

SUMMARY MEASURING SPIRIT OF STUDENTS BEFORE PILOT FOR SOCIAL INNOVATION / ENTREPRENEURSHIP AS COLLECTED FROM FILLED IN IMPACT QUESTIONNAIRES GATHERED PER EACH TERRITORY

WP T2 PILOT - D.T2.2.1

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Summary

The InnoSchool project responds to the need to change the system - to improve the weak entrepreneurial culture and low commitment to social innovation and entrepreneurship. Its main goal is to strengthen social innovation and entrepreneurship among high school students by developing and implementing a highly innovative education system - ILS.

ILS is an innovative learning system specially designed to create awareness about social needs and improve the abilities and entrepreneurial skills of the upper secondary schools' students. It combines traditional classroom-based learning methods with digital elements and online simulation, thus helping build the next generation of social entrepreneurs and innovators.

ILS has a fun-educational character and combines the educational process with a fun environment, which ensures greater motivation of students.

InnoSchool Learning System comprises of the following key elements:

Serious Game (SG)	- SG is the core ILS element. It is a digital learning tool, which provides opportunity to leaners to gain experience and generate social business idea through online simulation.
	SG is designed as responsive web-based app, which to be used both in class and out of class by students' teams to learn, play and accomplish their educational tasks.
	Innovative aspects like social media and final interschool competition are incorporated in the SG.
Guidance for Teachers on Using ILS	- The current handbook is a practical guide to support teachers in applying the InnoSchool pedagogy.
	It includes step-by-step teaching guidance, which comes along with a set of offline activities, Serious Game manual both for playing and administrating, methodological and theoretical input to fully equip teachers for their work with ILS.
Training Materials to Train Teachers	- Training materials for teachers are specially developed to be used at Training workshops for teachers.
Impact Questionnaires for Students	- Impact questionnaires are intended for assessment of students' progress.

To verify the real impact of our education system, we carry out Pilot, which implements more than 100 schools from the Danube region. However, the Pilot also includes measuring the impact of the education system. The measurement takes place in two phases, before implementation and after implementation,



with students filling out an online questionnaire in most cases, which is used to compare the results. The questionnaire focuses on several areas and sub-areas:

1. The Social Entrepreneurial Mindset

- Action-orientation/proactivity
- Innovativeness (presumably discontinuous)
- Resilience to adversity/optimism
- Persistence at goal-directed behaviours
- Self-efficacy
- Tolerance for ambiguity and uncertainty
- Future orientation (ability to delay gratification)
- Lower risk-aversion
- Entrepreneurial intentions

2. Social Entrepreneurial Skills

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

3. The Social Entrepreneurial Behaviours

- Opportunity recognition and needs assessment
- Business planning, data gathering and data analysis
- Finance
- HR
- Project management and leadership

Students answered these questions on a scale from 0 to 10 in all questions in the questionnaire.

Strongly	0	1	2	3	4	5	6	7	8	9	10	Strongly
disagree												agree

This document summarizes the most interesting results and outputs that were obtained based on the first measurement - measurements before the pilot's start in all participating schools.



Summary of the most interesting measurement outputs before the start of the Pilot

2330 STUDENTS FROM 9 COUNTRIES



38% OF STUDENTS IN THIS SAMPLE HAVE AN ENTREPRENEUR IN THE FAMILY



1145 BOYS AND 1185 GIRLS









63% OF PARTICIPATING STUDENTS ARE FAMILIAR WITH ENTREPRENEURSHIP AND SOCIAL ENTREPRENEURSHIP



29% OF STUDENTS KNOW A SOCIAL ENTREPRENEUR



Students from Moldova and Romania had the best social entrepreneurial skills before Pilot





Who was involved?

In our first survey, we received responses from 2,330 students from 9 different countries in the Danube region, the location of the schools is highlighted in the following figure. Even more schools and also more students were originally enrolled in the Pilot, but in connection with the coronavirus pandemic, the number of schools and students decreased. The number of schools and especially the cities where it comes from can be seen on the map.



What was the goal of the measurement?

Our goal was to obtain data that will be evaluated before the Pilot and which will also be compared with data after the completion of the pilot project. Thanks to this, it will be possible to get a real example of the impact of the InnoSchool education system on students in these areas. It is possible to obtain very interesting data from our measurements before the Pilot. Especially in the case of comparisons between individual states, but also in correlations between selected variables.



What types of schools are involved in the project?

	Vocational school	Business schools	Grammar school	Secondary/high school	Medical schools	Lyceum	College
Czech Republic	0	3	3	0	1	0	0
Austria	0	3	0	0	0	0	0
Slovakia	5	3	2	0	0	0	0
Romania	0	0	0	3	0	7	
Hungary	8	2	1	0	0	0	0
Bulgaria	8	0	1	2	0	0	0
Serbia	3	2	4	0	1	0	0
Bosnia and Hercegovina	8	2	0	0	0	0	0
Moldova	0	0	11	9	0	0	1

Pilot in 9 countries

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. Subsequently, the next report/summary will explain and show the impact of the education system, its results, success and based on these outputs it will be possible to create an update of the entire education system InnoSchool.

From the obtained data we got to obtain several very interesting facts:

- ❖ 2330 students from 9 countries participated in the Pilot
- ❖ 1145 boys and 1185 girls from the Danube region
- 63% of participating student is familiar with entrepreneurship and social entrepreneurship
- ❖ 38% of students in this sample have an entrepreneur in the family
- ❖ 48% know the difference between an enterprise and a social enterprise
- only 29% know any social entrepreneur
- Students from Romania shows the highest score in questions regarding The Social Entrepreneurial Mindset, and students from Slovakia shows the lowest score
- Moldova and Romania has the highest rating in all evaluated variables within the Social Entrepreneurial Skills and Slovakia and Czech Republic lowest rating
- Moldova shows the highest rating within the Social Entrepreneurial Behaviours and Slovakia and Czech Republic lowest rating
- There is a strong correlation among all three researched areas The Social Entrepreneurial Mindset, The Social Entrepreneurial Skills and The Social Entrepreneurial Behaviours
- Austria, Bosnia and Herzegovina, Bulgaria, Czech Republic and Hungary shows the strong correlation among having an entrepreneur in family and Entrepreneurial intentions



- Hungary and Romania show a strong correlation among Entrepreneurial intentions and gender (man) and Bulgaria the same but in favour of a woman.
- ❖ Bulgaria and Moldova shows the strongest correlation of variables within the country



1. Results of the first round of the impact questionnaire

Entrepreneurial Capabilities

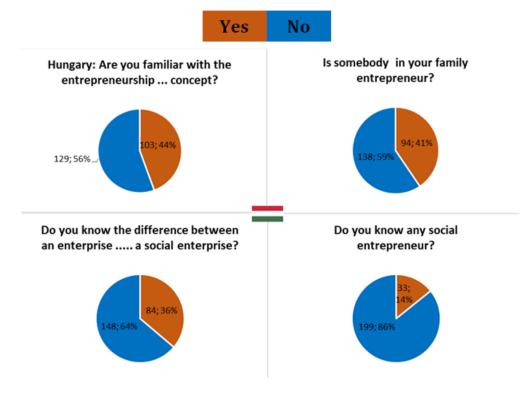
The first section of the Impact questionnaire was devoted to the basic distribution of respondents and their background and experience. The data are adjusted in the table according to individual countries, gender and the total number of respondents.

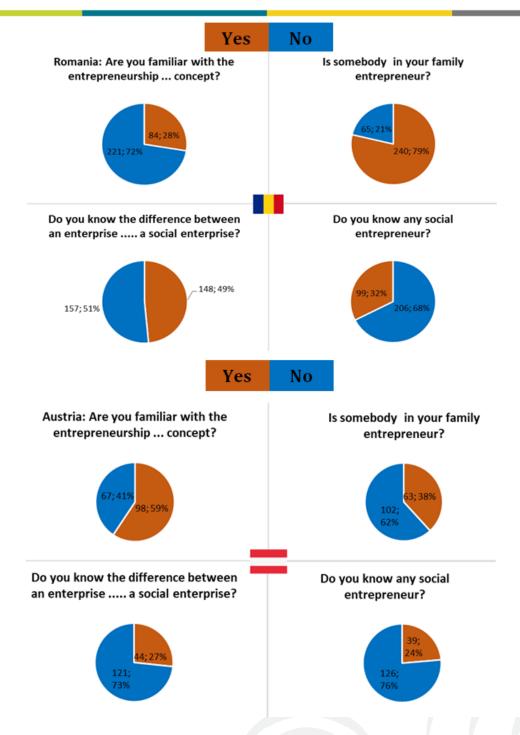
R	esponden	ts				Items				
Country	Gender	No Respondent	Are you with entrepre p / se entrepre p con	the eneurshi ocial eneurshi	Is som in your entrep	ebody family	Do y know differ betw an enter and soc enter	the ence reen n n n n n n n n n n n n n n n n n	Do you any so entrepre	cial
			Yes	No	Yes	No	Yes	No	Yes	No
Austria	Male	64	40	24	28	36	22	42	18	46
	Female	101	58	43	35	66	22	79	21	80
	Sum	165	98	67	63	102	44	121	39	126
Bosnia and Herzegovin	Male	103	84	19	29	74	45	58	26	77
а	Female	114	70	44	28	86	31	83	16	98
	Sum	217	154	63	57	160	76	141	42	175
Bulgaria	Male	150	121	29	36	114	83	67	46	104
Buigaria	Female	196	183	13	35	161	150	46	67	129
	Sum	346	304	42	71	275	233	113	113	233
Czech Republic	Male	60	41	19	27	33	29	31	7	53
	Female	99	68	31	51	48	47	52	22	77
**	Sum	159	109	54	83	81	79	83	31	130
Hungary	Male	107	52	55	49	58	34	73	17	90
	Female	125	51	74	45	130	50	75	16	109
Moldova	Sum Female	232 127	103 84	129 43	94 13	138 114	84 61	148 66	33 41	199
MODIOVA	Male	253	183	70	29	224	153	100	90	86 163
	Sum	380	267	113	42	338	214	166	131	249
Romania	Male	133	40	93	100	33	69	64	96	37
Nomama	Famale	172	44	128	140	32	79	93	110	62
	Sum	305	84	221	240	65	148	157	206	99

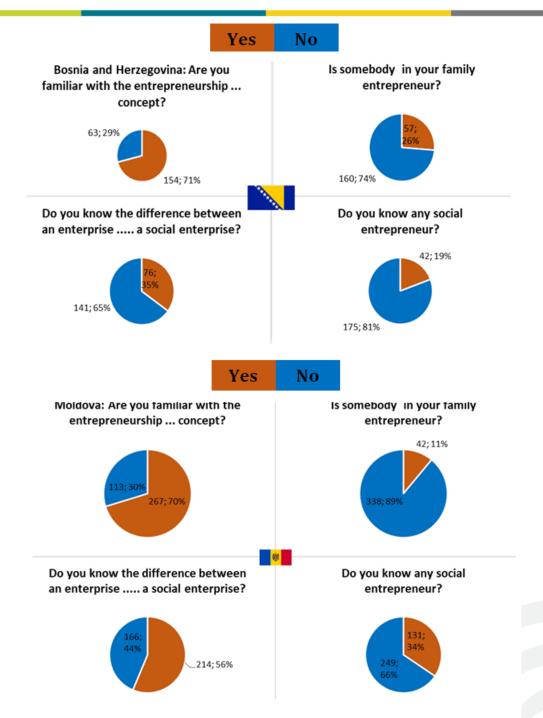


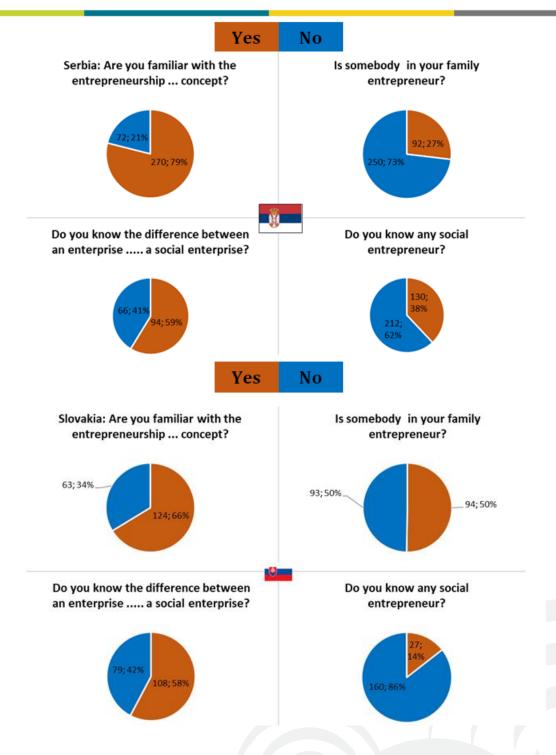
		-								
Serbia	Male	182	149	33	50	132	110	72	72	110
	Female	160	121	39	42	118	94	66	58	102
	Sum	342	270	72	92	250	204	138	130	212
Slovakia	Male	93	63	30	47	46	47	46	17	76
	Female	94	61	33	47	47	61	33	10	84
	Sum	187	124	63	94	93	108	79	27	160

The introductory questions are also arranged in graphs, for better clarity of the answers for individual countries (The numbering in the graph is given as follows - number of students; percent):







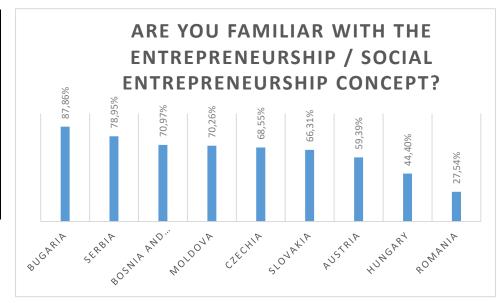




1.1. Countries compared according to the percentage of positive answers to the following questions:

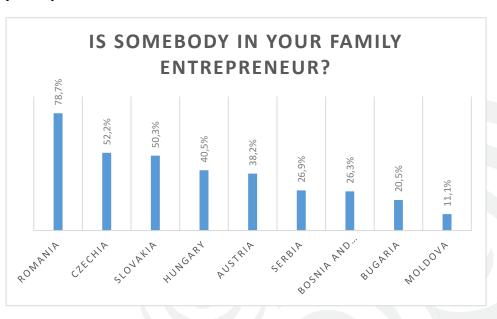
Are you familiar with the entrepreneurship / social entrepreneurship concept?

Bulgaria	87,86%
Serbia	78,95%
Bosnia and	
Herzegovina	70,97%
Moldova	70,26%
Czech	
Republic	68,55%
Slovakia	66,31%
Austria	59,39%
Hungary	44,40%
Romania	27,54%



Is somebody in your family entrepreneur?

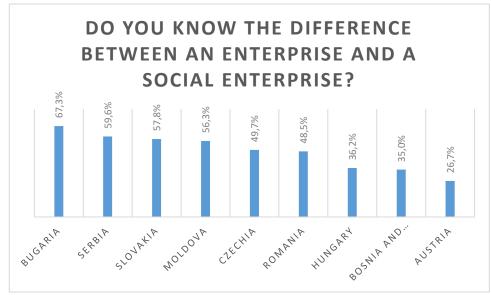
Romania	78,7%
Czech	
Republic	52,2%
Slovakia	50,3%
Hungary	40,5%
Austria	38,2%
Serbia	26,9%
Bosnia and	
Herzegovina	26,3%
Bulgaria	20,5%
Moldova	11,1%





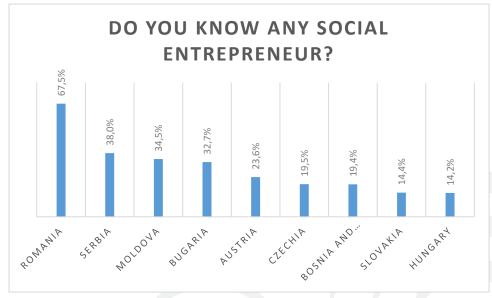
Do you know the difference between an enterprise and a social enterprise?

Bulgaria	67,3%
Serbia	59,6%
Slovakia	57,8%
Moldova	56,3%
Czech	
Republic	49,7%
Romania	48,5%
Hungary	36,2%
Bosnia and	
Herzegovina	35,0%
Austria	26,7%



Do you know any social entrepreneur?

ъ .	(7 F 0/
Romania	67,5%
Serbia	38,0%
Moldova	34,5%
Bulgaria	32,7%
Austria	23,6%
Czech	
Republic	19,5%
Bosnia and	
Herzegovina	19,4%
Slovakia	14,4%
Hungary	14,2%





1. The Social Entrepreneurial Mindset

In Section 1 of the questionnaire we are assessing the following variables:

- Action-orientation/proactivity: item 1
- Innovativeness (presumably discontinuous): item 2
- Resilience to adversity/optimism: item 3
- Persistence at goal-directed behaviours: items 4, 5
- Self-efficacy: item 6
- Tolerance for ambiguity and uncertainty: item 7
- Future orientation (ability to delay gratification): item 8
- Lower risk-aversion: items 9, 10
- Entrepreneurial intentions: item 15
- Social -awareness: items 11, 12, 13 and 14

In the following section, we evaluate a total of 4 basic values: **Mean, Standard Deviation, Mode, and Median**

What is what?

- The mean value is the arithmetic mean of the values.
- The standard deviation is a measure of the rate of change or variance of a set of values. A low standard deviation indicates that the values tend to be close to the mean (also called the expected value) of the set, while a high standard deviation indicates that the values are spread over a wider range.
- Mode is the most likely value of the dataset.
- The median is the value in the middle of the dataset.



Country	V1 Action- orientation/proactivity	V2 Innovativeness (presumably discontinuous)	V3 Resilience to adversity/optimism	V4 Persistence at goal- directed behaviours	V5 Self-efficacy	V6 Tolerance for ambiguity and uncertainty	V7 Future orientation (ability to delay gratification)	V8 Lower risk-aversion	V9 Entrepreneurial intentions	V10 Social -awareness
Austria	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
Mean	6,90	7,46	6,95	7,48	7,92	6,62	6,71	7,76	6,66	8,14
Standard d.	2,28	2,20	2,19	1,81	1,80	2,14	2,41	1,45	3,12	1,29
Mode	8	10	7	7,5	9	7	8	8	10	9,25
Median	7	8	7	7,5	8	7	7	8	7	8,25
Bosnia and Herzegovina	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
Mean	6,57	7,10	7,52	7,68	7,92	6,62	6,71	7,76	6,66	8,14
Standard d.	2,54	2,66	2,55	1,83	1,80	2,14	2,41	1,45	3,12	1,29
Mode	5	10	10	10	9	7	8	8	10	9,25
Median	6	7	8	8	8	7	7	8	7	8,25
Bulgaria	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
Mean	7,29	7,55	7,70	7,89	7,66	6,82	7,27	8,13	7,56	7,94
Standard d.	2,80	2,79	2,70	2,33	2,56	2,85	2,90	2,02	2,87	2,10
Mode	10	10	10	10	10	10	10	10	10	10
Median	8	8	9	9	8,5	7	8	9	9	8,75
Czech Republic	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
Mean	7,21	6,57	7,37	6,84	7,22	5,90	7,13	7,65	6,59	7,56
Standard d.	2,29	2,28	2,11	2,01	2,27	2,63	2,54	1,54	2,74	1,60
Mode	10	7	8	7	8	5	10	7,5	10	8
Median	8	7	8	7	8	6	8	7,5	7	7,75
Hungary	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
Mean	6,59	7,37	6,51	7,26	6,43	6,63	6,78	7,90	7,17	7,80
Standard d.	2,09	2,20	2,41	1,82	2,08	2,49	2,40	1,57	2,78	1,51
Mode	7	8	5	7,5	7	10	10	8	10	8,5
Median	7	8	7	7,5	7	7	7	8	8	8,25
Moldova	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
Mean	7,31	8,50	8,45	8,10	8,29	7,44	8,07	8,48	8,40	8,20
Standard deviation	2,32342 6	2,10	2,10	1,84	2,01	2,02	2,17	1,62	2,072	1,52
Mode	10	10	10	10	10	8	10	10	10	10
Median	8	9	9	8,5	9	8	9	9	9	8,5
Romania	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
Mean	7,82	8,60	8,36	8,46	8,56	7,49	7,93	8,69	7,62	8,48



Standard d.	1,94	1,64	1,81	1,46	1,63	2,11	2,31	1,23	2,48	1,27
Mode	10	10	10	9	10	9	10	10	10	9,25
Median	8	9	9	9	9	8	9	9	8	8,75
Serbia	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
Mean	8,26	7,93	8,50	7,89	8,20	7,40	6,90	8,64	7,90	8,44
Standard d.	2,03	2,32	2,09	1,81	1,99	2,63	2,88	1,48	2,74	1,66
Mode	10	10	10	10	10	10	10	10	10	10
Median	9	8,5	9	8,5	9	8	8	9	9	9
Slovakia	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
Mean	5,98	7,44	6,40	6,38	6,94	5,16	7,01	7,32	6,27	7,45
Standard deviation	2,63	2,21	2,69	2,17	2,20	2,62	2,84	1,79	2,95	1,70
Mode	5	10	8	7	8	5	10	8	10	8,5
Median	6	8	7	7	7	5	8	7,5	7	7,75

Country score according to the mean in evaluated variables

Country	V1 Action- orientation/proact ivity	V2 Innovativeness (presumably discontinuous)	V3 Resilience to adversity/optimis m	V4 Persistence at goal-directed behaviours	V5 Self-efficacy	V6 Tolerance for ambiguity and uncertainty	V7 Future orientation (ability to delay gratification)	V8 Lower risk- aversion	V9 Entrepreneurial intentions	V10 Social – awareness
Austria	6,90	7,47	6,96	7,48	7,92	6,62	6,72	7,76	6,67	8,14
Bosnia and Herzegovina	6,58	7,11	7,53	7,68	7,92	6,62	6,72	7,76	6,67	8,14
Bulgaria	7,29	7,55	7,71	7,90	7,66	6,83	7,27	8,13	7,56	7,94
Czech Republic	7,21	6,57	7,38	6,85	7,22	5,91	7,13	7,65	6,60	7,56
Hungary	6,60	7,37	6,52	7,27	6,43	6,64	6,79	7,91	7,18	7,80
Moldova	7,31	8,50	8,46	8,11	8,30	7,44	8,07	8,49	8,40	8,20
Romania	7,83	8,60	8,37	8,47	8,56	7,49	7,93	8,69	7,63	8,48
Serbia	8,27	7,93	8,51	7,90	8,20	7,41	6,91	8,65	7,90	8,45
Slovakia	5,98	7,44	6,40	6,39	6,95	5,17	7,02	7,32	6,27	7,46



Country score according to the mean values from the previous table

Romania	8,21
Moldova	8,13
Serbia	8,01
Bulgaria	7,59
Bosnia and Herzegovina	7,27
Austria	7,26
Hungary	7,05
Czech Republic	7,01
Slovakia	6,64



2. Social Entrepreneurial Skills

In Section 2 of the questionnaire we are assessing the following variables:

- Creativity, brainstorming; and competitive thinking: items 1, 2 and 3
- Pro-activity, initiative; teamwork: items 4, 6, 11 and 15
- Risk-taking; decision making; analysing, reflection skills: items 7, 8, 9, 10 and 12
- Perseverance; determined working moral: items 5, 13, and 14

Comparison of medians among the countries.

	Skills		Skills Risk-	Skills
Country	Creativity	Skills Proactivity	taking	Perseverance
Austria	6,66	7,5	6,8	7,33
Bosnia and				
Herzegovina	6,66	7,25	7,4	7,33
Bulgaria	7,33	8	7,8	8
Czech				
Republic	6,33	6,75	6,8	6,33
Hungary	7	7,12	6,8	7
Moldova	8	8,5	8,4	8,66
Romania	7,66	8,25	8,2	8,33
Serbia	7,33	7,75	7	8
Slovakia	6	7	6,4	6,66

Moldova and Romania have surprisingly highest rating in all evaluated variables.



3. Social Entrepreneurial Behaviours

In Section 3 of the questionnaire we are assessing the following variables:

- Opportunity recognition and needs assessment: items 1,2,3
- Business planning, data gathering and data analysis: items 4,5,6,7,8
- Finance: items 9, 10
- HR: items 11, 13
- Project management and leadership: items 12, 14, 15

Comparison of medians among the countries.

		Behaviours			
	Behaviours	Business	Behaviours	Behaviours	
Country	Opportunity	Plan	Finance	HR	Behaviours PM
Austria	6,66	6,8	6	7,5	7,66
Bosnia and					
Herzegovin					
a	7	6,6	7	7,5	7,33
Bulgaria	7,66	7,6	7	8	8
Czech					
Republic	6,33	6	5,5	6,5	7
Hungary	6,33	6,6	6,5	7,5	7,16
Moldova	8,33	8	7,5	8,25	8,66
Romania	7,33	7,4	7	8	8,33
Serbia	7,66	7,6	7,5	8,5	8,66
Slovakia	6	6	5,5	7	7

Again Moldava is almost best in almost all variables among the countries.



2. Correlation within countries

Statistically significant correlation among variables is marked in green.

Austria

Social Entrepreneurial Skills

Bivariate correlation matrix

Section 2		Pro-	Risk-	
Variables	Creativity	activity	taking	Perseverance
Creativity				
Pro-activity	0,613			
Risk-taking	0,508	0,541		
Perseverance	0,624	0,754	0,582	

The Social Entrepreneurial Behaviours

Bivariate correlation matrix

Section 3	Opportunity	Business			Project		
Variables	recognition	planning	Finance	HR	management		
Opportunity recognition							
Business planning	0,772						
Finance	0,620	0,656					
HR	0,578	0,608	0,518				
Project management	0,589	0,534	0,473	0,774			

Bosnia and Herzegovina

Social Entrepreneurial Skills

Bivariate correlation matrix

Bivariate correlation matrix								
Section 2		Pro-	Risk-					
Variables	Creativity	activity	taking	Perseverance				
Creativity								
Pro-activity	0,603							
Risk-taking	0,512	0,676						
Perseverance	0,502	0,658	0,708					

The Social Entrepreneurial Behaviours

Section 3 Variables	Opportunity recognition	Business planning	Finance	HR	Project management
Opportunity recognition					
Business planning	0,674				
Finance	0,525	0,802			
HR	0,505	0,694	0,691		
Project management	0,584	0,681	0,630	0,731	



Bulgaria

Social Entrepreneurial Skills

Bivariate correlation matrix

Section 2 Variables	Creativity	Pro- activity	Risk- taking	Perseverance
Creativity	Greativity	activity	tannig	rerseverance
Pro-activity	0,762			
Risk-taking	0,747	0,865		
Perseverance	0,730	0,854	0,861	

The Social Entrepreneurial Behaviours

Bivariate correlation matrix

Bivariate correlation matrix								
Section 3	Opportunity	Business			Project			
Variables	recognition	planning	Finance	HR	management			
Opportunity recognition								
Business planning	0,843							
Finance	0,745	0,853						
HR	0,701	0,794	0,777					
Project management	0,745	0,821	0,810	0,836				

Czech Republic

Social Entrepreneurial Skills

Section 2		Pro-	Risk-	
Variables	Creativity	activity	taking	Perseverance
Creativity				
Pro-activity	0,569			
Risk-taking	0,454	0,688		
Perseverance	0,535	0,787	0,621	



The Social Entrepreneurial Behaviours

Bivariate correlation matrix

Section 3	Opportunity	Business			Project
Variables	recognition	planning	Finance	HR	management
Opportunity recognition					
Business planning	0,591				
Finance	0,453	0,710			
HR	0,567	0,584	0,588		
Project management	0,630	0,582	0,418	0,723	

Hungary

Social Entrepreneurial Skills

Bivariate correlation matrix

Section 2		Pro-	Risk-	
Variables	Creativity	activity	taking	Perseverance
Creativity				
Pro-activity	0,573			
Risk-taking	0,594	0,742		
Perseverance	0,556	0,701	0,627	

The Social Entrepreneurial Behaviours

Bivariate correlation matrix

Section 3	Opportunity	Business			Project
Variables	recognition	planning	Finance	HR	management
Opportunity recognition					
Business planning	0,728				
Finance	0,534	0,673			
HR	0,569	0,681	0,568		
Project management	0,616	0,695	0,538	0,751	

Moldova

Social Entrepreneurial Skills

Section 2		Pro-	Risk-	
Variables	Creativity	activity	taking	Perseverance
Creativity				
Pro-activity	0,840		,	
Risk-taking	0,788	0,885		
Perseverance	0,806	0,894	0,868	



The Social Entrepreneurial Behaviours

Bivariate correlation matrix

Section 3 Variables	Opportunity recognition	Business planning	Finance	HR	Project management
Opportunity recognition					Ü
Business planning	0,874				
Finance	0,722	0,822			
HR	0,807	0,835	0,733		
Project management	0,811	0,819	0,695	0,880	

Romania

Social Entrepreneurial Skills

Bivariate correlation matrix

Section 2			Risk-	
Variables	Creativity	Pro-activity	taking	Perseverance
Creativity				
Pro-activity	0,695			
Risk-taking	0,598	0,765		
Perseverance	0,623	0,771	0,694	

The Social Entrepreneurial Behaviours

Bivariate correlation matrix

Section 3 Variables	Opportunity recognition	Business planning	Finance	HR	Project management
Opportunity recognition					
Business planning	0,761				
Finance	0,581	0,777			
HR	0,687	0,742	0,693		
Project management	0,672	0,701	0,553	0,831	

Serbia

Social Entrepreneurial Skills

Bivariate correlation matrix

Section 2		Pro-	Risk-	
Variables	Creativity	activity	taking	Perseverance
Creativity				
Pro-activity	0,662			
Risk-taking	0,631	0,692		
Perseverance	0,665	0,763	0,656	

The Social Entrepreneurial Behaviours



Bivariate correlation matrix

Section 3	Opportunity	Business			Project
Variables	recognition	planning	Finance	HR	management
Opportunity recognition					
Business planning	0,830				
Finance	0,693	0,781			
HR	0,651	0,727	0,609		
Project management	0,657	0,707	0,613	0,765	

Slovakia

Social Entrepreneurial Skills

Bivariate correlation matrix

Section 2		Pro-	Risk-	
Variables	Creativity	activity	taking	Perseverance
Creativity				
Pro-activity	0,634			
Risk-taking	0,488	0,749		
Perseverance	0,657	0,788	0,733	

The Social Entrepreneurial Behaviours

Bivai late correlation matrix								
Section 3	Opportunity	Business			Project management			
Variables	recognition	planning	Finance	HR				
Opportunity recognition								
Business planning	0,755							
Finance	0,576	0,730						
HR	0,581	0,625	0,578					
Project management	0,628	0,670	0,600	0,803				



Statistical conclusion

According to Spearman's Rho there is a statistically significant correlation among variables in all three sections. Spearman's Rho is a non-parametric test used to measure the strength of association between two variables, where the value r = 1 means a perfect positive correlation and the value r = -1 means a perfect negative correlation. In general, this means that the larger (closer to 1) the value of "rs", the more students answered in the same areas in the same way.

Social awareness and Skills

The value of rs is: **0.78487**

rs = 0.78487, p (2-tailed) = 0.01223.

Social awareness and Behaviours

The value of rs is: **0.83551.**

rs = 0.83551, p (2-tailed) = 0.00504.

Skills and Behaviours -

The value of rs is: **0.93333.**

rs = 0.93333, p (2-tailed) = 0.00024.

By current standards, the association between the two variables would be considered statistically significant. It is clear from the results that the data show that the compared areas of education are significantly interconnected. It follows that it is not possible to have knowledge in one area without the student having knowledge in other areas.



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Annex

The Impact Questionnaire

Theoretical Background of the Impact Questionnaire

According to Krueger (2015), the assessment of the impacts of an educational intervention must focus on outputs, throughputs and inputs. Regarding *throughputs*, ILS is based on experiential learning, learning how to think/act like a social entrepreneur lead to deep cognitive change and to life-skills acquirement. At the *input* level, teacher training activity will help teachers to implement ILS and assure an experiential learning environment. It is also important to measure if students are already entrepreneurial. ILS teach students about social entrepreneurship, but most important, it teach them to do social entrepreneurship. ILS *outputs* are both the knowledge about social entrepreneurship and the social entrepreneurial mindset, skills and Behaviours.

The Impact Questionnaire intend to measure the outputs of ILS according with **ILS Learning Goals** (**ILS Advanced Concept**).

The Impact Questionnaire structure:

Starting from the definition bellow:

"An entrepreneurial attitude is characterized by initiative, pro-activity, independence and innovation in personal and social life, as much as at work. It also includes motivation and determination to meet objectives, whether personal goals or aims held in common with others, including at work."

ILS (Social) Entrepreneurial Competencies								
	Entrepreneurial Capabilities							
Mindset	Skills	Behaviours						
1.	1.	1.						
2.	2.	2.						
3.	3.	3.						

1. The Social Entrepreneurial Mindset

The scientific approaches of the entrepreneurial mindset's definition has 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: item 1
- Innovativeness (presumably discontinuous): item 2
- Resilience to adversity/optimism: item 3
- Persistence at goal-directed behaviours: items 4, 5
- Self-efficacy: item 6
- Tolerance for ambiguity and uncertainty: item 7
- Future orientation (ability to delay gratification): item 8
- Lower risk-aversion: items 9, 10
- Entrepreneurial intentions: item 15

One of the social and emotional competencies very important for social entrepreneurship is *social-awareness* defined as understanding other people, different social contexts and norms. Social – awareness is measured by items 11, 12, 13 and 14 of the first section.

2. Social Entrepreneurial Skills

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

- Creativity, brainstorming; and competitive thinking: items 1, 2 and 3
- Pro-activity, initiative; teamwork: items 4, 6, 11 and 15
- Risk-taking; decision making; analysing, reflection skills: items 7, 8, 9, 10 and 12
- Perseverance; determined working moral: items 5, 13, and 14

To create the list of items to be assessed, we have followed the suggestions and recommendations of the Kumar (1997), Greenglass et al. (2014) and Faber et al. (2013). Their insights for measuring the above mentioned broader dimensions of skills and attitudes were followed and items were adopted.

3. The Social Entrepreneurial Behaviours

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: items 1,2,3
- Business planning, data gathering and data analysis: items 4,5,6,7,8
- Finance: items 9, 10
- HR: items 11, 13
- Project management and leadership: items 12, 14, 15



IMPACT QUESTIONNAIRE

This questionnaire includes 45 statements, and will take about 10 minutes to complete. There are no right or wrong answers. Your honest opinion is what counts. For each statement, choose the number that best describes your opinion. Use the entire scale as much as possible.											
Strongly Strongly Disagree	0	1	2	3	4	5	6	7	8	9	10 Agree
Your ID Code / Name Surname: (text entered by a student)											

Gender: masculine, feminine, other (**drop-down menu selection**)

School 1 (selection, drop-down menu; for each country, selection of Pilot participating schools School:

will be included)

Country: Austria (selection, 'drop-down' menu; only one option available per country)

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

Yes (Yes/No, drop-down menu selection)

2. Is somebody in your family entrepreneur?

Yes (Yes/No, drop-down menu selection)

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

Yes (Yes/No, drop-down menu selection)

4. Do you know any social entrepreneur?

Yes (Yes/No, drop-down menu selection)

Section 1 of 3

Questions	Strongl y disagre e					Undecide d						Strongly agree
	0	1	2	3	4	5	6	7	8	8	9	10
1. When I am facing a big project that has to be done I don't have any problems getting started.												
2. I am fairly curious and I am continually												

	in search of						
	discovery		 	 			
3.	I am always optimistic about my future.						
4.	When I have a lot of important things to do, I find it easy to make a plan and stick with it.						
5.	I always give the best of myself in everything I do.						
6.	When I take on a project I have confidence that I will carry it out successfull y.						
7.	I manage my stress well in ambiguous and uncertain situations.						
8.	Meeting tomorrow's deadlines and doing other necessary work comes before tonight's play.						

9. I can learn from my mistakes.						
10. I can easily adapt to changing situations.						
11. I pay attention to the needs of others.						
12. I usually know how to help others who need that.						
13. I offer help to those who need me.						
14. I like to show interest in other people.						
15. I intend someday to start my own company or business.						



Section 2 of 3

Questions	Strongly disagree					Un- decided					Strongly agree
Q.1.000. 10110	0	1	2	3	4	5	6	7	8	9	10
1. I can come up with creative ideas for certain problems											
2. I usually record my ideas on a phone or in a notebook											
3. I like challenges and beating the odds											
4. I feel in charge of making things happen											
5. I spend time identifying long-term goals for myself											
6. I am confident I can lead others to accomplish a goal											
7. I am confident I can make changes when things do not go as planned.											
8. I keep track of all mistakes											
9. Before tackling a											

difficult task						
I imagine						
success						
scenarios.	 	 		 	 	
10. I act						
only after						
thinking						
carefully about a						
problem.						
11. I can				П		
work well						
with a wide						
range of						
people						
12. I am						
quick at						
making						
decisions						
13. I am a person who	Ш	Ш	Ш	Ш		
is fully						
dedicated to						
solving a						
problem						
14. I always						
try to find a						
way to work						
around						
obstacles;						
nothing						
really stops me.						
15. When I				П		
experience a						
problem, I						
take the						
initiative in						
resolving it.						



Section 3 of 3

Questions	Strongly disagree					Undecided					Strongly agree
	0	1	2	3	4	5	6	7	8	9	10
I can originate new ideas and products.											
2. I can come up with ideas that respond to current issues.											
3. I can describe the need and propose its theoretical solutions.											
4. I can assess the potential and risks of my business idea.											
5. I can formulate a set of activities in pursuit of opportunities.											
6. I can see new market opportunities for new products and services.											
7. I can set real goal and go for it.											
8. I can create a business model and work with auxiliary tools to help me evaluate the potential of my intention.											
9. I can identify potential sources of funding for investment.											
10. I can estimate all the financial resources and costs of a project.								Image: Control of the			
11. I can estimate what is the greatest potential of people on the											

team.								
12. I can convince								
others to join me								
and work								
together on my								
vision.								
13. I can		Ш	Ш	ΙШ	Ш	Ш	Ш	
articulate the								
vision and values								
of the team.								
14. I can provide								
constructive								
feedback to other								
team members								
15. I can work								
with others' ideas								
and use them for								
the benefit of the								
whole team.								



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