

# ILS EXTENDED BY NEW TOOLS AND SERVICES BROADENING THE USAGE SCOPE IN ONLINE ENVIRONMENT

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OUTPUT T4.1

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WP T4 - BROADENING THE USAGE SCOPE OF THE ILS IN  
FULLY DIGITAL ENVIRONMENT

TECHNICAL UNIVERSITY OF KOŠICE

FEBRUARY 2022

## Table of content

Table of content.....	2
Introduction .....	3
1. Methodology for implementation of the upgrade of the ILS in English to broaden the usage scope of ILS in the digital environment .....	3
2. Finalization of ILS components' improvement for broadening of the ILS usage especially in online environment.....	5
2.1. Introduction of individual accounts for team members.....	5
2.2. Communication channel within the Serious Game app.....	19
2.3. Improved informing of students about the status and game mechanics .....	23
2.4. Improved informing of students about the status and game mechanics .....	30

## Introduction

Within the InnoSchool project, 11 project partners and 6 associated strategic partners are working closely together to create a unique Innovative Learning System (ILS) in order to strengthen social innovation and entrepreneurship in the respective regions, to increase educational impact, to elaborate serious game/ICT aspects, to facilitate policy level and make it possible to include the ILS into local curricula.

InnoSchool Learning System (ILS) was originally planned to combine traditional classroom-based learning methods with digital elements in order to better fit into the 21st century's schools' curricula. However, the COVID-19 pandemic changed the rule of the play, and this impacted the usage of the ILS, prepared for typical presence form of lectures using digital, what brought many challenging situations for the teachers, students and project consortium and revealed the weaknesses and unreadiness of the current solution in these whole new conditions.

As the result, ILS was adapted for its seamless usage in online/distance learning setting. This output report presents the process and outcomes of implementation of the final upgrade and translations to all supported languages was elaborated under the Activity A.T4.1: Broadening the usage scope of the ILS in a digital environment, implemented under WP T4 (WP6) Broadening the usage scope, improving the support quality and the uptake ability of the ILS in digital environment, realized under the InnoSchool project.

## 1. Methodology for implementation of the upgrade of the ILS in English to broaden the usage scope of ILS in the digital environment

In order to define the concept to broaden the usage of the InnoSchool Learning System, following activities were implemented:

- Scanning of the territorial / transnational feedbacks and analysis of past communication with schools searching for issues related to playing the game in digital environment and recommended propositions of solutions how to solve the issue – by all PPs involved. Findings were captured according to guidelines and template introduced by TUKE.
- Internal workshop for conclusion, selection of final list of findings, recommended propositions of solutions how to solve the identified issues or opportunities for improvement found and their prioritization – all PPs involved. Workshop was organized jointly for Activities A.T4.1 (scope broadening) and A.T4.2 (support services and uptake), during the Project and Steering Committee Meeting on June 8<sup>th</sup>, with dedicated timeslot for A.T4.1 between 12:30 and 14:00 (online)

Agenda:

- Introduction to activity
- Discussion about issues related to playing the game in a purely digital environment, selection of the final prioritized list of findings with recommended propositions of solutions how to solve them.

- Preparation of the report D.T4.1.2: “Analysis of the possibilities to broaden the usage scope of ILS in the digital environment and recommendations formulated” with list of findings and initial solutions proposed, where the division of found issues to thematic ILS subgroups – SOCIAL, GAME, EDUCATION – by working group leaders (EDUCATION – EUB, GAME - TUKE, SOCIAL - ACTA) is performed.
- Elaboration of more detailed proposal of solutions to improve the ILS components for broadening of the ILS usage especially in online environment done by ILS subgroups – SOCIAL, GAME, EDUCATION – by working the group leaders (EDUCATION – EUB, GAME - TUKE, SOCIAL - ACTA) was performed.
- Preparation of the concept - D.T4.1.3: Concept for broadening the usage scope of the ILS in a digital environment - with detailed solutions how to improve the ILS components for broadening of the ILS usage especially in online environment, by WP leader (TUKE), supported by other WG leaders,
- Implementation of selected changes in relevant ILS components – work done by particular members of working groups SOCIAL, GAME, EDUCATION. Technical implementations related to Serious Game will be covered by the TUKE.
- Internal testing within the working groups GAME, EDU, SOCIAL, with all PPs involved. Improvement of outputs according to finding of internal testing of improved ILS components - implemented by responsible partners
- Preparation of the report D.T4.1.4 “Report on implementation of the upgrade of the ILS in English related to broadening of the usage scope”, prepared by WP leader (TUKE), supported by other WG leaders, presenting the detailed solutions that improved the ILS with the aim to broaden the ILS usage especially in online environment.
- The testing of all ILS parts will be conducted with the external focus groups composed by teachers and students from schools that took part in pilot testing. Testing of English content realized by teachers from min. 3 schools (min. 1 teacher per school) per ERDF country – testing teachers’ interface and students’ interface. Testing of English content realized by students from min. 3 schools (min. 2 students per school) per ERDF country - testing students’ interface. Users should have tested all changed functionalities with logical linkages – according to preprepared testing scenarios (prepared by working group leaders). The findings will be captured to user testing protocol (prepared by working group leaders).

The testing was organized in all ERDF countries – Austria, Bulgaria, Czech Republic, Hungary, Romania, Slovakia. All of the countries met the conditions mentioned above and organised testing meetings with 3 different schools. The testing events took place between December 13th, 2021 and January 24th, 2022. Below are aggregated data from all schools considering the number of students and teachers taking part in the testing.

Country	Nr. of Students	Nr. of Teachers	Nr. of Schools
Austria	10	4	3
Bulgaria	8	3	3
Hungary	6	3	3
Romania	7	3	3
Czech Republic	7	3	3
Slovakia	7	4	3
<b>Total</b>	<b>45</b>	<b>20</b>	<b>18</b>

- Aggregation of the findings by WP leader (TUKE), supported by other WG leaders, in the report D.T4.1.5: User testing protocol for upgraded ILS.
- Final improvement of the ILS, implemented by working groups, and preparation of final translations, reacting on the results of user testing session with selected secondary schools. Preparation of an easy-to-upload .txt/.xls files for the upgrades parts of the Serious Game, enabling preparation of new language versions.
- As the result of all activities, the WP leader (TUKE), supported by other WG leaders, prepared the final report D.T4.1.6 Report on the finalization of the ILS and translations of the content.

## 2. Finalization of ILS components' improvement for broadening of the ILS usage especially in online environment

Following section describes the functionalities, features or other changes implemented and finalized to broaden the usage of the InnoSchool Learning System, that were identified and proposed throughout the previously described activities. Based on identified improvements, the latest version of the ILS was created, called "version X".

The activities also included the translation of the new parts of the Serious Game and Teachers' handbook to all supported languages:

- English
- Bulgarian
- Czech
- German
- Hungarian
- Romanian
- Serbian
- Serbian (BIH)
- Slovak

### 2.1. Introduction of individual accounts for team members

**Priority:** Must have

**Responsible partners:** TUKE

**Issue ID and description:** DL-01 / in table below

Issues / Opportunities for improvement reported	Additional comments	Proposal to solve the issue
<p style="text-align: center;"><b>DL-01</b></p> <p><b>Problematic to play quiz individually by all team members. Only one account available currently in Serious Game.</b></p> <p><b>Reported by PPs:</b></p> <p>In conditions of distant learning students can't play in team, like when they are together, only one has to fill-in answers, the others easily loose motivation to work.</p>	<p><b>Reported by PPs:</b></p> <p>Team members should (at least) be able to answer the quiz questions individually; Quiz points then result from the individual performance of the team members. -&gt; More motivating: each individual student contributes to the team performance.</p> <p>Recommendation that even if the students play as teams, they should have the possibility to have a separate account and take the quizzes individually.</p>	<p>Problem - not every student has device at home (pre-condition)</p> <p>Characteristic of feature:</p> <ul style="list-style-type: none"> <li>- next part should be unlocked after at least one finished the quiz</li> <li>- we should inform (in progress part) teacher, there is player that has not yet answered</li> <li>- if each of the students earn the points separately, and if someone is doing poorly, the team can go in negative direction – going to debt even.</li> <li>- negative aspect – students might help each other when playing quiz – leakage of information – we are OKAY with it</li> </ul>

### *Upgrade of the Serious Game*

**Detailed description of the solution:**

Every team can be set to play the game individually (separate account for each team member) or with one account for the whole team (the option supported in previous InnoSchool versions). Individual/Team playing method can be switched by teacher any time during the game playing.

**Innoschool** 🇬🇧 📅 👤 Support Bulgaria

← Create team

Team settings

OFFICIAL NAME: Team3

UNOFFICIAL NAME: Optional

INDIVIDUAL GAME  TEAM GAME

EMAIL: team3@purvosou.bg

### Creation/editing of teams, team members registration, logging-in

While registering the team details by teacher, the email for the teams as whole is also appended by separates email addresses of each team member. Each team member receives his/her specific code for logging-in. Additionally, the code for the joint team account is generated, too.

Depending on the setting, the proper codes should be used – in case of team playing, the joint team code should be used for logging-in by team. Alternatively, when individual mode is in place, students should log in using their own specific code.

Each code (either for team or for team member) needs to be activated separately.

The system allows only to use only one method for logging-in – either team account logging or individual team members' accounts. The attempt to log in with wrong code (team or individual) will end up by showing the information the login was not successful as other method is currently set by teacher for this team.

**Innoschool** 🇬🇧 📅 👤 Support Bulgaria

← Create team

Team settings

OFFICIAL NAME: Team3

UNOFFICIAL NAME: Optional

INDIVIDUAL GAME  TEAM GAME

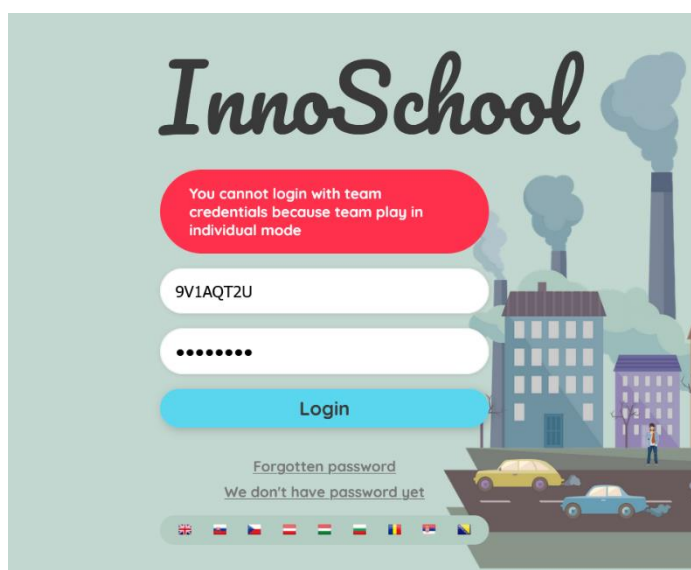
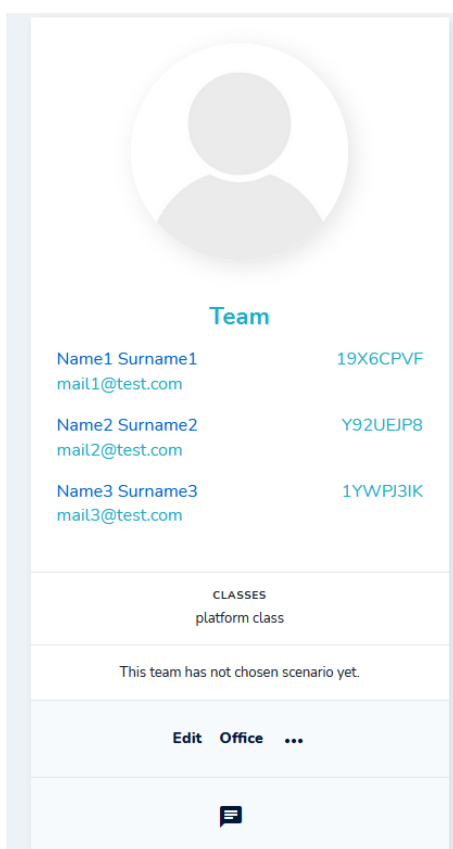
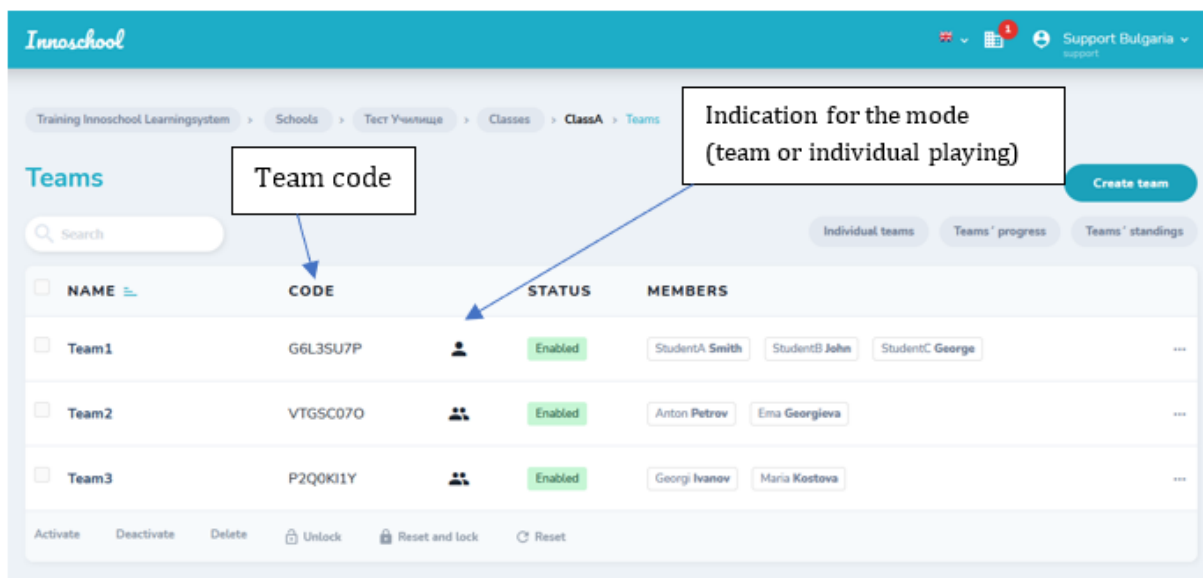
EMAIL: team3@purvosou.bg

Students

FIRST NAME	LAST NAME	EMAIL
Georgi	Ivanov	givanov@purvosou.bg ✗
Maria	Kostova	mkostova@purvosou.bg ✗

[+ Add students](#)

Cancel [Create team](#)



## Playing the game

Each player can play the game individually – is requested to proceed within the game step-by-step. The progress of the team is respecting the progress of the leading team player. Once one of

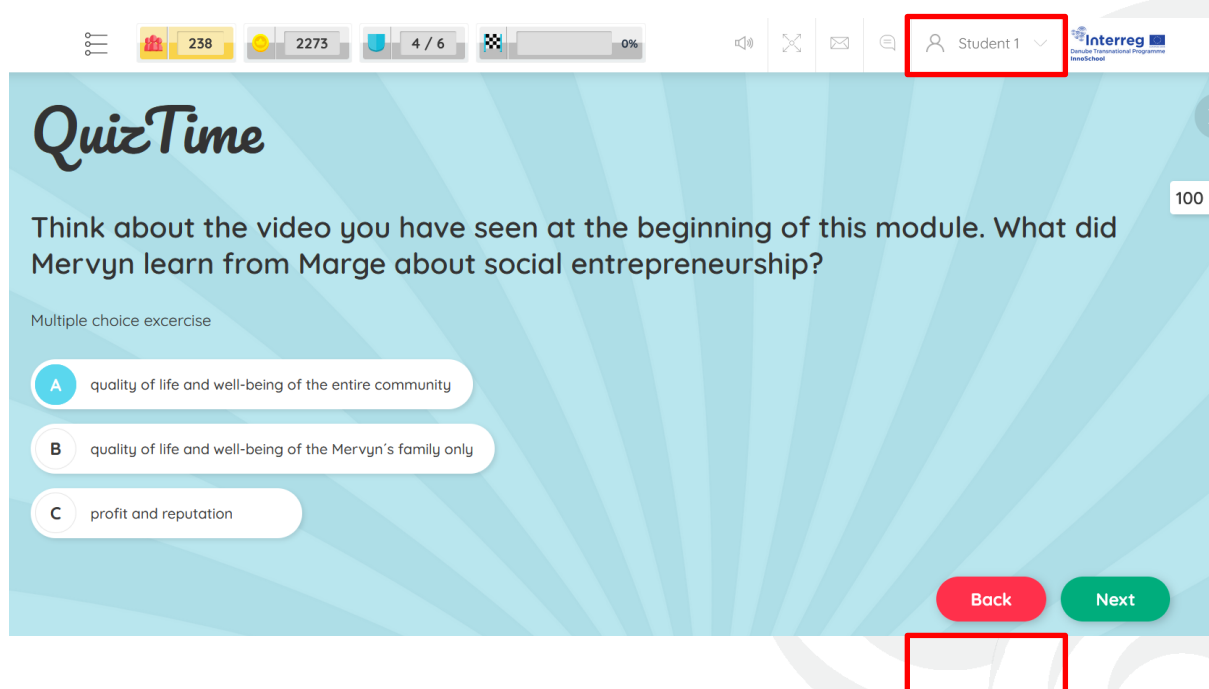


the team members (leading member) passed any game part (theory, case studies, quiz, scenario selection or open tasks) these parts are made open to any team member. This guarantees no player can be blocked in working on the mutual tasks.

Collection of coins and supporters (or other artefacts of motivational system – like badges and office items) is addressed in two ways. Within Quiz-for-fun in Theoretical parts and Open tasks, the rewarding is connected to activity performed by the leading team member (first one to perform the activity), the later attempts will not have any impact on gained number of coins or supporters. Only within the Quiz, the individual accounts matter – each team member can play the quiz individually – and the success of the individual team member influences the overall team results.

The success of the team is counted continuously - after attempt of the next team member – the score is recalculated – and should be increased or decreased, or to be kept unchanged – according to average of scores calculated. In case that quiz was finished by only one team member (with other players not doing an attempt), the game allows the team to continue in following tasks. By this, the unexpected situations related to missing pupils at school (e.g. due to illness) will not cause any blocking situations for other team members to progress further in the game.

Activities to be concluded by leading team member (in the name of the whole team)	Activity to be concluded by each team member separately
<ul style="list-style-type: none"> <li>• Quiz-for-Fun questions in Theories</li> <li>• Scenario selection in Level 1</li> <li>• Open tasks submission</li> </ul>	<ul style="list-style-type: none"> <li>• Quiz questions</li> </ul>



238 2273 4 / 6 0%

Student 1

## QuizTime

Think about the video you have seen at the beginning of this module. What did Mervyn learn from Marge about social entrepreneurship?

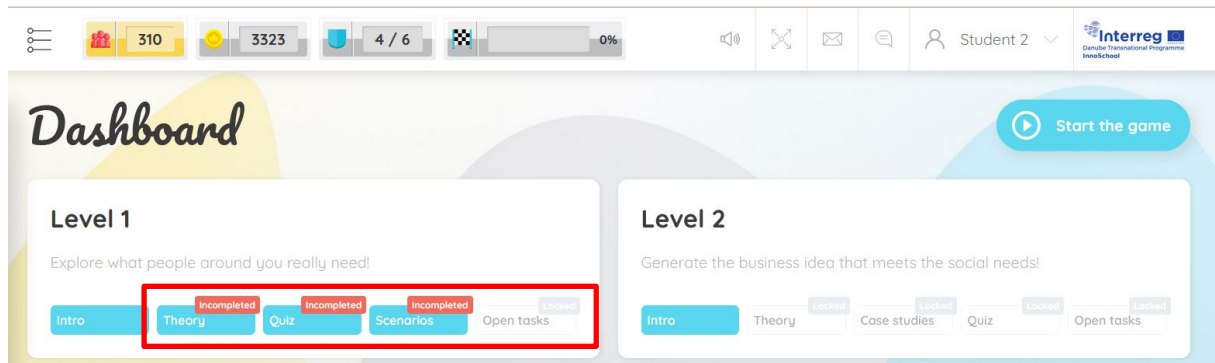
Multiple choice exercise

A quality of life and well-being of the entire community

B quality of life and well-being of the Mervyn's family only

C profit and reputation

Back Next



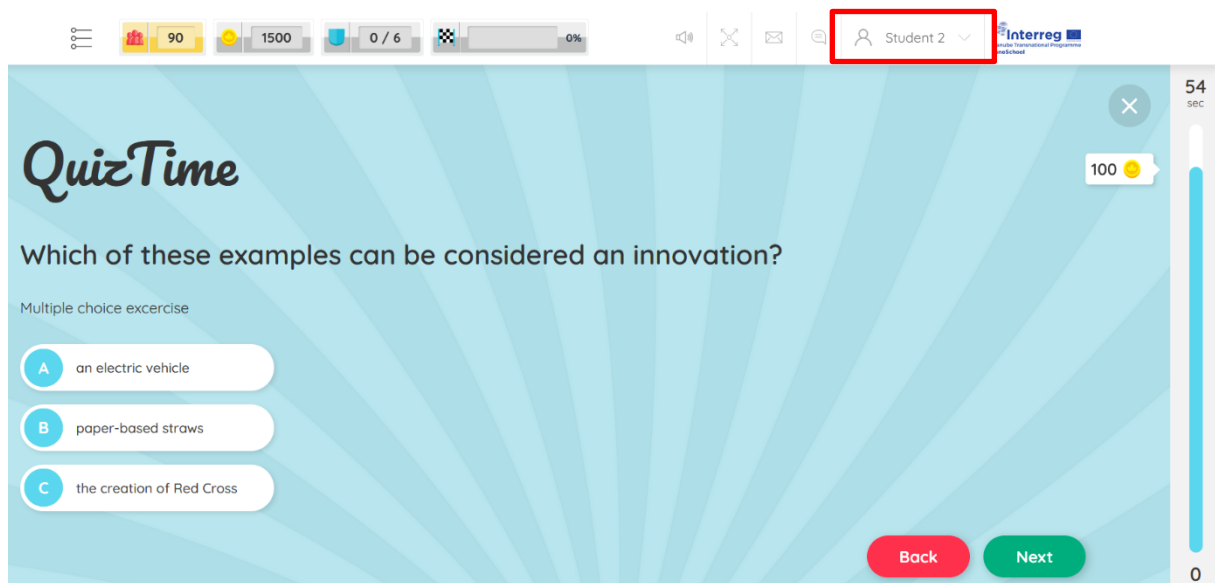
**Dashboard** Start the game

**Level 1**  
Explore what people around you really need!

Intro Theory **Incompleted** Quiz **Incompleted** Scenarios **Incompleted** Open tasks **Locked**

**Level 2**  
Generate the business idea that meets the social needs!

Intro Theory **Locked** Case studies **Locked** Quiz **Locked** Open tasks **Locked**



**QuizTime** 54 sec 100

Which of these examples can be considered an innovation?

Multiple choice exercise

A an electric vehicle


B paper-based straws


C the creation of Red Cross


**Back** **Next** 0


6 4058 4 / 6 11% Student 1

*In this game...*


 **70**

 **90%**  
Correct

 **3**  
Bonus


 **660**  
Heroes


**Continue**





6 3928 4 / 6 11% Student 2

*In this game...*


 **30**

 **50%**  
Correct

 **2**  
Bonus

 **400**  
Heroes

**Continue**



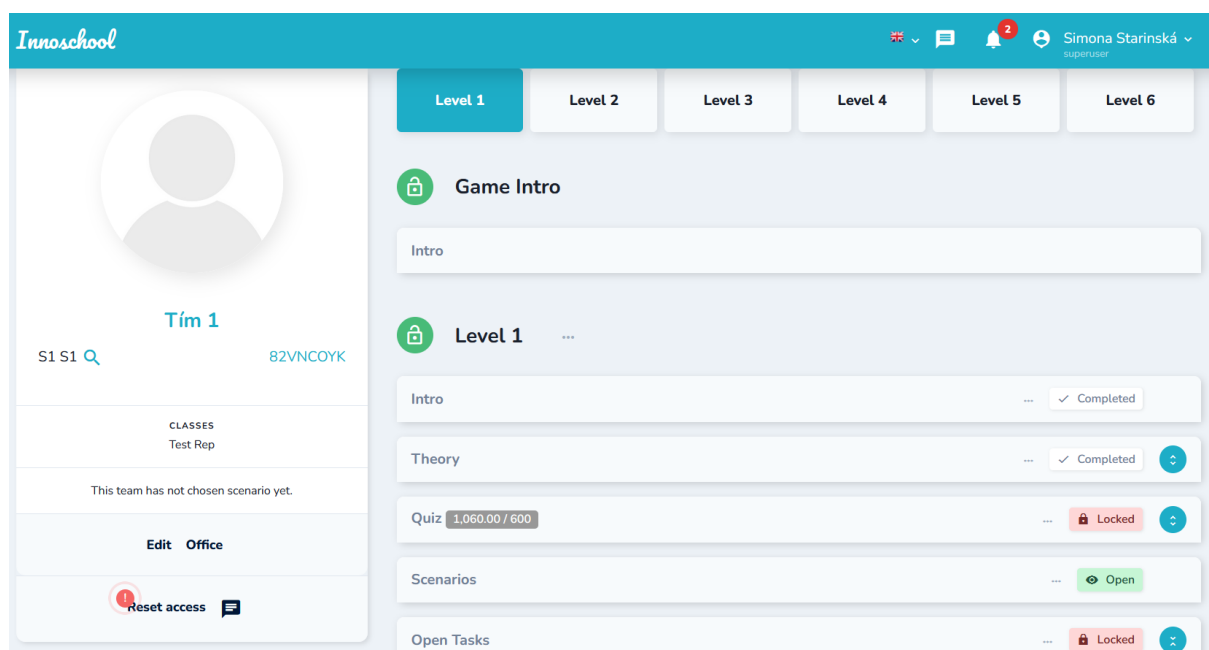
## Additional adjustments

### *Team's detail page in Teacher's interface*

Within the team detail page, the overall progress of the team presented in the Teacher's interface presents the progress of the leading team member (the player that is most advanced in terms of game activities).

At this page, also the details for the progress and success of team members are displayed.

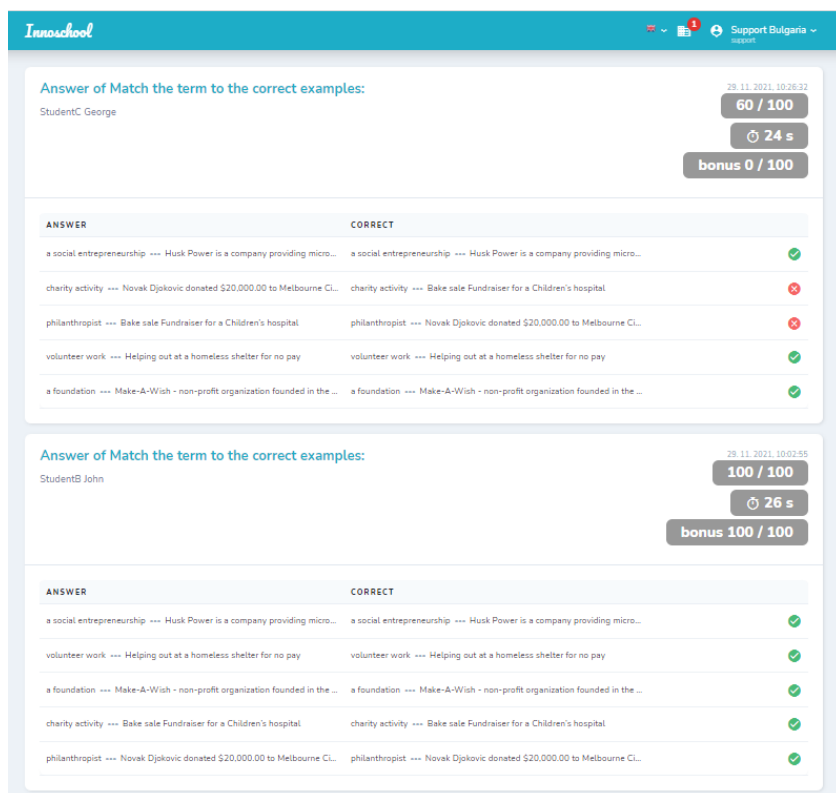
At this page, the login codes for every team member are displayed.



The screenshot shows the InnoSchool interface for a teacher. The top navigation bar includes the InnoSchool logo, a language dropdown, a chat icon, a notification bell with a red '2', and the user profile 'Simona Starinská' (superuser). Below the navigation bar is a horizontal menu with tabs for Level 1 through Level 6. The main content area is divided into two columns. The left column displays a placeholder for a team member's profile, the team name 'Tím 1', and two login codes: 'S1 S1' and '82VNC0YK'. Below this, there are sections for 'CLASSES' (with 'Test Rep' listed) and a message stating 'This team has not chosen scenario yet.' At the bottom of the left column are buttons for 'Edit', 'Office', and 'Reset access'. The right column shows a list of game activities for 'Level 1'. Each activity has a status indicator: 'Intro' is 'Completed', 'Theory' is 'Completed', 'Quiz' is 'Locked' (with a score of 1,060.00 / 600), 'Scenarios' is 'Open', and 'Open Tasks' is 'Locked'.

### *The Teams' progress page in Teacher's interface*

When the individual playing method is chosen, this table with overall team progress will be supplemented with the information about the progress of individual team members.



**Answer of Match the term to the correct examples:**  
StudentC: George

29.11.2021. 10:36:33  
60 / 100  
24 s  
bonus 0 / 100

ANSWER	CORRECT
a social entrepreneurship --- Husk Power is a company providing micro...	a social entrepreneurship --- Husk Power is a company providing micro... ✓
charity activity --- Novak Djokovic donated \$20,000.00 to Melbourne CL...	charity activity --- Bake sale Fundraiser for a Children's hospital ✗
philanthropist --- Bake sale Fundraiser for a Children's hospital	philanthropist --- Novak Djokovic donated \$20,000.00 to Melbourne CL... ✗
volunteer work --- Helping out at a homeless shelter for no pay	volunteer work --- Helping out at a homeless shelter for no pay ✓
a foundation --- Make-A-Wish - non-profit organization founded in the ...	a foundation --- Make-A-Wish - non-profit organization founded in the ... ✓

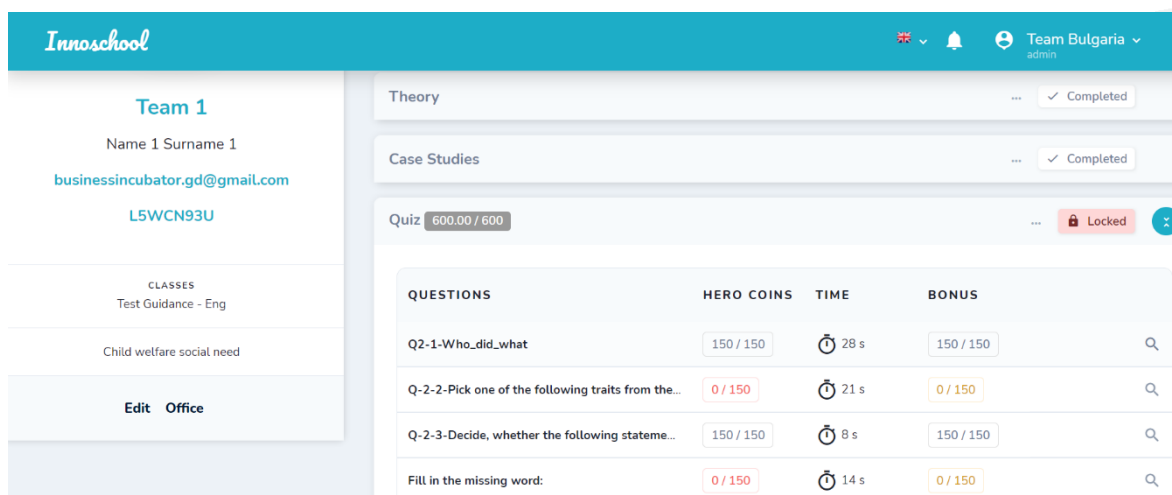
**Answer of Match the term to the correct examples:**  
StudentB: John

29.11.2021. 10:02:55  
100 / 100  
26 s  
bonus 100 / 100

ANSWER	CORRECT
a social entrepreneurship --- Husk Power is a company providing micro...	a social entrepreneurship --- Husk Power is a company providing micro... ✓
volunteer work --- Helping out at a homeless shelter for no pay	volunteer work --- Helping out at a homeless shelter for no pay ✓
a foundation --- Make-A-Wish - non-profit organization founded in the ...	a foundation --- Make-A-Wish - non-profit organization founded in the ... ✓
charity activity --- Bake sale Fundraiser for a Children's hospital	charity activity --- Bake sale Fundraiser for a Children's hospital ✓
philanthropist --- Novak Djokovic donated \$20,000.00 to Melbourne CL...	philanthropist --- Novak Djokovic donated \$20,000.00 to Melbourne CL... ✓

### The Teams' standings page in teacher's interface

The table is unchanged; however, the scores are influenced by team members' scores (in quiz) and joint scores (in other game activities).



**Team 1**  
Name 1 Surname 1  
businessincubator.gd@gmail.com  
L5WCN93U

CLASSES  
Test Guidance - Eng  
Child welfare social need  
Edit Office

Theory ... ✓ Completed  
Case Studies ... ✓ Completed  
Quiz 600.00 / 600 ... 🔒 Locked

QUESTIONS	HERO COINS	TIME	BONUS
Q2-1-Who_did_what	150 / 150	28 s	150 / 150
Q-2-2-Pick one of the following traits from the...	0 / 150	21 s	0 / 150
Q-2-3-Decide, whether the following stateme...	150 / 150	8 s	150 / 150
Fill in the missing word:	0 / 150	14 s	0 / 150

### Exporting the game content

When the individual playing method is chosen, the exported information related to team additionally contain the information to all individual team members' scores in Quiz.

Name	Members	
first team [Chosen scenario : Shift of society towards environmental responsibility]	Jane Smith , John Burke	
<b>Level 1 - Theory</b>		
Which of the situations listed below is not a humanitarian crisis?	Jane Smith	100 / 100
People who own, operate, and take risks on a business venture are	Jane Smith	0 / 100
<b>Level 1 - Quiz</b>		
Which of these examples can be considered an innovation?		
Jane Smith	33.33 / 100	0 / 100
John Burke	100 / 100	100 / 100
Match the term to the correct examples:		
Jane Smith	40 / 100	0 / 100
John Burke	100 / 100	100 / 100
Think about the video you have seen at the beginning of this module. What did Mervyn learn from Marge about social entrepreneurship?		
Jane Smith	0 / 100	0 / 100
John Burke	100 / 100	100 / 100
Fill in the correct options for each gap		
Jane Smith	100 / 100	100 / 100
John Burke	50 / 100	0 / 100
Decide, whether the following statement is true or false: Social innovations are new ideas that meet market needs, create social relationships and form new collaborations.		
Jane Smith	100 / 100	100 / 100
John Burke	100 / 100	100 / 100
Besides the profit a business can make, how can a business success be measured by a social business?		
Jane Smith	0 / 100	0 / 100
John Burke	100 / 100	100 / 100

### Password reset

Password reset can be also requested by individual team member.


**Password reset successful!**

Now you have to:

1. Go to ask teacher for secret!
2. Insert the secret code **here**

After that you will be able to create a new password.

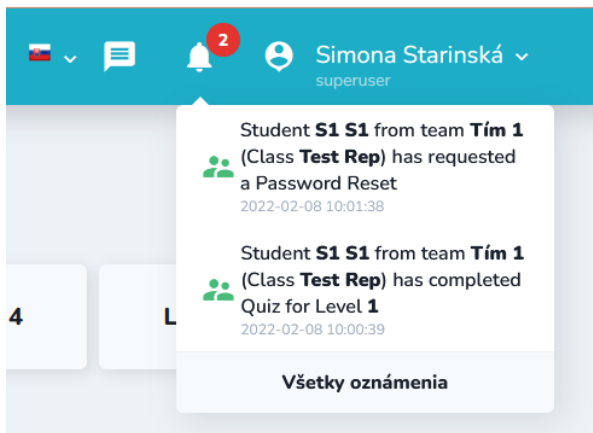
[Back to login](#)



### Notifications about team activity in teacher's interface

The notification functionality also contains the information about the activity of individual team members for following activities:

- Team member finished the Quiz
- Team member requested the password reset.



### *Upgrade of the Teacher's handbook:*

Adding all crucial information of newly created Serious Game functionalities and features to all concerned parts of the Teacher's handbook.

Concerned parts of handbook:

- Chapter 3
- Annex – Control checklist

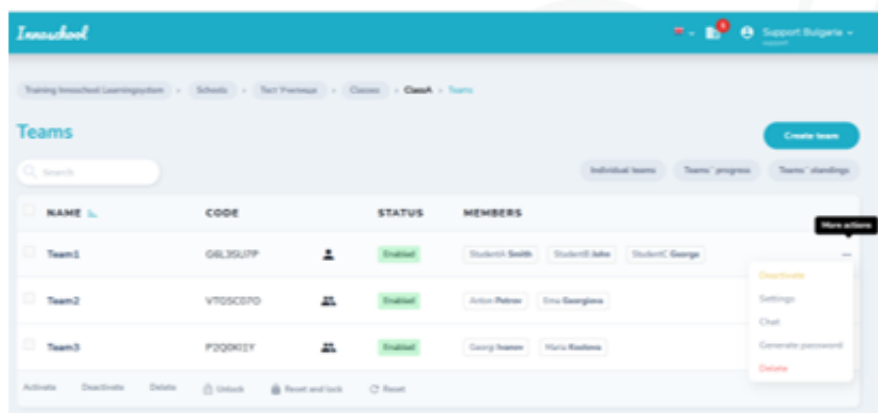


Note the CODE for the team is appearing in the team's bar. It is a **unique identification code, which you have to provide to the team** in order to log in and play the SG in a team mode.

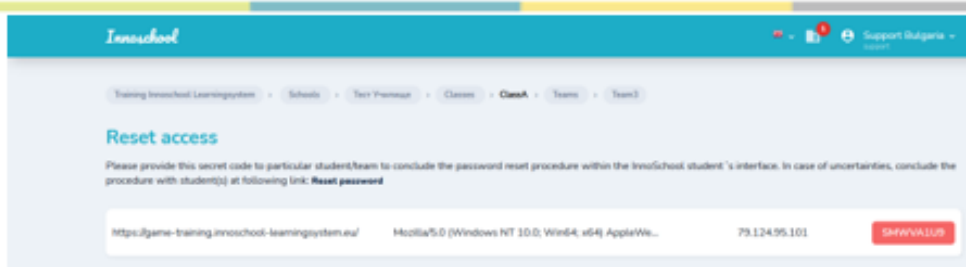
**Playing in individual mode**

If the individual mode is selected when creating a team, unique individual code for each team member will be generated too (see more on p. 37). In this case **provide the individual code to each team member along with the team code**. Depending on the setting, the proper codes should be used by the players in order to log on.

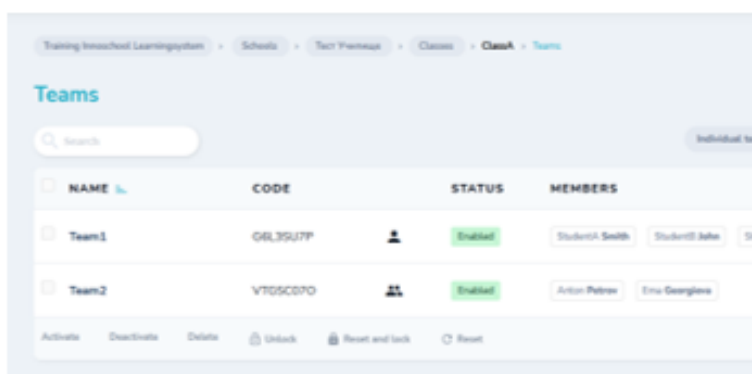
8. The three dots button in the end of the team's bar opens menu with more actions, related to deactivation or deleting of the team, settings, and generating a password or opens a chat with the team.





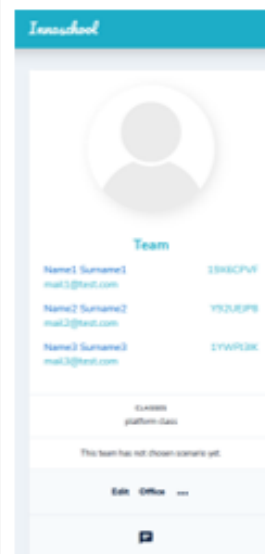


10. To access the team page, click on the bar with the team's name on page Teams.



**Playing in individual mode**

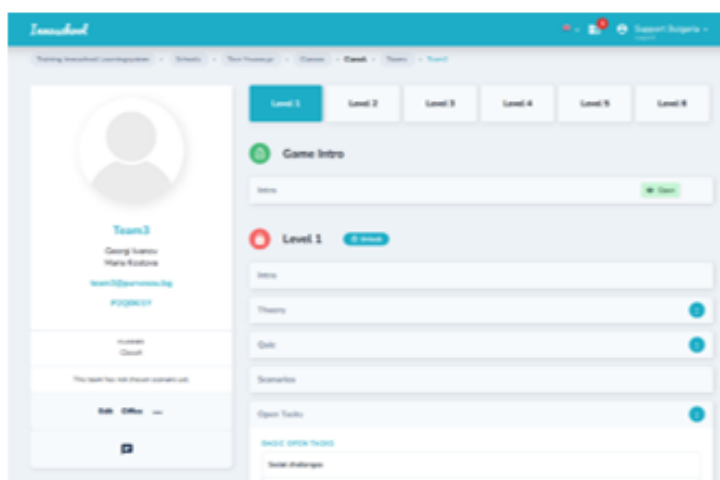
In case of individual mode, the team's profile pane contains the **unique individual codes** for each team member and their emails too.



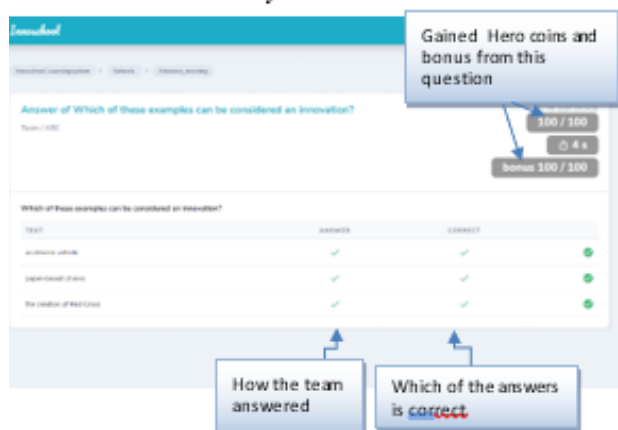
Team members need individual codes to log into the SG, when playing in individual mode.

On the left side of the team page is the team's profile pane with:

- team name and members, team code, team email
- class
- chosen scenario
- visualization of the team's office, editing and deleting of the team
- chat with the team



14. When you click on the magnifier button, you will see the answers the team provided and whether they are correct or not.



### Playing in individual mode

In individual mode all team members can do the quiz. The progress of each player influences the results of the whole team.

Clicking on the magnifier button will show the answers of those of the team members, who did the quiz.



15. Once the team has submitted their open tasks, you can evaluate them. You will see a notice "Waiting for evaluation". Click on the magnifier on the right to see the answers.

### Playing in individual mode

When playing in individual mode the team is submitting a common open task, as each team member can contribute for completing the task. The teacher can use the chat to support the team in doing the task.

## 2.2. Communication channel within the Serious Game app

<b>Priority:</b>	Must have
<b>Responsible partners:</b>	TUKE, BIGD
<b>Issue ID and description:</b>	DL-02, DL-03, DL-04 / in table below

Issues / Opportunities for improvement reported	Additional comments	Proposal to solve the issue
<p><b>DL-02</b></p> <p><b>Problematic to perform the teamwork in Open tasks (6 social topics) by team members. Only one account available currently in Serious Game.</b></p> <p><b>Reported by PPs:</b></p> <p>In the distance-learning mode, teamwork was not always easy to achieve.</p> <p>Make it easier for students to act as a team.</p> <p>During the pandemics, teachers explained that students were hard to be motivated, issues emerged because of group tasks, such as open tasks. We have provided them with suggestions about alternative ways of teacher the students and also about how students could complete the open tasks. The challenges related to online education were more or less solved, however, the involvement of students and effectivity of teacher decreased significantly.</p>	<p><b>Reported by PPs:</b></p> <p>In the case of open tasks, a fulfilment on individual level is not necessary, but the common work as a team should be improved. Renaming “open tasks” to “team tasks”.</p> <p>Provide the team the chat room integrated in the game could strengthen the teamwork.</p>	<p>Chatting feature:</p> <ul style="list-style-type: none"> <li>- Send message,</li> <li>- Upload/download files</li> </ul> <p>Where should this chat be?</p> <ul style="list-style-type: none"> <li>- Open tasks – hidden on side, possibility to open it</li> <li>- 6 social topics</li> <li>- Dashboard - yes</li> <li>- In the office – meet there to chat</li> </ul> <p>Problem of versions – if two players have unsaved inputs – notify.</p> <p>Notifications – yes.</p>
<p><b>DL-03</b></p> <p><b>Problematic communication between team and teacher in general.</b></p> <p><b>Reported by PPs:</b></p> <p>All activities were carried out only online, students had a bit of a problem communicating not only with teachers but also with each other.</p>		<p>Useful – use it everywhere where team’s chat.</p> <p>Notifications – yes (for student and teachers)</p>

<p style="text-align: center;"><b>DL-04</b></p> <p style="text-align: center;"><b>Problematic for teachers to perform the planned offline activities within the distance learning.</b></p> <p style="text-align: center;"><b>Reported by PPs:</b></p> <p style="text-align: center;"><b>Offline activities implemented in most cases as independent work - homework.</b></p>	<p>Some teachers found tools as alternatives.</p> <p>Some skipped it.</p>	<p>Introduction to activities – should be moved from offline to game – character will say this at beginning.</p> <p>Offline activities – chat might be used for direct communication. Not easy to change teacher’s role.</p> <p>Adapt guidance – recommendations - what are the options of teacher and how can he/she solve it.</p>
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**Detailed description of solution:**

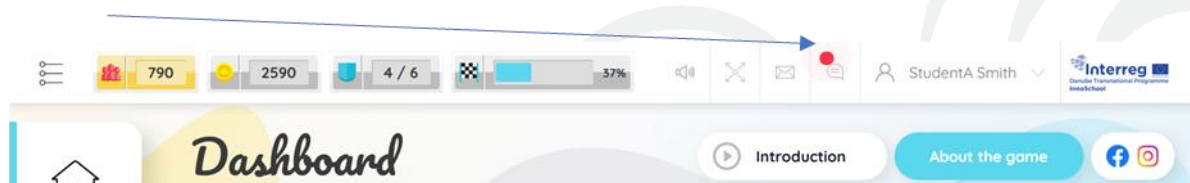
*Upgrade of the Serious Game*

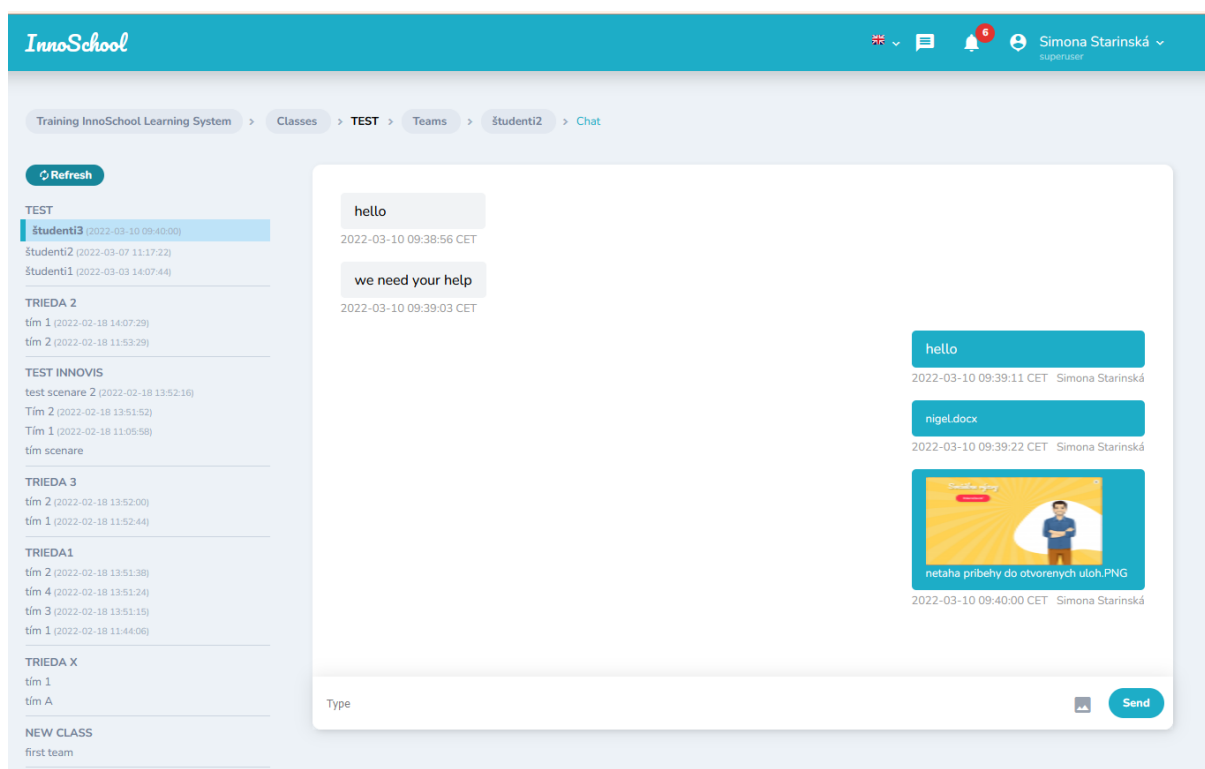
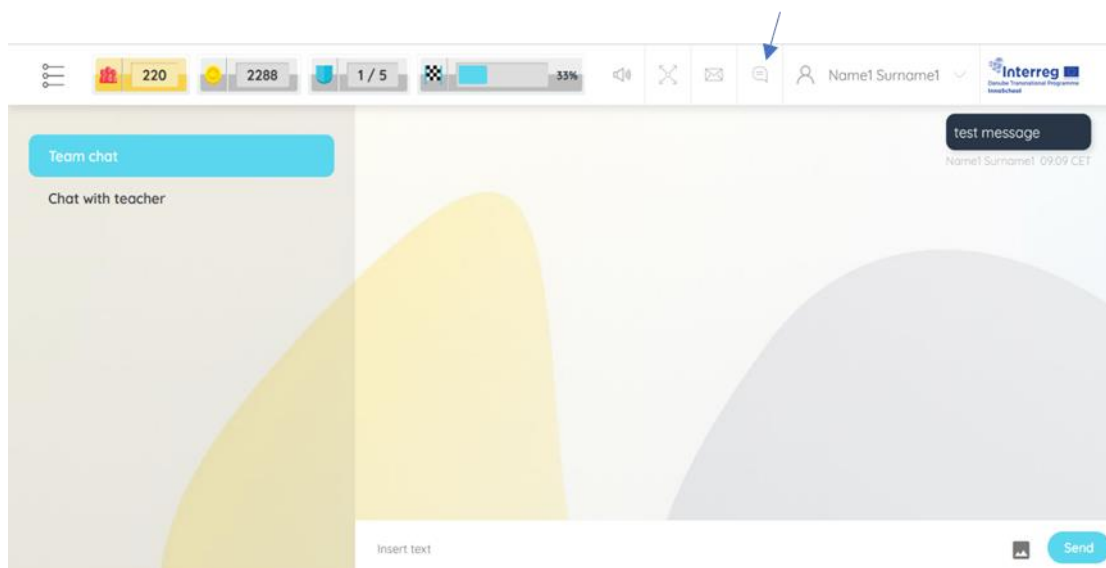
Brand new chat function was added in both student’s and teacher’s interface. Chat is available to users irrespective of the method of playing – team accounts vs. individual accounts for team members. Chat can be accessed by teacher and any team member (individual playing) or by joint team account (team playing).

In both teacher’s and student’s interface, the chat can be accessed through icon added at the top menu. In case of some unread messages, the notification sign (e.g. red circle) is present on the chat icon.

In student’s interface, in the chat function, on the left-hand side two channels are present – chat with teacher and chat with other team members. The main part is dedicated for the messages themselves. In teacher’s interface, the channels with all team’s is present, organized by date (newest at the top).

Beside textual messages, the files are allowed for uploading/sending via chat. Each message is shown with following additional characteristics – author, date and time (Central European Time). The content of the messages is automatically refreshed in set intervals.





### *Upgrade of the Teacher's handbook*

Introduction the option to play the game in purely online mode (even for the offline or mixed sessions).

Adding brief guidance for teachers how to use chatting option or other online tools in distance learning mode especially during the feedback provision in the preparation of homework by students, or during the offline classes.

Concerned parts of handbook:

- Chapter 2
- Chapters 4.1 and/or Chapter 4.3.

#### 4.1 Methodology/General instructions

The ILS methodology is based on the unique combination of SG as an educational tool, lecturing and guidance from the teacher, reflection in class and practical tasks for accumulation of social entrepreneurial knowledge and skills.

The methodology of ILS is characterized with the following aspects:

- **Gamification** – the teaching process is organized around the Serious Game. SG presents students with the relevant theory and assignments, simulation environment for developing social entrepreneurial idea, other gaming elements, like scoring and competition.
- **Practical and experiential** - learning entrepreneurial knowledge/skills is implemented through relevant practical tasks, which requires the teams to gain experience in developing their own social business project.
- **Flexibility** - although ILS comes with a detailed teaching plan for the online and offline sessions, it allows a flexible application, taking into account the local specifics. This means that teacher may adjust the training according to the previous knowledge of the students, available time for offline sessions, opportunities for involving experts, organizing visits of social entrepreneurs, creative methods for teaching, etc.

**The flexibility solutions**, which teachers may use, are:

- adjusting the number of offline sessions
- flipped classroom teaching - the key activities to be part of the offline sessions, while Serious Game parts like the theory and some practical tasks to be done out of class
- minimum load of obligatory open tasks / more optional tasks available
- optimization of the team work through division of the tasks between the team members
- peer collaboration, when more advanced teams may support those who are not so advanced
- digital channels for communication and teaching additionally could be included.

#### Playing in individual mode

ILS methodology is applicable even for online learning.

The ILS platform provides:

- access from any location to the SG for students
- allows students to play individually in online learning settings
- allows teacher to administrate the game and evaluate the teams
- chat functionality for communication between teacher and teams and between team members

For the offline sessions teaching can take place in the digital environment (e.g. Google Classroom, Teams, Zoom, etc.) approved from the school.

## 2.3. Improved informing of students about the status and game mechanics

**Priority:** Must have

**Responsible partners:** TUKE

**Issue ID and description:** received at user testing sessions - UT-03, UT-04, UT-05, UT-06, UT-07, UT-08, UT-10, UT-16, UT-19 / in table below

Issues / Opportunities for improvement reported	Additional comments	Proposal to solve the issue
<p style="text-align: center;"><b>UT-03</b></p> <p>Student2 does not know why the Quiz for Fun is locked!</p> <p style="text-align: center;"><b>UT-04</b></p> <p>Student 2 has a wrong understanding of earning coins for the team. Student 2 expects that his/her correct answer can delete a wrong answer of Student1. → Information on students' team performance in individual mode is missing.</p> <p style="text-align: center;"><b>UT-05</b></p> <p>Student 2 does not know more how the scenario is chosen. An information is missing! Student2 would like to know who of the team has chosen which scenario and when! Game – Selection of scenario: Students need an additional information inserted at the selection-page. You have to read all scenarios, before you can continue and select one!</p> <p style="text-align: center;"><b>UT-06</b></p> <p>Scenario choosing - It should be possible to change it again or at least the first student should be informed when selecting it first to discuss this within the team. It should be a team's decision!</p> <p style="text-align: center;"><b>UT-07</b></p> <p>Open tasks - It would be helpful to see who of the team filled in first and who edited last.</p> <p style="text-align: center;"><b>UT-08</b></p> <p>On the open-task-overview-page, the student notices that the task was evaluated. However, the student would not enter the evaluated task again and would miss the further evaluation information and</p>		<p>New feature - info part (better description of current state of play and game mechanics)</p>

<p>teacher's comment. → Insert this information on the open-task-overview-page!</p> <p style="text-align: center;"><b>UT-16</b></p> <p>Choosing a Scenario: In general, most students do not understand that they have to read all 6 Scenarios first, before choosing one. They overlook the information provided before and need an information on the same page where they choose the scenario.</p> <p style="text-align: center;"><b>UT-19</b></p> <p>Some students do not understand that Quiz for Fun has no consequences on the teams standing and that they do not earn any coins etc.</p>		
<p style="text-align: center;"><b>UT-10</b></p> <p>Password reset - The description could be a little more instructive - the problem is that one has to get code when one is with the teacher. Otherwise, the problem is getting the right code. In addition, it is constantly being updated and this may be a problem.</p>		

**Detailed description of solution:**

*Improved informing on game status and mechanics*

**Scenario selection**

Before selecting a scenario, info message about the need to read all of the social topics appears, combined with the information that only 1 student can choose a scenario.



## Select scenario

Select scenario



Caring for an ageing population



Child welfare social need



Disadvantages and challenges in peripheral and rural areas



Inclusion of excluded groups



Shift of society towards environmental responsibility



Workforce migration, brain drain

 You have to read all of the scenarios in order to choose one for your business. Moreover, only one student can choose, so make this decision jointly as a team.

After selecting a scenario, information about who selected the scenario in the name of the team appears. Moreover, chosen scenario is highlighted with blue colour.

## Select scenario

Close



Caring for an ageing population



Child welfare social need



Disadvantages and challenges in peripheral and rural areas



Inclusion of excluded groups



Shift of society towards environmental responsibility



Workforce migration, brain drain



The scenario was already chosen by account - John Burke

## Quiz for Fun

Always, (regardless the status) information about the purpose of the Quiz for Fun questions and that only the answer of the first player will be accepted is displayed.

## QuizTime

Which of the following is not one of the three groups of the EU pillar of social rights?

Multiple choice exercise

- A Social protection and inclusion
- B Equal opportunities and access to the labor market
- C Enterprise skills and innovation
- D Fair working conditions

i

Within this part, you can gain HERO coins but it does not affect your overall success, so do not rush! This quiz aims to improve your knowledge and only the answer of the student who first finishes the theory part will be taken into account.

Back

Next

After first student finishes theory – his/her answer is accepted within Quiz for Fun scores and information about whose answers were accepted appears.

# QuizTime

Which of the situations listed below is not a humanitarian crisis?

Multiple choice exercise



This answer was chosen by account - Jane Smith

- A The war in Syria that has been taking place since 2011
- B The earthquake in Nepal in 2015
- C A car accident between two vehicles, in a small city, involving 5 people
- D The Yemeni Civil War, an ongoing conflict that began in 2015



Within this part, you can gain HERO coins but it does not affect your overall success, so do not rush! This quiz aims to improve your knowledge and only the answer of the student who first finishes the theory part will be taken into account.

Back

Next

## Open Tasks

Before the open tasks are submitted by team (by any team account) – the information on purpose of the Open tasks and the possibility the teachers might send the assignment back for rework is displayed.

## Open tasks

Chosen scenario: **Shift of society towards environmental responsibility**

i
 The open tasks are team tasks - they are elaborated jointly by all team members and submitted once for the team. In case you would not get their point, teacher might send them back to you for rework.

### Basic

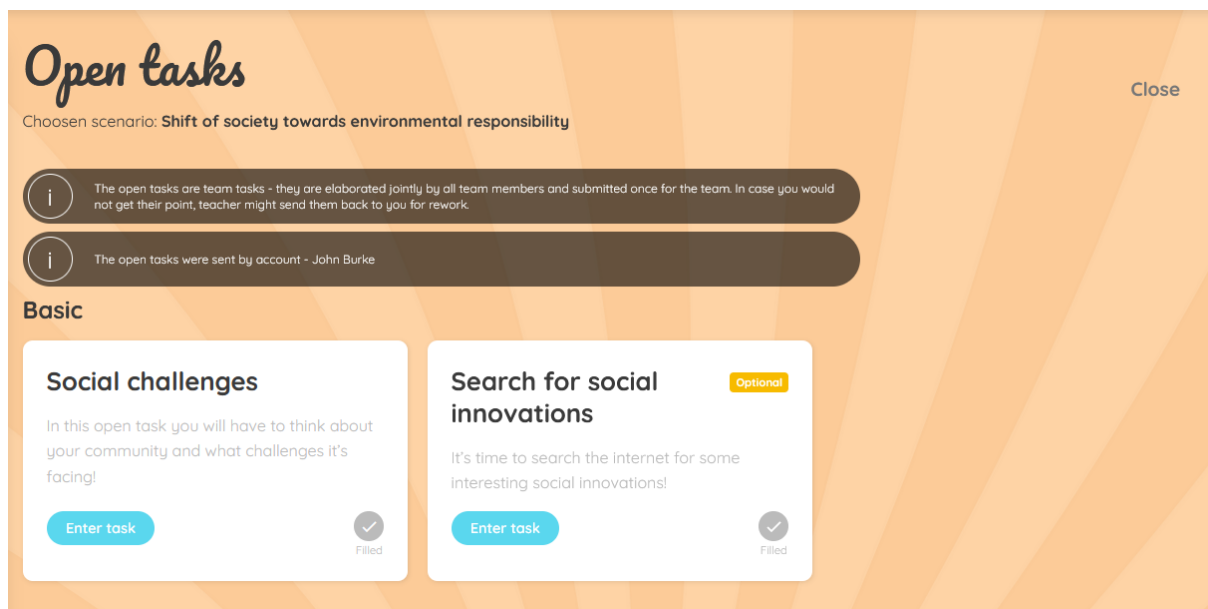
#### Social challenges

In this open task you will have to think about your community and what challenges it's facing!

#### Search for social innovations Optional

It's time to search the internet for some interesting social innovations!

After first student submits the tasks – his/her answer is sent to teacher for assessment and information about who (which team account) submitted the open tasks' assignment appears.



**Open tasks** Close

Chosen scenario: **Shift of society towards environmental responsibility**

**i** The open tasks are team tasks - they are elaborated jointly by all team members and submitted once for the team. In case you would not get their point, teacher might send them back to you for rework.

**i** The open tasks were sent by account - John Burke

**Basic**

**Social challenges**

In this open task you will have to think about your community and what challenges it's facing!

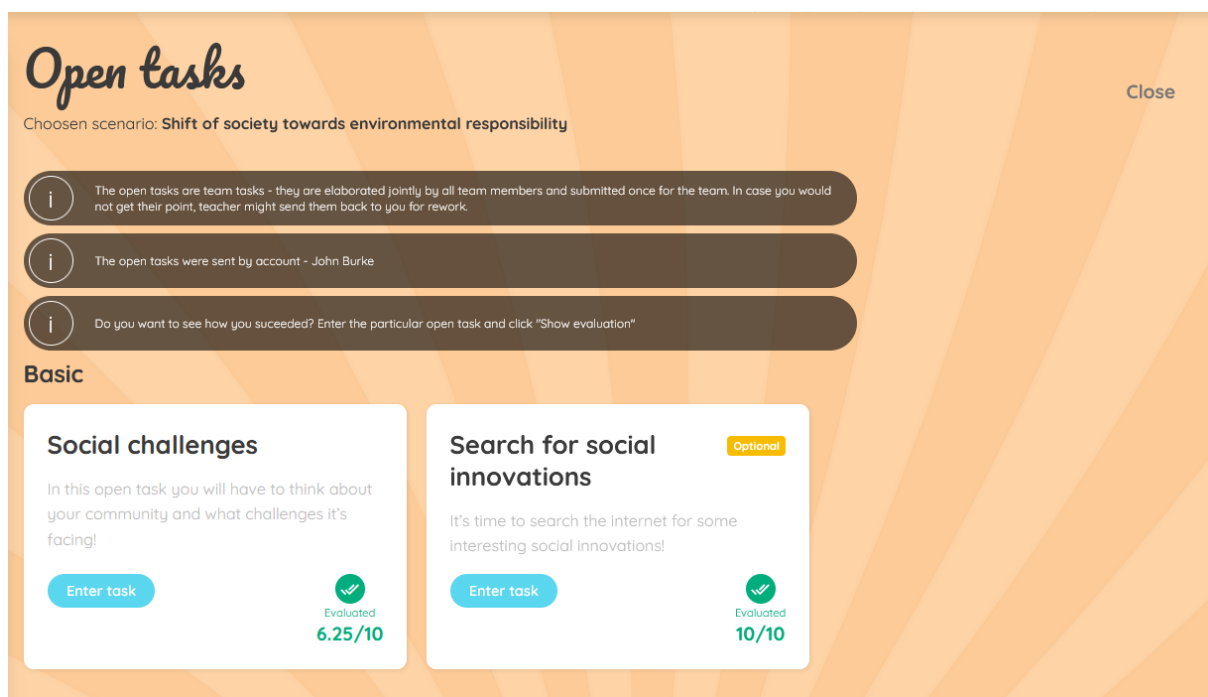
✓ Filled

**Search for social innovations** Optional

It's time to search the internet for some interesting social innovations!

✓ Filled

After team receives the awarded points and feedback from teacher, the navigation to check the details of the feedback is displayed.



**Open tasks** Close

Chosen scenario: **Shift of society towards environmental responsibility**

**i** The open tasks are team tasks - they are elaborated jointly by all team members and submitted once for the team. In case you would not get their point, teacher might send them back to you for rework.

**i** The open tasks were sent by account - John Burke

**i** Do you want to see how you succeeded? Enter the particular open task and click "Show evaluation"

**Basic**

**Social challenges**

In this open task you will have to think about your community and what challenges it's facing!

✓ Evaluated 6.25/10

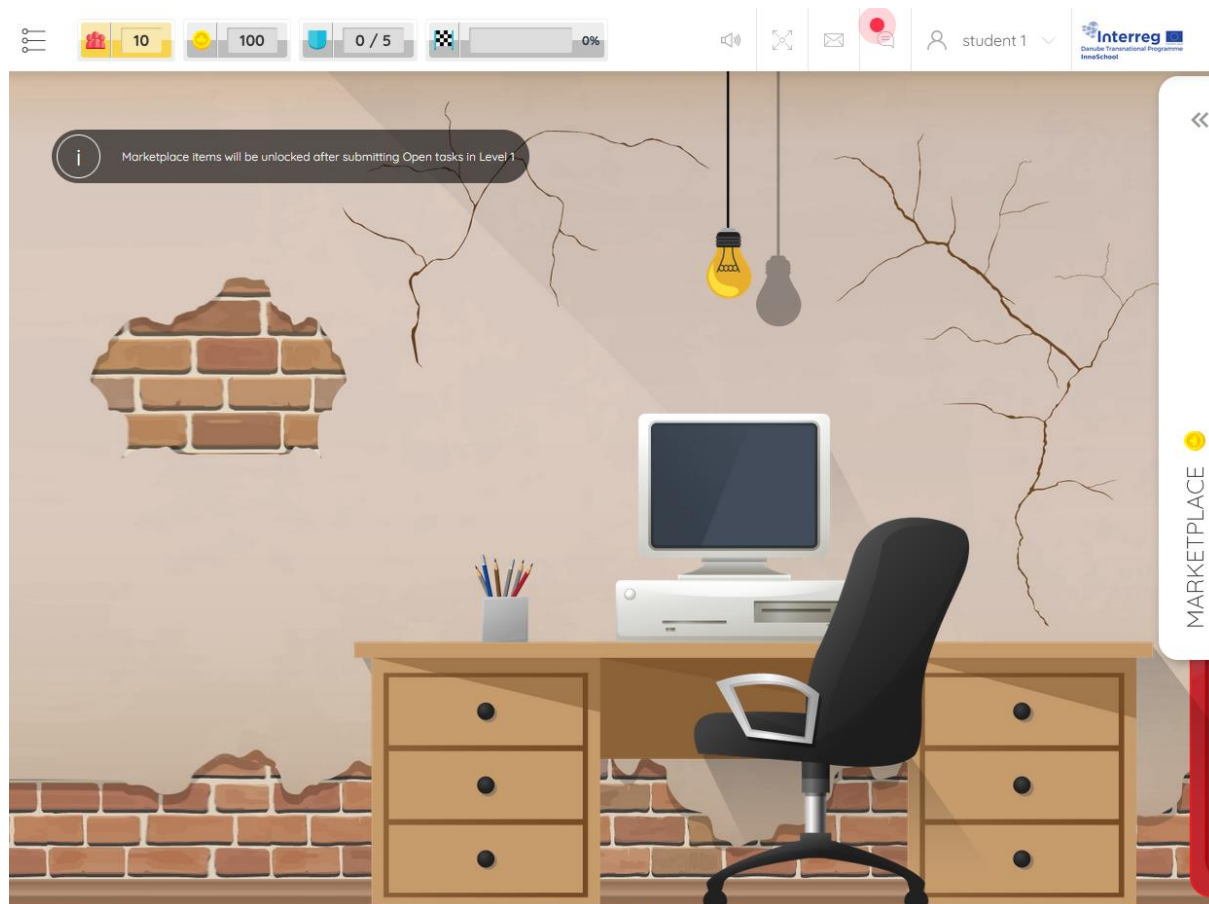
**Search for social innovations** Optional

It's time to search the internet for some interesting social innovations!

✓ Evaluated 10/10

### Team office

Until completion of Level 1 (until the open tasks were sent to teacher for evaluation), the information about unlocked office items is displayed. From then on, this message will never be shown again.



### *Improved password reset procedure*

The displayed texts in Students' interface and Teacher's interface were improved to better inform the users about the next steps of password reset procedure for users with no e-mail address.

## **2.4. Improved informing of students about the status and game mechanics**

**Priority:** Must have

**Responsible partners:** BIGD

**Issue ID and description:** UT-28 / in table below

Issues / Opportunities for improvement reported	Additional comments	Proposal to solve the issue
<p style="text-align: center;"><b>UT-28</b></p> <p>On Admin-site: Unlocking certain levels for all teams in ONLY ONE click would save a lot of time for the teacher.</p>		<p>New part to be added to Teachers handbook</p>

**Detailed description of solution:**

*Upgrade of the Teacher's handbook:*

Adding brief guidance for teachers how to use the bulk functionalities.

Concerned parts of handbook:

- Chapter 3.

22. In the Teams page under the list of the teams there are bulk operations buttons, allowing teacher to perform the following actions for selected teams:
- Switching to individual /team game
  - Activation/deactivation
  - Deleting teams
  - Unlocking levels / Resetting and locking levels / Resetting levels

