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The European Cloud Computing Hub  
to grow a sustainable and comprehensive ecosystem

## D2.4: Outreach and Engagement Report

Version 1

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## Abstract

This deliverable documents the community building and promotional activities, including the events organisation and participation conducted by HUBCLOUD in the first year of the project, and provides an overview of the planned activities for the second year. Several activities, in particular events and community building actions have been affected by the pandemic. HUB4CLOUD has therefore mitigated the impact organizing activities online which are described in this document.

**Keywords:** Communication, Community building, Dissemination, outreach, online promotion, social media, events

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PU	Public, fully open, e.g. web	√
CI	Classified, information as referred to in Commission Decision 2001/844/EC	
CO	Confidential to HUB4CLOUD project and Commission Services	

\* *R: Document, report (excluding the periodic and final reports)*  
*DEM: Demonstrator, pilot, prototype, plan designs*  
*DEC: Websites, patents filing, press & media actions, videos, etc.*  
*OTHER: Software, technical diagram, etc*

## EXECUTIVE SUMMARY

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This document summarises the HUB4CLOUD community building, communication and dissemination activities as well as events organisation and participation carried out in the first and second phase of the project (1st of January 2021 – 30th of November 2021) and outlines the future actions for the remaining part of the second phase and for the third phase of the project. The report builds upon the HUB4CLOUD Strengthening Outreach of European Cloud Computing Efforts (D2.1) released in August 2021, and its set of Key Performance Indicators (KPIs) by providing data for each element.

Several activities, in particular events and community building actions have been affected by the pandemic. H4CLOUD has therefore mitigated the impact organizing activities online which are described in this document.

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## ABBREVIATIONS

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AI	Artificial Intelligence
CC	Cloud computing
CSA	Coordination and support action
D	Deliverable
DOA	Description of Action
EC	European Commission
ECC	European Cloud Computing
H2020	Horizon 2020 framework programme
ICT	Information and Communication Technology
KPI	Key performance indicators
M	Month
RIA	Research and Innovation Action
SME	Small and medium sized enterprises
WP	Work Package

# 1 INTRODUCTION

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Community building, communication, dissemination, and knowledge sharing are central to HUB4CLOUD and are closely coordinated across the various work packages (WPs) to create a cohesive plan of action for the effective engagement of all target stakeholders. HUB4CLOUD content, tools, actions and events contribute to an understanding of the European Cloud Computing market, community and future trends. HUB4CLOUD will pursue and ensure close coordination with the EC, various ongoing relevant H2020 projects/initiatives and other relevant European initiatives.

This document reports on the activities that have been pursued from the start of the project in January 2021 until November 2021. As the project started during the Covid pandemic, its activities, particularly the events and the community building actions were mitigated by managing and executing these activities online. This report also presents a series of action planned for the remaining part of the project (December 2021 – end of the project, June 2022). The grounding of such activities was clearly defined and guided by both the Description of Action (DoA) and Deliverable D2.1 *Strengthening Outreach of European Cloud Computing Efforts*.

To further detail the dissemination and communication activities conducted during the first year and the plan for the year to come, the remaining part of the document is organised as follows:

- Section 2 focuses on activities undertaken and followed in the first year of the project.
- Section 3 foresees planned activities in the second year of the H-CLOUD project.

## 1.1 Community building and communication strategy

As outlined in D2.1, Strengthening Outreach of European Cloud Computing Efforts, the main objectives of the HUB4CLOUD community building and communication strategy are to:

- Support the communication and dissemination activities of the European Cloud Computing initiative, while echoing efforts also of other key players in the ECC ecosystem.
  - Development of a well-organised and exhaustive cloud stakeholder's database.
  - Promotion of exchange programmes, prizes, challenges, open calls, success stories and any other asset (methodologies, tools, publications, etc.) produced across the ECC ecosystem and made available via the H-CLOUD portal or other channels as deemed appropriate.
  - Orchestration of common dissemination and communication activities, including preparation of material presenting the overall programme, common press releases, joint position/white papers, etc., organisation of events, best practices exchange, promotion of ECC technologies.
- **Encourage the participation of ECC stakeholders in the H-CLOUD Forum**, extending it further to include new players, liaising with existing networks and online communities.
- **Facilitate accessibility to ECC projects' outputs** to foster increased adoption of CC concepts and technologies in Europe, giving major impulse to the Digital Single Market objectives.
- To ensure the growth and sustainability of the ECC community by engaging stakeholders, facilitating participation for newcomers, fostering knowledge exchange, organising dedicated events, while promoting main achievements via targeted dissemination and outreach efforts.

HUB4CLOUD operates in this sense by joining forces with other ongoing ECC projects, clusters and initiatives, particularly by complementing and extending community building and outreach activities already underway within the ongoing H-CLOUD CSA and liaising with the SWForum.eu CSA.

The H-CLOUD CSA is also coordinated by Martel Innovate and HUB4CLOUD closely follows the activities and advancements of H-CLOUD. There is emphasis on complementarity of H-CLOUD and HUB4CLOUD activities. The topics of both projects are different but complementary in order to provide a holistic support and direction to the European Cloud community.

SWForum is the CSA focusing on software technologies and development. The coordinators of SWForum CSA is Tecnalía which is a partner in the HUB4CLOUD consortium. HUB4CLOUD is in complete synchronicity with SWForum's activities and we are joining forces in activities as and when seen fit in order to provide support to both communities.

The following target groups identified in an early stage of the project have been reached through several media channels and communication actions:

1. **CC funded projects, including ICT-40 RIAs:** Initiatives and organisations involved in these past and ongoing initiatives.
2. **AI industrial and academic researchers:** Researchers from industry and academia.
3. **CC users:** Developers in the CC landscape; technology providers.
4. **CC SMEs & Start-ups:** Public and private organisations and Start-ups/SMEs, innovators.
5. **Policy makers and public authorities:** Actors committed to support the development of the full economic potential of Europe.
6. **CC end users industries:** Non-ICT professionals who could benefit of CC applications and tools at use.
7. **Standardization bodies / open source communities:** Standardisation organisations, working groups, research groups.

## 2 HUB4CLOUD OUTREACH AND ENGAGEMENT ACCOMPLISHMENTS (JAN 2021 – NOV 2021)

Following the objectives and planned activities detailed in D2.1, HUB4CLOUD has been involved in several dissemination and communication activities, led by MARTEL (Leader of WP2). HUB4CLOUD uses the same communication and dissemination channels as its sister-CSA H-CLOUD in order to avoid segregation of the European cloud community and prevent fragmentation of efforts and resources. The activities of HUB4CLOUD complement that of H-CLOUD in order to support an informed, robust and vibrant European cloud community.

During the period covered by this report (M1 – M11), the consortium initiated and continued the promotion of the European cloud computing projects that HUB4CLOUD is supporting in addition to promotion of its own results, mainly including the following:

1. Publishing articles on the project website
2. Promoting project and project related outcomes on the Twitter, LinkedIn and YouTube account
3. Building and extending the project community
4. Developing and distributing the quarterly HORIZON CLOUD newsletter
5. Organising webinars and workshops
6. Creating promotional materials including videos and presentations
7. Publishing project publications
8. Co-organising the main flagship event, HORIZON CLOUD SUMMIT 2021

Key Performance Indicators (KPIs) were identified at the beginning of the project to set the expected achievable qualitative and quantitative communication and dissemination targets of HUB4CLOUD. In this document, we measure the progress and impact of the conducted activities based on these metrics. Table 1 below presents the KPIs and the results achieved at M11 for each type of the communication activities.

Table 1: HUB4CLOUD Communication KPIs

Measure	Indicator	Target	Current (M11)	Source & Methodology
Flyers Posters/roll-ups	N. of flyers N. of posters/roll-ups (By the end of the project)	$\geq 4$ $\geq 4$	Since we organised so far online events, these promotional materials are not printed.	Distribution via participation to and organisation of dedicated events. Electronic distribution via the project website
H-CLOUD Portal	N. of unique visitors to the website (average per year)	$\geq 2,500$	1,281 (plan to achieve the target KPI below in section 2.2)	News, Publications, Videos, Newsletters,

				Deliverables, webinars, etc.
H-CLOUD Forum online community	N. of new registered members in the Forum (Average per year)	300 (year 1) ≥ 450 (year 2) ≥ 600 (year 3)	76 (Plan to achieve the target KPI in section 2.7)	Promotion via all online and offline channels, presentations, newsletters, webinars, periodic promo campaigns
Social Networks	- N. of followers Twitter -N. of members on LinkedIn Group -N. of video views on YouTube channel (Average per year)	≥ 700 ≥ 200 ≥ 200	Twitter – 350 Followers since Jan 2021 (total 574 Followers)  LinkedIn - 165 members  3215 views on YouTube	Keeping H-CLOUD profiles on such networks active via regular posting and monitoring
e-Newsletter (Published every 3 months)	N. of subscribers (By the end of the project)	≥ 700	344 subscribers	Recording of subscribers to the electronic newsletter
Videos	N. of videos published on the H-CLOUD YouTube channel	≥15	11 HUB4CLOUD specific videos out of total 32 videos	Introduction, informative and interviews' videos to support awareness creation and stakeholders' engagement
Participation in events	Number of external events partners attended	≥12	3	Attendance proof, presented material, photos, animation of social media channels, events' reports
Events organisation	Number of workshops engaging invited experts on topics relevant to WP1 and WP3	3 workshops 20-30 people per workshop	3	Presentations, informative and promotional material, reports, photos, videos
Webinars (at least 15 by the end of the project)	Average number of participants	~ 25-30 participants per webinar	4 webinars	Attendance proof, video-streaming, presented material, animation of social media channels

The following Table 2 summarises the Deliverables and Milestones within WP2 that have been achieved so far by November 2021 (M11).

*Table 2: HUB4CLOUD Communication Deliverables and Milestones*

Number	Name	Lead	Type	Diss. Level	Due	Status
D2.1	Strengthening outreach of European Cloud Computing efforts	Martel	Report	PU	M04	Completed
D2.2	H-CLOUD Forum demographics and evolution	Atos	Report	PU	M09	Pending
D2.4	Outreach and Engagement Report	Martel	Report	PU	M09	Current document
MS2	Community building and communication strategy	Martel	Report	PU	M04	Completed

## 2.1 Project Logo and Template

As described in detail in D2.1, promotional material such as the project logo, project presentation, PowerPoint templates and deliverable templates have been produced and made available to all partners since the beginning of the project. For HUB4CLOUD own organised events and presentations, the HUB4CLOUD specific template and logo is used. If however, the activity is a joint effort of HUB4CLOUD and H-CLOUD, the HORIZON CLOUD logo and template is used. The HORIZON CLOUD logo is shown in figure 1 below.



Figure 1: Horizon Cloud logo

## 2.2 HORIZON CLOUD WEBSITE

The HUB4CLOUD project web portal (see Figure 2) is a fully functional web portal that contains comprehensive information on the various CC RIAs under the two CSAs (H-CLOUD & HUB4CLOUD). The website went over a complete makeover in the last 2 months and new format was launched after the recommendation received from the H-CLOUD (HUB4CLOUD's sister project) project review. The EC envisioned the H-CLOUD/HUB4CLOUD web portal to be the cloud computing portal in Europe. The requirement suggested that the website be a one-stop-location for all ECC related information, for business as well as research related searches. The content of the website is agreed by both CSA's target topics and stakeholders and has been agreed by both consortia.

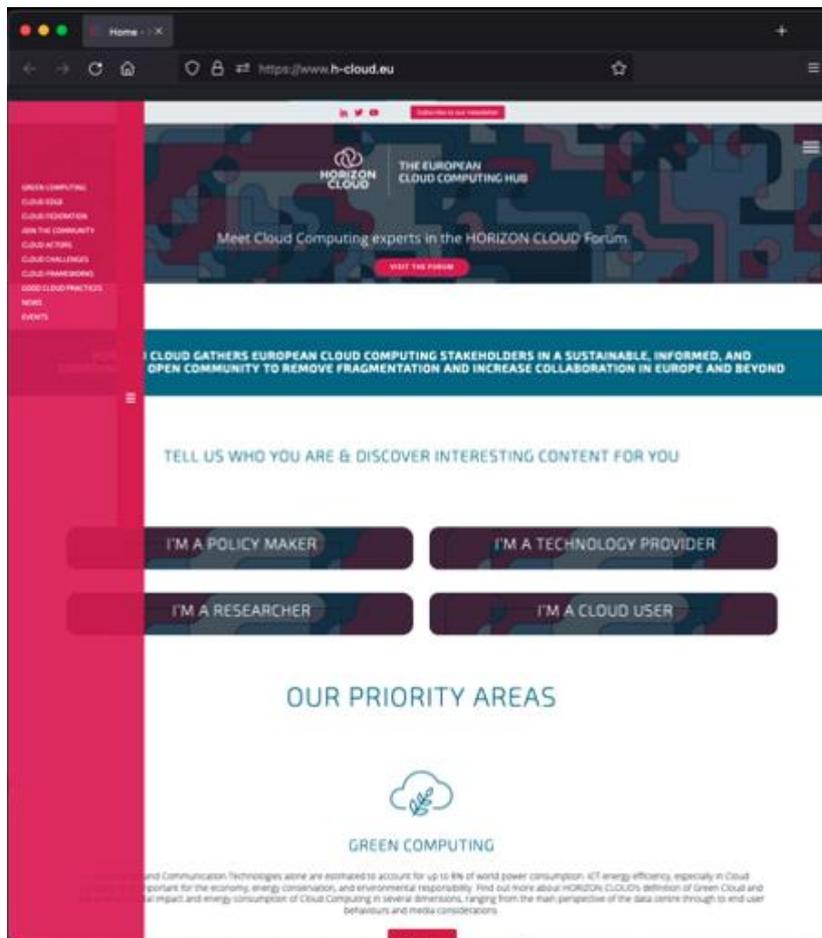


Figure 2: Horizon Cloud website landing page

As one of the main dissemination channels and dynamic tools, the website is constantly streamlined, and is continuously updated throughout the running of the project.

The data shown in the Figure 3 below is from **January 2021, from the start of the HUB4CLOUD project (until 23.11.2021)**. The website has a **total of 1,281 visits, where 1,247 are new users. There have been 6,500 page views where a user spent an average of 2 mins 14 seconds on the pages.** The increased generated web traffic shows a clear interest in the project's topics.

Page ?	Page Views ? ↓	Unique Page Views ?	Avg. Time on Page ?
	<b>6,500</b> % of Total: 100.00% (6,500)	<b>5,309</b> % of Total: 100.00% (5,309)	<b>00:01:43</b> Avg for View: 00:01:43 (0.00%)
1. /	<b>1,082</b> (16.65%)	<b>849</b> (15.99%)	00:01:28
2. /projects/research-innovation/	<b>392</b> (6.03%)	<b>244</b> (4.60%)	00:01:23
3. /about/	<b>378</b> (5.82%)	<b>314</b> (5.91%)	00:01:35
4. /events/	<b>359</b> (5.52%)	<b>260</b> (4.90%)	00:00:37
5. /projects/coordination-support/	<b>203</b> (3.12%)	<b>154</b> (2.90%)	00:00:23
6. /projects/	<b>195</b> (3.00%)	<b>160</b> (3.01%)	00:01:11
7. /event/h-cloud-technical-community-event/?instance_id=58	<b>180</b> (2.77%)	<b>134</b> (2.52%)	00:03:15
8. /deliverables/	<b>166</b> (2.55%)	<b>134</b> (2.52%)	00:02:22
9. /news/digital-autonomy-in-the-computing-continuum/	<b>166</b> (2.55%)	<b>142</b> (2.67%)	00:02:24
10. /event/h-cloud-technical-community-event/	<b>153</b> (2.35%)	<b>121</b> (2.28%)	00:03:21
11. /news/	<b>152</b> (2.34%)	<b>120</b> (2.26%)	00:00:53
12. /forum/	<b>144</b> (2.22%)	<b>125</b> (2.35%)	00:02:47
13. /ict_40-projects/hub4cloud/	<b>128</b> (1.97%)	<b>112</b> (2.11%)	00:01:40
14. /news/call-for-submissions-horizon-cloud-summer-2021/	<b>92</b> (1.42%)	<b>59</b> (1.11%)	00:03:19
15. /cloud-initiatives/	<b>86</b> (1.32%)	<b>73</b> (1.38%)	00:01:33
16. /publications/	<b>82</b> (1.26%)	<b>71</b> (1.34%)	00:01:39
17. /subscription/	<b>79</b> (1.22%)	<b>57</b> (1.07%)	00:02:12
18. /contact/	<b>73</b> (1.12%)	<b>64</b> (1.21%)	00:01:05
19. /videos/	<b>72</b> (1.11%)	<b>59</b> (1.11%)	00:04:17
20. /liaised-projects/	<b>70</b> (1.08%)	<b>61</b> (1.15%)	00:00:22

Figure 3: Website most visited pages

In the Figure 4 below, it is interesting to see the peaks, clearly during the time of when HUB4CLOUD's supported ICT40 RIAs were onboarded in the early months of February 2021 to April 2021. After a relatively quiet summer, we again see peaks which correspond to the very active period for both CSAs, H-CLOUD and HUB4CLOUD in terms of events organisation.

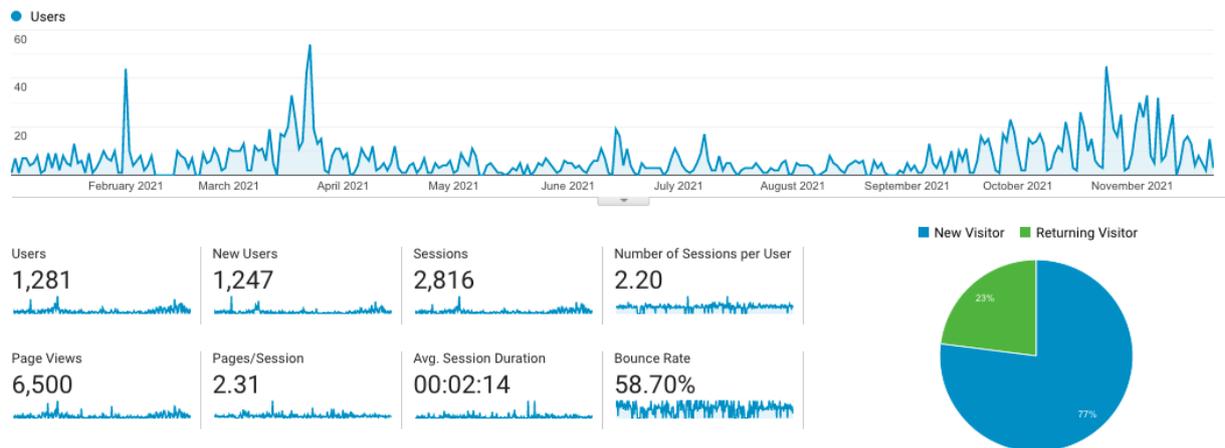


Figure 4: Website activity during important events

HUB4CLOUD targets to achieve 2500 (and more) visits on its portal by the end of the project. So far, we have achieved 1281 visits. There was a complete make-over of the H-CLOUD portal in May 2021, as per the review comments from the H-CLOUD project. An emphasis is given on the topics of the projects in order to serve the different cloud stakeholder and the kind of information they are looking for. HUB4CLOUD did not have content on its own topics, e.g., open source, (pre) standardization activities, cloud business modelling, cloud innovation and acceleration. Currently content is being created to be added into the portal which will gain traction in the coming months.

## 2.3 HUB4CLOUD SOCIAL MEDIA CHANNELS

HUB4CLOUD is continuing the online communication, dissemination and promotional activities via the same social media channels as of H-CLOUD. These communication tools are established in order to promote activities and outputs of the project on a regular basis, while also encouraging a wider discussion on the topics related to CC activities.

HUB4CLOUD has created an active presence on the most popular social media channels, such as Twitter and LinkedIn and YouTube, which are linked to the project's website.

### 2.3.1 HORIZON CLOUD LinkedIn Group

The HORIZON CLOUD LinkedIn Group (<https://www.linkedin.com/groups/8852793/>) allows reaching a professional audience with more elaborated news and/or specific events highlights. The LinkedIn group counts at the time of writing (mid November 2021) **165 members**. Figure 5 shows the current homepage of HORIZON CLOUD's LinkedIn group. We engage all the ECC projects in the dialogue on this platform, while promoting the H-CLOUD and HUB4CLOUD initiatives across LinkedIn relevant groups, with a direct link to this group, to further increase this social media audience and diversify the group's user base, engaging more vertical representatives/managers.

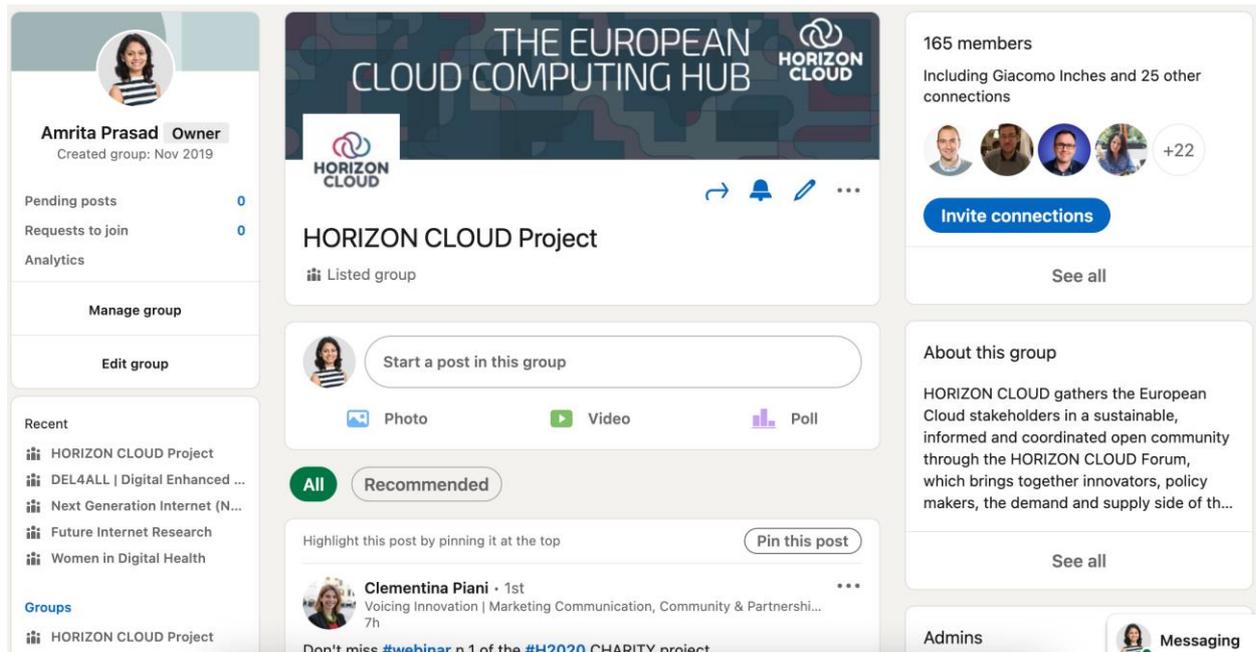


Figure 5: HORIZON CLOUD LinkedIn Group page

### 2.3.2 HORIZON CLOUD Twitter account

HUB4CLOUD uses Twitter, as it is a very dynamic social network that covers the news in real-time at a global level. So far, HUB4CLOUD's Twitter account, same as H-CLOUD's (@H-CLOUD\_Project) has attracted **574 followers** (including project partners, similar projects, interested stakeholders, etc). From January 2021, since the HUB4CLOUD project kicked-off, this twitter handle has gained **350 followers**. This delta is an important number in order to show that HUB4CLOUD specific topics, activities, results and content is relevant to the community and is sought after by cloud practitioners.

The Twitter account is used for promoting and disseminating the development of H-CLOUD and HUB4CLOUD, including news, events, outcomes, etc. Moreover, re-tweets are made of relevant and interesting content from disparate sources.

**654 tweets** were posted, in total, since HUB4CLOUD's kick-off in January 2021. The total number of tweets since the beginning of this account is **1529**. During the early project months (February 2021 – May 2021), HUB4CLOUD was onboarding the ICT-40 RIAs and ran promotional campaigns for these European cloud computing projects. On average there were approximately **540K impressions** every month.

In May 2021, HUB4CLOUD Advisory Board members were published on the website and announced via twitter. This single tweet earned **2975 impressions**.

In the same month, an ICT-40 RIA's tag earned 44 engagements. Both these were top actions of the month that led to a gain of **241 new followers** in May 2021. Figure 6 below gives a snapshot of these specific activities.

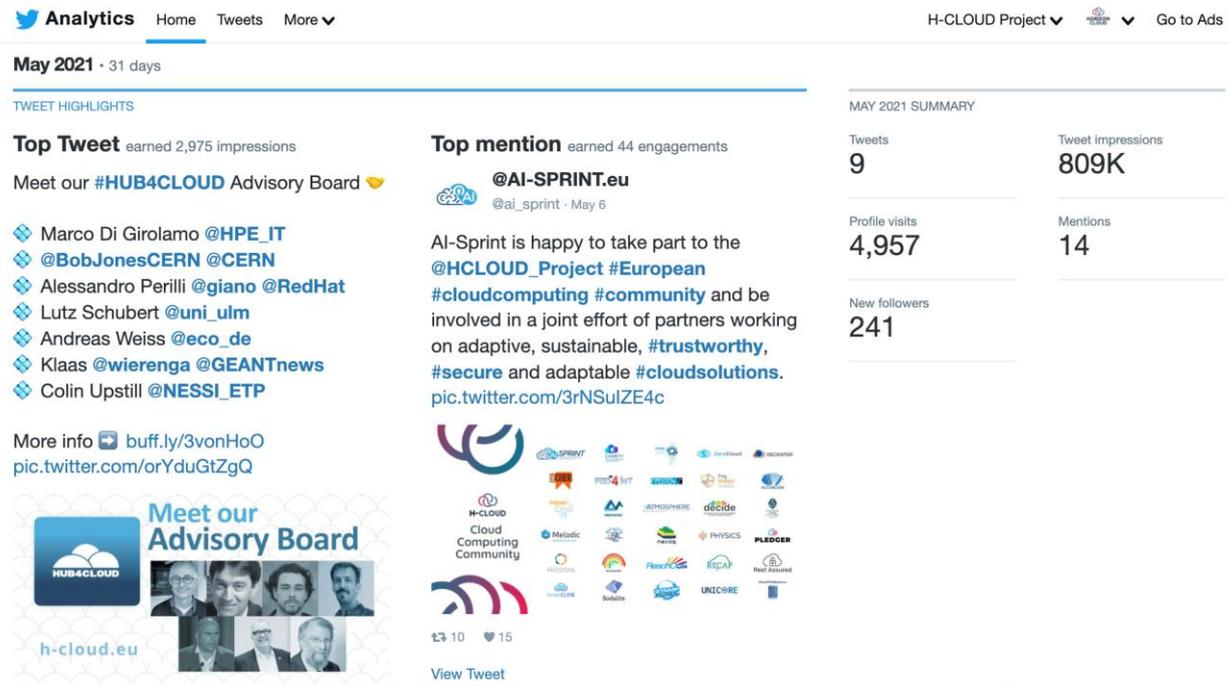


Figure 6: HUB4CLOUD specific Twitter analytics

Figure 7 below shows the HORIZON CLOUD Twitter homepage.



Figure 7: Homepage of the HORIZON CLOUD Twitter account

### 2.3.3 HORIZON CLOUD YOUTUBE CHANNEL

HUB4CLOUD maintains a YouTube channel, together with H-CLOUD, to disseminate the project's vision, concepts, and objectives by sharing project videos, such as recorded project events with the project's YouTube subscribers, engaged stakeholders and the public. HUB4CLOUD runs an interview series with distinguished European cloud stakeholders. At the time of the writing of this document, HUB4CLOUD has published 4 such interview videos. Following are the key stakeholders whose interview have been published until November 2021.

- Johan Tordsson, CTO Elasticsys and Christian Klein, Senior Cloud Architect Elasticsys
- Pierre Gronlier, CTO GAIA-X
- Michael Leibfried, Solution Architect RedHat
- Rob Gibbon, Product Manager Canonical
- Carlos Valero Iara, Digital Architecture Director NTT DATA

The HORIZON CLOUD YouTube channel has **3,215 views** and features 11 HUB4CLOUD specific videos out of a total of 32 videos at the time of writing this report. In the figure 8 below there is a clear peak in YouTube views from August 2021 when the first HUB4CLOUD interview video was published. Since August there have been 4 interview videos published, along with recordings of the events. All videos curated by HUB4CLOUD are also published on the website, here <https://www.h-cloud.eu/videos/>.

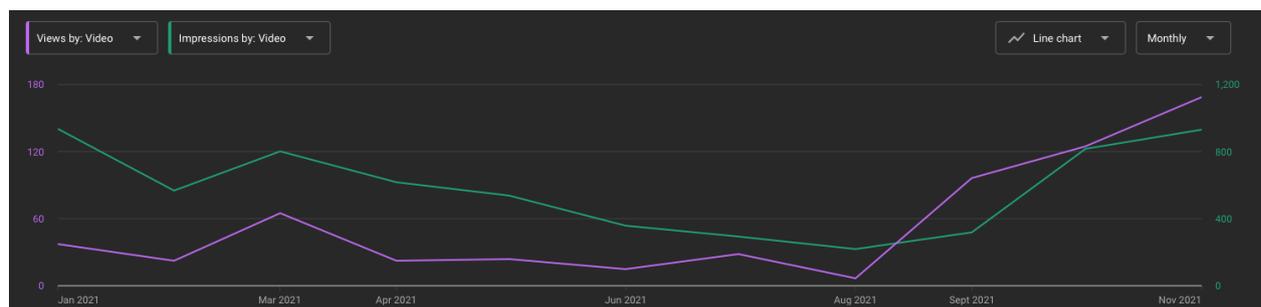


Figure 8: HORIZON CLOUD YouTube analytics

## 2.4 HORIZON CLOUD NEWSLETTER

An e-newsletter is produced by both CSAs on a quarterly basis, which provides regular updates on trends of CC research and innovation practices, project findings and results, news from industrial partners, among others. The newsletters also contain information regarding the upcoming tasks and events to inform the audience on how they can get in touch with the project and the connected initiatives. As such, a typical e-newsletter of the project contains highlights (major outcomes, links, contacts, and dissemination activities), the most important news, announcements and a schedule of the major upcoming events. Project partners provide information for the e-newsletter and ensure that the content is accurate. All the e-newsletter issues are uploaded on the project website.

**Currently there are 344 newsletter subscribers.** Following is the outreach of each of the published e-newsletters and the Figure 8 showing the appearance of the last newsletter.

Since HUB4CLOUD kicked off, there have been 3 newsletter editions published. The table 3 below shows the newsletter statistics.

*Table 3: HORIZON CLOUD Newsletter Outreach by Editions*

Criteria	Issue 4 Mar 2021	Issue 5 Jul 2021	Issue 6 Oct 2021
No. of subscribers	214	239	302
Total of opens	83	90	130
Total clicks on links	19	38	25

Below, Figure 9, is the image of the last published newsletter.

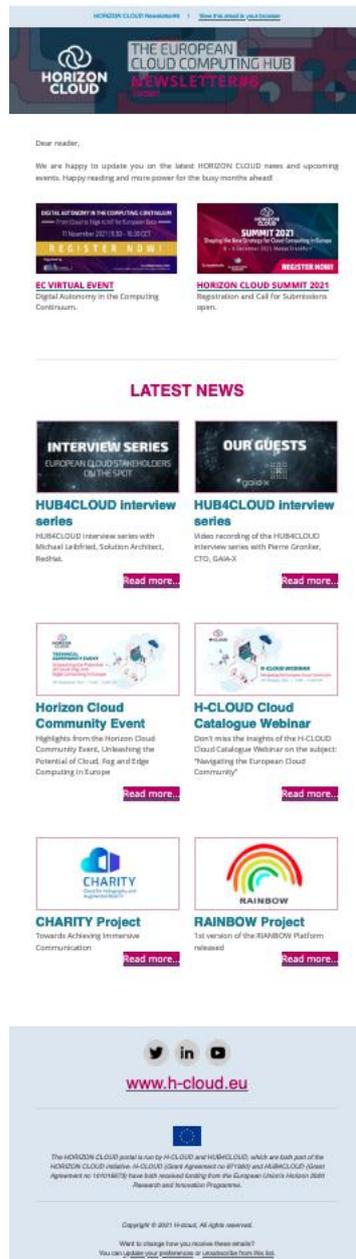


Figure 9: HORIZON CLOUD Newsletter edition 6

## 2.5 e-Publications

Since the start of the HUB4CLOUD project, we have created several e-publications and news items, several videos to promote and summarise each of our events and news from the community.

All materials are all available on the [HORIZON CLOUD social media page](#), and on the project website under the following links:

- [Events](#)
- [News](#)

- [Press Releases & Reports](#)
- [Videos](#)

## 2.6 HUB4CLOUD surveys

HUB4CLOUD has conducted 2 surveys to gain important insights from the European Cloud Community. One of the surveys focused on the analysis of European Cloud Community impact and success (Task 1.3 → D1.4). The next survey was focused on the business opportunities, IPR and acceleration opportunities (Task 3.2 → D3.3). These surveys were conducted as part of HUB4CLOUD Work Packages 1 and 3. and have been reported in the respective deliverables, also published on the website here, <https://www.h-cloud.eu/deliverables/#1612856408665-c027dbdb-3a1e>.

D1.4 Contributing to European Cloud Computing Strategic Research and Innovation Agenda  
D3.3 Recommendations for Cloud Computing Business Modelling, Analysis and Acceleration

## 2.7 HORIZON CLOUD FORUM

The H-CLOUD Forum aims to connect cloud stakeholders, increase awareness and collaboration across different stakeholder groups, provide cross-fertilisation opportunities and stimulate the adoption of research and innovation outputs so as to ensure technological sovereignty and global competitiveness of Europe.

Currently the Forum has 76 members. The Forum platform is used to disseminate news from the Horizon Cloud computing projects, results, events, call for submission for events.

A detailed report on the Forum demographics and animation is part of HUB4CLOUD Task 2.1 and will be reported under D2.2 H-CLOUD Forum Demographics and Evolution. This deliverable will also explain the Forum animation in order to gain more members and increased engagement.

## 2.8 HUB4CLOUD Webinars

As HUB4CLOUD joined hands with H-CLOUD project, the aim was to pool forces in maximising the outreach of the European cloud computing efforts. We complemented the activities of H-CLOUD by adding on with our own topics, that are Open Source, Standardization, business model innovation and acceleration, and Cloud Computing skill gaps.

HUB4CLOUD brought under its umbrella the ICT-40 RIAs incorporated in the same Horizon Cloud community that is represented by the joint Horizon Cloud Communication Task Force. One of the main goals of HUB4CLOUD is to provide a voice, a platform for the European cloud research and initiatives by amplifying their activities and results. In doing so, we are organising Technical Community Events. These webinar kind of events are truly by the community and for the community. The represented RIAs are given a platform to present in a workshop their project's findings and results.

The first Technical Community Event was organised on 23<sup>rd</sup> March 2021, where HUB4CLOUD project was welcomed in the community as a co-lead of activities and support actions. The feedback of the first Technical Community event was very positive and was decided to make these webinars a regular activity of the HORIZON CLOUD initiative (joint activity of H-CLOUD and HUB4CLOUD).

Up until now 4 Technical community events have been organised.

### 2.8.1 H-CLOUD Technical Community Event, 23.03.2021

72 cloud stakeholders participated in this webinar. RIAs Projects that participated in the event were, RADON, UNICORE, ACCORDION, PLEDGER, ONEdge and MORPHEMIC. Each of the presentations were scheduled for a duration of 10 minutes.

The event webpage is found here, [https://www.h-cloud.eu/event/h-cloud-technical-community-event/?instance\\_id=58](https://www.h-cloud.eu/event/h-cloud-technical-community-event/?instance_id=58).

A detailed report was published after the event including the presentations and the video conference recording. The report is published on the website here, <https://www.h-cloud.eu/news/insights-from-the-first-h-cloud-technical-community-event/>.

Several social media posts were made on the Horizon Cloud associated channel and fora, e.g. <https://www.linkedin.com/feed/update/urn:li:activity:6775792464319025153>.

Below, figure 10 shows the social media card that we prepared for the promotion of the event.

# H-CLOUD Technical Community Event

## REGISTER NOW!

March 23, 09:30 am – 12:30 pm CET



Figure 10: HORIZON CLOUD Technical Community Event, March 2021

### 2.8.2 HORIZON CLOUD Technical Community Event, 15.06.2021 – Open-Source Initiatives for Cloud Computing

43 cloud stakeholders participated in this event. This particular event was part of the Technical community event, however focused specifically on HUB4CLOUD topic of “cloud open-source initiatives and activities”. Representatives from Open-Source organisations like Sovereign Cloud Stack, OpenNebula and ECLIPSE Foundation were invited as speakers.

The event webpage is found here, [https://www.h-cloud.eu/event/horizon-cloud-community-event/?instance\\_id=73](https://www.h-cloud.eu/event/horizon-cloud-community-event/?instance_id=73).

A detailed report of the event, published afterwards, including presentations and the video conference recording is found on the website here, <https://www.h-cloud.eu/news/highlights-of-the-horizon-cloud-community-event-on-open-source-cloud-initiatives/>.

Here is an example of the social media posts we made for the event on the appropriate channels, <https://www.linkedin.com/feed/update/urn:li:activity:6811583786153734144>,

[https://twitter.com/HCLOUD\\_Project/status/1404809299046633481](https://twitter.com/HCLOUD_Project/status/1404809299046633481)

Below, figure 11 shows the social media card that we prepared for the promotion of the event.



Figure 11: HORIZON CLOUD Technical Community Event, June 2021

### 2.8.3 HORIZON CLOUD Technical Community Event, 29.09.2021 – Unleashing the Potential of Cloud, Fog and Edge Computing in Europe

35 cloud stakeholders participated in this workshop, which was jointly presented by the RAINBOW and the PLEDGER projects.

The event registration page on the website is found here, [https://www.h-cloud.eu/event/h-cloud-technical-community-event-unleashing-the-potential-of-cloud-fog-and-edge-computing-in-europe/?instance\\_id=113](https://www.h-cloud.eu/event/h-cloud-technical-community-event-unleashing-the-potential-of-cloud-fog-and-edge-computing-in-europe/?instance_id=113).

A detailed report of the workshop including presentations and the zoom recording is published on the website here, <https://www.h-cloud.eu/news/highlights-from-the-horizon-cloud-technical-community-event-unleashing-the-potential-of-cloud-fog-and-edge-computing-in-europe/>.

Here is an example of the social media posts that we made for the event, <https://www.linkedin.com/feed/update/urn:li:activity:6848203727808143360>, [https://twitter.com/HCLOUD\\_Project/status/1443215877856501760](https://twitter.com/HCLOUD_Project/status/1443215877856501760)

Below, figure 12 shows the social media card that we prepared for the promotion of the event.



Figure 12: HORIZON CLOUD Technical Community Event, September 2021

#### 2.8.4 HORIZON CLOUD Technical Community Event, 26.10.2021 - Proactive and polymorphic adaptation of multi-cloud deployments

This workshop was organised by the project MORPHEMIC, and showed the MELODIC platform usecase.

The event registration page is found here, [https://www.h-cloud.eu/event/horizon-cloud-technical-community-event-proactive-and-polymorphic-adaptation-of-multi-cloud-deployments/?instance\\_id=121](https://www.h-cloud.eu/event/horizon-cloud-technical-community-event-proactive-and-polymorphic-adaptation-of-multi-cloud-deployments/?instance_id=121) .

A detailed report of the workshop including the presentations and the zoom recording is published on the website here, <https://www.h-cloud.eu/news/insights-from-the-horizon-cloud-october-community-event-feat-morphemic/>.

Here is an example of the social media post that we made for the workshop., <https://www.linkedin.com/feed/update/urn:li:activity:6851865109824868352> and [https://twitter.com/HCLOUD\\_Project/status/1452997003902914575](https://twitter.com/HCLOUD_Project/status/1452997003902914575)

Below, figure 13 shows the social media card that we prepared for the promotion of the event.



Figure 13: HORIZON CLOUD Technical Community Event, September 2021

## 2.9 HUB4CLOUD Events

After the initial busy months of the HUB4CLOUD project, when the project's activities were being set up; onboarding the ICT-40 RIAs, onboarding RIAs on the communication task force, social media campaign for these RIAs, setting up of the Advisory Board, Advisory Board social media campaign, setting up of the Strategic Coordination Board and its activities, there was a short period of summer lull that was experienced in the project's activities.

Shortly after summer, HUB4CLOUD gathered pace in its activities and events organisation. Below are mentioned the events organised/represented by HUB4CLOUD.

### 2.9.1 Panel discussion at the EGI Conference 2021, 19.10.2021: Joining forces for a robust digital landscape: European Cloud Open Source and Standardization efforts

HUB4CLOUD organised this panel session at the EGI conference 2021. EGI conference 2021 was an external event where **HUB4CLOUD was a participant**. There was a formal call for submissions where we made a submission to discuss the ongoing open-source and standardization efforts in European cloud computing ecosystem. This session took place via online conference and was attended by 35 people.

The session was opened and moderated by Dr Giovanni Rimassa, Chief Innovation Officer at Martel Innovate and Coordinator of HUB4CLOUD project. Following were the invited high-profile panellists:

- Luca Bolognini, European Privacy and data protection expert, and President of Instituto Italiano Privacy
- Dr Anne Berre, Chief Scientist, Software and Service Innovation Division, SINTEF
- Alberto P. Marti, VP, Open Source Community Relations, Open Nebula
- Brian King, Cloud Development Tools Community Manager, ECLIPSE Foundation

A very in-depth discussion was held that included topics like role of open-source and

standardization activities in “shaping the digital future”, that being the theme of the conference.

Via this session it was emphasised that open-source and (pre)standardization activities are pivotal enablers of technology and solution adoption as well as the development of the ecosystem. The panel of experts discussed the potential roadblocks and cited their recommendations especially for SMEs and entrepreneurs, to help them identify acceleration paths to support their exploitation plans, speeding up their cloud offering to reach the market. The session delved deep into discussions on the legal, contractual, financial, and business enablers that must be in place and known before being able to conceive and plan a sustainable value proposition.

A detailed report of the session including the session’s recording is published on the website here, <https://www.h-cloud.eu/news/highlights-from-the-hub4cloud-session-at-egi-conference-2021/>.

The session was covered live on social media, e.g. [https://twitter.com/HCLOUD\\_Project/status/1450445751465676803](https://twitter.com/HCLOUD_Project/status/1450445751465676803), [https://twitter.com/HCLOUD\\_Project/status/1450442161607127045](https://twitter.com/HCLOUD_Project/status/1450442161607127045).

Below, Figure 14 shows the social media card that was used for the promotion of the session.



Figure 14: HUB4CLOUD session at the EGI Conference 2021

### 2.9.2 Jomada PLANETIC de espacios de datos federados, 24.09.2021

HUB4CLOUD presented the CSA objectives as well as invited stakeholders to participate by sharing their vision on the European Cloud Computing scene at the online workshop “Data Spaces in Federated environments” organised by PLANETIC on September 24<sup>th</sup>, 2021. **HUB4CLOUD participated in this external event.**

The workshop aimed at providing information and enabling the collaboration around Data Spaces and the Federated Digital infrastructures for their management. During the workshop, it was elaborated what a Data Space is, how it is deployed, what are the current initiatives in Europe (particularly in Spain) as well as why they are needed with some real examples. Figure 15 below shows the session where HUB4CLOUD participated and presented its vision.



**15:30** **Next generation Cloud & Edge: visión y actividad en PLANETIC**  
*Clara Pezuela & Guillermo Gil, coordinadores de la Task Force en PLANETIC*  
*Ejemplos de proyectos en PLANETIC:*

- *Activos Digitales Inteligentes en Entornos Industriales, Santi Charramendieta, IKERLAN*
- *Construcción del European Cloud Computing Hub (HUB4CLOUD), Enrique Areizaga, TECNALIA*
- *European Open Source for Sovereign Edge, Alberto Martí, OpenNebula*
- *Your Open Data, Joaquin Salvachua y Alvaro Alonso, UPM*

Figure 15: HUB4CLOUD session at PLANETIC event 2021

### 2.9.3 Digital Autonomy in the Computing Continuum – From Cloud to Edge to IoT for European Data, 11.11.2021

This high-level workshop was hosted by the European Commission to share the views on strategic European vision for the computing continuum to establish a European supply and value chain in cloud to edge computing and the tactile internet.

The EC asked H-CLOUD and HUB4CLOUD (with the support of SWForum) to organise this 1 day event involving panels on topics like cognitive cloud, open source, swarm computing, as well as the shaping of the cloud-edge-IoT work programme session. This was a remote event and was hosted via the Swapcard platform. The event via the Swapcard platform can be accessed here, <https://app.swapcard.com/event/digital-autonomy-in-the-computing-continuum>. The agenda on the H-CLOUD portal is to be found here, <https://www.h-cloud.eu/news/digital-autonomy-in-the-computing-continuum/>.

35 high profile speakers from industry, academia and public institutions were invited to give talks and participate in discussions across 6 sessions. 373 people registered for this event. There were 105 tweets generated for this event leading to 38,000 impressions. Figure 16 below gives a picture of the mentioned numbers.

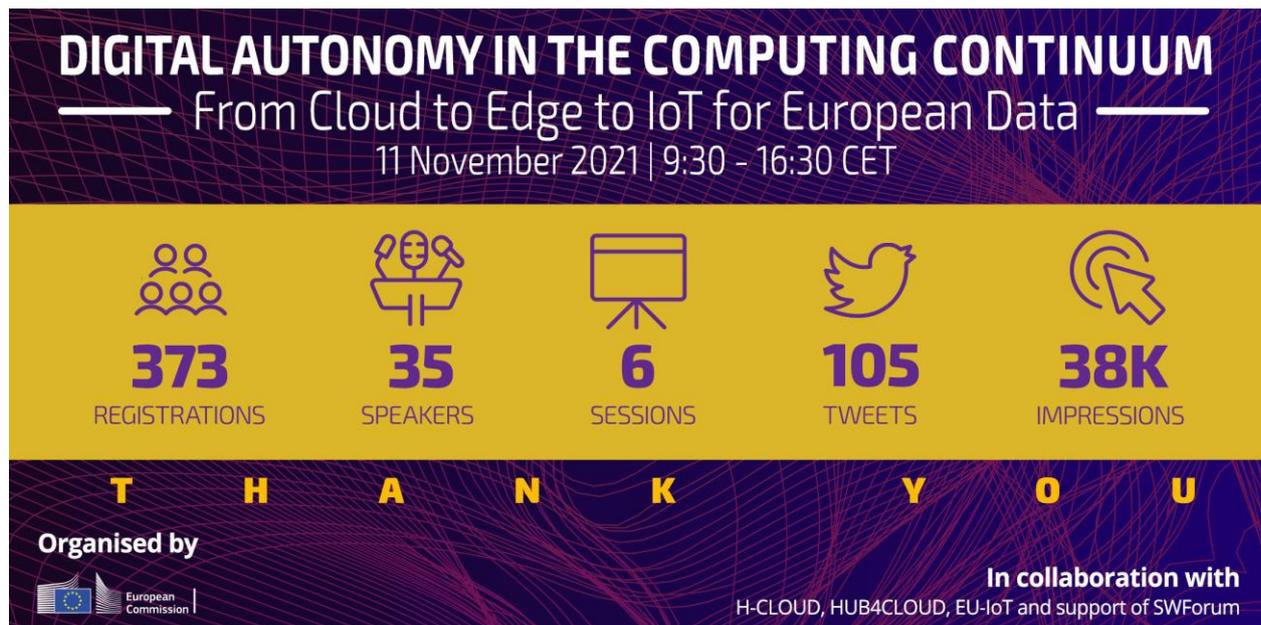


Figure 16: Digital Autonomy in the Computing Continuum – participation and social media impression

A detailed report is in progress to be provided to the EC which will include the recordings of the sessions, presentation slides from the speakers and will contain the major points shared by the speakers and what it means for the future of digital Europe.

This event was **organised by the joint efforts of H-CLOUD, HUB4CLOUD and support from SWForum.**

#### 2.9.4 Panel discussion at EBDVF 2021, 02.12.2021: Next Generation Computing Infrastructure to support Data Spaces.

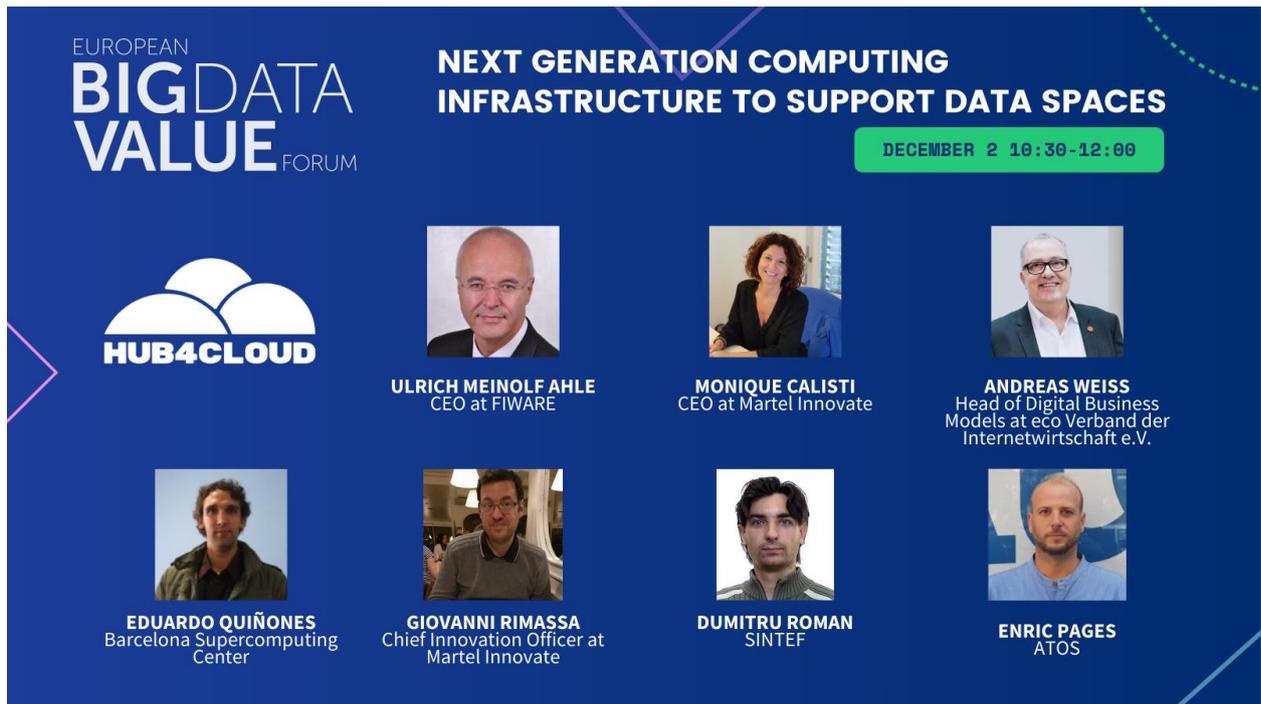
HUB4CLOUD is organising a session at the upcoming EBDVF2021 (BDVA Forum). There was a formal call for submissions where we made a submission to discuss the next generation computing infrastructure to support data spaces. The BDVA Forum is a very prestigious event in the European data, cloud and AI community. This year the forum is going to take place from 29<sup>th</sup> of Nov to 3<sup>rd</sup> of Dec 2021 and is estimated to be attended by 1000 persons.

HUB4CLOUD's session here is also in the format of a panel discussion and will focus on the major developments in cloud and edge computing, including open source approaches. Discussions will be held on the needs and requirements of data spaces from the computing infrastructure point of view and how cloud (and edge) federation will act as an enabler for a powerful European computing infrastructure.

The session will be opened and moderated by Dr. Giovanni Rimassa, Chief Innovation Officer at Martel Innovate and Coordinator of the HUB4CLOUD project. Following are the invited high-profile panellists:

- Andreas Weiss, Head of Digital Business Models, euroCloud Germany
- Roman Dumitru, Senior Research Scientist, SINTEF
- Ulrich Ahle, CEO, FIWARE Foundation
- Enric Pages, Atos
- Eduardo Quinones, Barcelona Supercomputing Center, representative CLASS project

Below, figure 17 shows the social media card that was used for the promotion of the session.



**EUROPEAN  
BIG DATA  
VALUE FORUM**

**NEXT GENERATION COMPUTING  
INFRASTRUCTURE TO SUPPORT DATA SPACES**

**DECEMBER 2 10:30-12:00**

**HUB4CLOUD**

**ULRICH MEINOLF AHLE**  
CEO at FIWARE

**MONIQUE CALISTI**  
CEO at Martel Innovate

**ANDREAS WEISS**  
Head of Digital Business Models at eco Verband der Internetwirtschaft e.V.

**EDUARDO QUIÑONES**  
Barcelona Supercomputing Center

**GIOVANNI RIMASSA**  
Chief Innovation Officer at Martel Innovate

**DUMITRU ROMAN**  
SINTEF

**ENRIC PAGES**  
ATOS

Figure 17: HUB4CLOUD session at EBDVF 2021

As this event is going to take place on the 2<sup>nd</sup> of December 2021, and this deliverable will have been submitted by that time, the elaborate report, social media activities, recordings and participation details will be reported in the next edition of the Outreach report.

### 3 COMMUNITY BUILDING AND COMMUNICATION PLAN (JANUARY 2022 – END OF THE PROJECT)

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HUB4CLOUD's community building and communication strategy has been defined in deliverable D2.1 Strengthening Outreach of European Cloud Computing Efforts. In the remaining phases of the project, HUB4CLOUD's communication and community building activities will evolve around the following key aspects:

**Ongoing communication:** HUB4CLOUD will continue growing its community via the established channels including, but not limited to, the social networks Twitter, LinkedIn and YouTube and the HORIZON CLOUD portal. Relevant project findings will be made available whenever possible to keep the community updated about relevant news and insights.

**Forum acceleration:** In order to pursue the building of a strong and representative community, the HUB4CLOUD consortium will continue growing the HORIZON CLOUD Forum in the remaining phases of the project by linking the content there more extensively to established social media platforms and ensure sustainability of the online platform. Moreover, HUB4CLOUD will intensify efforts to find key actors across Europe and promote the H-CLOUD Forum initiative in their communities/regions, representing their ecosystem at EU level and contributing to foster the European convergence in the CC landscape.

**Events organisation:** HUB4CLOUD will organise experts' workshops solely as well as in collaboration with other relevant initiatives (SWForum CSA / StandICT etc) which is of high relevance to our cloud stakeholders.

HUB4CLOUD is currently co-organising the **HORIZON CLOUD SUMMIT 2021**, in collaboration with H-CLOUD, the sister CSA, which is going to take place (remotely) on 8-9 December 2021. The event is co-located with Cloud Expo Europe, initially planned to be held physically in Frankfurt. However due to the very alarming COVID situation in Germany and Europe in general, the Cloud Expo was postponed on 25<sup>th</sup> of November and announced to be held in 2022. For this reason, HORIZON CLOUD SUMMIT 2021, will go ahead as planned but remotely. In the program of the summit, there are 2 dedicated HUB4CLOUD topics sessions. A detailed report on HORIZON CLOUD SUMMIT organisation and execution will be included in the 2<sup>nd</sup> version of this report.

HUB4CLOUD will continue organising the **HORIZON CLOUD Technical Community Events**, as the format is highly appreciated by the community. In the next versions, we are emphasising on bringing 2 or more projects together and organise a workshop collaboratively.

HUB4CLOUD is planning to organise a 2-day event **in collaboration with SWForum CSA** (coordinated by Tecnalía, partners of HUB4CLOUD) with an idea of having parallel sessions from Cloud computing and software technologies RIAs (from both CSAs) as well as having HUB4CLOUD and SWForum topics specific parallel sessions and panels. This is planned for March 2022.

HUB4CLOUD has received an exciting offer from the Scientific Technical Committee of the **CCGrid 2022 conference** (<https://fclab.unime.it/ccgrid22/>), to organise a workshop at their conference. This is an IEEE and ACM conference and is very reputed in the academic world of cloud and distributed computing. It is an international conference and this one is going to take place in Italy. HUB4CLOUD has the freedom and opportunity to shape this workshop session. We are inviting RIAs to participate in this conference under the banner of HUB4CLOUD and present their project and results to an international audience. This conference is going to take place on 16-19 May 2022.

HUB4CLOUD will be organising a **series of webinars** focusing on the **European cloud computing skills gap**. The idea is to have mini webinar series focusing on the “skill development” topic. Each webinar will be inviting guest speakers from academia as well as the open and online cloud computing courses platform. The organising of this webinar series will begin from January 2022 and the webinars will take place between February and May 2022.

Last but not the least, HUB4CLOUD’s final flagship event **HORIZON CLOUD SUMMIT 2022**, will be organised solely by HUB4CLOUD in 2022. Planning of this event is already in progress and the organisation and execution of which will be reported in the next version of this deliverable. Since the Horizon Cloud Summit 2021 could not be held in-person and all arrangements had been made to co-locate with Cloud Expo, it is likely that the Horizon Cloud Summit 2022 will be held physically, co-located at Cloud Expo in Frankfurt in May 2022. However, this cannot yet be confirmed due to the volatile Covid pandemic.

**Event participation:** As we saw until now that events were slowly starting to go back to the physical version, but due to worsening COVID situation in Europe, events are again going back on remote or hybrid option. HUB4CLOUD will continue trying to be present at a number of events aiming to promote and communicate, by all suitable means and tools, all relevant information that will increase the project’s visibility in terms of the CC aspects. All relevant events will continue to be published on our portal, <https://www.h-cloud.eu/events/>.

## 4 CONCLUSIONS

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This document presents the HUB4CLOUD community building and communication activities conducted between M1 and M11 of the project and anticipates planned activities for the forthcoming phases of the project.

The various types of promotional activities of WP2, led by Martel Innovate and with active contribution by the entire HUB4CLOUD consortium, will keep up the momentum already created since the very beginning of the project and continue to thrive in forthcoming ones, especially in terms of promoting the results, organising the final event, representation in external events, on top of achieving major planned KPIs.

This will lead to broad and effective impact on various HUB4CLOUD outcomes, engaging and benefiting a maximum number of relevant stakeholders.