PlatformUptake.eu

PLATFORM TOOLS TUTORIAL

TOOL FOR TECHNOLOGY DEVELOPERS V01

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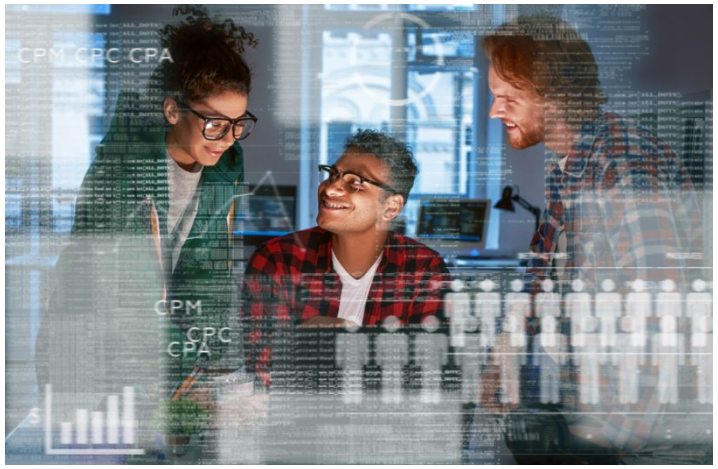
1 TUTORIAL INTRODUCTION: WHAT, WHO, WHEN, HOW, WHERE, WHY...

Tutorial introduction

What

This tutorial is a means of demonstrating and explaining the functionalities of the *tool for technology developers* developed within the PlatformUptake.eu project and accessible via the PlatformUptake.eu Open Information Hub.

It further provides additional information regarding open platforms in the context of PlatformUptake.eu and about the Open Information Hub.



Why

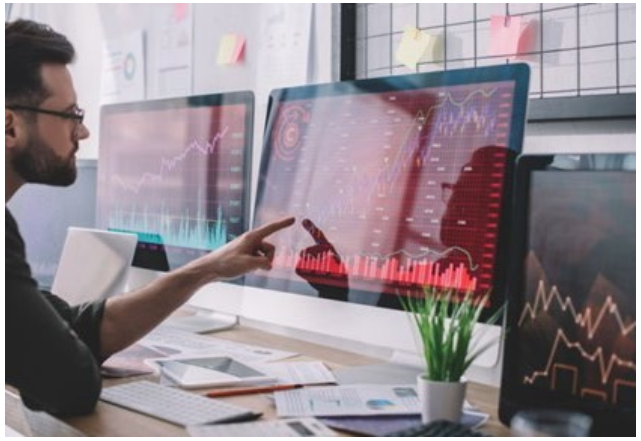
The tutorial allows for users to quickly get acquainted with the tool and, based on feedback from other users, assess the available platforms and choose the right one for their needs. It also allows them provide their feedback regarding the platforms that they are using and self-assess their own progress while using it to create solutions and products.

Who

The tutorial can be used by anyone who wishes to obtain more information about the capabilities of the tool.

The main end-users of the tool are *technology developers*. Additionally, the tool can be used by *administrators*. The tutorial covers the functionalities of the tool for both user roles.

Tutorial introduction



When

The tutorial can be consulted before using the tool to obtain more information about its capabilities and learn how to use it or while using the tool to refresh knowledge about the tool or find out how to perform a particular functionality.

Where

The tutorial is accessible on the same page of the PlatformUptake.eu Open Information Hub where the overview of the tool and the link to start using it can be found. The tutorial can further be found on the top right side of every tool screen while using the tool via the Open Information Hub.

How

Users are able to easily consult it at any time, as the tutorial is provided in PDF format, so that it can be either viewed online or downloaded and printed.

2 OPEN PLATFORMS IN THE CONTEXT OF PLATFORMUPTAKE.EU

- Definition
- Principles
- Stakeholder groups and ecosystem
- Understanding their needs
- Benefits and advantages of using open platforms
- Domains of application, from a primary end-user perspective
- Use cases

Open platform in the AHA domain | Definition

Based on the collected insights from the development and deployment of representative cases in the field and their contribution for the creation of open market for digital solutions for AHA, and specifically also working with definitions provided by the **Apperta Foundation** and **universAAL IoT**, the project consortium defines an open platform for the AHA domain as follows:

An open platform is a software system that allows the many-to-many substitutability between applications, services and devices from multiple vendors via common APIs for the benefit of an individual user whatever her/his role is (older person, carer, social worker, care worker, governmental representative, technology developer etc.).

It is an open digital ecosystem that connects the individual users to health or social care provisions, to lifestyle and prevention applications and home technology to support their independent living, healthy lifestyles and participation in society.

Open platforms | Principles to follow

An open platform adheres to the following principles in order to meet the need of all stakeholders

Open source

Open Source refers to the availability of the source code of a piece of software in a given programming language with a license in which the copyright holders provide the rights to study, change, and distribute the software to anyone and for any purpose. An open platform does not necessarily mean it is open source.

Open standards based

The implementation should be based on agile open standards. Any willing party should be able to use these standards without charge to build an independent, compliant instance of the complete platform.

Federatable

It should be possible to connect any implementation of the open platform to all others that were independently developed, in a federated structure, to allow the sharing of appropriate information and workflows between them.

Open platforms | Principles to follow

An open platform adheres to the following principles in order to meet the need of all stakeholders

Shared common information models

There should be a set of common information models in use by all instances of the open platform, independent of any given technical implementation. An example is the Common Information Model (CIM) which was developed by DMTF as a computer industry standard to enable systems administrators and managers to control devices and applications across different vendors. In this way, products can be controlled based on the same kind of information (e.g., device name, model, serial number, network location, capacity, etc.).

Vendor and technology neutral

The standards should not depend on particular technologies or require components from particular vendors. Anyone building an implementation of the open platform may elect to use any available technology and may choose to include or exclude proprietary components.

Supports open data

Data should be exposed as needed (subject to good information governance practice) in an open, shareable, computable format in near to real-time. Implementors may choose to use this format natively in their persistence (storage) layer of the open platform itself or meet this requirement by using mappings and transformations from some other open or proprietary format.

Open platforms | Principles to follow

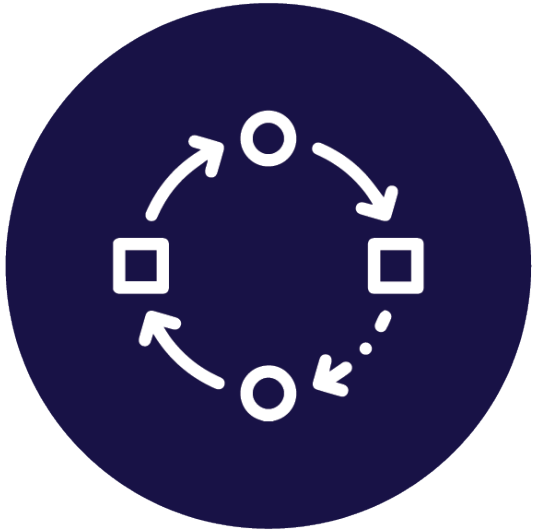
An open platform adheres to the following principles in order to meet the need of all stakeholders

Provides open APIs

The full specification of the APIs (the means by which applications are connected to the platform) should be freely available.

Open usage (adoptability)

Adoptability refers to enabling others to use the open platform while bypassing specific business development negotiations. This does not necessarily mean that the usage has to be royalty-free; it is rather about published, clear, and generally applicable (non-discriminatory) terms and conditions, usually known as the license.

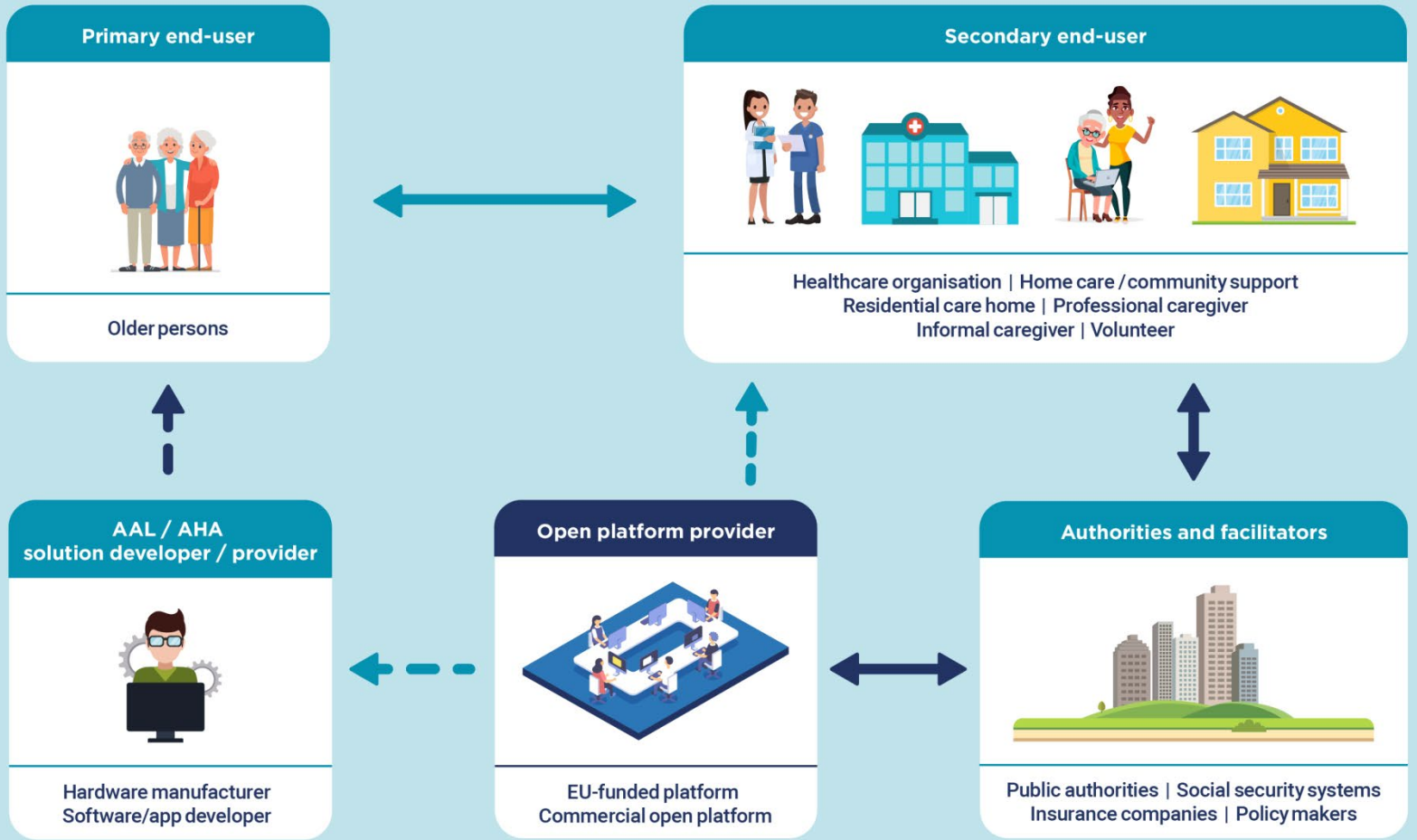


Open adaptation

Assuming that the specifications are publicly available, adaptability of an open platform refers to the possibility of changing existing functionality of the platform itself as opposed to adding new functionality.

PlatformUptake.eu stakeholder groups and ecosystem

An indicative overview of the interactions between the different stakeholder groups



Benefits and advantages of using open platforms

How do Primary end-users benefit?

"I can choose a digital solution which fits my personal needs and requirements best."

"All solutions that can be found in the market place of the platform are affordable as well as easy to download and install on my smartphone."

"Due to increased competition among the developers of AHA/AAL solutions and bigger collaboration among the stakeholders, I enjoy great user experience and constant update of the service."

"The application which I downloaded in the market place of the platform helps me to remain active and connected to my community."

"All applications, available through platforms, I use comply with EU standards and regulations. This makes me trust the solution developers with my personal data."

"In the market place of the platform I can choose a solution which best matches my level of digital literacy. This helps me improve my digital skills and achieve better quality of life."

Benefits and advantages of using open platforms

How do Secondary end-users benefit?

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"With an open platform I have one single point of contact for all my inquiries."

"With this open platform I have the flexibility to extend and co-create the care centre's services."

"With one open platform the subscription fees and maintenance costs are much lower and transparent. This makes it easier for me as the manager of a care organisation to plan future extension of its facilities and technical infrastructure."

"With an open platform I have a big competitive advantage towards other care organisations."

"Due to the interoperability of the open platform I can incorporate, at any time and with low costs, new applications and devices. As a consequence the residents of my care centre enjoy best quality of life."

"The provider of the open platform gives good technical support and helps me build up an understanding of related technical matters."

Benefits and advantages of using open platforms

How do Authorities and facilitators benefit?

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"The open platform which is used in our municipality by care organisations and developers of technology for active and healthy ageing complies with all relevant EU regulations and standards. It also facilitates their wider implementation and quality assurance."

"The open platform, which is applied in our federal state, helps us keep the health care costs low and improve our investment strategies"

"The open platform, which is used in our municipality, creates a market for accessible and affordable digital solutions. This helps the Primary end users in our municipality to enjoy better quality of life, for example by easily booking an appointment with their care giver or simply being in touch with their relatives and friends."

Benefits and advantages of using open platforms

How do AAL / AHA solution developers / providers benefit?

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"Based on the interoperability of the open platform with other systems and solutions we can expand our market position internationally and build new revenue streams."

"Based on the platform's market place we have a better overview of the competition. This helps us improve the quality of our solutions, make them more competitive and reach wider users' community."

"The open platform allows us to integrate and develop our solutions with low costs."

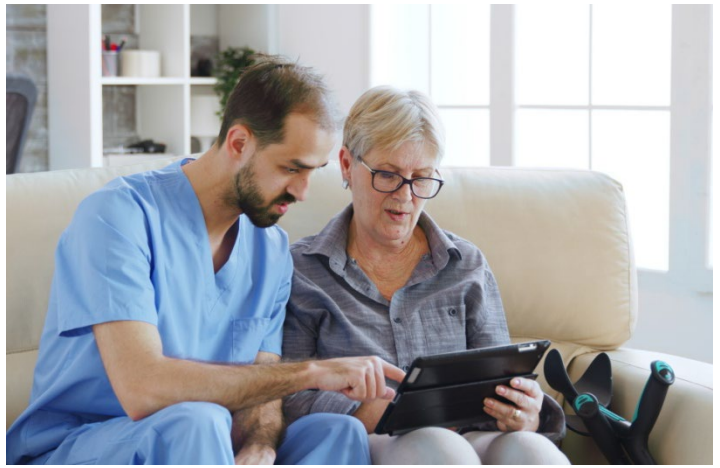
"The open platform helps us remain up-to-date with regulations and communication standards on EU level and build trust among our end users."

Responding to the needs of the different stakeholder groups

Why do the different types of stakeholders want to use open platforms?

Primary End-Users

Primary end-users, such as older adults, mainly use the different functionalities of open platforms, such as social media, health and lifestyle apps, alarm and falls prevention. Their experiences and concerns are more related to user-friendliness, costs and attractiveness and not to the underlying platforms themselves.



Secondary End-Users

Secondary end-users, such as healthcare and social care organisations, professional caregivers, informal caregivers and volunteers, seek for integrated solutions that support and facilitate their service provision to their clients and patients (Primary end-users). They aim to provide these services in an efficient and affordable way. An open platform can enable solutions and applications from multiple vendors to be integrated and orchestrated to work together to best meet their organisations' objectives and better facilitate the work of caregivers.

Responding to the needs of the different stakeholder groups

Why do the different types of stakeholders want to use open platforms?

Authorities and facilitators

Authorities and facilitators offer the necessary regulation and budgetary means to enable the best service provision to the highest possible number of primary end-users through the secondary end-users. Open Platforms can support the authorities and facilitators with solutions that make this possible in a cost-efficient way.

AAL / AHA solution developers / providers

They want to focus on developing various hardware solutions (like various types of sensors and/or gateways), or software/app solutions (by making use of readily available resources and services offered by/via open platforms) that are easy to integrate in an existing Open Platform, to have access to a broader (international) market.

Responding to the needs of the different stakeholder groups

How does PlatformUptake.eu support them?

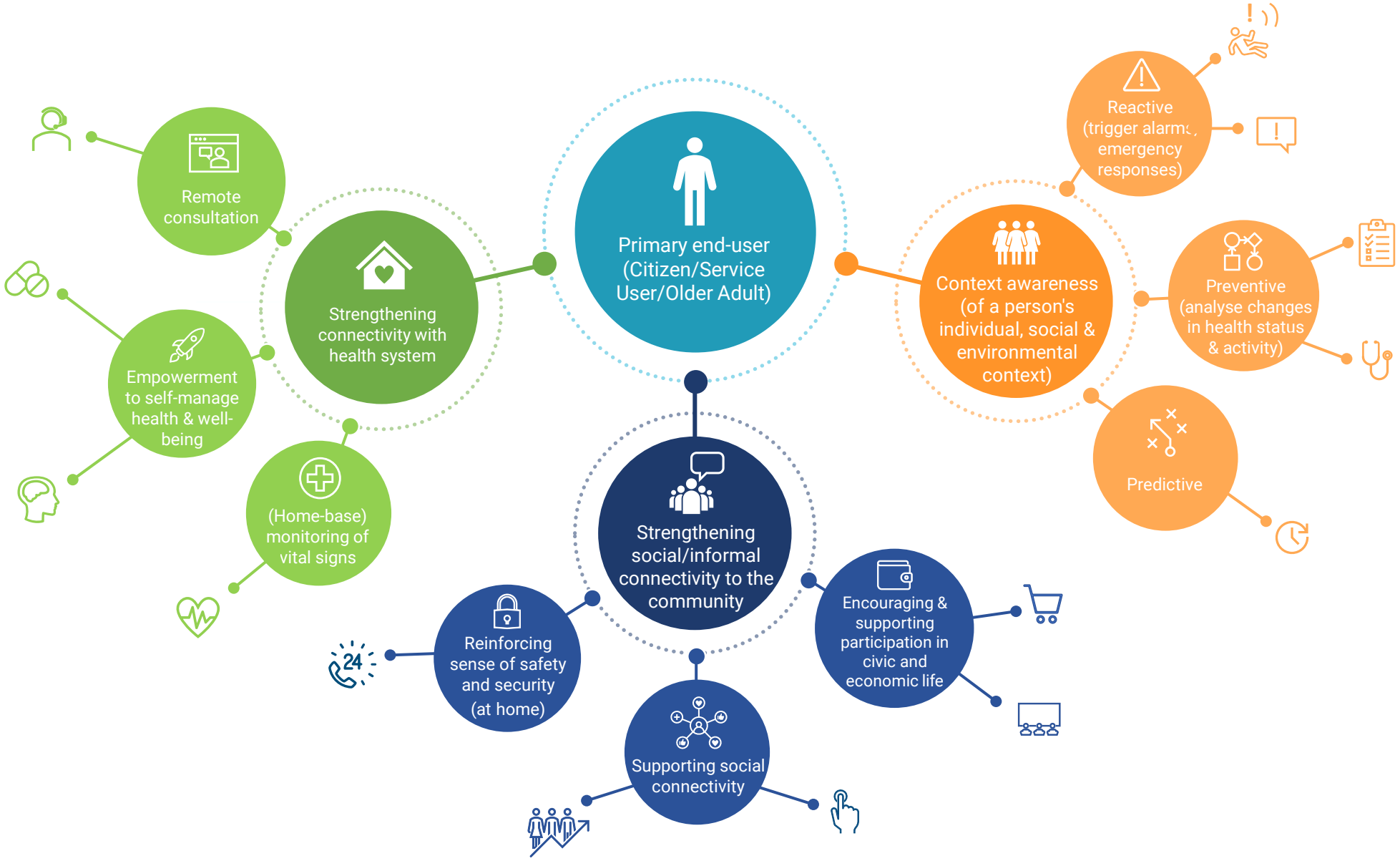
PlatformUptake.eu helps all stakeholder groups:

- identify existing Open Platforms and solutions;
- compare and select the most relevant for them;
- provide feedback on their usage experience.

By offering in the Open Information Hub:

- defined methodology for Open Platforms evaluation and comparison;
- collected information and knowledge-base of existing Open Platforms and solutions;
- implemented tools.

Domains of application, from a primary end-user perspective



Use cases

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Reinforcing sense of safety and security

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Digitization and modernization of care sector

2

Enhancing efficiency and cost effectiveness of person-centered care provision for older people

4

Upscale of person-centered digital solutions and services for older people

Use case 1: Reinforcing sense of safety and security

Description

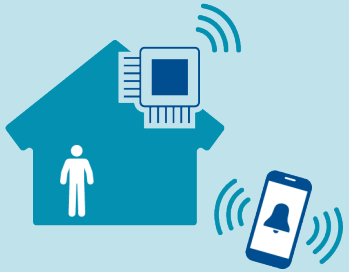
Maria
(Primary end-user)

Maria is a 66-year-old female. Maria lives alone and would like to remain independent in her daily activities. She particularly enjoys reading and relaxing in her big comfy couch. Maria unfortunately has a severe sleeping disorder and wakes up often in the night. To fill in the late hours and to fall asleep again, Maria reads. Because of her sleeping disorder Maria started to experience hypertension and heart problems.

Tomas
(Secondary end-user)

Luckily, her son Tomas works in a residential care home which uses the services of an open platform. The platform allows, among other things, the centralized management of the lightening system in the care facility as well as the collection and analysis of vital data from the residents. Tomas decided to help his mom by more closely monitoring the sleeping disorder to prevent further deterioration. Tomas installs movement sensors, a sensor detecting the sleeping characteristics, as well as a sensor to detect vital signs while his mom sleeps. The collected data on his mom's sleeping habits are sent to an open platform for further analysis and processing. Her physician Dr. Pfeiffer uses the possibility to review the sleeping pattern and vital signs data in preparation for their next consultation. Thus, he helps Maria prevent deterioration of her physical and mental health. In addition, the platform also turns off the lights, when Maria falls asleep.

Use case 1: Reinforcing sense of safety and security

Primary end-user	Secondary end-user	AAL/AHA solution developer/provider	Authorities & facilitators
Maria	Tomas	Antonio	Laura
Use case	*Use case*		
	Server/PC with open platform		
Benefits	*Benefits*		
• Availability of 24/7 remote (virtual) contact with care personnel • Feeling of more security and less isolation • Mental reassurance • Increased independence in daily life	• Constant observation of patient's health status • Increased efficiency through remote (virtual) appointments • Reduced costs through digitization and automatization of processes • Analysis and prediction of health behaviour		

Use case 2: Enhancing efficiency and cost effectiveness of person-centered care provision for older people

Description

Tomas
(Secondary end-user)

The residential care home in which Tomas works provides care to older persons with physical disabilities and dementia. The facility offers services 24/7 to ensure the provision of immediate care to the residents and to respond quickly with the appropriate measures in emergency cases. As a consequence, the management of the care organization assigns Tomas the task to find a new technological solution, which will reduce the workload of the care personnel. They are looking for a solution which offers monitoring and takes over basic tasks such as controlling the heating and lightning, as well as quickly detecting emergency situations. Additionally, the solution should be interoperable with the open platform currently used by the residential care home, which will ensure its centralized management.

Antonio
(AAL/AHA solution developer/provider)

Antonio is the CEO and co-founder of a family-owned company which develops advanced information and communication solutions for hospitals, nursing homes, and other healthcare organizations. Antonio met Tomas at a local trade fair, where Tomas shared his problem. As a result, Antonio proposed his smart care solution, which monitors when the care receivers are going to stand up and alarms the care personnel - preventing falls, detecting emergency situations such as falls, and controls the lightening and heating system in the care facility. Tomas is even more persuaded that this solution is helpful not only by improving the care through preventive and quick measures, but because the technology can also be integrated into the open platform.

Use case 2: Enhancing person-centered care provision for older people

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Primary end-user	Secondary end-user	AAL/AHA solution developer/provider	Authorities & facilitators
Maria	Tomas	Antonio	Laura
	Use case	*Use case*	
	Server/PC with open platform		
	Benefits	*Benefits*	
	• Centralization and automation of processes • Cost efficiency • Access to analysis of vital data and prediction of health behaviour • Higher quality of care provision for older people	• Increased end-users base • New market niche • Additional revenue stream • New scope for innovation and product development	

Use case 3: Digitization and modernization of the care sector

Description

Antonio
(AAL/AHA solution developer/provider)

Laura
(Authorities and facilitators)

Laura works in the administration of the local municipality and is responsible for the implementation of the national strategy for digitalization of the care sector. According to the results of a recent study on the quality of care provided in residential care homes, such as the one in which Tomas works, more than one in five organizations received deficiencies for quality violations. Laura is convinced that by using digital technologies she can help local healthcare and care organizations solve their problems. Through a call for tenders, she purchased the smart care solution of Antonio. Important selection criterion was the interoperability of his solution with software systems, such as open platforms, which are used by the local care organisations.

The solution was then applied in all care organizations in the municipality. This makes the provision of care to older people more efficient and thus cost effective as well as improving communication between the members of the care personnel, reducing the amount of tasks and reducing the time needed to respond to emergency situations.

Use case 3: Digitization and modernization of the care sector

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Primary end-user	Secondary end-user	AAL/AHA solution developer/provider	Authorities & facilitators
Maria	Tomas	Antonio	Laura
		Use case	***Use case***
			Server/PC with open platform
		Benefits	***Benefits***
		• New market niche • Funding opportunity for innovation and product development • Input from the market regarding requirements and needs for digital technology • Competition check	• Improved care provision to older people • Overview and analysis of possible deficiencies in the care sector • Better allocation of resources • Increased competition among providers of digital technology for older people

Use case 4: Upscale of person-centered digital solutions and services for older people

Description

Antonio
(AAL/AHA solution developer/provider)

Antonio (AAL / AHA solution developer / provider) is the CEO and co-founder of a company which develops advanced digital solutions for hospitals, nursing homes, and other healthcare organizations. Through a call for tender, organized by the local municipality, which Antonio won, he installed his smart care solution in all local care facilities. Hence, Antonio managed to increase his customer base and is a well-known market player in the region. Moreover, by connecting his smart home solution to the open platform, which is used by the local care organizations to centralize the management of their technical and software infrastructures, Antonio succeeded in entering new market niches. Thus, by being well-known, he attracted the attention of private end users, such as Maria (Primary end-user), who can apply his solution in their homes, and thus remain independent and enjoy better quality of life. Through the personal contact with her, he learned a lot about her requirements for digital technology. Based on the collected information, Antonio improved the accessibility and usability of the control panel of his smart care solution. Moreover, he was able to improve his products with new and useful functionalities, like social networking.

Maria
(Primary end-user)

Since Maria is using the smart home care solution of Antonio, she is enjoying a higher level of independence. The implemented lighting provides her with additional comfort, security, and energy savings. Her sleeping disorder is now under constant observation through care professionals and in case of an emergency she will receive immediate assistance. Moreover, the networking feature of the solution helps her remain in touch with other older persons in her municipality, with whom she can spontaneously arrange social activities. Finally, by engaging with Maria and based on her feedback, Antonio managed to address real needs of his customers and meet the current demand on the market.

Use case 4: Upscale of person-centered digital solutions and services for older people

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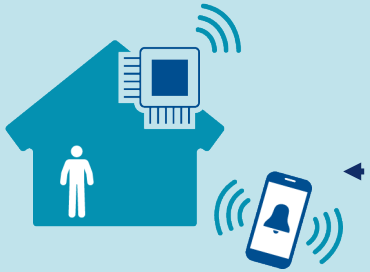
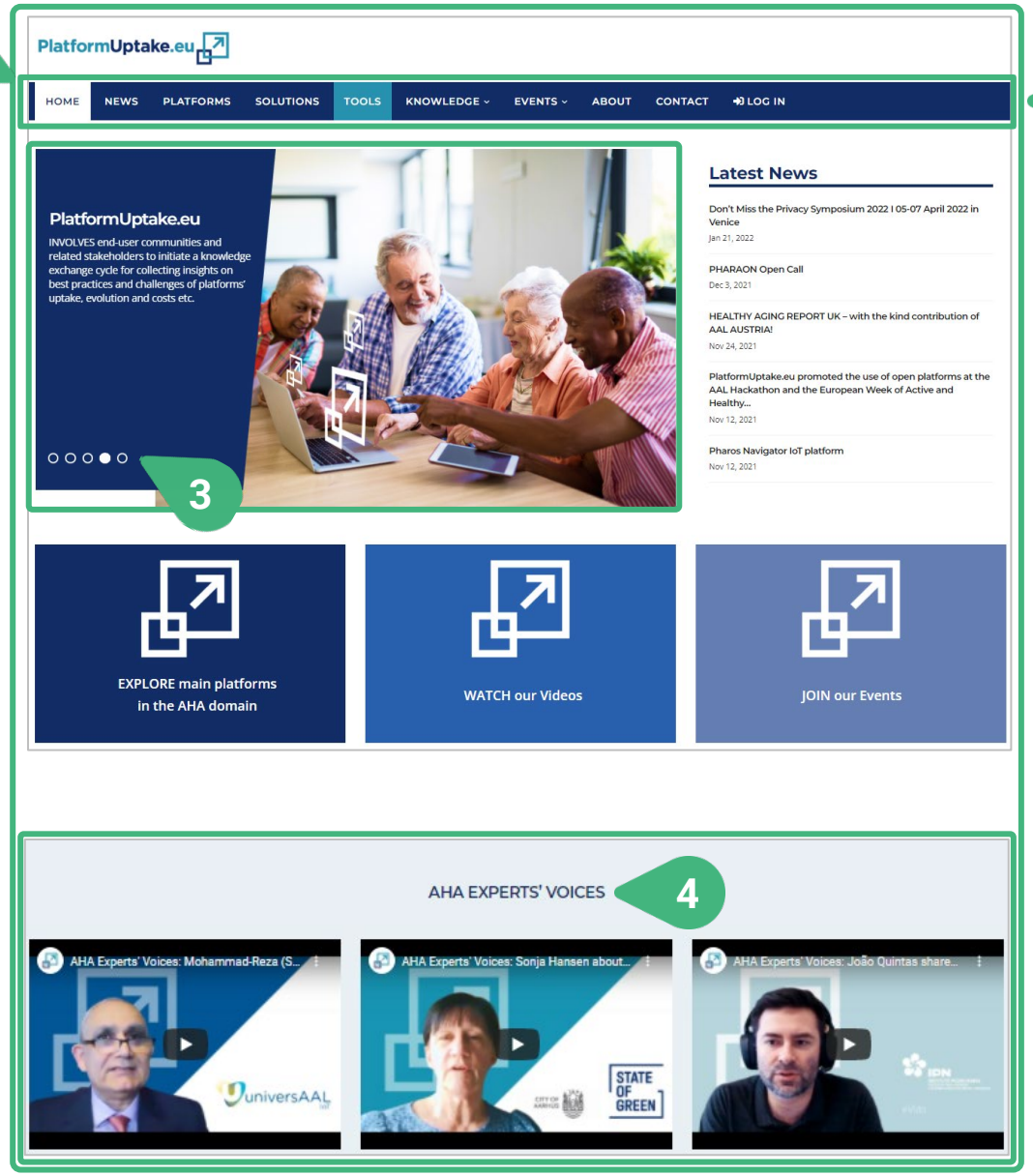
Primary end-user	Secondary end-user	AAL/AHA solution developer/provider	Authorities & facilitators
Maria	Tomas	Antonio	Laura
Use case			
			
Benefits			
• Additional comfort, security, and energy savings • Immediate assistance in case of emergency • Higher level of independence		• Increased customer base • New market niche and revenue stream • Improved accessibility and usability of digital solutions for older persons • Ability to address real market needs and requirements	

3 OPEN INFORMATION HUB

- Introduction and features
- Registration and login
- Navigation to the tool for technology developers

Open Information Hub

Introduction and features



The PlatformUptake.eu Open Information Hub constitutes a lively space where stakeholders can gain an overview of the ecosystem of open platforms in the field and showcase their contributions. The Hub is an online resource that provides an overview on existing platforms mapped, monitored and analysed by the project, includes the outcomes of analysis and knowledge exchange, support toolkits, best-practices and guidelines.

1) The **HOME** page of the Hub represents a major gateway to the collection of knowledge, insights and uptake guidelines established by the project consortium.

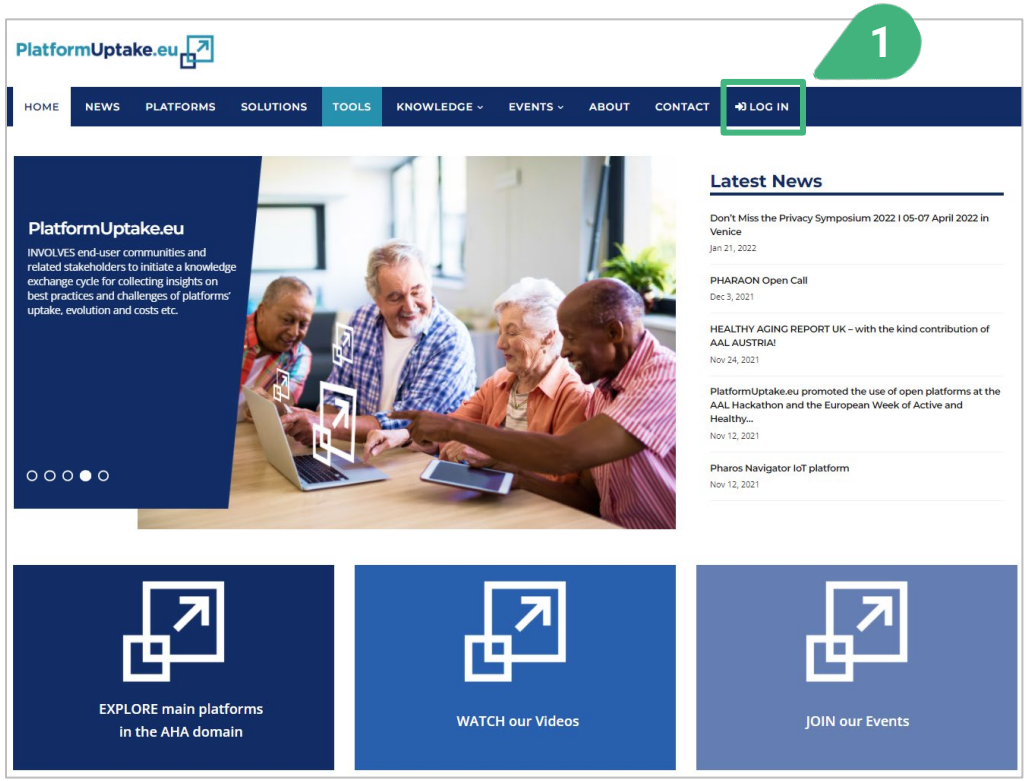
2) The main structure is consisting of a navigation bar (with buttons and drop-down menus) and links to the main categories including some elements such as cards and links to external sources. One drop-down includes a link to the registration area for the monitoring and self-evaluation tools and the MOOC, while still remaining easy to navigate through providing a clean interface to users.

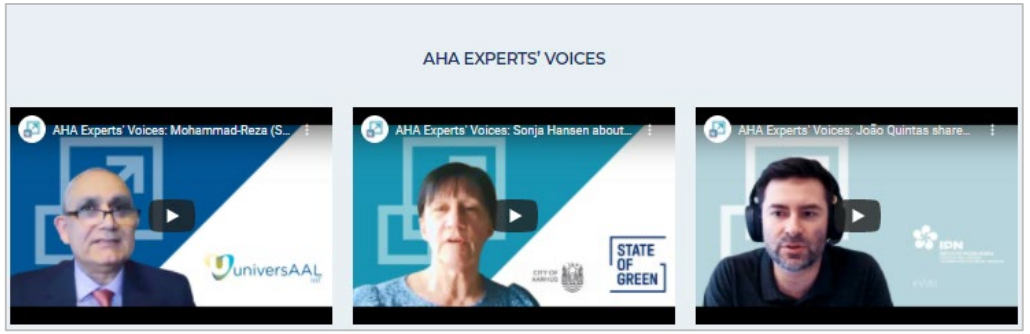
3) The central place on the home page is reserved for the slider, comprising project related images and text that may either be scrolled automatically or let visitors take charge.

4) Other sections in the Hub, such as **AHA EXPERT'S VOICES**, with valuable inputs for the project's stakeholders, are also shortly presented and linked on the home page.

Open Information Hub

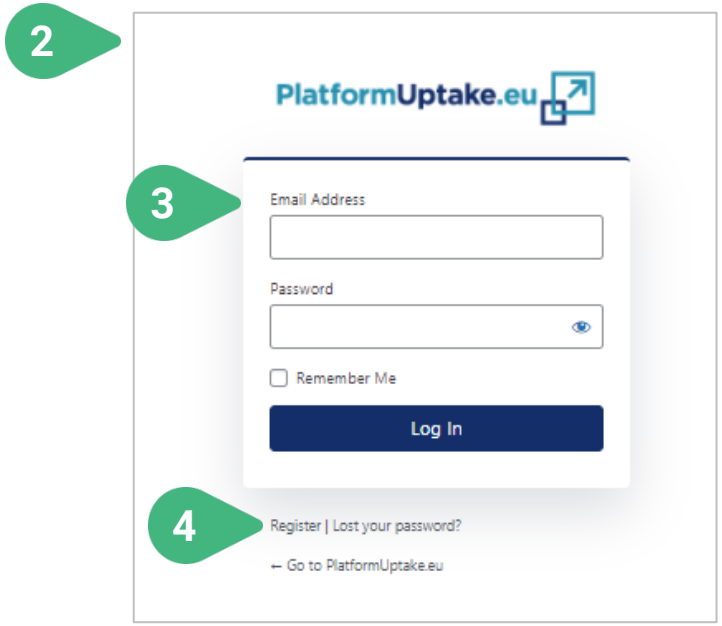
Registration and login





1) Interested visitors can register or log in before accessing the tools for platform providers and technology developers by clicking on the **LOG IN** menu in the navigation bar of the Open Information Hub.

2) To complete the login or registration, a new screen opens:



3) The visitor who is already registered is requested to provide his/her **Email Address** and **Password**.

4) If not registered yet, by clicking on **Register** the visitor can go through the registration process which is described on the next slide.

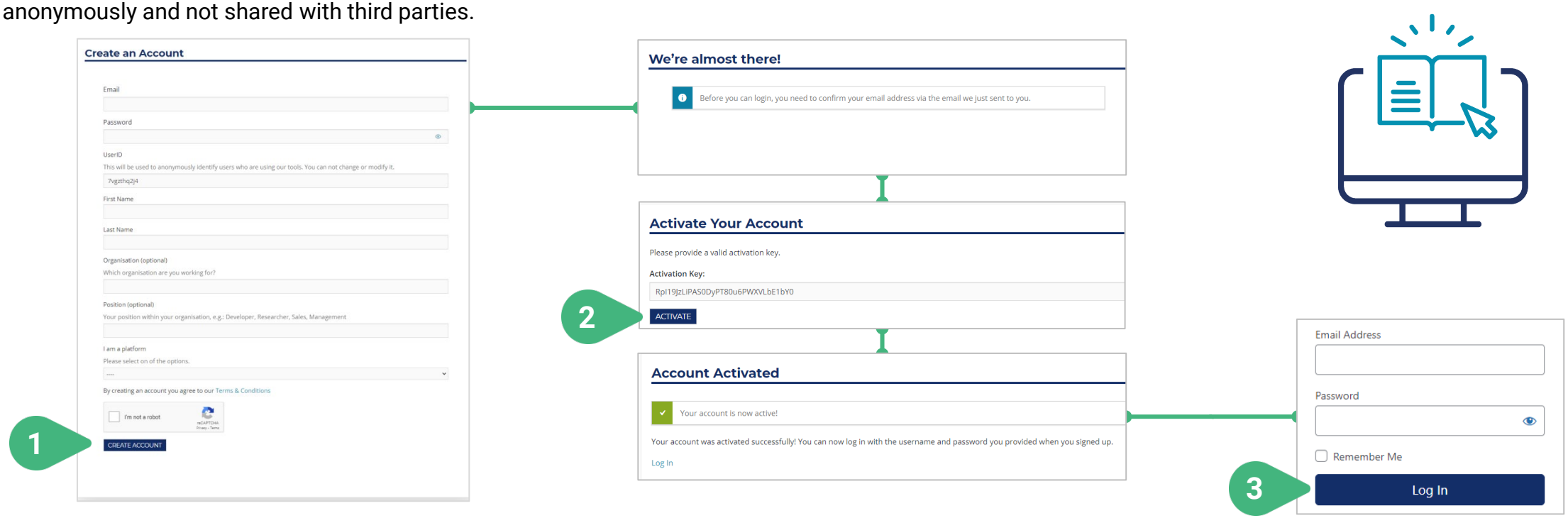
Open Information Hub

Registration and login

User registration in the PlatfromUptake.eu Open Information Hub is mandatory before being able to access the tools (as a platform provider, a technology developer or an administrator), with the exception of the default user who can access the first tool without being registered (more information is provided below).

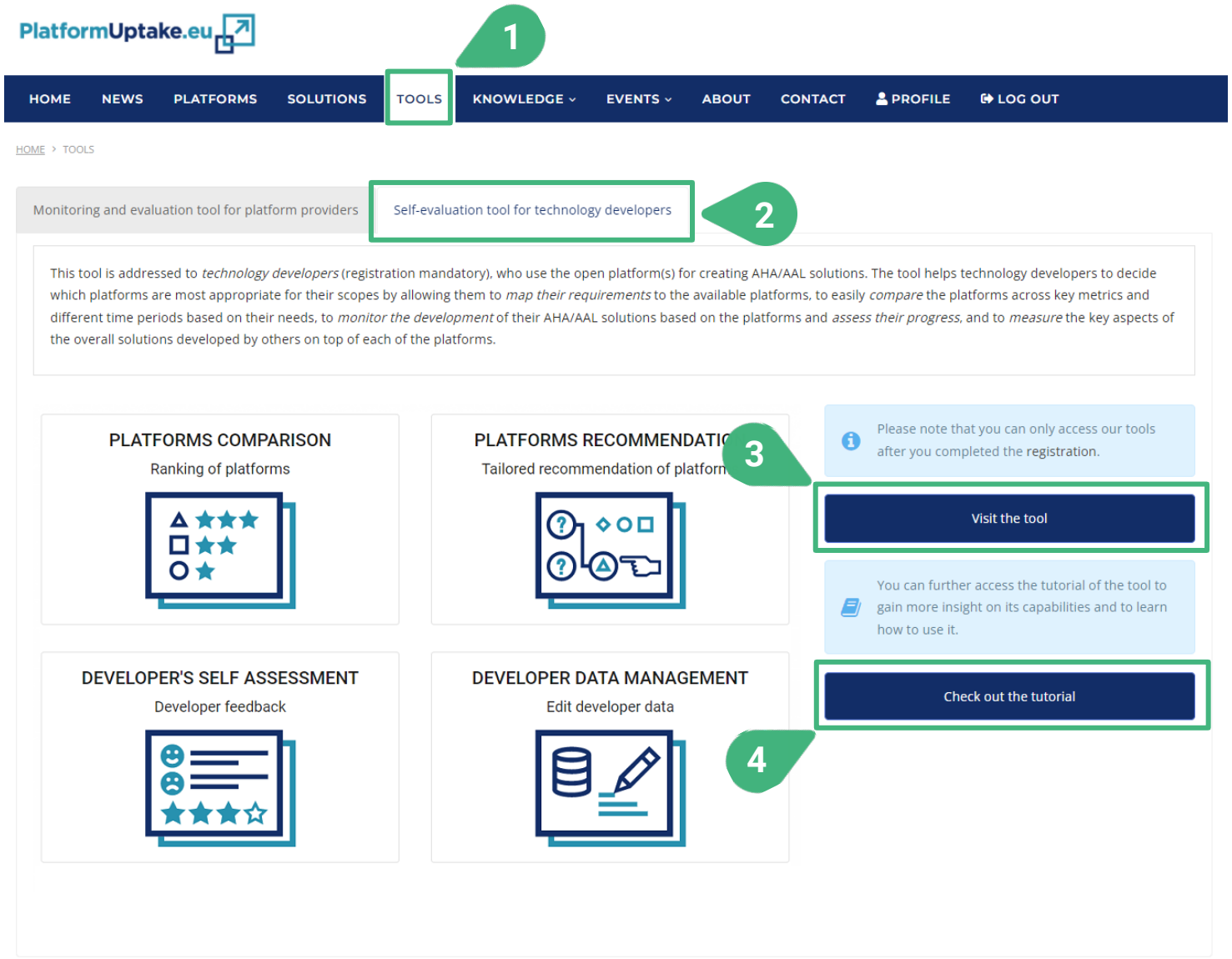
1) Users can **Create an account** by providing their details and verifying their email address.
2) The user will need to confirm the email address by providing a valid **Activation Key**, that was sent to that email, to **activate** the account.
3) Once the account is successfully activated, the user can **Log in** to the PlatfromUptake.eu Open Information Hub and use all its features and functionalities.

The tools can maintain the user role associations and other personal preferences and configuration of the user. Any user details or other kind of information (including name and email address) are only maintained in the PlatformUptake.eu Open Information Hub userbase, are not accessible by the tool itself, handled anonymously and not shared with third parties.



Open Information Hub | Tool for technology developers

Navigation to the tool for technology developers



In order to access the tool for technology developers on the Open Information Hub users can do the following.

1) Click on the **TOOLS** menu option in the navigation bar of the Open Information Hub in order to first access the Tools page.
2) In the tools page, after selecting the second tab “Self-evaluation tool for technology developers”, the user views the main information of the tool for technology developers.
3) By clicking the **Visit the tool** button, the tool itself will be loaded and displayed.
4) By clicking the **Check out the tutorial** button, the tutorial of the tool will be displayed.

4 TOOL FOR TECHNOLOGY DEVELOPERS

- Introduction to tool users, roles and functionalities
- Usage scenarios and steps
  - Platforms comparison
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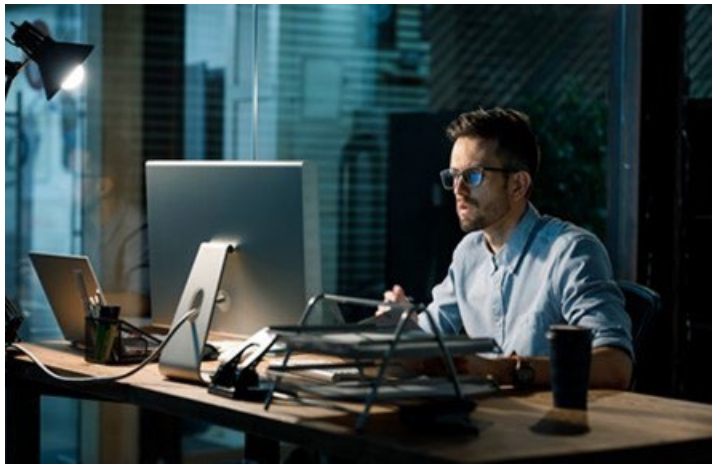
  - Developer data management

Tool for technology developers | Users, roles and functionalities



Technology developer

Role: Visualise different KPIs, statistics metrics and other developers' feedback related to the development, usage and community uptake of the platforms in a comparative manner; get tailored platform recommendations based on their expectations and priorities; assess the evolution of their own developments over time.

Functionalities: Platforms comparison, platforms recommendation, developer's self-assessment.

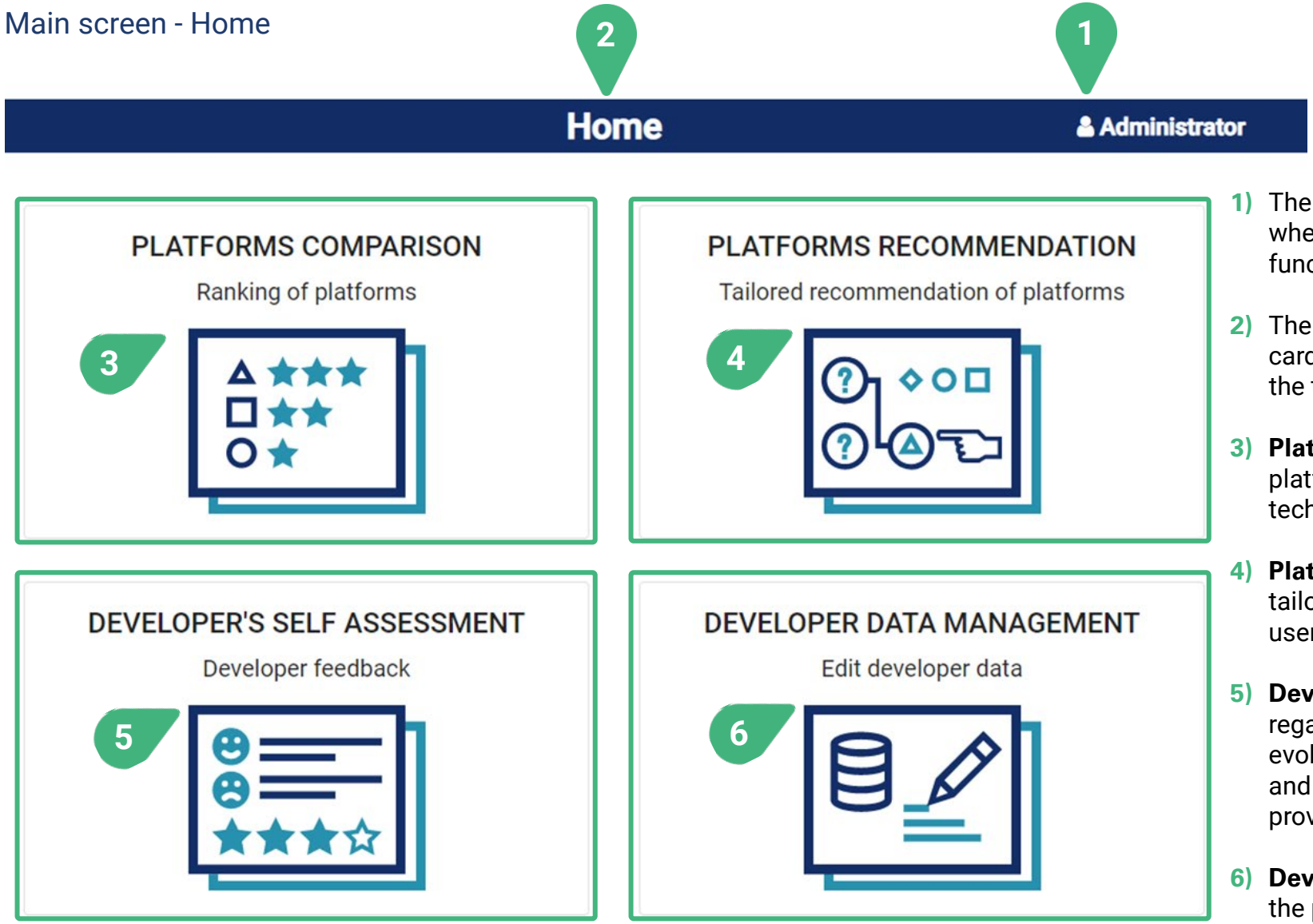
Administrator

Role: Perform maintenance operations and manage the underlying data, including the introduction of new data and the update of existing ones.

Functionalities: Platforms comparison, platforms recommendation, developer's self-assessment, developer data management.

Tool for technology developers | Usage scenarios

Main screen - Home



1) The role of the user currently active determines whether the user has access to functionalities/usage scenarios or not.

2) The main screen (**Home**) of the tool includes four cards, one for each of the main functionalities of the tool.

3) **Platforms comparison:** Compare among platforms from different perspectives, including technical and financial ones.

4) **Platforms recommendation:** Be presented with tailored platform recommendations based on the user's expectations and priorities.

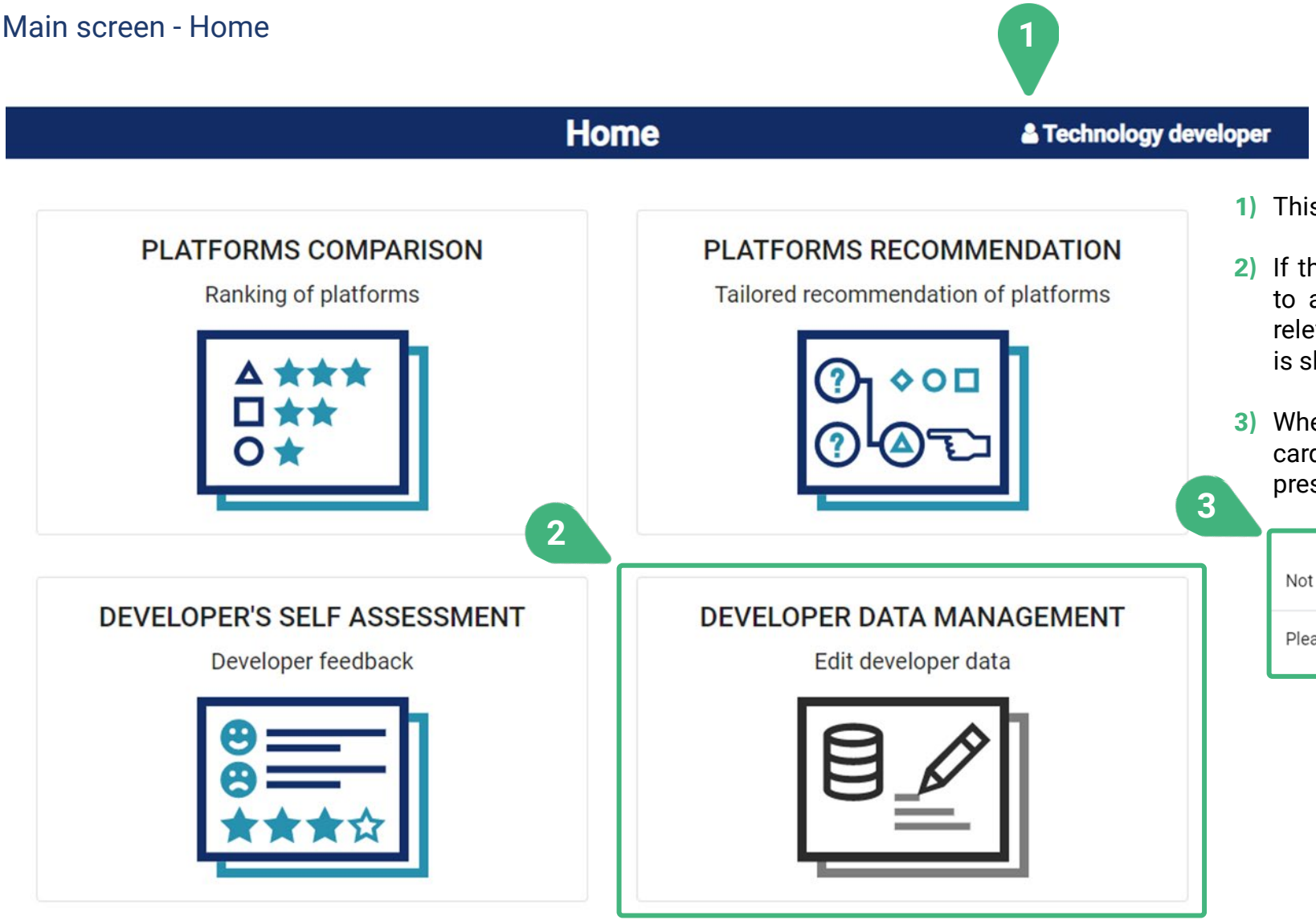
5) **Developer's self-assessment:** Provide feedback regarding aspects of the platforms, assess the evolution of their own developments over time and view an analysis of the cumulated feedback provided by other developers using the platforms.

6) **Developer data management:** Management of the platform data.

The cards that are accessible to the logged in user (depending on the role) are shown with a blue and turquoise colored icon. By clicking on any of these cards the user gets access to the selected functionality of the tool. In the case of the shown user role (Administrator), all available functionalities of the tool are accessible to this user.

Tool for technology developers | Usage scenarios

Main screen - Home



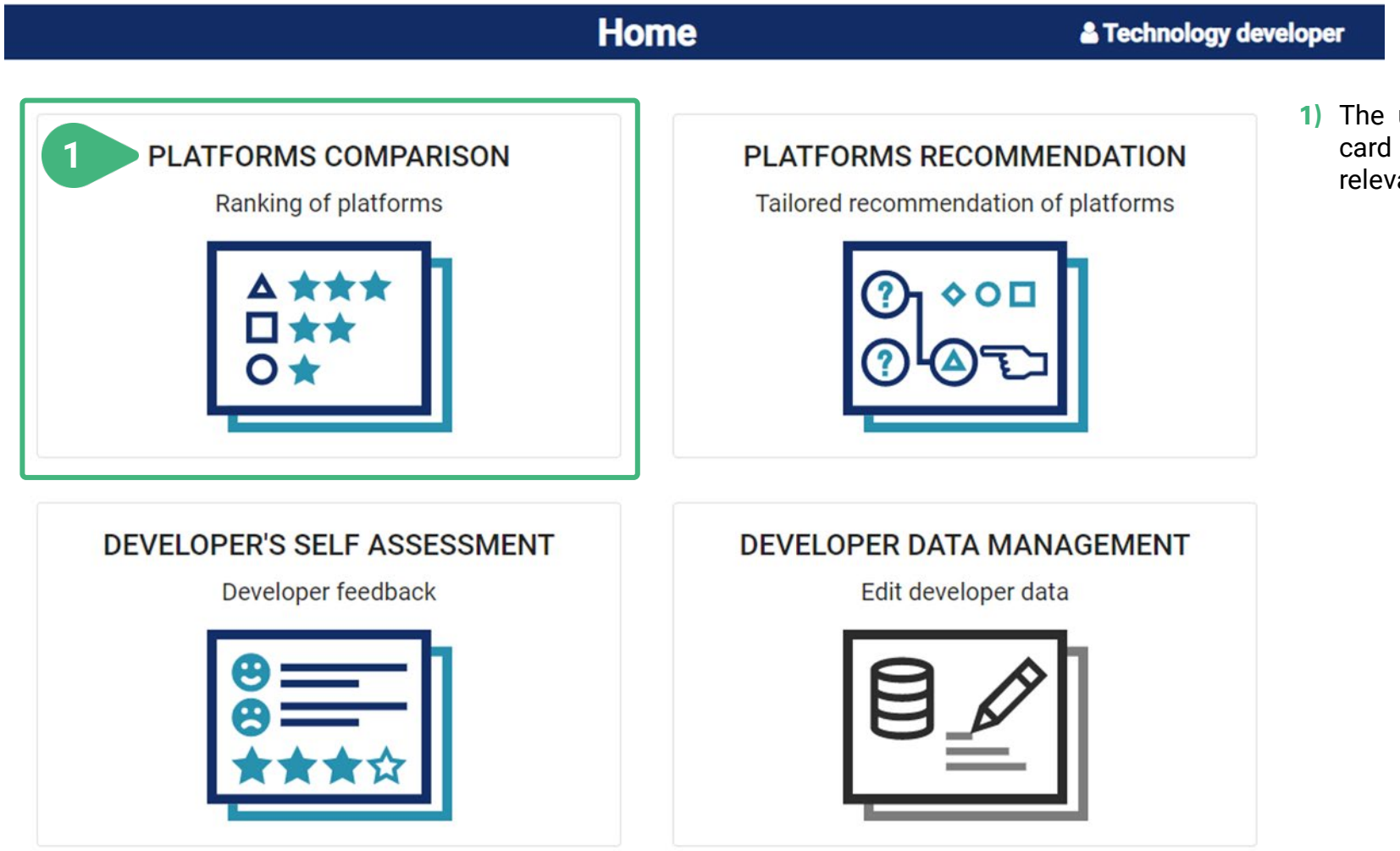
1) This is the case of a "**Technology developer**".

2) If the stored permissions do not allow the user to access one of the functionalities, then the relevant card that is unavailable to this user role is shown with a black and grey colored icon.

3) When clicking on any of these unavailable cards, an appropriate message will be presented to the user.

PLATFORMS COMPARISON

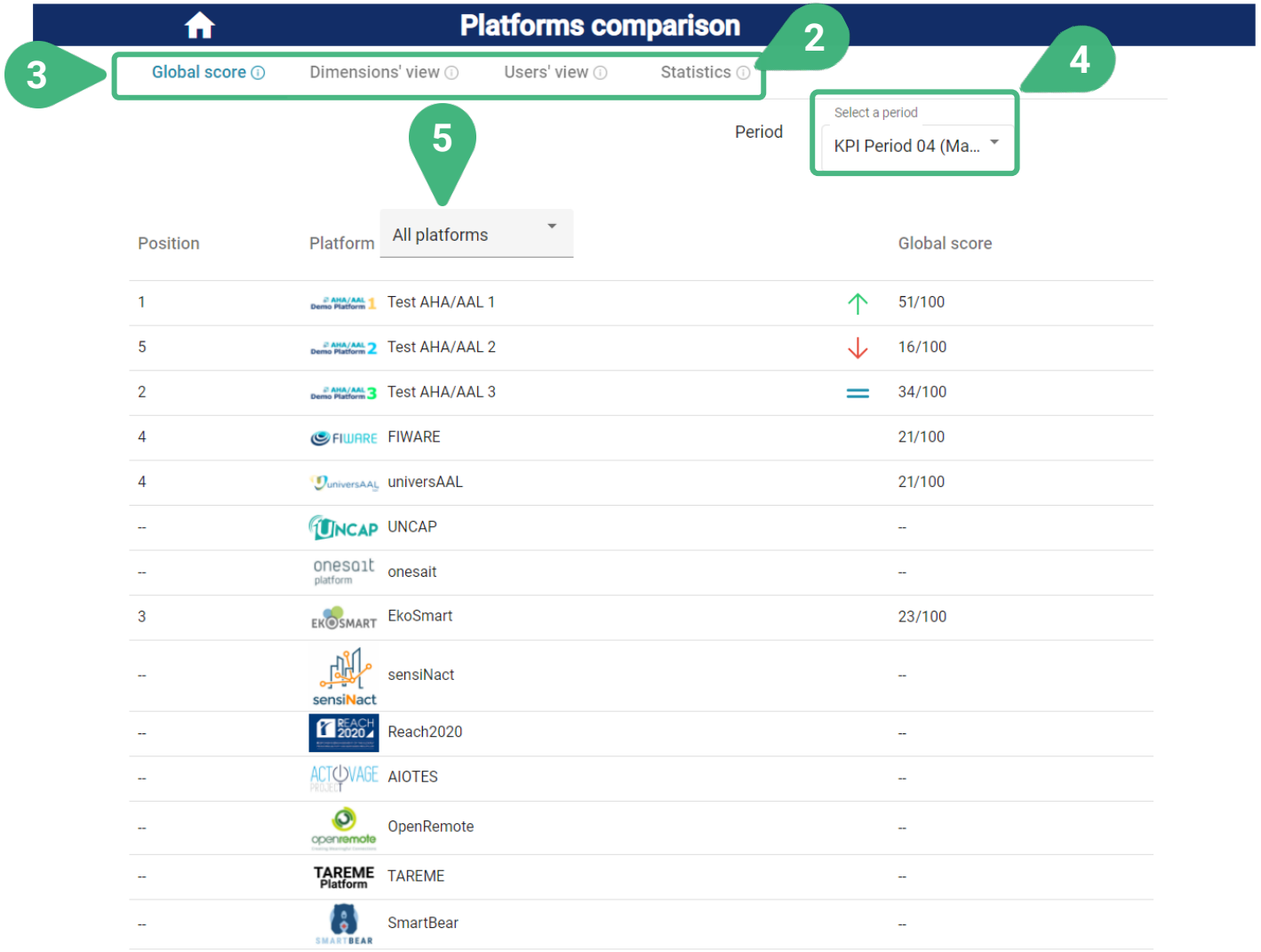
Accessible to user roles technology developer and administrator



1) The user clicks on the **Platforms comparison** card and a new screen appears showing the relevant functionality.

PLATFORMS COMPARISON | Global score (I)

Accessible to user roles technology developer and administrator



2) An **(i)** icon can be found next to the various tool capabilities as they appear on the screen. These icons serves as an interactive usage-guide while the user is using the tool. When the user moves the mouse on top of one of these icons, then the user can see a pop-up message with more information about the functionality.

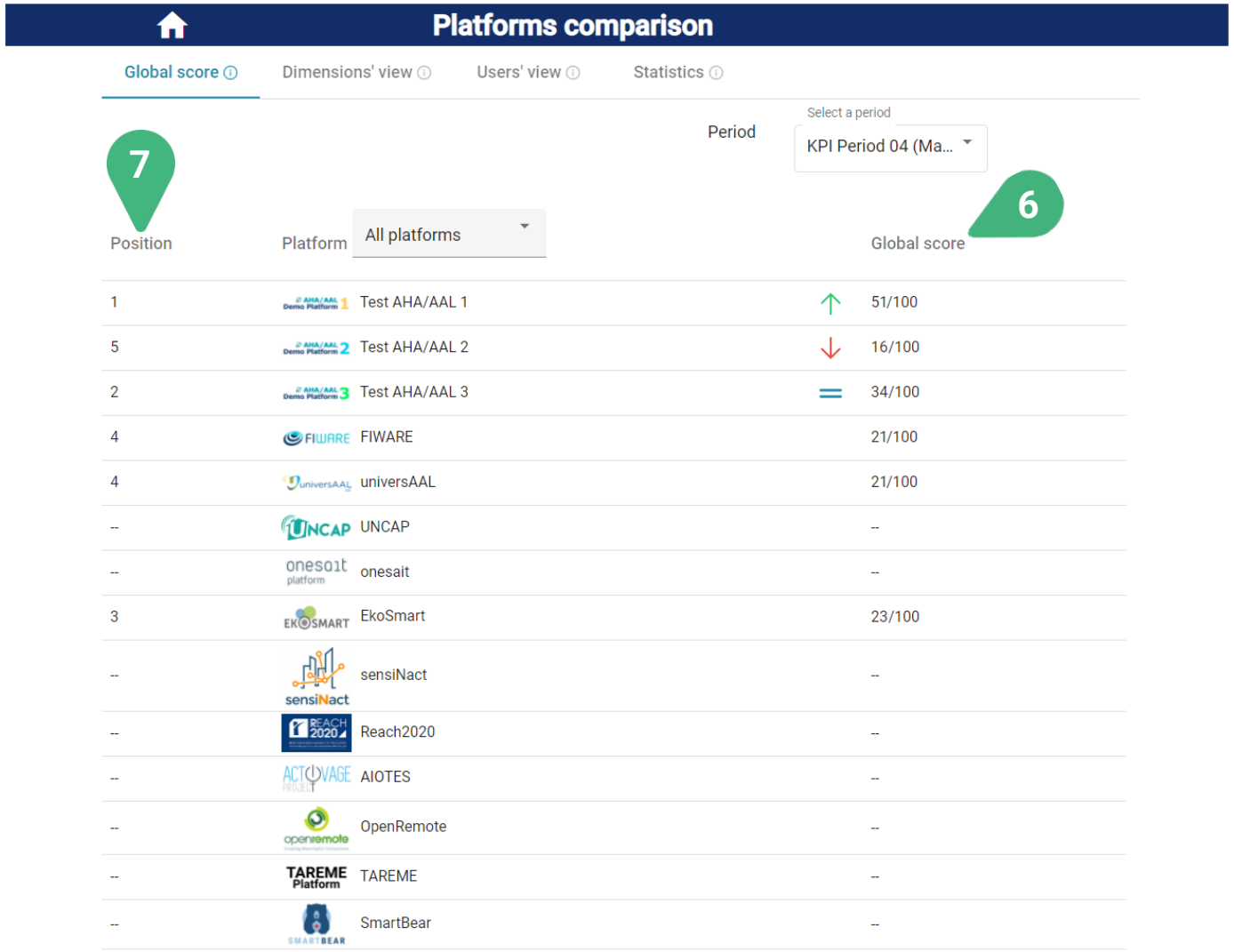
3) There are four tabs to choose: **Global score**, which is selected by default, **Dimension's view**, **Users' view** and **Statistics**.

4) **Select a period** of measurement. The most recent measurement period for KPIs is shown by default. The period must have been previously made available by the administrator. The KPI values for each platform are stored in the tool for various measurement periods.

5) Select/filter platforms for comparison. By doing so, only the selected platforms will be presented in the list below and compared. By default, all platforms are presented. When changing the selection of platforms, then the ranking positions (see next slide) are automatically updated accordingly.

PLATFORMS COMPARISON | Global score (II)

Accessible to user roles technology developer and administrator

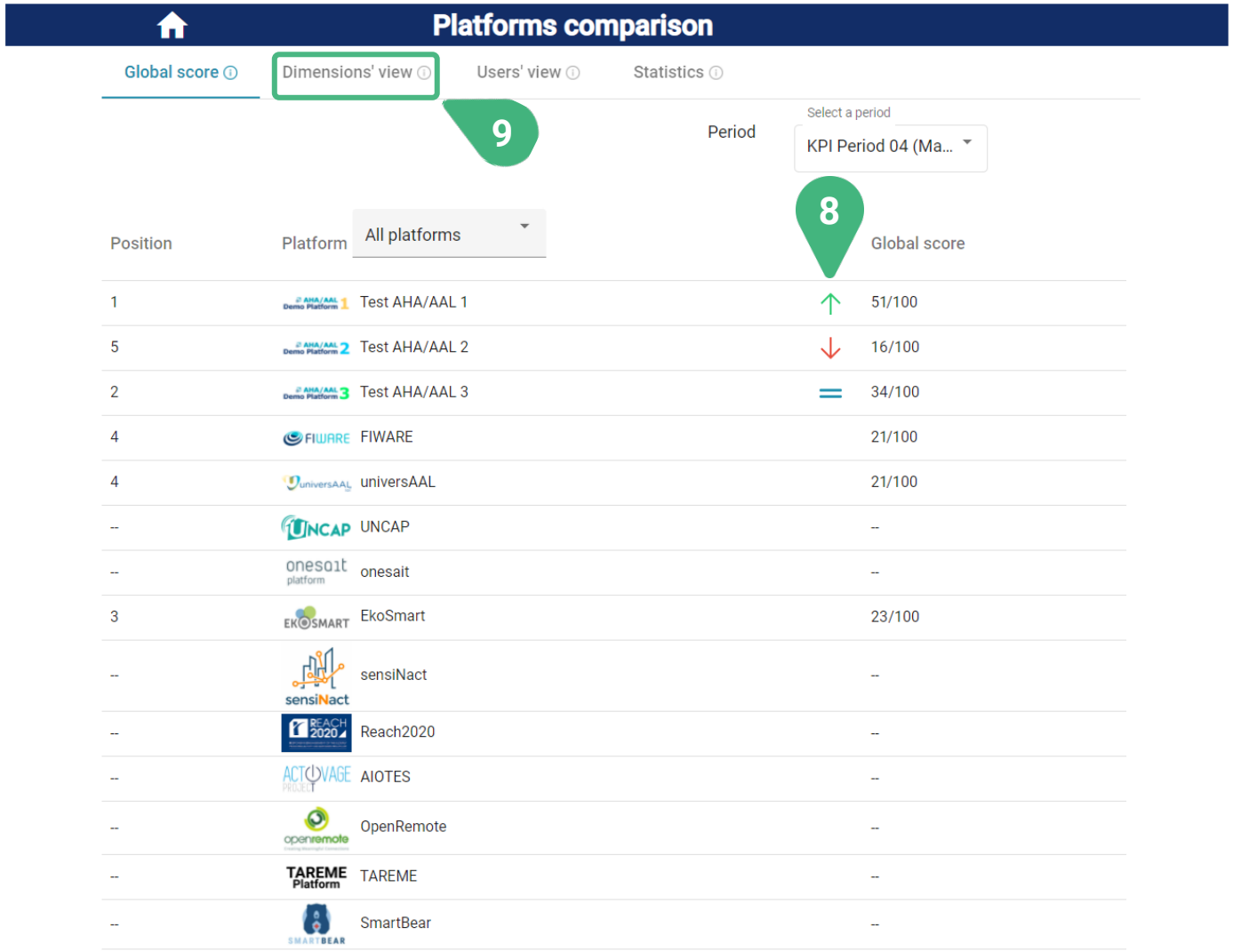


6) **Global score** (or dimensions' or clusters' scores in the other tabs). The user can click on the label to order the platforms, in ascending or descending order, based on their scores. The global score of each platform is calculated based on all the KPIs, the values of which are available for a particular measurement period, and their default weights. As it is the case with all scores, the global score is normalized in the integer range [0..100]. A larger score is better.

7) **Position**. View the ranking of platforms (based on their score). The user can click on the label to order the platforms in the list, in ascending or descending order, based on their raking position. The ranking position of each platform is calculated based on the score (the Global score, in this case) of all platforms currently shown in the list. The platform with the best score is placed in the 1st place. If two platforms have the same score, then they share the same place.

PLATFORMS COMPARISON | Global score (III)

Accessible to user roles technology developer and administrator

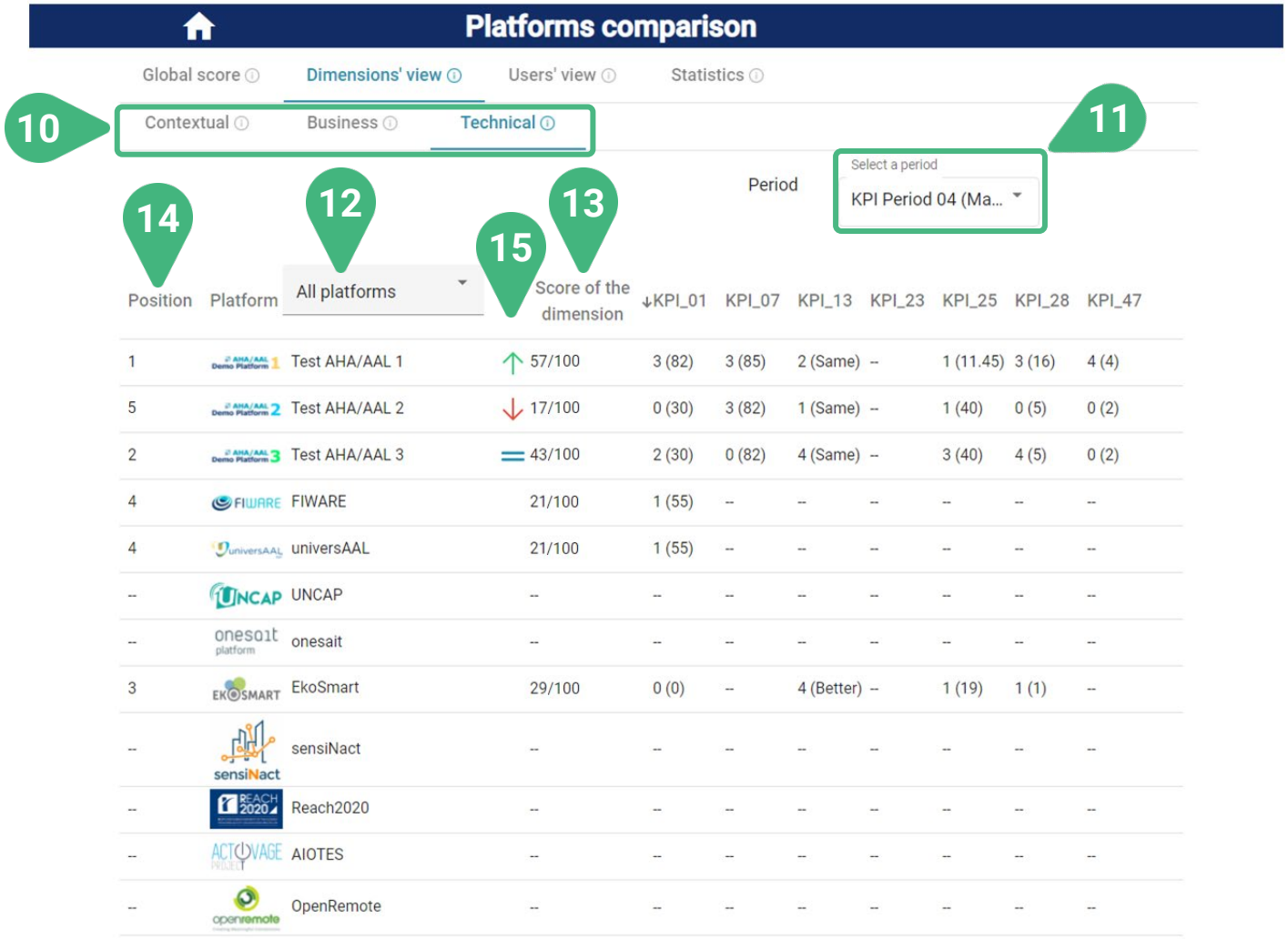


8) **Tendency**. View the score tendency. The tendency reflects the change of a particular score compared to the previous KPI measurement period (if KPI data for that period are available and the score can be calculated) and is shown by an upward (for improvement) or downward (for deterioration) pointing arrow or an "=" sign (for no change).

9) Select **Dimensions' view**.

PLATFORMS COMPARISON | Dimentions' view (I)

Accessible to user roles technology developer and administrator



10) Sub-tabs of chosen view. In the case of **Dimension's view** available dimensions are **Technical** (which is selected by default), **Contextual** and **Business**. In the case of **Users' view** available user clusters are **Primary end-users** (which is selected by default), **Secondary end-users, AHA/AAL solutions developer/providers & Open platform providers** and **Authorities & facilitators**.

11) **Select a period** of measurement. The most recent measurement period is shown by default.

12) Select/filter platforms for comparison. By doing so, only the selected platforms will be presented in the list below and compared. By default, all platforms are presented. The ranking positions are automatically updated accordingly.

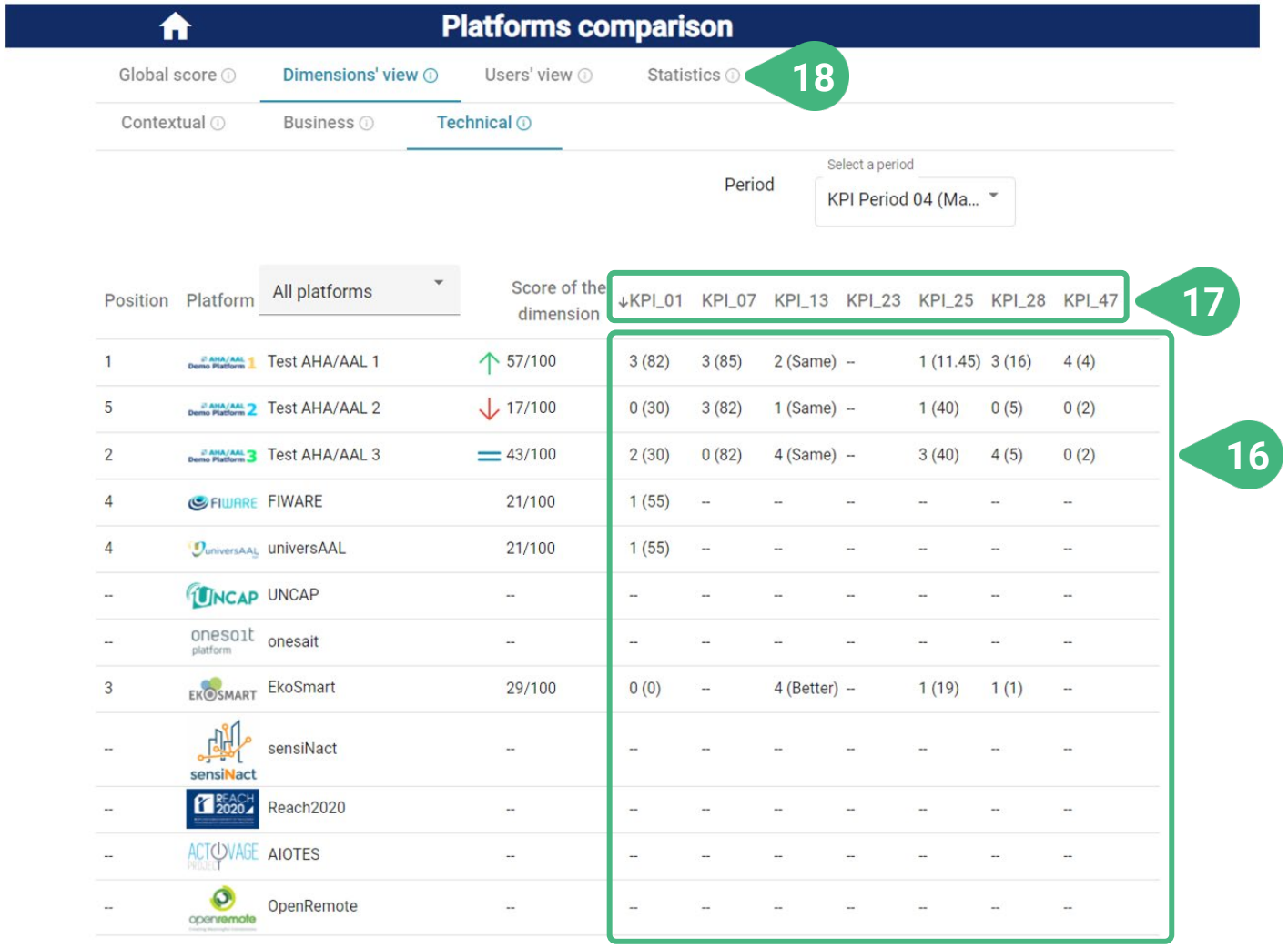
13) View the **Score of the dimension** (or cluster in the other tabs) that was selected. The user can click on the label to order the platforms based on their score.

14) **Position**. View the ranking of platforms (based on their score) in this dimension. The user can click on the label to order the platforms based on their ranking position.

15) **Tendency**. View the score tendency (only if information is available).

PLATFORMS COMPARISON | Dimentions' view (II)

Accessible to user roles technology developer and administrator



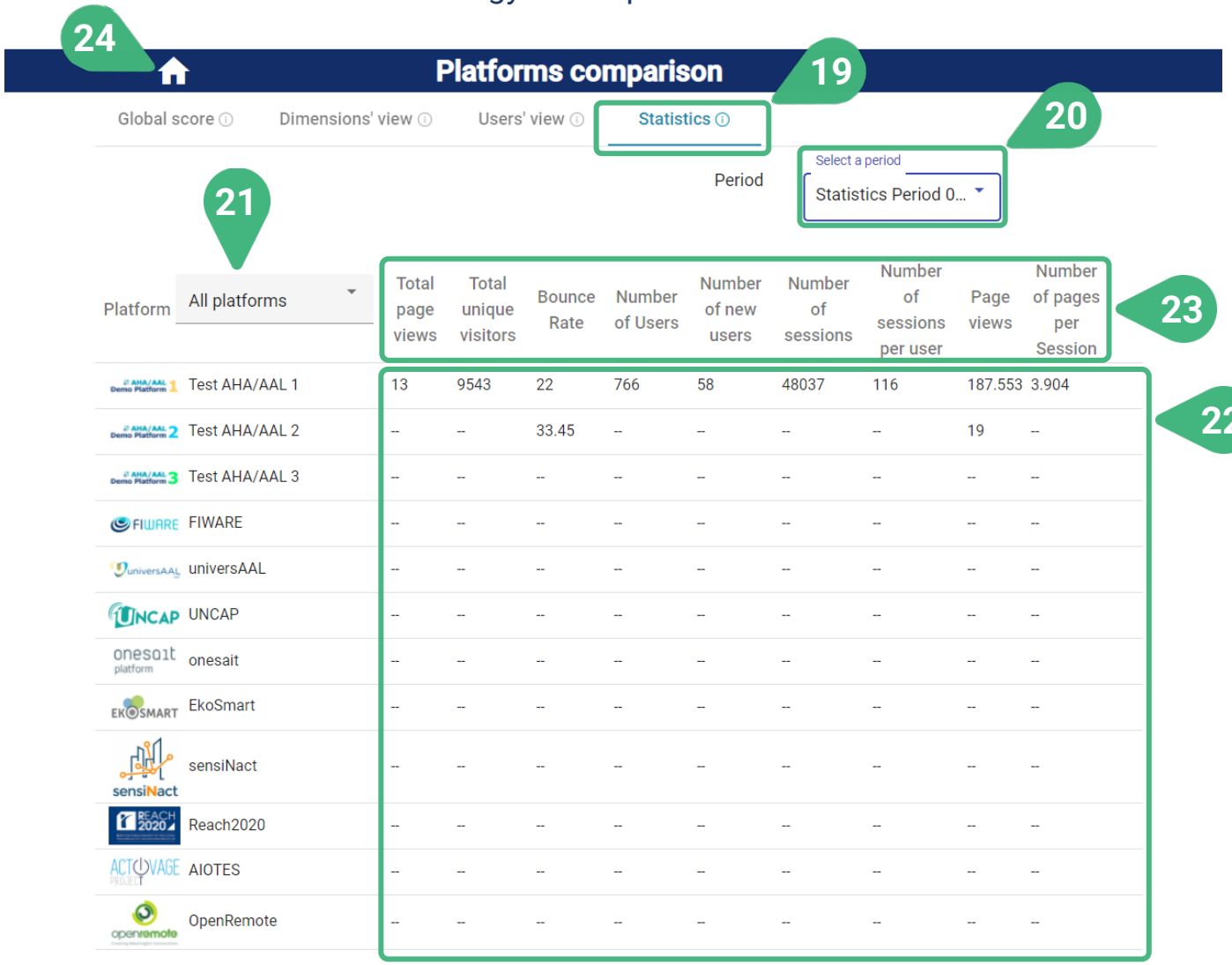
16) View detailed information of all KPIs of this dimension, in this case the technical dimension, including their original and normalised values. If more KPIs are available, then the user can navigate the list of KPIs and their values by using the scroll bar.

17) By clicking on the ID label of a particular KPI, the user can sort the platforms, in ascending or descending order, based on their value for this specific KPI.

18) Select **Statistics** tab.

PLATFORMS COMPARISON | Statistics tab

Accessible to user roles technology developer and administrator



19) **Statistics**. This is the view shown once the user selects the statistics tab.

20) **Select a period** for statistics measurement. The tool supports different measurement periods for statistics and KPI metrics.

21) Select/filter platforms for comparison. By doing so, only the selected platforms will be presented in the list below and compared. By default, all platforms are presented.

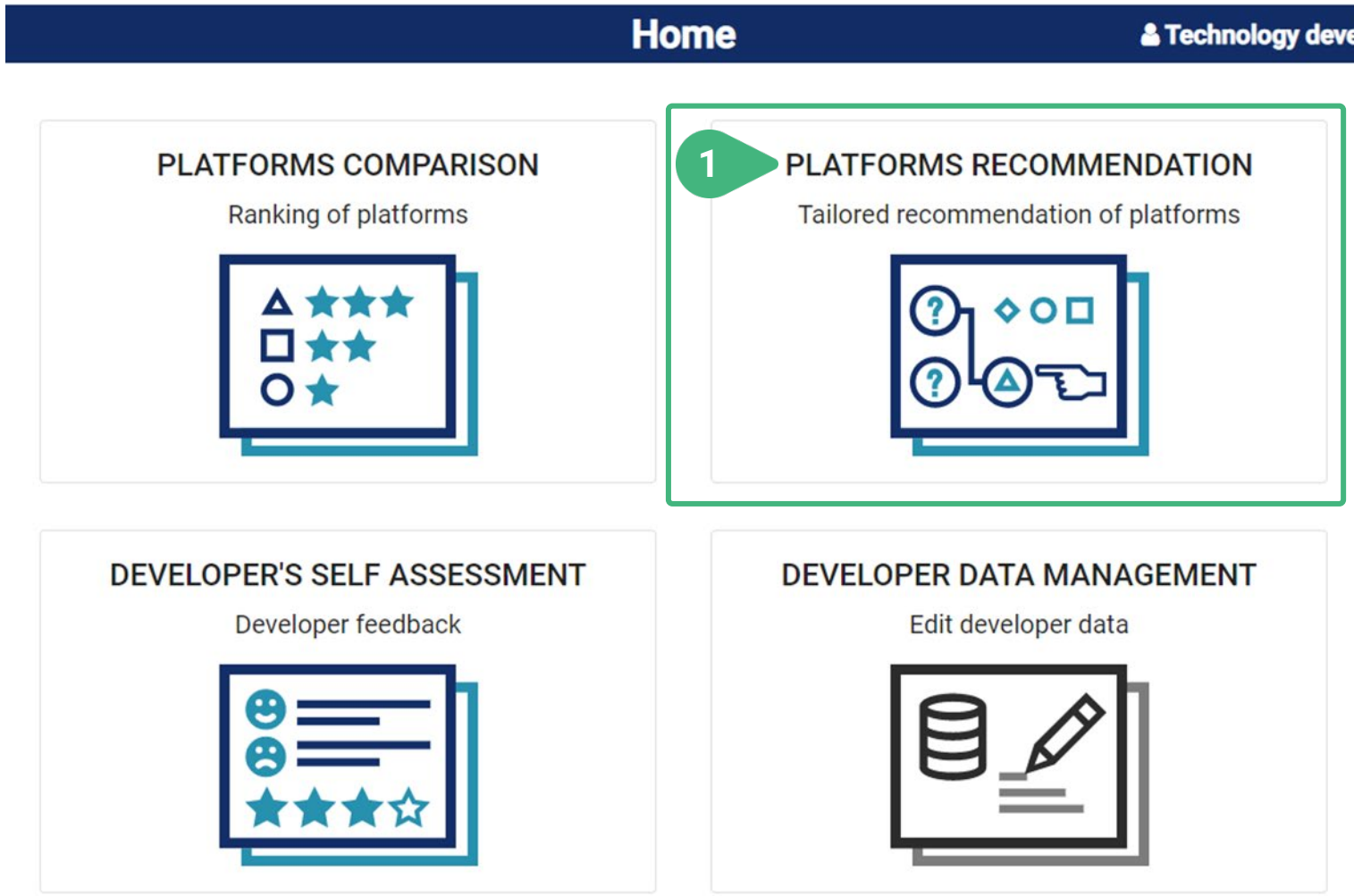
22) Values of the statistics metrics.

23) By clicking on the label of a specific statistics metric, the user can sort the platforms, in ascending or descending order, based on that metric.

24) Click on the **Home icon** to go back to the main screen and choose another functionality.

PLATFORMS RECOMMENDATION

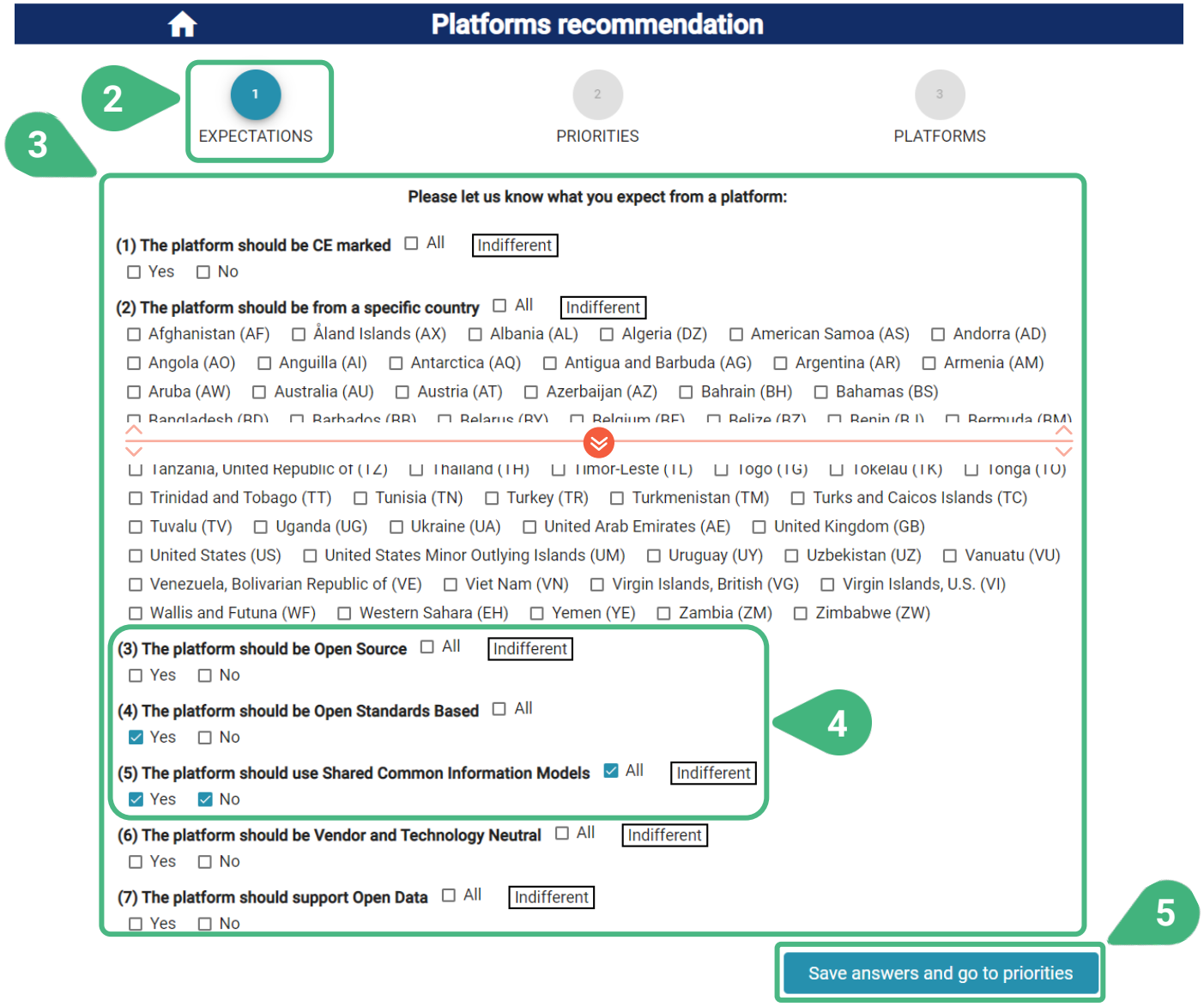
Accessible to user roles technology developer and administrator



1) The **Platforms recommendation** functionality is performed in three steps: EXPECTATIONS, PRIORITIES and PLATFORMS. When the user clicks on the corresponding card, a new screen appears showing the first step.

PLATFORMS RECOMMENDATION | EXPECTATIONS

Accessible to user roles technology developer and administrator



2) In the first step called **EXPECTATIONS,** the user can provide their expectations from the platforms by answering a few questions. The pool of available platforms in the tool will be filtered so that the resulting platforms cover the user's expectations based on the user's answers.

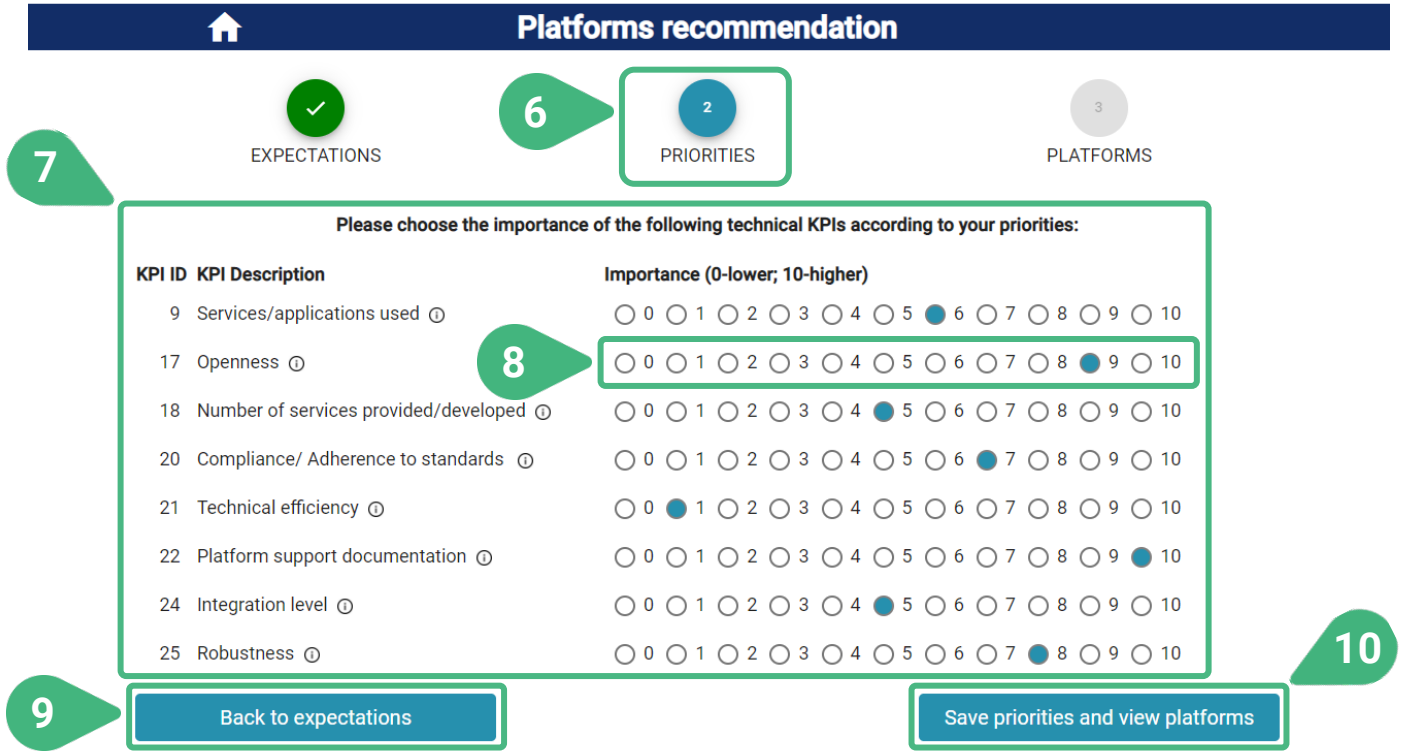
3) A list of available questions appears, and the user can choose to answer as many of these questions as desired. The more questions are answered the tighter the filtering of platforms will be.

4) For each of the questions predefined answers appear and the user can choose as many as desired. The less answers are chosen for a question, the tighter the filtering of platforms will be. By default, none of the answers are chosen and "Indifferent" is marked to indicate that this particular question is not going to affect the filtering of available platforms. Once at least one answer is chosen by the user, "Indifferent" is unmarked and only the platforms that correspond to the selected answers are going to be considered. If all available answers are selected, then "Indifferent" is marked again, since any of the platforms could comply with this selection.

5) **Save answers and go to priorities** to continue with the second step **PRORITIES**.

PLATFORMS RECOMMENDATION | PRIORITIES

Accessible to user roles technology developer and administrator



6) In the second step called **PRIORITIES**, the user can define the importance of a certain number of technical KPIs according to the user's priorities.

7) View a list of available KPIs of the technical dimension, the importance of which can be specified independently. Based on the specified importance, each KPI will be taken into account more or less when the scores of the platforms will be calculated.

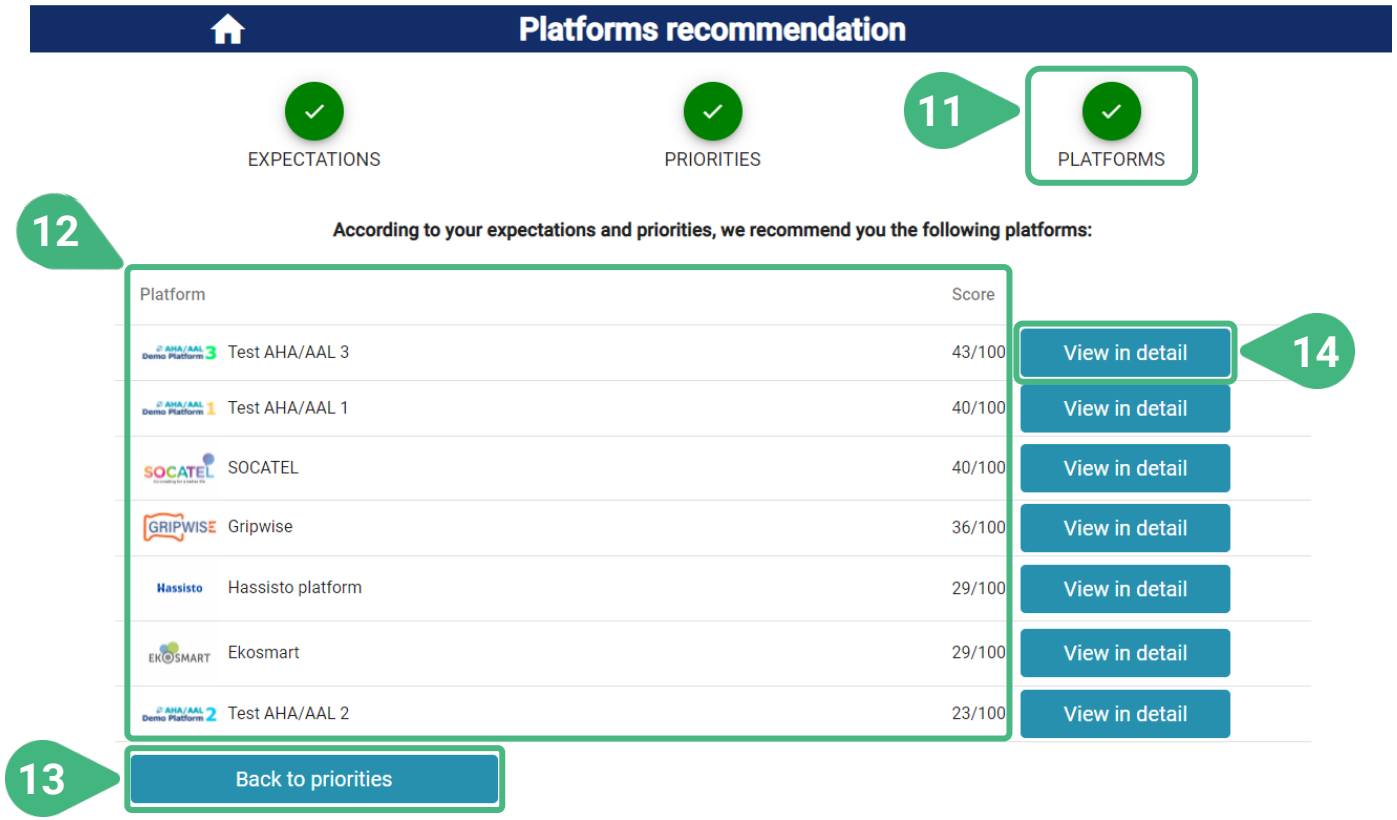
8) For each KPI, the user can select an importance from **0** (if KPI is of no importance and should not be considered for the calculation of the platform scores) to **10** (if KPI is of maximum importance for the user's needs, so it will affect more the calculated scores). The first time this second step is entered, all KPIs are shown with a default importance of **5**. If the user has previously used this functionality, then the importance previously chosen and saved for each KPI will be automatically loaded. The user can still change the importance as desired.

9) The user can go back to previous steps to make changes by clicking on **Back to expectations**.

10) By clicking on **Save priorities and view platforms**, the chosen importance of all KPIs is saved, and the user continues with the third step **PLATFORMS**.

PLATFORMS RECOMMENDATION | PLATFORMS (I)

Accessible to user roles technology developer and administrator



11) In the third step called **PLATFORMS**, the results of the Platforms recommendation functionality are shown.

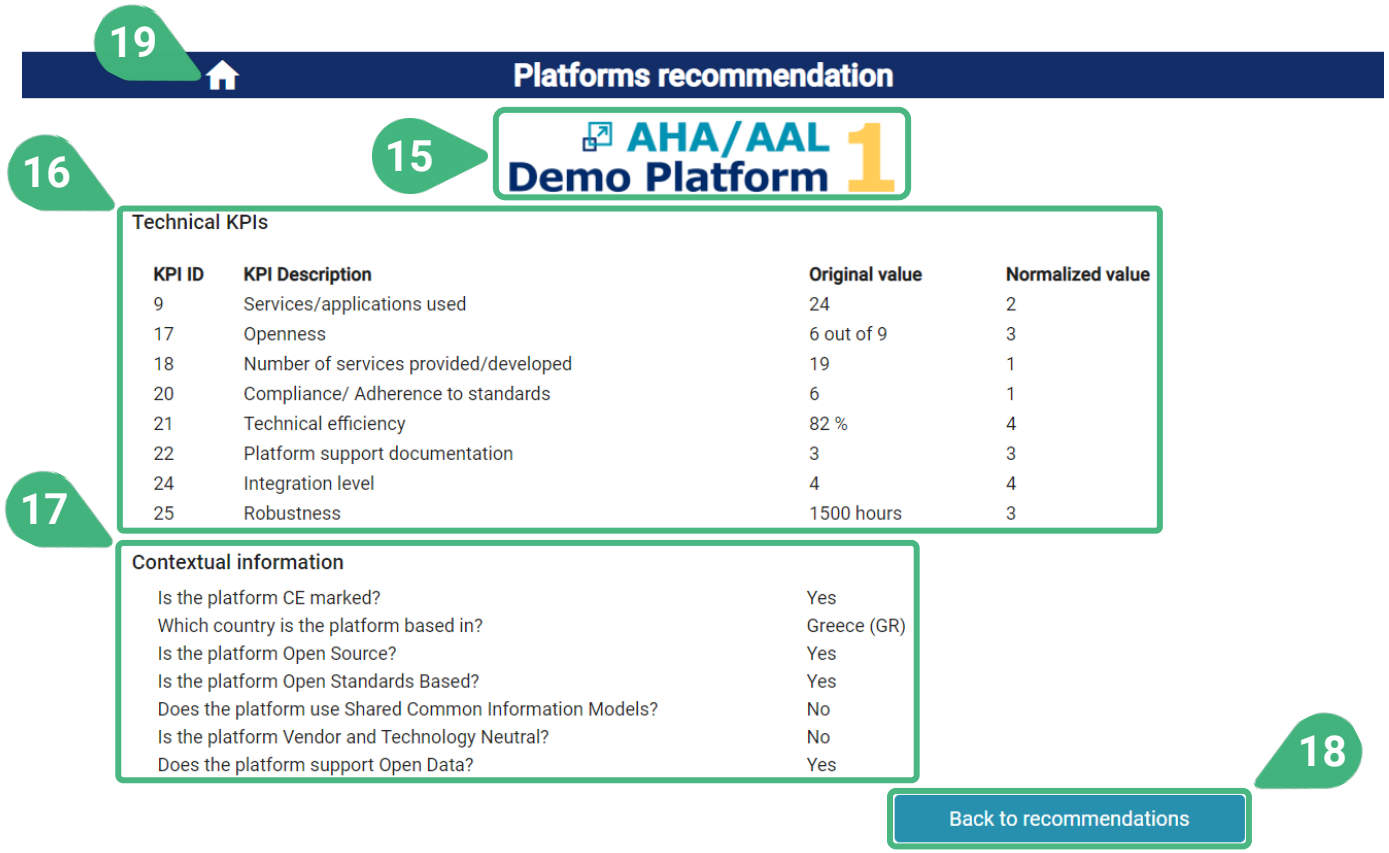
12) A list of recommended **Platforms** that have been filtered based on the user-provided expectations and ordered by **Score** based on the user-set priorities is shown.

13) At any time, the user can go back to previous steps to make changes. In this case the user can go **Back to priorities** to make changes to user-set priorities.

14) Click **View in detail** to view detailed information of a particular platform in this context.

PLATFORMS RECOMMENDATION | PLATFORMS (II)

Accessible to user roles technology developer and administrator



15) The logo of the chosen platform.

16) In the **Technical KPIS** section, the performance of the platform for each of the technical dimension KPIs, including their original and normalized values, are shown.

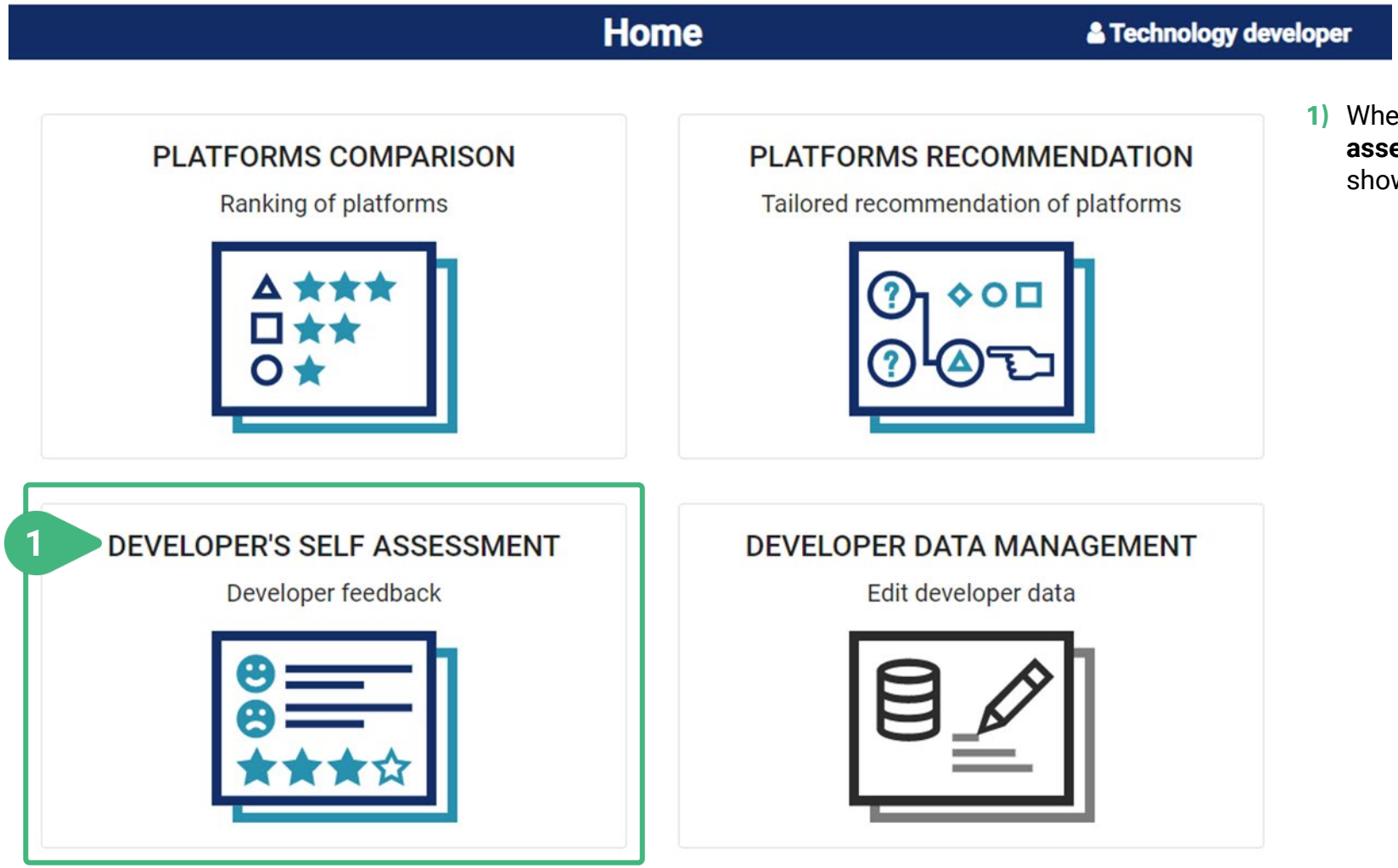
17) In the **Contextual information** section, the characteristics of the platform provided as answers to the contextual questions.

18) At any time, the user can go back to previous steps to make changes. In this case the user can go **Back to recommendations** to see the list of recommended platforms.

19) Click on the **Home icon** to go back to the main screen and choose another functionality.

DEVELOPER'S SELF ASSESSMENT

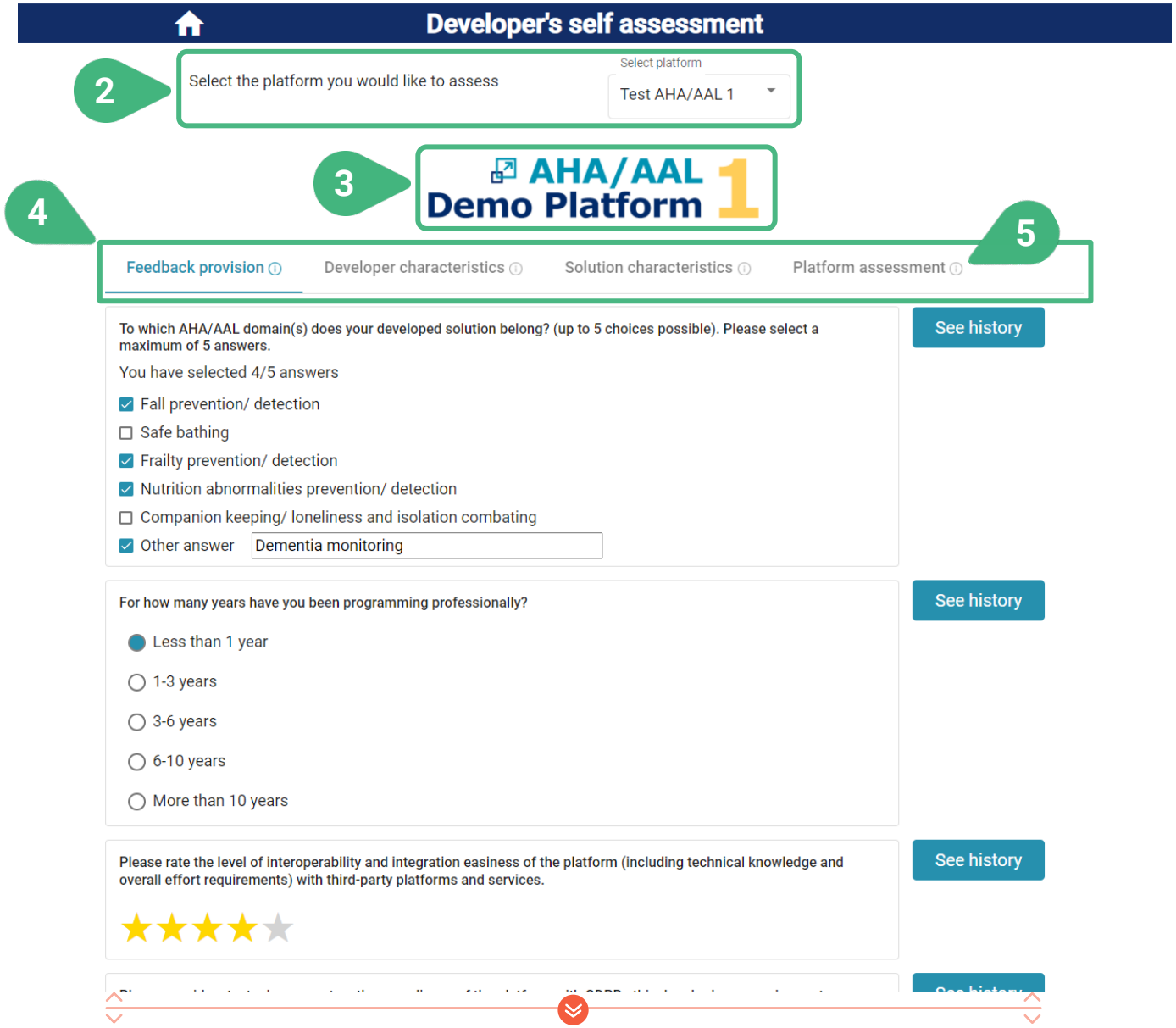
Accessible to user roles technology developer and administrator



1) When the user clicks on the **Developer's self assessment** card, a new screen appears showing the relevant functionality.

DEVELOPER'S SELF ASSESSMENT

Accessible to user roles technology developer and administrator



2) Upon entering this functionality from the main screen, the user must first **Select the platform** to assess and view feedback for, before any additional information is presented in this screen. The user can change the platform as desired.

3) The logo of the selected platform is then displayed.

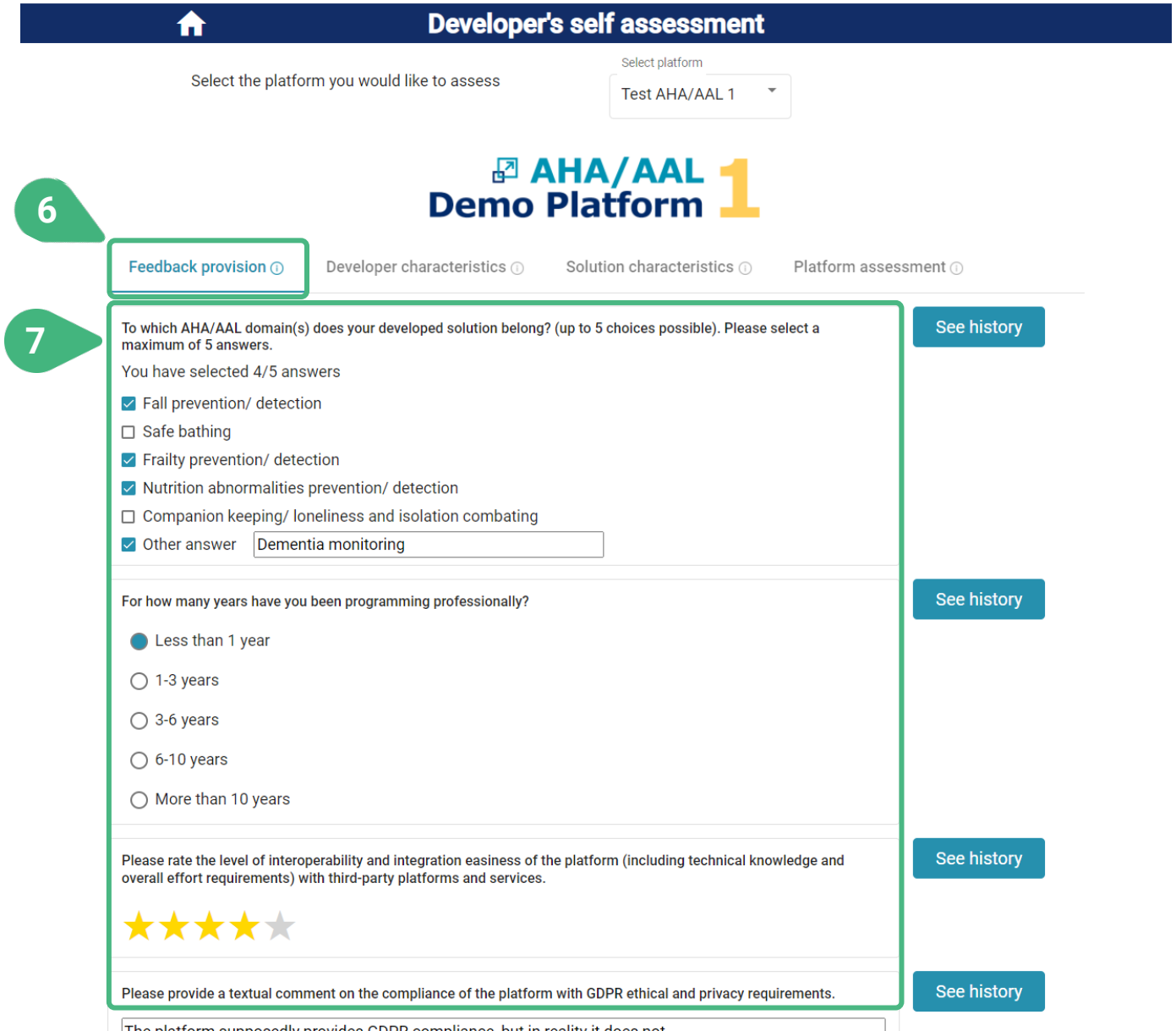
4) There are four tabs available with the following functionalities:

- **Feedback provision**, which is selected by default
- **Developer characteristics**
- **Solution characteristics**
- **Platform assessment**

5) An **(i)** icon can be found next to the various tool functionalities as they appear on the screen. These icons serve as an interactive usage-guide while the user is using the tool. When moving the mouse on top of one of these icons, the user can see a pop-up message with more information about the particular functionality.

DEVELOPER'S SELF ASSESSMENT | Feedback provision (I)

Accessible to user roles technology developer and administrator

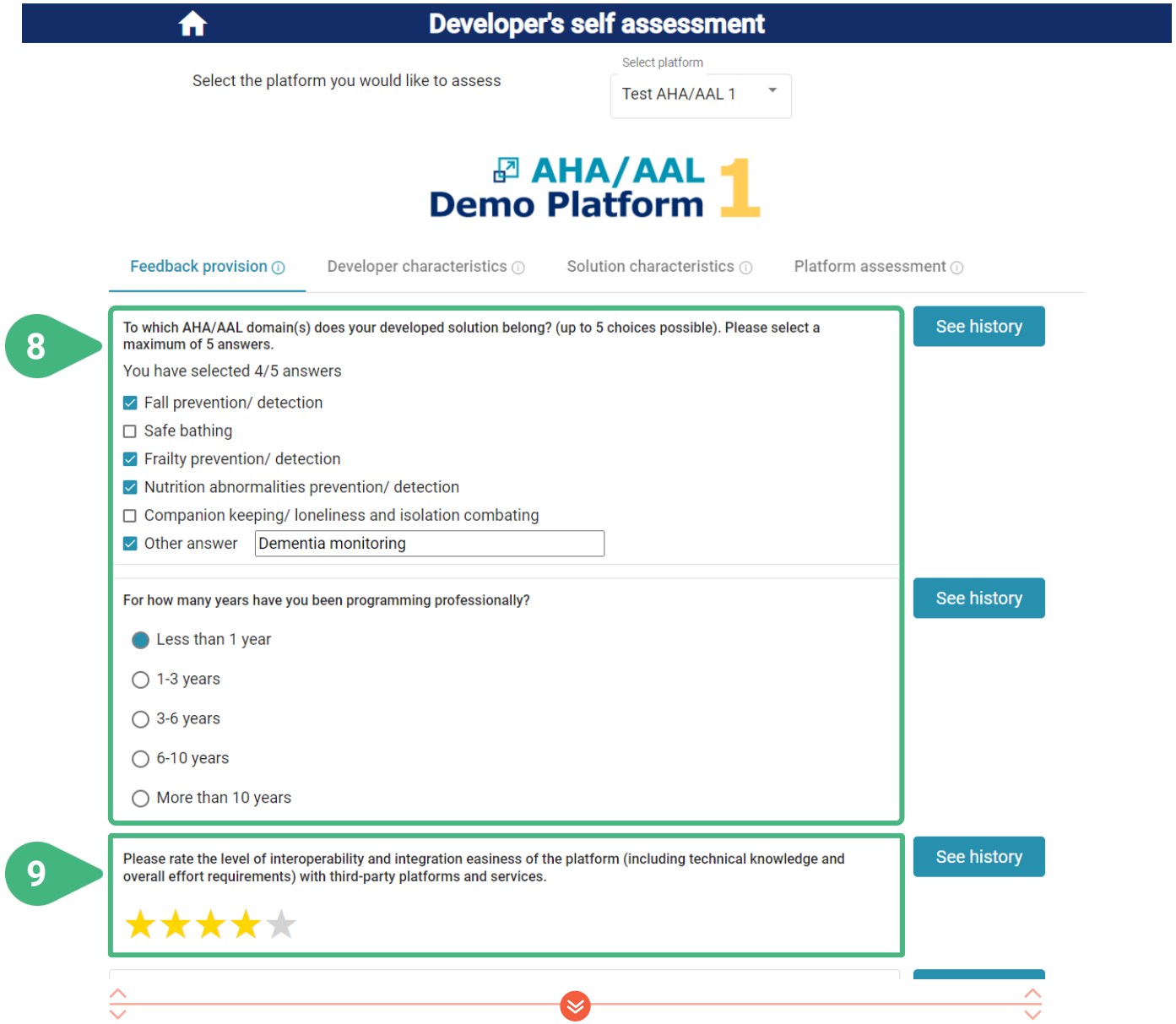


6) The **Feedback provision** tab is selected by default. In this tab the developer can see a list of available questions (questionnaire) and answer them in order to provide feedback regarding the developer's (own) characteristics, the characteristics of the developed solution/product and the platform used; also view the history of the developer's (own) previously provided feedback and self-assess his/her progress while using the platform.

7) There are four types of questions possible: *structured answer*, *rating*, *text* and *rating and text*. For each of the questions the developer can view its potential answers (depending on the question type). If the developer has previously provided answers to a particular question and saved them, the most recently provided answers are highlighted or displayed by default (depending on the question type). The developer can change the provided answers or answer additional questions.

DEVELOPER'S SELF ASSESSMENT | Feedback provision (II)

Accessible to user roles technology developer and administrator

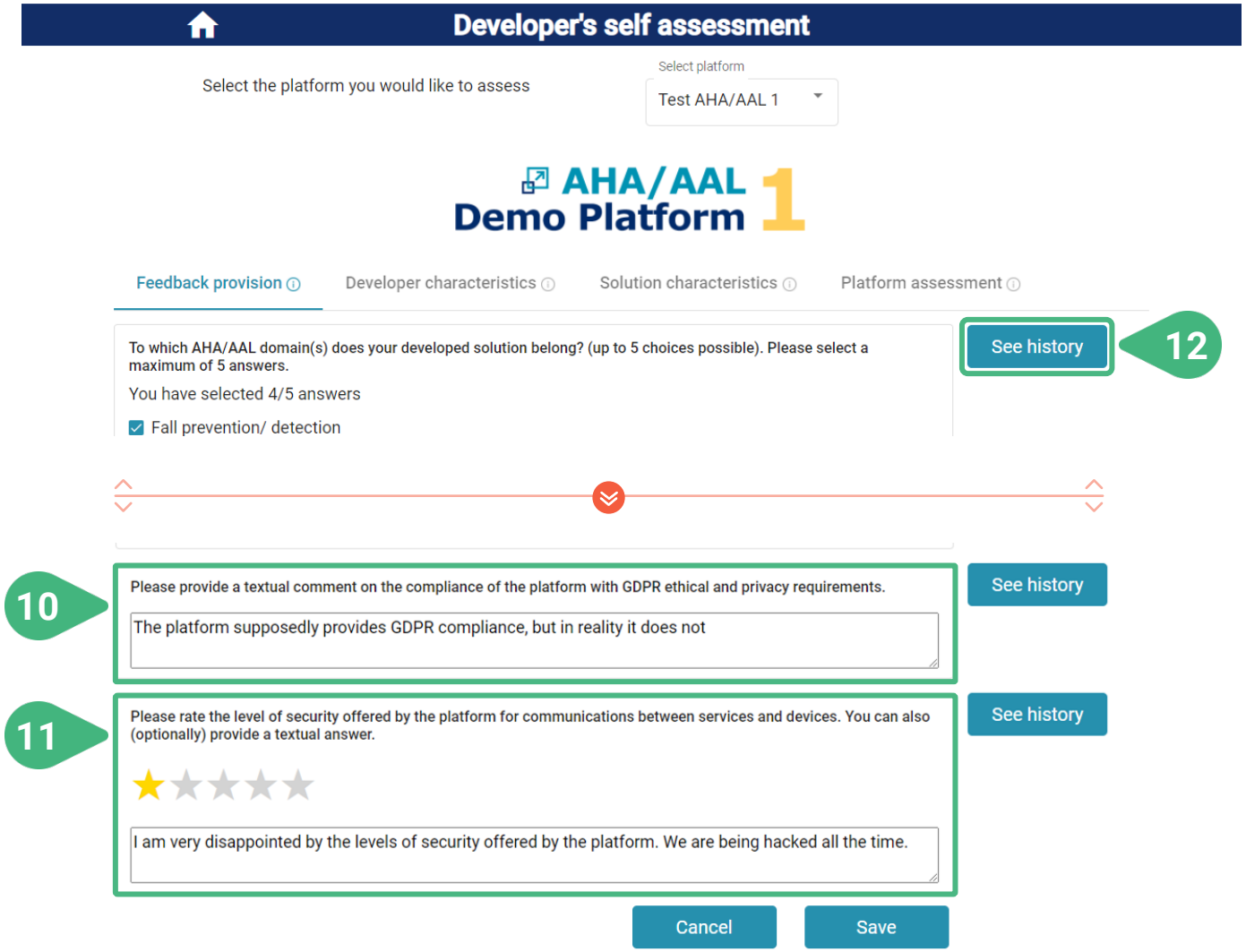


8) ***Structured answer*** question: The title of the question is followed by a number of possible predefined answers. The developer can choose a number of answers from the pool of available ones. The number of answers that can be chosen can differ per question. If this number is more than 1, it is indicated next to the title of the question. If only one answer is acceptable each answer choice is indicated by a selectable bullet. If more answers are possible each choice is indicated by a selectable checkbox. Depending on the configuration of the question, the developer may also be able to type a free text answer.

9) ***Rating*** question: The title of the question is followed by a rating bar used to accommodate the developer's rating of the particular aspect. The rating is provided in a 5-level scale represented with 5 stars. One star indicates a poor rating and five stars an excellent one. The user can move the mouse over the stars to highlight the number of stars desired. Then, by clicking the desired star, the corresponding answer value is set. The ratings provided by all developers (only most recent answer from each developer) will be used to calculate the mean rating of the particular platform for this question.

DEVELOPER'S SELF ASSESSMENT | Feedback provision (III)

Accessible to user roles technology developer and administrator



10) ***Text*** question: The title of the question is followed by a textbox to accommodate the developer's freely expressed opinion. The provided textual feedback is stored and can be presented anonymously to other developers and the provider of the particular platform, so that it can help them chose a particular platform or improve some of its aspects respectively. The textual feedback will be automatically annotated before being shown to indicate the positive or negative statements in the developer's opinion.

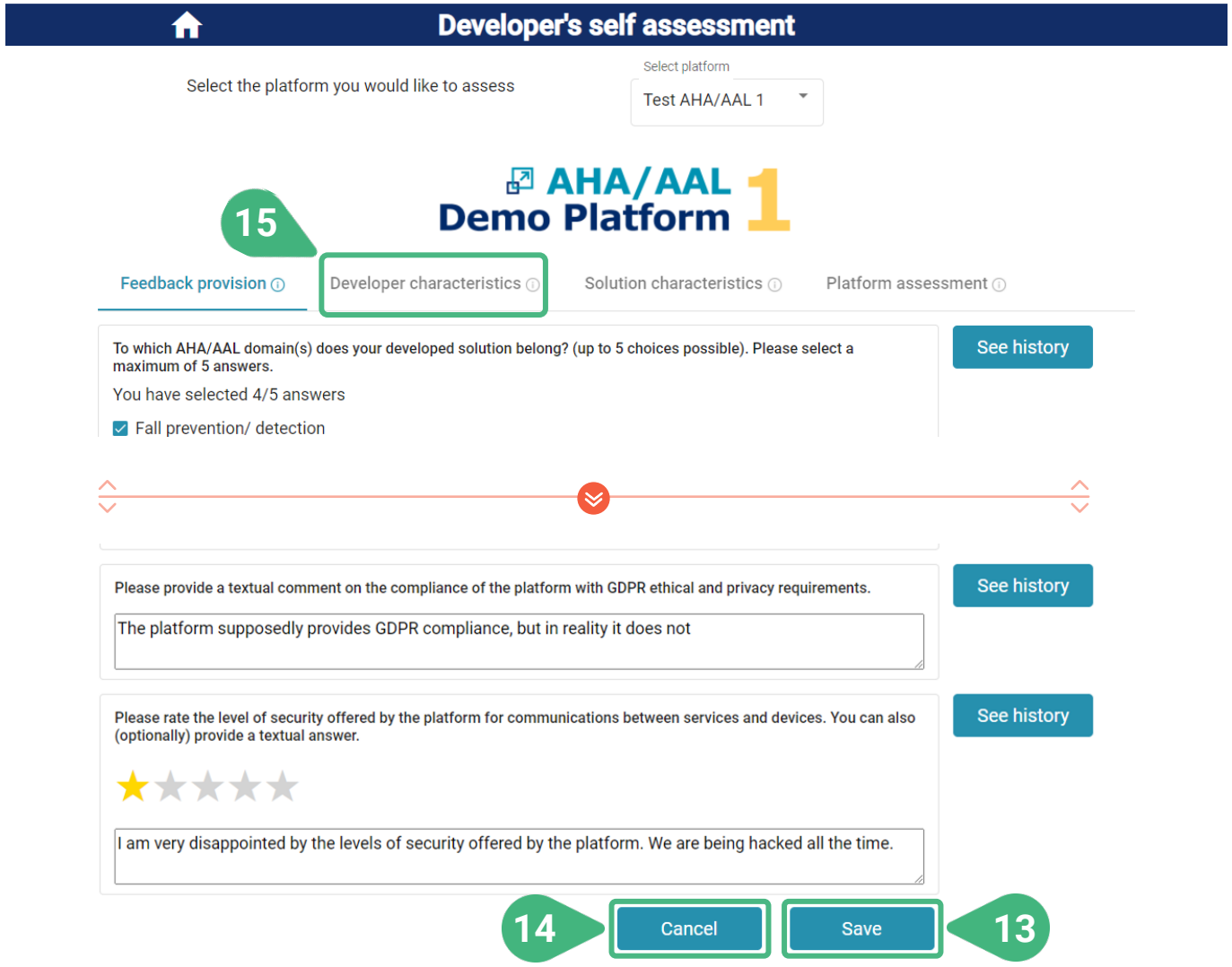
11) ***Rating and text*** question: This is a combination of the previous two types. The title of the question is followed by a rating bar and a textbox, so that the developer can provide both a rating and textual feedback.

12) Click **See history** to view a history of the developer's (own) previously provided answers for the particular question and platform:

Date: 2022-02-11 20:26:55 **Answer(s) provided:**	**Date:** 2022-02-16 12:30:11 **Answer(s) provided:**
Dementia monitoring Frailty prevention/ detection Fall prevention/ detection	Dementia monitoring Frailty prevention/ detection Fall prevention/ detection Leisure/ gaming

DEVELOPER'S SELF ASSESSMENT | Feedback provision (IV)

Accessible to user roles technology developer and administrator



The Save and Cancel buttons only appear once the user makes a change to existing answers or chooses to answer a previously unanswered question.

13) **Save** the provided/updated answers to all questions of the questionnaire. Once the answers have been successfully saved, a relevant message appears on screen:

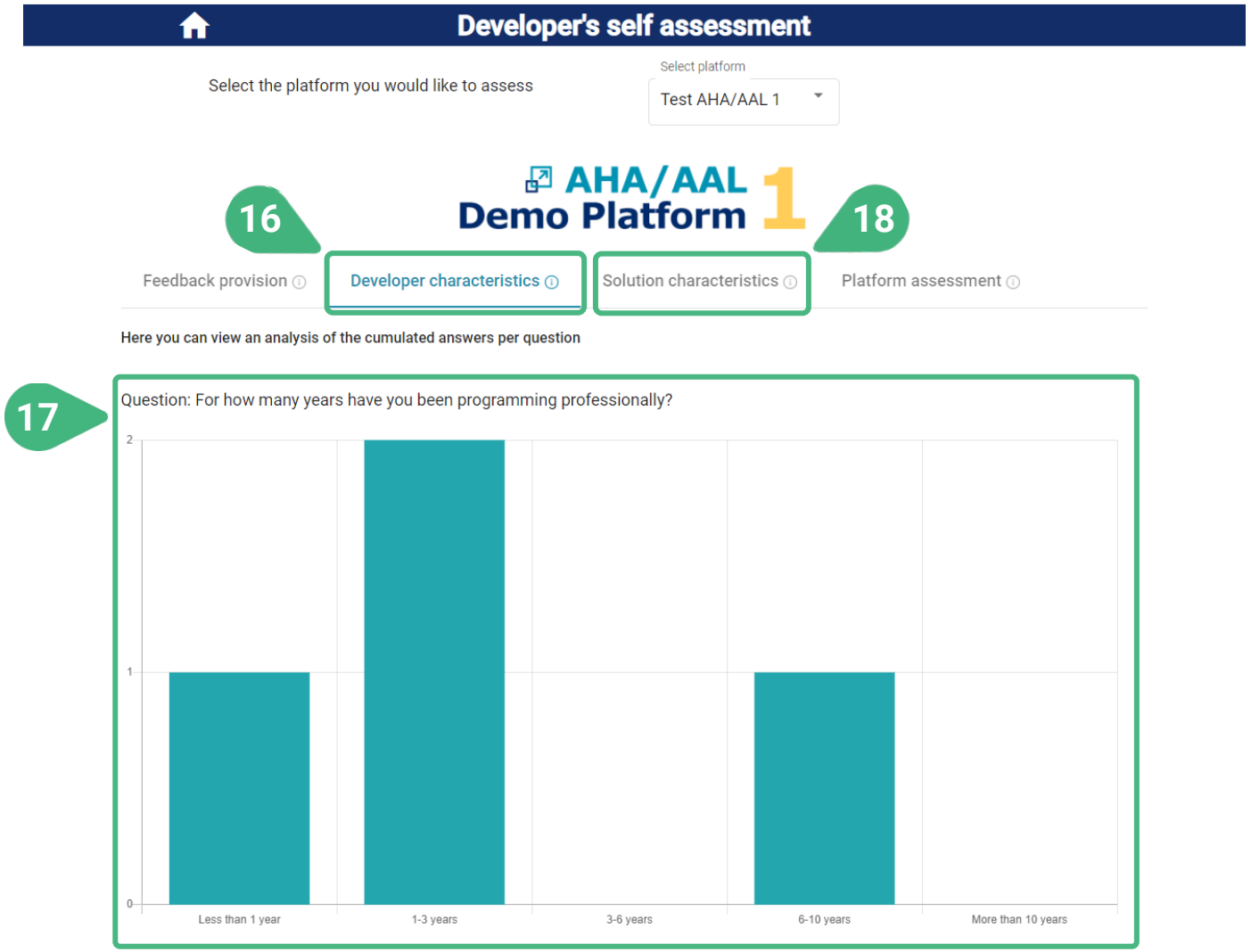
Answers have been saved successfully

14) **Cancel** the modifications without saving. Any modifications made to the answers for all questions will be discarded. The latest saved answers for this user will be reloaded.

15) Select the **Developer characteristics** tab.

DEVELOPER'S SELF ASSESSMENT | Developer characteristics

Accessible to user roles technology developer and administrator



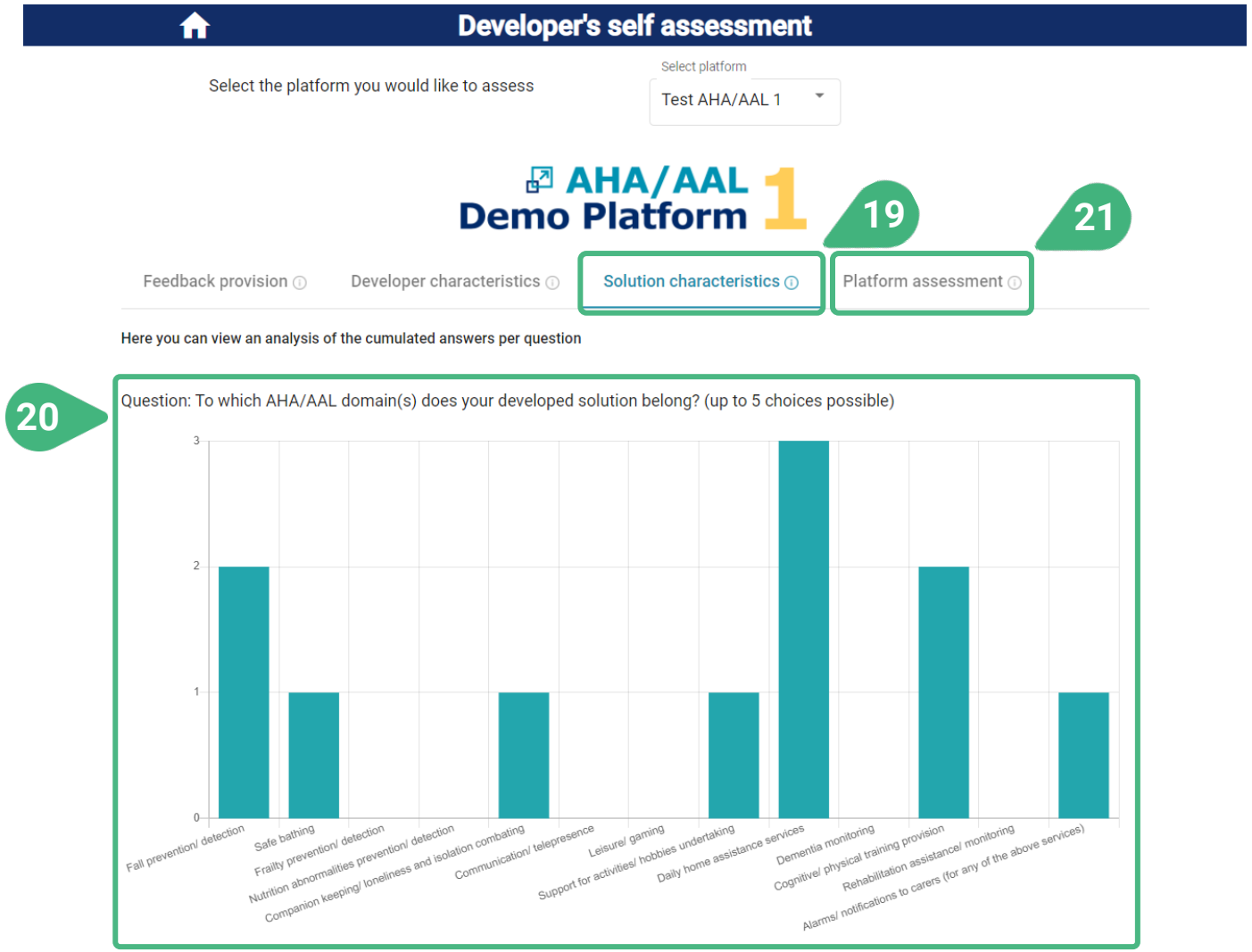
16) The **Developer characteristics** tab presents the analysis of the results for all questions regarding the characteristics of developers who have provided their opinion on the particular platform, based on the cumulative feedback of all developers who have answered the questionnaire. Only the most recent/up-to-date answer of each developer in a per-question basis is taken into account. The developer characteristics questions can only have *structured* answers.

17) View a list of questions. The title of each question is followed by a visual analysis of the provided answers. The answers are visualised by means of a bar graph, which presents the cumulative responses to the question for the particular platform. The various predefined answer options are shown on the x-axis of the graph and the number of answers for each particular option is shown on the y-axis.

18) Select the **Solution characteristics** tab.

DEVELOPER'S SELF ASSESSMENT | Solution characteristics

Accessible to user roles technology developer and administrator



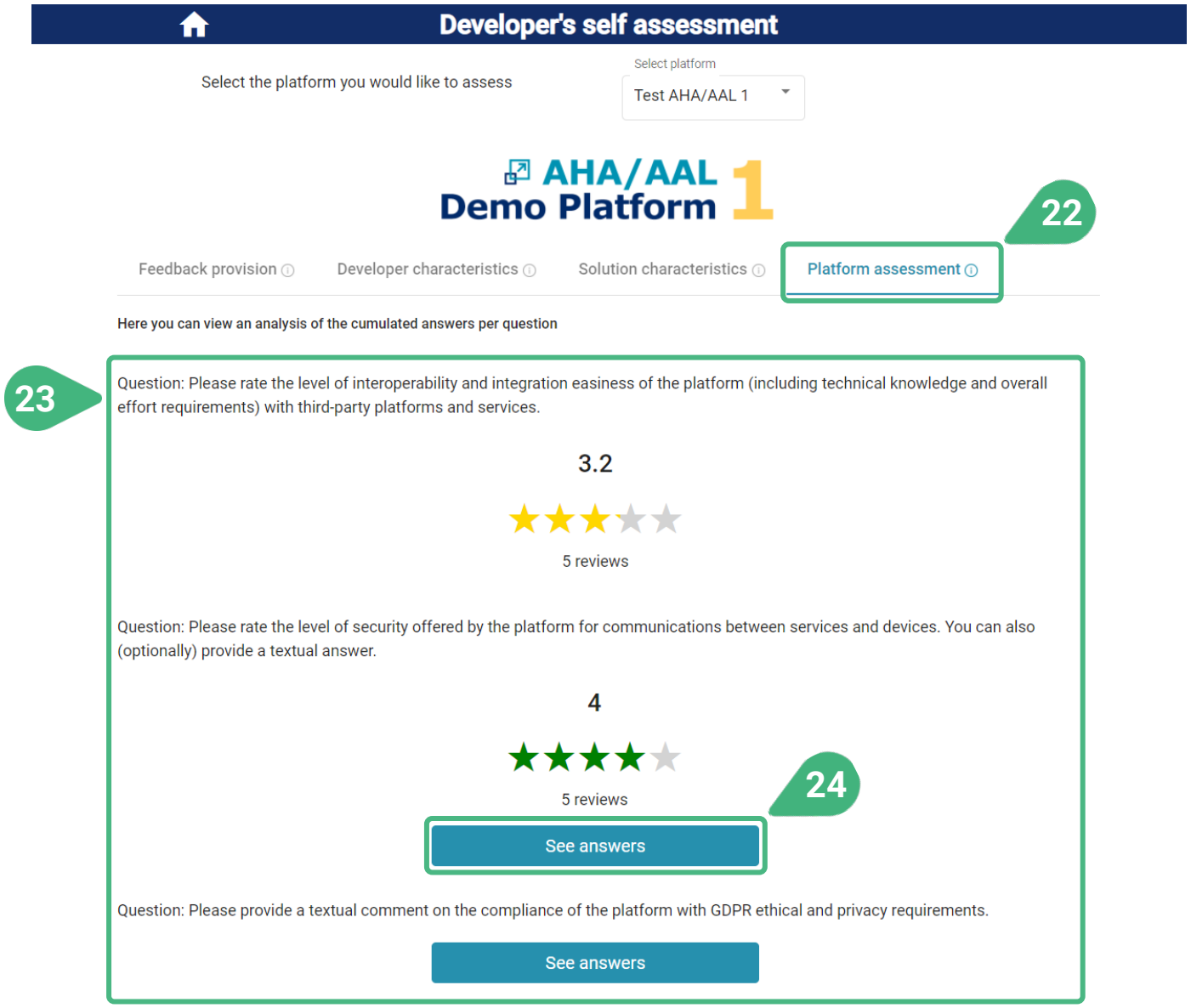
19) The **Solution characteristics** tab presents the analysis of the results for all questions regarding the characteristics of solutions/products developed using the particular platform, based on the cumulative feedback of all developers who have answered the questionnaire. Only the most recent/up-to-date answer of each developer on each question is taken into account. The solution characteristics questions can only have *structured* answers.

20) View a list of questions. The title of each question is followed by a visual analysis of the provided answers. The answers are visualised by means of a bar graph, which presents the cumulative responses to the question for the particular platform. The various predefined answer options are shown on the x-axis of the graph and the number of answers for each particular option is shown on the y-axis.

21) Select the **Platform assessment** tab.

DEVELOPER'S SELF ASSESSMENT | Platform assessment (I)

Accessible to user roles technology developer and administrator



22) The **Platform assessment** tab presents the analysis of the results for all questions regarding the assessment of the various aspects of the particular platform, based on the experiences shared by all developers who have provided their feedback by answering the questionnaire. Only the most recent/up-to-date answer of each developer on each question is taken into account. The platform assessment questions can be of the type: *rating*, *text* or *rating and text*.

23) View a list of questions. The title of each question is followed by a visual analysis of the provided answers. If the question is of the type *text* or *rating and text,* they can also contain textual feedback.

24) Click **See answers** to view the provided textual feedback for the particular question and platform. A new screen appears.

DEVELOPER'S SELF ASSESSMENT | Platform assessment (II)

Accessible to user roles technology developer and administrator

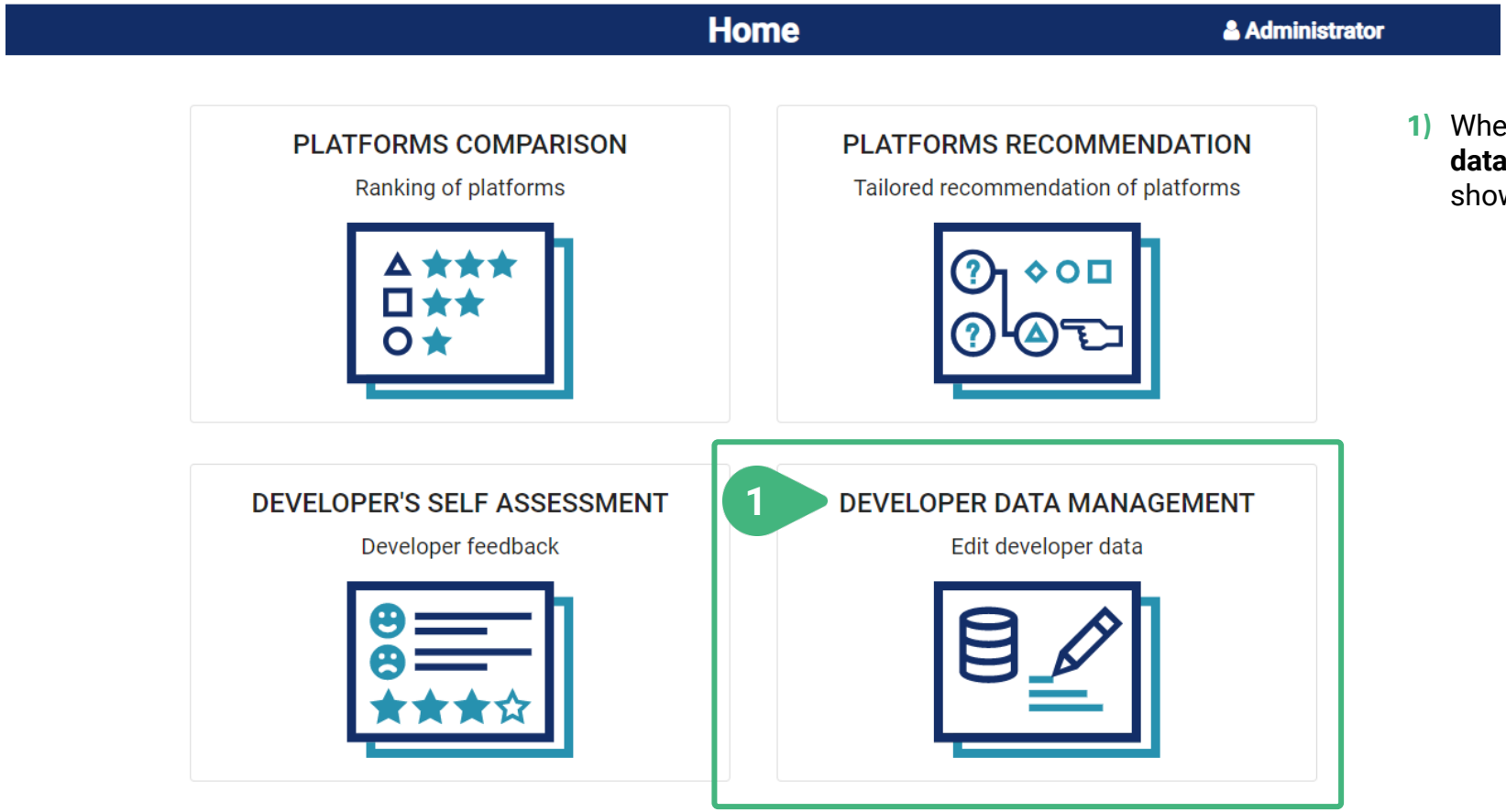
25) View a list of textual answers as provided by the individual developers in an anonymous manner. Also view ratings, depending on the question type. Only the most up-to-date feedback from each developer is shown. In each of the textual answers, various parts of the text are highlighted with different colors depending on whether they have a positive or negative meaning.

26) Click on **Back** to go to the previous screen.

27) Click on the **Home icon** to go back to the main screen and choose another functionality.

DEVELOPER DATA MANAGEMENT

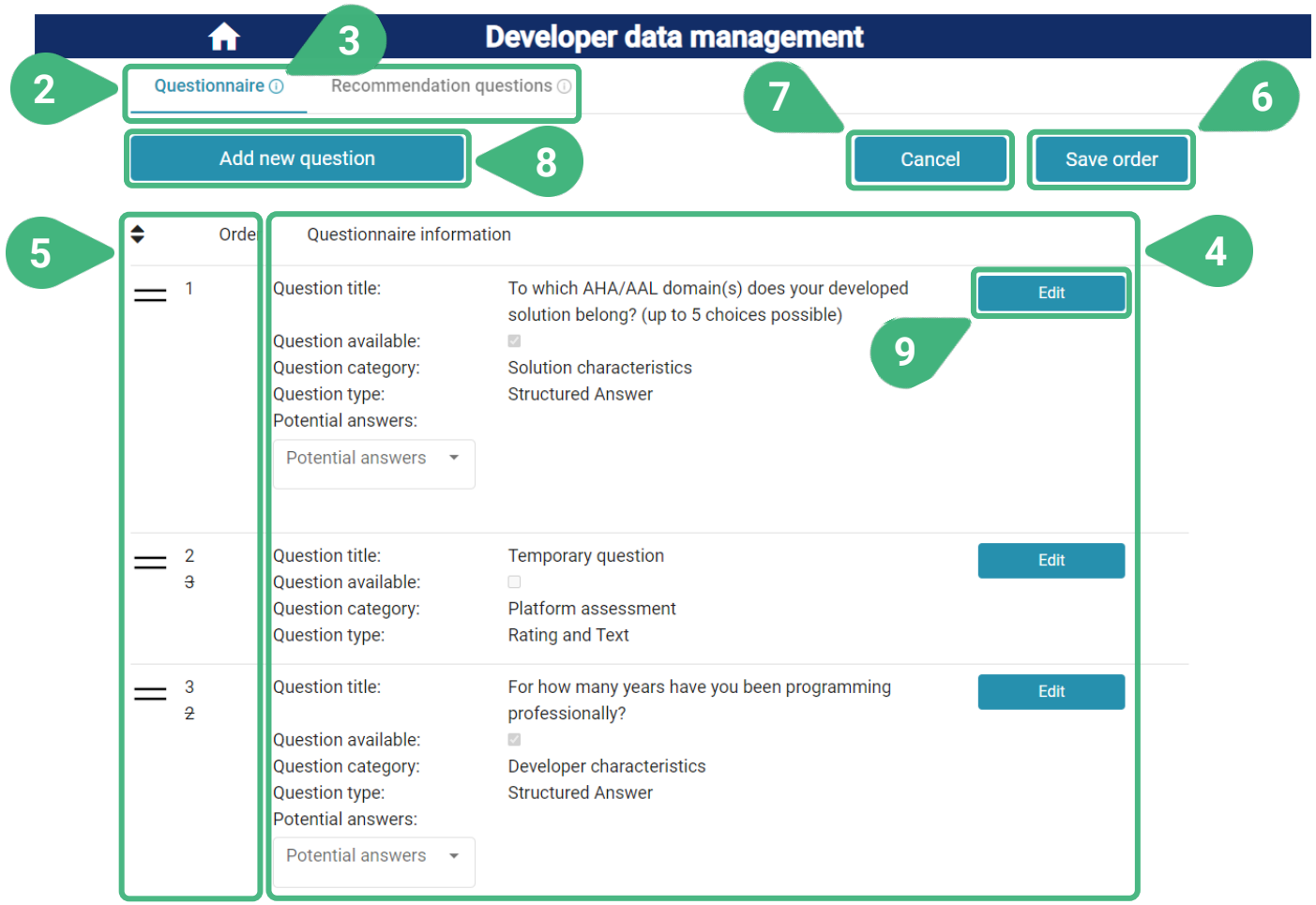
Accessible to user role administrator



1) When the administrator clicks on the **Developer data management** card, a new screen appears showing the relevant functionality.

DEVELOPER'S SELF ASSESSMENT | Questionnaire (I)

Accessible to user role administrator



2) There are two tabs available with the following functionalities **Questionnaire**, which is selected by default, and **Recommendation questions**.

3) An **(i)** icon can be found next to the various tool functionalities as they appear on the screen. These icons serve as an interactive usage-guide, showing information about the particular functionality when moving the mouse on top of them.

4) View of the list of existing questions that appear in the questionnaire addressed to technology developers along with their details.

5) The user can change the **Order** of appearance of a question by holding the " ☰ " sign and moving it upwards or downwards. The order of all other questions is automatically updated and the old order is displayed in a strike-through manner. The Save and Cancel buttons appear if the order is changed.

6) **Save** the updated order of the questions.

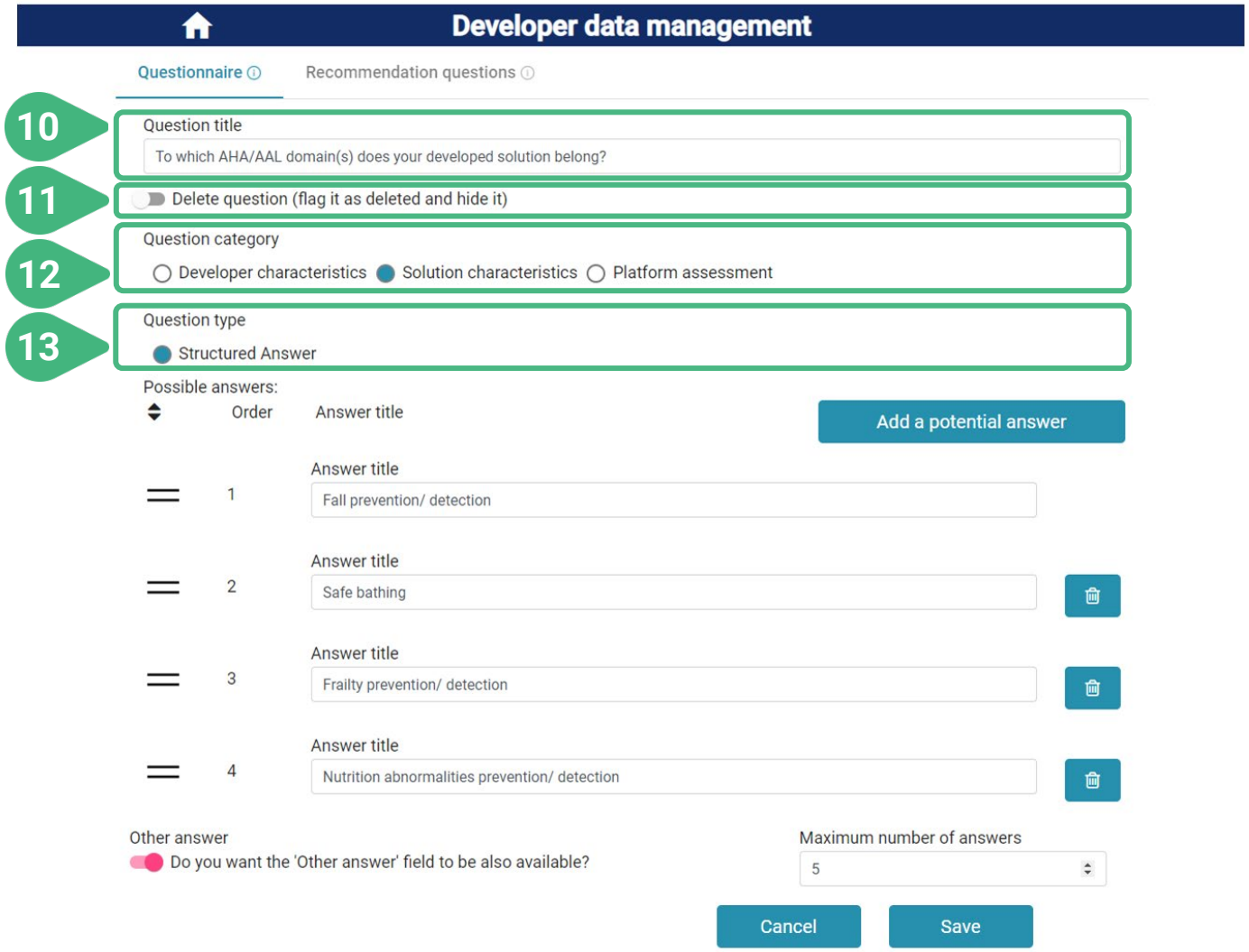
7) **Cancel** the changes and revert to previous order.

8) Click **Add new question** to introduce a new question in the questionnaire. A new screen appears.

9) Click **Edit** to edit an existing question. A new screen appears with pre-filled data of the existing question.

DEVELOPER'S SELF ASSESSMENT | Questionnaire (II)

Accessible to user role administrator



10) Edit the **Question title**.

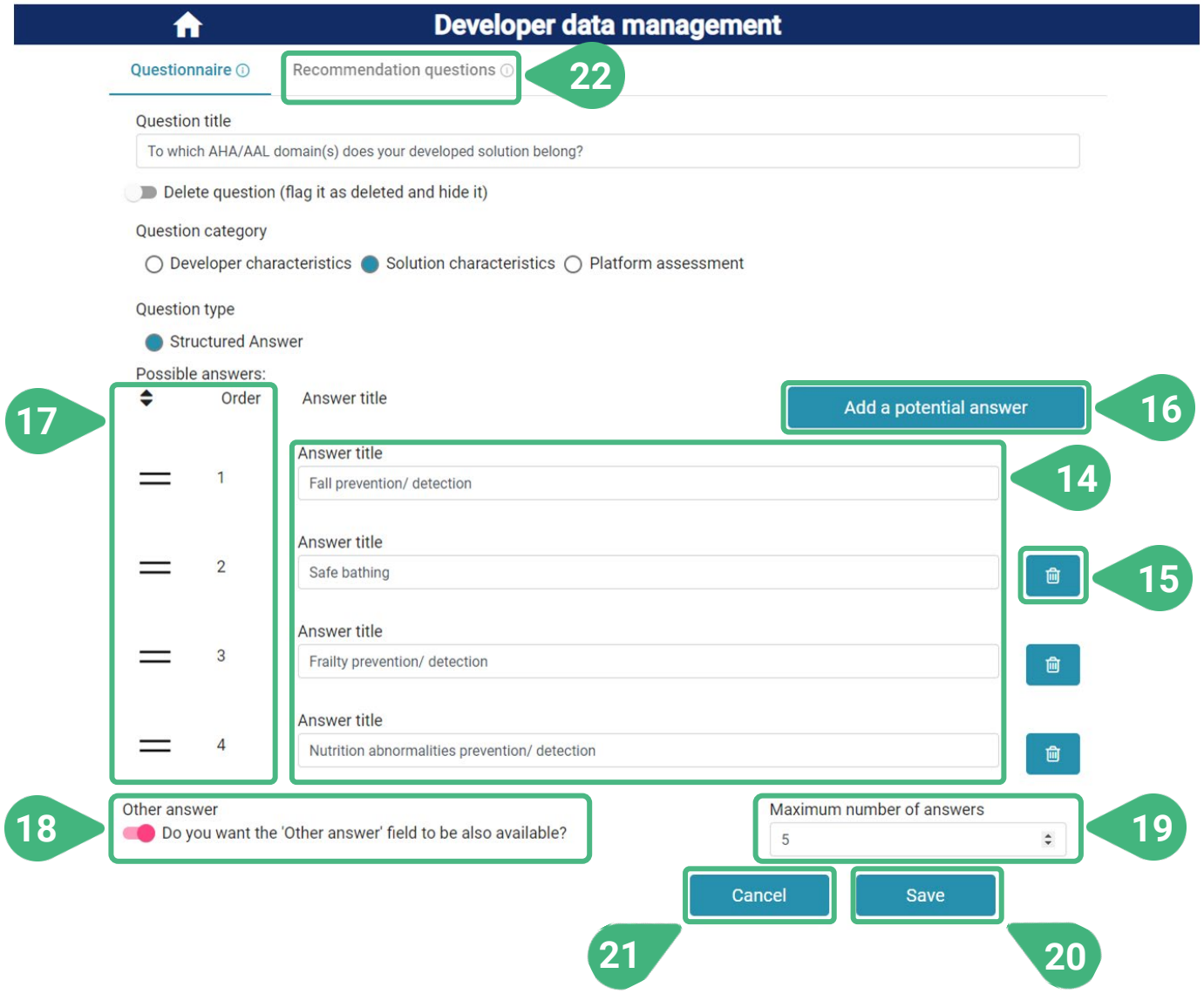
11) Flag the question as invisible (**Delete question**) in order to hide it from other functionalities of the tool while retaining all relevant data. It will remain hidden until unflagged.

12) Select the **Question category** (*Solution characteristics* shown). For each question only one category can be selected among the following three choices: *Developer characteristics, Solution characteristics* or *Platform assessment*. The category indicates which entity under assessment this question refers to and is used for grouping the results per entity when visualising the analysis of the provided feedback.

13) Select **Question type** (*Structured answer* shown). The type indicates the expected (and accepted) type of answer to the question. Only one type can be selected for each question. There are four types available: *Rating, Text, Rating and text, Structured answer*. Which type can be chosen depends on the question category. *Developer characteristics* and *Solution characteristics* are only compatible with *Structured answer*. *Platform assessment* can be *Rating, Text* or *Rating and text*.

DEVELOPER'S SELF ASSESSMENT | Questionnaire (III)

Accessible to user role administrator



14) Edit the **Answer title** of existing predefined answers for the question.

15) Remove an existing answer from the pool of available ones by clicking the **recycle bin** icon next to a particular answer.

16) **Add a potential answer** to the pool of available ones.

17) Change the **Order** of appearance of the available possible answers by holding the " " sign and moving it upwards or downwards. The order of all other answers is automatically updated and the old order is displayed in a strike-through manner.

18) Define if the respondent can provide **Other answer** apart from the predefined ones, by typing free text.

19) Define the **Maximum number of answers** that the respondent can choose. The minimum value for this field is 1 and the maximum value equals the total number of possible answers, including the *other answer*, if this option has been selected.

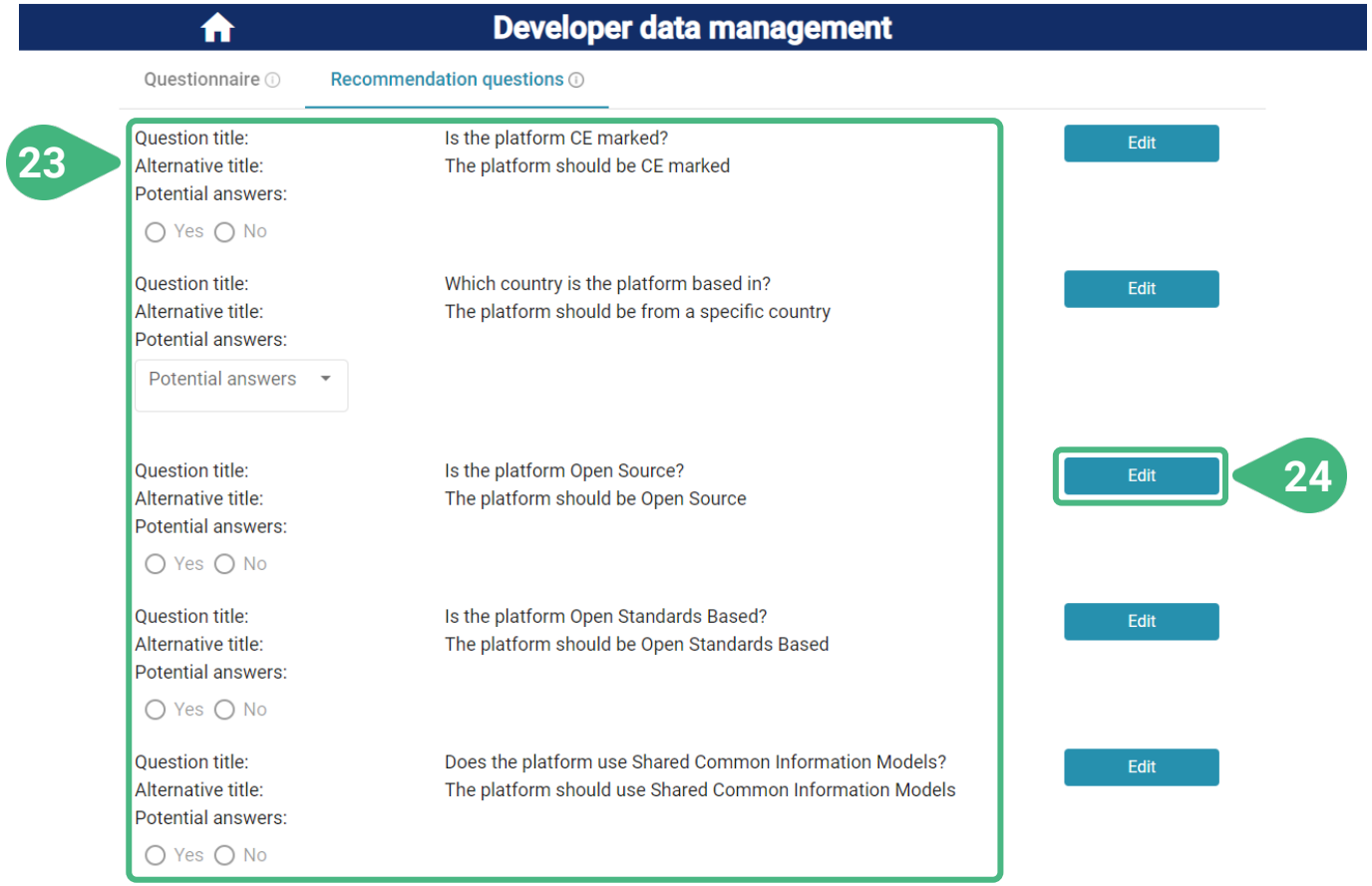
20) **Save** the updated question and go back to the previous screen.

21) **Cancel** the modifications without saving.

22) Select the **Recommendation questions** tab.

DEVELOPER'S SELF ASSESSMENT | Recommendation questions (I)

Accessible to user role administrator

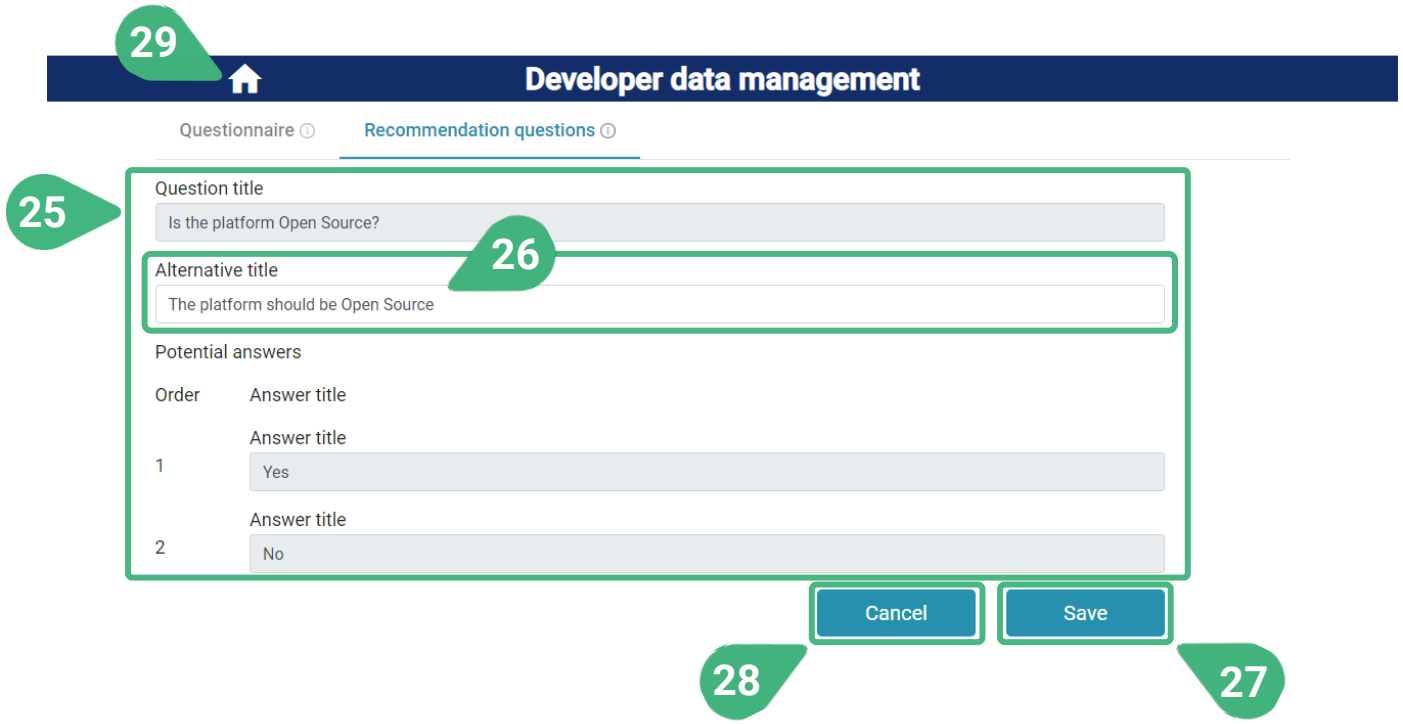


23) View the list of existing recommendation questions and their details. The recommendation questions are the questions presented in the first step ("EXPECTATIONS") of the *Platforms recommendation* functionality. These are the same as the contextual questions of the platforms, which can be managed (introduced, edited, hidden) by an administrator of the Tool for platform providers. All contextual questions which are not flagged as invisible are available as recommendation questions.

24) Click **Edit** to edit/introduce some of data of an existing question. A new screen appears.

DEVELOPER'S SELF ASSESSMENT | Recommendation questions (II)

Accessible to user role administrator



25) View the characteristics of the recommendation/ contextual question.

26) Only the **Alternative title** of the recommendation question can be edited. This is the title that will be presented in the *Platforms recommendation* functionality in order to appropriately formulate the question for this purpose. All other characteristics of the recommendation/contextual question can only be edited via the tool for platform providers.

27) **Save** the updated recommendation question alternative title and go back to the previous screen.

28) **Cancel** the modifications without changing the alternative title and go back to the previous screen.

29) Click on the **Home icon** to go back to the main screen and choose another functionality.

Tutorial completed!

Congratulations! You have successfully completed this tutorial of the PlatformUptake.eu tool for technology developers!

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1 You have learned that PlatformUptake.eu provides self-assessment tools with smart features and visualisation capabilities to support technology developers compare platforms and choose the most suitable ones for their needs, to enable them provide feedback stemming from their own experience from using the platforms and help them keep track of their progress over time while developing solutions.

2 If you are a **technology provider**, you have learned to compare statistics, KPIs and scores of the different platforms, to provide your feedback regarding these platforms and view the feedback of others, input your expectations and priorities and be presented with tailored platforms recommendations, to assess your own progress in using the platforms over time.

3 If you are an **administrator**, you have additionally learned to introduce, edit and manage different types of data in the tool.

What is next?

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Now you can …

Register

at the PlatformUptake.eu

Open Information Hub

&

Access

the Tool for Technology Developers

at the Open Information Hub

THANK
YOU
GRAZIE
MULTUMESC
MERCI
MAAKE
TERMA KASIH
RAIBH MAITH AGAT
JUSPAXAR
OBRIGADO
MATONDO
KIITOS
MOCHCHAKKERAM
SALAMAT
KIA ORA
MULTUMESC
CHOKRANE
SALAMAT
CAM ON BAN
MERCI
RAIBH MAITH AGAT
OBRIGADO
MOCHCHAKKERAM
ASANTE
UA TSAUG RAU KOJ
MOCHCHAKKERAM
KIITOS
VINAKA
OBRIGADO
DANK JE
NIRRINGRAZZJAK
MAMANA
MULTUMESC
KIITOS
DANKON
NIRRINGRAZZJAK
MOCHCHAKKERAM
ARIGATO
MOCHCHAKKERAM
OBRIGADO
SPASIBO
WELALIN
SPASIBO
MAAKE
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DANK JE
CHOKRANE
UA TSAUG RAU KOJ
MATONDO
CHOKRANE
MATUR NUWUN
GRAZIE
MERCI
MOCHCHAKKERAM