



DIVERS-CULT

Promoting Cultural diversity in primary and lower-secondary schools

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O1 - Definition of DiversCult Competences

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A3. Open Badge System design



HeartHands
— **SOLUTIONS** —
HANDS ON KNOWLEDGE



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Introduction

The Badges created within the Divers Cult Competence Framework will offer informal recognition of the knowledge acquired and of the activities performed, to Teachers and other Educators of primary education who have successfully completed a series of activities from the Divers Cult Toolkit.

The main aims of the Divers-Cult Badges are:

- To design the ecosystem where Open Badges will identify, recognize, and validate certain skills of the users/ teachers/ educators.
- To define the metrics through which knowledge is validated
- To define the metrics through which implementation of activities is rewarded
- To promote the use of innovative multi-level tools in the form of e-resources and hands-on material for educational play.
- To implement all technological actions to link the Open Badges Framework to the Divers-Cult Toolkit

This document provides detailed information regarding the following:

- Theoretical background of the methodology used.
- Description of the ecosystem in relation to the structure, criteria and description for issuers, graphic design, technological integration, and endorsement procedure of Open Badges.
- Practical guidelines for issuing an Open Badge by using the learning portal developed.

The final Competence Framework will be integrated into the Divers-Cult Toolkit which will check conditions and will award the Divers-Cult Badges.

Open Badges

Open Badges are a digital representation of skills, learning outcomes, achievements, or experience such as:

- Hard skills: knowledge, competences, etc.
- Soft skills: critical thinking, communication, etc.
- Participation and community involvement
- Official certification
- Authorization

An Open Badge is an innovative system used in the USA and many EU countries for the validation and recognition of learning, using the OB technology offered as an open educational resource. It is a technology which promotes open access and participation of all stakeholders involved in badges process, while allowing the creation of synergies between the learners-earners, the issuers (i.e. schools, stakeholders, enterprises, NGOs including trainers/ volunteers as facilitators) and the badge consumers (i.e. formal education, public authorities, official bodies, (potential) employers). This will lead to the endorsement process leading to a transparent, transferable, valid, and credible validation of a body of skills and knowledge related to a set of competences for students and teachers.

The Open Badges system is a very inclusive solution: it enables anyone to get actively involved in designing, testing, implementing, and promoting the learning outcomes and achievements.

An Open Badge is visual verified evidence of achievement. It has a visual part (image) and meta-data, which is encoded in the image. Each digital badge must comply with the required standard data fields, such as: issuer, date of issue, description of the badge, link to assessment criteria, link to evidence of what a badge owner is claiming, link to a specific competence framework and tags, which puts an Open Badge in relation to specific context.

Some of the benefits of Open Badges are presented below:

- Badges can demonstrate a wider range of skills and achievements of a learner acquired through formal, non-formal and informal learning methods and activities.
- Badges are portable and verifiable digital objects. All this information may be packaged within a badge image file that can be displayed via online CVs and social networks.
- Each Badge includes the description of the achievement: i.e., it describes the path a learner undertook for his or her achievement, accompanied by the evidence to support the badge award.
- Each Badge includes information about the earner's identity, a link to information about the issuer and a link to a description of what a badge represents.
- Badges can be used to unlock learning and career pathways. They can be used to support individuals to achieve learning goals, to provide routes into employment, and to nurture and progress talent within organizations.
- Badges can represent personal attributes that matter to employers (digital skills and soft skills).
- Badges can be used in a professional or educational context. Thousands of organizations, including non-profit organizations, major employers or educational institutions, issue badges in accordance with the Open Badges Specification.

Key Elements

Issuer

The issuer defines a competence that could be acquired by a user, designs the learning material for it and assesses the users with regards to the acquisition of the competence. The issuer then creates a relevant badge and makes it available for earning by any user. For each badge, the issuer should make available details of the criteria that an earner must meet in order to be awarded the specific badge. The reviewer of an assessment compares the evidence provided by the earner against the specific badge criteria.

Any individual or organization can create an Issuer profile and begin defining and issuing Open Badges. This is done by a diverse range of organizations and communities, including:

- Schools and universities
- Employers
- Community and non-profit organizations
- Government agencies (including NASA)



- Libraries and museums
- Event organizers and science fairs (Including Intel)
- Companies and groups focused on personal development

An entity that can be described with a name, a description, a URL, an image, and an e-mail address is a potential candidate to become an issuer. Furthermore, it needs a technology platform that supports the Open Badges Framework to issue Open Badges.

Badge issuing platform

Many companies have badge issuing platforms, compliant with the Open Badges Framework. They provide a wide range of services which allow non-technical users to issue Open Badges credentials. The platforms used for issuing Open Badges offer a variety of custom services including online badge designers, badge discovery, issuing, assessment workflow, display, user profiles, social sharing, and tools to integrate with existing learning systems. All Open Badges issuing platforms allow recipients to export their badges to other online options. This allows users to stack and share their badges earned on different platforms and to choose their own spaces to establish their identity on the web.

Earners

Open Badges help recognize skills gained through a variety of experiences, regardless of the age or background of the learner. They allow earners to get awards for following their interests and passions, and to unlock opportunities in life and work by standing out from the crowd. Earners have to register on the organization's platform and can claim a badge when the pre-defined criteria have been met during the evaluation phase.

Evaluation

There are different options for the assessment process:

- Asynchronous assessment: learners seek out the assessment when it is convenient for them instead of being required to take an exam at a pre-determined time.
- Stealth assessment: assessment and awarding badges can happen automatically and provide immediate feedback.
- Portfolio assessment: work samples, projects, and other artefacts the learner has produced can be used as evidence for claiming a badge.

Displayer

Open Badges are designed to be shared. By sharing them, individuals exhibit their achievements to others and turn them into a valuable currency to unlock new opportunities.

Badges can be shared:

- On blogs, websites, e-Portfolios, and professional networks
- In job applications
- On social media sites - Twitter, Google+, Facebook, LinkedIn
- In an e-mail signature

Technical Aspects

An earnable badge is defined as a badge class, using a variety of data items including descriptions, criteria, and information about the issuing organization. When an issuer decides to award that badge to a specific earner, he or she creates a badge assertion. A badge assertion describes the data for an awarded badge. It includes the earner's identity and a link to the generic badge class, which in turn is linked to information about the badge issuer. All the data for the badge is defined using JSON structures. To award a badge to an earner the issuer creates a badge assertion in JSON.

The image for a badge should be a square PNG (or SVG). The file size should be a maximum of 256KB and should not be smaller than 90 px square.

Things you can verify and explore in a badge:

- Details about the organization issuing the badge.
- What the individual has done to earn the badge.
- The criteria that the badge has been assessed against.
- That the badge was issued to the expected recipient.
- The badge earner's unique evidence (optionally included).
- When the badge was issued and whether it expires.

Open Badges for the Divers-Cult Project

Open Badges provide portable and verifiable information about various skills and achievements. The users can unlock opportunities by sharing collections of badges representing desired skill sets in a dynamic, evidence-based way. Open Badges represent legitimate, authenticated achievements described within the badge and linked to the Divers-Cult project.

The consortium has defined the Divers-Cult Competence Framework through the selection of best practices from the partner countries. The practices were reviewed, and the competencies promoted from each best practice were analysed and categorised in three main dimensions:

- Personal
- Scholastic
- Systemic

Each dimension includes examples of actions with the related competencies representing levels of the European Qualification Framework (EQF LEVELS) 1,2 and 3.

HeartHands Solutions has designed the badges to be linked with the implementation of activities and achievements in each EQF level of the above-mentioned dimensions.

Personal Dimension

The badges will be three for this dimension of activities. These activities will reflect the cultivation of skills and competencies in the personal dimension of the children. There are three badges to be awarded representing the three EQF Levels.

For EQF Level 1 recognition of knowledge will be attributed to the badge of the "Beginner Personal Divers-Cult".



For EQF Level 2 recognition of knowledge will be attributed to the badge of the “Competent Personal Divers-Culter”.



For EQF Level 3 recognition of knowledge will be attributed to the badge of the “Proficient Personal Divers-Culter”.



Scholastic Dimension

The badges will be three for this dimension of activities. These activities will reflect the cultivation of skills and competencies in the school environment. There are three badges to be awarded representing the three EQF Levels.

For EQF Level 1 recognition of knowledge will be attributed to the badge of the “Beginner Scholastic Divers-Culter”.



For EQF Level 2 recognition of knowledge will be attributed to the badge of the “Competent Scholastic Divers-Culter”.



For EQF Level 3 recognition of knowledge will be attributed to the badge of the “Proficient Scholastic Divers-Culter”.



Systemic Dimension

The badges will be three for this dimension of activities. These activities will reflect the cultivation of skills and competencies related to educational systems in the school environment. There are three badges to be awarded representing the three EQF Levels.

For EQF Level 1 recognition of knowledge will be attributed to the badge of the “Beginner Systemic Divers-Culter”.



For EQF Level 2 recognition of knowledge will be attributed to the badge of the “Competent Systemic Divers-Culter”.



For EQF Level 3 recognition of knowledge will be attributed to the badge of the “Proficient Systemic Divers-Culter”.



Each Open Badge consists of the below:

- Name: The name of the Open Badge is related to the separate dimensions of activities and the description of the level of difficulty (EQF Levels 1,2,3).
- Learning Outcomes: A list of the learning outcomes to be acquired.
- Design of Open Badge: The Visualization (image) of each Open Badge
- Main Objective: A description of the Open Badge related to the main objectives.



- **Assessment Criteria:** The criteria to be used to assess whether the learning outcomes have been achieved and whether the set of skills and competences have been acquired by the users. The criteria and the assessment methods that must be followed in order to receive a badge are described in the following sections.
- **Evidence:** The proof and the evidence of the acquired skills for example quiz grades, etc. This process will be automated through the final toolkit.
- **Issued by:** In this section the issuer of the Open Badge is specified, which in this case is the Divers-Cult consortium.

Awarding Criteria

The learners will acquire the badges based on the activities published. The activities may refer to one of the following categories (digital board, AR game, card game). The levels are defined as shown below:

- **Personal dimension**
 - EQF Level 1
 - EQF Level 2
 - EQF Level 3
- **Scholastic dimension**
 - EQF Level 1
 - EQF Level 2
 - EQF Level 3
- **Systemic dimension**
 - EQF Level 1
 - EQF Level 2
 - EQF Level 3

Open Badges for all Dimensions

Name of OB	Learning Outcomes	Design of OB	Assessment criteria	Evidence	Issued by
Beginner Personal Divers-Culter	Personal Dimension EQF LEVEL 1		Publish at least 1 activity that correlates with Personal Dimension (EQF Level 1)	Activity published on the CultApp	Divers Cult consortium
Competent Personal Divers-Culter	Personal Dimension EQF LEVEL 2		Publish at least 1 activity that correlates with Personal Dimension (EQF Level 2)	Activity published on the CultApp	Divers Cult consortium
Proficient Personal Divers-Culter	Personal Dimension EQF LEVEL 3		Publish at least 1 activity that correlates with Personal Dimension (EQF Level 3)	Activity published on the CultApp	Divers Cult consortium

Beginner Scholastic Divers-Culter	Scholastic Dimension EQF LEVEL 1		Publish at least 1 activity that correlates with Scholastic Dimension (EQF Level 1)	Activity published on the CultApp	Divers Cult consortium
Competent Scholastic Divers-Culter	Scholastic Dimension EQF LEVEL 2		Publish at least 1 activity that correlates with Scholastic Dimension (EQF Level 2)	Activity published on the CultApp	Divers Cult consortium
Proficient Scholastic Divers-Culter	Scholastic Dimension EQF LEVEL 3		Publish at least 1 activity that correlates with Scholastic Dimension (EQF Level 3)	Activity published on the CultApp	Divers Cult consortium

Beginner Systemic Divers-Culter	Systemic Dimension EQF LEVEL 1		Publish at least 1 activity that correlates with Systemic Dimension (EQF Level 1)	Activity published on the CultApp	Divers Cult consortium
Competent Systemic Divers-Culter	Systemic Dimension EQF LEVEL 2		Publish at least 1 activity that correlates with Systemic Dimension (EQF Level 2)	Activity published on the CultApp	Divers Cult consortium
Proficient Systemic Divers-Culter	Systemic Dimension EQF LEVEL 3		Publish at least 1 activity that correlates with Systemic Dimension (EQF Level 3)	Activity published on the CultApp	Divers Cult consortium



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