



IO1 – ITHEN Set of Methodologies and Guidelines

ITHEN NATIONAL PILOTS REPORT

Overall evaluation report on the National Pilots conducted in Italy, Spain, Portugal, Slovenia, and Turkey to test the ITHEN Set of Methodologies on local students and teachers.



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ITHEN NATIONAL PILOTS REPORT

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INTRODUCTION

THE ITHEN PROJECT

ITHEN is an Erasmus+ Strategic Partnership project that involves international tertiary VET institutions and universities collaborating for the development of joint international courses in the business management and marketing fields.

CONTEXT OF ITHEN

In Europe, despite official attempts for the creation of regular paths starting from Tertiary Vocational Education and Training bodies (TVETs, in Italy ITS – Istituti Tecnici Superiori) and continuing with a third year and a bachelor's degree, this connection is not systematized yet. Only few TVETs assign ECTSs for their modules, making it difficult for Universities to recognize their exams, and therefore forcing TVET graduates wishing to continue their studies to start their Bachelor's degree from the beginning, discouraging them as it entails a huge quantity of additional time.

Only specific agreements between TVETs and universities allow this recognition, which, anyway, is often incomplete, requiring some integrations.

Among ITHEN's partners there are TVETs that have activated agreements with Universities to recognize ECTS and enable students to complete their studies obtaining a bachelor's or a Master's with an additional 1-3 years of study. This method has been successfully tested since 2018 and has proved to be very effective.

The ITHEN Network aims to adopt this synergy between TVETs and Universities on a larger geographical scale to become ordinary practice in the medium term and – hopefully – officially systematized with dedicated policies in the longer term.

AIM AND OBJECTIVES

Main aim of ITHEN is to establish a strategic and structured cooperation between European and non-European Universities and TVETs delivering technical higher education creating a network for the development of joint international courses.

MAIN EXPECTED OUTCOMES



- To overcome the skill gap encountered by students wishing to work in international business environments by fostering the development of key entrepreneurial and cultural awareness competences.
- To establish a synergy between Universities and TVETs. A synergy that will facilitate the transition between different EQF level courses and degrees (from EQF 5 to 6 and 7), thus increasing the learning and job opportunities of TVET students and all Europe.
- To connect technical higher education with the market. By involving market representatives in all stages of the design and delivery of new joint international courses, technical education in the fields of marketing and business management can meet the requirements of today's international job market.
- To upskill teachers, enabling them to successfully contribute to the development of entrepreneurship and cultural awareness competences among their students.

TARGETS

What are ITHEN's target groups?

- 32 teachers trained on ITHEN's methodologies.
- >250 people among deans and teachers of TVETs and Universities, SMEs and trade organizations, students, representatives of associated partners, public authorities and other national/regional/local stakeholders, participating to the project's Multiplier Events.
- 140 students attending the local pilots.
- 10 new TVETs, Universities, Chambers of Commerce, Public Bodies, Corporations and International Organizations from Europe and Worldwide will formally join the network.
- 40 SMEs or non-profit organizations involved in the in-depth interviews.

PARTNERS

ITHEN is the result of the cooperation between 8 project partners from Italy, Spain, Portugal, Slovenia, Turkey and Germany, and 6 associated partners from Argentina, Canada, Chile, Italy and Turkey. The project partners are:

- **Fondazione ITS JobsAcademy** - Italy (Project coordinator)
<https://jac-its.com/en/>
- **Institut de Vic** - Spain
<https://www.ivic.cat/portal/index.php>
- **Institut Escola del Treball de Lleida** - Spain
<https://www.escoladeltreball.cat/en/home/>
- **EIA – Ensino, Investigação e Administração** - Portugal
<https://www.uatlantica.pt/>



- **Univerza na Primorskem Università del Litorale** - Slovenia
<https://www.upr.si/en%20>
- **Mugla Sitki Kocman University** - Turkey
<https://www.mu.edu.tr/en>
- **OneOffTech** - Germany
<https://oneofftech.xyz/>
- **Associazione Multiculturale I Due Mondi** - Italy <https://www.demixgroup.com/i-due-mondi/>



INTRODUCTION TO ACTIVITY O1-A5 “NATIONAL PILOTS”

During the development of the Intellectual Output 1 of the International Technical Higher Education Network (ITHEN) project, all the partners have identified the **key competences**¹ needed by students wishing to work in the marketing and business management fields at the international level, and have developed a set of innovative **Set of ITHEN Methodologies**² useful to develop the above-mentioned competences.

A specific training for project partners on these methodologies was held in Koper, Slovenia, in September 2021 during ITHEN's Joint Staff Training Event. Afterwards, IVIC designed an evaluation toolkit to be used in each partner's country and all training partners (IVic, Atlantica, JAC, UP, MSKU, IET) have piloted 3 methodologies in Spain, Portugal, Italy, Slovenia, Turkey with their own students, developing some of the key competences identified by the partners.

In this report, we will explain the purpose of the pilot and report a brief description of how the pilot was conducted in the 5 countries involved. To continue, an analysis of relevant data (numbers of students and teachers involved, assessment results, satisfaction results, interviews) will be summarized. To conclude this summative report, IVIC has collected some comments from the partners (teachers and students) on how to better use the innovative methodologies included in ITHEN's Set of Methodologies.

PURPOSE OF THE PILOTS

The purpose of the national pilots was to:

- test the Set of ITHEN methodologies on the students of each partner training institution.
- encourage teachers to diversify the way they teach to improve learning, motivation, and participation of the students.
- obtain the feedback of students and teachers concerning the suitability and sustainability of these teaching tools and methods.
- exchange constructive opinions between the partners.
- develop the key competences necessary to work in the fields of international marketing and business management identified by the partnership.

¹ “ITHEN KEY COMPETENCES FOR INTERNATIONAL MARKETING AND BUSINESS MANAGEMENT”, 2021 – Free to download here: <https://ithen.eu/outputs/io1-ithen-set-of-methodologies-and-guidelines/>

² “INTERNATIONAL TECHNICAL HIGHER EDUCATION NETWORK - SET OF METHODOLOGIES”, 2022 – Free to download in Italian, English, Spanish, Portuguese, Catalan, Slovenian, German and Turkish here: <https://ithen.eu/outputs/io1-ithen-set-of-methodologies-and-guidelines/>



TOOLKIT

Each partner has been using the following toolkit to pilot three methodologies:

- a) **Initial and final assessment with Google forms configured as a test**
- b) **Satisfaction Survey for teachers and students**
- c) **Short Interviews involving students**
- d) **Attendance list**

NATIONAL PILOTS IMPLEMENTATION

DESCRIPTION

The different methodologies have been sorted in the following way between the 6 training partners of the ITHEN project:

UP	IET	ATLANTICA	IVIC	JAC	MSKU
FLIPPED CLASSROOM	FLIPPED CLASSROOM	BUSINESS CASE STUDY	DESIGN THINKING	BUSINESS GAME	FLIPPED CLASSROOM
JIGSAW	DESIGN THINKING	PROJECT-BASED LEARNING	PROBLEM-BASED	SIMULATION	JIGSAW PEER TEACHING
BUSINESS GAME	PROJECT-BASED LEARNING	COMPUTATIONAL THINKING	SIMULATION (OOT)	COMPUTATIONAL THINKING	BUSINESS CASE

Here follows a summary about the pilot in each partner's institution.

PILOT AT THE UNIVERSITY OF PRIMORSKA (UP) - SLOVENIA

Peter Štrukelj and Borut Likar

In the "Creativity and Innovation Management" course (Bachelor's degree level – EQF 6), 2 methodologies were piloted: the Jigsaw Classroom and the Business Game Challenge. In the Jigsaw Classroom session, students were teaching each other about social innovations. In the Business Game challenge (3 sessions altogether), **students were solving 2 challenges that were proposed by a representative of a small Slovenian beverage company (BeLife)** at the beginning of the course (new drinks, new packages, new markets etc.). One group of students was an international English group (approx. 25 students), and the other one was Slovenian group (approx. 20 students). For this methodology, Peter Štrukelj used some methods taken from the Creative Thinking methodology.

Borut Likar developed the competence "Management of Smart technology" using the Flipped Classroom and the Bloom's taxonomy.

	Jigsaw	Business Game	Flipped Classroom
Feedback	Very good	Company happy with the results	Good participation
Students involved	Slovenian and international group (45)		B2 students' Academic master Management (12)
Competence	Social innovation	Social innovation	Management of Smart



			Tech
Age	20-30	20-30	Around 30
Length	4 hours	1 month	32 hours

PILOT AT FONDAZIONE ITS JOBSACADEMY (JAC) - ITALY

Veronica Tanelli- Maria Teresa Provenzale- Giulia Dakli

In the course “International Marketing Management”, 2 methodologies were piloted - Simulation and Business Game Challenge developing the **Sales & Export Management Competences**. These 2 methodologies were piloted by Veronica Di Tanelli and afterwards by Maria Teresa Provenzale. The Business Game saw the involvement of several external companies. Some changes within the staff of Fondazione ITS Jobsacademy made it difficult to conduct the pilot with all three methodologies. It was not possible to conduct the pilot of the Computational Thinking because the involved teachers lacked of specific training on this methodology.

	Simulation	Business Game	Computational Thinking
Feedback	Very helpful to understand the concepts		Lack of information to pilot and use this methodology
Students involved	Mainly Italian, 12		
Competence	Marketing	Sales & Export Management	
Age	19-25	19-25	
Length	8 hours	3 sessions of 3 hours	

PILOT AT THE MUĞLA SITKI KOÇMAN UNIVERSITY (MSKU) - TURKEY

Murat Aktan

Murat Aktan and his team have piloted the 3 methodologies in MSKU with students of **Economics** in their first year, 1st semester, improving improve students' **corporate social responsibility** competence.

	Business Case	Jigsaw	Flipped Classroom
Feedback	Engaging and very happy to participate in this project	Promote debates and interactivity and helps them to integrate the information.	Engagement, meaningful and helps them to understand the concept.
Students involved	Mainly Turkish and middle eastern countries including Yemen, Egypt, Morocco, Azerbaijan also African countries (i.e Niger)		



Competence	Corporate responsibility	social	Corporate social responsibility	General business
Age	19-22		19-22	19-22
Length	8 hours		2 hours	2 hours



PILOT AT THE INSTITUT ESCOLA DE TREBALL DE LLEIDA (IET) - SPAIN

Cristina Badia and Jordi Cabestany

IET has piloted with IMM students and International Trade and Transport & Logistics Students the Design Thinking, Flipped Classroom and Project-Based methodologies. As they started the Pilot before instructions were given, initial and final assessment weren't designed as a test, but they upload all the evidences nonetheless.

	Project-Based	Design Thinking	Flipped Classroom
Feedback		Motivating	Integrative
Students involved	IMM, International Trade and Transport & Logistics		
Competence	Logistics	Communication	Export and Import Procedure
Age	19-22	19-22	19-22
Length	8 hours	2 hours	2 hours

PILOT AT ATLANTICA - INSTITUTO UNIVERSITARIO (ATLANTICA) - PORTUGAL

Paula Campos Ribeiro and Georg Dutschke

Paula Campos Ribeiro piloted the business case methodology with the IMM students developing online open innovation skills through Moodle Platform. Here are some elements regarding the business case study methodology developed at Atlantica.

Georg Dutschke piloted the Project Based and Computational Thinking with the bachelor's students and did a general satisfaction's survey, not an initial and final assessment.

	Business Case	Project - Based Learning	Computational Thinking
Feedback	Excellent way to develop skills in innovation management	More time and better explained	More time and more precise instructions
Students involved	International Trade Management (IMM, 2n course)	Bachelor	
Competence	Innovation Management		
Age	18-25	18-25	18-25
Length	16 hours, 2 months	Information missing	



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PILOT AT INSTITUT DE VIC (IVIC) - SPAIN

Eduard Abadias, Olga Daitche and Florence Plumier

In the course International Trade, the Problem-Based methodology was piloted by Florence Plumier. During 3 sessions, students had to solve different issues related to an importation from Turkey to Zaragoza.

In the Design Thinking course, Eduard Abadias piloted the Design Thinking. During 7 sessions, IMM students had to do one step to another to fulfill a need on a specific market demand. The students show a lot of motivation.

The Simulation was piloted by Olga Daitche (partner OneOffTech, Germany) with the International Trade students to develop the Knowledge Management competence. A short theoretical session was followed with a simulation as managers of a company, developing and creating new products.

Using the simulation methodology, the students had the option to reflect the data, information and knowledge needed to develop and bring to the market their products. The complex topic of KM with this methodology became very concrete and practical.

The biggest challenge was the short time of the pilot. While in the methodology it was stated that the application shall have the timeframe of at least 4 weeks, during the pilot the trainer and the students had only 3 days together, tackling only one small part of the overall thematic area.












	Problem-Based	Design Thinking	Simulation
Feedback	Meaningful, motivating and connected to the real business world	Motivating	Interesting, useful, practical
Students involved	IMM, International Trade and Transport & Logistics	IMM	International Trade
Competence	Export and Import Procedure	Communication	Knowledge Management
Age	18-25	18-25	18-25
Length	6 hours	14 hours	5 hours

DATA ANALYSIS

ANALYSIS OF THE GENERAL DATA

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We can find here a summary of the partners, courses and students involved in the Pilot.

PARTNER		OOT	IVIC	MSKU	UP	JAC	IET	ATLANTICA	TOTAL STUDENTS
ABOUT THE PILOT									
COURSE		INT.TRADE & IMM		ECONOMICS	INNOVATION	IMM	IMM&INT.TRADE	IMM	
STUDENTS		17	65	90	45	30	52	52	351
ORIGIN		Spanish&Italian		80% Turkish	Slovenian and EU	70% Italian	Spanish&Italian	Italian& Portuguese	AVERAGE (YEARS)
AGE		18-23	18-25	20	20	20	18-25	20	20

AVERAGE GRADE INITIAL AND FINAL ASSESSMENT

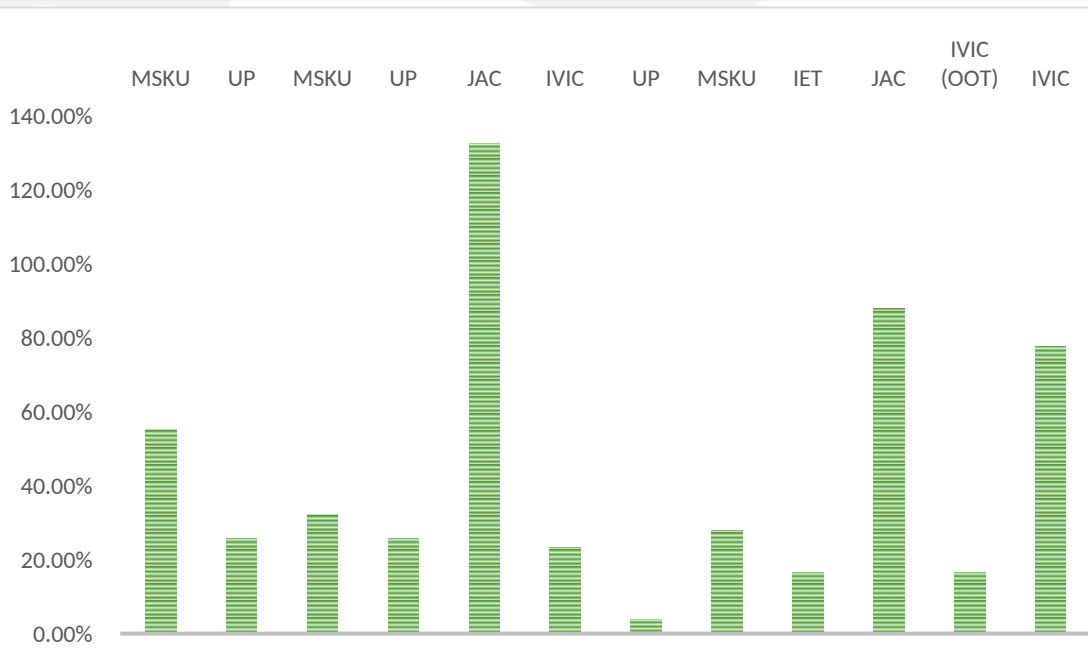
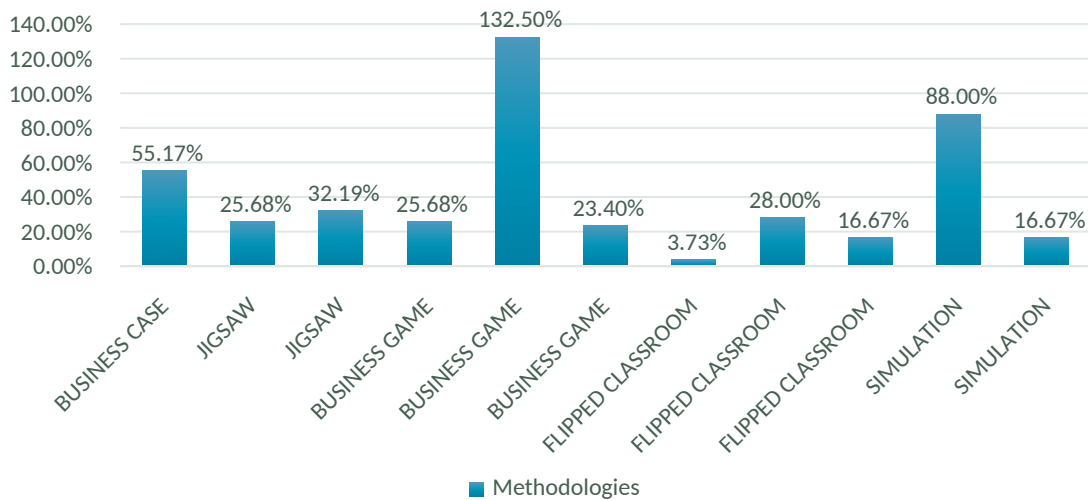
BUSINESS CASE STUDY	Average grade Initial assessment	Final average grade	Improvement (final to initial test)	Feedback	Average grade satisfaction survey
ATLANTICA	46% (Initial level) 37% (Needs improvement)	Acceptable: 39%; Accomplished: 44%.		More precise instructions Helps developing skills	80% of the students satisfied
MSKU	5,8/10	9/10	55,17%	Engaging	Very satisfied
JIGSAW	Average grade Initial assessment	Final average grade	Improvement (final to initial test)	Feedback	Average grade satisfaction survey
UP	4,75/10	5,97/10	25,68%	Integrative	More than 70% of students were satisfied
MSKU	5,53/10	7,31/10	32,19%	More interaction	More than 85 % of the students were very

					satisfied
BUSINESS GAME	Average grade Initial assessment	Final average grade	Improvement (final to initial test)	Feedback	Average grade satisfaction survey
UP	4,75/10	5,97/10	25,68%	Challenging	More than 70% of students were satisfied
JAC	4/10	9,3/10	132,50%	Interesting	No access to the results
IVIC	5,94/10	7,33/10	23,40%	Connected to the real-world	More than 60% of the students were satisfied
FLIPPED CLASSROOM	Average grade Initial assessment	Final average grade	Improvement (final to initial test)	Feedback	Average grade satisfaction survey
UP	6,17/10	7/10	13,5%	Motivating	More than 85 % of the students were very satisfied
MSKU	7/10	8,96/10	28,00%	Meaningful	More than 85 % of the students were very satisfied
IET	Results improve a lot in comparison to initial ones, but the form was not designed as a test			Good	Not enough data were given
SIMULATION	Average grade Initial assessment	Final average grade	Improvement (final to initial test)	Feedback	Average grade satisfaction survey
JAC	5/10	9,4/10	88,00%	Easy to understand	More than 70% easy to understand
IVIC (OOT)	6/10	7/10	16,67%	Students improved their knowledge. Short implementation made difficult the Knowledge Management competence, but the goals and the methodology were effective.	
DESIGN THINKING	Average grade Initial assessment	Final average grade	Improvement (final to initial test)	Feedback	Average grade satisfaction survey
IVIC	4,5/10	8/10	77,8%	Increase in the average of the results and this shows that the methodology has worked. The general survey done showed also that they were satisfied.	



COMPUTATIONAL THINKING	
JAC	Methodology not piloted as the teachers were not able to apply it without additional training to their existing training modules. They did not have time to use their time to learn this methodology more in-depth.
ATLANTICA	No initial and final assessment were done. The satisfaction questionnaire to the students

Improvement of competences Knowledge (Final and Initial assessment)



- Partners involved in these methodologies

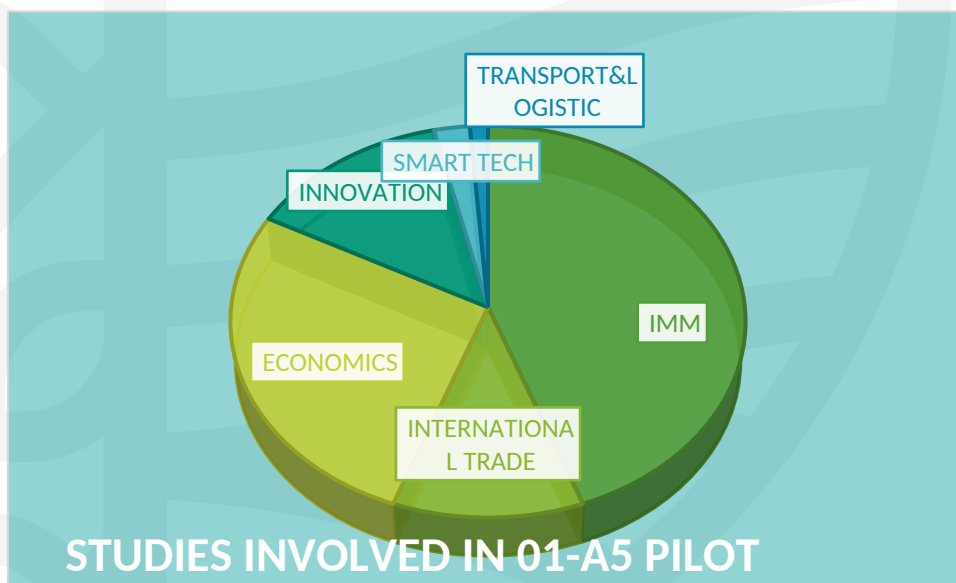
As we can see in the graphics above, the results improved significantly between the initial and final assessment during the Pilot so we can say that these ways of teaching were effective.



TYPE OF STUDIES INVOLVED

The methodologies were piloted within the International Marketing Management Course (carried out collectively by Atlantica, IVIC, IET and JAC), but also through other courses such as Economics, International Trade, Smart Tech, and Innovation Management because the partners take advantage of their specialist courses to implement the pilot.

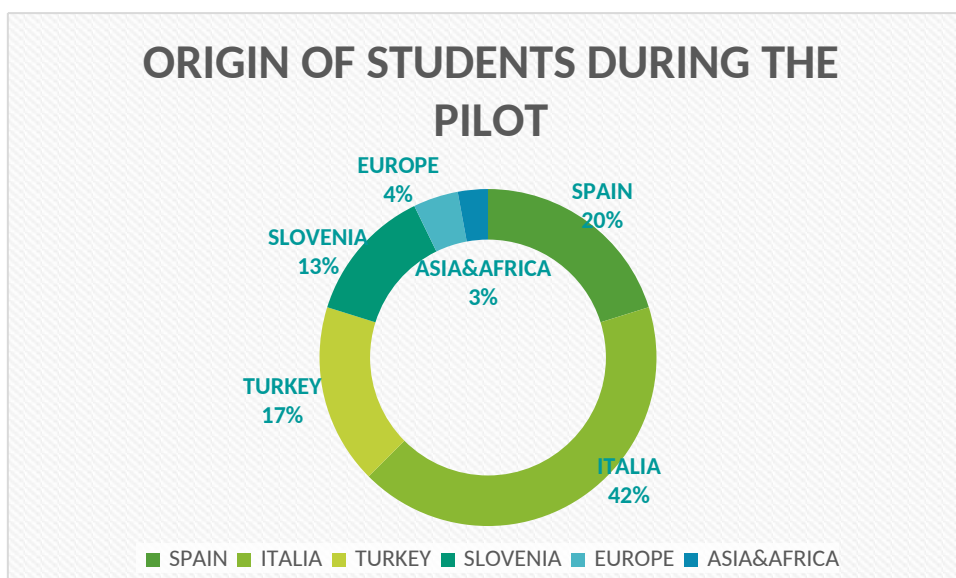
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ORIGIN OF THE STUDENTS INVOLVED

The methodologies were piloted with the IMM students from Italy (mainly) and with students originated from the countries of the ITHEN partners: Slovenia, Spain, Turkey, Portugal and international students from Europe Erasmus exchange.

ORIGIN OF STUDENTS DURING THE PILOT





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CONCLUSIONS

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We can give the following conclusions for the pilot of methodologies:

1. The **results of the initial and final test** based on a specific knowledge have shown a **significant average improvement** of the students involved in the Pilots
2. The students showed **motivation and engagement** in participating in the Pilot
3. In average, **more than 60% of the students were very satisfied** with the different methodologies
4. Several key competences needed for students wishing to work in an International Marketing and Business environment were developed through the Pilot:

- *Marketing Management*
- *Knowledge Management*
- *Innovation Management*
- *Logistics Management*
- *Strategic Corporate Social Responsibility*
- *Creativity and Innovation*
- *Sales techniques for international market*
- *Initiative and Entrepreneurship*

5. Even with a specific evaluation toolkit and instructions made available, it was not easy to obtain information from all the partners in the same format and this made it impossible to conduct a rigorous analysis and comparison of some of the data
6. In the satisfaction survey of the teachers, some relevant comments were the following:
 - It was the first time they tried this methodology, and it **was exciting** for them
 - For some topics, such as Knowledge Management, they felt that **more time was needed** to better understand the theory and be able apply the simulation methodology
 - It was an interesting **experience**, but it was difficult to implement it during the normal course of the year
 - The use of these methodologies increased the motivation and interaction of their students.
7. In the satisfaction survey of the students, the comments were very good except for:
 - Lack of sufficient time, necessary to understand some the concepts
 - Need for more precise instructions on how the methodologies work (e.g., more detailed description of the steps to be followed...)



- Companies and workshops should be included while applying a specific methodology to better connect theoretical concepts and real market needs
- This active learning method makes students more involved in the subject
- **Even if the methodologies are highly appreciated, the traditional learning approach should always be included in the courses as well. This was mentioned in most of the satisfaction surveys.**

8. Teachers were not able to pilot the **Computational Thinking** without additional training to their existing training modules because of lack of knowledge and time.

SUGGESTIONS

1. Any methodology **should always include a theoretical part** to make sure the student obtains a minimum level of basic knowledge on the topic
2. **These methodologies require more time** to be successfully implemented. Sometimes teachers forget that the students are not masters of these methodologies and need some time to get acquainted with them
3. **Companies and representatives** should be included to increase the effectiveness of the application of the methodologies and to make the complex theoretical topics more concrete and applicable in practice and real life
4. Teachers should regularly receive some specific training to ensure they can use different methodologies in their classes
5. Any methodology should create an atmosphere as much as possible close to the real world
6. Job shadowing between partners and/or with other teachers from other training institutions should definitely be promoted as it provides different points of view.