

LMS support of Open Badges

imc Learning Suite

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Content

1	Introduction	1
2	Badge provider	2
3	Open Badge configuration	3
4	Learner experience	4
4.1	Badge panel	4
4.2	Experience area	5
4.3	Badge details page	6
5	Badge structure	7
6	Badge validation and backpack	8
7	Out-of-Scope	10
8	Effects on other components	10
9	Data migration	10
10	Data protection and security	10

1 Introduction



The Open Badges is a badge portability standard managed by IMS Global, that allows learners to share their achievements with interested third parties who have the possibility to verify the achievement by using certified Open Badge validator tools.

An Open Badge is a png file which contains embedded information about the issuer, recipient, and badge.

For this purpose, it is required that this data is accessible remotely without authentication. The LMS supports the Open Badge standard 2.0 for issuers.

Via imc's LMS, Open Badges can be issued to learners based on various criteria, like completing a course, passing a test, or contributing to a forum. The learner is able to access their badges, download them and upload to an open backpack from where they can further share their achievement to the world.

Open Badges are a great way to boost a learner's motivation to continue learning and collect further achievements, while the sharing experience is both increasing the motivation of other learners while also promoting the training provider or issuer. The validation aspect allows interested third parties to verify with the issuer that the learner has indeed gained the achievement.

2 Badge provider

The LMS makes use of the Provider entity as badge issuers.

Providers are now configurable with an option that allows making the details of the provider public.

In addition, an Open Badge provider must specify a URL and a contact e-mail address. These fields are now available for providers in the LMS.

Badges have now also the possibility to display the provider image, if a provider is associated with the badge.

For the badge cards in the badge panel, the provider small logo will be displayed on the back of the badge card.

The badge details page will display the provider large logo.

The screenshot displays the 'imc AG' LMS interface for configuring a badge provider. The 'Description' tab is active, showing a form with the following fields and controls:

- Header:** 'imc AG' logo, 'Edit' button, 'Provider 142318', and 'saved: 21-Jan-2021'.
- Tabs:** 'Description' (active) and 'Payment processes'.
- Metadata Table:**

Created	Last update	Object ID
27-May-2010 18:25	21-Jan-2021 19:01	142318
- Note:** 'Note: Mandatory fields are marked with an asterisk (*)'.
- Open Badges public provider:** A checked checkbox.
- Provider* (50 characters max.):** Text input field containing 'imc AG'.
- Provider key (10 characters max.):** Empty text input field.
- Upload provider logo:** Text input field containing 'screen_468683.JPG', with 'Upload', 'Delete', and 'Download' buttons below it.
- Organiser logo upload small (max. Recommended image size 80 x 200 pixel):** Empty text input field, with 'Upload', 'Delete', and 'Download' buttons below it.
- Client:** Dropdown menu showing 'Not defined'.
- External ID (50 characters max.):** Empty text input field.
- External system ID (50 characters max.):** Empty text input field.
- E-mail (100 characters max.):** Empty text input field.
- URL (1000 characters max.):** Text input field containing 'http://www.im-c.de'.

Fig. 2.1: „Open Badges public provider“ in the „Description“ tab.

3 Open Badge configuration

In the systemintegration.xml file, a configuration is required in order to enable the Open Badge functionality:

```
<openBadge secretKey="aesSecretKey" initVector="anArbitraryInitV"/>
```

Starting with version 14.10, this configuration is moved in the Configuration manager, in the Experience Area section.

This entry must be placed inside the contentServer tag.

LMS badges can be configured as Open Badges. Information about badges marked as “Open Badge” will be made public for the purpose of compliance with the Open Badges standard.

The badge now also supports adding a provider.

Media expert
Edit Badge 829 saved: 16-Aug-2016

Description Groups Rules

Created: 10-Aug-2016 16:20 Last update: 16-Aug-2016 13:34

Note: Mandatory fields are marked with an asterisk (*).

External object ID
http://im-c.de/xapi/activities/badge/ILS/829

Image
badge_media_3_671072.png

Upload Delete Download

☐ Hidden badge ⓘ

☒ Open Badge ⓘ

Provider
No organise

Rank ⓘ
7

By enabling the badge as open badge, the information about the issuer and provider will be included in the badge based on the Open Badges standard and the learner will be allowed to download and share the badge. Open Badges can be verified with compliant verification tools.

Fig. 3.1: „Media expert“.

The provider will be mandatory for Open Badges but can also be used optionally for simple badges.

4 Learner experience

Learners can earn Open Badges by fulfilling the conditions defined for the badge. Once the badge is earned, the issue date is recorded.

4.1 Badge panel

The badge panel displays the latest badges achieved by the learner in an interactive slider. The badge cards display the name, issue date and image of the badge and in addition, for Open Badges, the possibility to download the badge.

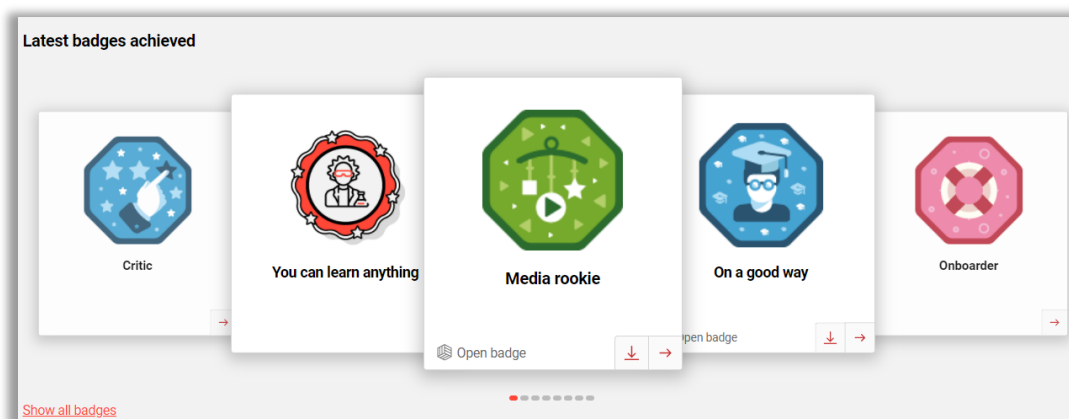


Fig. 4.1: Badge panel: front of the card.

The back of the card contains the provider, if available, and, for an Open Badge, instructions on how to download and share the achievement.

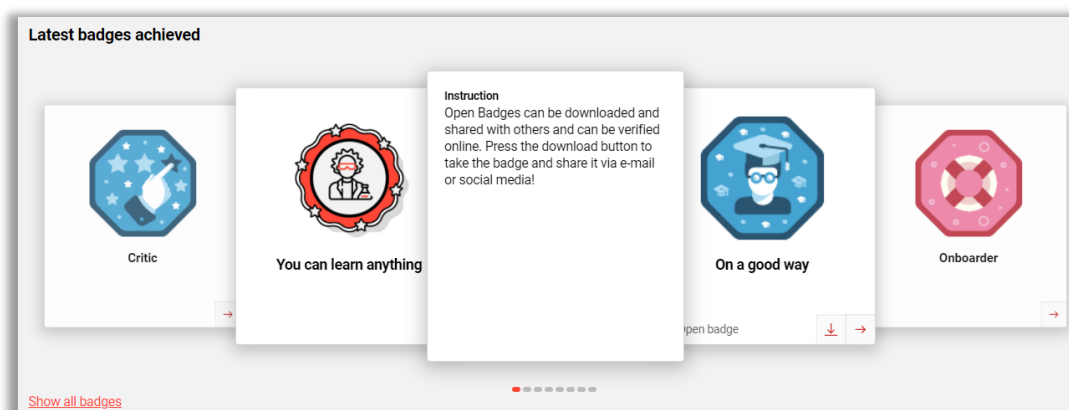


Fig. 4.2: Badge panel: back of the card.

From the panel, the learner can navigate to the experience area to see all the badges, including potential badges not yet achieved.

4.2 Experience area

In the experience area, the learner can see all the achieved badges. Similar to the panel, Open Badges are identified via a special icon and can be downloaded. The cards can not be flipped in this section.

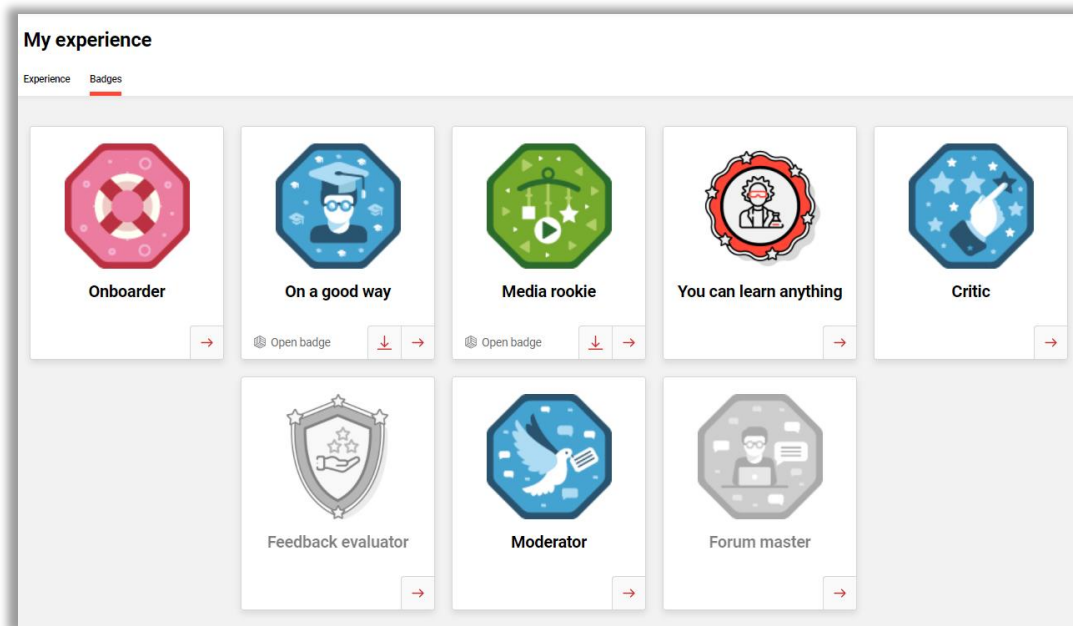


Fig. 4.3: Experience area.

4.3 Badge details page

Both from the badge panel as well as from the badge section in the experience area, the details page of the badge can be reached

On the badge details page the learner can see the badge image, the issue date, the provider if available, and for Open Badges instructions about the download of badges and the possibility to download the png file.

The recommended size for the badge is 250px or a multiple of this size.

Customers who are already using badges and are updating to the 14.9 version of the LMS are advised to check the size of the badge images to ensure that the images will be correctly displayed on the details page.

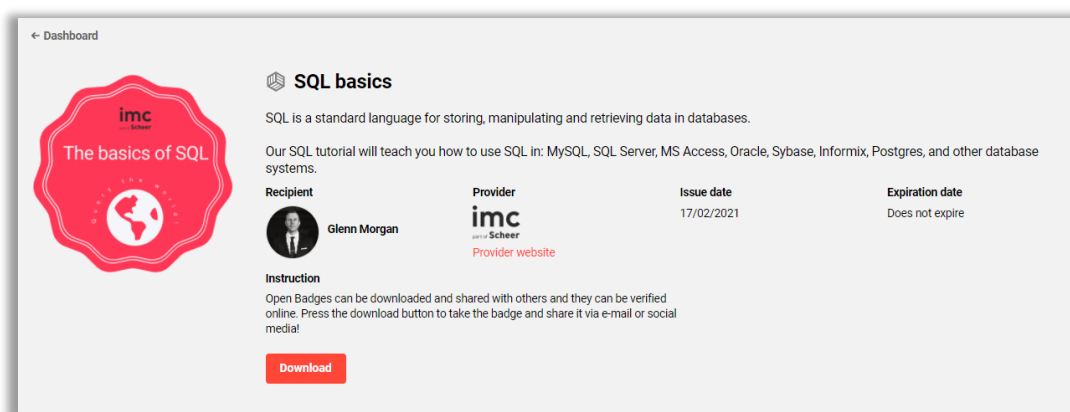


Fig. 4.4: Badge details page.

5 Badge structure



The png file represented by the Open Badge contains a URL to the LMS which, when accessed, provides a response in json format containing all the information required by the standard to allow validator tools to verify the badge.

In turn, the response contains URLs that return information, in the same format, about the badge: the name and description of the badge, the issuer: the name of the provider, and the assertion: the issue date, expiration date and identity of the badge recipient.

The identity will contain the hashed value of the e-mail address of the user. Therefore, it is important that customers who wish to make use of the great potential of issuing Open Badges must ensure that the e-mail address is unique across the platform.

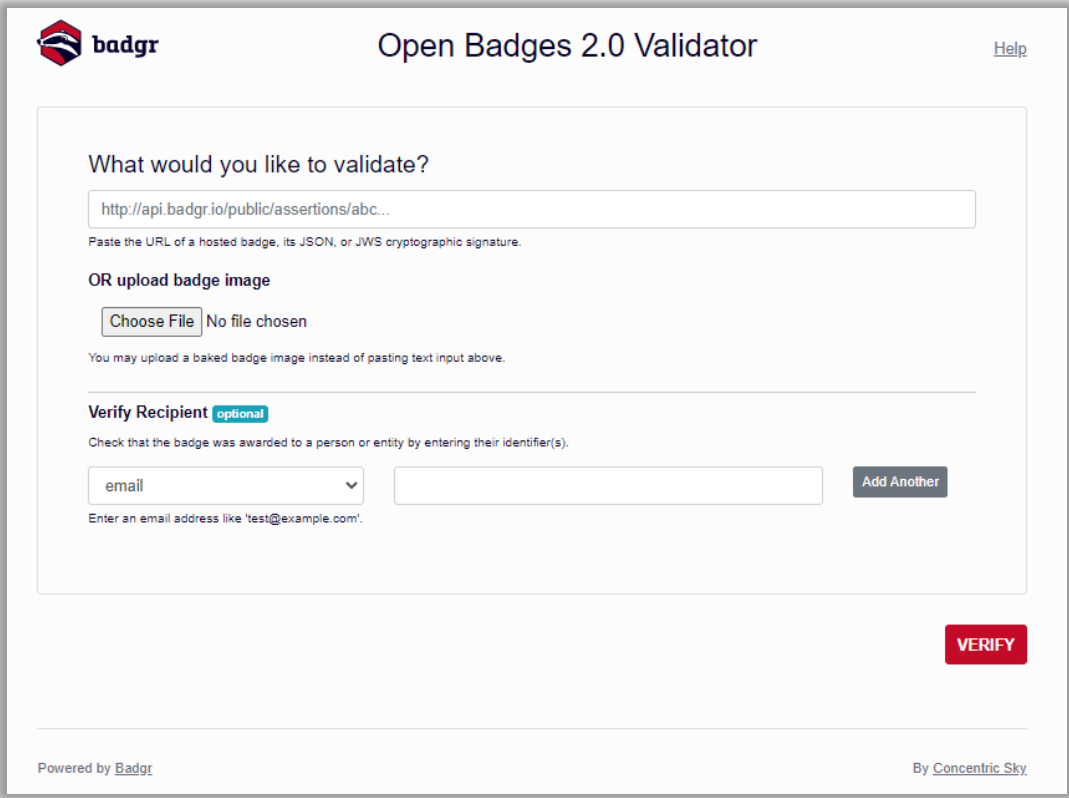
6 Badge validation and backpack

A badge validator tool is a tool that resides outside of the LMS and implements the Open Badge standard for verifying badges.

An Open Badge can be checked for validity by uploading the “baked” png file which was previously downloaded from the LMS. It is also possible for most validator tools to specify the e-mail address for which it is desired to validate the achievement.

The validator tool will extract the required information from the badge, will access the URL provided to the LMS and will match the data to the specified e-mail address.

A common validator tool is the one found at <https://badgecheck.io/>



The screenshot shows the 'Open Badges 2.0 Validator' interface. At the top left is the Badgr logo, and at the top right is a 'Help' link. The main heading is 'Open Badges 2.0 Validator'. Below this, the question 'What would you like to validate?' is followed by a text input field containing 'http://api.badgr.io/public/assertions/abc...'. A note below the field says 'Paste the URL of a hosted badge, its JSON, or JWS cryptographic signature.' Below this is the section 'OR upload badge image' with a 'Choose File' button and the text 'No file chosen'. A note below says 'You may upload a baked badge image instead of pasting text input above.' The next section is 'Verify Recipient' with an 'optional' tag. It says 'Check that the badge was awarded to a person or entity by entering their identifier(s)'. There is a dropdown menu with 'email' selected, a text input field, and an 'Add Another' button. A note below the dropdown says 'Enter an email address like "test@example.com"'. At the bottom right is a large red 'VERIFY' button. At the bottom left, it says 'Powered by Badgr', and at the bottom right, it says 'By Concentric Sky'.

Fig. 6.1: Badge validation.

Learners can also upload badges earned via the LMS to a badge backpack from where they can take advantage of additional sharing functionalities.

An example of a backpack is available at <https://badgr.com/backpack>

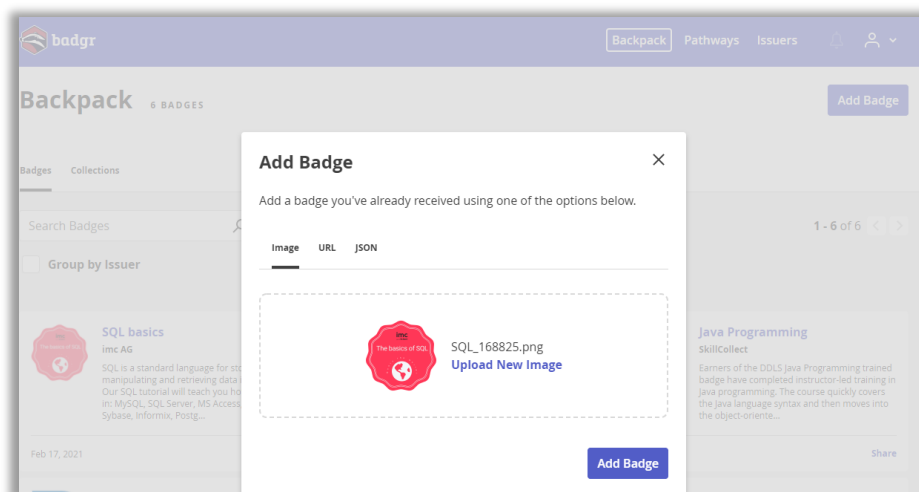


Fig. 6.2: Badge: Add Badge.

From the backpack, the learner can share their badge further to social media.

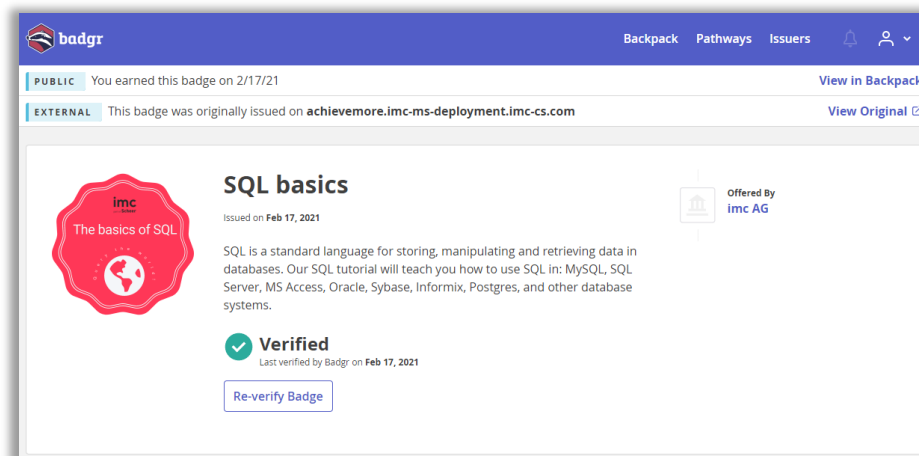


Fig. 6.3: Badge: SQL basics.

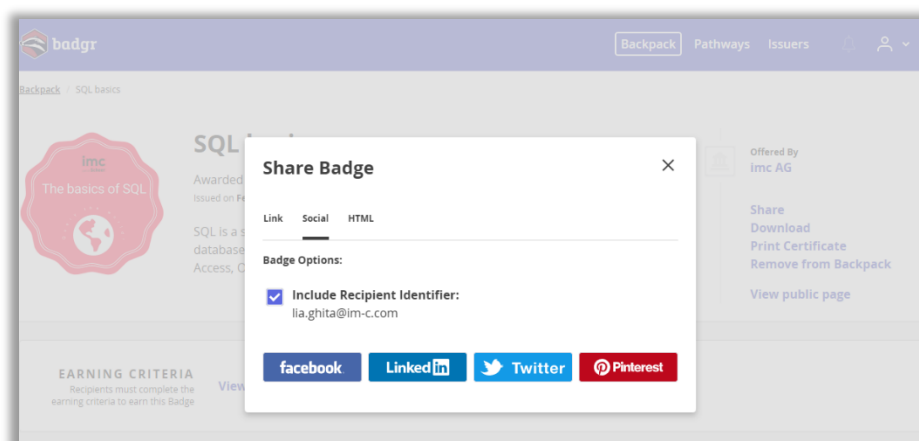


Fig. 6.4: Badge: Share Badge.

7 Out-of-Scope



Functionalities related to Open Badges other than the ones specified in this document are not supported within the LMS.

The badge details page is not supported in IE11.

8 Effects on other components



No effects on other components.

9 Data migration



No data migration necessary.

10 Data protection and security



No impact on data protection and security