 7 & 10). The Barometer can similarly be amended to a three-point scale in order to fit the purpose and context of use (pages 8 & 11).

The Guide also includes three examples of alignment with context: Malnutrition in Retirement Homes (example 1, pages 12 & 13); The Campus Bike Project (example 2, pages 14 & 15) and Project TMO (example 3, pages 16 & 17). The examples present possible behaviour corresponding to each indicator. General recommendations on how to implement teacher/peer and self assessment (page 18) are provided to conclude the INCODE Barometer and User Guide.

Name of student		Not observed / not demonstrated	Very Poor		Needs to improve		Pass		Good		Excellent	
In the activities in class, the student:			1	2	3	4	5	6	7	8	9	10
		0	1	2	3	4	5	6	7	8	9	10
	INDIVIDUAL											
1	Presents ideas that are suitable for the task											
2	Presents creative ideas											
3	Presents new ways to implement ideas											
4	Evaluates the advantages and disadvantages of actions											
5	Identifies relationships among different components of the task											
6	Faces the task from different points of view											
7	Uses available resources ingeniously											
8	Foresees how events will develop											
9	Shows enthusiasm											
10	Persistently pursues the goals											
11	Takes daring yet reasonable risks											
12	Orients the task towards the target											
	INTERPERSONAL											
13	Transmits ideas effectively											
14	Listens to teammates											
15	Establishes constructive group relationships through dialogue											
16	Collaborates actively											
17	Contributes to group functioning											
18	Takes initiatives											
19	Drives others to act											
20	Faces conflicts with flexibility to reach agreements											
	NETWORKING											
21	Applies ethical values											
22	Takes into account the implications of the task for society											
23	Is able to work in multidisciplinary environments											
24	Is able to work in multicultural environments											
25	Uses networking contacts to reach goals											

**RUBRIC 1.**  
*Assessment  
of innovation  
competence  
performance  
(scale 1–10).*

Please do  
not leave any  
blanks. Not  
all assessment  
tasks and  
situations are  
conductive to  
demonstrating  
all of the  
capacities  
and skills to  
which the items  
refer; in such  
cases “0” is  
the appropriate  
response.

Name of student		Not observed / not demonstrated	Very Poor	Needs to improve	Pass	Good	Excellent
In the activities in class, the student:		0	1	2	3	4	5
	<b>INDIVIDUAL</b>						
1	Presents ideas that are suitable for the task						
2	Presents creative ideas						
3	Presents new ways to implement ideas						
4	Evaluates the advantages and disadvantages of actions						
5	Identifies relationships among different components of the task						
6	Faces the task from different points of view						
7	Uses available resources ingeniously						
8	Foresees how events will develop						
9	Shows enthusiasm						
10	Persistently pursues the goals						
11	Takes daring yet reasonable risks						
12	Orients the task towards the target						
	<b>INTERPERSONAL</b>						
13	Transmits ideas effectively						
14	Listens to teammates						
15	Establishes constructive group relationships through dialogue						
16	Collaborates actively						
17	Contributes to group functioning						
18	Takes initiatives						
19	Drives others to act						
20	Faces conflicts with flexibility to reach agreements						
	<b>NETWORKING</b>						
21	Applies ethical values						
22	Takes into account the implications of the task for society						
23	Is able to work in multidisciplinary environments						
24	Is able to work in multicultural environments						
25	Uses networking contacts to reach goals						

**RUBRIC 2.**  
*Assessment  
of innovation  
competence  
performance  
(scale 1–5).*

Please do  
not leave any  
blanks. Not  
all assessment  
tasks and  
situations are  
conducive to  
demonstrating  
all of the  
capacities  
and skills to  
which the items  
refer; in such  
cases “0” is  
the appropriate  
response.



Name of student		Not observed / not demonstrated	Insufficient	Satisfactory	Excellent
In the activities in class, the student:					
		0	1	2	3
	INDIVIDUAL				
1	Presents ideas that are suitable for the task				
2	Presents creative ideas				
3	Presents new ways to implement ideas				
4	Evaluates the advantages and disadvantages of actions				
5	Identifies relationships among different components of the task				
6	Faces the task from different points of view				
7	Uses available resources ingeniously				
8	Foresees how events will develop				
9	Shows enthusiasm				
10	Persistently pursues the goals				
11	Takes daring yet reasonable risks				
12	Orients the task towards the target				
	INTERPERSONAL				
13	Transmits ideas effectively				
14	Listens to teammates				
15	Establishes constructive group relationships through dialogue				
16	Collaborates actively				
17	Contributes to group functioning				
18	Takes initiatives				
19	Drives others to act				
20	Faces conflicts with flexibility to reach agreements				
	NETWORKING				
21	Applies ethical values				
22	Takes into account the implications of the task for society				
23	Is able to work in multidisciplinary environments				
24	Is able to work in multicultural environments				
25	Uses networking contacts to reach goals				

**RUBRIC 3.**  
*Assessment  
of innovation  
competence  
performance  
(scale 1–3).*

Please do not leave any blanks. Not all assessment tasks and situations are conducive to demonstrating all of the capacities and skills to which the items refer; in such cases “0” is the appropriate response.

Name of student		Not observed / not demonstrated	Very Poor		Needs to improve		Pass		Good		Excellent		
In the activities in class:			0	1	2	3	4	5	6	7	8	9	10
	INDIVIDUAL												
1	I present ideas that are suitable for the task												
2	I present creative ideas												
3	I present new ways to implement ideas												
4	I evaluate the advantages and disadvantages of actions												
5	I identify relationships among different components of the task												
6	I face the task from different points of view												
7	I use available resources ingeniously												
8	I foresee how events will develop												
9	I show enthusiasm												
10	I persistently pursue the goals												
11	I take daring yet reasonable risks												
12	I orient the task towards the target												
	INTERPERSONAL												
13	I transmit ideas effectively												
14	I listen to teammates												
15	I establish constructive group relationships through dialogue												
16	I collaborate actively												
17	I contribute to group functioning												
18	I take initiatives												
19	I drive others to act												
20	I face conflicts with flexibility to reach agreements												
	NETWORKING												
21	I apply ethical values												
22	I take into account the implications of the task for society												
23	I am able to work in multidisciplinary environments												
24	I am able to work in multicultural environments												
25	I use networking contacts to reach goals												

**RUBRIC 4.**  
*Self-assessment  
of innovation  
competence  
performance  
(scale 1–10).*

Please do  
not leave any  
blanks. Not  
all assessment  
tasks and  
situations are  
conducive to  
demonstrating  
all of the  
capacities  
and skills to  
which the items  
refer; in such  
cases “0” is  
the appropriate  
response.

Name of student		Not observed / not demonstrated	Very Poor	Needs to improve	Pass	Good	Excellent
In the activities in class:							
		0	1	2	3	4	5
	<b>INDIVIDUAL</b>						
1	I present ideas that are suitable for the task						
2	I present creative ideas						
3	I present new ways to implement ideas						
4	I evaluate the advantages and disadvantages of actions						
5	I identify relationships among different components of the task						
6	I face the task from different points of view						
7	I use available resources ingeniously						
8	I foresee how events will develop						
9	I show enthusiasm						
10	I persistently pursue the goals						
11	I take daring yet reasonable risks						
12	I orient the task towards the target						
	<b>INTERPERSONAL</b>						
13	I transmit ideas effectively						
14	I listen to teammates						
15	I establish constructive group relationships through dialogue						
16	I collaborate actively						
17	I contribute to group functioning						
18	I take initiatives						
19	I drive others to act						
20	I face conflicts with flexibility to reach agreements						
	<b>NETWORKING</b>						
21	I apply ethical values						
22	I take into account the implications of the task for society						
23	I am able to work in multidisciplinary environments						
24	I am able to work in multicultural environments						
25	I use networking contacts to reach goals						

**RUBRIC 5.**  
*Self-assessment  
of innovation  
competence  
performance  
(scale 1–5).*

Please do not leave any blanks. Not all assessment tasks and situations are conducive to demonstrating all of the capacities and skills to which the items refer; in such cases “0” is the appropriate response.

Name of student		Not observed / not demonstrated	Insufficient	Satisfactory	Excellent
In the activities in class:		0	1	2	3
	<b>INDIVIDUAL</b>				
1	I present ideas that are suitable for the task				
2	I present creative ideas				
3	I present new ways to implement ideas				
4	I evaluate the advantages and disadvantages of actions				
5	I identify relationships among different components of the task				
6	I face the task from different points of view				
7	I use available resources ingeniously				
8	I foresee how events will develop				
9	I show enthusiasm				
10	I persistently pursue the goals				
11	I take daring yet reasonable risks				
12	I orient the task towards the target				
	<b>INTERPERSONAL</b>				
13	I transmit ideas effectively				
14	I listen to teammates				
15	I establish constructive group relationships through dialogue				
16	I collaborate actively				
17	I contribute to group functioning				
18	I take initiatives				
19	I drive others to act				
20	I face conflicts with flexibility to reach agreements				
	<b>NETWORKING</b>				
21	I apply ethical values				
22	I take into account the implications of the task for society				
23	I am able to work in multidisciplinary environments				
24	I am able to work in multicultural environments				
25	I use networking contacts to reach goals				

**RUBRIC 6.**  
*Self-assessment  
of innovation  
competence  
performance  
(scale 1–3).*

Please do  
not leave any  
blanks. Not  
all assessment  
tasks and  
situations are  
conducive to  
demonstrating  
all of the  
capacities  
and skills to  
which the items  
refer; in such  
cases “0” is  
the appropriate  
response.

## EXAMPLE 1 OF ALIGNMENT WITH CONTEXT: MALNUTRITION IN RETIREMENT HOMES

Elderly people usually undergo changes in their sensory perception thresholds. They often have limited odour and taste perception. One possible consequence of this limitation is a restricted eating behaviour. Retirement homes are confronted with people who do not eat the right things or do not eat enough.

	INDIVIDUAL	POSSIBLE BEHAVIOUR
1	Presents ideas that are suitable for the task	Suggests giving elderly residents a leaflet about healthy nutrition or changing recipes.
2	Presents creative ideas	Suggests offering residents counselling by a trained nutritionist/dietician or creating a comfortable atmosphere in the dining room.
3	Presents new ways to implement ideas	Recommends that each retirement home should hire a nutritionist/dietician or that new dinnerware should be used.
4	Evaluates the advantages and disadvantages of actions	Mentions aspects that should be considered, such as if each retirement home hires their own nutritionist/dietician, additional workload/costs will have to be covered; will economic factors e.g. budget and time allotment, allow reaching a satisfying solution? Or what kind of dinnerware might improve the appetite of this target group and how can the home afford the investment?
5	Identifies relationships among different components of the task	Analyses possible reasons for malnutrition (quality, taste, quantity of food, variety of menus, location of eating, etc.) and tries to discover dependencies "If the quantity of food is high but the taste of food is low, people eat fewer vitamins than if the taste of food is good but the quantity is low", etc.
6	Faces the task from different points of view	A specific approach would be by improving food quality, redecorating the dining room, etc. A general approach would be by changing the whole situation in the context of the meals, organising sport groups and creating a positive atmosphere in the whole retirement home.
7	Uses available resources ingeniously	Is able to identify potentials of equipment, human resources and interior of retirement home or uses literature, Internet, interviews, among others.
8	Foresees how events will develop	Is able to envision possible consequences of different measures, such as that the redecoration of the room could lead to confusion and/or conflicts.
9	Shows enthusiasm	Body language and voice exhibit the person's involvement.
10	Persistently pursues the goals	Sticks to the subject, demands high standards in the solution of the problem, e.g., "If we redecorate the dining room we have to take psychological aspects like the arrangement of furniture into account to avoid conflicts".

11	Takes daring yet reasonable risks	Tries to provoke discussion and find a solution, takes risks for him/herself and/or takes risks for the quality of the solution, such as "We should feed them forcibly" to which possible reactions might be: a) "Are you crazy? I do not want to work with you any more"; b) "This is not a good solution because..."; c) "OK, within certain limits..."
12	Orients the task towards the target	Is able to develop proposals based on the analysis of the actual situation in the retirement home.
<b>INTERPERSONAL</b>		<b>POSSIBLE BEHAVIOUR</b>
13	Transmits ideas effectively	Presents ideas comprehensively, gives arguments for the usefulness of the idea, helps others to accept the idea, e.g. offers or draws a visualisation of the new decoration in the dining room.
14	Listens to teammates	Is visibly attentive and reacts in a reasonable manner, does not interrupt team mates.
15	Establishes constructive group relationships through dialogue	Gives positive feedback, tries to involve and motivate other team members verbally, asks for comments, checks to see if everybody is involved.
16	Collaborates actively	Maintains steady dialogue, accepts and values comments from team members, uses materials for documentation, works together with team, etc.
17	Contributes to group functioning	Tries to avoid misunderstanding, seeks solution or compromise in a conflict situation.
18	Takes initiatives	Activates other team members, makes proposals about next steps, suggests ways of co-operation.
19	Drives others to act	Makes proposals on how to proceed, on how to share workload.
20	Faces conflicts with flexibility to reach agreements	Accepts disparity of opinions, seeks solution or compromise through negotiation.
<b>NETWORKING</b>		<b>POSSIBLE BEHAVIOUR</b>
21	Applies ethical values	Identifies moral responsibility, e.g. "Artificial flavouring may help to increase appetite of elderly people but is it appropriate to use it?"
22	Takes into account the implications of the task for society	Analyses social, political and economic consequences of malnutrition and possible measures.
23	Is able to work in multidisciplinary environments	Cooperates with students and professionals from different fields.
24	Is able to work in multicultural environments	Interacts respectfully and functions appropriately with others from different social backgrounds.
25	Uses networking contacts to reach goals	Establishes and maintains relationships from a variety of sectors to fulfil the task, such as contacts with medical doctors, dieticians, interior designers and all other kinds of suppliers.



## EXAMPLE 2 OF ALIGNMENT WITH CONTEXT: THE CAMPUS BIKE PROJECT

The university is interested in encouraging its personnel to travel between different campuses by bicycle. For some people using bikes is not an option because they do not commute to work by bike. The university has thus decided to purchase three bikes and has assigned to a research hatchery (combination of learning, innovation and research) the task of purchasing and preparing the bikes for use. The Campus Bike Project led by students is underway.

	INDIVIDUAL	POSSIBLE BEHAVIOUR
1	Presents ideas that are suitable for the task	Presents ideas for implementing the target group survey at the beginning of the Campus Bike Project, e.g. a questionnaire, interview, online survey, other.
2	Presents creative ideas	Makes good suggestions for the purchase of the bicycles, e.g. instead of from a store, a bike manufacturer could be contacted directly. Or suggests acquiring used bikes that could be fixed and tuned (an option that promotes ecological values and therefore also fulfills criterion 22 in the networking dimension).
3	Presents new ways to implement ideas	Suggests that a short video could be used for presenting and promoting the Campus Bike Project.
4	Evaluates the advantages and disadvantages of actions	Clearly raises questions in a group discussion of what the pros and cons of implementing the different options are.
5	Identifies relationships among different components of the task	Describes to the other members of the group that the reservation system for the bikes should be simple, fast and easy so as to motivate the personnel to use the bikes.
6	Faces the task from different points of view	In the Campus Bike Project it is important to consider the views of the project group, the target group (the personnel), the funder and the supplier. In practice, there may be a conflict, for example, between a project group member's preference towards a certain type or model of bicycle and the needs of the target group, assuming that "the customer is always right".
7	Uses available resources ingeniously	Promotes the use of several communication channels for fast, easy, up-to-date transmissions among the project team's members, e.g., the university's learning management system platform, e-mail and Internet-based social networks such as Facebook. The exchange of information has to be active in this project, in addition to face-to-face communication at meetings. Tight student schedules have to be balanced with, for example, necessary contact with the bike supplier even in the middle of the week. All group members have to be connected at all times.
8	Foresees how events will develop	Evaluates the viability of certain options, e.g. the improbable success of expensive options because financing cannot be arranged.
9	Shows enthusiasm	Actively documents in photos and videos, unrequested, the trial run of the bikes on campus.
10	Persistently pursues the goals	After finding out about the bike supplier's interest in the project, the team member responsible for the contact determinedly negotiates until the partnership of the supplier in the project is assured.

11	Takes daring yet reasonable risks	Makes a deal with the supplier for five bikes, even though the official authorization was given to purchase three bikes, i.e., 5 bikes for the price of 3.
12	Orients the task towards the target	Directs rambling discussions and planning back towards the goal of the Campus Bike Project.
<b>INTERPERSONAL</b>		<b>POSSIBLE BEHAVIOUR</b>
13	Transmits ideas effectively	Makes sure that all members of the group understand their tasks after the division of tasks in a group meeting. Uses the common communication channel (e.g. a Facebook group) to reach and communicate with the group.
14	Listens to teammates	Is attentive to and shows respect for the different point of views of the group members.
15	Establishes constructive group relationships through dialogue	Encourages the group members to take part in discussions and asks everyone's opinion.
16	Collaborates actively	Works together with the group and is willing to compromise. Does not inhibit group work in any way.
17	Contributes to group functioning	Gives constructive feedback and praises work well done.
18	Takes initiatives	Takes responsibility for implementing a task. For example, in a presentation about the Campus Bike Project, takes the place of another member who is suddenly unable to attend.
19	Drives others to act	Encourages others to act by setting an example and taking up a task, e.g. investigating the prices of the bike supplies.
20	Faces conflicts with flexibility to reach agreements	In a situation in which part of the personnel are in the favor of a mountain bike with gears, but the majority prefer a basic bike without gears, the student organises a discussion, which results in a compromise that prioritises lower maintenance in the choice of bikes.
<b>NETWORKING</b>		<b>POSSIBLE BEHAVIOUR</b>
21	Applies ethical values	Maintains a respectful attitude so that no one feels offended for reasons of sex, creed, etc. For example, the Campus Bike Project group consists mainly of male students.
22	Takes into account the implications of the task for society	Keeps bringing up the possibility of spreading the Campus Bike idea, for example, to all the other schools in the city. Understands the impact of the project on the environment.
23	Is able to work in multidisciplinary environments	Takes notice of and mentions the contribution of students of different fields to reaching a common goal.
24	Is able to work in multicultural environments	Presents the Campus Bike idea to foreign exchange students and discusses with them sharing the idea in their universities.
25	Uses networking contacts to reach goals	In the Campus Bike Project there are many possibilities for meshing contacts, e.g. members of the university personnel, different university faculties, bike suppliers/manufacturers/salesmen/service attendants.

### EXAMPLE 3 OF ALIGNMENT WITH CONTEXT: PROJECT TMO

A research project calls for the construction of a measuring instrument to track the acquisition of innovation competences in students. The first task is to agree upon a list of the major competences, capacities and skills that compose innovation. The making of such a list poses a challenge to the international group of researchers who come from different disciplines and cultural backgrounds. In such a diverse group, people behave differently and can be observed via various indicators. Please find below the list of criteria and indicators drafted in Project TMO (The Making Of).

	INDIVIDUAL	POSSIBLE BEHAVIOUR
1	Presents ideas that are suitable for the task	Suggests where to obtain information about innovation competences.
2	Presents creative ideas	Offers notions or adapts conceptions from situations that no one in the group has considered or offers his/her own novel ideas.
3	Presents new ways to implement ideas	Suggests developing an instrument that might be useful in identifying innovation competences within a person, an instrument similar to a weather gauge or barometer.
4	Evaluates the advantages and disadvantages of actions	Mentions aspects that should be taken into consideration, both positive and negative, while using the instrument to be developed. Makes a list of pros and cons of each action.
5	Identifies relationships among different components of the task	Analyses possible relationships between the competences that are taken into consideration in order to classify them in categories and avoid overlap. Identifies the variables and how they affect one another.
6	Faces the task from different points of view	Analyses the assignment from the perspectives of the variety of possible users and uses multiple research approaches and information channels, e.g., Internet, social media and personal contacts. Organises discussions to stimulate contributions.
7	Uses available resources ingeniously	Plays games to tease the group into pondering possibilities.
8	Foresees how events will develop	Is able to envision the consequences of selecting one competence or another and its effect on people of different language, educational and disciplinary backgrounds.
9	Shows enthusiasm	Pays attention. Uses body language, voice to reflect involvement. Takes photographs of work sessions and outings.
10	Persistently pursues the goals	Is capable of overcoming resistance. Sticks to the subject, urges concentration and dissuades drifting from the objective. Keeps the discussion ongoing, brings own ideas into the group.
11	Takes daring yet reasonable risks	Changes tactics to provoke discussion and find quality solutions, such as naming controversial competences, out-of-the-box thinking, using examples that are verbal, in video clips or Youtube, etc.
12	Orients the task towards the target	Is able to rephrase proposals based on the contribution of others. Reviews periodically what has been achieved and what needs to be done. Reminds others of the objective, i.e., to elaborate a valuable, easy-to-use tool.

	INTERPERSONAL	POSSIBLE BEHAVIOUR
13	Transmits ideas effectively	Presents contents coherently and comprehensively. Gives arguments in favour or against the usefulness of the idea. Convinces and helps others to accept the idea.
14	Listens to teammates	Is visibly attentive and values comments, does not interrupt teammates. Reacts in a reasonable manner.
15	Establishes constructive group relationships through dialogue	Gives positive feedback, tries to involve and motivate other team members, asks for comments from others, checks to see if everybody is involved.
16	Collaborates actively	When tasks are assigned, volunteers, maintains steady dialogue, works with the team, accepts and values comments from team members, uses materials for documentation, etc.
17	Contributes to group functioning	Tries to avoid misunderstanding, seeks solution or compromise in discussion/conflict situations.
18	Takes initiatives	Makes proposals about next steps and ways to cooperate, leads when necessary.
19	Drives others to act	Makes proposals on how to proceed and share workload, on how to reach useful solutions.
20	Faces conflicts with flexibility to reach agreements	Does not impose his/her authority, pre-acts to avoid tension and acts to defuse confrontation, accepts disparity of opinion and seeks solution or compromise through negotiation.
	NETWORKING	POSSIBLE BEHAVIOUR
21	Applies ethical values	Tries to be legal and fair.
22	Takes into account the implications of the task for society	Analyses all kinds of consequences on various levels and in diverse contexts when selecting competences. Considers the impact that the end product will have.
23	Is able to work in multidisciplinary environments	Cooperates with students and professionals from different fields.
24	Is able to work in multicultural environments	Interacts respectfully and functions appropriately with others from different social backgrounds.
25	Uses networking contacts to reach goals	Establishes and maintains relationships from a variety of sectors to fulfil the task, such as with educational institutions, funders, experts, logistics personnel, etc.

## Recommendations

### How to implement teacher/peer and self assessment

#### Information phase. Becoming familiar with assessment using the INCODE Barometer

- Explore the assumptions and principles that underlie innovation assessment practice with respect to the specific discipline contexts.
- Get to know your students and converse with them about assessment before introducing assessment practices.
  - Involve students in determining the criteria for judging themselves and their peers' work.
  - Introduce samples of checklists or rubrics with criteria early in the learning process.

#### Practice phase. Implementing assessment

- Use a combination of peer assessment, self and/or teacher assessment.
- Make peer and self assessment a part of learning activities. Allow students the opportunity to recognise their peers' and/or own progress in relation to the learning outcomes that have been defined for the course.
- Include a clear explanation of the purpose of the assessment activity and of what the procedure will be. Make sure that students understand what is expected from them.
  - Train students with samples of performance adapted to the assessment criteria.
  - Use peer and/or self assessment at different moments during the learning process, e. g., at the beginning, once or several times in the middle and at the end.
- Spend time establishing an atmosphere of trust in the classroom. Invite students to be honest in assessment.
  - Provide teacher or group feedback to support teacher/peer and self assessment.

#### Reflection phase. Reflecting on the experience of assessment

- Encourage students to look back and discuss their progress in innovation competence and in peer and/or self assessment.
- Help students reflect by using the performance samples used in training and what actually happened in the practice phase.
  - Invite students to use their new experience to enhance the process and the instrument of assessment.