MULTICLOUD APPLICATIONS TOWARDS THE DIGITAL SINGLE MARKET

Deliverable D8.3

Dissemination, Communication and Networking reporting period 1

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Abstract:	This deliverable will explain the dissemination and communication activities followed during the reporting periods as well as the results from these activities and will update project's dissemination and communication plan respectively. This report will also contain the relevant activities executed to foster a close collaboration with projects related to DECIDE, as well as future networking plans. This deliverable corresponds to period 1 (M1-M18).
Keyword List:	Dissemination, Communication, Networking, KPI, Social media, Leaflet, Website, Newsletter, Papers, Logo, Press release, Video, Merchandising, Projects
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Terms and abbreviations

D8.x	Deliverable 8.x
EC	European Commission
KPIs	Key Performance Indicators
Mx	Month x

Executive Summary

This document, *D8.3 Dissemination, Communication and Networking reporting period 1,* is the first progress report on dissemination, communication and networking activities for the DECIDE project. These activities, which are essential for the success of the project, allow different stakeholders to gain awareness of the achievements of the project and of hoe to use its results. This deliverable shows the activities performed during the first eighteen months of the project, namely, from December 2016 to May 2018.

This deliverable is the third one in the series of four reports (*D8.1 DECIDE brochure and public website, D8.2 Communication Plan, Networking Plan and Dissemination Strategy, D8.3 Dissemination, Communication and Networking reporting period 1 and D8.4 Dissemination, Communication and Networking reporting period2*). The main objective of this document is to illustrate the status of the dissemination, communication and networking activities carried out during the first eighteen months of the project as well as the results from these activities. The project's dissemination and communication future plans have also been determined.

The previous deliverable, D8.2 [1], proposed the detailed plan and list of dissemination activities, including mainly the organization of classical dissemination channels such as scientific and professional publications, organization and participation to workshops and events. This deliverable D8.3 describes the results of such actions during the first reporting period.

Communication and networking activities during the first eighteen months of the project were executed as planned in deliverable D8.2. The key performance indicators established were mostly achieved, while in some cases, surpassing the target values.

As highlights, the project partners have been accepted 4 scientific papers (1 scientific paper is awaiting decision), have published the press release in 7 languages (English, Spanish, Basque, German, Dutch, French, and Italian) and released in multiple media across Europe, 18 blog posts that are used to bring traffic to the website and generate interest in DevOps and multi-cloud practitioners, and have participated in several events and clustering activities, and is the driving force behind the application for a networking session in the ICT event 2018 along with five additional projects. The social media profiles are used following the approach of inbound marketing, using the blog posts, written by all partners, as the core around which the other tools revolve. The goal for next year is to foster loyalty among the base community already engaged and use this channel as a way to increase the audience reached.

1   Introduction

The focus of this work package is to maximize the impact of the project by ensuring proper communication and dissemination of the project results and subsequently to raise awareness to the scientific, industrial, and general public communities.

This deliverable reports the activities in reference to the deliverables of Work package 8 (*D8.1 DECIDE brochure and public website* and *D8.2 Communication Plan, Networking plan and Dissemination Strategy* [1]) whose goals were to set the common ground and plan the proper dissemination, communication and networking actions to raise awareness to the scientific, industrial, and general public communities.

The revised version of this deliverable, *D8.4 "Final dissemination, communication, and networking report"*, will be released at the end of the project.

The dissemination, communication and networking work in DECIDE is directly related to all technical work packages of the DECIDE project as its goal is to maximize the impact that the project results by ensuring proper communication and dissemination of the project results and subsequently to raise awareness to the scientific, industrial, and general public communities. Particularly, the work is aligned with the exploitation activities of the project performed in WP7.

1.1   About this deliverable

This deliverable aims to explain the dissemination and communication activities followed during the first eighteen months of the project as well as the results from these activities taking into consideration the KPIs defined. The fulfilment, or not, of these KPIs will imply and update and correction of the defined communication and dissemination strategy to achieve the project goals.

This report also presents the relevant activities executed to foster a close collaboration with projects related to DECIDE, as well as future networking plans.

1.2   Document structure

This deliverable is structured as follows:

- Chapter 1, "Introduction", gives a general introduction, scope and structure of this deliverable.
- Chapter 2, "Monitoring project's evolution", focuses on the different tools to monitor the different actions and channels.
- Chapter 3, "Creation and Provisioning of Dissemination material", describes in detail the dissemination material that was created during the first reporting period.
- Chapter 4, "Reporting Dissemination Activities", shows an overview of the performed dissemination activities, including among others, events, conferences, scientific journals and general/business publications.
- Chapter 5, "Communication activities", focuses on the DECIDE digital strategy with its tools (web, blog and social networks) that were intensively used during the first reporting period.
- Chapter 6, "Networking activities," presents de collaboration activities with ICT projects during the first reporting period.
- Chapter 7, "Revising Dissemination Strategy (KPIS)", compares planed against actual work by considering the key performance indicator defines in the DoA [2] and provides an overview of the next reporting period.
- Chapter 8, presents Conclusions and future steps.

2 Monitoring project's evolution

The importance of dissemination and communication cannot be undervalued as it serves as the mean to present and report the developments, happenings, events and progresses achieved in the project to the different project stakeholders. The feedback and engagement gathered can be used as an indication of where to focus the different activities so as to increase the awareness of the project activities and results.

In the case of complex research projects such as DECIDE with multiple partners and stakeholders scattered around multiple countries, continuous reporting of the activities performed is a key activity as it allows to effectively and quickly steer dissemination and communication activities to reach the identified audiences and stakeholders. Among those reporting tools, the following ones stand out:

- The **Dissemination Monthly Report** which aims to collect the partners activities in dissemination, such as scientific publications, general and business publications, events and blog posts. This is performed every month.
- **The Editorial Calendar** is the tool that collects all the newsworthy events of interest for DECIDE's target audience, identified by the partners.

Figure 1. DECIDE Editorial Calendar

- **Social Media Dashboard** is the tool that collects the activities carried out on the DECIDE blog and social media (Twitter and LinkedIn).

Figure 2. DECIDE Social Media Dashboard

- **Web Dashboard.** DECIDE uses Google Analytics dashboard to monitor the activity of the DECIDE website.
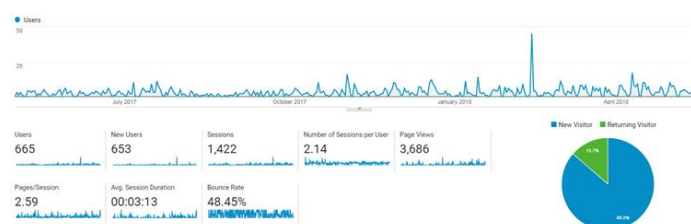
Figure 3. DECIDE web Dashboard

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3   Creation and provisioning of dissemination material

During this first reporting period, the project has prepared several kinds of dissemination material. In line with the plan in D8.2 [1], the main materials that have been prepared are presented along this section.

3.1   Brochure

The brochure has as main aim the creation of awareness of the project and presenting the key aspects of DECIDE. The details of the content that this first version of the brochure contains can be found in D8.1 [3].

The brochure is available at: https://www.decide-h2020.eu/documents2/decide-brochure

Figure 4. DECIDE brochure

3.2 Factsheet

The factsheet created is included in the European Commission's catalogue of projects funded in the topic of software technologies and cloud computing.

Figure 5. DECIDE Factsheet

3.3 Newsletter

DECIDE has planned the release of several newsletters. The goal of the newsletter is to describe the project´s achievements and innovations reached during the first months of the project. The main benefit of newsletter is to keep DECIDE stakeholders informed about the current status of the project.

The first Newsletter is available in the section 9.1 of this document and at: https://www.decide-h2020.eu/documents2/decides-2017-newsletter

Figure 6. DECIDE Newsletter

The newsletter is structured as follows:

- General introduction to the project: project goal and results, where these will be validated.
- Information about the different consortium meetings held and the main conclusions
- Information about relevant events attended where DECIDE outcomes were presented

Further versions of the newsletter will include issues such as the availability of the source code, the evaluation of the tools, and the use cases.

3.4 General Presentation

A DECIDE general presentation has also been created as part of the different dissemination tools designed to support DECIDE's dissemination efforts. It aims at providing a project overview, background information, objectives, rationale, partners and first results.

At this stage, two general presentations of the DECIDE project have been created. This presentation will be continuously updated during the project and will be complemented with more dedicated and specialized ones.

The general presentations, as well as any other presentation generated for any event, are uploaded to SlideShare and available at: http://www.slideshare.net/Decideh2020
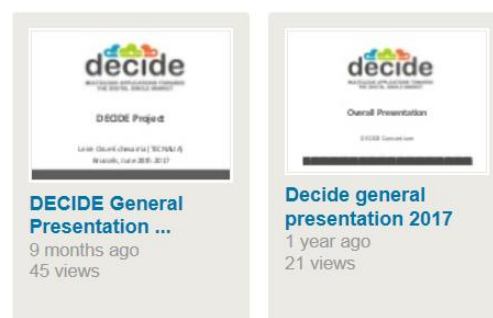
Figure 7. DECIDE General Presentations

3.5 Posters

DECIDE's poster aims to identify the goals of the project, the approach, the expected results and benefits and it will be created in the first year of the project. The main purpose of the poster is to capture the audience's attention.

During this period, the project has made two posters that show different maturity degrees. The poster will evolve as the project evolves and results are available.
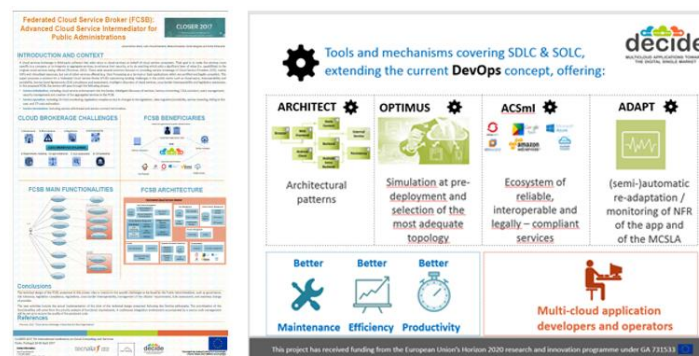
Figure 8. DECIDE Posters

3.6　Press Release

At this stage, DECIDE has released only one press release. This first press release of DECIDE includes details of the project goals, key results, approach, benefits and use cases. The objective of the press release is to gather the interest of a journalist. It is written in a language and with all the relevant information that a journalist needs to easily produce his / her own story.

DECIDE's press release has been translated it into the official languages of the partners: English, Spanish, French, German, Italian, Basque and Dutch in order to be disseminated by the partners in their countries. All versions are uploaded and available at the project's website.

Hereby, only the English version is shown. The other linguistic versions can be found in section 9.2 and online at: https://www.decide-h2020.eu/public-tags/press-release
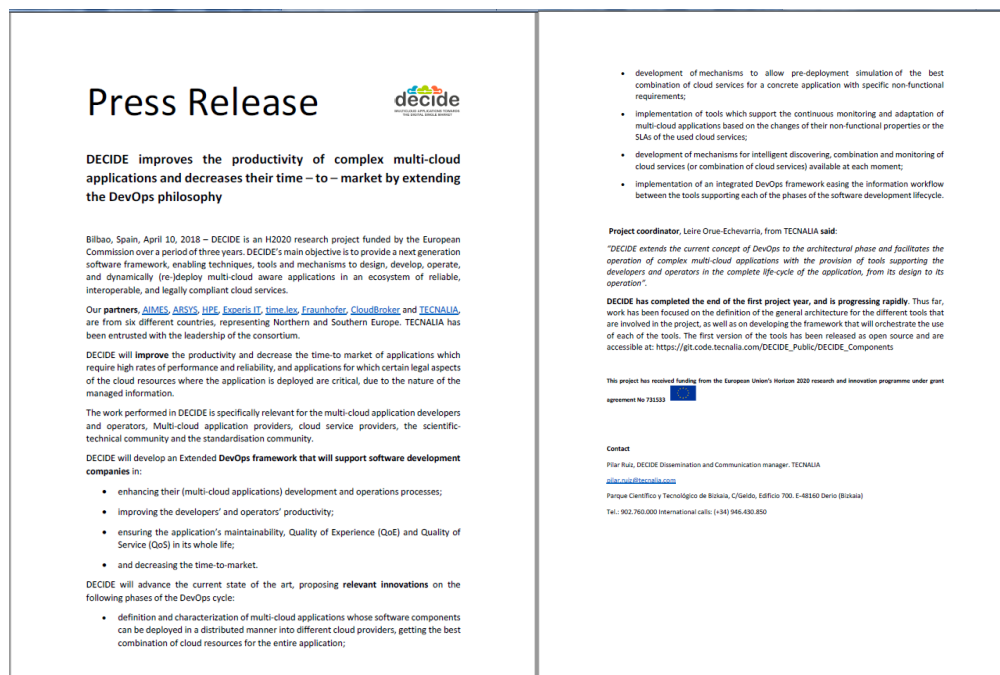
Figure 9. DECIDE Press Release

3.7　Showcases

Videos are an excellent tool to disseminate the work performed. In DECIDE, different types of videos are foreseen, depending on the target audience. The most relevant categories of videos in the case of DECIDE are:

- **Specialized videos**, showing the features of the tools. These videos can be used as support, tutorial and demos for anyone wishing to use the DECIDE tools. To this end, five demo videos of the M12 DECIDE tools have been created: ACSmI, ADAPT ecosystem part 1, ADAPT in action part 2, ADAPT monitoring and OPTIMUS. The remaining videos, ARCHITECT, APP controller and MCSLA editor, are currently on production. The project has foreseen the possibility that every time a prototype is implemented an accompanying video will be released as supporting material.
- **Promotional video,** to present the value proposition of the project, who is it for and what are the benefits. As of M18, the project has created a small dissemination team to create the storyboard for the project video, who is working on the script and the storyline.

- **Dissemination videos,** short, focused and dedicated videos. An example of such video is the one presented in the application for a networking session in the ICT event 2018, where the main goal of the session is presented, as well as who organize it.
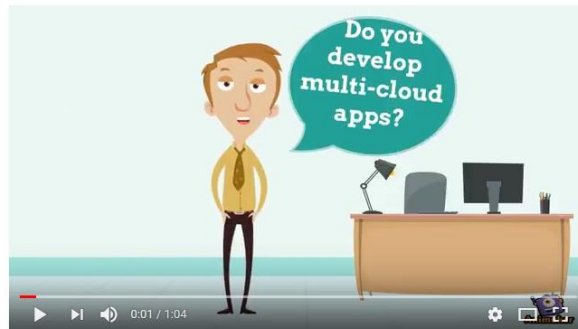
Figure 10. Screenshot of the dissemination video created for the ICT Event networking session application

The YouTube channel where all showcases and videos are available is: https://www.youtube.com/channel/UCQ59BWyOcp7-mIrH1ZtfssA

3.8 Merchandising

DECIDE's merchandising is another of the elements that are used to promote the communication of DECIDE as a brand. This is especially relevant when attending events and exhibitions. Now the DECIDE Merchandising products consist on:

- Pen with pen drive:

Figure 11. DECIDE pen

- Folder:
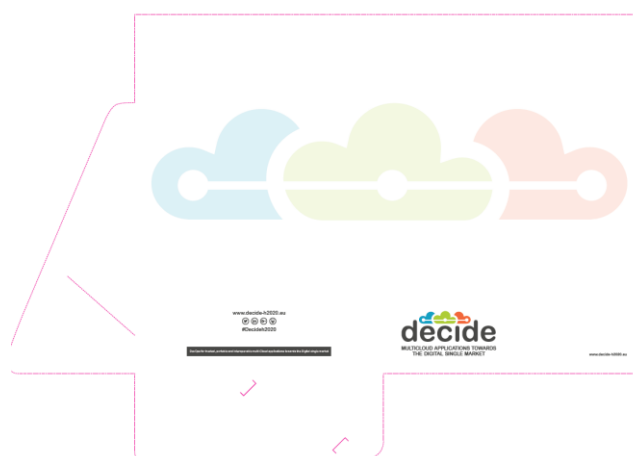
Figure 12. DECIDE folder

- Notebook:

Figure 13. DECIDE notebook

- Business cards:

Figure 14. DECIDE business cards

- Stickers with the logo for developers and branded water bottles (especially at conferences):

Figure 15. DECIDE stickers

4   Reporting Dissemination Activities

4.1   Overview

This section summarizes the dissemination activities that DECIDE partners have carried out throughout the first reporting period of the project and are split into the following categories:

- Scientific publications to journals and conferences.
- General and business publications.
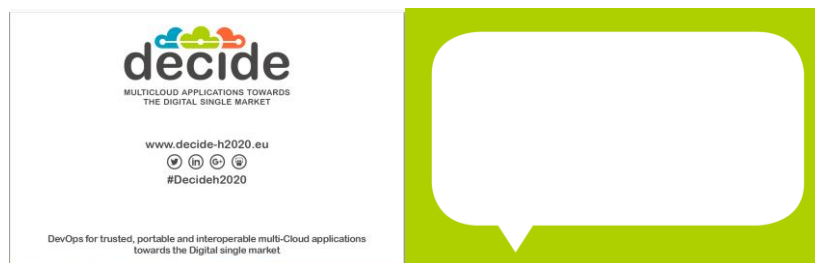- Participation in events, conferences, workshops, focus-group, seminars and webinars, Including presentations and project-related material like brochures, posters, etc.
- Other dissemination activities.

During the first reporting period, DECIDE has been active in the release of general and business publications, as well as scientific papers. Moreover, DECIDE has participated with active roles in several events and workshops.

- **Scientific papers**: DECIDE is part of the Open Research Data Pilot [4] that "*aims to make the research data generated by Horizon 2020 projects accessible with as few restrictions as possible, while at the same time protecting sensitive data from inappropriate access*". DECIDE plans to follow the gold open access, whenever feasible. In the case gold open access is not a realistic option, green open access will be sought and the publications will be self-archived. Following these principles, DECIDE aims to publish all the articles on public repositories linked by OpenAIRE. When available, DECIDE will use the OpenAIRE – linked repositories of the partners' institutions, such as TECNALIA's Publications repository [5]. In the event a partner publishes a paper and its institution does not have a publicly linked repository, publicly available repositories such as Zenodo [6], linked also by OpenAIRE, will be favoured. All publications are also available on a dedicated micro-site of the DECIDE website.
    - o 2 papers, presented in CLOSER 2017, which have already been published following the gold open access model. They are available through the TECNALIA publications repository and linked in OpenAIRE [7].
    - o 2 papers, accepted for the conferences SE-CLOUD 2018 and EuroSPI 2018, which will be presented at the end of July 2018 and beginning of September 2018, respectively. Both papers will also be published following the gold open access model in the TECNALIA publications repository and linked in OpenAIRE [7].
    - o 1 paper submitted to QUATIC 2018, whose evaluation has not yet been received as of May 2018.
    - o 1 Journal publication under review in the Spanish journal DYNA [8]

- **17 General and business** publications on partners' websites (TECNALIA web, TECNALIA Express, Fraunhofer FOKUS website, Fraunhofer FOKUS Business Unit Digital Public Services Newsletter) and relevant online magazines and newspapers (e.g. Computing.es, 20minutos.es, lavanguardia.com, europapress.es, gentedigital.es, lainformacion.com, elconomista.es, aslan.es, ciospain.es, datacenterdynamics.es, sie.fer.es) and magazines (datacenter magazine).

- **Events**: By events the project understands conferences, seminars, webinars and workshops. DECIDE has participated in 7 events, namely:
    - o *CloudExpoEurope*, with flyers profiting from the booth of the Data Protection, Security and Privacy (DPSP) cluster.
    - o *CLOSER 2017,* doing a short presentation of one of the accepted papers and with a poster for the other accepter paper.

- *NetFutures 2017*: participation in the concertation meeting, especially in the one-minute-madness, presentation in the inter-cloud cluster and meeting in the software engineering for software applications cluster. (See Figure 16)
- *BeDiCon*: Berlin Digital State Conference, where DECIDE was presented.
- *Data Centers North event* in *Manchester*: presentation of DECIDE.
- *Pilula DevOps* ("Cloud, Multicloud y DevOps: ¿Hacia dónde vamos?"): training in TECNALIA to TECNALIA employees with the main challenges of DevOps and how DECIDE will solve them. (See Figure 17).
- #*MeetUptheExpert*: presentation of existing solutions for DevOps and how DECIDE aims to progress beyond them. This presentation was done for five Public Administrations of the Basque Country, at local, provincial and regional level. Event organized by TECNALIA. (See Figure 18).

Figure 16. NetFutures

Figure 17. Pilula DevOps: "Cloud, Multicloud y DevOps: ¿Hacia dónde vamos?"
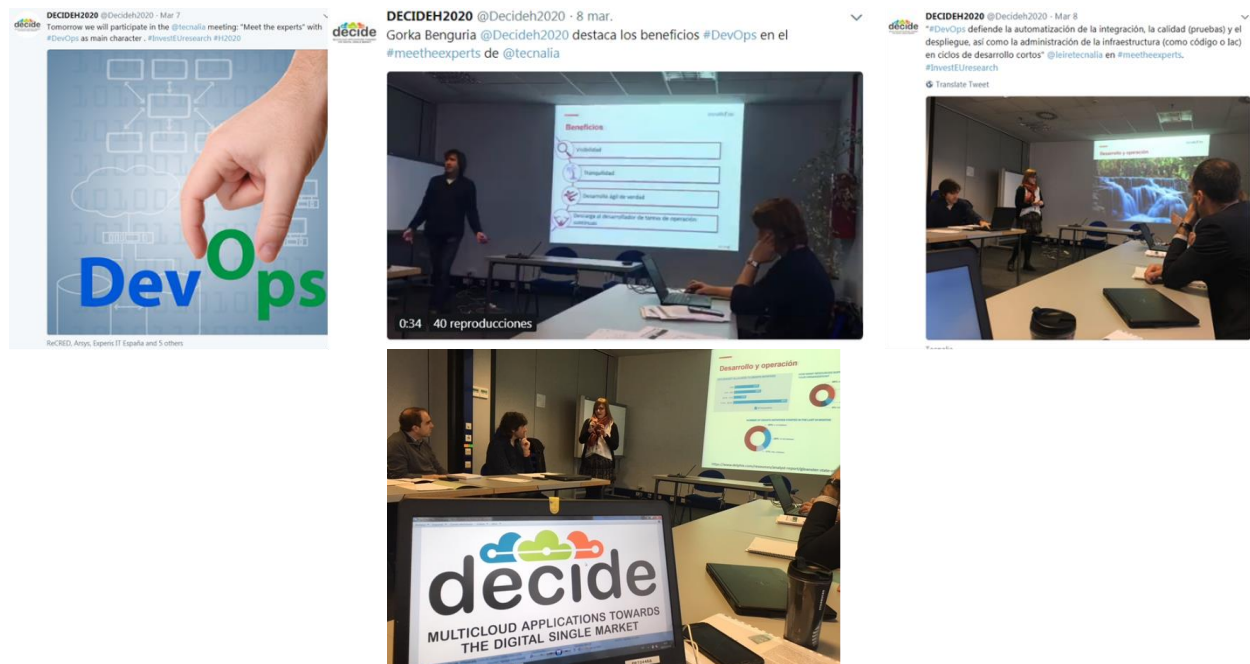
Figure 18. "Meet up the expert: DevOps"

Figure 19. Datacentermarket Magazine

- **Other dissemination activities** include:
    o AIMES monthly Internal Briefing and company literature
    o COLA project consortium meeting
    o HP Internal event
    o Common Dissemination Booster

All dissemination activities are notified in the Dissemination Monthly Report that is updated on monthly basis by all partners of the consortium.

In the Annex, Table 7 presents DECIDE scientific publications to journals and conferences released during the first reporting period. Table 8 presents the General and business publications, Table 9 presents the attended events and Table 10 other dissemination activities performed by DECIDE during the first reporting period.

4.2   Common Dissemination Booster

The Common Dissemination Booster (CDB) [9] is an initiative launched by the European Commission, free of charge and available to all, ongoing or closed, European, National, Regional funded Research & Innovation (R&I) projects (H2020, FP7 or other). The booster aims to bring several projects together to identify a common portfolio of results while providing them with recommendations on how to best disseminate to end users.

The CDB consists of five services as shown in the following figure, covering the whole dissemination lifecycle.
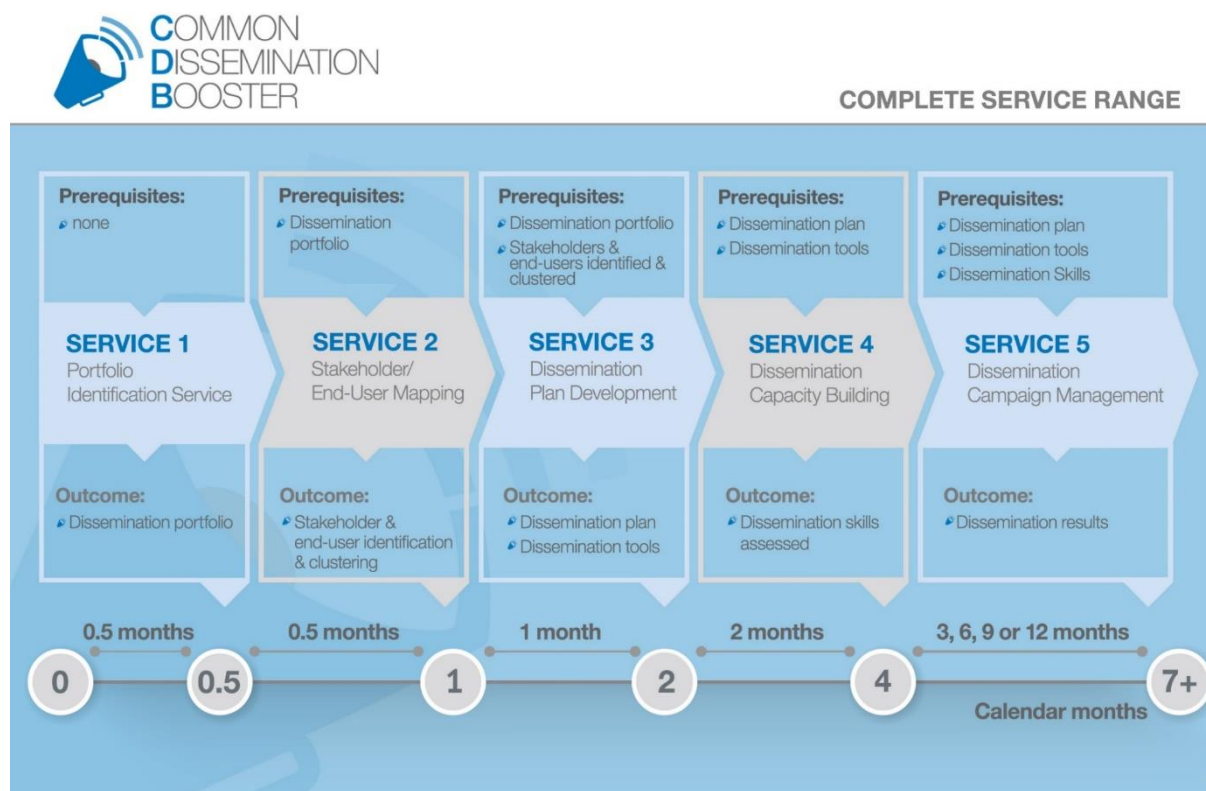
Figure 20. Common Dissemination Booster Service Portfolio

DECIDE formed a cluster with the following projects: RESTASSURED, OPERANDO, SHiELD, CITADEL, ACTiCLOUD, CLOUDPERFECT, and MELODIC and was accepted for service 1, depicted next, which activities took place during the months of March and April. The final report to the cluster was delivered by mid-May.
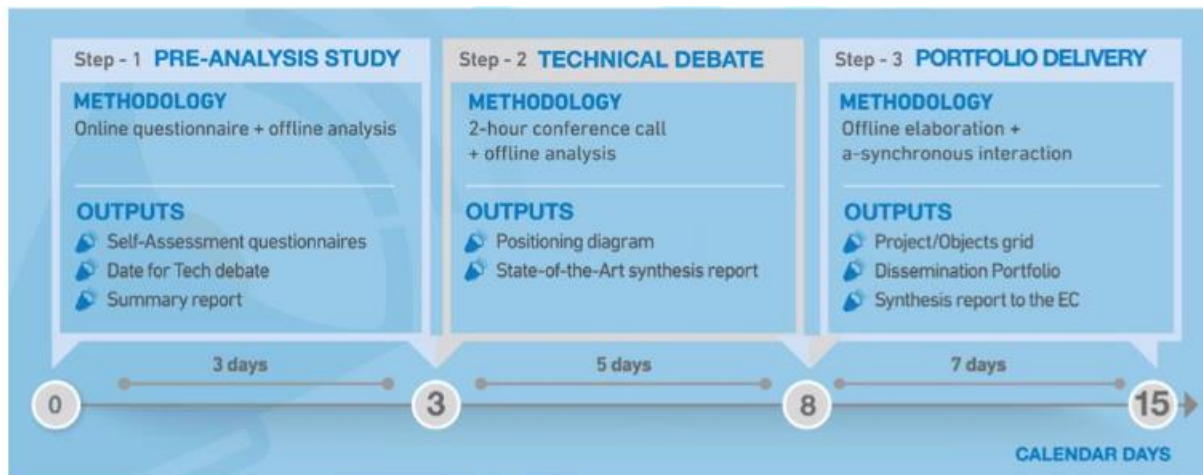
Figure 21. Common Dissemination Booster Service1 timeline

The result of the CDB Service 1 is a report that includes the input provided by the projects in a consolidated and a set of recommendations for joint dissemination activities as well as a SWOT analysis of the positioning of the projects.

In the case of DECIDE, the recommendations provided by the CBD has been used as a trigger to the application of the ICT event. While the cluster of projects in the CBD vary in nature, maturity and target audiences, DECIDE has only formally invited those projects that are related to multi-cloud application development, management of cloud resources and fulfilment of non-functional requirements.

5   Communication activities

In DECIDE, communication activities are geared towards making available to the identified target audiences the on-going project developments as well as the results attained. As a reminder, the project identified as key target audiences the following: multi-cloud application developer and operators, multi-cloud application providers, scientific-technical community and the general public (non-specialized audiences) [1].

The main goal of communication in DECIDE is to [1]:

- Ensure proper communication and dissemination of the project results;
- Increase project awareness, both for general knowledge communities as well as in more focused DECIDE communities;
- Distribute promotional materials in less specialized events;
- Involve media, if possible mass media, to release press releases;
- Pave the way for a successful commercial exploitation of the project outcomes.

Communication activities are managed and reported in the same way as the dissemination activities are, namely through the dissemination monthly report and the editorial calendar.

Monitoring the communication activities and the achieved KPIs is a continuous activity performed in a monthly basis. This continuous monitoring allows the dissemination manager, project coordinator, technical coordinator and all project partners correct and steer the communication activities to achieve maximum awareness of the project outcomes.

5.1   DECIDE Digital Strategy

During this reporting period, the Digital Communication Strategy has revolved around the project's website, especially the Blog and the social media profiles, with a focus on Twitter, SlideShare, YouTube, and LinkedIn.

The goals of DECIDE's digital strategy, sorted by contribution are as follows:

- **Branding:** Branding aims to generate exposure and awareness of the DECIDE brand among stakeholders by disseminating information about the project and its results. This way, it is possible to create a specific brand image and, by extension, to achieve a good positioning.

- **Engage:** To engage the stakeholders in DECIDE activities.

- **Coordinate:** To coordinate with other projects, networks and initiatives so as to maximise the impact of DECIDE.

During the first eighteen months, it can be said that the digital strategy has worked in a satisfactory way. Due to the project characteristics and nature, the digital strategy followed is the so-called Inbound marketing. Inbound marketing strategy is based on 3 pillars, namely:

- SEO (Search Engine Optimization).
- Content Marketing: web, blogs, videos, webinars, infographics, documentation generated from the project activities, etc.
- Social Media marketing: networking.

Figure 22. Inbound marketing strategy

The Information Flow for DECIDE digital communication is [1]:
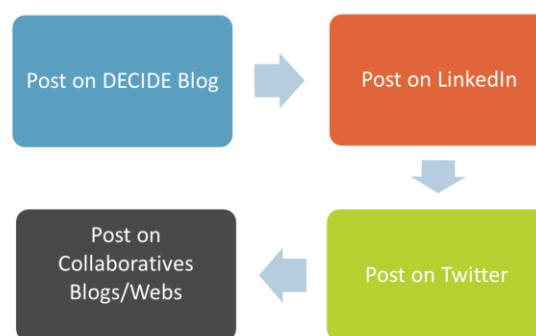
Figure 23. DECIDE digital strategy

As previously mentioned, the main players for the digital strategy are the DECIDE Blog and the social media profiles. All partners are involved in these activities. Approximately every fifteen days, a new blog post written by the partners is published on the website and disseminated through the profiles of the social media in order to attract traffic the website of DECIDE. The topics for the blog posts vary and range from participation in events, discussions had during the consortium meetings to more technical aspects related to the project Key Results and areas of research.

The blog is part of the website, but it has a dedicated menu item. The motivation around the blog is twofold. On one hand, to use it as a continuous dissemination online channel. On the other hand, to attract visitors, create interest and generate leads. Hence, the stress is on creating content that is of relevance to the community and therefore getting the interest of potential stakeholders. The blog section is one of the most visited sites on the project's website after the homepage and allows the project to be more agile in delivering content of interest than a traditional 'News' page.

Social media profiles are also used with a double purpose. On one hand, to engage stakeholders and on the other, to generate traffic to the website and its contents. Every time a post is published on the blog, or any content is uploaded to SlideShare or YouTube, it is announced on Twitter and LinkedIn, with the associated link to the content.

During the first eighteen months of the project, the digital strategy has been focused on awareness and engagement of the potential stakeholders, with satisfactory results (see table 5 in section 7). The community of DECIDE can be now considered stable, and while it is expected to grow once the more advanced results are released, what the project needs to aim now is for a loyal community, that is

expected to aid DECIDE in the expansion to other audiences (e.g. geographical) that at the moment are not being reached.

5.1.1 Project Website

The DECIDE website is a platform for disseminating and communicating DECIDE project information (project developments, results, events…) to the DECIDE stakeholders. The website was created in the inception of the project and has been an efficient tool in reporting DECIDE project activities as well as in communicating with people outside the project.

The initial structure of the website presented in [3] remains valid. However, as the project has progressed, new sections have been added. For instance, in order to make available the newsletter, the press release and the brochure to any person interested in the project, a new section 'Publications & Communication' in the Library menu item has been added.

Figure 24. DECIDE new section on the website: Publications and Communications

All public deliverables released as of month eighteen have also been added to the 'Deliverables' section under the Library menu item. Both the document in pdf format and the source code in zip format can be downloaded.

Figure 25. DECIDE Library: public deliverables, including source code, available for download

A new section 'Open Source in DECIDE' is planned to be included. This section will be linking to the GitLab where the open source code has been released and is already accessible at: https://git.code.tecnalia.com/DECIDE_Public/DECIDE_Components

Therefore, the web has been updated in line with the progress of the project in this first reporting period and will continue to do so.

5.1.2 Blog

As explained beforehand, the blog is used as the lead generator for the project. Blog posts are published approximately on a bi-weekly basis and all partners contribute to it. The topic is selected freely by the person in charge of the post. Up until now, the posts have been dedicated to the challenges and motivations to develop a multi-cloud application, purpose of architectural patterns, legal aspects of cloud computing, GDPR, cloud and DECIDE, progress achieved in the consortium meetings, and presentation in events.

Figure 26. DECIDE Blog

DECIDE blog is used, as explained beforehand, also in coordination with the social media profiles. This strategy is showing that the project is on the right track, as indeed, nowadays, whenever a blog post is published, the visit number to the DECIDE website peaks.

Figure 27. Publication on DECIDE post blog

The blog posts and their specialized contents are also helping to position the project and its SEO. The publication of such dedicated, focused content, is helping the project increasing the visits that come from search queries as demonstrated in the picture below.

Figure 28. Organic Search

Next, the posts created so far are detailed:

Table 1. DECIDE blog posts

Date	Post	Category	Author	Target Audience
21.03.2017	DECIDE-DevOps for trusted, portable and interoperable Multi-Cloud applications towards the digital single market	Project news	TECNALIA	Developer and operators / Providers/ Scientific-technical community/ General Public
22.06.2017	DECIDE was present in CLOSER 2017 – International Conference on Cloud Computing and service science	Project news	TECNALIA	Developer and operators / Providers/ Scientific-technical community
20.07.2017	Cloud, multi-cloud, DevOps … A brief analysis of trends	General	TECNALIA	Developer and operators / Providers/ Scientific-technical community/ General Public
20.07.2017	DECIDE's 3rd General Assembly in Krakow	Project news	TECNALIA	Developer and operators / Providers/ Scientific-technical community/ General Public
21.07.2017	DECIDE participated in NETFUTURES 2017 conference	Project news	TECNALIA	Developer and operators / Providers/ Scientific-technical community
16.10.2017	DECIDE moves forward	Project news	Experis	Developer and operators / Providers/ Scientific-technical community
2.11.2017	Are we ready for the Multi-Cloud revolution?	General	Arsys	Developer and operators / Providers/ Scientific-technical community
15.12.2017	The legal aspects of multi-cloud: DECIDEdly not unimportant! Part 1 - The Sock Shop.	Series	TimeLex	Developer and operators / Providers/ Scientific-technical community
22.01.2018	The legal aspects of multi-cloud: DECIDEdly not unimportant! Part 2 - GDPR Application	Series	TimeLex	Developer and operators / Providers/ Scientific-technical community
22.01.2018	Extra, extra! DECIDE Key Results first beta prototypes delivered!	Project news	TECNALIA	Developer and operators / Providers/ Scientific-technical community/ General Public
2.02.2018	The legal aspects of multi-cloud: DECIDEdly not unimportant! – Part 3 Controller and Processor Obligations and DECIDE's role in this regard	Series	TimeLex	Developer and operators / Providers/ Scientific-technical community
8.02.2018	Released Initial DECIDE ADAPT Architecture for Multi-cloud application deployment	Project news	HPE	Developer and operators / Providers/ Scientific-technical community
22.02.2018	DECIDE – Making Multi Cloud Solutions Practical	Project news	AIMES	Developer and operators / Providers/ Scientific-technical community
1.03.2018	The legal aspects of multi-cloud: DECIDEdly not unimportant! - Part 4 Other legal issues and Conclusions	Series	TimeLex	Developer and operators / Providers/ Scientific-technical community
19.03.2018	DECIDE - Making Multi-Cloud Solutions Practical II	Project news	AIMES	Developer and operators / Providers/ Scientific-technical community
5.04.2018	The Why and the How of Developing a Multi-Cloud Native Application	General	Fraunhofer	Developer and operators / Providers/ Scientific-technical community

Date	Post	Category	Author	Target Audience
17.04.2018	DECIDE's 5th GENERAL ASSEMBLY IN MILANO	Project news	TECNALIA	Developer and operators / Providers/ Scientific-technical community/ General Public
3.05.2018	(G)D(PR)-day approaching: how the EU's new data protection law is going to impact the Cloud and how DECIDE is dealing with this.	General	TimeLex	Developer and operators / Providers/ Scientific-technical community/ General Public

5.1.3 KPIs

DECIDE uses Google Analytics to monitor the behaviour of the website. This allows the project to steer the strategy with the main aim of reaching the right audience and stakeholders.

From the analytics collected, it can be seen that the average annual number of visits to the DECIDE website is about 1422 with an average session duration of 00:03:13.
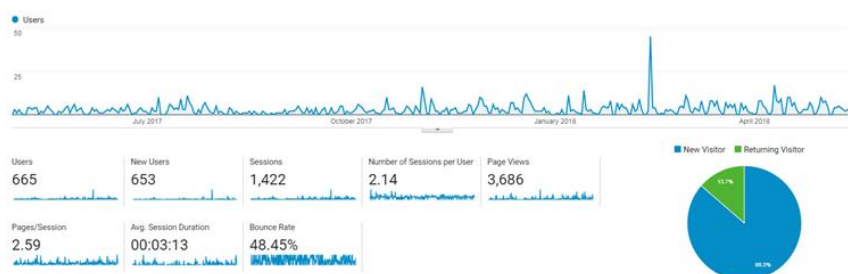
Figure 29. Users in DECIDE website

The SEO, as explained before, is improving on a continuous basis thanks to the provisioning of dedicated and targeted content through the blog. The visits coming from direct search queries have increased along the timeframe of the project, as shown next. Now 32% of the visitors to the DECIDE website come through organic searches.
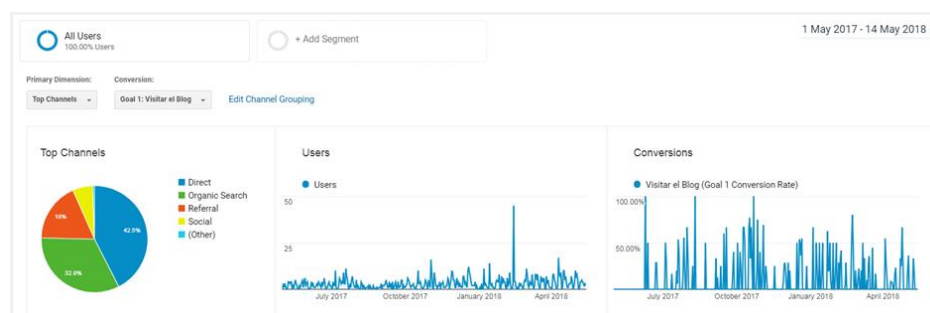
Figure 30. Traffic in DECIDE website

Blog posts publications mark often the highest number of visits to the DECIDE website.

Figure 31. Publication on DECIDE post blog

Other data that confirm this trend is that the blog is the second most visited page after the homepage, with 12% of the visitors going directly to that site. The third most visited page is the one with the press releases, the scientific papers and the brochure.

Page		Page Views	% Page Views
1. /		1,036	28.11%
2. /blog		425	11.53%
3. /documents2		204	5.53%
4. /partners		188	5.10%
5. /content/team-members		158	4.29%
6. /content/mission-and-objectives		154	4.18%
7. /content/deliverables		149	4.04%
8. /content/results		119	3.23%
9. /content/home		111	3.01%
10. /content/decide-2017-newsletter		84	2.28%

Figure 32. Most visited pages of the website

The next figure shows the percentage of visits per country. The United States occupies the first place due to the great interest that the topics of cloud, DevOps and multi-cloud generate. To increase the visits to the website, the project is now also stressing the strategy towards the partners' networks and their countries of origin, complemented with a focus on their social media and company websites.

Country	Users	% Users
1. 🇺🇸 United States	159	23.11%
2. 🇪🇸 Spain	134	19.48%
3. 🇩🇪 Germany	39	5.67%
4. 🇬🇧 United Kingdom	38	5.52%
5. (not set)	36	5.23%
6. 🇮🇹 Italy	34	4.94%
7. 🇮🇳 India	26	3.78%
8. 🇨🇳 China	24	3.49%
9. 🇺🇦 Ukraine	16	2.33%
10. 🇨🇦 Canada	15	2.18%

**Figure 33.** Users by Country

To this end, the publication of the press release in multiple languages, namely English, German, Spanish, Italian, French, Dutch and Basque, has helped to increase the traffic from different countries other than Spain (initially the most visiting country). This best practice will be strengthened during the next period.

5.2 Activity in Social Networks

Social media provides a good platform for outreach because of its ease of use, supported by the growing number of users, individuals, businesses, research projects, and public institutions that are already accustomed to communicating through these means. DECIDE also profits from social media and uses it as a channel to reach the project's target audiences.

The selected media are Twitter, SlideShare, YouTube and LinkedIn. The messages launched revolve around the topics on #CloudComputing, #MultiCloud and #DevOps and are used to attract traffic to the project's website, the main means for dissemination.

In the next sections, how each social network is used is explained.

5.2.1 Twitter

The Twitter account of the project is @decideh2020

Figure 34. DECIDE twitter account

Twitter is, among the project's social networks, the most prominent one. 3 to 5 tweets are published every week. These tweets are related to the topics mentioned beforehand, namely #CloudComputing, #MultiCloud and #DevOps. They are both original contents (e.g. attendance to events, blog posts, press releases, source code releases) or retweets of content from external stakeholders that the project finds interesting and relevant, such as research findings, innovation, developments, market analysis, events, on multi-cloud, cloud computing, DevOps and GDPR (or legal issues in cloud computing).

Whenever a certain happening has occurred, such as a blog post, the publication of the deliverables on the website, a presentation uploaded to SlideShare, the project's tweet account includes always detailed information, the URL to the information on the website and relevant hashtags. The objective of including the URL to the information on the website is to generate interest also on additional content of the website, and thus increase awareness of the project.

Furthermore, the project Twitter account promotes conversation and multimedia contents (e.g. images, short videos) to make the tweets more attractive.

In addition to the above, DECIDE partners use their respective Twitter channels to directly promote events and news concerning DECIDE. The DECIDE profile then functions as a central hub, retweeting mentions from partners, and ensures a centralized distribution of all news related to the project.

As part of the analysis of the adequacy of the project's communication strategy, the followers of Twitter have been studied to see if the project is reaching the defined target audiences or not. At this stage it can be said that these two situations (ideal vs. reality) are totally aligned and the project's followers match the identified target audience categories, as shown below.

- *Scientific Community (H2020 Projects, IPR):*
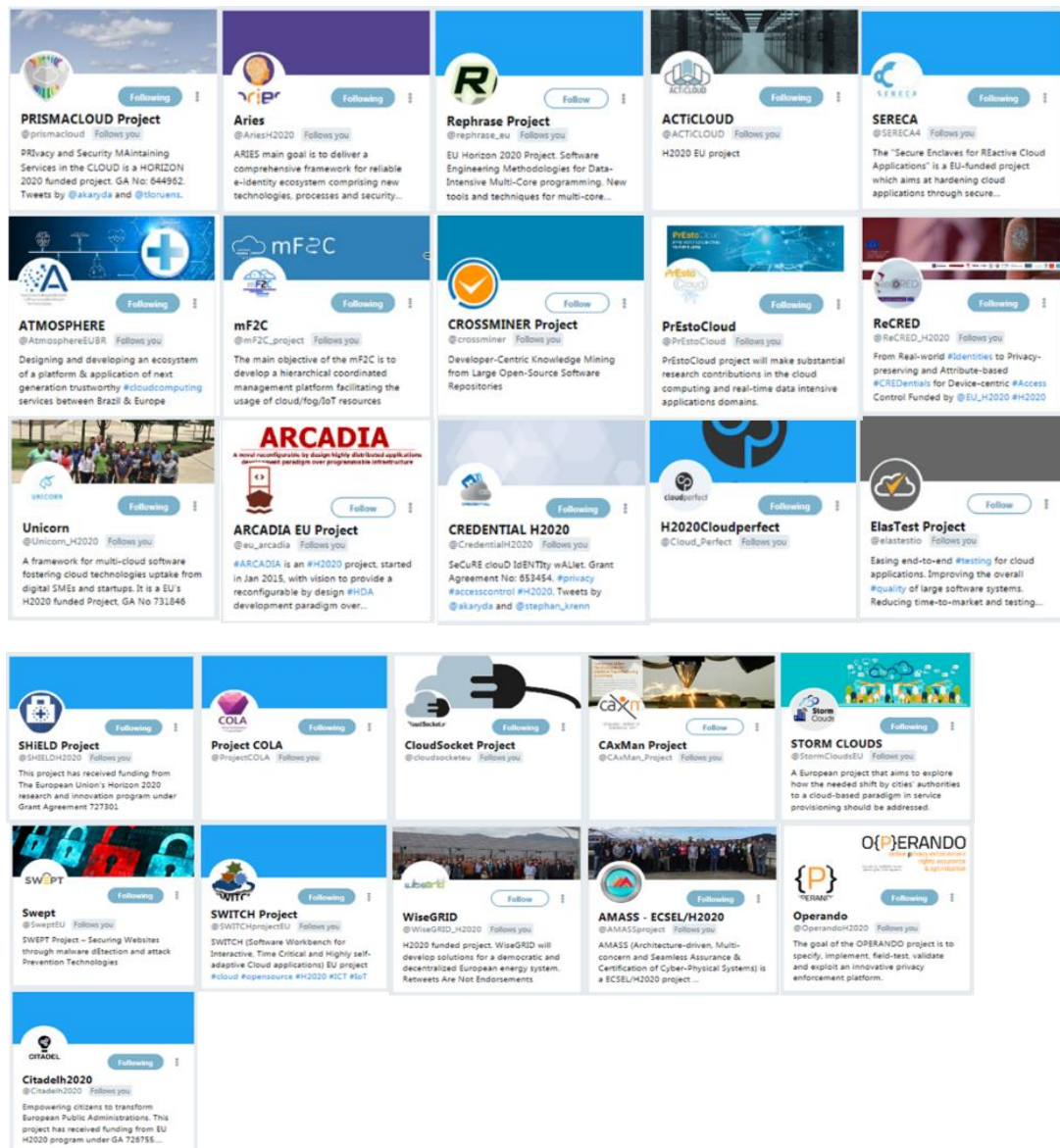
Figure 35. Twitter followers: H2020 projects

- Individual Experts in the cloud computing and DevOps sphere:

Figure 36. Twitter followers: Experts

- Public institutions:

Figure 37. Twitter followers: Public institutions

- Cloud service providers and organizations that practice the DevOps movement:

Figure 38. Twitter followers: Cloud service providers

- Application Developers and providers
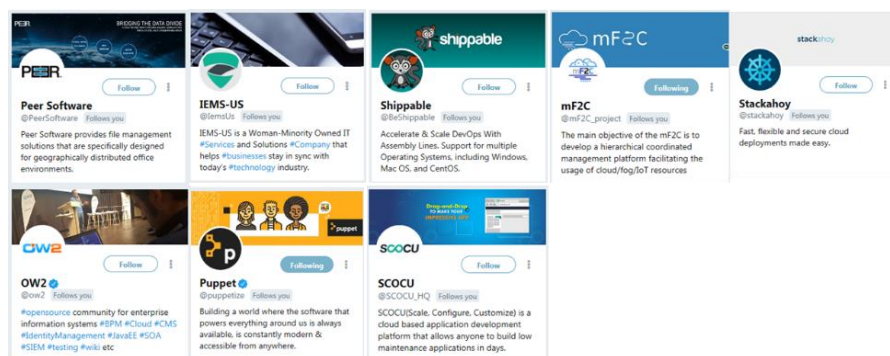
Figure 39. Twitter followers: Application Developers

The next period will be devoted to work with institutions, researchers, team members and other relevant stakeholders with strong social media presence to communicate information about DECIDE in order to reach a wider audience.

5.2.1.1   Twitter KPIs

DECIDE's Twitter account has, as of 15th of May, 415 tweets and 114 followers.
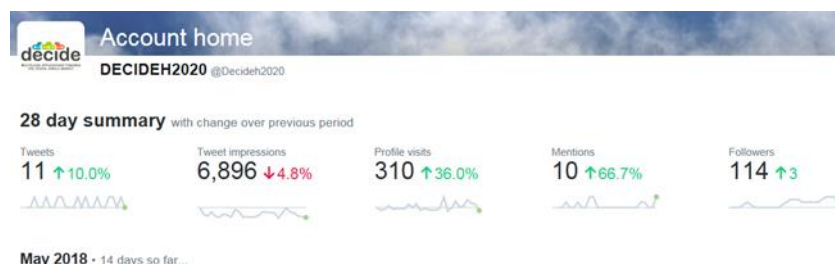
Figure 40. DECIDE Twitter account most significant figures

The following figures depict the activity of the project's account during 2017 and this year 2018. In Twitter as on the web, the blog posts mark the periods of greatest impact:
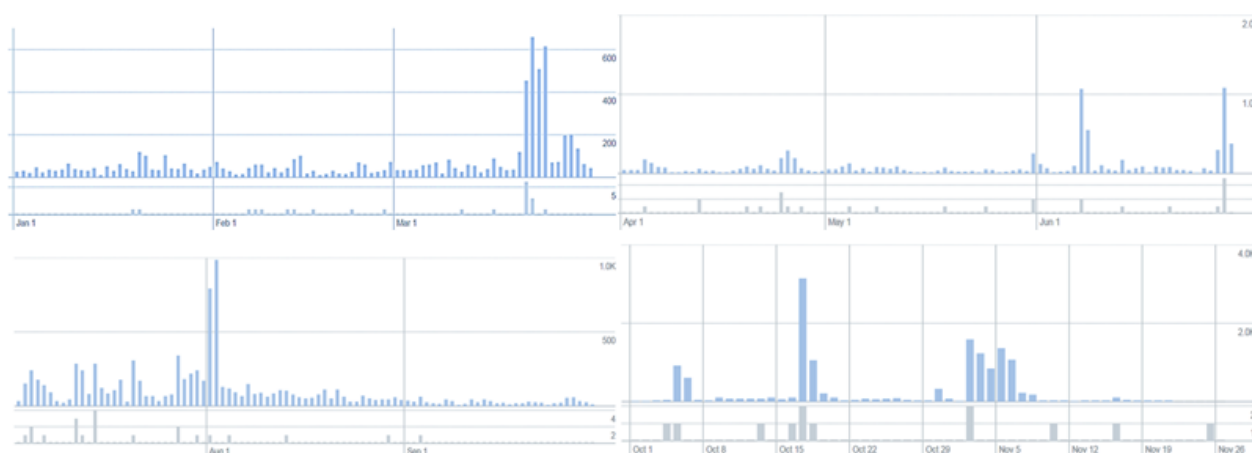
Figure 41. 2017 Twitter activity registry
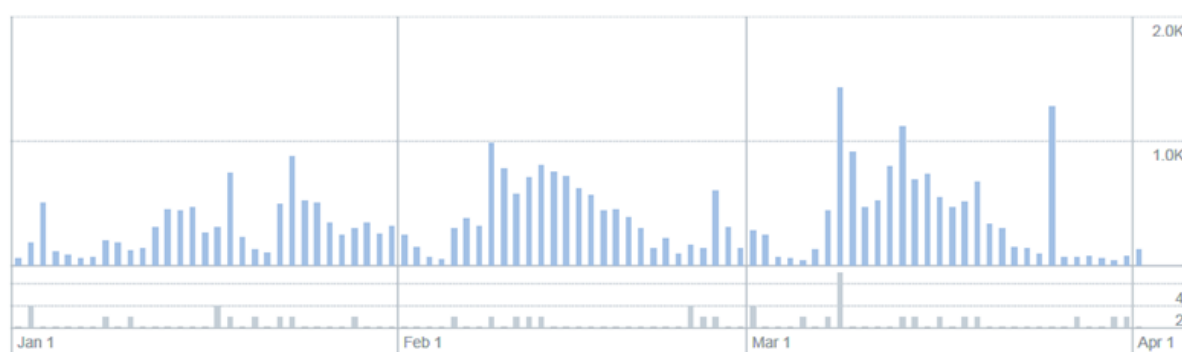
Figure 42. 2018 Twitter activity registry

Especially significant is that the tweets related to the events where the project will be present generate a great impact, that is, number of impressions. The tweet with the larger number of impressions is related to a post (#DECIDEpost) with 4085 impressions. It is important to acknowledge that this post is about the progress of the project, which proves that the project has captured interest and the digital strategy is working adequately.

The next pictures show the top tweets with the larger number of impressions and mentions in 2018.

Figure 43. 2018 Top Tweets

It is also to be highlighted that the tweet concerning the publication of the DECIDE press release earned 2113 impressions.

Figure 44. 2018 Top Tweet regarding the press release

Twitter is becoming a very appropriate platform for the dissemination of project content but at the same time, users are increasingly selective and it is difficult to create loyalty. Therefore, it is necessary to stress the focus on the interests of the project's target groups. The evolution of the project, such as the releases of the source code, the demo videos planned, and the publication of the deliverables will allow the project to achieve a greater engagement.

5.2.2   DECIDE LinkedIn Group

The LinkedIn Group of DECIDE can be found at: https://www.linkedin.com/groups/8602459
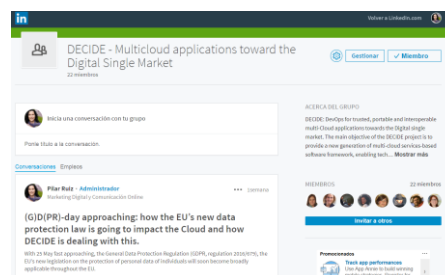
Figure 45. DECIDE LinkedIn Group

LinkedIn is a social network focused on individual professionals. The launching of the DECIDE Network group happened at the end of the first semester, so as to ensure there is enough activity and content to be shared.

During this first reporting period, the project has kept a low activity on LinkedIn. However, it is expected that as soon as more results are available, the project will increase its effort in this social network as it is an excellent tool to show the project's achievements.

5.2.2.1 LinkedIn KPIs

The DECIDE LinkedIn group currently (as of May 15th, 2018) has 22 members and 14 posts.

5.2.3 YouTube

The YouTube channel can be found at: https://www.youtube.com/channel/UCQ59BWyOcp7-mIrH1ZtfssA
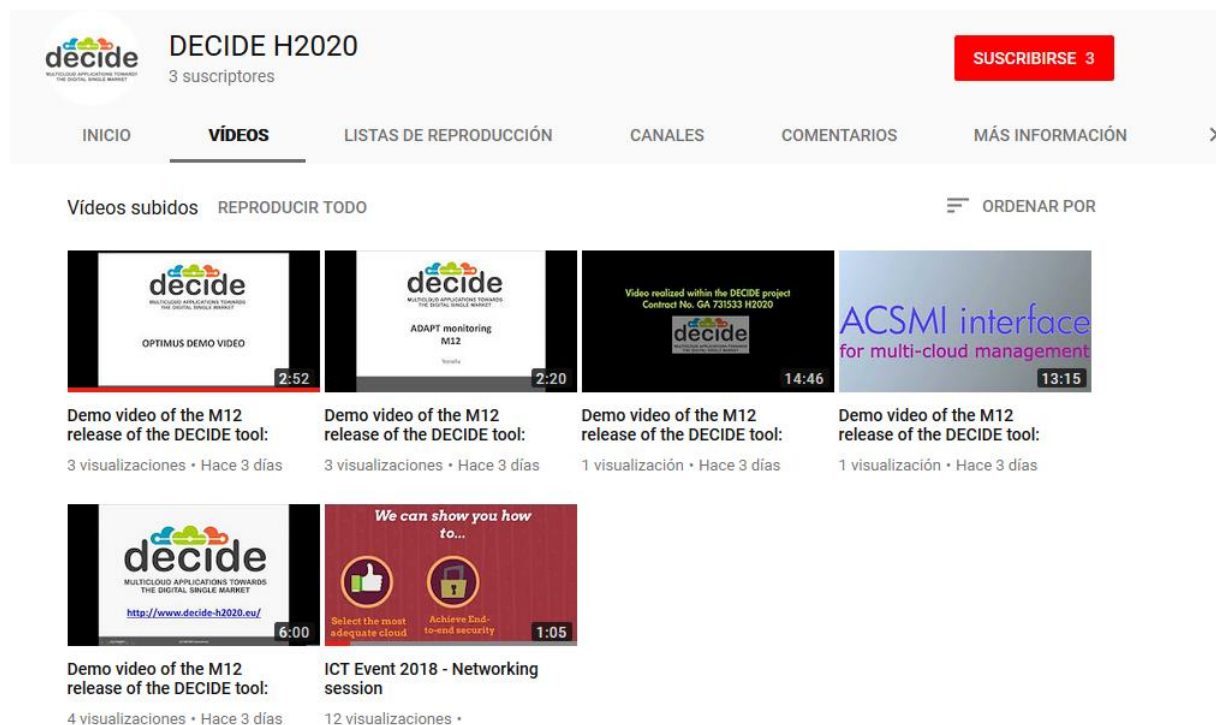
Figure 46. DECIDE YouTube profile

In principle, the aim of the YouTube profile is not to generate direct traffic to the project's website as with other social media but rather to use it as a channel in which to place all videos generated during the project.

The YouTube profile is expected to gain more relevance as more demo videos are published. Videos have a great communication and positioning value and can be used to communicate key messages with bigger impact.

Currently, the YouTube profile of DECIDE hosts the demo videos of the M12 tools as well as the video for the application to the networking session in the ICT event 2018.

5.2.4 SlideShare

The SlideShare profile for the project can be found at: http://www.slideshare.net/Decideh2020
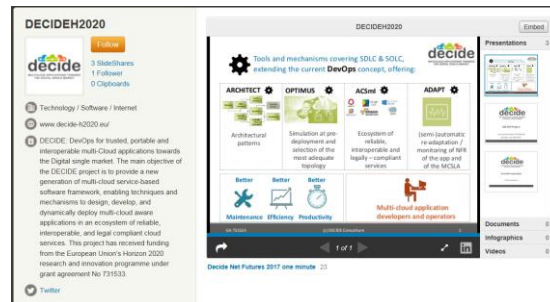
Figure 47. SlideShare DECIDE

The SlideShare account has been defined to contain relevant presentations of DECIDE, generic or specific, presenting the project results and achievements. SlideShare is used to spread the project achievements to all target groups. SlideShare allows to publish presentation contents with no limits in number of pages or characters. Currently it contains two presentations of DECIDE and an infographic.

6   Networking activities

Collaboration and networking activities in DECIDE are promoted from the beginning of the project, based on the analysis performed in the beginning of the project [1] but continuously steered as more knowledge is acquired and new initiatives are launched.

Collaboration in DECIDE is not limited or focused to similar H2020 projects but other initiatives are also considered and promoted.

Once a potential collaboration has been identified, a roadmap is set up in agreement with the initiator of the collaboration. Periodic follow-up, on a monthly basis as in every other dissemination and activity is performed in order to be able to assess how effective that collaboration is.

The collaboration in the project has been classified according to three angles or perspectives:

- *Type of collaboration*:
  - Technical: engagement in technical activities, with the aim of generating common results or re-using each other's results.
  - Promotional: to participate or organize joint events or workshops, joint publications and so on.
  - Commercial: in case a commercial opportunity arises for the exploitation of a joint asset, an agreement will be sought.
- *Level of collaboration*:
  - Project level: the collaboration is established between DECIDE and another research project.
  - Organization level: the collaboration is with an individual organization, being it university, company, research organization, and so on.
  - Interest Group level: the collaboration is established with a community, an alliance, a standardization committee, etc.
- *Degree of collaboration:*
  - Continuous: systematic collaboration.
  - Frequent: from time to time, but without a plan
  - Punctual: isolated collaboration.

The following table classifies the collaboration in agreement with the categories above. The legend of colours is as follows: Continuous collaboration is shown in green, frequent collaboration in blue and punctual collaboration in red.

Table 2. Collaboration classification

Collaboration Type	Collaboration level		
	Project	**Organization**	**Interest Group**
Technical	COLA, SHiELD, MUSA (finished), CloudWatch2 (finished), COST ACCROSS	OW2	Inter-cloud cluster Software Engineering for Software Applications ERRIN Network

	Collaboration level		
Collaboration Type	Project	Organization	Interest Group
			Common Dissemination Booster cluster of projects The Data Centre Alliance Cloud 28+
Promotional	ACTiCLOUD, MELODIC, RESTASSURED, CLOUDPERFECT MegaMart, TANGO	-	Common Dissemination Booster cluster of projects Inter-cloud cluster Software engineering for software applications
Commercial	-	-	-

As it can be seen, the collaboration activities until now have been performed on a frequent basis in most cases, except for the ones related to MUSA and the Common Dissemination Booster cluster of projects. The reasoning behind the good collaboration with MUSA is that two partners of the DECIDE consortium, namely AIMES and TECNALIA, are partners in that project and both deal with similar issues. Both TECNALIA and AIMES are also partners of SHiELD. In the case of TECNALIA, the DECIDE team is supporting the SHiELD team in the creation and development of the SecDevOps environment to be developed in the context of the SHiELD project with the lessons learned from DECIDE.

Networking activities in collaboration with other H2020 projects are also put in place. To this end,

- **DECIDE has led the application for a networking session in the ICT event** to be celebrated in Vienna, 4-6 December 2018, along **with 5 more projects**, namely ACTiCLOUD, MELODIC, RESTASSURED, CLOUDPERFECT. All these projects are active in multi-cloud, and improvement of non-functional requirements (e.g. performance, security), and are therefore complementary to DECIDE. The title for the proposed session is: "*Learn how to select the most appropriate cloud resources for your app*" and a participatory approach, with round tables and cafés, has been foreseen. In the event the session is approved, DECIDE will lead the session in collaboration with the aforementioned multi-cloud related projects.
- **Additional applications for networking sessions** have been submitted as part of the application of the **cluster of inter-cloud and software engineering for software applications**, where DECIDE contributes to. Finally, DECIDE
- **Application for an exhibition booth,** along with the cluster of software engineering for software applications and the projects MEGAMART and TANGO.

The following table shows the collaboration activities already performed.

Table 3. Identified initiatives for collaboration

Who	Domain Area	Collaboration type	Topics for collaboration	Collaboration status
COLA project	Cloud orchestration	Technical, promotional	ACSmI	Started. Periodic meetings through common partner (CloudBroker), exchange of technical documentation, joint events planned.
MUSA project	Cloud Service Level Agreements	Technical	ACSmI	Collaboration finished as MUSA is finished. Until then, technical alignment of both projects, with frequent communication exchange
SHIELD project	(Sec)DevOps	Technical, Promotional (through the CDB)	DevOps	Technical alignment of both projects, with frequent communication exchange
ACTiCLOUD, MELODIC, RESTASSURED, CLOUDPERFECT	Simulation, Non-functional requirements compliance	Promotional	OPTIMUS, DevOps	Application to the networking session in the ICT event 2018
CLOUDWATCH2	Supporting the European cloud ecosystem and fostering the adoption of cloud	Promotional	Dissemination	Well established communication
Data Centre Alliance	Promotion of the data center industry	Technical, Promotional	Dissemination, also used as focus group to gather feedback on the ACSmI solution	Well established communication

7   Revising the dissemination strategy and the associated KPIS

7.1   Planned Vs. actual work

In the following section, the KPIs and the values achieved with respect to the project communication and dissemination activities are presented.

Legend of the used symbols

✔	Criterion has been met
✔	Some actions have already been done
✖	Nothing to report yet

Next, the achievement for the dissemination KPIs is shown.

Table 4. Dissemination KPIs

Dissemination tool	KPI	Target	Period 1 (M1 – M18)	
Brochures	Number	>3	1	✔
Conference/Journal publications	Scientific journals: Scientific conferences:	2 15	1 (in process) 4 accepted 1 awaiting decision	✔
Project posters	Number of posters	1-2	2	✔
Press releases	Number of specialized press releases	3	1	✔
Project showcases	Number of demonstration videos produced	3	5 (and one in production)	✔
Project newsletters	Number of newsletters	1 per year	1	✔
Attendance of events	Number of events attended	5 per year	7	✔
Organization of events	Number of organized events	1	2 (1 workshop and 1 training)	✔
Cloud Community Software and Services Publications	Number of references in external magazines (Collaboration and Support Actions, EC)	+20	22	✔

The following table presents the achievement of the communication KPIs

Table 5. Communication KPIs

Dissemination tool	KPI	Objective	Period 1	
DECIDE Website	Yearly visits	>1500	1422	✔
	Duration of visits	More than 2 min.	00:03:43	✔
	Monthly downloads: Posters, flyers Public reports	 35 50	 >35 >50	✔
	Reference from external pages	20 (excluding partner webs)	0	✔

Dissemination tool	KPI	Objective	Period 1	
Twitter Feed	Regular tweets or when a relevant milestone is taking place	>150 followers	115	✔
LinkedIn Group	Number of group member in LinkedIn	30	22	✔
SlideShare	Number of presentations in SlideShare	4	3	✔
Mass Media	Number of press releases	2 per country in the project	1	✔
DECIDE Blog	Number of entries	5	18	✔

7.2   Adjustments – Future plans

During the first period of the project, a good balance between scientific papers, technical publications and business – oriented publications has been achieved. The digital strategy has proven to be effective and the project is reaching the identified target audience.

The dissemination activities during the second reporting period of the project are expected to be amplified, as two milestones will occur, namely the releases of the second and final versions of the source code. This will take place in M24 and M30 of the project. Furthermore, the evaluation of the DECIDE tools by the use cases will be used as input for the sales argument, to demonstrate the benefits that DECIDE provides to multi-cloud application developers and operators.

Thus, the main goal for the outreach activities of DECIDE for the upcoming period is to consolidate the DECIDE community, both with the communication and dissemination tools at hand and with the participation in events and workshops.

Summarizing, the focus for DECIDE will be now to:

- Consolidate the DECIDE community with a rational use of the social media
- Engage practitioners with the outcomes released
- Continue with the publication of press releases, poster, brochures
- Keep on releasing blog posts with the updates of the project as well as with specific topics of interest
- Participate in events and workshops
- Publish scientific papers and journals
- Liaise with initiatives related to DECIDE, either projects or other kind
- Continuously monitor the key performance indicators in order to modify the strategy as needed

8 Conclusions

Dissemination, Communication and networking activities during the first eighteen months of the project were carried out as presented in deliverable D8.2 [1]. The achievement of the majority of the KPIs for the current period demonstrate that the strategy followed is appropriate.

DECIDE results were disseminated through the publication of 4 scientific papers, 17 general and business publications, 6 dissemination activities and the participation in about 7 different events, 2 of them organized, addressing both scientific and industrial communities.

Different dissemination materials have been elaborated as a support tool for the dissemination activities, such as brochure, factsheet, newsletter, general presentation, two posters, press release, 6 videos and DECIDE merchandising (pen, folder, notebook, business cards and stickers). These materials will be updated as the project progresses.

Regarding Communication activities and the digital strategy, the results have been very satisfactory and a new line has been added to the DECIDE digital strategy, so as to achieve "loyalty". This will be now the major activity upon which the social media will revolve.

Networking and collaboration is also an on-going activity that will be stressed in the upcoming period. Initial contacts have been performed and to this end, DECIDE has led the application for a networking session in the ICT event with 5 additional projects. Moreover, DECIDE has participated in Service 1 of the Common Dissemination Booster, along with 7 different projects.

9   References

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[8]   Revista de Ingeniería Dyna 2006 - Publicaciones DYNA, "DYNA Ingeniería e Industria," Revista de Ingeniería Dyna 2006 - Publicaciones DYNA, [Online]. Available: https://www.revistadyna.com/inicio-dyna. [Accessed 15 May 2018].

[9]   European Commission, "Common Dissemination Booster (CDB)," [Online]. Available: https://www.cdbservices.eu/. [Accessed 15 May 2018].

Annex 1 – Detailed information on dissemination

A1.1 Newsletter

Available at: https://www.decide-h2020.eu/documents2/decides-2017-newsletter
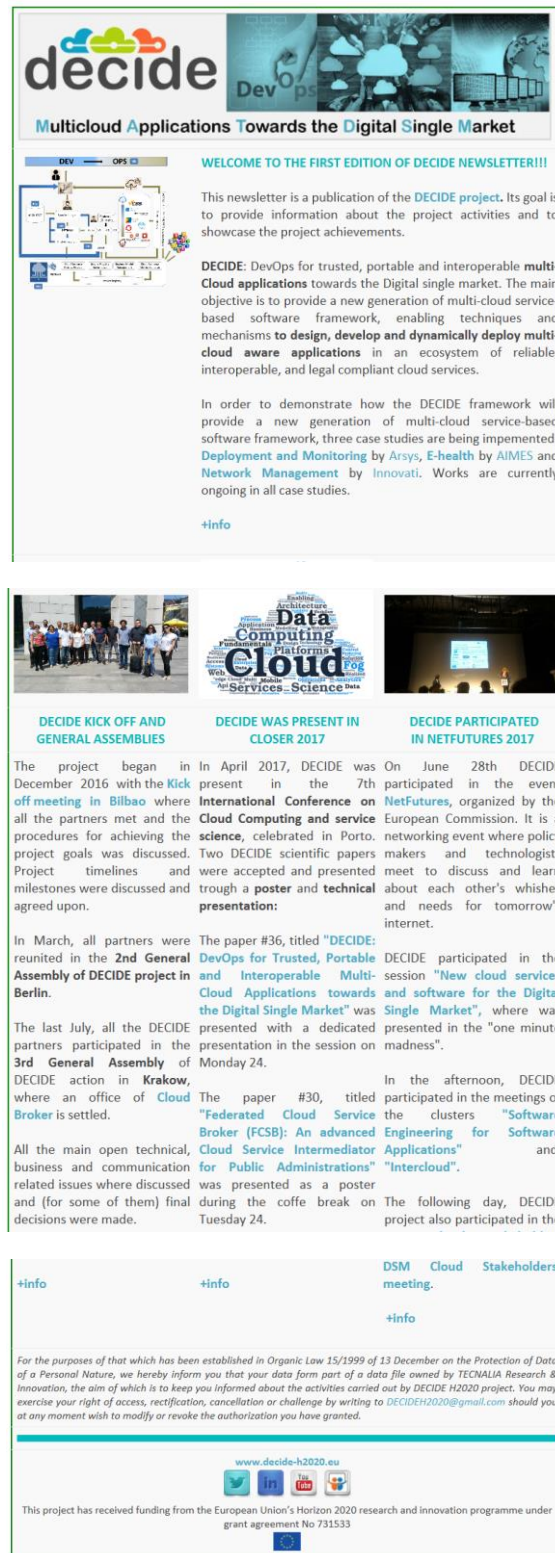
Figure 48. Newsletter

A1.2 Press Release

Available at: https://www.decide-h2020.eu/documents2

A1.2.1. English version

Press Release

decide

MULTICLOUD APPLICATIONS TOWARDS
THE DIGITAL SINGLE MARKET

DECIDE improves the productivity of complex multi-cloud applications and decreases their time – to – market by extending the DevOps philosophy

Bilbao, Spain, April 10, 2018 – DECIDE is an H2020 research project funded by the European Commission over a period of three years. DECIDE's main objective is to provide a next generation software framework, enabling techniques, tools and mechanisms to design, develop, operate, and dynamically (re-)deploy multi-cloud aware applications in an ecosystem of reliable, interoperable, and legally compliant cloud services.

Our **partners**, AIMES, ARSYS, HPE, Experis IT, time.lex, Fraunhofer, CloudBroker and TECNALIA, are from six different countries, representing Northern and Southern Europe. TECNALIA has been entrusted with the leadership of the consortium.

DECIDE will **improve** the productivity and decrease the time-to market of applications which require high rates of performance and reliability, and applications for which certain legal aspects of the cloud resources where the application is deployed are critical, due to the nature of the managed information.

The work performed in DECIDE is specifically relevant for the multi-cloud application developers and operators, Multi-cloud application providers, cloud service providers, the scientific-technical community and the standardisation community.

DECIDE will develop an Extended **DevOps framework that will support software development companies** in:

- enhancing their (multi-cloud applications) development and operations processes;
- improving the developers' and operators' productivity;
- ensuring the application's maintainability, Quality of Experience (QoE) and Quality of Service (QoS) in its whole life;
- and decreasing the time-to-market.

DECIDE will advance the current state of the art, proposing **relevant innovations** on the following phases of the DevOps cycle:

- definition and characterization of multi-cloud applications whose software components can be deployed in a distributed manner into different cloud providers, getting the best combination of cloud resources for the entire application;

- development of mechanisms to allow pre-deployment simulation of the best combination of cloud services for a concrete application with specific non-functional requirements;
- implementation of tools which support the continuous monitoring and adaptation of multi-cloud applications based on the changes of their non-functional properties or the SLAs of the used cloud services;
- development of mechanisms for intelligent discovering, combination and monitoring of cloud services (or combination of cloud services) available at each moment;
- implementation of an integrated DevOps framework easing the information workflow between the tools supporting each of the phases of the software development lifecycle.

Project coordinator, Leire Orue-Echevarria, from TECNALIA **said:**

"DECIDE extends the current concept of DevOps to the architectural phase and facilitates the operation of complex multi-cloud applications with the provision of tools supporting the developers and operators in the complete life-cycle of the application, from its design to its operation".

DECIDE has completed the end of the first project year, and is progressing rapidly. Thus far, work has been focused on the definition of the general architecture for the different tools that are involved in the project, as well as on developing the framework that will orchestrate the use of each of the tools. The first version of the tools has been released as open source and are accessible at: https://git.code.tecnalia.com/DECIDE_Public/DECIDE_Components

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 731533

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Figure 49. Press release in English

A1.2.2 Spanish version

Nota de Prensa

décide
MULTICLOUD APPLICATIONS TOWARDS
THE DIGITAL SINGLE MARKET

DECIDE mejora la productividad de aplicaciones *multi-cloud* complejas y reduce el tiempo de lanzamiento al mercado ampliando la filosofía *DevOps*

Bilbao, España, 10 de abril de 2018 - DECIDE es un proyecto de investigación H2020 financiado por la Comisión Europea durante un período de tres años. El objetivo principal de DECIDE es ofrecer un *framework* para el desarrollo de software de próxima generación, habilitando técnicas, herramientas y mecanismos para diseñar, desarrollar, operar, y dinámicamente re-desplegar aplicaciones *multi-cloud* en un ecosistema de servicios en la Nube fiables, interoperables y conformes a la legislación.

Nuestros **socios**, AIMES, Arsys, HPE, Experis IT, time.lex, Fraunhofer, CloudBroker y TECNALIA, con sede en seis países diferentes, representan el norte y el sur de Europa. A TECNALIA se le ha confiado el liderazgo del consorcio.

DECIDE **mejorará** la productividad y reducirá el tiempo de lanzamiento al mercado de aplicaciones que requieren altas tasas de rendimiento y fiabilidad, y aplicaciones para las que ciertos aspectos legales de los recursos en la Nube donde son desplegadas son críticos, debido a la naturaleza de la información gestionada.

El trabajo llevado a cabo en DECIDE es específicamente relevante para desarrolladores y administradores de aplicaciones *multi-cloud*, proveedores de aplicaciones *multi-cloud*, proveedores de servicios en la Nube, la comunidad científico-técnica y la comunidad de estandarización.

DECIDE desarrollará un *framework DevOps* **Ampliado que dará soporte a empresas de desarrollo software** en:

- la mejora de sus procesos de desarrollo (aplicaciones *multi-cloud*) y operaciones;
- mejorar la productividad de desarrolladores y administradores;
- garantizar el mantenimiento de la aplicación, la Calidad de Experiencia (QoE, *Quality of Experience*) y la Calidad de Servicio (QoS, *Quality of Service*) mientras esté en producción;
- y reduciendo el tiempo de lanzamiento al mercado.

DECIDE impulsará el estado del arte actual, proponiendo **innovaciones relevantes** en las siguientes fases del ciclo *DevOps*:

- definición y caracterización de aplicaciones *multi-cloud* siendo posible desplegar sus componentes software de forma distribuida en diferentes proveedores *Cloud*, consiguiendo la mejor combinación de recursos en la Nube para toda la aplicación;

- desarrollo de mecanismos que permitan simular despliegues que incluyan la mejor combinación de servicios en la Nube para una aplicación en concreto con requisitos específicos no funcionales;

- implementación de herramientas que soportan monitorización continua y adaptación de aplicaciones *multi-cloud* de acuerdo a los cambios de sus propiedades no funcionales o a los Acuerdos de Nivel de Servicio (SLA, *Service Level Agreement*) de los servicios en la Nube utilizados;

- desarrollo de mecanismos para el descubrimiento inteligente, combinación y monitorización de servicios en la Nube (o combinación de servicios *Cloud*) disponibles en cada momento;

- implementación de un *framework DevOps* integrado que facilite el flujo de trabajo entre las herramientas dando soporte a cada una de las fases del ciclo de vida del desarrollo de software.

La **Coordinadora del Proyecto**, Leire Orue-Echevarría, de TECNALIA **dijo:**

"DECIDE amplía el concepto actual de DevOps a la fase arquitectónica y facilita el funcionamiento de aplicaciones multi-cloud complejas con la provisión de herramientas que dan soporte a desarrolladores y administradores en el ciclo de vida completo de la aplicación, desde su diseño a su explotación".

DECIDE ha completado el final del primer año del proyecto, y está progresando rápidamente. Hasta el momento, el trabajo se ha centrado en la definición de la arquitectura general de las diferentes herramientas que forman parte del proyecto, así como en el desarrollo del *framework* que orquestará el uso de cada una de las herramientas. La primera versión de las herramientas se ha publicado como código abierto y está accesible en: https://git.code.tecnalia.com/DECIDE_Public/DECIDE_Components

Este proyecto ha recibido financiación del programa de investigación e innovación Horizonte 2020 de la Unión Europea en virtud del acuerdo de subvención número 731533.

Contacto

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Figure 50. Press release in Spanish

A1.2.3. Basque version

DECIDEk, DevOPs filosofia zabalduz, hobetu egiten du hodei anizkoitzeko aplikazio konplexuen produktibitatea, eta murriztu merkaturatzeko behar den denbora

Bilbo, Espainia, 2018ko apirilaren 10a - DECIDE Europako H2020ko ikerketa-proiektu bat da, eta Europako Batzordeak finantzatu du hiru urtez. DECIDEren helburu nagusia da softwarea garatzeko euskarri bat garatzea, hurrengo belaunaldikoa, eta, horretarako, zenbait teknika, tresna eta mekanismo gaituko ditu hodei anizkoitzeko aplikazioak diseinatzeko, garatzeko, erabiltzeko eta dinamikoki biltzeko nahiz hedatzeko, hodeiko zerbitzu fidagarri, elkarreragingarri eta legezkoen ekosistema batean.

Gure bazkideen egoitzak 6 herrialdetan daude, eta Europako iparraldea eta hegoaldea ordezkatzen dituzte: AIMES, Arsys, HPE, Experis IT, time.lex, Fraunhofer, CloudBroker eta TECNALIA. TECNALIA izendatu dute partzuergoaren buru.

DECIDEk produktibitatea hobetuko du eta errendimendu eta fidagarritasun handiak behar dituzten aplikazioak merkaturatzeko behar den denbora murriztuko du, baita kudeatzen duten informazioaren izaeragatik hodeiko baliabideen lege-alderdiak oso garrantzitsuak dituzten aplikazioena ere.

DECIDEn egindako lana hauentzat da garrantzitsua, zehazki: hodei anizkoitzeko aplikazioak garatzen eta administratzen dituztenak, hodei anizkoitzeko aplikazioen hornitzaileak, komunitate zientifiko-teknikoa eta estandarizazioaren komunitatea.

DECIDEk **DevOps euskarri hedatu bat garatuko du, zeinak zerbitzu hau emango baitie software-garapeneko enpresei:**

- hodei anizkoitzeko aplikazioen garapen-prozesuak eta eragiketak hobetu;

- garatzaileen eta administratzaileen produktibitatea hobetu;

- aplikazioaren mantentze-zerbitzua, erabileraren kalitatea (QoE, *Quality of Experience*) eta zerbitzuaren kalitatea (QoS, *Quality of Service*) bermatu ekoizpen-prozesuan;

- eta merkaturatzeko behar den denbora murriztu.

DECIDEk bultzada bat emango dio uneko punta-puntako teknologiari, eta **berrikuntza garrantzitsuak** egingo ditu DevOPs zikloaren fase hauetan:

- hodei anizkoitzeko aplikazioak definitzea eta haien ezaugarriak definitzea, haien software-osagaiak hodeiko zenbait hornitzailetan banatuta hedatzeko aukerarekin, hodeiko baliabideen konbinazio onena lortzeko aplikazio osorako;

- mekanismoak garatzea, baldintza ez-funtzional jakinak dituen aplikazio zehatz baterako hodeiko zerbitzuen konbinazio onena duten hedapenak simulatzeko;

- tresnak ezartzea, hodei anizkoitzeko aplikazioen monitorizazio jarraitua egiteko eta haiek egokitzeko propietate ez-funtzionalen aldaketen arabera edo hodeiko zerbitzuen zerbitzu mailako hitzarmenen arabera (SLA, *Service Level Agreement*);

- unean-unean erabilgarri dauden hodeiko zerbitzuen (edo hodeiko zerbitzuen konbinazioaren) bilaketa adimenduna, konbinazioa eta monitorizazioa egiteko mekanismoak garatzea;

- DevOps euskarri integratu bat inplementatzea, softwarearen garapeneko bizi-zikloko fase guztietarako, tresnen arteko lan-fluxua errazteko.

Hau esan du Leire Orue-Echevarríak (TECNALIA, proiektuaren koordinatzailea):

"DECIDEk arkitektura-fasera zabaldu du gaur egun DevOps-ez ulertzen duguna, eta hodei anizkoitzeko aplikazio konplexuen funtzionamenduari laguntzen dio, aplikazioaren bizi-ziklo osoan, diseinutik ustiapenera, erabiltzeko tresnak emanez garatzaile eta administratzaileei".

DECIDEk osatu du jada proiektuaren lehen urtea, eta bizkor asko ari da aurrera egiten. Lanaren ardatza, orain arte, proiektuaren parte diren tresnen arkitektura orokorra definitzea izan da, eta orobat tresna horietako bakoitzaren erabilera zuzenduko duen euskarria garatzea ere bai. Tresnen lehen bertsioa kode irekiarekin argitaratu da, eta hemen dago: https://git.code.tecnalia.com/DECIDE_Public/DECIDE_Components

Proiektu honek Europar Batasuneko ikerketa eta berrikuntzako H2020 programaren finantziazioa jaso du, 731533 zenbakiko diru-laguntzaren bidez.

Figure 51. Press release in Basque

A1.2.4. German version

PRESSEINFORMATION

EU-Projekt DECIDE: Multi-Cloud-Betrieb ist möglich

Die Cloud gilt als kostengünstiges Betriebsmodell für Software. Je komplexer jedoch eine Software ist, desto umfangreicher ist ihr Anforderungsprofil an die Cloud – verbunden mit zunehmenden Kosten. Eine Antwort darauf ist das Multi-Cloud-Modell. Das ist jedoch technisch wie rechtlich nicht trivial. Die größten Hürden auf dem Weg in die Multi-Cloud versucht das Fraunhofer-Institut für Offene Kommunikationssysteme FOKUS gemeinsam mit seinen Partnern im EU-Projekt DECIDE zu überwinden. Nach einem Jahr Arbeit ist es nun Zeit für eine erste Bilanz.

Vorteile und Hürden des Multi-Cloud-Modells

Eine Grundlage für den Softwarebetrieb in einem Multi-Cloud-Modell sind Microservice-basierte Architekturen. Das bedeutet, in moderner Software sind die einzelnen Funktionen voneinander entkoppelt und in hochspezialisierte separate Dienste gekapselt. Diese übernehmen jeweils nur eine oder wenige spezifische Aufgaben der insgesamt komplexen Anwendung. Jeder Microservice besitzt ein demensprechend überschaubares Anforderungsprofil für den Cloud-Betrieb.

Ein E-Commerce-Shop benötigt zum Beispiel sowohl eine Nutzerregistrierung als auch eine Artikelsuche. Diese beiden Komponenten können als zwei oder mehr Microservices in unterschiedlichen Clouds bei unterschiedlichen Anbietern gehostet werden, je nachdem welches Angebot dem Microservice am besten entspricht und zugleich am kostengünstigsten ist. Für Entwickler und Betreiber bedeutet das mehr Unabhängigkeit, Flexibilität und eben Kostenersparnis.

Es gibt jedoch Gründe, warum sich das Modell bisher nicht durchgesetzt hat. Das beginnt beim fehlenden Überblick im Dschungel der Angebote, setzt sich im Rechtsdschungel der Lizenzbedingungen fort und gipfelt im Problem der Interoperabilität zwischen den unterschiedlichen Cloud-Services.

Lösungsansätze im DECIDE-Projekt

Dass diese Hürden überwindbar sind, zeigen Entwicklungen des Projekts »*DEvOps for trusted, portable and interoperable Multicloud applications towards the Digital singlE market*« *(DECIDE)*: Mit einer Förderung der EU-Kommission entwickelt ein internationales Konsortium ein Software-Framework, um Multi-Cloud-Anwendungen in einem interoperablen, rechtssicheren und dynamischen System zu gestalten. So entsteht ein Toolset, mit dem Softwareunternehmen ihre Anwendungen Multi-Cloud-fähig designen, entwickeln und betreiben können – und in dem sich die einzelnen Services durch Automatisierung dynamisch selbst anpassen und über verschiedene Cloud-Services neu implementiert werden können. Dabei wird der DevOps-Ansatz (Development Operations) verwendet, in dem Softwareentwicklung und Systembetrieb nicht getrennt voneinander, sondern parallel ablaufen. Die Zwischenbilanz nach einem Jahr Arbeit:

eine erste Version einer Rahmenarchitektur ist fertiggestellt. Zudem wurden bereits Prototypen zur modellhaften Nutzung der nachfolgenden Werkzeuge konzipiert:

- Ein Ökosystem aus vertrauenswürdigen, interoperablen und gesetzeskonformen Cloud Services. Auf diesem Angebot an unterschiedlichen Services von verschiedenen Providern setzen die nachfolgenden Werkzeuge von DECIDE auf. Integriert werden unter anderem die Cloud-Service-Anbieter AIMES (modified OpenStack), ARSYS (VMWare), AWS, CloudSigma, sowie weitere europäische Provider.

- Ein Katalog, der Best Practices speziell für die Architektur von Multi-Cloud-Anwendungen, sogenannte »architectural patterns«, bereitstellt. Zugleich werden entsprechende Empfehlungen für die einzelne Anwendung basierend auf ihren nicht-funktionalen Anforderungen erstellt.

- Ein »Deployment-Simulationstool«, in dem unterschiedliche Cloud-Service-Kombinationen für eine konkrete Anwendung getestet und bewertet werden können, um diejenige Alternative auszuwählen, die den Anforderungen der Software am besten entspricht.

- Ein maschinenlesbares Format für Lizenzvereinbarungen mit den Endkunden – Multi-Cloud Service Level Agreements (MCSLA) – sowie ein Editor zur Unterstützung beim Erstellen und Verwalten der MCSLAs. Der Editor legt die Basis für eine kontinuierliche Überprüfung der Anwendung während des laufenden Betriebs um die Einhaltung der Vereinbarungen zu überwachen.

- Ein Tool, das sowohl die Überwachung als auch die kontinuierliche Anpassung der Multi-Cloud-Anwendung unterstützt sowie bei Bedarf auch das (teil-) automatisierte Re-Deployment in einer anderen Cloud in Echtzeit übernimmt – sofern bestimmte Bedingungen nicht erfüllt werden. Dies wird beispielsweise nötig, wenn Service Level Agreements durch einen Cloud-Service-Anbieter nicht eingehalten werden.

Das Fraunhofer FOKUS in Berlin hat die DevOps-Mechanismen entwickelt und ist überdies maßgeblich an der Erarbeitung der Rahmenarchitektur beteiligt. Außerdem wurden der Prototyp für den Lizenzvereinbarungs-Editor sowie für das Architektur-Tool bei Fraunhofer FOKUS konzeptioniert und entwickelt. Im kommenden Jahr wird die Rahmenarchitektur weiter optimiert sowie die Werkzeuge anhand ihrer Prototypen weiterentwickelt und bereitgestellt.

Gemeinsam mit Fraunhofer FOKUS arbeiten sieben weitere Projektpartner aus verschiedenen EU-Ländern an der Umsetzung von DECIDE: Die IT-Unternehmen AIMES, ARSYS, HPE, Experis IT und CloudBroker, die Anwaltskanzlei time.lex, sowie das private Forschungszentrum TECNALIA Research & Innovation, das das Projekt koordiniert. Das Projekt wird vom Horizon 2020 Forschungs- und Innovationsprogramm unter dem Grant Agreement Nr. 731533 gefördert und läuft von Dezember 2016 bis Dezember 2019.

Weitere Informationen:

https://www.decide-h2020.eu/

https://www.fokus.fraunhofer.de/de/dps/projekte/decide

Fraunhofer FOKUS

Fraunhofer FOKUS erforscht die Digitale Vernetzung und ihre Auswirkungen auf Gesellschaft, Wirtschaft und Technologie. Seit 1988 unterstützt es Wirtschaftsunternehmen und öffentliche Verwaltung in der Gestaltung und Umsetzung des digitalen Wandels. Dazu bietet Fraunhofer FOKUS Forschungsleistungen von der Anforderungsanalyse über Beratung, Machbarkeitsstudien, Technologieentwicklung bis hin zu Prototypen und Piloten in den Geschäftsbereichen Digital Public Services, Future Applications and Media, Quality Engineering, Smart Mobility, Software-based Networks, Vernetzte Sicherheit, Visual Computing und Analytics an. Mit rund 420 Mitarbeiterinnen und Mitarbeitern in Berlin und einem jährlichen Budget von 31 Millionen Euro ist Fraunhofer FOKUS das größte IKT-Institut der Fraunhofer-Gesellschaft. Es erwirtschaftet rund 70 Prozent seines Budgets aus Aufträgen der Industrie und der öffentlichen Hand.

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Figure 52. Press release in German

A1.2.5. Dutch version

Persbericht

DECIDE verbetert de productiviteit van complexe multi-cloud toepassingen en vermindert hun marktintroductietijd door gebruik te maken van een aangepaste DevOps-benadering.

Bilbao, Spanje, 10 April 2018 – DECIDE is een Horizon 2020 onderzoeksproject, gefinancierd door de Europese Commissie voor een periode van drie jaar. DECIDE's hoofddoel is om een softwarekader van de volgende generatie te bieden, alsook faciliterende technieken, instrumenten en mechanismen voor het ontwerpen, ontwikkelen, exploiteren en dynamisch (her)opzetten van multi-cloudbewuste toepassingen in een ecosysteem van betrouwbare, interoperabele en juridisch conforme clouddiensten.

Onze **partners**, AIMES, ARSYS, HPE, Experis IT, time.lex, Fraunhofer, CloudBroker en TECNALIA, zijn afkomstig uit zes verschillende landen, uit Zuid- en Noord-Europa. TECNALIA heeft het leiderschap over dit consortium op zich genomen.

DECIDE zal de **productiviteit verbeteren** en de **marktintroductietijd verkorten** van toepassingen die hoge prestaties en betrouwbaarheid vereisen, of waarbij bepaalde juridische aspecten van de clouddiensten die gebruikt worden om de applicatie te draaien kritiek zijn, vanwege de aard van de beheerde informatie.

De werkzaamheden in DECIDE zijn bijzonder relevant voor de multi-cloud applicatieontwikkelaars en -exploitanten, dienstverleners geïnteresseerd in multi-cloud toepassingen, clouddienstverleners, de wetenschappelijke-technische gemeenschap en de standaardisatiegemeenschap.

DECIDE zal een **uitgebreid DevOps-kader** voorzien **dat software ontwikkelaars zal ondersteunen in:**

- Het verbeteren van hun processen voor het ontwikkelen en draaien van (multi-cloud) softwaretoepassingen;
- Het verhogen van de productiviteit van ontwikkelaars en operatoren;
- Het waarborgen van de onderhoudbaarheid, de kwaliteit van de ervaring (Quality of Experience) en de kwaliteit van de dienstverlening (Quality of Service) gedurende de gehele levensduur van de toepassing;
- Het verminderen van de marktintroductietijd.

DECIDE zal de huidige stand van de techniek vooruithelpen door **relevante innovaties** voor te stellen voor de volgende fasen van de DevOps-cyclus:

- definitie en karakterisering van multi-cloudtoepassingen waarvan de softwarecomponenten op een gedistribueerde manier kunnen worden ingezet bij verschillende clouddienstverleners, zodat de beste combinatie van clouddiensten voor de gehele toepassing wordt verkregen;

- de ontwikkeling van mechanismen om een pre-deployment simulatie van de beste combinatie van clouddiensten mogelijk te maken voor een concrete toepassing met specifieke niet-functionele vereisten;

- implementatie van tools die ondersteuning bieden voor het continu monitoren en aanpassen van multi-cloudtoepassingen op basis van veranderingen in hun niet-functionele eigenschappen of de SLA's van de gebruikte clouddiensten;

- de ontwikkeling van mechanismen voor het op intelligente wijze ontdekken, combineren en monitoren van clouddiensten (en combinaties van clouddiensten) die op elk moment beschikbaar zijn;

- de implementatie van een geïntegreerd DevOps-kader dat de informatieworkflow tussen de tools die elk van de fasen van de softwareontwikkelingscyclus ondersteunen, vergemakkelijkt.

De **Projectcoördinator**, Leire Orue-Echevarria, van TECNALIA **zegt** het volgende over DECIDE:

"DECIDE breidt het huidige concept van DevOps uit tot de architectonische fase en faciliteert de uitvoering en bediening van complexe multicoudapplicaties door middel van specifiek daarvoor gemaakte tools die de ontwikkelaars en operatoren ondersteunen in de volledige levenscyclus van de toepassing, van het ontwerp tot het gebruik in praktijk."

DECIDE heeft het eerste projectjaar afgerond en vordert snel. Tot dusver zijn de werkzaamheden vooral gericht geweest op het definiëren van de algemene architectuur voor de verschillende tools die onder het project vallen, en op het ontwikkelen van het kader dat het gebruik van elk van de tools zal orkestreren. De eerste versie van de tools is als open source beschikbaar online: https://git.code.tecnalia.com/DECIDE_Public/DECIDE_Components.

Dit project heeft financiering gekregen van het Horizon 2020 onderzoeks- en ontwikkelingsprogramma van de Europese Unie onder subsidieovereenkomst nr. 731533

Figure 53. Press release in Dutch

A1.2.1.6. French version

Le communiqué de presse

DECIDE améliore la productivité des applications de multi-nuages complexes et diminue leurs délais de commercialisation en étendant la philosophie de DevOps

Bilbao, Espagne, le 10 avril 2018 – DECIDE est un projet de recherche H2020 financé par la Commission européenne sur une période de trois ans. L'objectif principal de DECIDE est de fournir un cadre de logiciel de la génération suivante, en permettant des techniques, des outils et des mécanismes pour élaborer, développer, opérer et dynamiquement (re-) déployer des applications multi-nuages dans un écosystème de services en nuage fiables, interopérables et juridiquement conciliants.

Nos **partenaires**, AIMES, ARSYS, HPE, Experis IT, time.lex, Fraunhofer, CloudBroker et TECNALIA, sont de six pays différents, en représentant l'Europe du Nord et du Sud. TECNALIA a été confié avec le leadership du consortium.

DECIDE **améliorera** la productivité et diminuera les délais de commercialisation des applications qui exigent de haut taux de performance et d'intégrité et les applications pour lesquelles de certains aspects juridiques des ressources de nuage où l'application est déployée sont essentiels, en raison de la nature de l'information gérée électroniquement.

Le travail effectué dans DÉCIDE est spécifiquement pertinent pour les développeurs des applications de multi-nuages et les opérateurs, les fournisseurs des applications de multi-nuages, les fournisseurs de services de nuage, la communauté scientifique et technique et la communauté de standardisation.

DECIDE développera **un cadre de DevOps Prolongé qui soutiendra des entreprises de développement de logiciel** en:

- améliorant leur (les applications de multi-nuages) développement et processus d'opérations;
- augmentant la productivité des développeurs et des opérateurs;
- garantissant l'aptitude d'exploitation de l'application, Qualité d'Expérience (QoE) et Qualité de Service (QoS) dans sa vie entière;
- et diminuant les délais de commercialisation.

DECIDE avancera l'état actuel de l'art, en proposant **des innovations pertinentes** sur les phases suivantes du cycle de DevOps:

- définition et la caractérisation d'applications de multi-nuages dont les composantes de logiciel peuvent être déployées dans une manière distribuée en fournisseurs différents de nuage, recevant la meilleure combinaison de ressources de nuage pour l'application entière;
- développement des mécanismes pour permettre la simulation du pré-déploiement de la meilleure combinaison de services de nuage pour une application concrète avec les exigences spécifiques non-fonctionnelles;

- implémentation d'outils qui supportent la surveillance continue et l'adaptation d'applications de multi-nuages basées sur les changements de leurs propriétés non-fonctionnelles ou le SLAs des services de nuage utilisés;
- développement des mécanismes pour la découverte intelligente, la combinaison et la surveillance des services de nuage (ou la combinaison des services de nuage) disponible à chaque moment;
- implémentation d'un cadre de DevOps intégré atténuant le flux de travail d'information entre les outils soutenant chacune des phases du cycle développement de logiciel.

Coordinateur du projet, Leire Orue-Echevarria, de TECNALIA **dit:**

"DECIDE étend le concept actuel de DevOps à la phase architecturale et facilite l'opération d'applications de multi-nuages complexes à l'aide de la disposition d'outils soutenant les développeurs et les opérateurs dans le cycle complet de la vie de l'application, de son élaboration à son opération".

DECIDE a accompli la fin de la première année de projet et progresse rapidement. Jusqu'à présent, le travail a été concentré sur la définition de l'architecture générale pour les outils différents qui sont impliqués dans le projet, aussi bien que sur le développement du cadre qui orchestrera l'utilisation de chacun des outils. La première version des outils a été lancée comme la source ouverte et est accessible à : https://git.code.tecnalia.com/DECIDE_Public/DECIDE_Components

Figure 54. Press release in French

A1.2.1.7 Italian version

Comunicato Stampa

Il progetto DECIDE, estendendo la filosofia DevOps, offre un aumento di produttività e una riduzione del time-to-market nello sviluppo di complesse applicazioni multi-cloud

Bilbao, Spagna, 20 Aprile 2018 – DECIDE è un progetto di ricerca finanziato su un periodo di tre anni dalla Commissione Europea nell'ambito del programma Horizon 2020 (H2020). L'obiettivo di DECIDE è di offrire un ambiente software di nuova generazione, oltre che tecniche e strumenti adeguati, per progettare, sviluppare, gestire, e dinamicamente (ri-)mettere in esercizio applicazioni multi-cloud all'interno di un ecosistema di servizi cloud affidabili, interoperabili e conformi alle normative esistenti.

Il progetto è sviluppato da **un consorzio composto da otto partner**, AIMES, ARSYS, HPE, Experis IT, time.lex, Fraunhofer, CloudBroker e TECNALIA, che provengono da sei differenti nazioni, in rappresentanza sia del Nord che del Sud Europa. La guida del consorzio è affidata a TECNALIA.

DECIDE offrirà **un aumento di produttività e una riduzione del time-to-market** nello sviluppo sia di applicazioni che richiedono alte prestazioni ed elevata affidabilità, sia di applicazioni per cui –data la natura delle informazioni gestite– risultano critici certi aspetti legali legati alle risorse cloud utilizzate.

La ricerca sviluppata da DECIDE è rilevante in particolare per sviluppatori e gestori di applicazioni multi-cloud, per fornitori di servizi cloud e di applicazioni multi-cloud, per la comunità tecnico-scientifica e per la standardizzazione.

Il progetto DECIDE sta sviluppando **un ambiente DevOps Esteso** che offrirà un valido supporto alle aziende di sviluppo software per:

- migliorare i processi di sviluppo e gestione di applicazioni (multi-)cloud;
- aumentare la produttività di sviluppatori e operatori;
- assicurare, nel ciclo di vita delle applicazioni, importanti proprietà come: manutenibilità, Quality of Experience (QoE) e Quality of Service (QoS);
- il tutto senza aumentare, anzi diminuendolo, il time-to-market.

DECIDE farà avanzare lo stato dell'arte proponendo **importanti innovazioni** nelle fasi del ciclo DevOps:

- le applicazioni vengono definite e rappresentate in modo che i loro componenti possano essere eseguiti in maniera distribuita su differenti cloud provider, per ottenere la miglior combinazione di risorse a servizio dell'applicazione;
- è possibile trovare in anticipo, tramite una simulazione, la migliore combinazione di servizi cloud per una specifica applicazione in base ai suoi specifici requisiti non-funzionali;

- appositi strumenti permettono il monitoraggio continuo e l'adattamento di applicazioni multi-cloud per ovviare ad eventuali variazioni nelle loro proprietà non-funzionali o negli SLA dei servizi cloud utilizzati;

- algoritmi di selezione intelligente, combinazione e monitoraggio di singoli servizi cloud (o loro combinazioni);

- disponibilità di un ambiente DevOps integrato che facilita il flusso di informazioni tra i vari strumenti dedicati al supporto di ciascuna fase del ciclo di sviluppo del software.

Il **Coordinatore del Progetto**, Leire Orue-Echevarria, di TECNALIA **ha dichiarato**:

"DECIDE estende la filosofia DevOps alla fase architetturale e facilita la gestione di complesse applicazioni multi-cloud, offrendo strumenti a supporto sia di sviluppatori che di operatori lungo tutto il ciclo di vita di un'applicazione, dalla progettazione fino al mantenimento in esercizio".

Il progetto DECIDE ha completato il primo anno e sta progredendo rapidamente. Finora il lavoro si è focalizzato sulla definizione dell'architettura generale dei diversi componenti e sullo sviluppo dell'ambiente integrato che permette di orchestrare l'utilizzo dei vari strumenti offerti dal progetto. La prima versione di questi strumenti è stata rilasciata in open source e si può scaricare da: https://git.code.tecnalia.com/DECIDE_Public/DECIDE_Components

Questo progetto ha ricevuto finanziamenti dal programma di ricerca e innovazione Orizzonte 2020 dell'Unione europea in virtù della convenzione di sovvenzione n. 731533

Figure 55. Press release in Italian

A1.2.1.8 Press releases publications

Table 6. List of press releases

Partner	Language used	Contacted entity (Name)	Entity contact type	Entity web site	Press Release publication date
TECNALIA	Spanish	TECNALIA	TECNALIA Blog	http://info.tecnalia.local/express/2018/04/12/decide-mejora-la-productividad-de-aplicaciones-multi-cloud-complejas-y-reduce-el-tiempo-de-lanzamiento-al-mercado-ampliando-la-filosofia-devops/	13.04.18
TECNALIA	Spanish	GAIA	Telecom Cluster	http://www.gaia.es/DECIDE-mejora-la-productividad-de-aplicaciones-multi-cloud-complejas-y-reduce-el-tiempo-de-lanzamiento-al-mercado-ampliando-la-filosofia-DevOps.html	11.04.18
TECNALIA	Spanish	TECNALIA	Social Network	https://twitter.com/tecnalia/status/984757217642479616	13.04.18
TECNALIA	Spanish	SPRI Noticias	Agencia vasca de desarrollo empresarial	http://www.spri.eus/es/tecnologia-comunicacion/decide-mejora-la-productividad-aplicaciones-multi-cloud-complejas-reduce-tiempo-lanzamiento-al-mercado-ampliando-la-filosofia-devops/	13.04.18
TECNALIA	Spanish	Parque Tecnologico Bizkaia	Parque Tecnológico Bizkaia	http://www.parke.eus/bizkaia/?p=9717	16.04.18
TECNALIA	Spanish	Madrid+d	Fundación para el conocimiento I+D+i	http://www.madrimasd.org/mensaje-confirmacion	16.04.18
Arsys	Spanish	Arsys	Arsys Blog	https://www.arsys.es/blog/soluciones/cloud/cloud-computing/decide-multicloud/	26.04.18
Arsys	Spanish	Data Center Market	Digital Newsletter	http://www.datacentermarket.es/mercado/noticias/1105090032609/proyecto-europeo-decide-sigue-adelante-llevando-filosofia-devops-entornos-multicloud.1.html	26.04.18
CloudBroker	English	Cloudbroker	Cloudbroker Blog	http://cloudbroker.com/cloudbroker-is-updating-its-cloud-service-management-platform-to-provide-a-convenient-access-to-multi-cloud-services-within-decide-project/	27.04.18

A1.3 Scientific Publications to Journals and Conferences

Next, the table indicating the details of the scientific publications.

Table 7. List of Scientific Publications to Journals and Conferences

Title	Main author	Title of the periodical or series	Nº, date or frequency	Publisher	Place of publication, year	Relevant pages	Permanent identifiers	Is/Will open access provided to this publication?
DECIDE: DevOps for Trusted, Portable and Interoperable Multi-Cloud Applications towards the Digital Single Market.	Juncal Alonso; Leire Orue-Echevarria; Marisa Escalante and Gorka Benguria.	Proceedings of the 7th International Conference on Cloud Computing and Services Science. CLOSER, 2017	ISBN: 978-989-758-243-1 Volume 1.	SCITEPRESS	Porto, Portugal. 2017	397-404	doi:10.5220/0006292403970404	Yes
Federated Cloud Service Broker (FCSB): An Advanced Cloud Service Intermediator for Public Administrations	Juncal Alonso Ibarra; Leire Orue-Echevarria; Marisa Escalante; Gorka Benguria and Gorka Echevarria	In Proceedings of the 7th International Conference on Cloud Computing and Services Science - CLOSER, 2017	ISBN: 978-989-758-243-1 Volume 1.	SCITEPRESS	Porto, Portugal. 2017	384-391	doi:10.5220/0006285003840391	Yes
Agile development and operation of complex systems in multi-technology and multi-company environments:	Juncal Alonso; Leire Orue-Echevarria; Marisa Escalante and Gorka Benguria.	In Proceedings of the 25th EuroSPI Conference	TBD	TBD	Bilbao, Spain. 2018	TBD	TBD	Yes

Title	Main author	Title of the periodical or series	Nº, date or frequency	Publisher	Place of publication, year	Relevant pages	Permanent identifiers	Is/Will open access provided to this publication?
Following a DevOps approach.								
Supporting the extended DevOps approach through multi-cloud architectural patterns for design and pre-deployment. A tool supported approach	Juncal Alonso, Marisa Escalante, Lena Farid, Maria Jose Lopez, Leire Orue-Echevarri, Simon Dutkowski	SE-CLOUD Conference	TBD	TBD	Porto, Portugal 2018	TBD	TBD	Yes
Extended DevOps concept for multi-cloud based software applications: a tool supported approach. DECIDE Extended DevOps toolsuite	Juncal Alonso, Marisa Escalante, María José López, Leire Orue-Echevarri, Lorenzo Blasi, Simon Dutkowski,Javier Gavilanes and Antonio Fernandez	QUATIC 2018 Conference	TBD	TBD	Coimbra, Portugal	TBD	TBD	Submitted, not yet accepted
DevOps and Multi-cloud: combining cloud technologies novel trends	Juncal Alonso, Leire Orue-Echevarria, Marisa Escalante, Gorka Benguria.	DYNA	TBD	TBD	Journal	TBD	TBD	Yes

A1.4 General and Business Publications

Table 8. General and Business Publications

Title	Link or reference	Date	Partner/Authors (organisations)
TECNALIA Web: ¿Cómo podríamos diseñar, desarrollar y (re)desplegar dinámicamente aplicaciones software multi-cloud?	https://www.tecnalia.com/es/ict/noticias/icomo-podriamos-disenar-desarrollar-y-redesplegar-dinamicamente-aplicaciones-software-multi-cloud.htm	31.01.2017	TECNALIA
Tecnalia Express Blog: ¿Cómo podríamos diseñar, desarrollar y (re)desplegar dinámicamente aplicaciones software multi-cloud?	Internal Blog	01.02.2017	TECNALIA
Inspiring Blog Tecnalia: Tendencias del futuro en cloud, multi-cloud y DevOps	blogs.tecnalia.com/inspiring-blog/author/leireorue/	18.04.2017	TECNALIA
DECIDE Gets Started	http://www.aimes.uk/decide-project/	2.05.2017	AIMES
Arsys participa en el proyecto europeo Decide	https://www.arsys.es/blog/soluciones/cloud/cloud-computing/decide-arsys/	4.04.2017	ARSYS
Arsys participa en el proyecto europeo Decide	http://www.datacentermarket.es/mercado/noticias/1096972032609/arsys-participa-proyecto-europeo-decide.1.html	12.04.2017	datacentermarket.es
Arsys participa en el proyecto europeo Decide	http://www.computing.es/cloud/noticias/1096972046301/arsys-participa-proyecto-europeo-decide.1.html	12.04.2017	Computing.es
Arsys participa en el proyecto europeo 'DECIDE'	http://www.20minutos.es/noticia/3008488/0/arsys-participa-proyecto-europeo-decide/	9.04.2017	20minutos.es
Arsys participa en el proyecto europeo 'DECIDE'	http://www.lavanguardia.com/vida/20170409/421585073654/arsys-participa-en-el-proyecto-europeo-decide.html	9.04.2017	lavanguardia.com
Arsys participa en el proyecto europeo 'DECIDE'	http://www.europapress.es/la-rioja/noticia-arsys-participa-proyecto-europeo-decide-20170409181348.html	9.04.2017	europapress.es

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Title	Link or reference	Date	Partner/Authors (organisations)
Arsys participa en el proyecto europeo 'DECIDE'	http://www.gentedigital.es/logrono/noticia/2124261/arsys-participa-en-el-proyecto-europeo-decide/	9.04.2017	gentedigital.es
Arsys participa en el proyecto europeo 'DECIDE'	http://www.lainformacion.com/economia-negocios-y-finanzas/construccion-e-inmobiliaria/diseno-e-ingenieria/Arsys-participa-proyecto-europeo-DECIDE_0_1015698984.html	9.04.2017	lainformacion.com
Arsys participa en el proyecto europeo 'DECIDE'	http://www.eleconomista.es/espana/noticias/8283872/04/17/Arsys-participa-en-el-proyecto-europeo-DECIDE.html	9.04.2017	eleconomista.es
Arsys participa en el proyecto europeo 'DECIDE'	http://www.aslan.es/v07/DetalleNoticia/_wd9ymSIRksTgDf2QrsdZ-3mxALRBooWjtS-mZJ4jw8DqUQ3ur4GC2AxshO4pNtI1_HLwjHXLw3EtrP25IN4WuuDDiR0HoUSo	9.04.2017	aslan.es
Arsys de suma al proyecto europeo DECIDE encaminado a facilitar la gestió 'multiCloud'	http://www.ciospain.es/cloud/arsys-de-suma-al-proyecto-europeo-decide-encaminado-a-facilitar-la-gestion-multicloud	5.04.2017	ciospain.es
Arsys participa en el proyecto europeo 'DECIDE'	http://www.datacenterdynamics.es/focus/archive/2017/04/arsys-participa-en-el-proyecto-europeo-decide	4.04.2017	datacenterdynamics.es
Arsys participa en el proyecto europeo Decide	https://sie.fer.es/index.php?action=showWebDoc&docId=24740	4.04.2017	sie.fer.es
El proyecto europeo DECIDE sigue adelante llevando la filosofía DevOps a los entornos multicloud	http://www.datacentermarket.es/mercado/noticias/1105090032609/proyecto-europeo-decide-sigue-adelante-llevando-filosofia-devops-entornos-multicloud.1.html	9.05.2018	datacentermarket.es
DECIDE Multicloud Applications Towards the Digital Single Market	https://www.fokus.fraunhofer.de/de/dps/projekte/decide	27.02.2017	Fraunhofer FOKUS website
DECIDE: DevOps für Multi-Cloud-Anwendungen (German)	https://www.fokus.fraunhofer.de/de/dps/egovnewsletter/mai2017	31.05.2017	Fraunhofer FOKUS Business Unit Digital Public Services Newsletter

Title	Link or reference	Date	Partner/Authors (organisations)
Innovati participa en DECIDE (DEvOps for trusted, portable and interoperable multi-Cloud applIcations towards the Digital singlE market)	https://blog.grupoinnovati.com/2017/04/10/innovati-participa-en-decide-devops-for-trusted-portable-and-interoperable-multi-cloud-applications-towards-the-digital-single-market/	10/04/2017	Innovati website
Cloud Hybrid is the best option to strengthen the Digital Transformation	http://www.datacentermarket.es/mercado/entrevistas/1104719032609/cloud-hibrido-mejor-opcion-afianzar-transformacion-digital.1.html	17/04/2018	Datacentermarket Magazine

A1.5 Attended events: Conferences, Seminars, Workshops and Webinars

Table 9. Attended events during the first reporting period

Event	Date	Name and type of audience	Countries addressed	Size of audience	People attending
CLOSER 2017	24-26, April 2017, Porto, Portugal	Researchers, Cloud Consumers and Vendors	World	>1000	TECNALIA, AIMES
ICT Proposer's Day	9-10 November 2017 Budapest	Researchers and technologists	EU28 (mostly)	>1000	TECNALIA
Cloud Expo Europe	16.03.2017	Researchers, Industry	EU28 (mostly)	>1000	TECNALIA
NetFutures 2017	28-29 June 2017, Brussels	Researchers, Industry, European Commission	EU28 (mostly)	>100	TECNALIA
"BeDiCon: Berlin Digital State Conference"	Spring 2018	Researchers, Industry	EU28 (mostly)	>1000	FRAUNHOFER
Data Centers North 2018 event in Manchester	1-2 May 2018, Manchester, England	Researchers, Industry	EU28 (mostly)	<1000	AIMES

A1.6 Other Dissemination Activities

Table 10. Other Dissemination Activities during the first reporting period

Type	Name	Partners	Link if appropriate
Internal Training 14 June 2017	Pilula DevOps: "Cloud, Multicloud y DevOps: ¿Hacia dónde vamos?	TECNALIA	https://twitter.com/Decideh2020/status/874560703075676161
Workshop 8 March 2018	Meetup the expert: DevOps	TECNALIA	https://twitter.com/Decideh2020/status/971687579031625728 https://twitter.com/leiretecnalia/status/971685653221134337 https://twitter.com/Decideh2020/status/971677521698852864 https://twitter.com/Decideh2020/status/971673298399612929
AIMES Internal Briefing	Monthly Briefing	AIMES	N/A
Company Literature	DECIDE forms part of company presentations when delivered to visitors or prospective customers	AIMES	N/A
COLA project consortium meeting. 25-27.01.2017	COLA project consortium meeting.	CLOUDBROKER	N/A
HP Internal event	DECIDE H2020 project, multiple presentations to VP-level HPE corporate stakeholders and influencers	HPE	N/A