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## DEFINITION OF TERMS

Abbreviation	Description
DOI	Digital Object Identifier
FAIR	Findable, Accessible, Interoperable, Reusable
GDPR	General Data Protection Regulation
GLP	Gamified Lesson Plan
ORDP	Open Research Data Pilot
UI	User Interface
WP	Work Package

## EXECUTIVE SUMMARY

The BEACONING project is in its final phase in which the essential parts of the software have been finalised and pilots started to evaluate the use of the platform. Based on the information regarding final decisions on software and pilot-setups, the last part of the data management plan and ethical guidelines can be described.

The document approaches the BEACONING platform, split into its individual components, focussing on user data storage and its storage duration in each component. It also describes data access rules for the BEACONING users. A plan of erasure transparently defines when the data generated in the BEACONING project will be deleted. This is a new important requirement of the General Data Privacy Regulation (GDPR) effective in the EU from May 2018. The GDPR brings new or stricter regulations, which affect the BEACONING project. For instance, the information about workshops, pilots and the data processing must be as transparent as possible. Users must be informed about what data is stored by BEACONING and for what reasons, when the data will be deleted and who has access to the data. Moreover, users must be informed about their rights of access, right to erasure, rectification and restriction of processing. New responsibilities need to be allocated among project partners to define who needs to take care of users' rights requests. The GDPR also affects the software design as it regulates very strictly that only data which is really needed is allowed to be stored and user profiles need to be "privacy by default".

Furthermore, the document shows the pilot setups and the security and data backup plans for each site, as well as the ethical guidelines for newly added pilot countries. How project data can be easily found by third parties is described in the FAIR Data chapter.

## **1 INTRODUCTION**

This document is the final one of four on “Data Management and Ethics”, which elaborates missing parts and decisions on software and pilot setups as they were not clear in the earlier state of the project. It provides the data management plan, which includes an overview of what data is collected by each single component of the BEACONING platform and describes which users can access what information about other users. A data security and data backup plan has been added for each pilot together with a plan of erasure for collected data. Ethical guidelines describe the procedure for all large-scale pilots. Furthermore, this document describes changes made in consent procedures and information display in terms of the new General Data Privacy Regulation (GDPR) effective in the European Union. Additionally, it introduces how to handle new regulations software internally when processing data.

### **1.1 BACKGROUND**

The BEACONING project is in its final state, which means that the essential functions of the software have been integrated and the planning of large-scale pilots has been completed. Final information and decisions not yet available were missing when D1.9 was delivered and are considered in this document to give a final overview about Ethics and the Data Management of software components and large-scale pilots. The commencement of the General Data Privacy Regulation (GDPR) of the 25<sup>th</sup> of May 2018 and its effects to the project is also incorporated in this deliverable.

### **1.2 ROLE OF THIS DELIVERABLE IN THE PROJECT**

This deliverable contributes to the work of work packages (WP) WP5 and WP6: As the BEACONING platform and the pilots are testing the software, we handle and process different kinds of sensitive data – partially of minors – it is vital for project members to know how to treat them correctly and securely. Also, developers need to know how the new GDPR influences their work and what must be considered within BEACONING. Therefore, this document defines the ethical guidelines and new consent form templates for the pilots and describes how data and consent shall be handled by the software internally in terms of the new GDPR.

### **1.3 APPROACH**

This document has been created in close collaboration with pilot leaders of the consortium to define the ethical guidelines needed before pilots started and collect the recent pilot procedures. ATS and other technical partners were involved to give input about the internal structure to examine whether BEACONING has incorporated all necessary requirements in terms of the GDPR.

### **1.4 STRUCTURE OF THE DOCUMENT**

The deliverable is composed of five chapters. While chapter 1 gives a brief overview about the document, chapter 2 introduces the GDPR and how it is handled within BEACONING. Chapter 3 focuses on data management and shows data collected in single components and pilots as well as a plan of erasure. Chapter 4 describes the ethical guidelines for pilots not defined previously in D1.9. Afterwards, chapter 5 the conclusion finalises the document.



## 2 GENERAL DATA PROTECTION REGULATION

This chapter describes the impact of the general data protection regulation (GDPR) on BEACONING's data management plan. Although, BEACONING incorporated a high standard on data handling, processing and protection throughout the project's lifecycle, the GDPR, which came into effect on the 25<sup>th</sup> of May 2018, regulates some aspects in more detail, which must be integrated.

### 2.1 CONSENT & INFORMATION

Article 13 of the GDPR regulates the information which must be provided when personal data is collected from participants in our pilots. The information about data collection and processing must be a lot more detailed than it used to be, so that the data subject<sup>1</sup> has enough transparency in order to understand what data is collected, for what reason, and how it is processed and secured.

For BEACONING this means that each pilot must inform participants about each personal data set they are collecting, the reason for collection, who has access, how it is processed and how long these will be stored. This varies from pilot to pilot, as the pilots have different setups and different data that will be collected. Furthermore, each country has the right to define opening clauses, which can strengthen or weaken certain regulations individually. A basic template, which is used for pilots taking place locally and must be amended by the pilot leaders is available in [Appendix I: Consent Form Template](#).

To the best of our knowledge, there are no adjustments needed for the consent form template in our pilot setup and target groups.

Information on participants' rights stated in article 15-18 GDPR, such as right of access, right to rectification, right to erasure and right to restriction of processing, must be stated much clearer and more explicit than they used to be. The participant needs to be aware that (s)he has all the above-mentioned rights. The information should also contain the responsible persons including contact details.

Article 13 of the GDPR foresees that each data subject can easily understand the information given. Therefore, each pilot leader needs to translate the amended consent to the national language.

#### 2.1.1 Virtual consent

Also, for pilots, which take place solely over the internet, participants need to receive all information stated above prior to sending any data to the BEACONING platform. Additionally, consent needs to be collected, which can be surely associated to each individual person. That is why we integrated a virtual consent form (see Figure 1), which pops up prior to logging in for the first time. A cookie on the device and browser of the user is saved, so that the user does not need to give consent each time (s)he logs in.. The BEACONING software can not be used if no consent has been given.

Information displayed is available in the local language, selectable by the user. This approach is very user-friendly and avoids a lot of paperwork. That is why we use this whenever it is suitable for the pilot-setup. Users will be asked to save the current version of the privacy statement they agreed on for legal purposes. Nevertheless, when there is the need for informed consent of the

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<sup>1</sup> A person who is affected by personal data collection

parents / responsible of a minor participant, this still has to be handled with signatures of the respective persons.

A lighter version of the Accessabar will be available on this page to give disabled persons, such as physically impaired or visually impaired people, the opportunity to understand and confirm the consent by themselves.

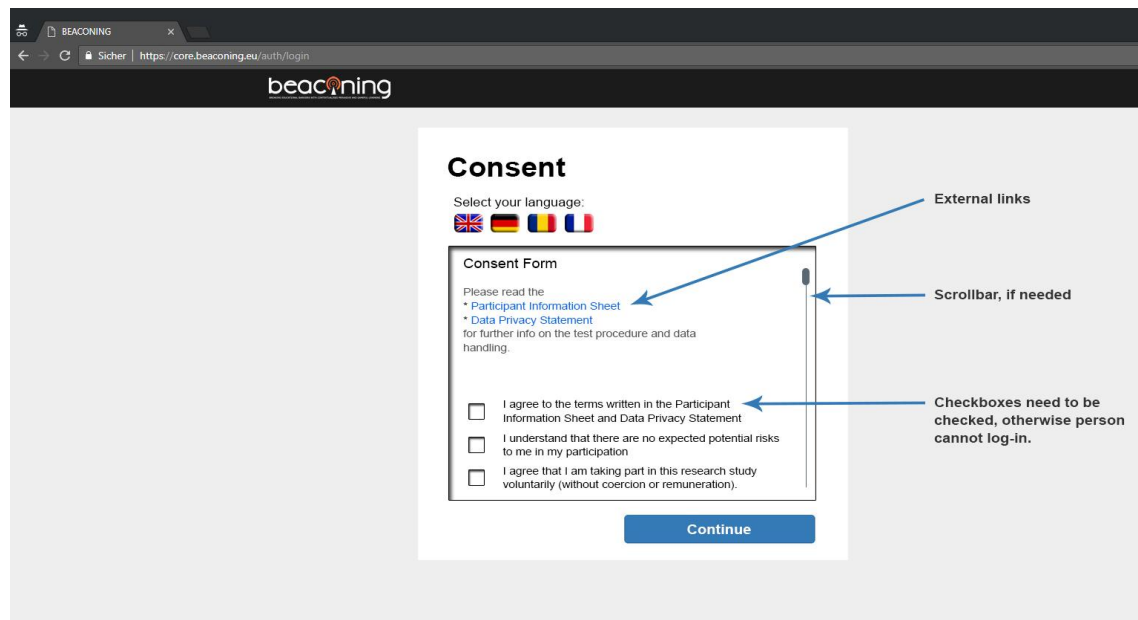


Figure 1: Virtual Consent

### 2.1.2 Informed consent of parents

When collecting data from minors, the GDPR states that informed consent has to be collected from parents / responsible persons when the children are younger than 16. However, via an opening clause, each country has the opportunity to decrease this limit up to the age of 13.

In the case BEACONING needs informed consent, this must be done via the participating schools / teachers. [Appendix II: Informed Consent Template](#) shows the informed consent template. This will be handed to the teachers or school authorities in their native language and they will forward it to and collect it from the parents / responsible persons. Copies will be given to BEACONING.

This approach is not only valid for the piloting phase, instead, this will also be the solution for the use of BEACONING after the project has ended. As schools will receive, set up and use the BEACONING platform in their own conditions, it will be their responsibility to receive the agreement of minors' parents / responsible persons.

## 2.2 RESPONSIBILITIES

Responsibilities need to be allocated within the project including the definition of persons who are responsible for deleting data of data subjects if this is a legal request, or when data subjects need to know whom to contact when exercising a certain right, for example. Therefore, such responsibilities need to be recorded in a joint controller contract.

The responsibilities BEACONING agreed on can be found in the joint controller contract.

Additionally, our Turkish partner needed to assure that the GDPR will be applied when handling and accessing data accessible for project partners.

## **2.3 NOTIFICATION OF PERSONAL DATA BREACH**

Article 33 of the GDPR states that in case of a personal data breach, the controller shall notify the supervisory authority immediately, but not later than 72 hours after having become aware of it. The persons concerned must be informed immediately. In case the personal data breach is unlikely to result in a risk to the rights and freedoms of natural persons<sup>2</sup>, the breach might not be reported to the supervisory authority nor the concerned persons. In any case, the controller must be informed about the personal data breach by the processor of the data immediately.

## **2.4 DATA PROTECTION IMPACT ASSESSMENT**

The BEACONING consortium agreed on not performing a detailed data protection impact assessment. Because of the participation in the Open Research Data Pilot (ORDP), BEACONING already provided detailed data management plans throughout the project lifecycle and incorporated high standards on data security and protection. Therefore, the project does not expect to have a high risk concerning the rights and freedoms of natural persons.

## **2.5 “PRIVACY BY DEFAULT” AND “PRIVACY BY DESIGN”**

Article 25 of the GDPR regulates that the software should be as user friendly as possible in terms of privacy settings and data distribution.

“Privacy by design” means that data collection and storage shall be minimised as much as possible. In other words, only data shall be collected, which is necessary for the software to work, for teachers to assess or which is relevant for research done in BEACONING. Therefore, we had another close look at the different software parts and removed whatever is not important for the software to function and what is not necessarily needed by the stakeholders. For example, when a teacher creates a new student within the teacher website, (s)he is not asked to insert the address and date of birth of the student, as this is not relevant information needed by the software and is saved in the school system nevertheless. Only the first name, last name and year is mandatory for creating a new student.

“Privacy by default” foresees that user accounts have the highest privacy settings available pre-selected. Users can then edit their level of privacy (e.g. what information classmates can see about them) on their own.

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<sup>2</sup> Legal definition of an individual human being which has rights and obligations. The opposite would be a legal person, which is often used as a synonym for a public or private organisation.

### 3 DATA MANAGEMENT

This chapter describes in detail what data will be collected by the pilots, for what reason and how it is handled and stored.

#### 3.1 DATA COLLECTION

This chapter describes first, what data each component of our software can possibly collect of its users and afterwards, which pilots collect the distinct types of data and for what reason, how it is handled and for how long it is stored. BEACONING partners can get access to the summarized and, therefore, de-personalized data for research purposes.

##### 3.1.1 Components

The BEACONING platform can be divided into five basic components. This subchapter gives an overview about the single components and what kind of data is collected from users. The tables show how long data will be stored and which other users will be able to access this data.

##### **Teacher UI:**

The teacher user interface (UI) comprises the teacher dashboard, the classroom in which students and groups can be created, the overview about existing and assigned gamified lesson plans (GLP), the calendar, forum and accessibility tool.

What element?	How long stored?	What kind of data?	Visibility
<b>User provided information</b>			
First Name	As long as user exists	Teacher data	By students of the teacher and colleagues
Last Name	As long as user exists	Teacher data	By students of the teacher and colleagues
Gender	As long as user exists	Teacher data	By students of the teacher and colleagues
School of teacher	As long as user exists	Teacher data	By students of the teacher and colleagues
Email address	As long as user exists or user removes this information	Teacher data	By students of the teacher and colleagues
Language	As long as user exists	Teacher data	By students of the teacher and colleagues

Calendar			
GLP dates of assignment and deadlines	As long as the user exists	Teacher data	By affected students once GLP has been assigned
Student analytics			
In-game behaviour of students. The duration of data storage varies between countries. Please also see chapter 3.3 Plan of Erasure.			
Exact answers / decisions given in minigames	Varies from until the end of the term / semester till up to 5 years.	Student data	Teacher of GLP.
Duration of play time	Varies from until the end of the term / semester till up to 5 years.	Student data	Student concerning and teacher of GLP.
Scores	Varies from until the end of the term / semester till up to 5 years.	Student data	Student concerning and teacher of GLP.
Date when tasks have been accomplished	Varies from until the end of the term / semester till up to 5 years.	Student data	Teacher of GLP.
Heatmap	Varies from until the end of the term / semester till up to 5 years.	Student data	Teacher of GLP.
<p>The location of each user is saved every three seconds. The positions can be condensed into a heatmap showing a map with coloured areas. Big and intense coloured areas show where a large number of users stayed for a longer period of time, while light/opaque colours show either a short duration of stay or only a small number of visitors.</p> <p>Currently, the heatmap needs an update to be in line with GDPR. Teachers are able to see the updated heatmap in almost real-time and can also see a heatmap of individual students, which is a big data security risk. The amended heatmap version can be described as follows:</p> <p>The software is designed in such a way that neither the consortium nor the teacher can see the positions of individual students (the heatmap must be comprised by at least 6 people), nor is it possible to see the data live. Data is only available after game play has finished.</p>			
Competences	Varies from until the end of the term	Student data	Student concerning and teacher of GLP.

	/ semester till up to 5 years.		
<b>Accessibility settings</b>			
Temporary settings for one session	Will only be saved in temporary file	Teacher data	User only
Saved settings	As long as the user deletes the settings	Teacher data	User only
<b>File uploads</b>			
File uploads happen at the risk of the user uploading content.			
Forum	Will be deleted by the user who uploaded content, or when the thread is not needed any longer.	Teacher data	For students within the group of thread and the dedicated teacher(s).

Table 1. Data collection in teacher UI

**Student UI:**

The student UI involves a dashboard, forum, accessibility tool, calendar, performance analytics, and an overview about assigned GLP's and the in-game view.

What element?	How long stored?	What kind of data?	Visibility
<b>Technical essentials (de-personalized)</b>			
This is needed to fulfil requests made by the user, to log connections to web server, to debug errors and issues from users, to find about server attacks and to create a unique session per IP address.			
IP address	30 days	De-personalized student data	
URL requested	30 days	De-personalized student data	
Date and time of request	30 days	De-personalized student data	
<b>User analytics data</b>			

Competences	Varies from until the end of the term / semester till up to 5 years.	Student data	Student concerning and teacher of GLP.
Duration of play time	Varies from until the end of the term / semester till up to 5 years.	Student data	Student concerning and teacher of GLP.
Scores	Varies from until the end of the term / semester till up to 5 years.	Student data	Student concerning and teacher of GLP.
Accuracy	Varies from until the end of the term / semester till up to 5 years.	Student data	Student concerning and teacher of GLP.
<b>Calendar</b>			
GLP dates of assignment and deadlines	At the end of the term / semester	Teacher data / student deadline	Assigned students and teacher
<b>Accessibility settings</b>			
Temporary settings for one session	Will only be saved in temporary file	Student data	User only
Saved settings	As long as the user deletes the settings	Student data	User only
<b>File uploads</b>			
File uploads happen at the risk of the user uploading content.			
Forum	Will be deleted by the user who uploaded content, or when the thread is not needed any longer.	Student data	For students within the group of thread and the dedicated teacher(s).
In-game	Will be automatically deleted at the end of term/semester.	Student data	For the teacher who assigned GLP.

Table 2. Data collection in student UI

**Parent UI:**

Parents / guardians can see limited information about their children on a website using unique credentials. Regarding this, it is important that schools can give access to the tool and deactivate the access if necessary. National laws differ in how they handle under which circumstances and until what age parents/guardians are allowed to see certain information.

What element?	How long stored?	What kind of data?	Visibility
<b>Technical essentials (de-personalized)</b>			
This is needed to fulfil requests made by the user, to log connections to web server, to debug errors and issues from users, to find about server attacks and to create a unique session per IP address.			
IP address	30 days	De-personalized student data	
URL requested	30 days	De-personalized student data	
Date and time of request	30 days	De-personalized student data	
<b>Student's analytics data</b>			
Assigned GLP's including dates	Until the end of the term / semester	Student data	Parent / Responsible
Overall Progress	Until the end of the term / semester	Student data	Parent / Responsible
Minimum, average and maximum scores	Until the end of the term / semester	Student data	Parent / Responsible
Duration of play time	Until the end of the term / semester	Student data	Parent / Responsible
Competences	Until the end of the term / semester	Student data	Parent / Responsible

*Table 3. Data collection in parent UI*



**Authoring tool & minigame creation:**

The authoring tool can be used to create GLPs including minigames. This component offers a lot of possibilities for the creation of gamified learning content. In some minigames users can insert their own images or link video URLs. The location-based game is defined in the authoring tool and will be authored in an external tool, which is linked from this tool.

What element?	How long stored?	What kind of data?	Visibility
<b>Technical essentials (de-personalized)</b>			
This is needed to fulfil requests made by the user, to log connections to a web server, to debug errors and issues from users, to find about server attacks and to create a unique session per IP address.			
IP address	30 days	De-personalized student data	
URL requested	30 days	De-personalized student data	
Date and time of request	30 days	De-personalized student data	
<b>Image uploads</b>			
File uploads happen at the risk of the user uploading content.			
Minigame creation	Teachers can change / remove their own GLP. If it is a public GLP, it remains in the database.	Teacher data	For assigned students. If GLP is public it is visible for other teachers and students with a BEACONING account.

*Table 4. Data collection in authoring tool and minigame creation*

**Location-based game authoring:**

The location-based component will be authored in an external authoring tool which can be accessed from the basic authoring tool. The user can define points of interest (POI) on a map, define hardware-beacons, create texts, upload images and link videos the students can see.

What element?	How long stored?	What kind of data?	Visibility?
<b>Technical essentials (de-personalized)</b>			
This is needed to fulfil requests made by the user, to log connections to a web server, to debug errors and issues from users, to find about server attacks and to create a unique session per IP address.			
IP address	30 days	De-personalized student data	
URL requested	30 days	De-personalized student data	
Date and time of request	30 days	De-personalized student data	
<b>File uploads</b>			
File uploads happen at the risk of the user uploading content.			
Game content (images & videos)	Teachers can change / remove their own files in their own GLP. If it is a public GLP, it remains in the database.	Teacher data	For assigned students. If GLP is public it is visible for other teachers and students with a BEACONING account.

*Table 5. Data collection in location-based game authoring*

### 3.1.2 Pilots

The following tables show the upcoming large-scale pilots, what components are planned to be used and what data is to be collected. In order to prevent project partners from being able to trace back any personal data to individual students, teachers are asked to create students with nicknames instead of their real names.

<b>#01</b>	
<b>Pilot leader</b>	SIVECO
<b>Pilot country</b>	Romania
<b>Target group(s)</b>	Minors with disabilities
<b>Used components</b>	<ul style="list-style-type: none"> <li>• Authoring Tool</li> <li>• Teacher UI</li> <li>• Student UI</li> <li>• Meta-game</li> <li>Minigames</li> <li>Location-based game</li> </ul>
<b>What data will be saved?</b>	<ul style="list-style-type: none"> <li>• Consent of parents and students</li> <li>• Their login names and passwords</li> <li>• Images of the workshop</li> <li>• Images they uploaded on the platform.</li> </ul>

Table 6. Pilot data collection Romania

<b>#02</b>	
<b>Pilot leader</b>	Coventry University
<b>Pilot country</b>	United Kingdom
<b>Target group(s)</b>	Teachers of Adults with Learning Disabilities. The pilot will not engage students directly in the school but will, instead, work with the teachers.
<b>Procedure</b>	<p>Workshops will be run with teachers to present the platform and its opportunities, allowing them to experience it first-hand. Following up the workshops, a questionnaire, inclusive of both quantitative, demographic data and of qualitative accounts, will be disseminated to all teachers / lecturers engaged in testing the BEACONING prototype. This questionnaire will then contribute to the development of later stages of both the platform and evaluation research by providing the consortium with an initial but comprehensive picture of the use of the service.</p> <p>A questionnaire will be distributed to teachers involved in the</p>

	<p>pilots, following up exploratory workshops involving the prototype beaconing platform. The specific questions will be decided case by case as a subset of the full questionnaire.</p> <p>We may obtain audio, photographic and video recording for the sole purpose of dissemination and included in the pilot report (only with consent).</p>
<b>Used components</b>	<ul style="list-style-type: none"> <li>• Authoring Tool</li> <li>• Teacher UI</li> </ul>
<b>What data will be saved?</b>	<p>Data will be saved on the Academy for Learning Disabilities servers, where the pilot will take place. This will ensure data security and confidentiality.</p> <p>Examples of data:</p> <ul style="list-style-type: none"> <li>• Questionnaires</li> <li>• Teachers' login names and passwords</li> <li>• Images of the workshop</li> <li>• Images they uploaded onto the platform.</li> </ul>

*Table 7. Pilot data collection United Kingdom*

<b>#03</b>	
<b>Pilot leader</b>	ORT
<b>Pilot country</b>	France
<b>Target group(s)</b>	Minors
<b>Procedure</b>	<p>Informed consent forms and photos/images consent forms</p> <p>Training session for teachers: User Guide provided.</p> <p>Short Training Session for Students: A short notice explaining how to start a GLP and how to start a location-based activity.</p> <p>Day 1: Teachers create and play a GLP and a location-based game within the school building using QRcodes.</p> <p>Day 2: Some students play the same GLP and location-based game using the QRcode and some using their mobiles.</p>
<b>Used components</b>	<ul style="list-style-type: none"> <li>• Teacher UI</li> <li>• Authoring tool</li> <li>• Student UI</li> <li>• Meta-game <ul style="list-style-type: none"> <li>Minigames</li> <li>Location-based game (via QR code)</li> </ul> </li> </ul>
<b>What data will be saved?</b>	<ul style="list-style-type: none"> <li>• Questionnaire for teachers</li> </ul>

	<ul style="list-style-type: none"> <li>• Questionnaire for students</li> <li>• Form filled in by teachers on their feedback</li> <li>• Their login names and passwords will be saved on BEACONING main central platform.</li> <li>• Images of the workshop</li> <li>• Images they uploaded on the platform will be stored on BEACONING main central platform.</li> </ul>
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Table 8. Pilot data collection France

<b>#04</b>	
<b>Pilot leader</b>	ORT
<b>Pilot country</b>	Greece
<b>Target group(s)</b>	Students and teachers
<b>Procedure</b>	<p>Informed consent forms and photos/images consent forms Training session for teachers: User Guide provided.</p> <p>Students will play BEACONING GLPs on a computer or laptop, both with mouse and sound or also without it.</p> <p>Students play a location-based GLP on mobile devices on the school campus using the GPS function.</p> <p>Teachers create a GLP, assign it to their class and the students play the game. All on their own without the presence of any pilot partner representative.</p>
<b>Used components</b>	<ul style="list-style-type: none"> <li>• Teacher UI</li> <li>• Authoring tool</li> <li>• Student UI</li> <li>• Meta-game <ul style="list-style-type: none"> <li>Minigames</li> <li>Location-based game (via GPS)</li> </ul> </li> </ul>
<b>What data will be saved?</b>	<ul style="list-style-type: none"> <li>• Questionnaire for teachers</li> <li>• Questionnaire for students</li> <li>• Form filled in by teachers on their feedback</li> <li>• Their login names and passwords will be saved on BEACONING main central platform.</li> <li>• Images of the workshop</li> <li>• Images they uploaded on the platform will be stored on BEACONING main central platform.</li> </ul>

Table 9. Pilot data collection Greece

<b>#05</b>	
<b>Pilot leader</b>	ORT
<b>Pilot country</b>	Israel, Bulgaria, Italy, South Africa
<b>Target group(s)</b>	Minors
<b>Procedure</b>	<p>Informed consent forms and photos/images consent forms</p> <p>Training session for teachers: User Guide provided.</p> <p>Students will play BEACONING GLPs on a computer or laptop, both with mouse and sound or also without it.</p> <p>Students play a location-based GLP on mobile devices on the school campus using the GPS function.</p>
<b>Used components</b>	<ul style="list-style-type: none"> <li>• Teacher UI</li> <li>• Authoring tool</li> <li>• Student UI</li> <li>• Meta-game               <ul style="list-style-type: none"> <li>Minigames</li> <li>Location-based game (via GPS)</li> </ul> </li> </ul>
<b>What data will be saved?</b>	<ul style="list-style-type: none"> <li>• Questionnaire for teachers</li> <li>• Questionnaire for students</li> <li>• Form filled in by teachers on their feedback</li> <li>• Their login names and passwords will be saved on BEACONING main central platform.</li> <li>• Images of the workshop</li> <li>• Images they uploaded on the platform will be stored on BEACONING main central platform.</li> </ul>

*Table 10. Pilot data collection Israel, Bulgaria, Italy, South Africa*

<b>#06</b>	
<b>Pilot leader</b>	SEBIT
<b>Pilot country</b>	Turkey
<b>Target group(s)</b>	Students and teachers
<b>Procedure</b>	Students will play BEACONING GLPs on a computer or laptop, both with mouse and sound or also without it.
<b>Used components</b>	<ul style="list-style-type: none"> <li>• Teacher UI</li> <li>• Authoring tool</li> <li>• Student UI</li> <li>• Meta-game               <ul style="list-style-type: none"> <li>Minigames</li> </ul> </li> </ul>

<b>What data will be saved?</b>	<ul style="list-style-type: none"> <li>• Questionnaire for teachers</li> <li>• Questionnaire for students</li> <li>• Their login names and passwords will be saved on BEACONING main central platform.</li> <li>• Images of the workshop</li> <li>• Images they uploaded on the platform will be stored on BEACONING main central platform.</li> </ul>
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Table 11. Pilot data collection Turkey #01

<b>#07</b>	
<b>Pilot leader</b>	SEBIT
<b>Pilot country</b>	Turkey
<b>Target group(s)</b>	Students and teachers
<b>Procedure</b>	Students play a location-based GLP on mobile devices within the school building using beacons and outside on the school ground using the GPS function.
<b>Used components</b>	<ul style="list-style-type: none"> <li>• Student UI</li> <li>• Meta-game Minigames Location-based game (via beacons &amp; GPS)</li> </ul>
<b>What data will be saved?</b>	<ul style="list-style-type: none"> <li>• Questionnaire for teachers</li> <li>• Questionnaire for students</li> <li>• Their login names and passwords will be saved on BEACONING main central platform.</li> <li>• Images of the workshop</li> <li>• Images they uploaded on the platform will be stored on BEACONING main central platform.</li> </ul>

Table 12. Pilot data collection Turkey #02

<b>#08</b>	
<b>Pilot leader</b>	SEBIT
<b>Pilot country</b>	Turkey
<b>Target group(s)</b>	Students and teachers
<b>Procedure</b>	Teachers create a GLP, assign it to their class and the students play the game. All on their own without the presence of any pilot partner representative.
<b>Used components</b>	<ul style="list-style-type: none"> <li>• Teacher UI</li> </ul>

	<ul style="list-style-type: none"> <li>• Authoring tool</li> <li>• Student UI</li> <li>• Meta-game <ul style="list-style-type: none"> <li>Minigames</li> <li>Location-based game</li> </ul> </li> </ul>
<b>What data will be saved?</b>	<ul style="list-style-type: none"> <li>• Questionnaire for teachers</li> <li>• Questionnaire for students</li> <li>• Their login names and passwords will be saved on BEACONING main central platform.</li> <li>• Images of the workshop</li> <li>• Images they uploaded on the platform will be stored on BEACONING main central platform.</li> </ul>

*Table 13. Pilot data collection Turkey #03*

### 3.2 DATA SECURITY AND DATA BACKUP PLAN

The BEACONING software has been designed with high security standards (described in D1.7, D1.8 and D1.9) and in a way that it records only a minimum of personal data to maximise the data security of user data.

During the workshops of large-scale pilots BEACONING representatives encourage teachers to give their students nicknames for their accounts, which do not lead back to their students' real identities. This ensures that no one outside the classroom can connect data back to individuals when analysing the data.

In terms of data security and the data backup of servers during large scale testing, most pilots use the main BEACONING server infrastructure and its backup plan described in D1.9. Coventry's workshop at the Academy for Learning Disabilities will set-up BEACONING on the institution's servers, which use the same procedure for backing up data as the main one used by the hosting academy.

### 3.3 PLAN OF ERASURE

To be in line with the low data storage approach urged by the GDPR and to make our software as attractive as possible for users, we erase data which is not needed any longer, regularly. The following paragraphs show what data is generated throughout the pilots and software use, which is not mentioned in previous deliverables, and how we handle them.

**Entries and file uploads in forum:** Students and teachers can discuss topics in forum threads and upload files to it. These threads can be public or visible for a specific group selected by the teacher. The entries remain accessible as long as the group exists or the teacher decides to delete it.

**In-game uploads & in-game analytics:** Files uploaded within the minigames and the students' analytics of data tracked during game play are used by teachers for assessment purposes. Relevant data for research purposes within BEACONING will be saved as stated in D1.7.

Data which is generated outside the pilot context will be deleted depending on the national and school law. For instance, in Germany data for assessment must be deleted at the end of the term / semester, but in Portugal it must be stored for at least five years.

**Location-based data:** The de-personalized and cumulated heatmap data will be handled similarly to in-game analytics. For BEACONING purposes, it will be stored as described in D1.7.



The use of BEACONING after the project foresees that the schools will define when data needs to be deleted regulated by national law.

**Gamified Lesson Plans (GLP):** GLPs can be created in a public mode where any teacher logged-in into the software can see them. A copy of this GLP will remain in the database, accessible for other users. GLPs which were created in a private mode can be deleted by the teacher who created it.

**Settings of Accessibility Tool:** The toolbar which helps users to use the platform by changing the background colour or offering a text-to-speech function can save the settings for users if desired. Those settings are stored as long as the user exists or until the user deletes these settings in her/his options.

**Log-files:** Log-files store IPs of users, dates and times of access and requested URLs. IP addresses and dates will be logged for safety reasons to prevent the website from being misused. Logged information will neither be analysed nor used for marketing purposes. Logged information will be saved for 1 month.

**User:** A teacher account will be created by the admin of the school using BEACONING. This teacher user will also be deleted by the admin if the teacher is no longer working for the school or does not need access to the software for a different reason. Student users will be created by the teachers. If a student does not need an account any longer, for instance, because the student left the school, the teacher or admin can delete the student account including all personal data.

### 3.4 FAIR DATA

Making BEACONING's data **F**indable, **A**ccessible, **I**nteroperable and **R**eusable (FAIR) is important for the project as part of the ORDP. Data is published on the research-sharing platform Zenodo, as described in D1.9.

Zenodo can be used by third parties without the need of an account, which means that publications are exposable for anyone interested. BEACONING is represented at the platform as community. This means, that researchers can search for the project name in the community section. Here, all data and publications project members have uploaded are listed. Additionally, Zenodo automatically allocates a digital object identifier (DOI) number for easy re-finding certain articles.

Moreover, when uploading publications, a set of keywords are set for better findability. The first one always has to be the project name. The others depend on the context. Project members are advised to use common terminology within the field of the publication. For instance, if a researcher wants to find articles about game-based education but the article is claimed with "game-based learning" only, the researcher might miss the project's publication. Therefore, it is important to have well-thought keywords which describe the same thing in different words and match the common terminology in the field.

## 4 ETHICAL GUIDELINES

The ethical guidelines have been revised for BEACONING's large scale-pilots happening end of 2018 and beginning of 2019. This ensures that all pilots comply with regulations, legislations and deadlines for applications.

Relevant partners gave input on the processes needed in the specific countries. Large scale pilot countries which were not covered in D1.9 are **Israel, Bulgaria, Poland** and **South Africa**. Pilot partners ensure, that pilots will comply with national and European regulations described in D1.7 and D1.8 and the extensions described in General Data Protection regulation.

## 5 CONCLUSION

The focus of this deliverable is on the effects the GDPR has on BEACONING and how these effects are handled. For instance, pilot leaders need to inform their participants in greater detail concerning data collection, what they will do with the data and who will have access to it and for how long. Moreover, since BEACONING has developed software used by participants, a data privacy statement needs to inform in high detail about virtual data saved and how this is processed. The consortium also needs to be aware of the procedure when experiencing a personal data breach. The GDPR also requires the consortium to define new responsibilities among the project members to take care, for instance, if a user wants to see what data BEACONING has saved about her/him or if a user wants the data to be deleted. The software also needs to be in line with GDPR in terms of “privacy by design” and “privacy by default”, which means that each user has the highest possible privacy options pre-selected and that no more data is saved than necessary.

Another part of this deliverable shows the data collection of single components of the BEACONING platform, including a visualization of which user can see what kind of information and how long this will be stored, the data security and data backup plan for pilots and a plan of erasure for user data.

## APPENDIX I: CONSENT FORM TEMPLATE

### Participant Information Sheet

#### BEACONING project

BEACONING is a gamified educational platform currently in development within an EU H2020 Project Consortium coordinated by Coventry University in United Kingdom. The concept of BEACONING is to digitally enable play-learn in everyday spaces fostering cross-subject learning, facilitated by personified gamified lesson plan where context-aware educational resources and ad-hoc learning in the surrounding environment can be triggered. With this three-years project now moving into its pilot phase, we are looking into opportunities to explore, evaluate and further develop its functionalities with the support of teachers.

#### Invitation

You are being asked to take part in a research study on assistive learning technologies for STEM subject learning. We are a group of researchers studying assistive technologies. The research is overseen [by NAME(s)]. The project has been approved by the [School of Management and Languages Ethics Committee at Heriot-Watt University].

#### What will happen

In this study, you will be asked to contribute and speak as part of a focus group. The data will be collected in the form of [questionnaires and feedback forms we ask you to fill in], which will be later analysed.

#### Aim of the project

We want to investigate [if there are common themes around user issues with this technology.]

#### Time commitment

The focus group is [a one off, 1 hour focus group.]

#### Participant's rights

You may decide to stop being a part of the research study at any time without explanation. You have the right to ask that any data you have supplied to that point be withdrawn. You have the right to omit or refuse to answer or respond to any question that is asked of you.

#### Benefits and risks

There are no known benefits or risks for you in this study.

#### Cost, Reimbursement and Compensation

Your participation in this study is voluntary; there is no compensation for your participation in this study.

### Confidentiality / Anonymity

In compliance with the Data Protection Act and Freedom of Information Act, the data we collect will not maintain any personally identifiable information about you. No one will link the data you provide to any identifying information you may supply. Data might be used for research outputs such as articles and conference presentations. Further information on data processing can be found in the “Data Privacy Statement” sheet.

### For further information

[Name(s)] will be glad to answer your questions about this study and provide additional information on results if requested. You may contact them at [email and telephone].

#2018P01

## Data Privacy Statement

### Authority:

[PARTNER NAME, Conductor, Address, email address, Telephone number]  
is in charge of the data collection and processing of this workshop.

Sylvester Arnab,  
Coventry University  
Priory Street, Coventry, United Kingdom, CV1 5FB  
[aa8110@coventry.ac.uk](mailto:aa8110@coventry.ac.uk)

is the project coordinator of BEACONING.

BEACONING is a European funded project in which 15 partners in 9 countries (United Kingdom, Germany, Portugal, Spain, France, Romania, Italy, Poland and Turkey) are working closely together. All partners are listed here: <http://beaconing.eu/insights/the-who/>

### Voluntary information:

While you use the BEACONING platform, we only collect data that is needed by the system in order to work properly.

You will receive [questionnaires and a feedback form] we kindly ask you to fill in. These are not mandatory and there are no negative consequences if these are not be filled in.

### Data processing:

With your consent, we are processing the data based on art. 6 par. 1(a) GDPR. Your consent may be revoked at any time. This does not change the lawfulness of the processed data until then. Whenever the consent is revoked, the according data processing will be stopped.

To revoke your consent, please send an email to:

The conducting partner  
and to  
[contact@beaconing.eu](mailto:contact@beaconing.eu)

Based on art. 9 par. 2(a): With your consent we may process health related data which is needed, whenever you want the system to assist you in the usage of the software (e.g. changing the colour scheme, or using the text-to-speech function).

### Location-based Data:

We may use GPS data. The location-based games can be played without the need of GPS. But if the teacher has selected the GPS game mode, the system automatically checks, if you have

reached certain positions in the city/school area/school building. This is needed in order to progress in the game. Positions cannot be seen in real-time. During playing the location-based game the user's positions will be saved. This is anonymously and the teacher and BEACONING team can view an anonymous heat map assembled of a group of users. One can conclude where people spent some time and what locations have been visited by more or less people. Position data will be deleted after each term/semester.

We use Openstreetmaps (<https://www.openstreetmap.org/>) to display the map and POI's used for the game. By interacting with the map we do not collect any personal data. But to our knowledge data will be transmitted to OpenStreetMaps (OSM). The data privacy policy (DPP) of the OpenStreetMap Foundation can be seen here: [https://wiki.osmfoundation.org/wiki/Privacy\\_Policy](https://wiki.osmfoundation.org/wiki/Privacy_Policy). OSM stores the shortened IP address, browser and device type, the operating system, the referring web page and date and time of visit. In their DPP they state that they may use user interaction tracking software. The above mentioned data is processed on a legitimate interest basis according to GDPR article 6(1)f to enable us to provide the best possible way of interaction with our software for you. We have no impact on the data processed by OSM.

BEACONING incorporates also MapBox (<https://www.mapbox.com/>). Their DPP can be seen here: <https://www.mapbox.com/privacy/>. MapBox stores the shortened IP address, browser and device type, the operating system, the referring web page and date and time of visit. The above mentioned data is processed on a legitimate interest basis according to GDPR article 6(1)f to enable us to provide the best possible way of interaction with our software for you. We have no impact on the data processed by MapBox.

### Logfiles:

By accessing the Beaconing website the system automatically saves data and information of the computer system used.

The following information will be saved:

- (1) IP address
- (2) Date and time of access
- (3) URL requested

IP addresses are used in order to be able provide the website to your device.

IP addresses and dates will be logged for safety reasons to prevent the website from being misused. Logged information will neither be analysed nor used for marketing purposes. Logged information will be saved for 1 month.

This is based on article 6(1)f GDPR. The logged information is stringently required for the correct functioning of the website on your device. Therefore, there is no option for entering an objection by the data subject.

### Cookies:

Our website uses cookies. Cookies are text files which are saved in the browser/computer system of the user. This cookie has a unique order of characters, which identifies the user's browser when it accesses the Beaconing website again.

We use cookies in order to design the website more user friendly. Some elements of our website require that the browser can be identified when changing sub-pages.

Our cookies save the log-in information in order to display the correct contents. It also saves a refresh token, the token type and a list of lesson plans that have been assigned.

The contents of this cookie have been encrypted using a cryptographically secure thing from the technical side of the software, so that it is not possible to allocate the data back to individual users. The data is not saved together with other personal data.

This is based on article 6(1)f GDPR. The user has the full control about cookies saved on her/his device and can delete and prohibit the saving of cookies in the browser settings.

#### **Registration with Social Media:**

It is possible to post your results on social media. Therefore, you will be asked to log-in with your social media profiles (Facebook, Twitter) in order to share the desired content.

The log-in process only happens when the user wishes to do this. It is not an automatic process. If the user wants to log-in with her/his social media account, the user needs to give consent.

No personal data will be saved by the Beaconing side.

The data collection is based on the user's consent described in article 6(1)a GDPR.

#### **Contact Form:**

Our website includes a contact form which can be used to contact us. The data the user types in and sends to us will be transferred to us in an encrypted way. All information inserted in the mask will be saved.

It is required to insert a name and an email address, so that we are able to answer to your request.

Data will be deleted as soon as they are not needed for the intended purpose.

The data collection is based on article 6(1)f GDPR.

#### **External videos:**

To provide our users a very flexible use of the BEACONING software it provides the opportunity to integrate external resources such as videos from YouTube or Vimeo (and more), or any external files via URLs. The user of the software is the only one responsible for the shown content. BEACONING has no impact on the content, nor on the source it is coming from.

In this context, the respective plug-in (e.g. YouTube) will receive the IP address of the user, which is technically necessary in order to show the desired content. We do not have any impact on the data processed via the external services.

#### **File upload by users:**

Files are uploaded at the risk of the user. Efforts are taken to stop unwanted access to the files. Only authenticated users will have access to the files, and files will be transferred over https. We are not a file hosting company; therefore, sensitive information should not be uploaded. Files uploaded will be linked to a lesson plan or to a topic in the forum. This means that anyone who has access to the lesson plan or forum thread will have access to these uploaded files.

#### **Data Receiver:**

All data will be processed within the European project BEACONING, whereof one partner is located in Turkey. We guarantee that this partner complies with the General Data Privacy Regulation (GDPR), as it is law in Europe.

Answers submitted in questionnaires are anonymized and cannot be traced back to individual persons. The conducting partner has access to the raw answers. For analysis they will be merged with other answers to form statistics. Raw answers and the statistics will be saved for 10 years.

Feedback given on the feedback form is anonymized and cannot be traced back to individual persons. The conducting partner has access to the feedback and will analyse it. Results will be shown to the other project partners, who will be responsible for improving the user experience on the software side. Feedback will be saved for 10 years.

Photos taken at the workshop will only be used if separate consent has been given. All project partners will have access to them and they may be used for reporting, documentation and illustration for printed products, or on the Facebook page, Twitter page and/or webpage of the conducting partner and the BEACONING project. Images will be saved for 10 years.

Images uploaded to the BEACONING platform will be stored in a cloud-based setup within the European Union (currently in Frankfurt). As part of the trainings session the images will be deleted 10 days after the workshop. Otherwise they will be deleted after the term is over. Health data will be stored only if the user clicks on “save settings” in the accessibility tool. Settings will be saved on BEACONING’s cloud-setup in Frankfurt so that the user has the same accessibility settings by default each time when logging in. This data will be saved as long as the profile exists. If you do not want health data to be stored, avoid clicking the button “save settings”. If you want to delete the stored data, you can delete the settings in your profile.

For students only:

In-game data will be stored and be statistically analysed. The teacher can see

- The exact answers given in minigames
- Scores
- Duration of play time
- Date when a certain task has been accomplished
- Depersonalized heatmap of location data during gameplay
- Forum entries

The teacher uses this data for assessment purposes. This data will be deleted after the term is over.

### User’s Rights

Data subjects have the right of access any personal data concerning them on behalf of the controller. Data subjects have the right on rectification of incorrect data as well as the right of erasure if reasons laid down in art. 17 GDPR are applicable (e.g. if the data is no longer needed for the purposes pursued). Data subjects also have the right to restriction of processing if one of the conditions set out in art. 18 GDPR exists. In the cases of art. 20 GDPR, it exists the right to data portability.

To make use of your rights, please send an email to: The conducting partner and to [contact@beaconing.eu](mailto:contact@beaconing.eu)

### Right of appeal to a supervisory authority:

Each data subject has the right to complain to a supervisory authority if the data subject considers that the processing of the data concerning them is contrary to data protection provisions. The right of appeal may be invoked, in particular, with a supervisory authority in the Member State of the person's place of residence or the place of the alleged infringement.



### Addresses:

#### Bulgaria

*Commission for Personal Data Protection*, 28-30 G-ral Gheorghe Magheru Bld., District 1, post code 010336

Tel: +3592/91-53-559

Email: kzld@cpdp.bg

#### France

*CNIL - Commission Nationale de l'Informatique et des Libertés*, 3 Place de Fontenoy, TSA 80715, 75334 PARIS CEDEX 07

Tel: +33 (0)1.53.73.22.22

#### Germany / Bremen

*Die Landesbeauftragte für Datenschutz und Informationsfreiheit*, Arndtstr. 1, 27570 Bremerhaven

Email: office@datenschutz.bremen.de

#### Italy

*Garante per la protezione dei dati personali*, Piazza di Monte Citorio, 121 – 00186 Roma

Tel: +39-06-6967 71

Email: urp@gpdp.it

#### Romania

*The National Supervisory Authority For Personal Data Processing*, 2 Prof. Tsvetan Lazarov Blvd., Sofia 1592

Tel: +40.318.059.211

Email: presa@dataprotection.ro, ansdpdcp@dataprotection.ro

#### UK / Scotland

*The Information Commissioner's Office (ico.)*, 45 Melville Street, Edinburgh, EH3 7HL

Telephone: 0303 123 1115

Email: Scotland@ico.org.uk

## PARTICIPANT CONSENT FORM

By signing below, you are agreeing that:

- You have read and understood the Participant Information Sheet and Data Privacy Statement
- You agree to the terms written in the Participant Information Sheet and Data Privacy Statement.
- Any questions you may have about your participation in this study have been answered satisfactorily
- You understand that there are no expected potential risks to you in your participation
- You are taking part in this research study voluntarily (without coercion or remuneration).

I give additional consent for any audio, photographic and video recording to be used for project dissemination and project report as described in the Data Privacy Statement.

☐

YES

☐

NO

---

Name of Participant

---

Date

---

Signature

## APPENDIX II: INFORMED CONSENT TEMPLATE

### PARENT/GUARDIAN INFORMED CONSENT

#### Identification of Investigator & Purpose of Study

Your child is being asked to participate in a research study conducted by [NAME] from [INSTITUTE]. The purpose of this study is to evaluate the gameful and playful approach of a new learning platform for supporting the learning of Science, Technology, Engineering and Maths (STEM).

#### Research Procedures

Should you decide to allow your child to participate in this research study, you will be asked to sign this consent form once all your questions have been answered to your satisfaction. The children will use the learning platform which shows playful content the teachers have created by themselves beforehand. The gameful experience may include a location-based game, which may track GPS data of the used device during gameplay in order for the game to work correctly.

After using the software a survey will be administered via the participating teachers based on their engagement with the individual students interacting with the learning platform. The teachers will be asked to provide answers to a series of questions related to the student's experience of using the learning platform.

#### Risks

The investigators perceive no risks from your child's involvement in this study (that is, no risks beyond the risks associated with everyday life).

#### Payment for participation

There will be no incentives or rewards in this study.

#### Participation & Withdrawal

Your child's participation is entirely voluntary. He/she is free to choose not to participate. Should you and your child choose to participate, he/she can withdraw at any time without consequences of any kind.

#### Questions about the Study

If you have questions or concerns during the time of your child's participation in this study, or after its completion or you would like to receive a copy of the final aggregate results of this study, please contact:

[CONTACT DETAILS]

#2018P01

## Data Privacy Statement

### Authority:

[PARTNER NAME, Conductor, Address, email address, Telephone number]  
is in charge of the data collection and processing of this workshop.

Sylvester Arnab,  
Coventry University  
Priory Street, Coventry, United Kingdom, CV1 5FB  
[aa8110@coventry.ac.uk](mailto:aa8110@coventry.ac.uk)

is the project coordinator of BEACONING.

BEACONING is a European funded project in which 15 partners in 9 countries (United Kingdom, Germany, Portugal, Spain, France, Romania, Italy, Poland and Turkey) are working closely together. All partners are listed here: <http://beaconing.eu/insights/the-who/>

### Voluntary information:

While you use the BEACONING platform, we only collect data that is needed by the system in order to work properly.

You will receive [questionnaires and a feedback form] we kindly ask you to fill in. These are not mandatory and there are no negative consequences if these are not be filled in.

### Data processing:

With your consent, we are processing the data based on art. 6 par. 1(a) GDPR. Your consent may be revoked at any time. This does not change the lawfulness of the processed data until then. Whenever the consent is revoked, the according data processing will be stopped.

To revoke your consent, please send an email to:

The conducting partner  
and to  
[contact@beaconing.eu](mailto:contact@beaconing.eu)

Based on art. 9 par. 2(a): With your consent we may process health related data which is needed, whenever you want the system to assist you in the usage of the software (e.g. changing the colour scheme, or using the text-to-speech function).

### Location-based Data:

We may use GPS data. The location-based games can be played without the need of GPS. But if the teacher has selected the GPS game mode, the system automatically checks, if you have reached certain positions in the city/school area/school building. This is needed in order to progress in the game. Positions cannot be seen in real-time. During playing the location-based game the user's positions will be saved. This is anonymously and the teacher and BEACONING team can view an anonymous heat map assembled of a group of users. One can conclude where people spent some time and what locations have been visited by more or less people. Position data will be deleted after each term/semester.

We use Openstreetmaps (<https://www.openstreetmap.org/>) to display the map and POI's used for the game. By interacting with the map we do not collect any personal data. But to our knowledge data will be transmitted to OpenStreetMaps (OSM). The data privacy policy (DPP) of the OpenStreetMap Foundation can be seen here: [https://wiki.osmfoundation.org/wiki/Privacy\\_Policy](https://wiki.osmfoundation.org/wiki/Privacy_Policy). OSM stores the shortened IP address, browser and device type, the operating system, the referring web page and date and time of visit. In their DPP they state that they may use user interaction tracking software. The above mentioned data is processed on a legitimate interest basis according to GDPR article 6(1)f

to enable us to provide the best possible way of interaction with our software for you. We have no impact on the data processed by OSM.

BEACONING incorporates also MapBox (<https://www.mapbox.com/>). Their DPP can be seen here: <https://www.mapbox.com/privacy/>. MapBox stores the shortened IP address, browser and device type, the operating system, the referring web page and date and time of visit. The above mentioned data is processed on a legitimate interest basis according to GDPR article 6(1)f to enable us to provide the best possible way of interaction with our software for you. We have no impact on the data processed by MapBox.

### Logfiles:

By accessing the Beaconing website the system automatically saves data and information of the computer system used.

The following information will be saved:

- (1) IP address
- (2) Date and time of access
- (3) URL requested

IP addresses are used in order to be able provide the website to your device.

IP addresses and dates will be logged for safety reasons to prevent the website from being misused. Logged information will neither be analysed nor used for marketing purposes. Logged information will be saved for 1 month.

This is based on article 6(1)f GDPR. The logged information is stringently required for the correct functioning of the website on your device. Therefore, there is no option for entering an objection by the data subject.

### Cookies:

Our website uses cookies. Cookies are text files which are saved in the browser/computer system of the user. This cookie has a unique order of characters, which identifies the user's browser when it accesses the Beaconing website again.

We use cookies in order to design the website more user friendly. Some elements of our website require that the browser can be identified when changing sub-pages.

Our cookies save the log-in information in order to display the correct contents. It also saves a refresh token, the token type and a list of lesson plans that have been assigned. The contents of this cookie have been encrypted using a cryptographically secure thing from the technical side of the software, so that it is not possible to allocate the data back to individual users. The data is not saved together with other personal data.

This is based on article 6(1)f GDPR. The user has the full control about cookies saved on her/his device and can delete and prohibit the saving of cookies in the browser settings.

### Registration with Social Media:

It is possible to post your results on social media. Therefore, you will be ask to log-in with your social media profiles (Facebook, Twitter) in order to share the desired content.

The log-in process only happens when the user wishes to do this. It is not an automatic process. If the user wants to log-in with her/his social media account, the user needs to give consent.

No personal data will be saved by the Beaconing side.

The data collection is based on the user's consent described in article 6(1)a GDPR.

### Contact Form:

Our website includes a contact form which can be used to contact us. The data the user types in and sends to us will be transferred to us in an encrypted way. All information inserted in the mask will be saved.

It is required to insert a name and an email address, so that we are able to answer to your request.

Data will be deleted as soon as they are not needed for the intended purpose.

The data collection is based on article 6(1)f GDPR.

**External videos:**

To provide our users a very flexible use of the BEACONING software it provides the opportunity to integrate external resources such as videos from YouTube or Vimeo (and more), or any external files via URLs. The user of the software is the only one responsible for the shown content. BEACONING has no impact on the content nor on the source it is coming from.

In this context, the respective plug-in (e.g. YouTube) will receive the IP address of the user, which is technically necessary in order to show the desired content. We do not have any impact on the data processed via the external services.

**File upload by users:**

Files are uploaded at the risk of the user. Efforts are taken to stop unwanted access to the files. Only authenticated users will have access to the files, and files will be transferred over https. We are not a file hosting company; therefore, sensitive information should not be uploaded. Files uploaded will be linked to a lesson plan or to a topic in the forum. This means that anyone who has access to the lesson plan or forum thread will have access to these uploaded files.

**Data Receiver:**

All data will be processed within the European project BEACONING, whereof one partner is located in Turkey. We guarantee that this partner complies with the General Data Privacy Regulation (GDPR), as it is law in Europe.

Answers submitted in questionnaires are anonymized and cannot be traced back to individual persons. The conducting partner has access to the raw answers. For analysis they will be merged with other answers to form statistics. Raw answers and the statistics will be saved for 10 years.

Feedback given on the feedback form is anonymized and cannot be traced back to individual persons. The conducting partner has access to the feedback and will analyse it. Results will be shown to the other project partners, who will be responsible for improving the user experience on the software side. Feedback will be saved for 10 years.

Photos taken at the workshop will only be used if separate consent has been given. All project partners will have access to them and they may be used for reporting, documentation and illustration for printed products, or on the Facebook page, Twitter page and/or webpage of the conducting partner and the BEACONING project. Images will be saved for 10 years.

Images uploaded to the BEACONING platform will be stored in a cloud-based setup within the European Union (currently in Frankfurt). As part of the trainings session the images will be deleted 10 days after the workshop. Otherwise they will be deleted after the term is over. Health data will be stored only if the user clicks on “save settings” in the accessibility tool. Settings will be saved on BEACONING’s cloud-based servers Frankfurt so that the user has the same accessibility settings by default each time when logging in. This data will be saved as long as the profile exists. If you do not want health data to be stored, avoid clicking the button “save settings”. If you want to delete the stored data, you can delete the settings in your profile.

For students only:

In-game data will be stored and be statistically analysed. The teacher can see

- The exact answers given in minigames
- Scores
- Duration of play time
- Date when a certain task has been accomplished
- Depersonalized heatmap of location data during gameplay
- Forum entries

- .. The teacher uses this data for assessment purposes. This data will be deleted after the term is over.

### User's Rights

Data subjects have the right of access any personal data concerning them on behalf of the controller. Data subjects have the right on rectification of incorrect data as well as the right of erasure if reasons laid down in art. 17 GDPR are applicable (e.g. if the data is no longer needed for the purposes pursued). Data subjects also have the right to restriction of processing if one of the conditions set out in art. 18 GDPR exists. In the cases of art. 20 GDPR, it exists the right to data portability.

To make use of your rights, please send an email to: The conducting partner and to [contact@beaconing.eu](mailto:contact@beaconing.eu)

### Right of appeal to a supervisory authority:

Each data subject has the right to complain to a supervisory authority if the data subject considers that the processing of the data concerning them is contrary to data protection provisions. The right of appeal may be invoked, in particular, with a supervisory authority in the Member State of the person's place of residence or the place of the alleged infringement.

### Addresses:

#### Bulgaria

*Commission for Personal Data Protection*, 28-30 G-ral Gheorghe Magheru Bld., District 1, post code 010336

Tel: +3592/91-53-559

Email: [kzld@cpdp.bg](mailto:kzld@cpdp.bg)

#### France

*CNIL - Commission Nationale de l'Informatique et des Libertés*, 3 Place de Fontenoy, TSA 80715, 75334 PARIS CEDEX 07

Tel: +33 (0)1.53.73.22.22

#### Germany / Bremen

*Die Landesbeauftragte für Datenschutz und Informationsfreiheit*, Arndtstr. 1, 27570 Bremerhaven

Email: [office@datenschutz.bremen.de](mailto:office@datenschutz.bremen.de)

#### Italy

*Garante per la protezione dei dati personali*, Piazza di Monte Citorio, 121 – 00186 Roma

Tel: +39-06-6967 71

Email: [urp@gpdp.it](mailto:urp@gpdp.it)

#### Romania

*The National Supervisory Authority For Personal Data Processing*, 2 Prof. Tsvetan Lazarov Blvd., Sofia 1592

Tel: +40.318.059.211

Email: [presa@dataprotection.ro](mailto:presa@dataprotection.ro), [anspdcp@dataprotection.ro](mailto:anspdcp@dataprotection.ro)

#### UK / Scotland

*The Information Commissioner's Office (ico.)*, 45 Melville Street, Edinburgh, EH3 7HL

Telephone: 0303 123 1115

Email: [Scotland@ico.org.uk](mailto:Scotland@ico.org.uk)

## GIVING OF CONSENT

I have read this consent form and the Data Privacy Statement and I understand what is being requested of my child as a participant in this study. I freely consent for my child to participate. I have been given satisfactory answers to my questions. The investigator provided me with a copy of this form. I certify that I am at least 18 years of age.

I give additional consent for any audio, photographic and video recording to be used for project dissemination and project report as described in the Data Privacy Statement.

☐

YES

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NO

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Name of Child (Printed)

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Name of Parent/Guardian (Printed)

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Date

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Signature

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Name of Researcher (Printed)

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Date

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Signature