

FINALIZED PILOT DEMONSTRATING ILS IMPACT

WP T2 PILOT – O.T2.4

DEX INNOVATION CENTRE, 28-7-2021

Output title:	
WP T2 - O.T2.4	
Finalized Pilot demonstrat ing ILS impact	
Type of output:	<input checked="" type="checkbox"/> Documented learning interaction <input type="checkbox"/> Strategy/ Action Plan <input type="checkbox"/> Tool <input type="checkbox"/> Pilot action
Contribution to PO indicator:	P07: No. of documented learning interactions in finalised operations

Content

Summary.....	4
What is InnoSchool.....	6
Detailed information about the Pilot	6
Measuring the impact of the education system	7
Awareness about social needs	7
1.1.1. Are you familiar with the entrepreneurship / social entrepreneurship concept?	8
1.1.2. Is somebody in your family entrepreneur?	8
1.1.3. Do you know the difference between an enterprise and a social enterprise?	9
1.1.4. Do you know any social entrepreneur?	9
Social entrepreneur Mindset.....	10
Social entrepreneur Skills.....	11
Social entrepreneur Behaviors.....	12
Evaluation of link to the type of school and education format.....	12
Satisfaction.....	14
Net Promoter Score	15
Summary of measurement results	16
Follow-up steps in InnoSchool	17
InnoSchool 2.0	17
InnoSchool X.....	18
New elements of ILS.....	19
Conclusion.....	20

Summary

The work environment is changing in a way that no one can predict. Businesses today need workers who bring entrepreneurship to their jobs. They lack active partners who routinely look for opportunities, change barriers to opportunities and take risks to improve results. Since most high schools and universities do not teach these entrepreneurial business skills, the InnoSchool project is changing this situation.

The main goal of InnoSchool is to strengthen social innovation and entrepreneurship among high school students by developing and implementing a highly innovative education system - ILS. Thanks to the InnoSchool project, we can help find and motivate new young social entrepreneurs from high school students.

This output is based on the pilot's implementation and the results obtained from measurements on the impact of our ILS.

More than 1,800 students and more than 170 teachers not only implemented the Pilot, but also provided feedback and provided us with interesting and very important recommendations for improving and strengthening all important elements of the InnoSchool education system.

	Pilot implemented	Number of Piloting schools	Number of students who completed the Pilot and measurements
Czech Republic	✓	6	84
Austria	✓	3	184
Slovakia	✓	9	143
Romania	✓	9	211
Hungary	✓	9	128
Bulgaria	✓	11	219
Serbia	✓	9	178
Bosnia and Hercegovina	✓	7	125
Moldova	✓	21	375

To verify the real impact of our education system, we implemented a Pilot, which was implemented by more than 83 schools from the Danube region. However, the pilot also included measuring the impact of the education system, which became the basis for this output.

Our goal was to obtain data that will help show the real impact of the education system on the basis of a questionnaire survey conducted before the Pilot and which was also compared with the data after the completion of the pilot project. Thanks to this, we were able to get a real example of the impact of the InnoSchool education system on students and their knowledge and skills. From our measurements before the Pilot, we obtained very interesting data, which we compared between schools and regions, but also in correlations between selected variables.

What is InnoSchool

ILS is a specially designed learning system to create awareness of social needs and improve skills and entrepreneurial skills (1. Comprehensive problem solving; 2. Critical thinking; 3. Creativity; 4. People management; 5. Coordination with others; 6. Emotional intelligence; 7. Judgment and decision-making; 8. Service orientation; 9. Negotiation; 10. Cognitive flexibility) of high school students. It combines traditional classroom learning methods with digital elements and online simulation, helping to build a new generation of social entrepreneurs and innovators. ILS has a fun-educational character and combines the educational process with a fun environment that provides greater motivation for students.

Detailed information about the Pilot

The pilot deployment at selected schools took place from September 2020 to the end of February 2021. The schools were in various situations, but most of them implemented the majority of the program only remotely, online. The aim was mainly to test the impact of the education system during this time. Teachers and students were given not only an online educational tool to develop their social entrepreneurial skills, but also a teacher's guide, worksheets, activity guides and more. The goal for students and teachers was to create a social business plan.

1719 students from 83 schools participated in ILS. In the measurement we had two blocks, questions regarding the background of participants are evaluated. Important questions for further correlations were gender and if the students have an entrepreneur in the family. The other three blocs were concerned about their awareness about social entrepreneurship and evaluate the impact of ILS.

Gender	AUT	BIH	BGR	CZE	HUN	MDA	ROU	SRB	SVK	overall
Male	66	65	121	51	69	123	97	88	77	757
Female	118	60	170	33	59	252	114	90	66	962
Total	184	125	291	84	128	375	211	178	143	1719

Measuring the impact of the education system

One of the main goals of the Pilot was also to measure the impact of our system on students' knowledge and skills in the field of social entrepreneurship. A questionnaire method was used for this, while we measured the students' knowledge before the implementation of the Pilot and after its implementation. However, not all participants of pilot was also involved in the survey, but despite this fact, we had a large evaluation sample, which showed the success of the entire system.

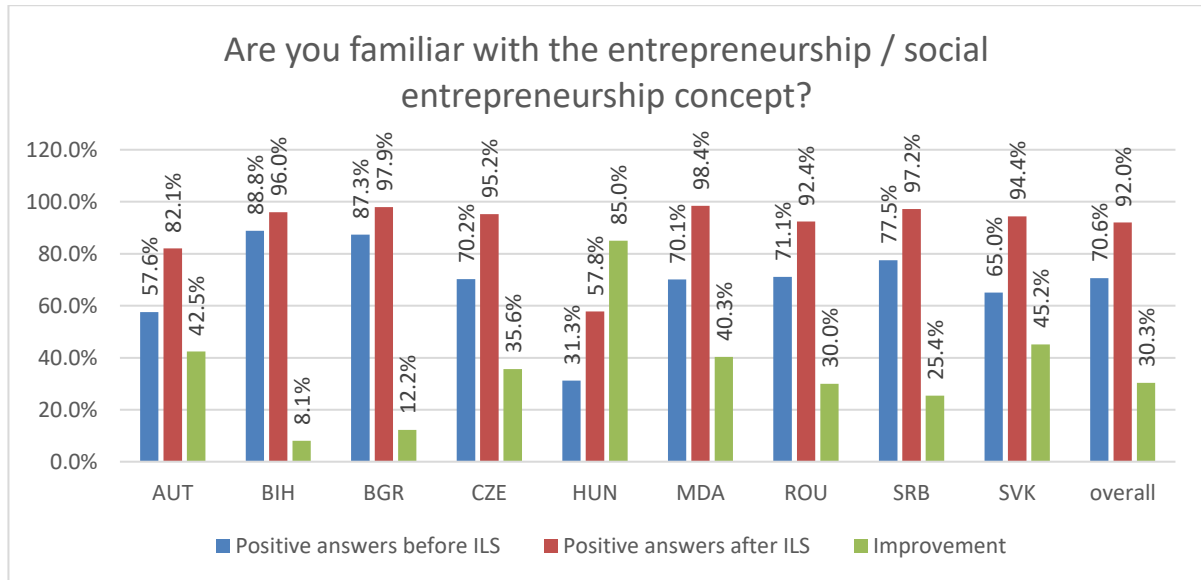
Selected data from 9 regions

- In the beginning, 2330 students from 9 countries took part in the pilot project and the survey
- Pilot completed and questionnaires filled 1719 students
- 757 boys and 962 girls from the Danube region
- 70% of participating students were introduced to entrepreneurship and social entrepreneurship before the pilot and 92% after the pilot project
- 30.5% of students in this sample have entrepreneurs in their families
- 51.6% know the difference between a company and a social enterprise before the pilot and 88.2% after the pilot project
- only 28.9% know a specific social entrepreneur before the pilot and 49.2% after the pilot
- There is no correlation between entrepreneur in the family or gender and satisfaction with the course.
- 26% net promoter score - a person interested in promoting ILS
- 47.7% of students are willing to recommend ILS

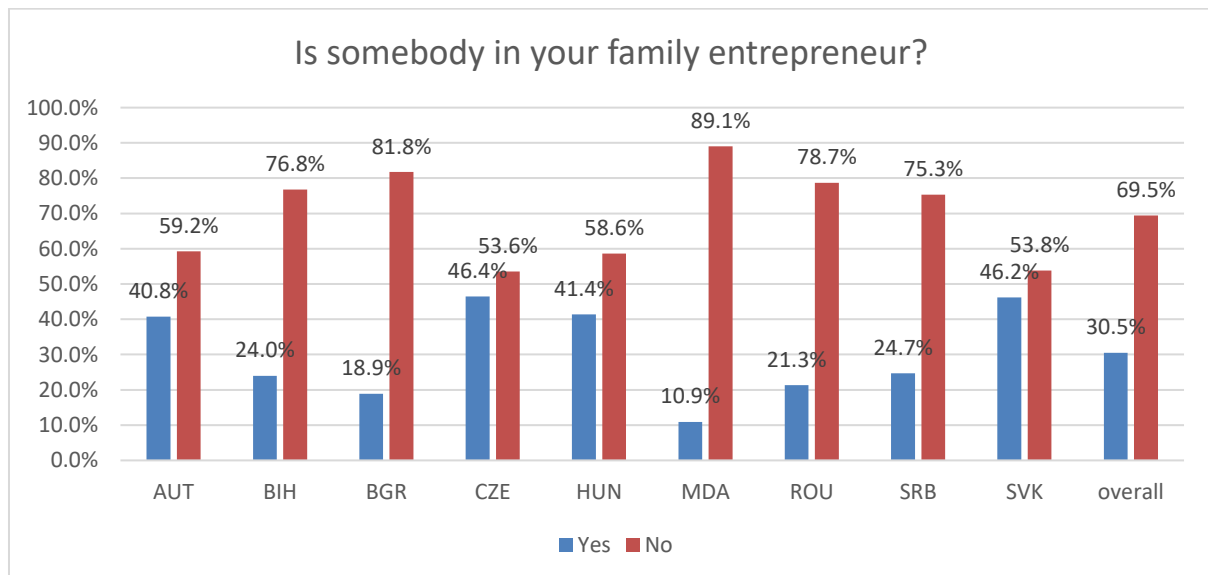
Awareness about social needs

We calculate the **relative** satisfaction. How many percent of respondents positively answered the following questions. Improvement is also a relative variable, meaning how many more percent give a positive answer to the question after the ILS course.

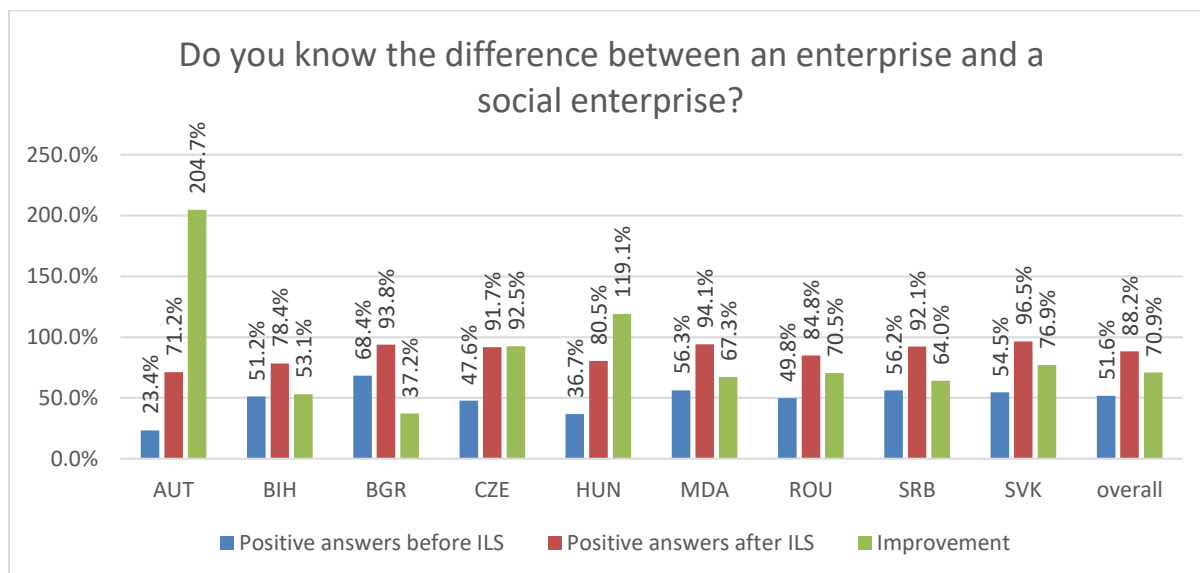
1.1.1. Are you familiar with the entrepreneurship / social entrepreneurship concept?



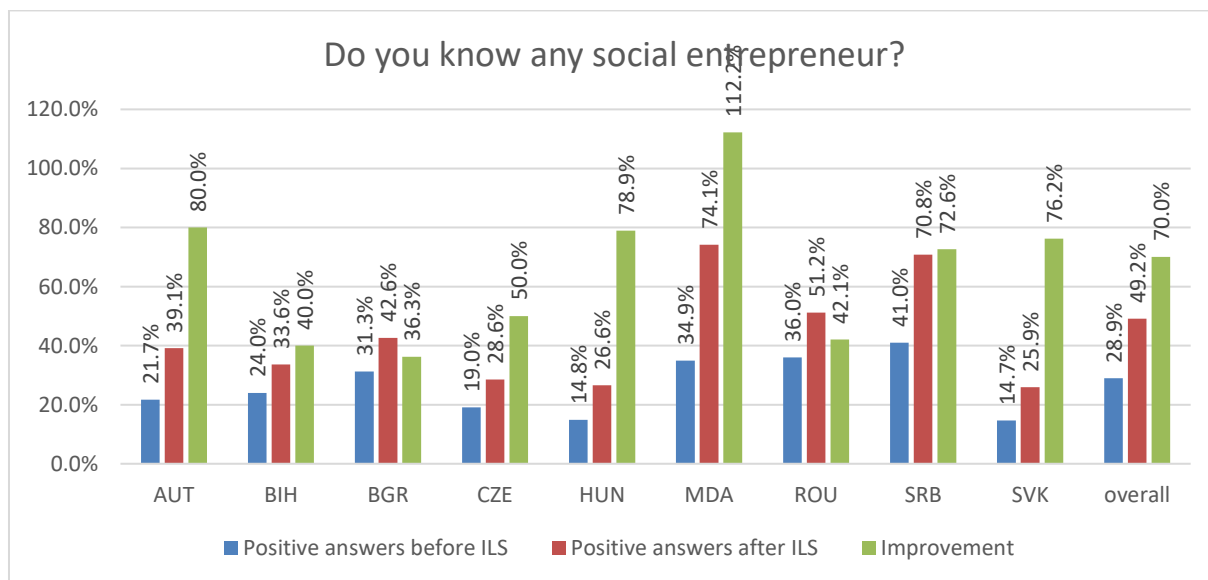
1.1.2. Is somebody in your family entrepreneur?



1.1.3. Do you know the difference between an enterprise and a social enterprise?



1.1.4. Do you know any social entrepreneur?

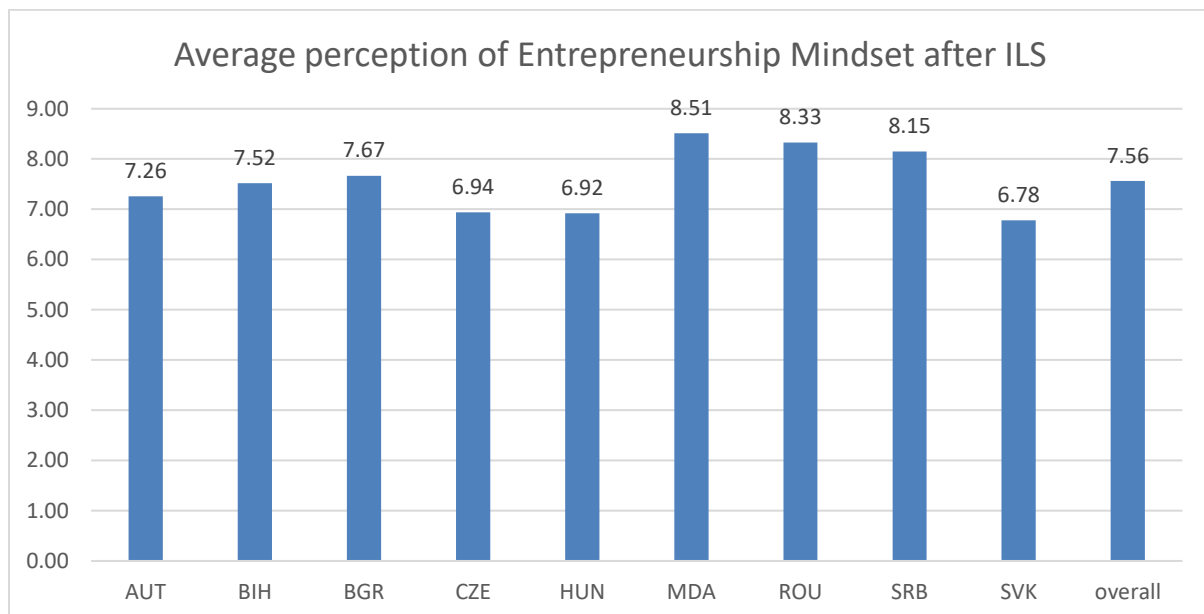


Social entrepreneur Mindset

The scientific approaches of the entrepreneurial mindset's definition have been to focus on specific psychological traits linked to entrepreneurial intentions or success (Davis, Hall & Mayer, 2015). In the opinion of Krueger (2015), the entrepreneurial mindset consists of non-cognitive life skills. Following the model of the entrepreneurial mindset proposed by Krueger (2015), The Impact Questionnaire aim to assess in Section 1:

- Action-orientation/proactivity - Taking the initiative-Go for it
- Innovativeness (presumably discontinuous) - Creativity, Valuing Ideas
- Resilience to adversity/optimism
- Persistence at goal-directed behaviours
- Self-efficacy - Self-awareness
- Tolerance for ambiguity and uncertainty- Making decision dealing with uncertainty, ambiguity and risk
- Future orientation (ability to delay gratification) -Vision
- Lower risk-aversion – fearless / risk-taking
- Entrepreneurial intentions

Importance perception of following variables after the ILS

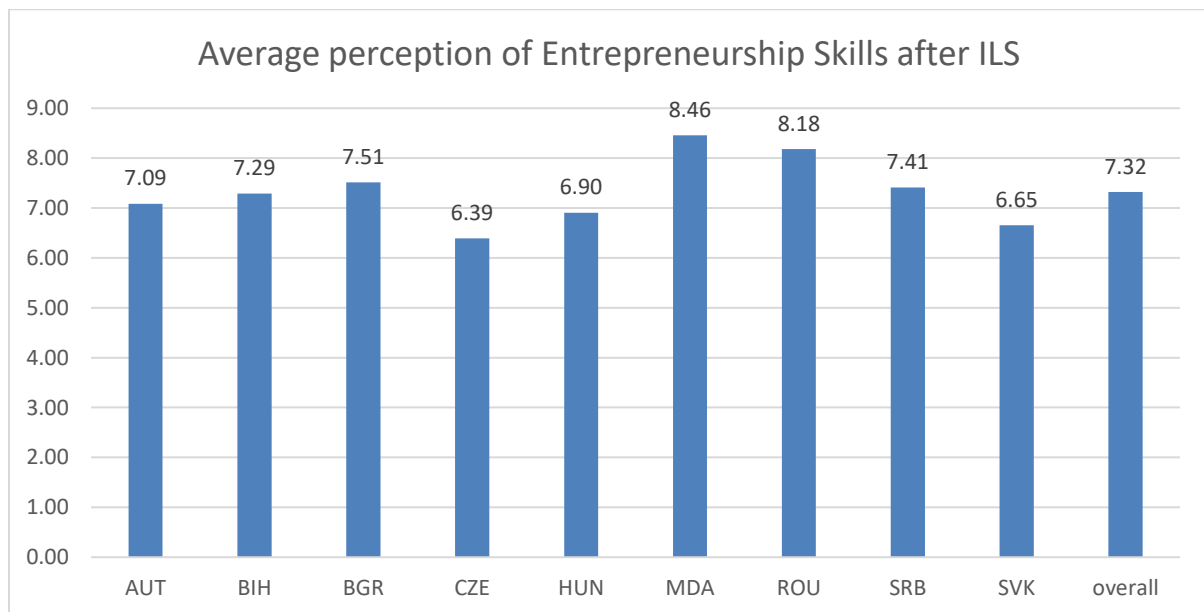


Social entrepreneur Skills

The impact questionnaire within the 3rd section – Social Entrepreneurial Skills – aims to assess the following skills and attitudes:

- Creativity, brainstorming; and competitive thinking;
- Pro-activity, initiative; teamwork
- Risk-taking; decision making; analysing, reflection skills
- Perseverance; determined working moral

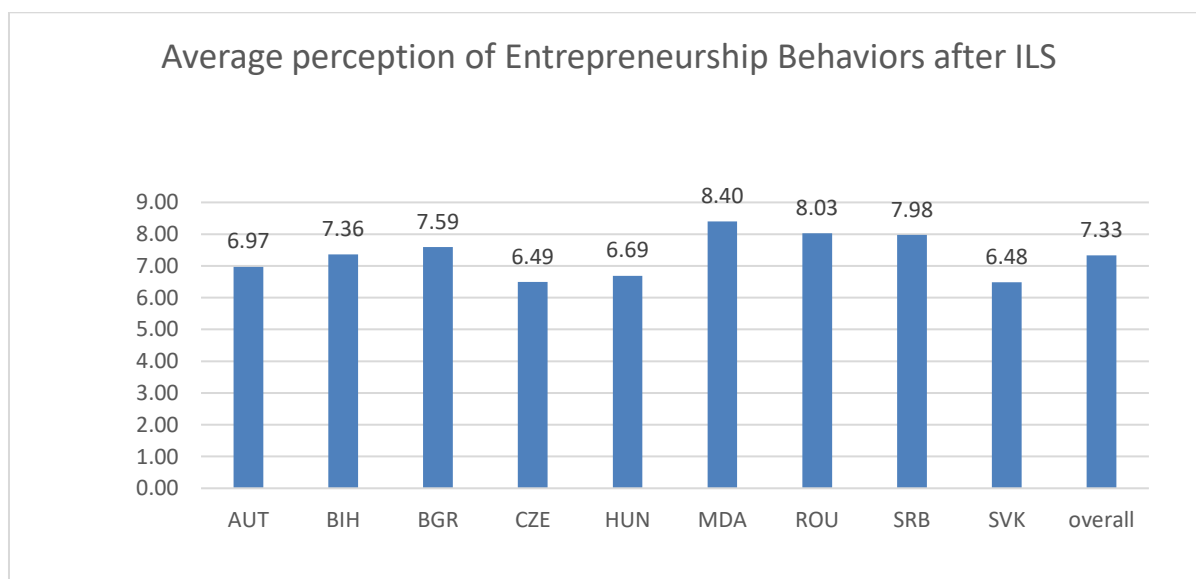
Importance perception of following variables after the ILS



Social entrepreneur Behaviors

In the third part of the questionnaire, which deals with knowledge in the field of social entrepreneurship, the questionnaire was elaborated by Kickul and D'Intino (2005). Kickul and D'Intino (2005) examine various components of entrepreneurial self-efficacy within the entrepreneurship literature using perspective measurement. Self-efficacy may play an important role in uncovering the essential skills set needed throughout the various stages of the entrepreneurial life-cycle. That is why we decided to reflect on this approach in our questionnaire.

- Opportunity recognition and needs assessment, Spotting opportunities, Valuing ideas
- Business planning, data gathering and data analysis Mobilizing resources
- Finance – Financial and economic literacy
- HR – Learning through experience
- Project management and leadership – Mobilizing others



Evaluation of link to the type of school and education format

In the following table, we can see that there are significant differences in knowledge before the ILS related to the type of school. Medical schools reach the best results surprisingly together with vocational schools without graduate. Grammar schools show the biggest improvement. The difference or improvement is calculated relatively (what is the improvement in percentages to the original state).

According to this research, the benefit of ILS in Medical schools and vocational schools without graduate is relatively low. This phenomenon should be deeper investigated in a larger sample. But it should implicate to the curricula makers where to focus the effort and where the benefits are lower.

Correlation among the type of school

	Are you familiar with the entrepreneurship / social entrepreneurship concept?	Do you know the difference between an enterprise and a social enterprise?	Do you know any social entrepreneur?
Before ILS			
entrepreneur, business, economic school	68,30%	40,63%	23,63%
grammar school	57,01%	44,59%	24,52%
industrial school	65,63%	34,38%	9,38%
medical school	88,89%	77,78%	22,22%
Others	75,82%	55,31%	33,70%
vocational school with graduate exam	71,19%	54,92%	31,53%
vocational school without graduate	90,45%	71,97%	35,03%
After ILS			
entrepreneur, business, economic school	88,51%	79,02%	37,93%
grammar school	97,77%	93,95%	66,24%
industrial school	94,12%	100,00%	11,76%
medical school	100,00%	100,00%	37,50%
Others	93,31%	87,01%	44,09%
vocational school with graduate exam	88,80%	88,47%	52,72%
vocational school without graduate	96,18%	92,99%	42,04%
Relative difference			
entrepreneur, business, economic school	29,58%	94,48%	60,51%
grammar school	71,51%	110,71%	170,13%
industrial school	43,42%	190,91%	25,49%
medical school	12,50%	28,57%	68,75%
Others	23,06%	57,31%	30,85%
vocational school with graduate exam	24,74%	61,10%	67,22%
vocational school without graduate	6,34%	29,20%	20,00%

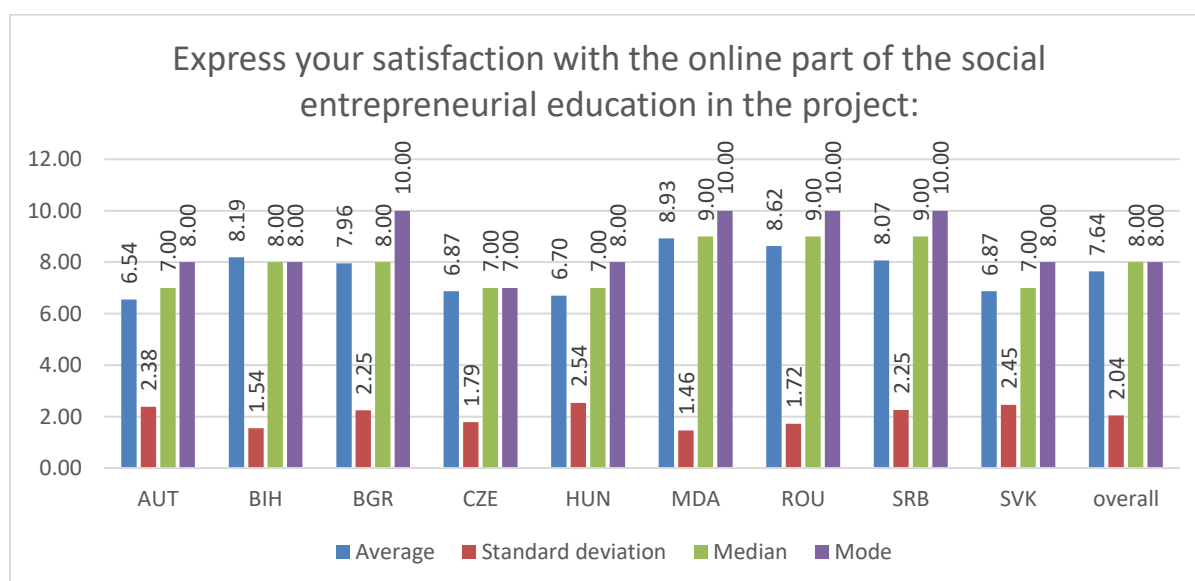
Correlation to attendance type

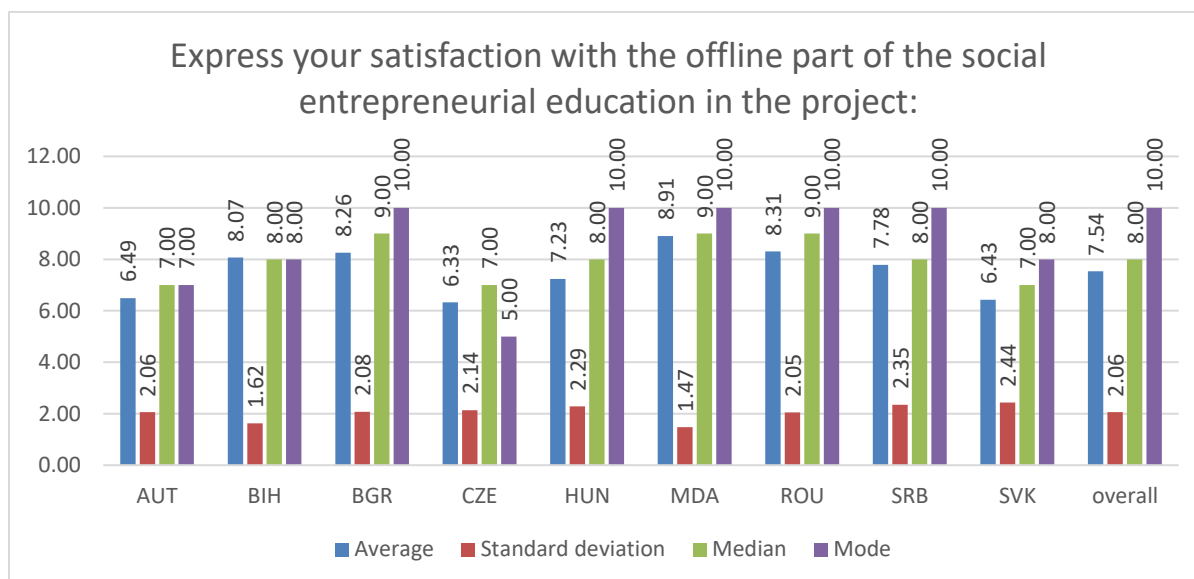
	Are you familiar with the entrepreneurship / social entrepreneurship concept?	Do you know the difference between an enterprise and a social enterprise?	Do you know any social entrepreneur?
Before ILS			
compulsory attendance	70,92%	48,59%	23,80%
voluntary	70,12%	54,13%	33,41%
After ILS			
compulsory attendance	88,47%	84,54%	35,46%
voluntary	94,93%	91,18%	61,30%
Relative difference			
compulsory attendance	24,74%	73,99%	48,97%
voluntary	35,38%	68,43%	83,50%

Satisfaction

Students were answering the following questions after the ILS. On Linkert scale 0-10 they evaluated their satisfaction with the course, where 0 means completely unsatisfied and 10 excellent courses. The results were evaluated using basic statistical indicators – average, standard deviation, median and mean.

Express your satisfaction with the online part of the social entrepreneurial education in the project.







Net Promoter Score

NPS SCORE	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
10	538	31,3%
9	282	16,4%
8	296	17,2%
7	230	13,4%
6	123	7,2%
5	121	7,0%
4	40	2,3%
3	32	1,9%
2	25	1,5%
1	18	1,0%
0	14	0,8%

Total respondents 1719

 PROMOTERS (10, 9)	 DETRACTORS (0-6)	PASSIVES (7, 8)
820	373	526
47,7%	21,7%	30,6%

NPS	26,0%
-----	-------

Positive Net Promoter Score (NPS>0) is considered very good.

NPS equal to 26% is very good result meaning that there is 26% more Promoters than Detractors. NPS is based on the difference between the number of users promoting the product and the users detracting the product. Thus, a positive NPS score means that more people are promoting the product than detracting. Neutral users are not involved in the calculation.

Summary of measurement results

The pilot deployment of the InnoSchool education system was successfully implemented, despite major complications and changes caused by the coronavirus crisis. However, we tried to approach this fact as a challenge rather than a problem, and thanks to this approach, we managed to involve more than 2,000 students from 9 different countries in the project.

Due to the mentioned crisis, a significant percentage (25%) of participants did not complete the pilot project. A total of 2330 respondents completed the first questionnaire before ILS and 1719 participants completed both questionnaires. However, not all students were included in the overall evaluation, as it was necessary to carry out the evaluation so that we could carry out further follow-up steps. The final evaluation is based on a sample of 1719 students who completed both questionnaires, and we had to exclude insufficiently completed questionnaires due to the statistical evaluation and the authenticity of the data.

According to the data collected, the significant impact of ILS can be measured. After ILS, 92% of students were familiar with the business / social entrepreneurship concept (32% improvement). The situation is similar with the understanding of the difference between business and social enterprise - 90% of students understand the difference (40% improvement). Based on these results, it can be predicted that regardless of the knowledge before ILS, the result after ILS will be around 90% in terms of understanding the concept of business / social entrepreneurship.

Approximately 50% of students know a social entrepreneur after completing the course (20% improvement). This significant increase can be explained by a better understanding of what social entrepreneurship is, what its context is, and an overall good understanding of the issue.

A great benefit, in addition to the finding that the InnoSchool education system has a real positive impact on students' knowledge of social entrepreneurship, is that students rated their satisfaction with the system very positively. Students expressed their satisfaction on the Likert scale (0-10), where 10 means complete satisfaction, where the result was 7.5 points with a standard deviation of 2 (meaning that most of the results were in the range of 6-9).

Follow-up steps in InnoSchool

V rámci další práce, která vede k vytvoření udržitelného vzdělávacího nástroje, který je inovativní a zábavný je nutné učinit další navazující kroky. Proto celý proces nekončí pouze pilotem, ale aktualizací celého systému a všech jeho základních prvků na základě zpětné vazby od zapojených zúčastněných stran. Zpětná vazba byla získávána nejen během pilotu ale i po jeho dokončení a díky tomu můžou vzniknout hned dvě nové verze ILS – InnoSchool 2.0. a InnoSchool X.

InnoSchool 2.0

InnoSchool 2.0 is the same system that we developed and tested, but modified to reflect suggestions and ideas from students, teachers, but also partners who used the system in practice.

The main purpose of the pilot was to test the system in practice, verify its results and obtain enough information for the final adjustment, which will help teachers and students in the development of social entrepreneurship in teaching.

What will change?

The update will apply not only to the online tool, but also to all other components of the system. For example, there will now be a teacher's guide, as well as other materials freely downloadable directly in the teacher interface. Furthermore, we will adjust the environment and characters to better reflect gender issues. The changes will affect all key elements of the ILS and the adjustments concern more than 80 sub-elements of the education system.

List of selected changes:

1. More interactivity in open tasks
2. Improving the student interface (eg improving office subjects, etc.)
3. Increasing the level of creativity of tasks

4. Improving the social aspect / emotions
5. Addition of warning notices
6. Possibility to upload profile pictures of student teams
7. Easier navigation for student assessment
8. Possibility to assign more teachers to one class
9. Possibility to extract data from quiz and open tasks of team / whole class
10. Visual improvement of team statistics (as in the student interface)

InnoSchool X

In addition to the actual update of the system, the project partners were offered the opportunity to expand the project with other activities from representatives of the Inttereg Danube program. As a result, another version of the InnoSchool system may be created, which will be designed exclusively for online teaching. All offline activities will therefore be transferred to the online form, so that not only in similar situations, when all teaching is moved to distance learning, it is possible to carry out work on students' social entrepreneurial ideas. Although the situation showed us during the pilot itself that even the current system can be used purely for distance learning, in some cases it encountered certain limitations. For this reason, InnoSchool X is created, which can be used in a purely online form.



New elements of ILS

But this is not the only change within ILS. In addition, it will be possible to use other new components for both ILS variants. One of them is the Catalog of Good Practice, which will focus on promoting teachers' knowledge of social enterprises with a description of good examples from partner areas. The catalog will contain specific social enterprises and thus help students get to know other interesting and successful cases.

Another novelty is the Social Business Training Package for Teachers. The package will consist of materials that will help teachers develop their own knowledge of social entrepreneurship so that they are better able to pass on knowledge to their students.

Conclusion

As part of the creation of the InnoSchool education system, the preparations that preceded it, but also as part of the pilot deployment, we involved hundreds of individuals who sometimes became more, sometimes less involved in the process and helped us create a unique system that proved itself and showed students and teachers. another way that can be interesting and, above all, beneficial for both parties.

Within the whole process, we involved students, teachers, representatives of regions, social entrepreneurs, as well as representatives of non-profit organizations, who together participated in the process of creation within the focus groups, as well as other meetings. It is this fact that helped us to create a system that reflects the requirements not only of ours, but above all the requirements of those who actually use the system and will use it in the future. The pilot deployment was preceded by thousands of hours of work, which helped us to map individual regions, their education systems and social needs.

Thanks to this, it was possible to carry out the entire process described in this document, which is intended to serve primarily those interested in InnoSchool, to orientate themselves in this issue and obtain a sufficient amount of information for decision-making in case you want to use the system.

During the implementation during the school year 2020/21, we all experienced major complications in the form of the coronavirus crisis, which profoundly affected not only InnoSchool. This situation changed the operation of schools and thus the implementation of the project, however, it turned out that InnoSchool is also suitable for distance learning. Thanks to this, interesting stories, useful ideas could emerge, and we received a large amount of feedback, which was key to verifying the entire system.

The whole pilot process, which culminated in the presentation of student teams, showed how interesting such projects can be. Thanks to the joint final presentation, it turned out that students are able to come up with very interesting ideas and projects that may have a chance of real success, or at least can become a great springboard for their further work. That is why we believe in making maximum use of the system in other schools and also that this will create new innovative ideas, which may one day be a solution to the social problems around us.