



Clean Hydrogen Partnership



Co-funded by
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COMMON EUROPEAN HRS AVAILABILITY SYSTEM

Introduction to the operator's portal (April 2022)

HRS OPERATOR'S PORTAL

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02	Edit HRS master data sets	10
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HRS OPERATOR'S PORTAL

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LOGIN PAGE

HTTPS://H2-MAP.EU/PORTAL



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E-HRS-AS

Please sign in to see this page.

Email address

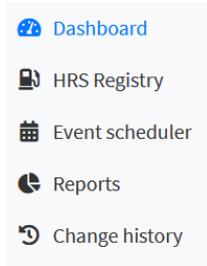
Password

[reset password](#)

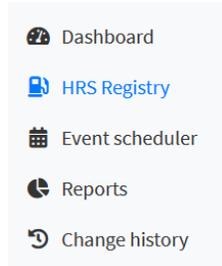
- Use the personal login information that you received from the project team
- Do not share your personal login information with anybody
- Request a new password if required

STRUCTURAL DESIGN

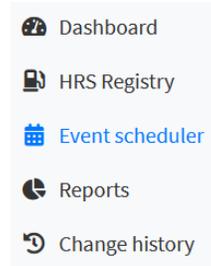
5 AREAS TO ACCESS AND EDIT INFORMATION



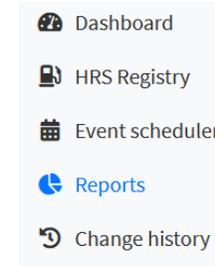
- **start page**
- overview of information



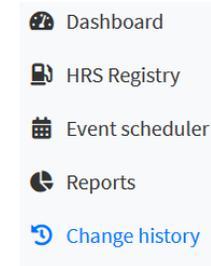
- access to edit HRS data sets



- access to edit customer notifications

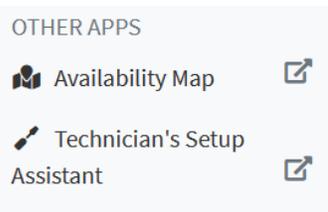


- access to generate availability reports



- Information on changes to the data sets and event schedules (time, user, list of changes)

LINKS TO EXTERNAL WEBSITES



Opens new window (<https://h2-map.eu/>)



[Link to website supporting technicians when installing the type A box – not relevant for daily use of operator's access area]

DASHBOARD

OVERVIEW OF FUNCTIONALITIES AND INFORMATION

PLEASE NOTE: THIS USER ONLY HAS 1 HRS IN OPERATION.

The screenshot shows the E-HRS-AS Portal dashboard. On the left is a navigation sidebar with items like 'Dashboard', 'HRS Registry', 'Event scheduler', 'Reports', 'Change history', 'Availability Map', and 'Technician's Setup Assistant'. The main content area is divided into several sections: 'CURRENT PROBLEMS' with a table showing 'Porto Airport' in maintenance; 'ONGOING AND UPCOMING EVENTS' with a table of maintenance and transport events; 'MY STATIONS' with a map showing one station; and 'REAL-TIME AVAILABILITY' with a pie chart showing the status of the single operational HRS.

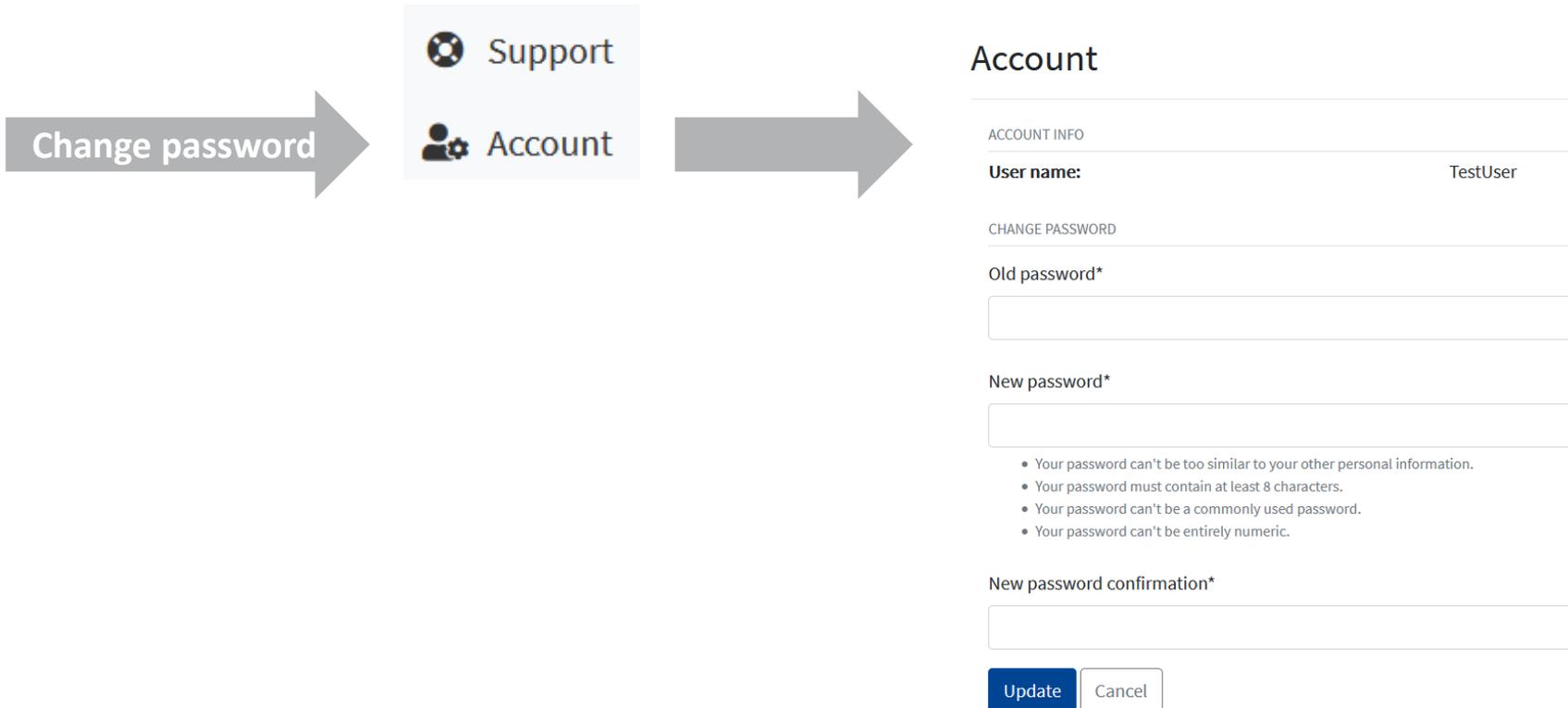
HRS	Availability status	Problem
Porto Airport	✖ in maintenance	HRS is unavailable due to ongoing event

HRS	Subject	Start date	End date	Status
Porto Airport	Yearly maintenance activity	June 14, 2020, noon	June 21, 2020, 2 p.m.	in progress
Porto Airport	Visit by the ministry for transport	June 22, 2020, 10:27 a.m.	June 22, 2020, 10:27 a.m.	scheduled and announced

Frequency distribution of real-time availability status of 1 operational HRS
not monitored
closed
unknown
in maintenance
limitedly available
available
failure

- 1 Before your first use of the portal, please change your password.
- 2 List of current problems (all HRS not in standard operation) based on real-time information
- 3 List of scheduled events (ongoing and planned)
- 4 Information on real-time HRS availabilities (all HRS assigned to the user)
- 5 Access to detailed information and editing of master data.
- 6 Links to the map and the setup assistant for technicians

CHANGE OF PASSWORD



ACCESS DETAILED HRS INFORMATION OVERVIEW

- Dashboard
- HRS Registry**
- Event scheduler
- Reports
- Change history



Search
Sign out

HRS Registry

Hide map

ID	Name	Real-time availability status	Owner	Operator	Construction state	Country	Actions
CSGGK	Porto Airport	🔧 in maintenance	ENDA	ENDA	✔ in operation	🇵🇹 Portugal	✎ 📅 📅

- Select HRS of interest
(access performance information)
- OR
- Select an action for this HRS
- Actions**

✎ 📅 📅

Edit master data

Actions

✎ 📅 📅

Event list

Actions

✎ 📅 📅

Schedule event

ACCESS DETAILED HRS INFORMATION

PERFORMANCE INFORMATION OF THE HRS

ID	Name	Real-time availability status	Owner	Operator	Construction state	Country	Actions
CSGGK	Porto Airport	in maintenance	ENDA	ENDA	in operation	Portugal	



HRS: Porto Airport

Core info:
 HRS owner: ENDA
 HRS operator: ENDA
 Site operator: Acme Corporation
 Construction state: in operation
 Provided fuel types: 700 bar 550 bar
 City: Porto
 Country: Portugal
 E-HRS-AS integration state: integrated
 Availability recording: enabled

Latest problems:

Start date	End date	Duration	Public availability status	Problem description
17.6.2020, 23:02:10	17.6.2020, 23:03:05	55 seconds	unknown	HRS Availability Transmission System is offline
16.6.2020, 23:02:09	16.6.2020, 23:03:04	55 seconds	unknown	HRS Availability Transmission System is offline
16.6.2020, 01:38:04	16.6.2020, 01:40:33	2 minutes, 29 seconds	unavailable	700 bar H ₂ for cars is unavailable
16.6.2020, 00:37:09	16.6.2020, 01:38:04	1 hour, 1 minute	unknown	HRS Availability Transmission System is offline
15.6.2020, 23:02:10	15.6.2020, 23:03:05	55 seconds	unknown	HRS Availability Transmission System is offline
31.5.2020, 18:18:00	31.5.2020, 18:22:46	4 minutes, 46 seconds	unavailable	700 bar H ₂ for cars is unavailable
30.5.2020, 23:04:10	30.5.2020, 23:09:06	4 minutes, 56 seconds	unknown	HRS Availability Transmission System is offline
22.5.2020, 15:18:00	22.5.2020, 15:22:46	4 minutes, 46 seconds	unavailable	700 bar H ₂ for cars is unavailable
22.5.2020, 14:28:00	22.5.2020, 15:01:18	35 minutes, 18 seconds	unavailable	700 bar H ₂ for cars is unavailable
22.5.2020, 11:58:00	22.5.2020, 13:58:01	1 hour, 59 minutes	unavailable	700 bar H ₂ for cars is unavailable

HRS Statistics:

Status	Percentage	Total time
not monitored	0.0 %	0 seconds
unknown	22.6 %	100 days, 6 hours
limitedly available	0.0 %	1 hour, 11 minutes
available	58.1 %	249 days, 11 hours
failure	1.0 %	5 days, 11 hours
in maintenance	20.0 %	88 days, 21 hours

Please configure the recording function @ first login



Access to editing functions

Core HRS information

History of problems and current availability status

Statistics since start of the recording

- The default value is set to „disabled“ – no HRS availability information is recorded, no reporting is possible
- If you want to use the reporting function, please activate (enable) the recording function
- If you stop (disable) the recording of the availability information, all historic information will be deleted. It will not be possible to restore this information.

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EDIT HRS MASTER DATA SETS

2 POSSIBLE WAYS TO ACCESS THE EDITOR

Starting from the list of all HRS (HRS registry)

ID	Name	Real-time availability status	Owner	Operator	Construction state	Country	Actions
CSGGK	Porto Airport	in maintenance	ENDA	ENDA	in operation	Portugal	 ↑ 1

Starting from the individual HRS (HRS registry)

HRS: Porto Airport CSGGK

- Edit master data
- Scheduled events
- Schedule event
- Change history
- Reports
- Configure recording

↑ 2

BOTH OPTIONS LEAD TO THE SAME EDITOR TEMPLATE (SEE NEXT SLIDES)

EDIT HRS MASTER DATA SETS (1/3)

HRS LOCATION

Edit HRS: Porto Airport CSGGK

Note: It can take up to 15 minutes for your changes to become publicly visible.

ADDRESS

Street address

Postal code

City

Country*

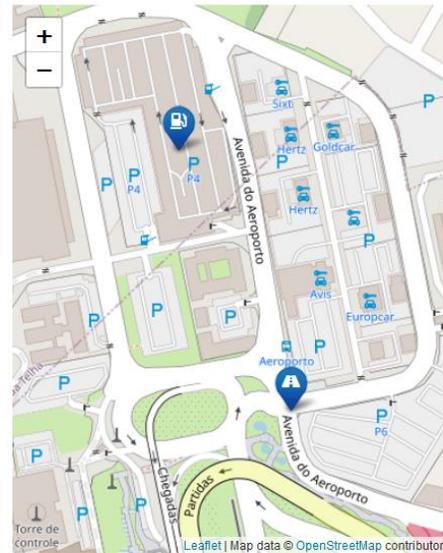
GEOLOCATION

Latitude*

Longitude*

Entrance latitude*

Entrance longitude*



Dragging the markers automatically updates the coordinates to the left.

- The HRS address needs to be filled in. It will be published as text in the API and used to place the HRS on the map
- The GPS information may be inserted as coordinates (if known) or by dragging the icons on the map.
- Two GPS information may be defined:
 - the site address of the HRS
 - the entrance to the site (to be used by car navigation systems), in case the address is misleading

EDIT HRS MASTER DATA SETS (2/3)

HRS SITE INFORMATION

INVOLVED PARTIES

HRS owner: ENDA

HRS operator: ENDA

HRS received funding from: Nothing selected (multiple selections possible)

SITE

Site operator: Acme Corporation

Site amenities: Toilets, Shop

Opening hours: 24/7

OPERATIONAL STATUS

Construction state: in operation

Envisaged date of start of operation: [calendar icon]

Access restriction: restricted access

Explanatory note for the access restriction: Only red cars are permitted to refuel here.

PHOTO



Action: keep

CONTACT

Contact information: [empty text area]

- Select the information from the dropdown list (multiple selections possible by holding CTRL)
- **Upload picture of the HRS** (please ensure you own the picture and give the rights to share it)
- You may add details on access restrictions and contact information that will be communicated to the customers

EDIT HRS MASTER DATA SETS (3/3)

TECHNICAL AND ADMINISTRATIVE INFORMATION

TECHNICAL DATA

Number of 700 bar car dispensers: 1

Number of 350 bar car dispensers: 3

Number of 350 bar bus dispensers: 0

HRS supplier(s): Nothing selected (multiple selections possible)

H: capacity: Nothing selected

Percentage of green hydrogen: [input field]

PAYMENT AND AUTHORIZATION

Payment method(s): Credit card, Invoice via custom fuel card (multiple selections possible)

Authorization method(s): not required (multiple selections possible)

REMARKS

Remarks: [text area]

Update Cancel

- **Mandatory:** set number of dispensers per fuelling option and choose 1 or more payment and authorization methods.
- **Optional:** provide information on HRS suppliers, H2 capacity and the percentage of green hydrogen

DON'T FORGET TO SAVE YOUR CHANGES

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CUSTOMER NOTIFICATIONS

3 POSSIBLE WAYS TO CREATE AND PUBLISH SITE EVENTS

Starting from the dashboard

E-HRS-AS Portal

- Dashboard
- HRS Registry
- Event scheduler
- Reports
- Change history

← 1

Starting from the list of all HRS (HRS registry)

ID	Name	Real-time availability status	Owner	Operator	Construction state	Country	Actions
CSGGK	Porto Airport	in maintenance	ENDA	ENDA	in operation	Portugal	

↑ 2

Starting from the individual HRS data set

HRS: Porto Airport CSGGK

[Edit master data](#)
[Scheduled events](#)
[Schedule event](#)
[Change history](#)
[Reports](#)
[Configure recording](#)

↑ 3

ALL THREE OPTIONS LEAD TO THE SAME EDITOR TEMPLATE (SEE NEXT SLIDES)

SCHEDULE EVENTS

Search Sign out

Create new event

Event list

+ Create new

HRS	Subject	Start date	End date	Availability status override	Status	Actions
Porto Airport	Yearly maintenance activity	June 14, 2020, noon	June 21, 2020, 2 p.m.	unavailable	expired	
Porto Airport	Visit by the ministry for transport	June 22, 2020, 8:30 a.m.	June 22, 2020, 9:30 a.m.	limitedly available	scheduled and announced	

Note: All date and times above are displayed in the time local to the respective HRS.

Access and change scheduled event

EDIT EVENTS

Search Sign out

Edit event Note: It can take up to 15 minutes for your changes to become publicly visible.

HRS* **Override availability status***

Porto Airport (CSGGK) limitedly available

HRS on which the event takes place.
 This overrides the availability status for the duration of the event. It is also used to inform the customers in advance whether they will be able to refuel during this event.

SCHEDULE

Note: The date and times below are to be stated in the local time of the HRS site.

Scheduled start of event* Scheduled end of event Start of customer notifications

06/22/2020 08:30 06/22/2020 09:30 06/14/2020 10:27

Scheduled start of this event. This must lie in the future.
 Scheduled end of this event. If this is not set, it is taken to mean that the event is open-ended.
 Indicates the point in time from which on this event is visible to customers. If this is not set, the notification will immediately be visible to the public.

MESSAGE

Subject*

Visit by the ministry for transport

The subject of the notification becomes visible to customers and should be a concise description of the event.

Message

The HRS will be closed for 60 min. for a press event between 8:30 a.m. and 9:30 a.m.
 Fuellings are possible but need to be announced 30 minutes earlier latest.
 We are sorry for any inconveniences.

Description of this event.

Update Cancel

Select HRS

Assign the HRS availability state to be applied during the event

Schedule start and end time of event

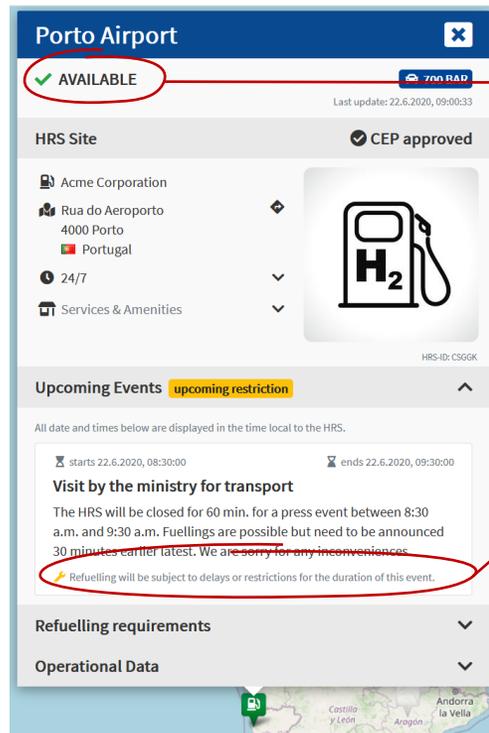
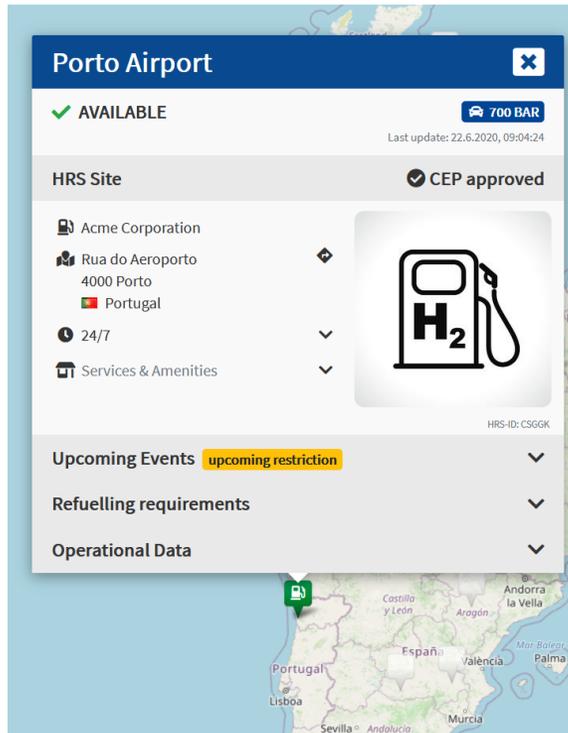
Set the start date of the pre-event customer notification

Title of the notification

Optional: Detailed explanations

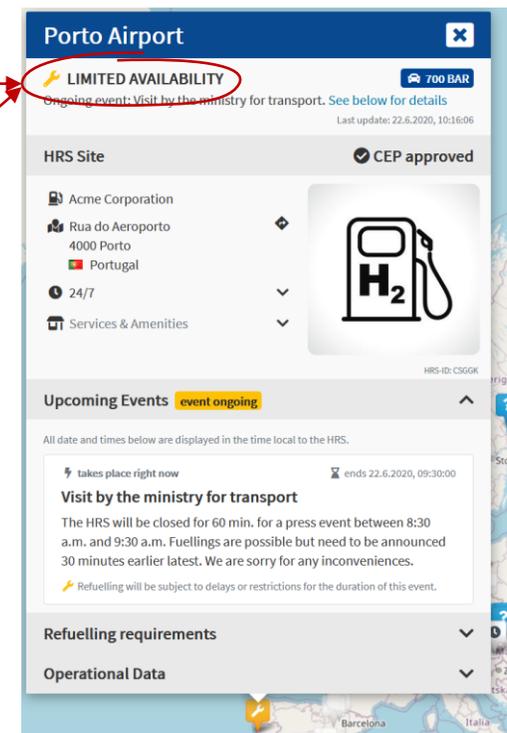
Save and close

PUBLISH EVENTS



Override of real-time availability state during event

Pre-defined state



1 Announcement of upcoming events

2 Notification of ongoing event

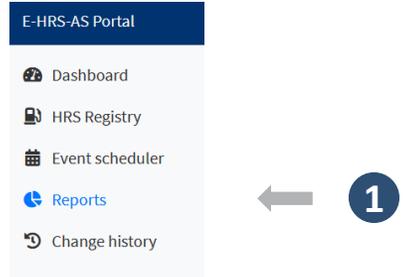
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AVAILABILITY REPORTS

2 POSSIBLE WAYS TO ACCESS AVAILABILITY INFORMATION AND CREATE REPORTS

Starting from the dashboard



Starting from the individual HRS data set

HRS: Porto Airport CSGGK



YOU WILL ONLY BE ABLE TO CREATE REPORTS AFTER YOU HAVE ACTIVATED THE RECORDING FUNCTION!¹

(1) If you deactivate the reporting function, all availability information will be deleted

↑ 2

BOTH OPTIONS LEAD TO THE SAME EDITOR TEMPLATE (SEE NEXT SLIDES)

CREATE REPORTS

Search Sign out

Create report

Configure report parameters

HRS

HRS*

Porto Airport (CSGGK)

Please select the HRS to include in the status report.

Observation Period

Single month Month

Span of months

Single year

Custom period

Note: All date and times above are to be specified in the local time of the HRS.

Create

Select HRS

Select time period

Create report

OVERVIEW ON REPORTING INFORMATION

HRS AVAILABILITY STATISTICS

Search Sign out

Availability status report for HRS: Porto Airport CSGGK

Create new report

HRS Availability Status Report

700 bar 350 bar

SUBJECT

HRS-ID: CSGGK
HRS: Porto Airport
Fuelling option: 700 bar
Observation period: Jan. 1, 2020, midnight – June 22, 2020, 12:27 p.m.
Transmission system(s):

- Type A (transmission ID: 714411) in use: Jan. 1, 2020, midnight – March 20, 2020, 10:53 a.m.
- Type B (transmission ID: CA27E1) in use: March 20, 2020, 10:53 a.m. – June 22, 2020, 1:27 p.m.

KEY PERFORMANCE INDICATORS

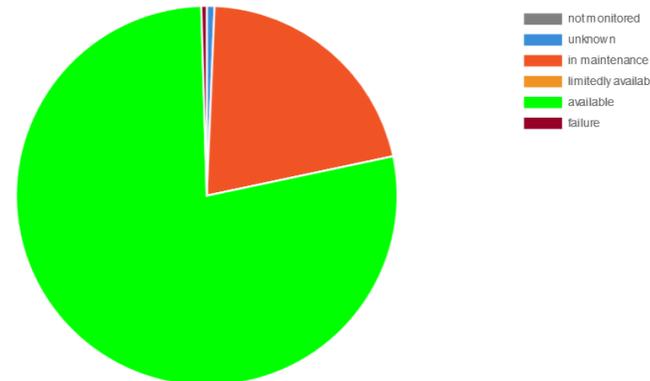
Indicator	Value
number of unavailability events	25
HRS availability	77.9 %
mean unavailability event duration	1 day, 12 hours
mean time between unavailability events	5 days, 5 hours
unavailability event rate	0.008/h
HRS-ATS reliability	99.3 %

AVAILABILITY STATUS DISTRIBUTION

Total elapsed time per HRS status:

Status	Percentage	Total time
not monitored	0.0 %	0 seconds
unknown	0.7 %	1 day, 3 hours
limitedly available	0.0 %	0 seconds
available	77.9 %	135 days, 2 hours
failure	0.5 %	18 hours, 59 minutes
in maintenance	21.0 %	36 days, 11 hours

Total elapsed time shown only includes that within the opening hours of the station.



In case different fuelling options are available, a report will be generated for each fuelling option

„not monitored“ is the time the HRS was not yet connected to the E-HRS-AS or recording was not activated

OVERVIEW ON REPORTING INFORMATION

Search
Sign out

MONTHLY COMPARISON EXPORT AS EXCEL FILE

Key Performance Indicator	2020-01	2020-02	2020-03	2020-04	2020-05	2020-06 (incomplete)
number of unavailability events	4	3	1	6	11	1
HRS availability	92.9 %	45.4 %	37.3 %	98.9 %	98.2 %	99.8 %
mean unavailability event duration	10 hours, 15 minutes	5 days, 7 hours	19 days, 10 hours	1 hour, 14 minutes	1 hour, 7 minutes	32 minutes, 56 seconds
mean time between unavailability events	5 days, 21 hours	4 days, 9 hours	11 days, 14 hours	4 days, 6 hours	2 days, 13 hours	10 days, 17 hours
unavailability event rate	0.007/h	0.009/h	0.004/h	0.010/h	0.016/h	0.004/h
HRS-ATS reliability	96.8 %	99.94 %	99.98 %	99.94 %	99.8 %	99.8 %

Availability status

not monitored	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
unknown	3.2 %	0.1 %	0.0 %	0.1 %	0.2 %	0.2 %
limitedly available	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
available	92.9 %	45.4 %	37.3 %	98.9 %	98.2 %	99.8 %
failure	0.0 %	0.0 %	0.0 %	1.0 %	1.6 %	0.0 %
in maintenance	3.9 %	54.5 %	62.7 %	0.0 %	0.0 %	0.0 %

PROBLEM HISTORY EXPORT AS EXCEL FILE

Start date	End date	Duration	Public availability status	HRS-ATS status	Maintenance status	700 bar H ₂ for cars availability	350 bar H ₂ for cars availability
16.1.2020, 14:35:41	17.1.2020, 12:50:11	22 hours, 15 minutes	unknown	offline			
17.1.2020, 12:50:11	17.1.2020, 12:50:25	14 seconds	unknown	online	not in maintenance	unknown	available
17.1.2020, 13:01:03	17.1.2020, 13:02:03	1 minute	unavailable	online	in maintenance	available	available
22.1.2020, 07:35:03	22.1.2020, 10:01:35	2 hours, 27 minutes	unavailable	online	in maintenance	available	available
22.1.2020, 10:01:35	22.1.2020, 10:02:24	49 seconds	unavailable	online	in maintenance	available	unavailable
22.1.2020, 10:02:24	22.1.2020, 10:16:06	13 minutes, 42 seconds	unavailable	online	in maintenance	unavailable	unavailable
22.1.2020, 10:16:06	22.1.2020, 10:17:05	59 seconds	unavailable	online	in maintenance	unavailable	available
22.1.2020, 10:17:05	23.1.2020, 12:35:03	1 day, 2 hours	unavailable	online	in maintenance	available	available
21.6.2020, 22:02:10	21.6.2020, 22:03:05	55 seconds	unknown	offline			

Download PDF report

Export data as an Excel

Monthly breakdown of availability information („incomplete“ means the month is still ongoing)

Export data as an Excel

Problem history for the selected time period (all fueling options)

Download PDF report

The PDF version of the report contains both the availability distribution and the key performance indicators separately for each available refuelling option. The list of unavailability events may be appended to the PDF report by selecting the option „Include list of unavailability events“ below.

This report is suitable to be handed in to FCH JU to fulfil reporting obligations.

OPTIONS

- Include photo
- Include list of unavailability events
- Include section to add comments for each unavailability event

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CHANGE HISTORY

List of changes to the HRS master data set or other related information.

E-HRS-AS Portal

- Dashboard
- HRS Registry
- Event scheduler
- Reports
- Change history**



Search Sign out

Change history

HRS	Date	User	Action
Porto Airport	22.6.2020, 13:42:38		Changed payment_methods and percentage_of_green_hydrogen.
Porto Airport	16.5.2019, 17:47:23	Tomas Bayer	Changed site_amenities.

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SUPPORT

IN CASE YOU HAVE ANY QUESTIONS OR NEED SUPPORT PLEASE CONTACT



E-HRS-AS@clean-hydrogen.europa.eu