DESIRA

DIGITISATION: ECONOMIC AND SOCIAL IMPACTS IN RURAL AREAS

ACTIVITY REPORT YEARS 1-2

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D6.2 ACTIVITY REPORT YEARS 1-2

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1. Introduction

The Horizon 2020 project DESIRA has adopted an integrated approach to Dissemination, Exploitation, Communications and Outreach (DECO) activities and tasks, which are reflected in the DECO or Communications Strategy (D6.1).

The deliverable D6.2 Activity Report (year 1 and 2)[1] is conceived as a self-assessment exercise with the ultimate purpose of identifying improvements in the DECO activities and tasks. The aim is to make these the most appropriate for the needs of the project, based on experiences in implementation of communication and dissemination activities so far.

This self-assessment exercise will provide valuable inputs to prepare the periodic report for the reporting period from month 19 to month 36 (RP2). The periodic technical report will detail the exploitation and dissemination of the results and, if required, an updated 'plan for the exploitation and dissemination of the results'.

2. Objectives

The DECO strategy is key to supporting DESIRA in achieving its objectives. In this respect, the DECO strategy was designed to achieve the following communication objectives:

- CO1: To build robust collective awareness on the role and opportunities of digitisation in socio-economic development of agricultural, forestry and rural areas and, by extension, their competitiveness in business and market fields;

- CO2: To create general social understanding of the power of actively formulating policy options and applicable solutions, as well as enhancing the uptake of policy options that convey societal and environmental concerns;

- CO3: Encourage and support innovation, research and knowledge in the field of digitisation of agricultural, forestry and rural areas that also applies the RRI approach (Responsibility in Research and Innovation), which implies openness, inclusiveness, anticipation and responsiveness.

The Activity Report on year 1 and 2 (D6.2) aims to:

- Take stock of the communication and dissemination activities implemented in DESIRA during Year 1 and Year 2, and analyse their performance towards achieving the DESIRA objectives.

- Draw lessons, identify areas of improvements, and design actions as well as follow-up steps to be taken by the project, to improve the communication and dissemination activities in general and the DECO or Communications Strategy in particular.

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[1] To be able to submit the deliverable in time (M24), this document covers the communication activities carried out between M1 and M22. Therefore, the activities developed in M23–M24 will be included in the next update.

3. Methodology

This report has been produced using a combination of quantitative and qualitative methods Content analysis of the main DESIRA Communication channels and products was performed. This analysis was done with information available from several sources including Google Analytics, Twitter Statistics, Facebook Insights and LinkedIn Analytics. In addition, a content analysis was carried out to classify what was published in each communication channel. In this quantitative analysis, the external channels to be leveraged by DESIRA and the trainings and guidelines provided so far were also reviewed.

A survey among the DESIRA Communication Task Force – formed by at least one representative per DESIRA partner - was performed to complement the content analysis. The survey was launched in April 2021 and remained open for two weeks for partners to send their feedback. The survey is comprised of seven sections:

- Section 1: General information

- Section 2: DESIRA communication and dissemination

- Section 3: DESIRA communication channels

- Section 4: DESIRA communication products

- Section 5: Partners' communication actions

- Section 6: Trainings and guidelines

- Section 7: General remarks

A total of 28 responses were received from all DESIRA's partners. The survey results have been used to collect information to better understand: how partners are using the communication channels and products of the project; in which areas they need further support; what challenges they find when communicating about the project. The results of this survey have been incorporated throughout the document.

To complement both the quantitative analysis and the survey, a workshop was held online on 21 April 2021 (virtually). The event intended to provide a space for the DESIRA Communications Task Force to discuss and collect ideas on how to improve communication and dissemination performance and impact. The workshop had 35 participants, with at least one representative from each of the DESIRA's consortium partners. The objectives of the workshop were:

- Share experiences in the implementation of communication and dissemination activities during the first 24 months of the projects;

- Provide an overview of the main results and statistics in relation to the implementation of communication and dissemination activities;

- Reflect collectively on what worked well and what needs to improve in the future;

- Draw lessons and identify ways for improving communication and dissemination activities during the second half of the project.

The workshop was structured around three main sections. The first slot of the agenda aimed at presenting the quantitative analysis and the results of the survey, as well as some examples of communication activities conducted by partners. The presentations were followed by group discussions on key topics.

In the second section of day, a discussion was held in plenary with a focus on what worked well and what are the current challenges in the project's communication and dissemination. In the third section, participants were divided into two break-out rooms to brainstorm and discuss ways for improving the communication and dissemination activities during the second half of the project.

The main results of the workshop have been used to produce the content in sections 5. *Lessons learned and recommendations* and 6. *Review of the contingency plan within the DECO Strategy*.

4. Main communication activities and results

Since DESIRA started in June 2019, the consortium has carried out numerous communication activities. The Deliverable 6.1 DECO Strategy, submitted in Month 6, describes all the communication and dissemination activities to be developed by project partners. Throughout this section, the different communication and dissemination activities indicated in D6.1 DECO strategy are described and analysed.

A set of Key Performance Indicators was defined in the Grant Agreement and the DECO Strategy (D.61). Table 1 presents an overview of the status of the different materials compared to the Key Performance Indicators outlined in the DECO Strategy and in the Grant Agreement. Overall, there is good progress made, while only few (highlighted in orange) need specific attention in the future. In those cases where the target has been more than achieved, or is close to being achieved, a new indicator is proposed for M48, on the understanding that progress will be faster during the second half of the project.

Table 1. Key Performance Indicators (KPI) set in the DECO Strategy and Grant Agreement and current status

Channel	KPI	Target (M48)	Achievement (M22)	Updated target (M48)
DECO Strategy KPI				
Website	No of unique visitors	22 000	**8 616**	
	No of downloads	5 000	**2 167**	
Events	No of participants in regional events	1 200	[2]**N.A.**	
	No of participants in National Conferences	750	**Not conducted yet**	

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[2] According to the information registered by partners in the DECO Monitoring Tool.

	No of participants in final Conference	100	**Not conducted yet**	
	No of participants in RDF meetings	120	**60**	
Webinars and videos	Total participants in webinars	50	**60**	150
	No of views of webinars	750	**502**	1 000
	No of views of digital stories	1 500	**Not produced yet**	
Rural Digitalisation Forum	No of members in the Facebook community	250	**341**	650
	No of interactions in VRE[3]	500 interactions 200 posts 35 communications (from the DESIRA project or partners)	**N/A** **53 posts** **29 communications**	
Social Media	Twitter	200 000 impressions	**254 291 impressions**	500 000
		1 000 followers	**708 followers**	1400
	Facebook	15 000 impressions	**20 247 impressions**	40 000
		300 likes/followers	**261 followers** **243 likes**	500 likes/followers
	LinkedIn	20 000 impressions	**6 776 impressions**	
		150 followers	**152 followers**	300 followers
	YouTube	150 subscribers	**25 subscribers**	
		1 500 views	**502 views**	
Newsletter	No of subscribers	600 subscribers	**262 subscribers**	
Grant Agreement KPI for targeted stakeholders (table 14)				

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[3] Initially, the VRE was supposed to host four workspaces for the Working Groups (agriculture, forestry, rural areas and policy) and one working group for each Living Lab. However, not all the workspaces have been created. This section refers to three WGs in agriculture, forestry and rural areas. See sections 4.1.2 *Virtual Research Environment* and 4.1.3 *EU Rural Digitalisation Forum* for more information.

Rural businesses and services	No business participants in Living Labs activities	80	**60 participants**	
	No participants in Rural Digitisation Forum (RDF)	80	**13 participants**	
Public Authorities	No policy makers participants to Living Labs	20	**85 participants**	100 participants
	No policy makers participants in Policy Auditions	200	**Not conducted yet**	
	No participants in the RDF activities	100	**10 participants**	
Citizen groups and local communities	No citizens in Living Lab activities	80	**137 participants**	200 participants
	No citizens groups in Rural Digitisation Forum activities	80	**6 participants**	
	No participants in Policy Auditions	80	**Not conducted yet**	
Digital technology operators	No operators in Living Labs activities	80	**25 participants**	
	No operators in Rural Digitisation Forum activities	50	**42 participants**	
Farmers	No farmers in Living Labs activities	80	**85 participants**	120 participants
	No farmers in Rural Digitisation Forum activities	40	**1 participants**	
Media	No journalists to RDF meetings	5	**0 participants**	
	No journalists in the Final Conference	10	**Not produced yet**	
	No journalists in Living Labs	10	**10 participants**	

4.1.   DESIRA Communication channels

The DESIRA communication channels are selected to convey the key messages and outcomes of the project to the largest possible number of stakeholders and target group members. DESIRA implements a series of communication and dissemination channels to reach different kinds of final target

audiences identified. This section analyses the different channels created by DESIRA to communicate about the project, its results, and relevant findings in digitalisation of agriculture, forestry and rural areas.

A specific section of the survey was dedicated to rate the relevance of DESIRA communication channels (from 1-4 scale, being 1 'do not agree' and 4 'fully agree') and collected answers from 28 members of the Task Force. The three channels found most useful are: (a) DESIRA Workshops and events; (b) DESIRA Website; and (c) DESIRA Social Media accounts. Nonetheless, also the DESIRA Virtual Research Environment and DESIRA Newsletter were considered useful (with scores greater than 3). The lowest score (Score: 2.6) is for the EU Rural Digitalisation Forum on Facebook (Figure 1).

Figure 1. Relevance of DESIRA channels for partners
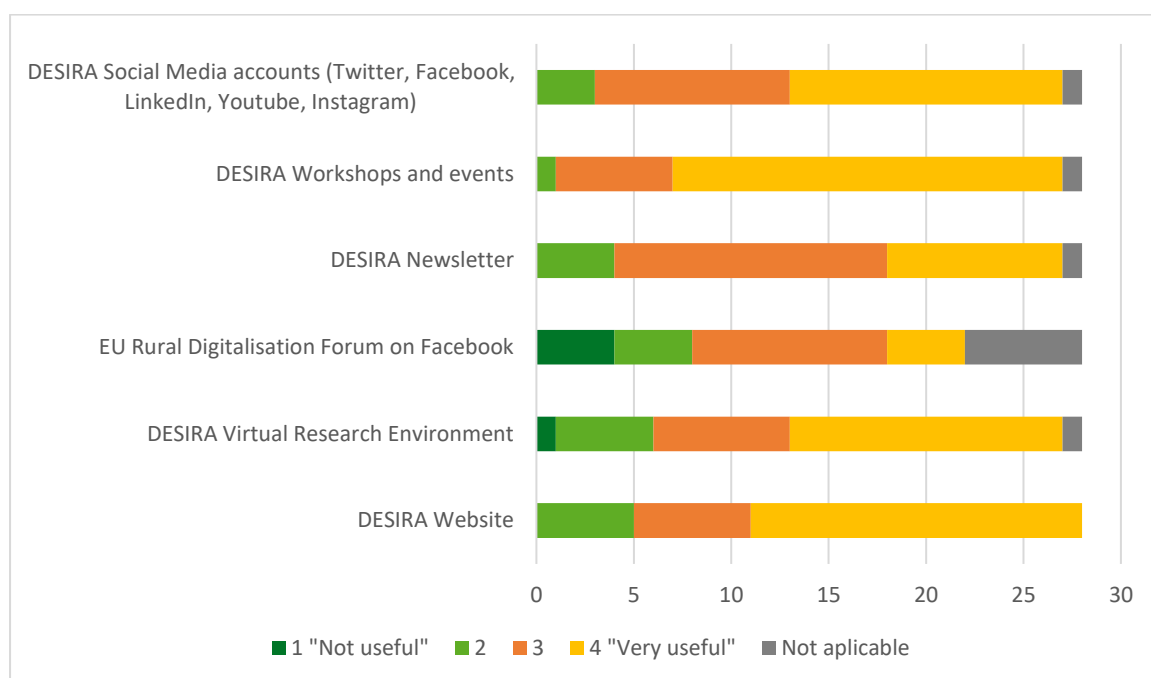
Communication Task Force members also rated the usefulness and relevance of DESIRA communication channels for their stakeholders (e.g. Living Lab actors, organisation, network, other organisations, etc.). The most useful channels for partners' stakeholders are: DESIRA Workshops and events; and DESIRA Website, followed by DESIRA Social Media accounts and DESIRA Newsletter. The lowest values are for the EU Rural Digitalisation Forum on Facebook (Score: 2.5) and for the DESIRA Virtual Research Environment (Score: 2.3) (Figure 2).

Figure 2. Relevance of DESIRA communication channels for stakeholders
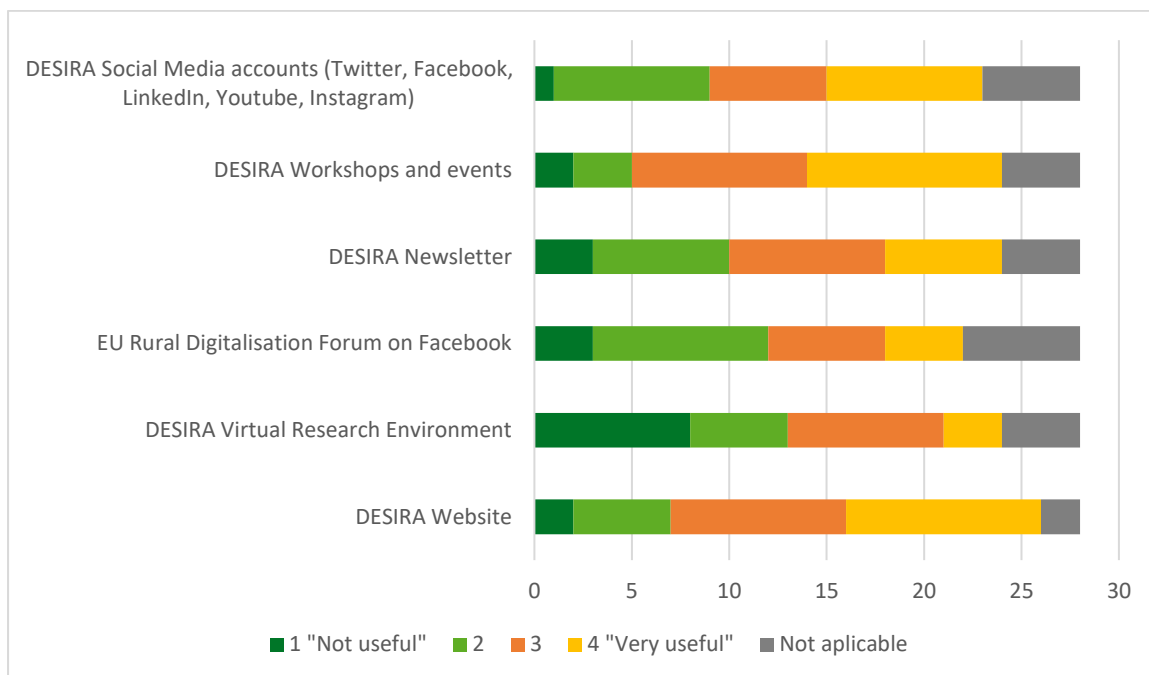
4.1.1. Website

The DESIRA website is the main communication channel of the project. It hosts all official information, and it is conceived as a hub containing and redirecting to every communication tool, channel and activity. It is found to be one of the most useful channels to communicate with stakeholders (see above).

The website was launched in November 2019, and regular improvements have been implemented since then, to better present the content and outputs of the projects and make it more attractive to different stakeholders.

Since the launching of the website, a total of **8 616 users** have visited the DESIRA website[4] (target: 22 000), in a total of **13 968 sessions** (each time a user accessed the DESIRA website). This accounts for a total of 32 207 page views since the beginning of the project. Hence, the website is showing good progress towards the targets set at the outset of the project. Figure 3 shows an overview of the visits to the DESIRA website.

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[4] Information retrieved from Google Analytics. Due to the growing popularity of ad blockers that do now allow Google Analytics to track the users' actions, this data should be understood as an approximation.

Figure 3. Overview of visits to the DESIRA website
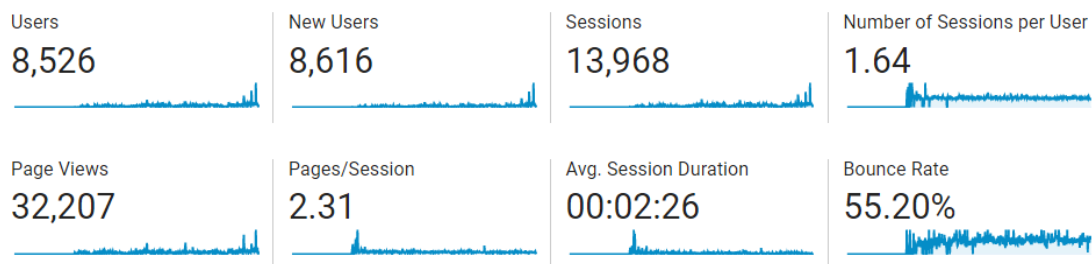
Source: Google Analytics, consulted on 31 March 2021

The flow of users has been increasing as the website has been populated with updates and results of the project (Figure 4). The timeline shows four peaks that correspond with key moments of the project. The first one is around 10 September 2020, when the initial meeting of the Rural Digitalisation Forum was held. The second one and third peak (February and March 2021) correspond with the publication of the DESIRA contribution to the Long-Term Vision for Rural Areas. The last one (328 visits) is around the week of 22-16 March 2021, when the ENRD's Rural Vision Week was held, in which DESIRA was presented.

Apart from the homepage, the most popular web pages have been the ones describing the project ("The project" and "About us"), the ones showcasing results and developments of the project ("Resources", "Tools", "News", "Work Packages and Deliverables") and, finally, the ones about the DESIRA community ("Living Labs" and "Rural Digitalisation Forum"). Table 2 shows the most visited pages of the DESIRA website in terms of total page views, unique page views (nº of sessions in which the page was at least visited once) and the average time of session[5] (nº of minutes users spend of each page).

Figure 4. Timeline of users visiting the DESIRA website from November 2019 to March 2021
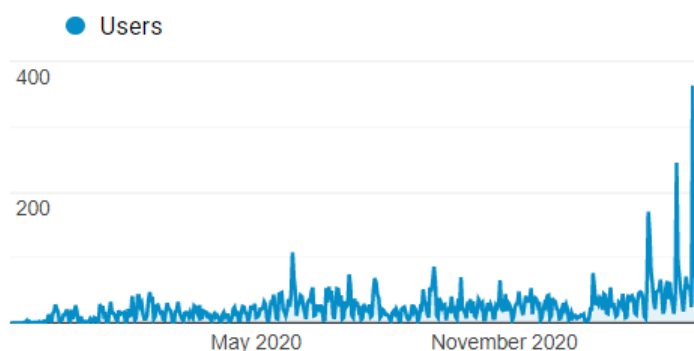
Source: Google Analytics, consulted on 31 March 2021

From the data shown in Table 2, it can be deduced that webpages containing the results of the project have greater interest among stakeholders, especially resources and tools.

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[5] According to Contentsquare's 2020 Digital Experience Benchmark report of 7 billion user sessions, the Average Time on Page across industries is 62 seconds.

Table 2. Most visited pages on the DESIRA website

Page	Total page views	Unique page views	Average time on page (mins)
Homepage	9 915	7 767	01:44
About us	2 512	2 004	01:40
The project	2 499	2 041	02:05
Resources	1 861	1 363	01:02
Event: First meeting of the RDF	1 239	791	04:26
Living Labs	1 114	872	01:55
Tools	1 040	882	00:56
News	986	744	01:00
Work packages and deliverables	885	703	01:49
Rural Digitalisation Forum	710	577	01:56

Source: Google Analytics, consulted on 31 March 2021

There are several entry points to the website, i.e. organic search on engines (such as Google, Bing, Ecosia, etc.), direct entry by typing the URL, redirection from social media, referrals from external websites, and RSS feed (other), which are shown in Figure 5.

Figure 5. Entry points to the DESIRA website
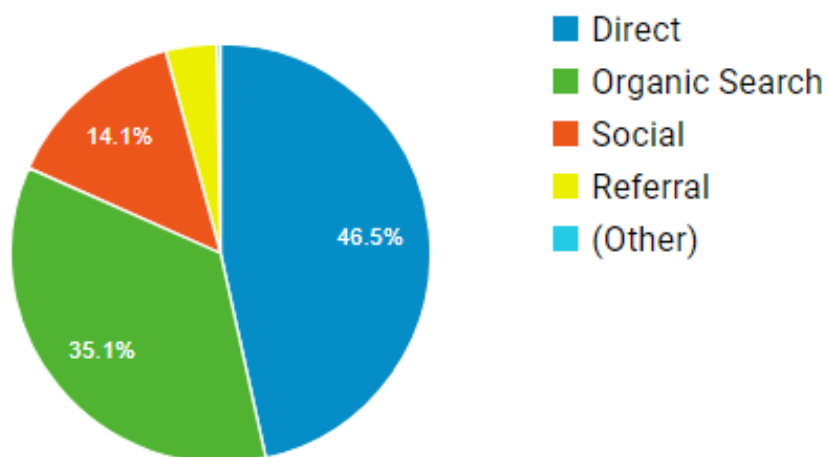
Source: Google Analytics, consulted on 31 March 2021

According to Google Analytics, for the category of social media, 59.1% of visits came from Facebook, 34.4% come from Twitter, 5.60% comes from LinkedIn and 0.21% comes from YouTube. There is no data available for the rest of social media platforms where the project is present (ResearchGate, Instagram); more about this in section 4.1.4 *Social media*.

For the category of referral of traffic from external websites, most of them (52%) came from Mailchimp, the email marketing platform used to send the DESIRA newsletter. Around 6% came from the website of the ENRD and 4% from the CORDIS website. The rest of users were referred from the Virtual Research Environment (3%) partners' websites and other external sites.

Table 3 shows the country from which each unique user visited the DESIRA website. Nine out of the first ten most popular countries are those from partners of the project and in which a Living Lab is established.

Table 3. Nº of unique users per country

No	Country	Nº of unique users	Share
1.	Italy	1 061	12.26%
2.	United States	871	10.07%
3.	Spain	810	9.36%
4.	Belgium	619	7.15%
5.	France	600	6.93%
6.	Netherlands	461	5.33%
7.	Germany	359	4.15%
8.	Finland	355	4.10%
9.	United Kingdom	298	3.44%
10.	Greece	233	2.69%

Source: Google Analytics, consulted on 31 March 2021

Finally, according to Google Analytics, users have downloaded different PDF documents hosted in the website at least 2 167 times[6] (target: 5 000). With the progress made so far, it is expected to achieve the target set at the beginning of the project. More information in section 4.2 *DESIRA Communication products*

4.1.2. Virtual Research Environment

The DESIRA VREs are built on the D4Science Infrastructure[7] by exploiting the gCube open-source technology (Assante *et al*. 2019a, 2019b). From the end-user point of view, it manifests in the DESIRA gateway (accessible at https://desira.d4science.org/), the access point to the services and Virtual Research Environments available to the DESIRA community.

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[6] Only downloads coming from the DESIRA website are tracked by Google Analytics. Therefore, all downloads coming from different sources (social media, VRE, email, sharing among colleagues, etc.) are not counted as downloads.

[7] D4Science Infrastructure: www.d4science.org

Fourteen VREs have been created as reported in Figure 6. DESIRA VREs creation date

Figure 6. DESIRA VREs creation date

✔	#	Gateway	Status	Subject	VREName	Assignee	% Done	Due date ▲
⊟ Released 14								
☐	16789	DESIRA	Released	Create a VRE for DESIRA Project Management: DESIRA_Project	DESIRA_Project	Massimiliano Assante		Jun 07, 2019
☐	17149	DESIRA	Released	Please Create DESIRA Coordination & Management VRE	DESIRA_CoordinationManagement	Massimiliano Assante		Jul 12, 2019
☐	17150	DESIRA	Released	Please Create Rural Digitization Forum VRE	RuralDigitizationForum	Massimiliano Assante		Jul 12, 2019
☐	17267	DESIRA	Released	Please Create Toscana Nord VRE	ToscanaNord	Leonardo Candela		Aug 22, 2019
☐	18411	DESIRA	Released	NEW VRE 'RUR1-RUR2 coordination'	RuralCluster	Leonardo Candela		Jan 27, 2020
☐	18991	DESIRA	Released	TimberRegulation	TimberRegulation	Luca Frosini		Apr 10, 2020
☐	19036	DESIRA	Released	Vlaanderen	Vlaanderen	Luca Frosini		Apr 10, 2020
☐	18997	DESIRA	Released	Oosterwold	Oosterwold	Luca Frosini		Apr 10, 2020
☐	19027	DESIRA	Released	Biolaakso	Biolaakso	Luca Frosini		Apr 10, 2020
☐	19154	DESIRA	Released	RDFForestry	RDFForestry	Luca Frosini		Apr 30, 2020
☐	19155	DESIRA	Released	RDFRural	RDFRural	Luca Frosini		Apr 30, 2020
☐	19153	DESIRA	Released	RDFAgriculture	RDFAgriculture	Luca Frosini		Apr 30, 2020
☐	19114	DESIRA	Released	DigitālaisMārketingsLatvia	DigitalaisMarketingsLatvia	Luca Frosini		May 15, 2020
☐	19118	DESIRA	Released	DigitalisierterObstanbauBodenseeregion	DigitalisierterObstanbauBodenseeregion	Luca Frosini		May 15, 2020

Three VREs are conceived to support the management of the project: DESIRA_CoordinationManagement, DESIRA_Project, and RuralDigitisationForum. Three VREs are conceived to support the DESIRA Rural Digitalisation Forum (RDF): RDFAgriculture, RDFForestry, and RDFRural. One VRE has been created as a supporting initiative: RuralCluster. The remaining seven VREs are Living Lab.

All the VREs are equipped with:

- A *shared workspace* to enable every user to store and organise the information objects he/she is interested in working with. In addition to that, the user is allowed to collaborate with other users by sharing objects and messages;

- A *user management facility* to enable authorised users (i.e., VLab Managers) to manage other users using or wanting to access the VLab. VLab Managers can (i) authorise users for access to the VLab, (ii) assign or withdraw roles to users, (iii) remove users, and (iv) send communications to the current users;

- A *social networking facility* to enable users to use the common facilities typical of social networks – e.g., posting news, commenting on posted news – yet adapted to the settings of working environments like those characterising Blue-Cloud. Users can post news as well as applications;

- A *notification facility* to alert users on relevant activities as they happen. These notifications offer a sense of anticipation and create a productivity boost. Users receive an alert (through a priori selected channels, e.g., email, web portal, Twitter) notifying them when something of interest has happened in their VLab(s);

- A *members' facility* to provide users with a list of VLab co-workers, i.e., the list of members partaking in the VRE and contributing to it;

- A *messaging facility* to provide users with a cloud-based common email environment. The distinguishing feature is represented by its integration with the rest, e.g., it is possible to send any information object residing in the workspace (regardless of how "big" and "complex" it may be) as an attachment without consuming bandwidth.

In Figure 7, the overall number of users benefitting from the facilities offered by the existing VREs is reported, i.e., in March 2021, the 14 existing VREs are serving more than 360 users.

Figure 7. DESIRA VRE users
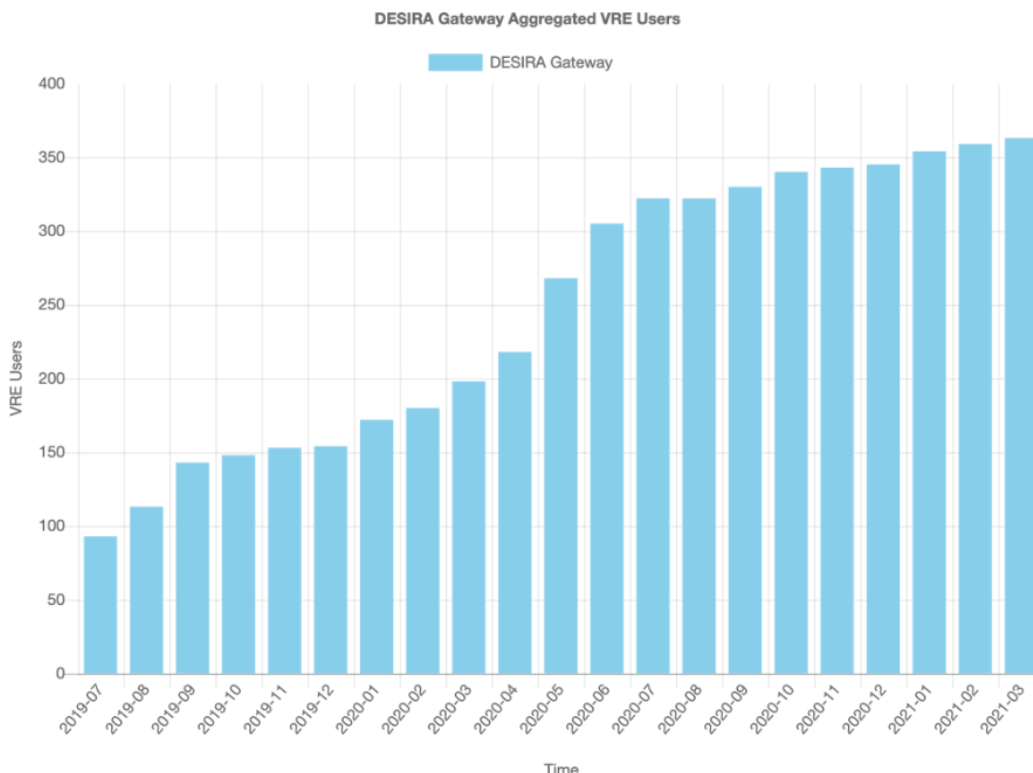
Figure 8 reports the overall number of working sessions initiated per month via the DESIRA Gateway. Up to March 2021, a total of more than **14 100 working sessions** have been executed by the users, with an average of **1 175 working sessions per month**.

The DESIRA Gateway is also used as a repository of files that are managed in the common Workspace, as a social space where messages can be posted to all members of one or more VREs; as a secure and confidential email system where users can exchange private messages with other registered users without knowing their private email addresses. Figure 8 reports the overall Workspace sessions initiated per month by the DESIRA users. Figure 9 and Figure 11.**Errore. L'origine riferimento non è stata trovata.** report the overall exploitation of the Social Interaction facilities. Finally, Figure 11 reports the exploitation of the confidential Message system.

Figure 8. Workspace session

DESIRA Gateway Aggregated Workspace Accesses

Figure 9. DESIRA Posts.
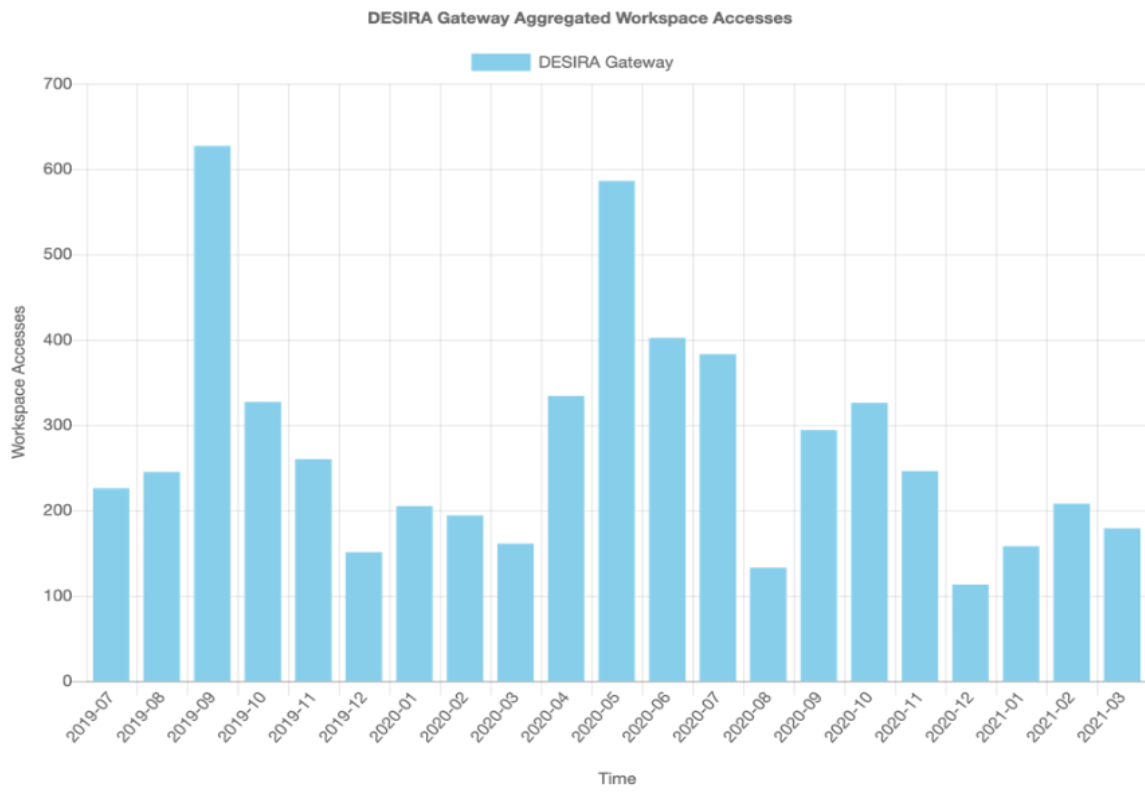
DESIRA Gateway Aggregated VRE Social Interations Posts

Figure 10. DESIRA posts replies
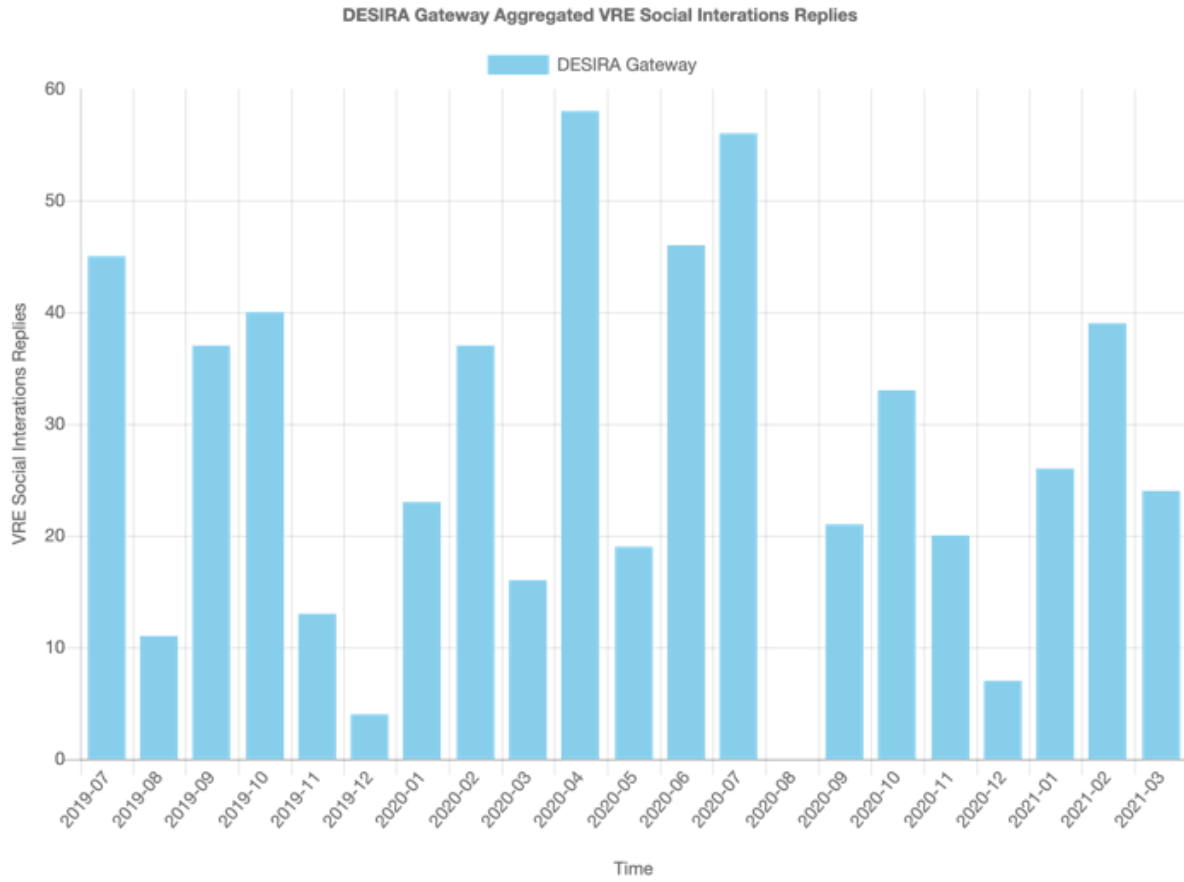
Figure 10. DESIRA posts likes

14
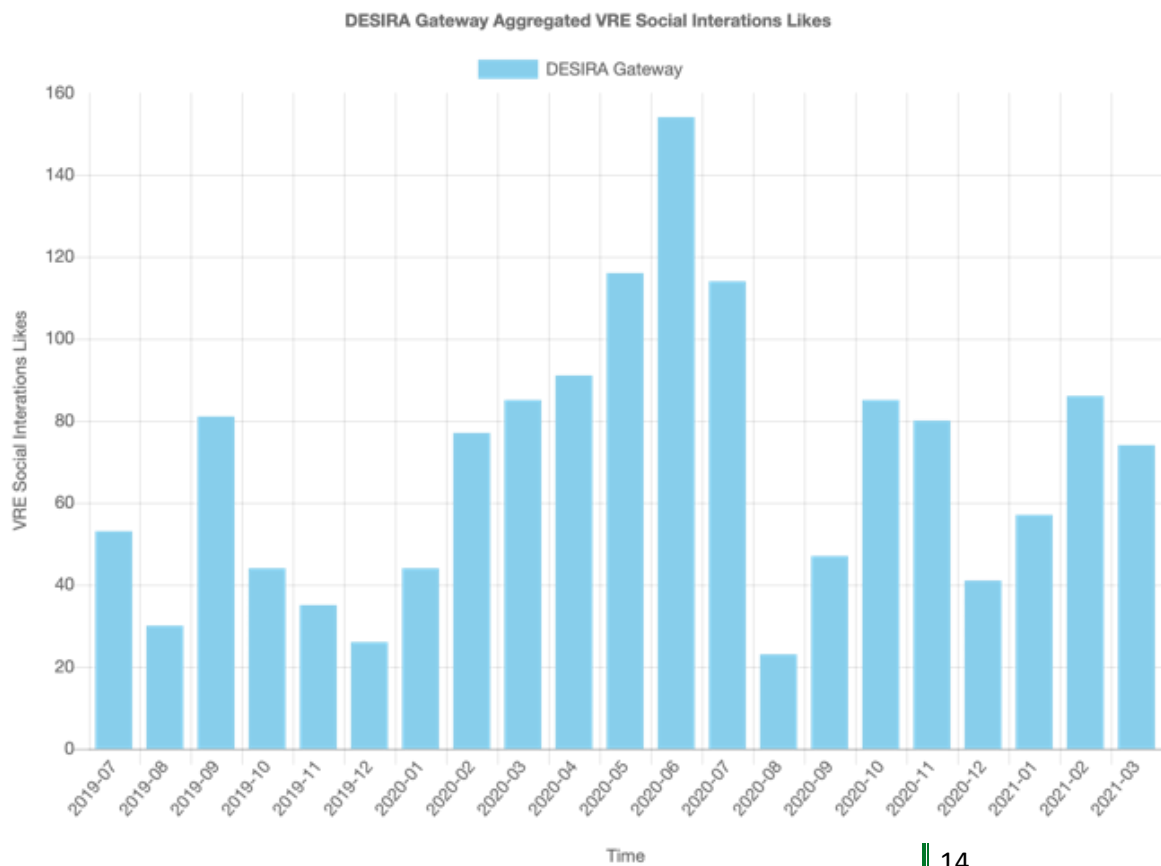
Figure 11. DESIRA messages
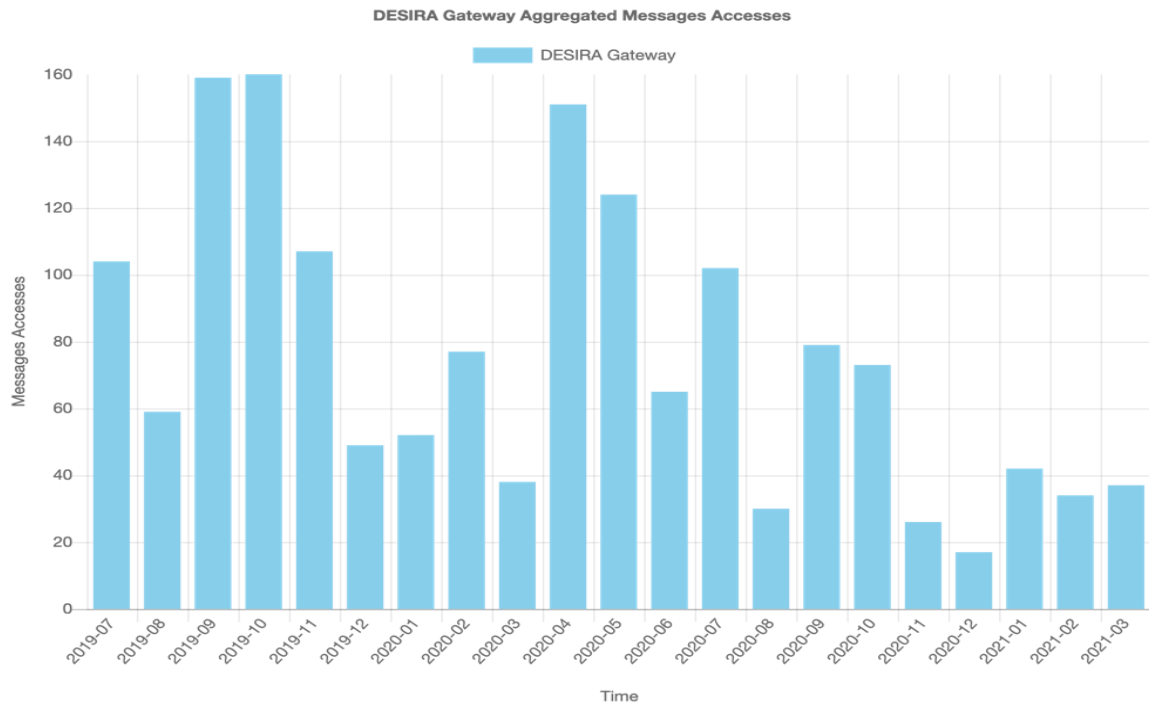
In Figure 12, the geographical distribution of the users accessing the DESIRA gateway is reported. The map is coloured according to the average sessions duration expressed in seconds.

Figure 12. DESIRA geographical distribution of the accesses coloured by sessions duration
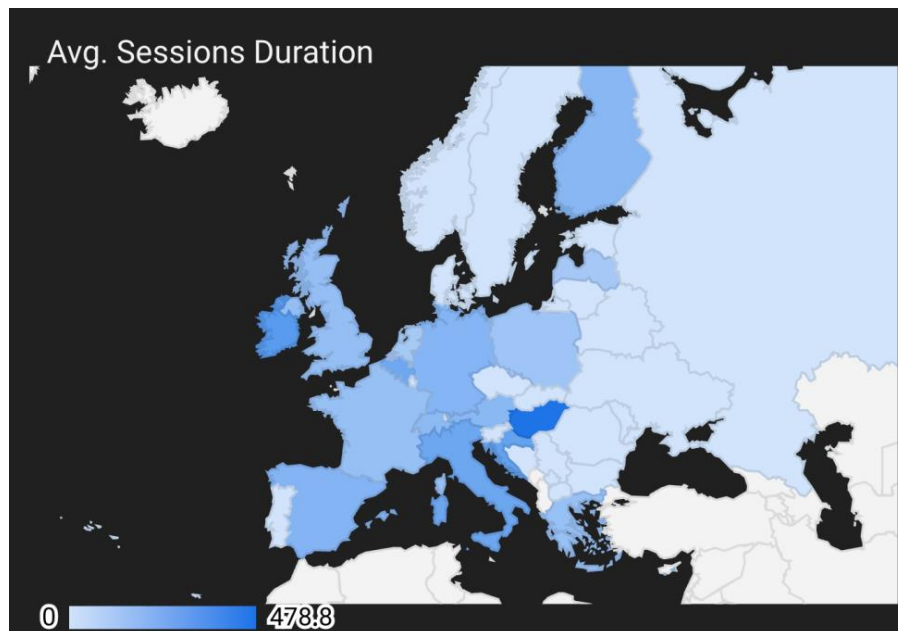
4.1.3. EU Rural Digitalisation Forum

The EU Rural Digitalisation Forum (RDF) is an open EU-wide community of stakeholders with a common interest to work, learn and share knowledge about the digitalisation of three domains: agriculture, forestry and rural areas.
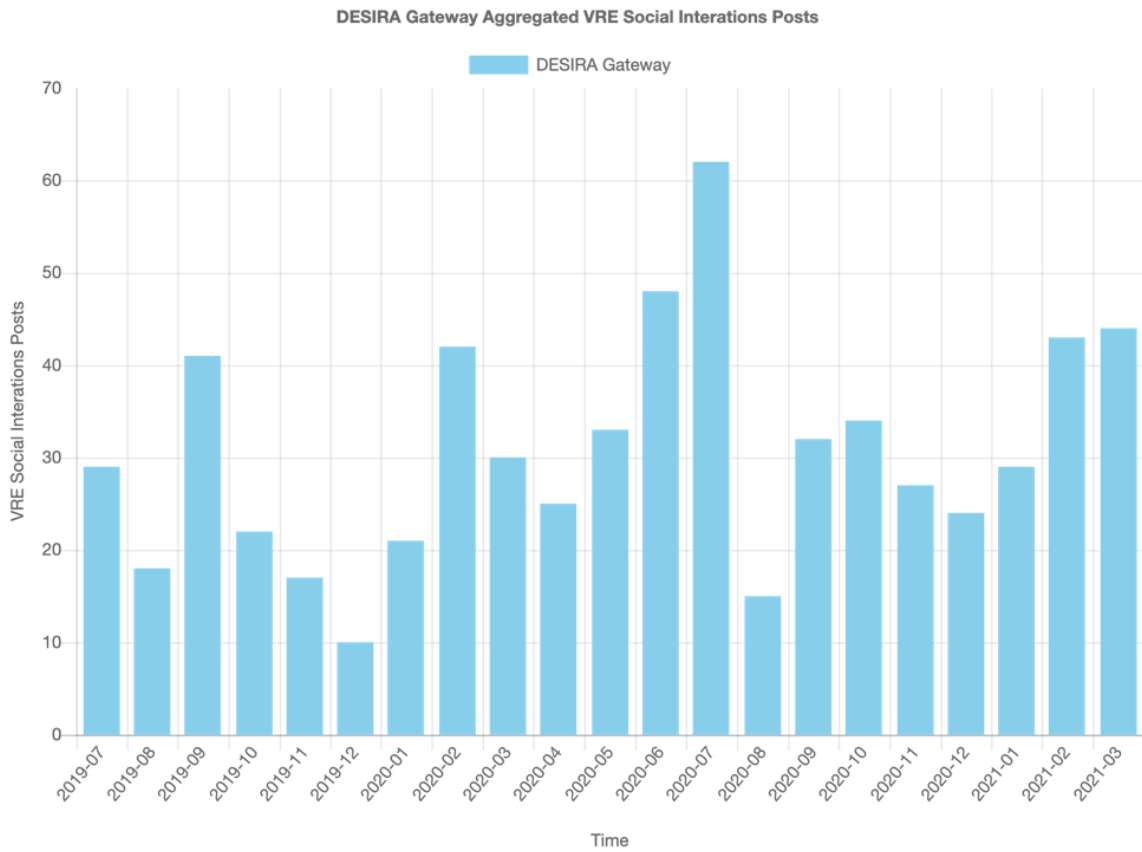
The RDF offers a multi-actor research and innovation perspective. It is put in practice around dedicated spaces for dialogue, exchanges, information sharing, and knowledge creation. It is composed for: (a) three RDF meetings during the project; (b) RDF Working groups (rural areas, agriculture, forestry and policy[8]); (c) Living Labs representatives and (d) RDF Facebook community. The following figure shows the different stakeholders involved and the information flow with DESIRA project.

Figure 13. DESIRA RDF structure
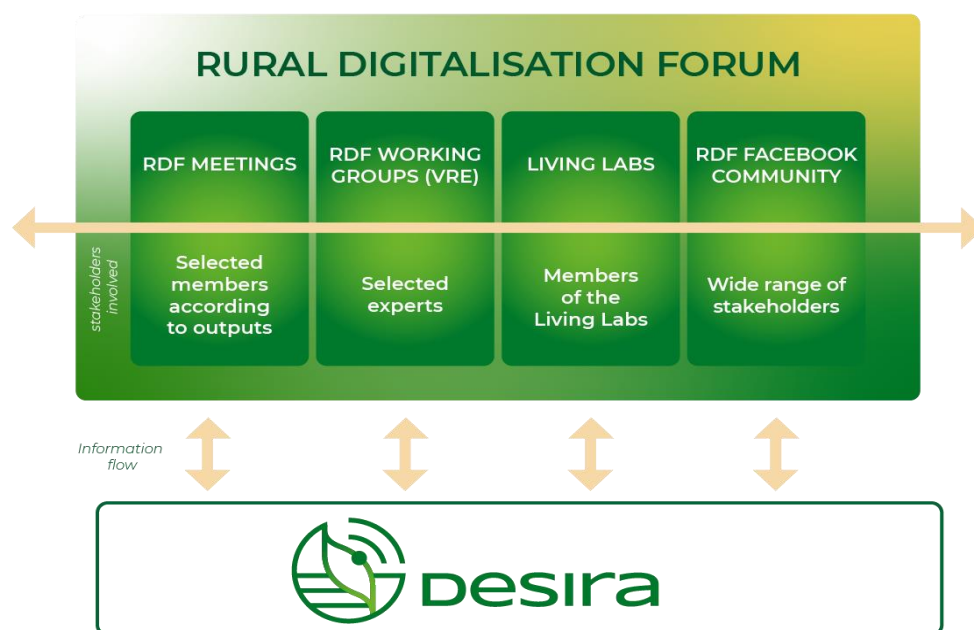
The RDF meetings

Three face-to-face meetings will be organised over the course of the project with key stakeholders contributing to specific DESIRA research outputs.

The **first meeting** took place virtually on the 10 September 2020. This RDF meeting allowed DESIRA to present in detail the main outputs developed during the first year:

- Conceptual and Analytical framework (CAF): Digital Transformation; Digital Game Changers (DGCs) and Socio-Cyber-Physical Systems (SCPS);

- Pan-European Assessment of Digitalisation in the EU;

- Taxonomy and Inventory of Digital Game Changers;

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[8] The Working Group on policy has not yet been created.

- Socio-Economic and Sustainability Indicators (SESI).

In addition, three Horizon 2020 projects (SmartAgriHubs, SHERPA and RURITAGE) were presented during the meeting, with the aim of finding common objectives and potential synergies among the projects.

The presentations from speakers are available at the DESIRA website. Sessions were recorded, and videos were produced from the session (see Section 4.2.4 *Videos*)

A total of **102 people expressed their interest in participating in the first RDF meeting**, which saw the attendance of around 60 stakeholders during the day. According to a 2020 study by Markletic[9], the percentage of no-shows at most virtual events is around 35%, and in free events (such as the first meeting of the RDF) this rate can go up to 50%. Figure 14 shows the type of stakeholders that attended the first RDF meeting (Managing Authorities, Researchers, National Rural Networks, civil society organisations, H2020 projects representatives, etc.). Figure 15 shows the country of origin of participants, covering 22 Member States.

Figure 14. Categories of stakeholders attending the RDF first meeting
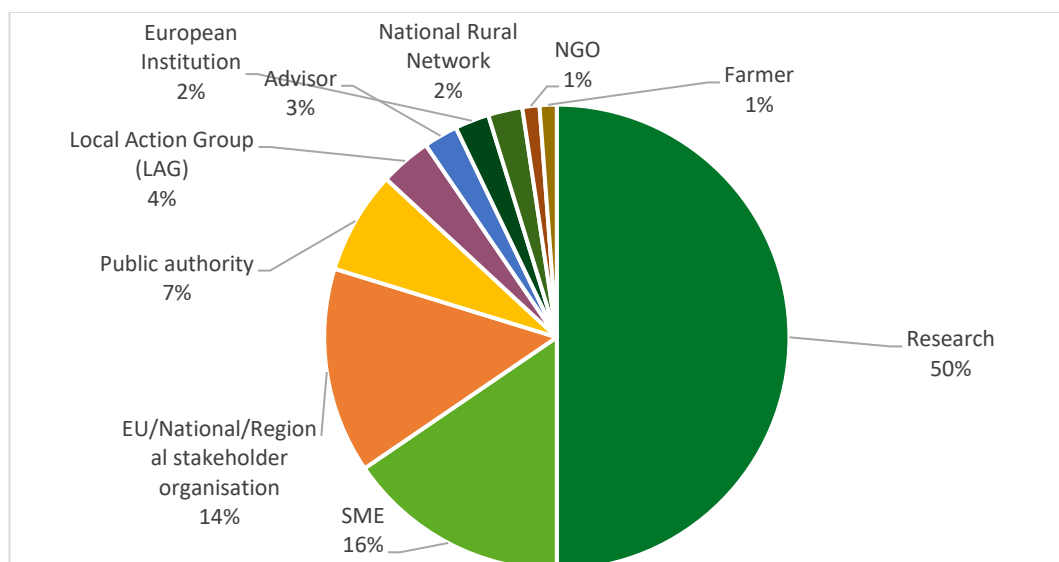
Figure 15. Country of origin of stakeholders attending the RDF first meeting
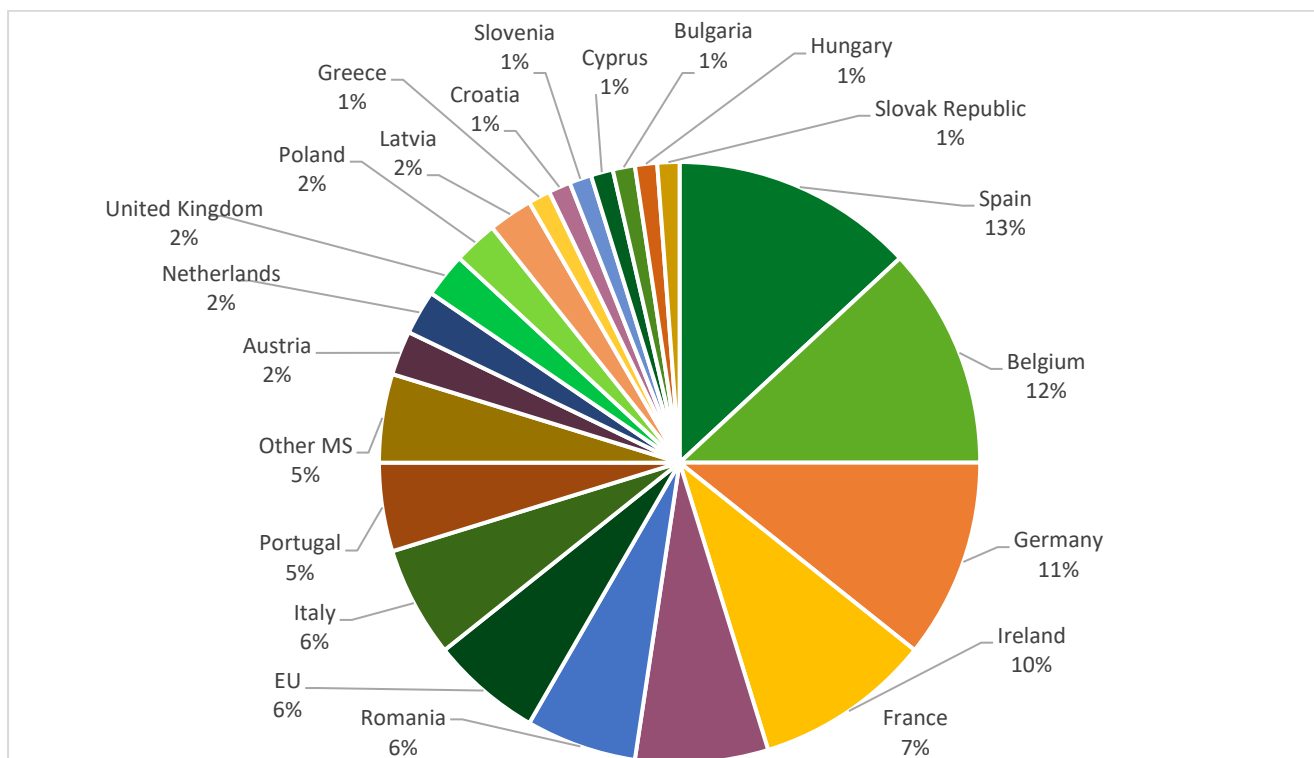
Living Labs representatives

With the available information it is not possible to know the number of members involved in the different Living Labs.

RDF Working groups (VRE)

DESIRA's RDF coordinates four **virtual dedicated Working Groups (WGs)** on i) agriculture, ii) forestry iii) rural areas/life and iv) policy[10] formed by experts from DESIRA, Living Lab members and high-level external experts. Table 4. Overview of the VRE WGsindicates: (i) the number of members of each DESIRA working group, (ii) the total post in the dedicated VRE, (iii) the number of members that have published in the dedicated VRE's working group and (iv) the classification of posts.

Table 4. Overview of the VRE WGs

Working group in VRE	Members	Total Posts in dedicated VRE	Number of members that has published in the dedicated VRE's WG
Agriculture	32	22	9
Forestry	29	18	9
Rural areas/life	24	13	5

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[10] The Working Group on policy has not yet been created.

The RDF Working groups have carried out activities that the community considered relevant. These are mainly two: (1) contribution to the Long-term vision for rural areas' (LTVRA) and (2) provide feedback to the Europe's Digital Decade Roadmap.

Contribution to the Long-term vision for rural areas (LTVRA)

In mid-September 2020, the RDF decided to submit a contribution to the Long-term vision for rural areas' (LTVRA). The LTVRA is an EU high-level policy initiative launched by the President of the European Commission, Ursula von der Leyen, which will result in the publication of a Commission Communication before the summer of 2021. The RDF sent the contribution to the European Commission at the end of January 2021.

The contribution capitalised on results and knowledge already developed in the project, and on the views of members of the RDF and other relevant stakeholders (from other H2020 projects, academics, local developers, SMEs, etc.). The contribution built on: (i) the Synthesis report on the Taxonomy and Inventory of Digital Game Changers, (ii) the 50 Practice Abstracts and (iii) an online questionnaire and feedback from experts.

DESIRA's contribution takes the form of three documents that have the purpose of reflecting on **how digital technologies can contribute to build desirable futures for rural areas by 2040** and provide examples of the contemporary application of key technologies. These were further analysed in a fourth document that compiles recommendations and a series of principles to guide digitalisation processes towards desired futures.

A total of 53 experts from 16 EU Member States and 3 non-EU countries were involved in the process. Figure 18 shows the distribution of answers by domain, while Figure 17 refers to the type of stakeholders involved in the process. In terms of gender, one-quarter for women and three-quarters were men.

Figure 17. Distribution of responses by domain (n=53)

Rural Areas
36%

Forestry
21%

Agricultu
re
43%

Figure 16. Type of stakeholder involved (n= 53)

Public
authority/policy-
maker
9%

Civil society
2%

Farmer
2%

Private sector
11%

NGO
10%

Innovation broker
/advisor/consultant
17%

Researcher
49%
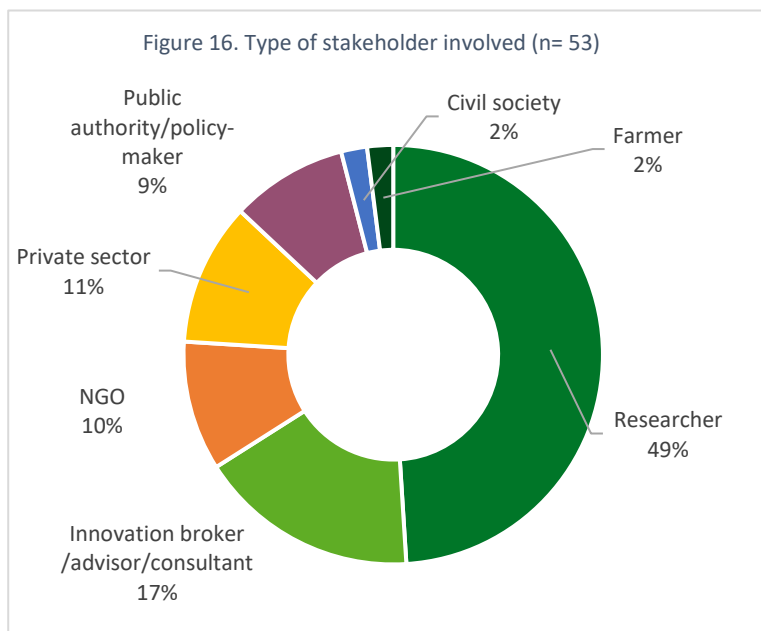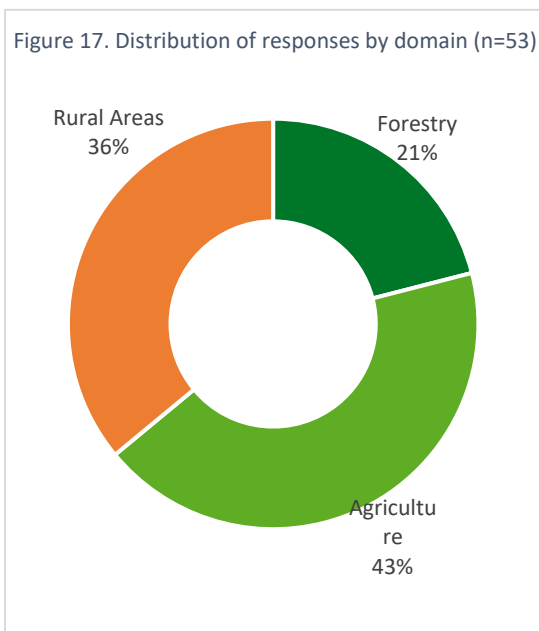
Europe Digital Decade Roadmap

In March 2021, DESIRA provided feedback to the roadmap for Europe's digital decade 2030 launched by the European Commission. The contribution was based on the lessons and results from the project, and the RDF contributions to the LTVRA. It is public and available on: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12900-Europe-s-digital-decade-2030-digital-targets/F1965844

RDF community on Facebook

The group was created on the 25 November 2019 to bring together anyone interested in the topic of rural development and digitalisation, and how digital transformation can further develop rural areas across Europe. Everyone is welcome to share their experience related to rural development and digitalisation of agriculture, forestry and rural life. This is a private group with admission moderated by the administrators. The language used is English. In case the post is in a different language, people are asked to provide a short English description so everyone can understand.

By 31 March 2021, **the total number of members was 349** (initial target: 250; updated target for M48: 650). Figure 18 shows how new members have joined over time. The top 10 countries with more members in the RDF Facebook group are depicted in Table 5.

Figure 18. Growth of members of the RDF Facebook Group over time
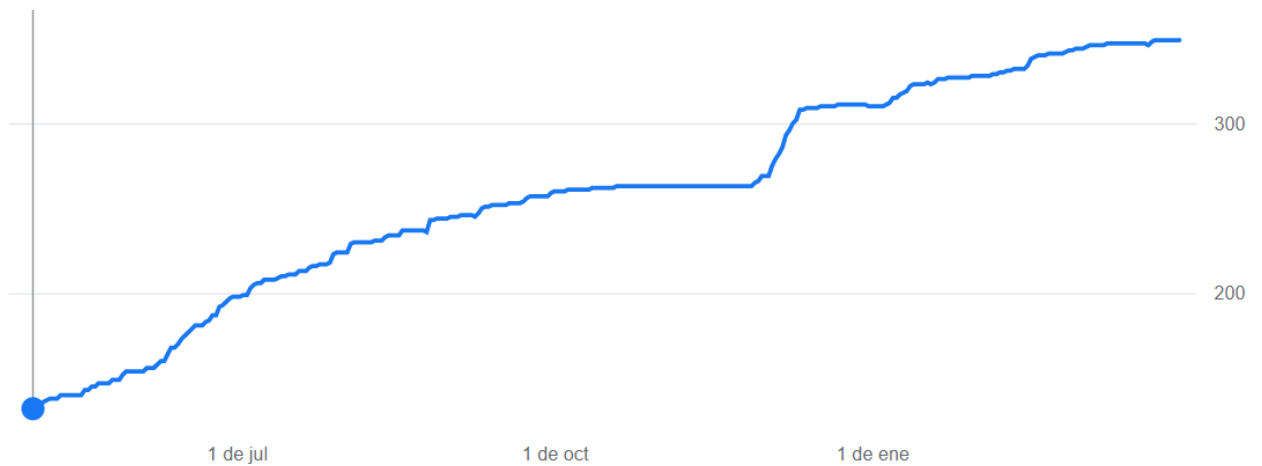
Table 5. Top10 countries with more members on the RDF Facebook Group

Country	Nº of members
Italy	45
Romania	27
Spain	26
Greece	18
Portugal	17
Belgium	16
Ireland	14
Latvia	10
France	9
United Kingdom	9

A total of **101 posts** have been shared in the group. Figure 19 shows the type of information published in the group, according to the topics it covered: DESIRA outcomes and results; information about new digital and technological solutions; general articles and reports by third parties; information about events; and questions or general comments.

Figure 19. Type of information shared on the RDF Facebook group
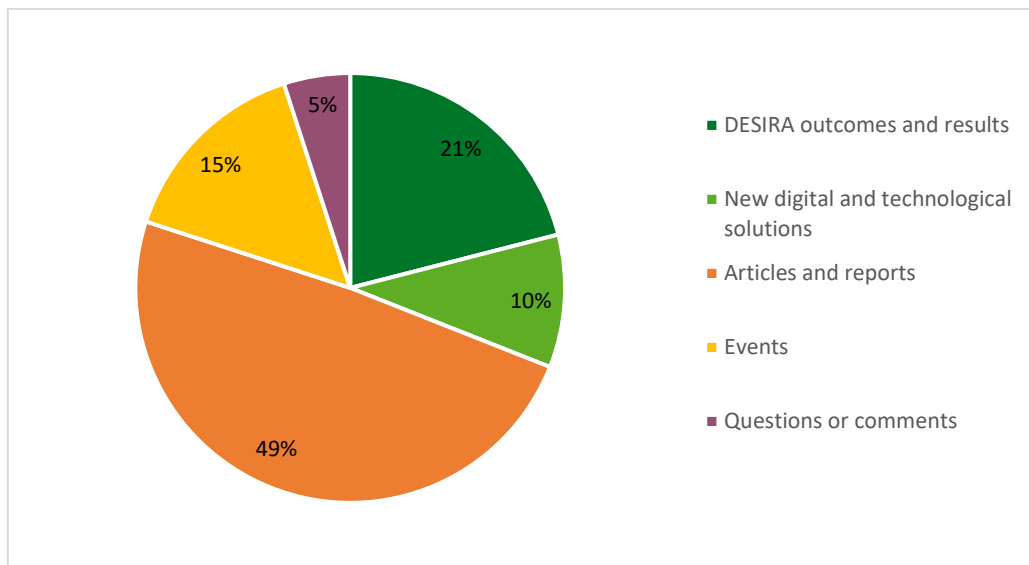
In August 2020, a poll was conducted to find out more about the RDF members and their interests. Members were asked to answer: *What is your main motivation for joining the Rural Digitalisation Forum? What are you most interested in?* 34 users responded to the poll, most of them stating that they joined the RDF Facebook group to meet and learn from others, or find ideas and practical examples (Figure 20).

Figure 20. Results of the poll on the RDF Facebook group
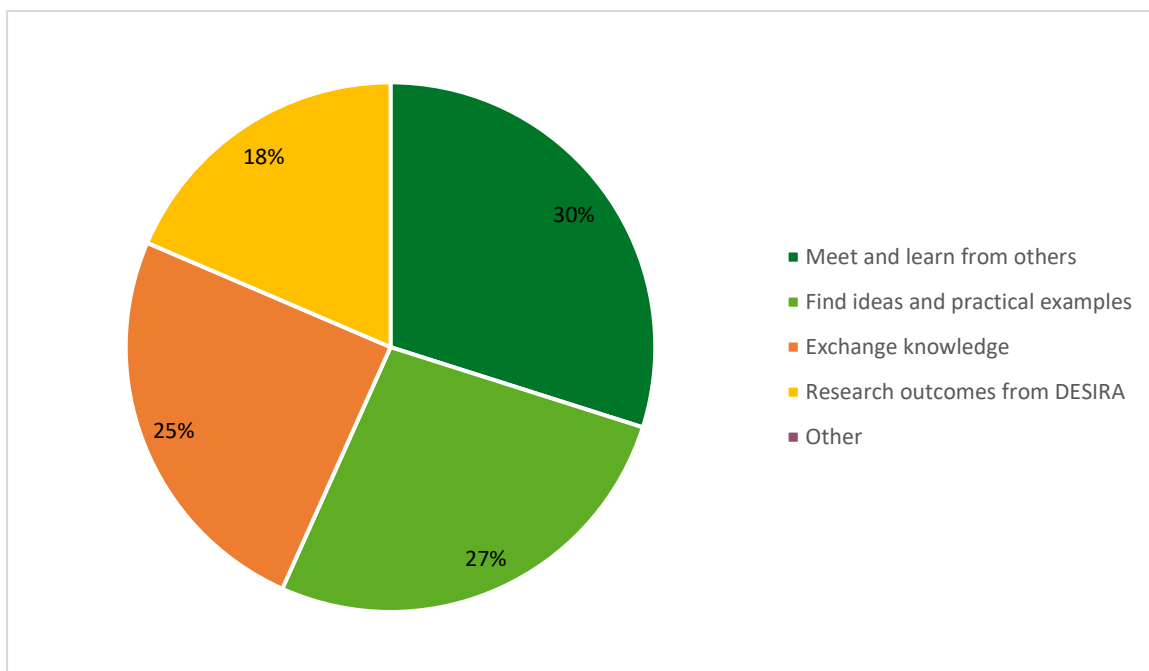
The main active members are personal accounts or other Horizon 2020 projects (SmartAgriHubs, SHERPA, RURALIZATION). There are other EU organisations and projects active in the RDF community on Facebook, such as Rethink, Next2Met Interreg Europe, or Interreg Carpedigem.

4.1.4. Social media

The DESIRA social media accounts aim to increase awareness in   users, while encouraging them to consult the project's outputs. Each social channel is intended to reach a specific audience, and the messages are adapted accordingly. The content shared on each platform includes different types of outputs, usually directing traffic to the DESIRA website.

Social media acts as an accelerator of the discussion, triggering snowball/networking effect and enabling the project to reach beyond its 'usual suspects' audience. In fact, the Task Force rate them as very useful channel for the project (see 4.1 *DESIRA Communication channels*).

a) TWITTER

The DESIRA Twitter account (@DESIRA_H2020) was created in September 2019. It is the general account of the project and it is managed in English. The Communication Manager (AEIDL) manages the Twitter account primarily, with contributions from the rest of partners. Figure 21 shows the distribution of DESIRA tweets according to their or focus. For this analysis, posts are classified according to the categories described in

Annex *I. Categories to classify DESIRA social* media post.

Figure 21. Typology of DESIRA twitter posts according to the standardised categories.
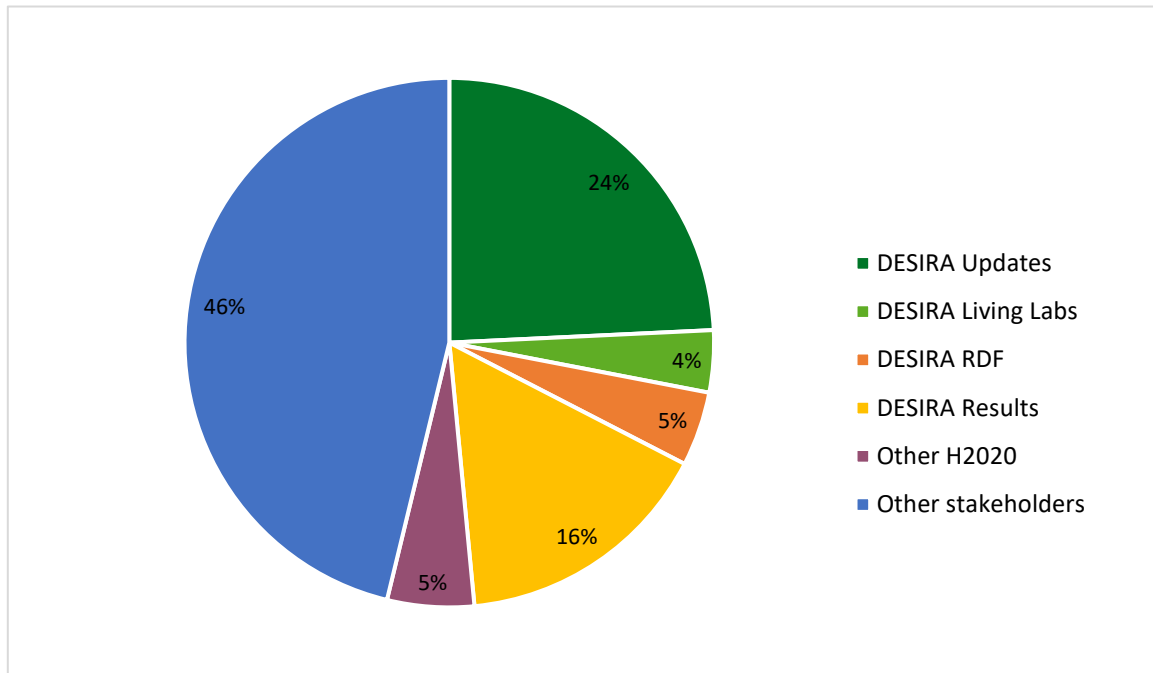
Out of the **182 tweets published**, half of them cover topics strictly related to DESIRA, while the other half is about contents by third parties. However, several tweets covering "Other stakeholders" included a link to the DESIRA website (e.g. redirecting the user to a news item covering an EU report).

It is important to note that in the first months of activity on Twitter, there were not DESIRA results to share, so most of the activity referred to the category "Other stakeholders". It is expected that, during the second half of the project, the DESIRA categories will hold a bigger share.

As per format, tweets are usually accompanied by an extra media asset to catch the users' attention, including pictures, GIFs, links or videos (more information in section 4.2.5 *Other products*). By the end of the period analysed (31 March 2021), the DESIRA twitter account had **708 followers** (initial target: 1 000; updated target for M48: 1 400). The green bars in Figure 22 shows a clear increasing tendency in Twitter follows, that is expected to continue to grow over the second half. The orange line in the same figure shows the number of impressions reached by the Twitter posts in each month.

Figure 22. Evaluation of the No of followers and impressions
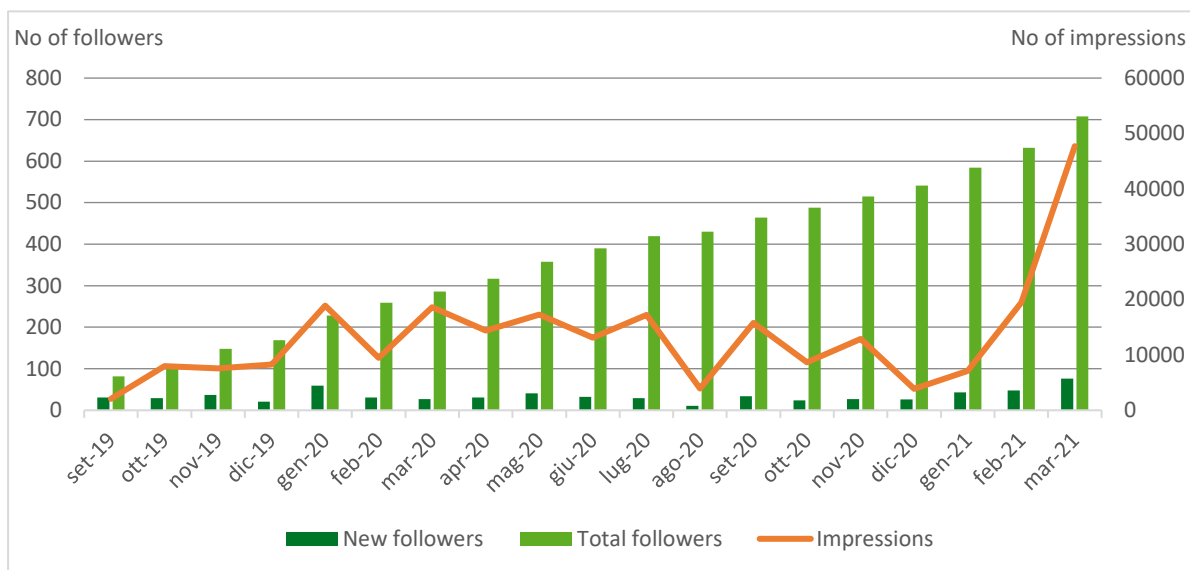
Source: Twitter Analytics, consulted on 8 April 2021

b) FACEBOOK

DESIRA is present in Facebook through the Rural Digitalisation Forum group (see Section 4.1.3 *EU Rural Digitalisation Forum*) and the page "DESIRA - Digitisation: Economic and Social Impact in Rural Areas".

The Facebook page was created in September 2019 and is adopted for public outreach and showcasing outputs and results of the project. Since the beginning of the activity, there have been **96 publications**, plus several shares of content published by third parties. Figure 23 shows the type of content published in the DESIRA Facebook page according to the standardised categories included in

Annex I. Categories to classify DESIRA social media post.

Figure 23. Distribution of DESIRA posts in Facebook by category of content
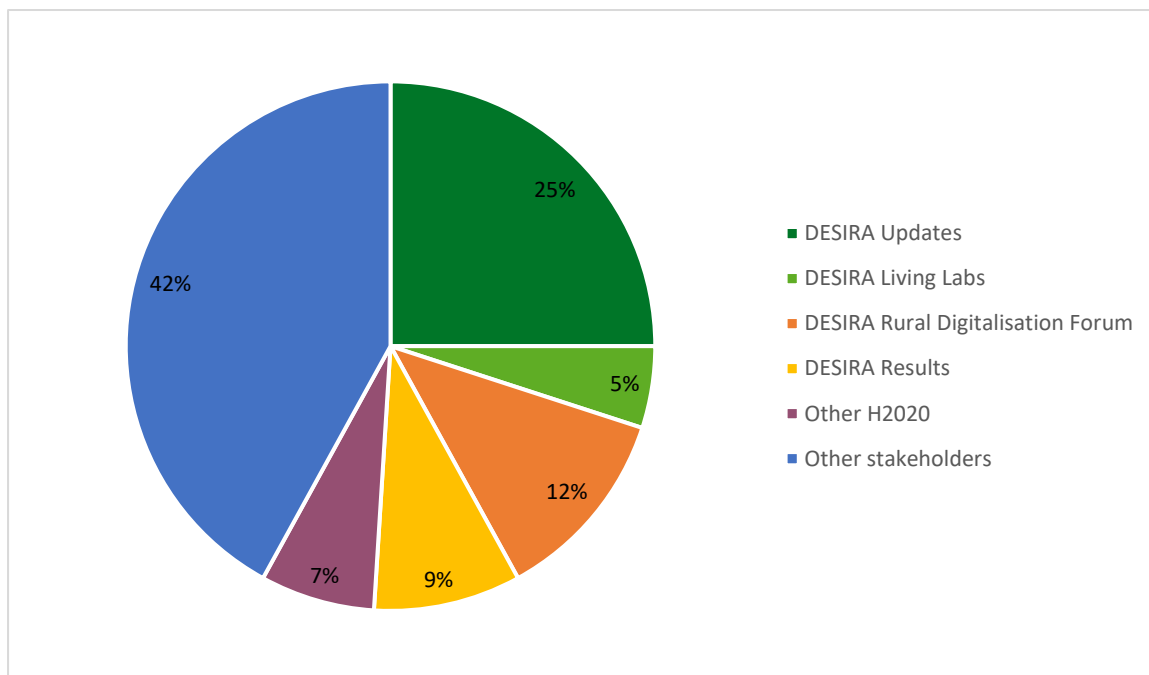

Half of the posts cover topics strictly related to DESIRA, while the other half is about contents by third parties. However, several tweets covering "Other stakeholders" included a link to the DESIRA website (e.g. redirecting the user to a news item covering an EU report). It is important to note that in the first months of activity on Facebook, there were not DESIRA results to share, so most of the activity referred to the category "Other stakeholders". It is expected that, during the second half of the project, the DESIRA categories will hold a bigger share.

The posts published on the DESIRA Facebook page are usually accompanied by media to attract the users' attention. These media are either links to external sites, pictures, or videos. Figure 26 shows the distribution of DESIRA posts according to the type of media accompanying the publications. Facebook's algorithm often penalises posts that include external links. That's why posts that include images have a higher reach (impressions) than those that only include a link as a call to action (Figure 25).

Figure 25. Posts of Facebook page per content type

5%

32%

63%

■ Links ■ Photos ■ Other (videos, status updates)

Figure 24. Average of impressions of DESIRA posts per content type

■ Average of impressions

Source: Facebook Insights

By the end of the period of analysis, the DESIRA Facebook page had **261 followers and 243 likes** (initial target: 300; updated target for M48: 500). Figure 26 and Figure 27 show the growth of followers and likes in the DESIRA Facebook page.

Figure 26. Average performance over time of Facebook likes
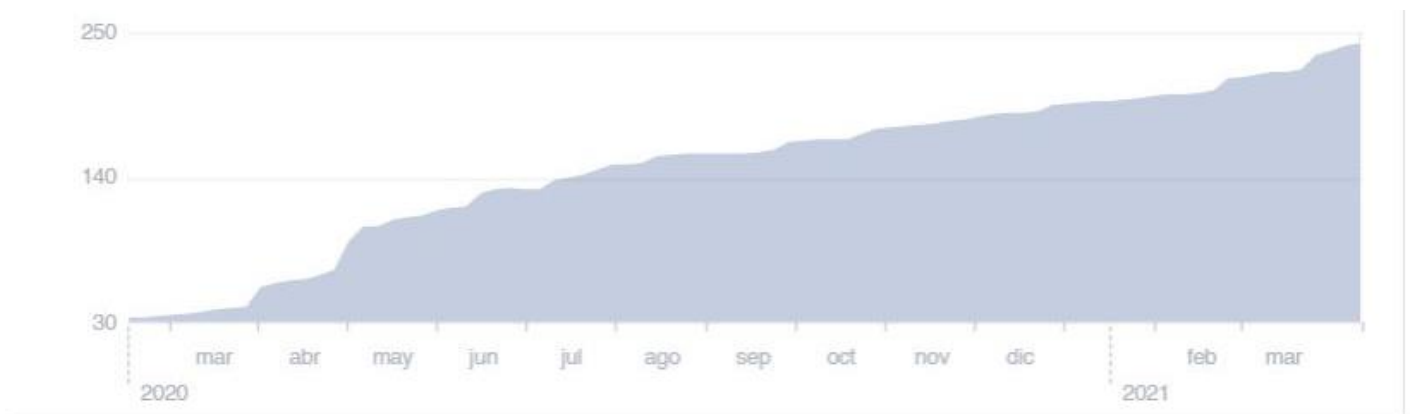
Source: Facebook Insights, consulted on 5 April 2021

Figure 27. Average performance over time of Facebook followers
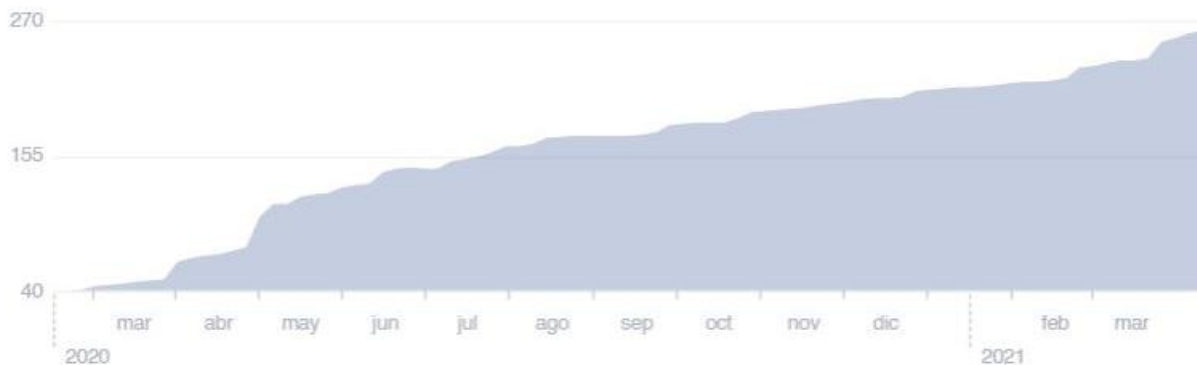
Source: Facebook Insights, consulted on 5 April 2021

Table 6 shows the country from which the DESIRA Facebook followers visit the content. Countries marked in **bold** are those where there are either partners of the project or in which a Living Lab is established.

Table 6. Facebook followers per country of origin

Country	Followers
Italy	17.24 %
Greece	15.33 %
Romania	3.83 %
Spain	6.90 %
Belgium	6.13 %
Portugal	5.75 %
Germany	4.21 %
Ireland[11]	4.21 %
Croatia	3.83 %
Bulgaria	3.07 %

Source: Facebook Insights

c) LINKEDIN

DESIRA is present in LinkedIn through the company page DESIRA H2020. The LinkedIn page was created in September 2019 and is adopted for public outreach and showcasing outputs and results of the project. Since the beginning of the activity, there have been 96 publications, plus several shares

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[11] By the time of the analysis, the Living Lab from Ireland is not yet established.

of contents published by third parties. Figure 28 shows the type of contents published in the DESIRA LinkedIn12 page according to the standardised categories included in
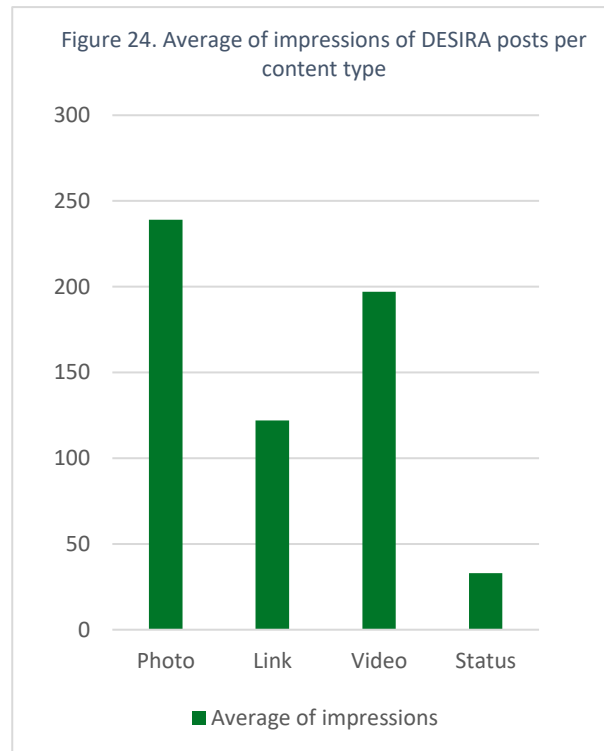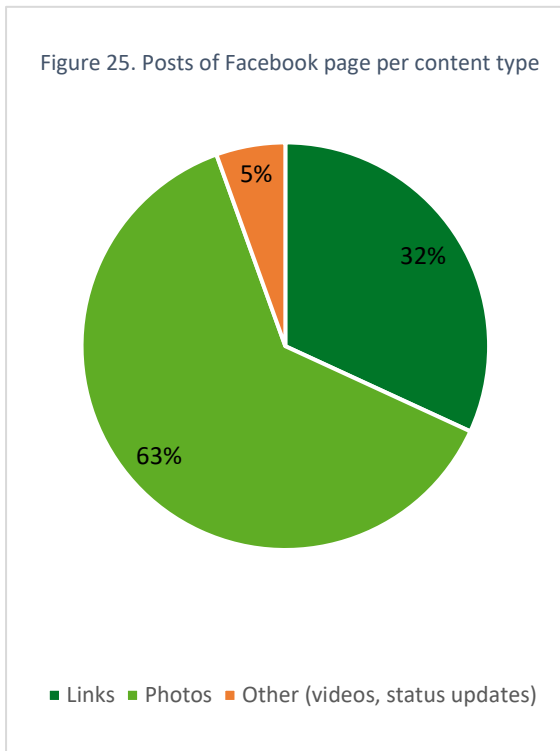
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[12] LinkedIn Statistics are only accessible for a period of 12 months, and some of the information is lost after 30 days. Therefore, the data included must be understood as an estimation.

Annex *I. Categories to classify DESIRA social* media post.

Figure 28. LinkedIn posts according to standardised categories
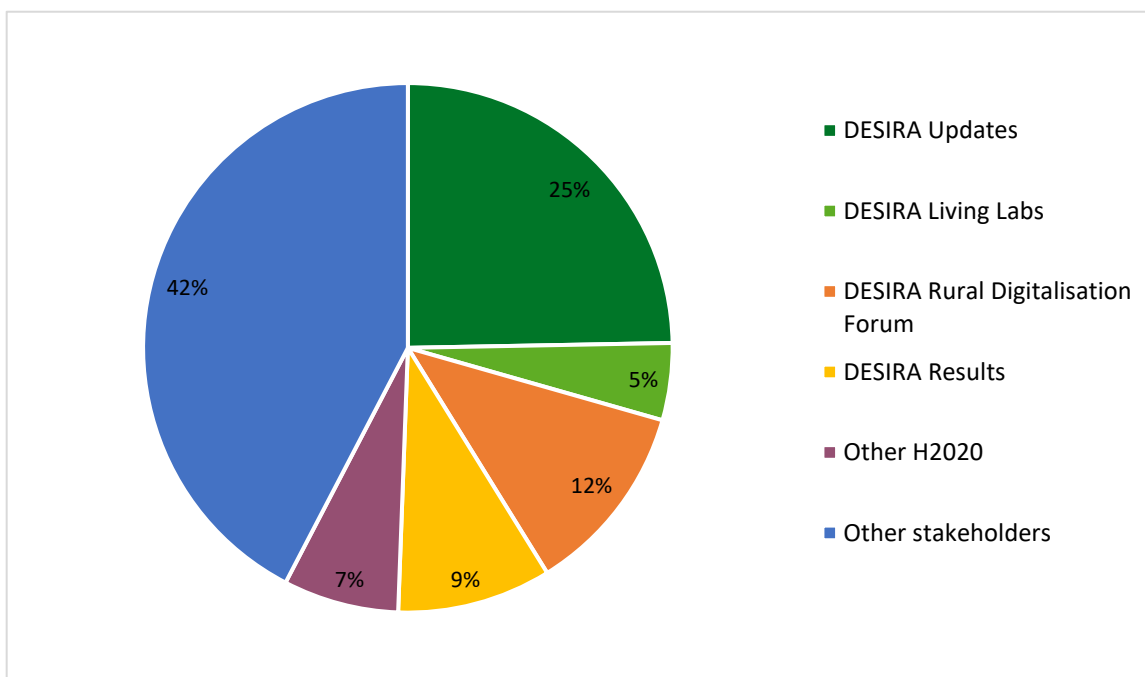
By the end of the period of analysis, the LinkedIn account had **152 followers** (initial target: 150: updated target for M48: 300).

d) INSTAGRAM

The DESIRA Instagram account (@DESIRA_h2020) was set in January 2021. As the Facebook algorithm keeps penalising corporate websites and organic reach, and the migration of users from Facebook to Instagram keeps happening, the Communication Team of DESIRA decided to create an Instagram account to promote the project through visual contents. By the end of the period analysed, the Instagram account of DESIRA had **63 followers**. So far, the account has nine publications and has published three stories. There is no more data available for this period.

e) YOUTUBE

The DESIRA YouTube Channel was created in September 2019, and it stores all the audio-visual material the project has produced (see Section 4.2.4 *Videos*). The channel currently hosts eight videos produced by the project publicly available, plus six private videos containing recordings of online meetings, only available to partners.

By the end of the analysed period, the DESIRA YouTube channel counted with **502 views** (target: 15 000). The total amount of views and the distribution over time are depicted in Figure 29.

Figure 29. Views of the DESIRA YouTube Channel over time
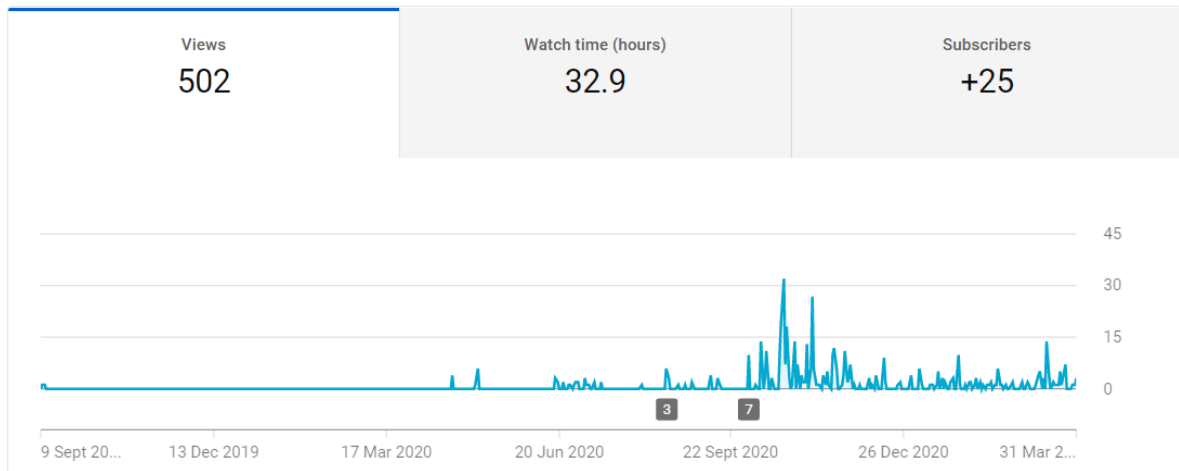
Source: YouTube Analytics, Consulted on 5 April 2021

The DESIRA videos hosted in YouTube have been widely promoted through social media and other means. Figure 30 shows the most viewed videos and the average duration per session.

Figure 30. Top 5 most viewed DESIRA videos on YouTube

Video		Views ↓		Average view duration	Average percentage viewed
Total		**514**		**3:53**	**13.7%**
The state of rural digitalisation in Europe, Michaël de Clercq | Rural ...		122	23.7%	2:45	16.7%
Mapping digital technologies, Manlio Bacco & Silvia Rolandi | Rural ...		90	17.5%	5:12	25.8%
DESIRA's Conceptual and Analytical Framework, Lurissa den Dulk | ...		71	13.8%	3:04	24.9%
Socio-economic sustainability indicators (SESI), Kirsten Gaber | Rur...		69	13.4%	4:15	31.3%
SHERPA, Michael Kull | Rural Digitalisation Forum		44	8.6%	2:35	33.2%

Source: Source: YouTube Analytics, Consulted on 5 April 2021

The DESIRA YouTube channel has **25 subscribers** (target: 150). Figure 32 shows the overall performance in number of impressions. Figure 29 and Figure 32 show a series of peaks around the end of September 2020, when the videos of the Rural Digitalisation Forum were uploaded to the channel.

Figure 31. Impressions in the DESIRA YouTube channel over time
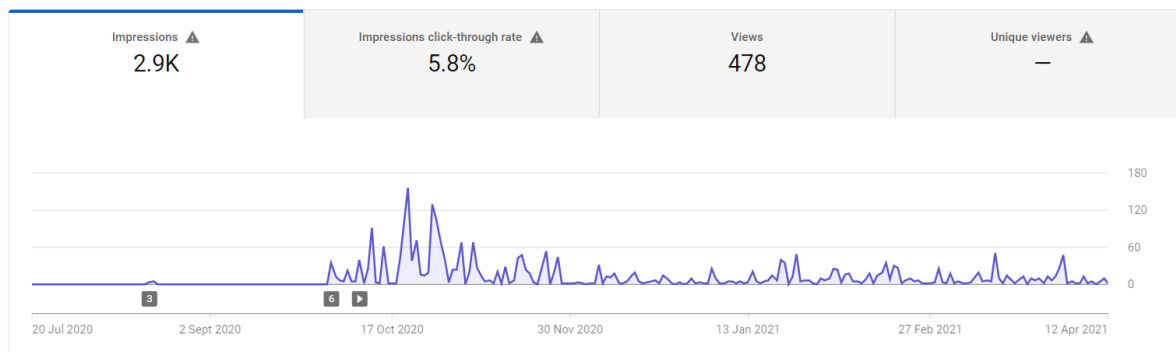
Source: Source: YouTube Analytics, Consulted on 5 April 2021

4.1.5. Newsletter

The DESIRA newsletter aims to communicate the developments of the project, as well as relevant information about other Horizon 2020 projects, European institutions or international organisations on digitalisation of rural areas, forestry and agriculture that may be interesting to the subscribers. The Task Force rated the newsletter as very useful (3.2 out of 4) for the project.

The newsletter is sent out every four months, on the last Thursday of the month. Newsletter #4, however, was delayed for two weeks to adapt to the project developments. The DESIRA contribution to the Long-Term Vision for Rural Areas (see section 4.1.3 *EU Rural Digitalisation Forum*) was sent to the European Commission by the end of January 2021, when the newsletter was scheduled. However, several communication products (see section 4.2.2 *Briefings*) were being produced at the time. Therefore, the Communication Manager and the Project Coordinator decided to postpone the publication of the newsletter.

The DESIRA newsletter follows a common structure throughout the different editions. An initial structure was proposed in the DECO Strategy, which has been slightly adapted as the project develops (Table 7).

Table 7. Main structure of the newsletter

Section	Content
Leading article	Expert-led article about a specific topic of interest around digitisation and DESIRA outcomes. These leading articles will help to communicate the key message of DESIRA.
DESIRA news	Updates about the developments of DESIRA.
European news	Articles or news item on relevant topics happening related to DESIRA at the EU institutions.
Stakeholder perspectives	Articles or news item on specific and relevant topics related to the digitalisation of agriculture, forestry and rural areas.
Upcoming events	A calendar of upcoming public actions and events, including relevant links when necessary.

The DESIRA newsletter is managed by using Mailchimp, sent to a distribution list, shared through social media channels and then published in a specific webpage in the DESIRA website. Table 8 shows an overview of the five editions published of the DESIRA newsletter. The opening rate refers to the percentage of people subscribed to the mailing list that effectively open the newsletter. The click rate refers to the percentage of hyperlinks included in the newsletter that were open by at least one reader.

Mailchimp tracks the interaction that subscribers have with the newsletter on the original email sent out by the platform, but the interaction achieved through other channels, as social media, email forwards, or the DESIRA website, cannot be measured. Therefore, the data shown in Table 8 should be understood as an underestimation of the actual data.

Table 8. Overview of DESIRA newsletters

Nº	Date	Leading article	Opening rate	Click rate	Nº of subscribers
0	Dec 2019	DESIRA – Here we are!	54.3%	34.8%	46
1	Jan 2020	Opportunities and challenges for Smart Farming in the EU	54.3%	37%	92
2	May 2020	Digital Transformation	55.9%	33.8%	146
3	Sept 2020	First meeting of the Rural Digitalisation Forum	49.2%	26%	182
4	Feb 2021	DESIRA Contribution to the Long-Term Vision for Rural Areas	48.1%	22.1%	234

By the end of the period of analysis, the newsletter counts with **262 subscribers**. Figure 32 and Figure 33 show a categorisation of the subscribers by country and category of stakeholder.

Most subscribers are from one of the countries where DESIRA has a partner (Italy, Spain, United Kingdom, and France). They belong mostly to Research institutes (90 subscribers), Managing authorities (21), European institutions (19), SMEs (19) or stakeholder organisations (18). Among the category "other", there are people from Local Action Groups (LAGs), National Rural Networks (NRNs), or farmers.

Figure 32. DESIRA newsletter subscribers sorted by country
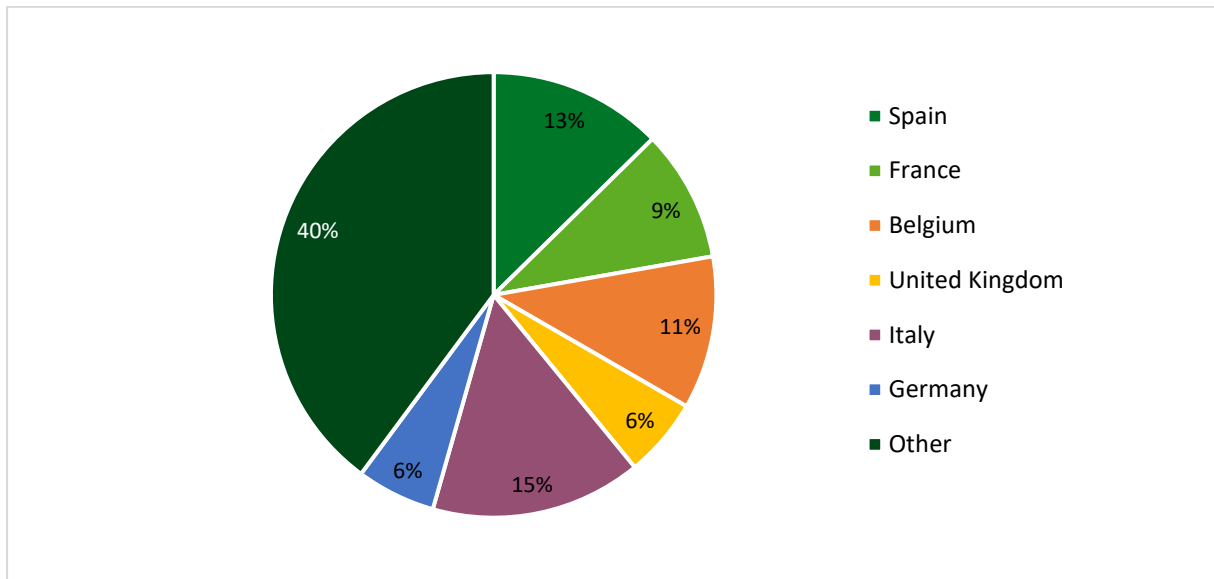
Figure 33. DESIRA newsletter subscribers sorted by category of stakeholder
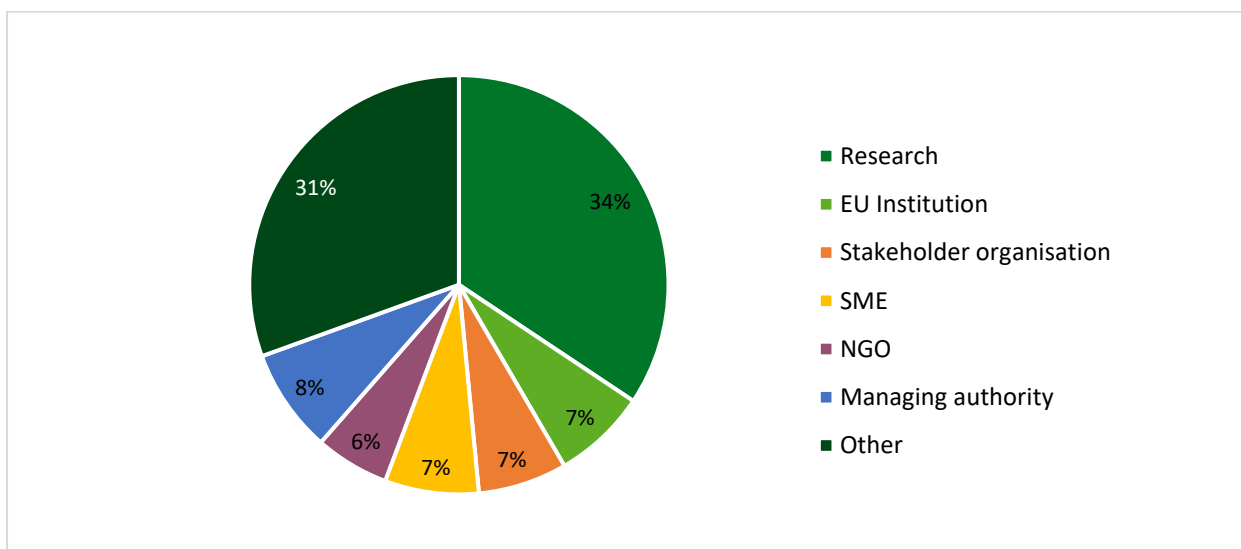
4.2.   DESIRA Communication products

DESIRA has produced a wide range of communication and dissemination materials to communicate about its outcomes and results. Each communication product has a different layout and language according to the target audience it is meant to reach.

The Communication Task Force members were asked to rate the different types of content shared with DESIRA, according to their interest and the interest of their stakeholders. Information related to DESIRA, Events and related to digitalisation were found to be more relevant for partners and their stakeholders. Lower relevance was found on information "elated to other Horizon 2020 projects, or

projects funded by other EU programmes, working on similar topics" rated with a 2.8 score (Figure 34).

Figure 34. Relevance of the type of information for partners and stakeholders
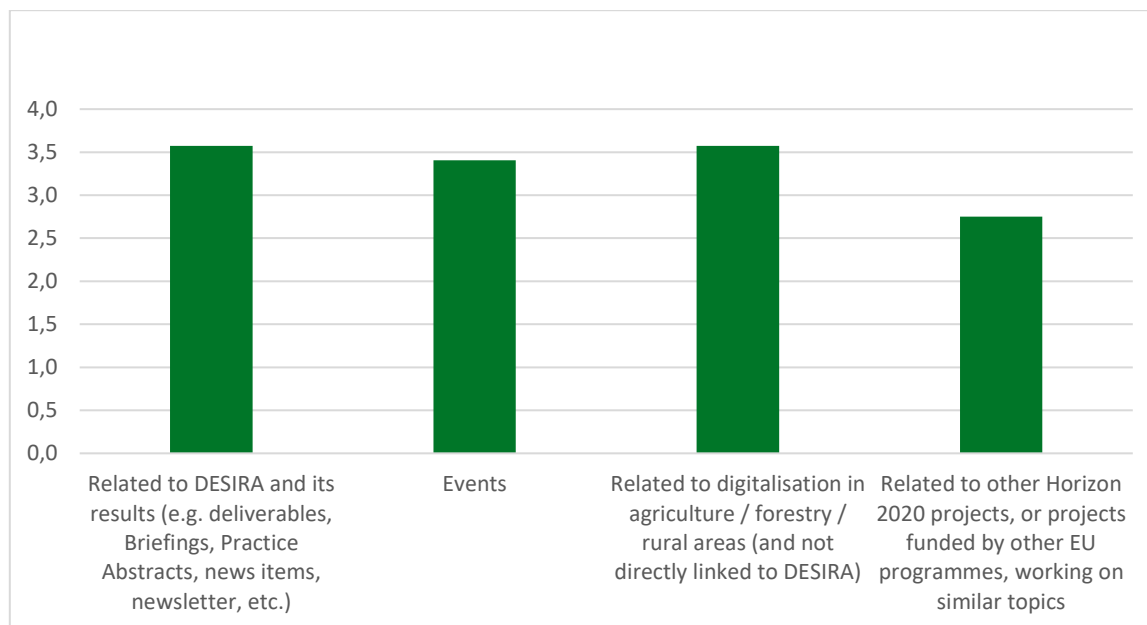
The Communication Task Force also rated the usefulness of DESIRA communication products according to their format. Although all formats were highly appreciated, the maximum values were for articles and news, and videos (Figure 35).

Figure 35. The usefulness of DESIRA communication materials to inform about the main outcomes from the project
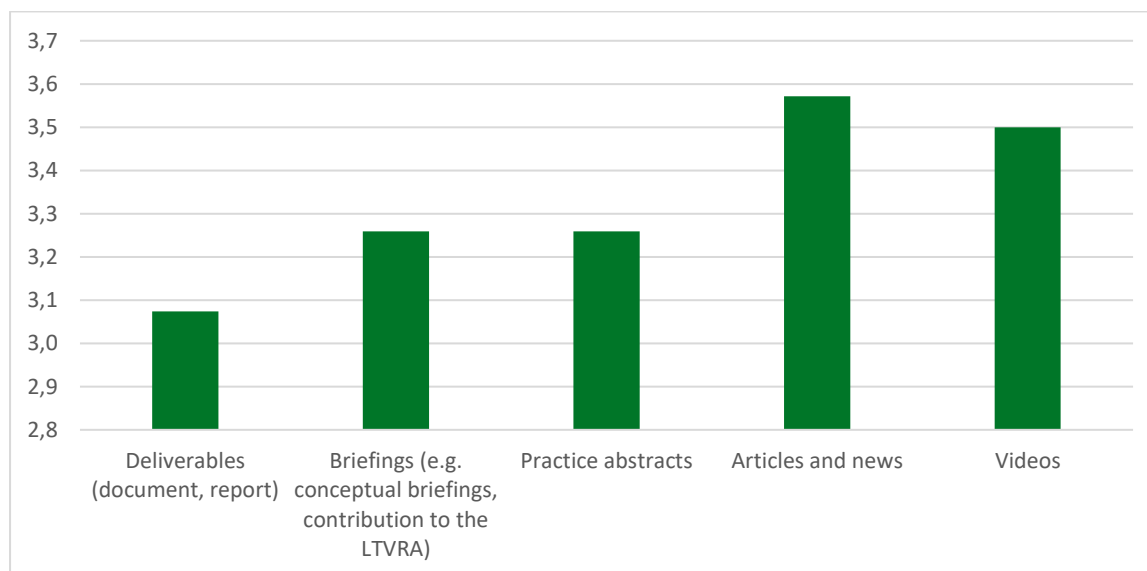
4.2.1. Visual identity of the project

By using a unique visual identity throughout the consortium and all our communications products, consistency is ensured in DESIRA communications and dissemination. Templates for different types of documents (e.g. MS Word, PPT, e-mail signature) were developed and shared with the consortium.

Templates are important to give a uniform image of the project and to establish a visual language to indicate the information presented derives from the DESIRA project. The DESIRA visual identity complies with the visual guidelines of the European Commission.

The main elements of the visual identity package of DESIRA comprise:

- Logo, in several applications and formats (vertical and horizontal applications, coloured and black and white versions);

- Graphic Charter, including the corporate colours and typographies to be used in the DESIRA communication materials;

- Template package, including templates for presentations, deliverables, agenda, working documents, event communications and e-mail signature. All of these templates include the EU logo and disclaimer, and are updated when needed (e.g. a partner changes their visual identity).

All of these elements are available in the VRE for partners to use.

4.2.2. Briefings

Briefings are one of the key communication materials developed by DESIRA, designed to provide information quickly and effectively about the DESIRA results. The first batch of briefings (6) was produced for the first meeting of the Rural Digitalisation Forum. The objective of these documents was to provide participants with background information about the results of the project to be presented and discussed in the workshop. These briefings covered three main topics: conceptual briefings (based on D1.1 Conceptual and Analytical Framework (CAF) Report I version); Mapping and taxonomy of Digital Game Changers (based on D1.3 Synthesis report on the Taxonomy and Inventory of Digital Game Changers); the preliminary set of Socio-Economic Indicators (SESI), and the state of rural digitalisation in Europe (based on D2.1 Pan-European Assessment Report (PEA)).

Digital Transformation: ongoing digitisation and digitalisation processes

This briefing describes the concept of "Digital Transformation", one of the tools included in the DESIRA's Conceptual and Analytical Framework (CAF).

- Kelly Rijswijk, Ellen Bulten, Laurens Klerkx, Lurissa den Dulk, Joost Dessein, Lies Debruyne (2020) *Digital Transformation: ongoing digitisation and digitalisation processes;* DESIRA Conceptual Briefing; https://desira2020.eu/wp-content/uploads/2020/11/Briefing_Digital-Transformation.pdf

Digital Game Changers

This briefing describes the concept of "Digital Game Changers Transformation", one of the tools included in the DESIRA's Conceptual and Analytical Framework (CAF).

- Kelly Rijswijk, Ellen Bulten, Laurens Klerkx, Lurissa den Dulk, Joost, Lies Debruyne (2020) *Digital Game changers: The potential to generate disruption;* DESIRA Conceptual Briefing; https://desira2020.eu/wp-content/uploads/2020/11/Briefing_Digital-Game-Changers.pdf

Socio-Cyber-Physical systems

This briefing describes the concept of "Socio-Cyber-Physical Systems", one of the tools included in the DESIRA's Conceptual and Analytical Framework (CAF).

- Kelly Rijswijk, Ellen Bulten, Laurens Klerkx, Lurissa den Dulk, Joost Dessein, Lies Debruyne (2020) *Socio-Cyber-Physical Systems: Assessing the fourth industrial revolution;* DESIRA Conceptual Briefing; https://desira2020.eu/wp-content/uploads/2020/11/Briefing_Socio-Cyber-Physical-Systems.pdf

The state of Rural Digitalisation in Europe

This briefing document takes stock of the digital connectivity of European households, specifically rural households. It shows a comparison between the connectivity of households in rural areas across Europe based on figures from 2011 to 2018 at NUTS 3 level. It also illustrates the progress towards the achievement of the EU's broadband objectives.

- Michaël de Clercq, Jeroen Buysse, Marijke D'Haese (2020) *The state of Rural Digitalisation in Europe*; Draft Briefing; https://desira2020.eu/wp-content/uploads/2020/11/Briefing_Digitalisation-in-Europe.pdf

Socio-Economic Sustainability Indicators

For the socio-economic assessment within the DESIRA, the project is developing a set of indicators to measure different aspects of sustainability.

This briefing explains the preliminary set of Socio-Economic Sustainability Indicators (SESI), how the project Living Labs are using these indicators and how the results of the assessment will be of use to the project.

- Kirsten Gaber, Christine Rösch (2020) *Socio-Economic Sustainability Indicators*; Draft Briefing; https://desira2020.eu/wp-content/uploads/2020/11/Briefing_SESI.pdf

Mapping of Digital Technologies

This briefing discusses digital technologies and their functions, and introduces CPS as the reference conceptual model. It also introduces the inventory of digital tools collected through an online survey within DESIRA, and then shows the set of application scenarios derived from the collected digital tools.

- Manlio Bacco, Silvia Rolandi and Ivano Scotti (2020*) Mapping digital technologies: the taxonomy and inventory of digital game changers;* DESIRA Briefing; https://desira2020.eu/wp-content/uploads/2020/11/Briefing_Taxonomy.pdf

The second batch of briefings was developed to present the DESIRA contribution to the Long-Term Vision for Rural Areas (see section 4.1.3 *EU Rural Digitalisation Forum*)

Key Digital Game Changers shaping the future of agriculture in 2040. Views from DESIRA's Rural Digitalisation Forum experts

This document focuses on the question 'How can digitalisation shape and influence the future of the agricultural sector in 2040?' in order to contribute to a sustainable, resilient and fair society.

- Lies Debryune, Gianluca Brunori, Blanca Casares, Enrique Nieto (2021) *Key Digital Game Changers shaping the future of agriculture in 2040. Views from DESIRA's Rural Digitalisation Forum experts;* DESIRA policy briefs; https://desira2020.eu/contribution-ltvra-agriculture/

Key Digital Game Changers shaping the future of forestry in 2040. Views from DESIRA's Rural Digitalisation Forum experts

This document focuses on the question 'How can digitalisation shape and influence the future of the forestry sector in 2040?' with a particular focus on the competitiveness of the sector and sustainability of forestry resources in Europe.

- Antonio Brunori, Gianluca Brunori, Enrique Nieto (2021) *Key Digital Game Changers shaping the future of forestry in 2040. Views from DESIRA's Rural Digitalisation Forum experts;* DESIRA policy briefs; https://desira2020.eu/contribution-ltvra-forestry/

Key Digital Game Changers shaping the future of rural areas in 2040. Views from DESIRA's Rural Digitalisation Forum experts

This document focuses on the question 'How can digitalisation shape and influence the future of rural areas in 2040?' in terms of its impact on rural areas/life in a broad sense (services, mobility, education, demography, governance, social life, culture, infrastructure, the environment, non-agricultural business, etc.).

- Talis Tisenkopfs, Mikelis Grivins, Marina Knickel, Sandra Sumane, Gianluca Brunori, Blanca Casares, Enrique Nieto (2021) *Key Digital Game Changers shaping the future of rural areas in 2040. Views from DESIRA's Rural Digitalisation Forum experts;* DESIRA policy briefs; https://desira2020.eu/contribution-ltvra-rural/

Experts' recommendations to boost sustainable digitalisation of agriculture, forestry and rural areas by 2040

This document outlines the seven principles highlighted by the experts from the Rural Digitalisation Forum of DESIRA that should be considered in the future vision to guide sustainable digitalisation in Europe.

- Gianluca Brunori, Enrique Nieto, Blanca Casares, Lies Debruyne, Talis Tisenkopfs, Antonio Brunori (2021) *Experts' recommendations to boost sustainable digitalisation of agriculture, forestry and rural areas by 2040*; DESIRA policy brief; https://desira2020.eu/contribution-ltvra-recommendations/

The documents have been widely promoted through social media, and at the EU Rural Vision Week organised by the ENRD in collaboration with the European Commission.

Only downloads coming from the DESIRA website are tracked by Google Analytics. Therefore, all downloads coming from different sources (e.g. social media, VRE, email, sharing among colleagues, etc.) are not counted as downloads. In case of the briefings produced by the Rural Digitalisation Forum, the briefings were widely promoted by email (to participants of the event) and social media. For the briefings on the contribution to the Long-Term Vision for Rural Areas, these documents are also hosted in the ENRD website as a result of the DESIRA participation at the European Rural Vision Week. Therefore, the data presented in Table 9 should be understood as an underestimation of the real impact of the briefings.

Table 9. Nº of downloads of the DESIRA briefings

Document	Nº of downloads
Experts' recommendations to boost sustainable digitalisation of agriculture, forestry and rural areas by 2040	92
The state of rural digitalisation in Europe	97
Digital Transformation: ongoing digitisation and digitalisation processes	89
Socio-economic sustainability indicators	62
Key Digital Game Changers shaping the future of rural areas in 2040	60
Mapping digital technologies: the taxonomy and inventory of digital game changers	60
Key Digital Game Changers shaping the future of agriculture in 2040	54
Digital Game Changers: the potential to generate disruption	51

Key Digital Game Changers shaping the future of forestry in 2040	50
Socio-cyber-physical systems: assessing the fourth industrial revolution	47

4.2.3. Practice Abstracts

Deliverable 1.4 comprised the first batch of Practice Abstracts (PAs) submitted by DESIRA. A total of 50 were developed on digital tools or projects with the potential to disrupt the agriculture and forestry sectors and the life in rural areas.

In addition to submitting the PAs in the EIP common format, they were also published in a leaflet layout, containing the summary of the project or particular tool, but also its description, purpose, potential impacts and application scenario.

A new page was created on the DESIRA website to host these materials, under the webpage on "Resources". PAs are classified according to the three domains covered by DESIRA (agriculture, forestry and rural areas).

The documents were published by December 2020. Since then, they have been promoted through social media campaigns. Figure 36 shows the number of visits to the Practice Abstracts since they were uploaded. The figure shows several peaks, according to when the documents were shared through different social media.

Figure 36. Overview of the visits to the Practice Abstracts webpage in time
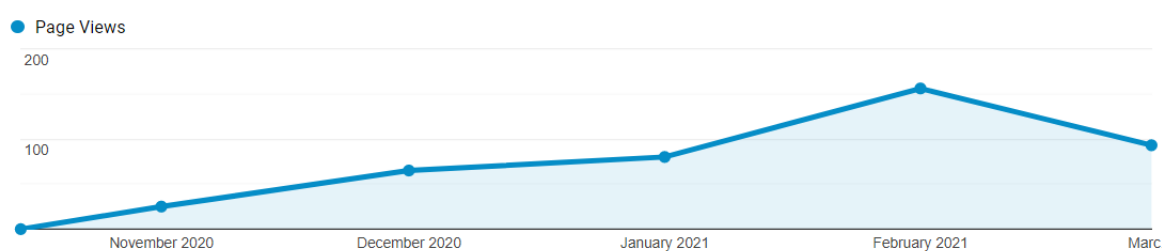
The total number of visits for this specific page is of **416 (by 241 unique users).** By checking Google Analytics, Facebook Insights, Twitter Analytics and LinkedIn Stats, it can be seen that at least 148 of them came from social media referrals.

The most downloaded[13] Practice Abstracts were those included in the contribution to the Long-Term Vision for Rural Areas (Zwit, App for electrified fence, Lormes, OSIPPPIT, Nirwood, Ritchie Beef monitoring, La era rural, Agricolus, Rural for Learning, Cybermoor).

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[13] Only downloads coming from the DESIRA website are tracked by Google Analytics. Therefore, all the downloads coming from different sources (social media, VRE, email, links on the contribution from the LTVRA briefings, sharing among colleagues, etc.) are not counted as downloads

4.2.4. Videos

So far, eight videos have been produced by the project. Seven of them contain the presentations from the first meeting of the Rural Digitalisation Forum. More information can be found in sections 4.1.3 *EU Rural Digitalisation Forum* and 4.1.4 *Social media*.

These videos were recordings of the presentation given by speakers during the event. Videos were edited to add the DESIRA visual image and the required disclaimers by the European Commission. The discussions were cut out to respect the privacy of attendees.

The full set of videos is:

- The state of digitalisation in Europe – Preliminary results of the assessment on the state of digitalisation of rural areas, Michael de Clercq (Gent University)

- DESIRA's conceptual and analytical framework for the assessment of socio-economic impacts of digitalisation, Lurissa den Dulk (Wageningen University)

- Draft set of socio-economic sustainability indicators (SESI) for measuring the impacts of digitalisation in rural areas, Kirsten Gaber (KIT-ITAS)

- Proposed classification of digital technologies – Practical implications of the mapping and taxonomy of digital technologies, Manlio Bacco (CNR), Silvia Rolandi (UNIPI)

- SHERPA – Sustainable Hub to Engage into Rural Policies with Actors, Michael Kull (Nordregio)

- SmartAgriHubs, Grigoris Chatzikostas (BioSense Institute)

- RURITAGE – Heritage for Rural Regeneration, Francisco Barrientos (CARTIF)

Figure 37 shows the number of views each video had. More information can be found in section 4.1.4 *Social media* (YouTube).

Figure 37. Number of views per video on YouTube (RDF meeting sessions)
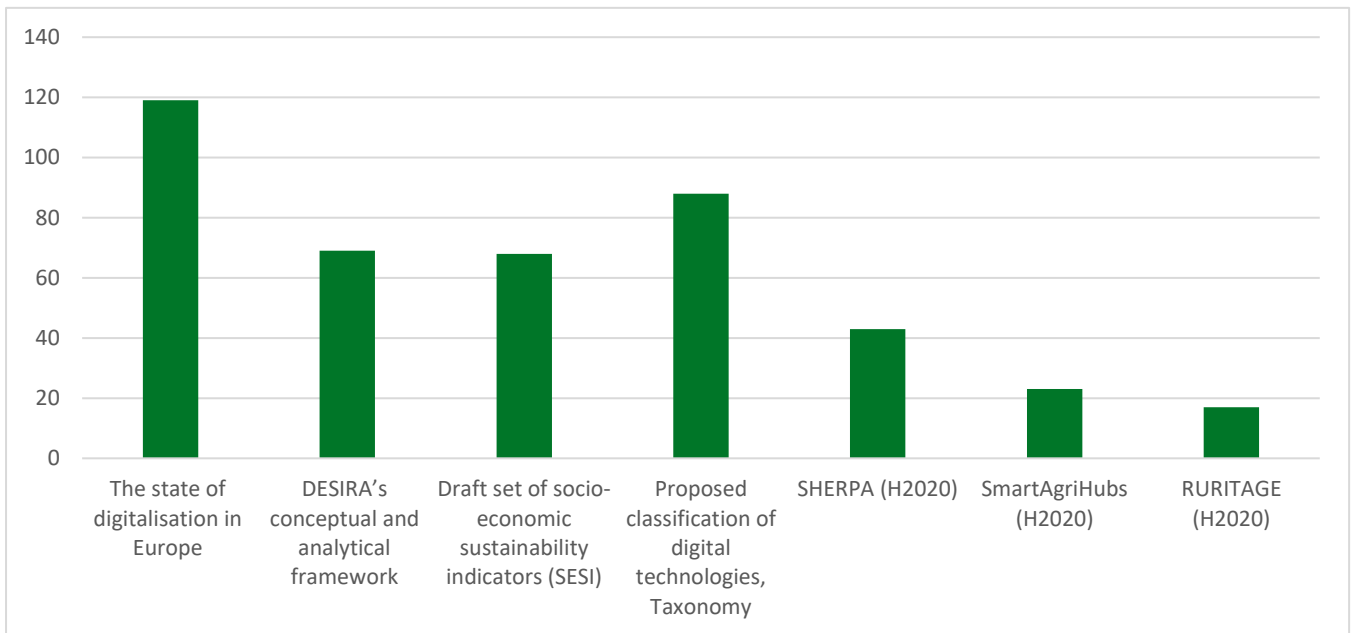
One short video was produced to present the DESIRA Virtual Stall in the Marketplace of the Rural Vision Week, organised by the European Network for Rural Development (ENRD) in close collaboration with the European Commission. The short video (45 seconds) presented the DESIRA contribution to the Long-Term Vision for Rural Areas (LTVRA), and attracted potential visitors to the stall. The video was uploaded in the ENRD YouTube Channel, in addition to the DESIRA YouTube channel, and DESIRA social networks (Twitter, Facebook, LinkedIn).

4.2.5. Other products

Several other communication materials have been produced by DESIRA. In the beginning of the project a leaflet (printable and online version) was produced, which has been downloaded at least 38 times since it was published on the DESIRA website. Several infographics, banners and animated pictures (GIF) have been produced for the website and social media management.

4.3.   External channels to be leveraged by DESIRA

In addition to the DESIRA Communication channels, the consortium takes stock of their own communication channels, networks and organisations. Task Force members were asked to indicate which of the following communication and dissemination actions partners have undertaken. More than 60% answered that:

- Participate and/or organise events where I promoted the work of DESIRA;

- Retweet or share the posts from DESIRA social media accounts with my personal accounts / the accounts of my institution; and

- Share the Deliverables, Briefings, Practice Abstracts, and other relevant outputs produced by the project with my contacts (via email, social media, etc.).

Figure 38 shows the share of respondents in percentage who have marked the action.

Figure 38. Communication and dissemination actions conducted by DESIRA partners

4.3.1. European and international organisations and networks

DESIRA relies on the communication channels of several European and international organisations and networks, which act as multipliers and contribute to disseminating the project's key messages and outputs.

As an example, DESIRA has appeared in multiple communication channels of the European Network for Rural Development (ENRD), such as the newsletter (edition of December 2019), the website (news item of the first meeting of the RDF, the contribution to the LTVRA; shortlisted projects contributing to the LTVRA or social inclusion).

During the Rural Vision Week, the DESIRA coordinator Gianluca Brunori (University of Pisa) was a main speaker in one of the workshops (Digitally-led innovative rural futures). DESIRA also had a virtual stall in the marketplace. The project has also been featured in the Agricultural European Innovation Partnership (EIP-AGRI) through the newsletter (Edition 78 | February 2020 and Edition 91 | March 2021) or the website (news item on the project, the first meeting of the RDF, or the contribution to the LTVRA).

Finally, the project also interacts via social media with the ENRD, EIP-AGRI, the RUMRA & Smart Cities Intergroup or the European Commission's Directorate-General for Agriculture and Rural Development (DG AGRI). These accounts have posted about DESIRA outcomes, and often share or retweet contents by the DESIRA main accounts.

4.3.2. Horizon 2020 projects

DESIRA works closely with other H2020 projects, and involves them in the communication activities. As an example, there is a section in the DESIRA newsletter aimed at promoting activities by other H2020 projects. Three Horizon 2020 projects were invited to the first meeting of the RDF (see section 4.1.3 *EU Rural Digitalisation Forum*). In the same way, other projects as SHERPA also include relevant updates about DESIRA in their newsletter (editions of June 2020, August 2020, October 2020, February 2021). DESIRA was invited to present in the first SHERPA Annual Conference.

The project also interacts via social media with several Horizon 2020 projects, such as SmartAgriHubs, SHERPA, MOVING, FairSHARE, EUREKA or LIAISON2020, among others).

In addition to the communication activities described above, DESIRA participates is part of the cluster of the *Rural Renaissance* call (RUR-01 and RUR-02). The cluster organises periodic meetings to share information and plan common dissemination activities and knowledge exchange). For instance, the cluster is participating in the EC Impact Booster, in behalf of the H2020 project RURALIZATION.

4.3.3. External events

Partners have participated in several external events to present the project and its results to external audiences. According to the data reported in the DECO Monitoring Tool, DESIRA has been presented in **35 external events**. Events have been classified according to the categories used by the European Commission in the Funding and Tenders Portal. Figure 41 shows the type of events where DESIRA has participated, while Figure 41 shows the type of participation in such events.

Figure 40. Type of events where DESIRA has participated

- Conference
- Workshop
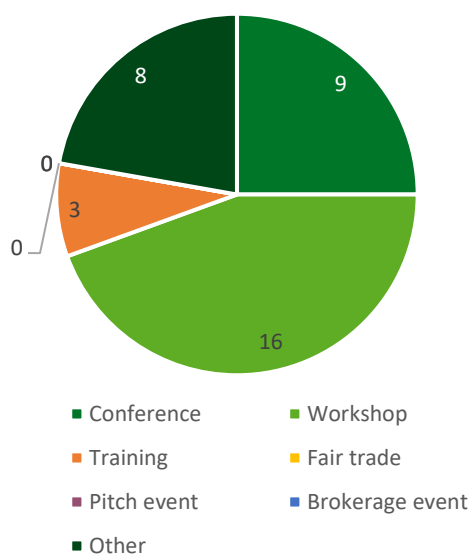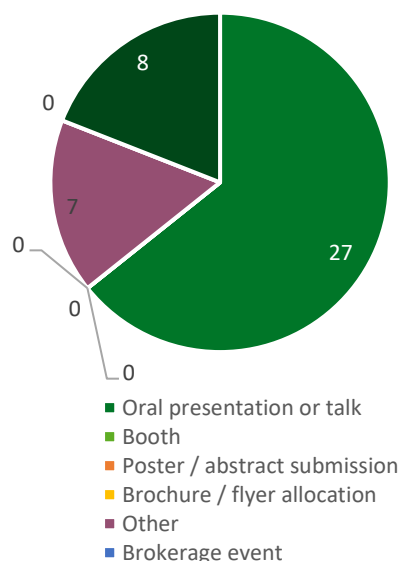- Training
- Fair trade
- Pitch event
- Brokerage event
- Other

Figure 40. Type of presentation for DESIRA external events

- Oral presentation or talk
- Booth
- Poster / abstract submission
- Brochure / flyer allocation
- Other
- Brokerage event

Out of the total number of events, 14 were held online, while the rest took place face-to-face. Referring to the area of influence of the events, 5% were regional events, 28% were national, 60% were at European level and 5% of them were international (understood as involving countries outside the EU and associated states).

4.3.4. Mass and specialised media

Media are a great way to improve the visibility of DESIRA. Partners are encouraged to try to publish in these channels to communicate regional or national audiences about the project, the Living Lab and its results – as well as the funding received from the EC and the Horizon 2020 programme.

Partners have coordinated different media appearances by DESIRA at the regional, national and European level. Partners are encouraged to contact local journalists to promote the activity of the project, while always incorporating information on the funding received from the EC. For example, the University of Cordoba has managed the publication of press releases about the project in different Spanish media.

In addition, DESIRA takes advantage of the synergies with the media outlet ARC2020, where several articles have been published.

4.3.5. Partners' channels

The consortium partners use their corporate accounts to communicate about DESIRA. For example, the University of Pisa regularly updates their website with news about the project. The University of Córdoba edits a corporate newspaper, which includes updates about DESIRA.

However, some of the partners do not have a communication department or are not in close contact with the team managing their corporate accounts, which presents a challenge when unifying the communication strategy at consortium level.

4.3.6. Scientific journals

DESIRA has published three scientific publications, one of them in a peer-reviewed scientific journal. It is openly accessible and makes reference to EU funding. The journal articles are cited as:

- Bacco Manlio, Barsocchi Paolo, Ferro Erina, Gotta Alberto, & Ruggeri Massimiliano. (2020). The Digitisation of Agriculture: A Survey of Research Activities on Smart Farming. Elsevier Array, 3-4. http://doi.org/10.1016/j.array.2019.100009

The link to Zenodo data repository is: https://zenodo.org/record/4285834

The other two are conference proceedings which are not openly accessible, but accessible via ZENODO.

- Bacco Manlio, Brunori Gianluca, Dell'Orletta Felice, & Ferrari Alessio. (2020). Using NLP to support terminology extraction and domain scoping: report on the H2020 DESIRA project.

Presented at the Third Workshop on Natural Language Processing for Requirements Engineering, Zenodo. http://doi.org/10.5281/zenodo.4285824

- Bacco Manlio, Brunori Gianluca, Ferrari Alessio, Panagiota Koltsida, & Toli Eleni. (2020). IoT as a Digital Game Changer in Rural Areas: the DESIRA Conceptual Approach. Presented at the 2020 Global Internet of Things Summit (GIoTS). http://doi.org/10.1109/GIOTS49054.2020.9119674

As the project develops, more scientific publications are expected during the second half of DESIRA.

4.4. Trainings and guidelines

An important part of the project's communication effort of DESIRA WP6 is related to trainings and guidelines with the objective to support all partners in their Exploitation, Dissemination, Communication and Outreach activities. For that, from June 2019 the WP6 has facilitated different trainings and provided guidance documents that are described in the following table:

Table 10. Overview of communication trainings and guidance

| Timing	Training and guidance	Content covered
June 2019	DESIRA Communications meeting	• Communication Plan • Adaptation of DECO Strategy • Brandbook: Work in progress • Visual Identity • Work plan for Living Labs and RDF
September 2019	Kick of Meeting	• Social Media training
	DESIRA Communications meeting	• Website • Logo and visual identity • Templates for LLs & poster • Kick-off meeting • Social Media • Communication Task Force meetings
December 2019	DESIRA Communications meeting	• Communication guidelines • Newsletters • Webinars • RDF Working Groups • Policy briefs • Practice Abstracts • Living Labs • Editorial calendar • Media outreach
May 2020	WD 6.2 Communication guidelines	The document collates guidance, examples and tips to help consortium partners in the communication activities. It includes:

		• Get to know the DESIRA Communications team • Key messages of DESIRA • Language and style guide • Social Media • Writing Practice Abstracts • How to write an article? • How to facilitate a remote virtual meeting or webinar? • Press Release
June 2020	DESIRA Communications meeting	The objectives of the meeting were to inform and engage DESIRA partners in exchanges about the Rural Digitisation Forum (RDF) and the Practice Abstracts (PAs).
July 2020	WD 6.2 Monitoring communication activities	The scope of these guidelines is to present the tool that allows the project to follow up the dissemination and communication activities of project partners. This data is used to report to the European Commission about the communication and dissemination activities developed throughout the project. In addition, data support the preparation of the D6.2 Activity report year 1-2 [M24], as well as D6.3 Activity report year 3-4 [M48], and the Technical Reports of the project due in M18, M36 and M48.
	DECO Monitoring Tool	The DECO Monitoring Tool is a shared spreadsheet comprised of several tables that track specific communication and dissemination activities. Mainly it collects by each of the partners: • Events • Media Appearances • Publications

The Communication Task Force was consulted about WD6.2 Communication Guidelines, and the use they have made of it. Around 61% of respondents have used the guidelines, while the remaining 39% have not. In addition, the Task Force rated the elements of the communications guidelines that find most useful for supporting their communication activities. The elements of the communications guidelines that the partners found most useful are:

- Language and style guide;

- How to develop DESIRA key messages;

- Writing Practice Abstracts;

- How to facilitate a remote virtual meeting or a webinar.

Figure 41. Usefulness of the different sections of the communications guidelines
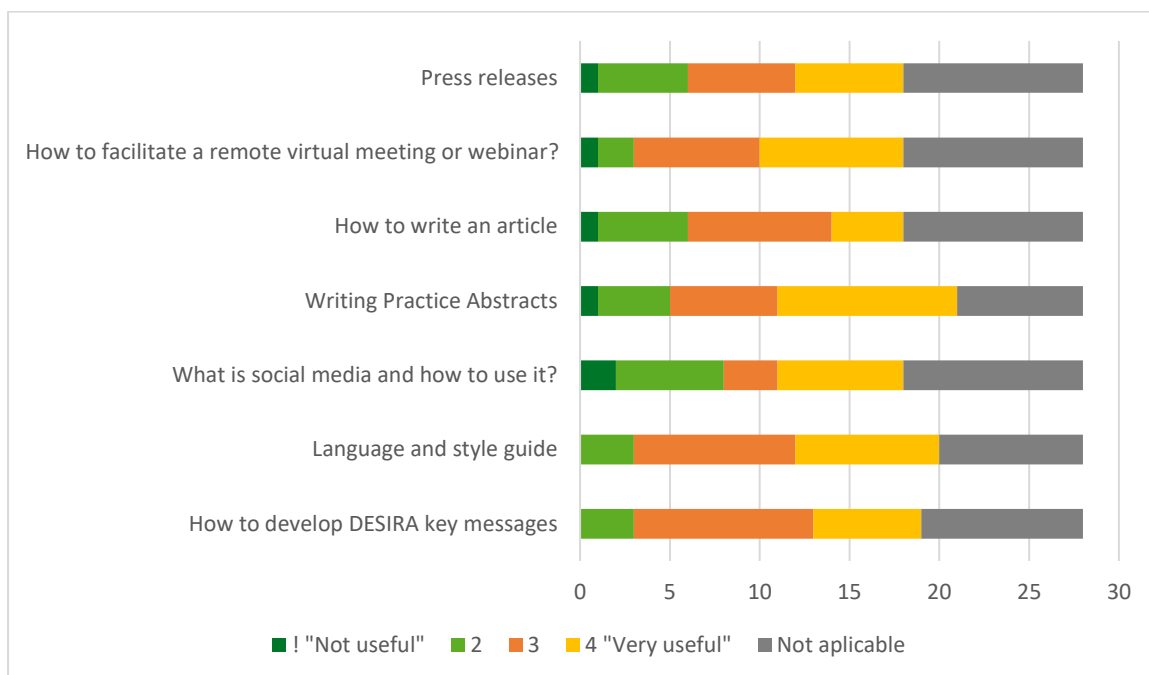
5. Lessons learned and recommendations

This section outlines the main lessons learned and recommendations drawn from the exercise and process organised in the framework of this deliverable.

5.1. Lessons learned

Lessons learned represent the knowledge gained during the project development. The review of lessons learned - both positive and negative - identified positive aspects to be reinforced, challenges and bottlenecks to be reconsidered and improvements needed. From the analysis carried out, it is determined that DESIRA's communication and dissemination activities are on the right track to achieve its objectives and expected impact.

The following aspects of communication and dissemination tasks have been outlined as strengths of the project so far:

- The visual identity of the project is appealing.

- There are a number of communication channels available, which makes it easier for partners and audiences to use the most convenient one.

- DESIRA website is the main communication channel of the project and it is considered as a relevant and useful channel.

- There is a good and regular use of social media in the project. Specially, the management of the DESIRA twitter account is highly regarded, as it achieves a high number of followers and likes.

- The Rural Digitalisation Forum (RDF) Facebook community has exceeded the targeted number of members. In addition, the RDF Working groups have carried out activities that the community considered relevant. These are mainly two: (1) contribution to the Long-term vision for rural areas' (LTVRA) and (2) provide feedback to the Europe's Digital Decade Roadmap.

- DESIRA has produced a wide range of communication and dissemination materials to communicate about its outcomes and results of the project. Each of these products has a different layout and language according to the target audience. Some outputs such as Practice Abstracts and Briefings are attractive to stakeholders.

- The VRE is found to be useful for internal communication and as a repository of documentation. However, it should not be conceived as a communication channel to engage stakeholders external to consortium.

- DESIRA covers a complex thematic area. It has been a positive experience to interact with communication experts in order to get feedback on key research and to gain coherence in the project results.

- DESIRA has a strong network with other Horizon 2020 projects, European organisations and initiatives.

- Trainings and guidance documents provided to the partners were considered useful.

On the other hand, it is also possible to draw some weaknesses and challenges that will require the implementation of specific actions to improve in the future. These have been sorted into different categories:

Communication strategy:

- Limited two-way communication flow between DESIRA and local actors (e.g. Living Lab actors). There is room to find optimal ways to communicate project results to local actors, and present information in a format and shape of their interest.

- Language is a huge barrier between the consortium and the stakeholders. However, the funding is not enough to translate all the project outputs to the different languages of the DESIRA stakeholders across Europe.

- Action is needed to put in place efficient procedures to enable the flow of information about activities, results and experiences from local actors to the central communication teams of the project, so these is widely communicated through the DESIRA channels.

- Boost cross-pollination and peer learning across the project – e.g. among organisations and Living Labs.

- Further tailor the project communication products to each stakeholder target audience.

- Limited use of the DECO Monitoring tool by all partners.

Communication channels:

- There is a sub-optimal level of subscribers to the newsletter and to the project's YouTube channel.

- There is room to further optimise DESIRA's profile on LinkedIn and Instagram to increase engagement in publications.

- There is insufficient information about the participation of actors within the Living Labs.

- Interaction within the three RDF VRE Working Groups has been found limited.

- There is limited action conducted in research social networking platforms (e.g. Research Gate).

- Partners' perspectives on the optimal channels to communicate are not always aligned with the results of the quantitative analysis. For example, Facebook is not well valued by the DESIRA Communication Task Force, but the analysis shows that it is one of the main traffic channels for DESIRA.

- The COVID-19 crisis has forced most of the communication activities to move to an online environment. However, broadband coverage is still lacking in some European rural areas. This makes it difficult to reach some stakeholder groups.

Communication content:

- Need to re-balance the information published about DESIRA and about other initiatives. It includes putting more emphasis in communicating project activities in addition to the final outputs from the project.

- There is scope to enhance the quality of the language used in some projects outputs.

Communication training and guidance:

- Some partners lack of specific communication skills, knowledge and experience to engage further in communication and dissemination activities.

5.2.   Recommendations

The appraisal exercise linked to this deliverable has the ultimate purpose of identifying improvements in the DECO activities and tasks to make them the most appropriate to the needs of the project. Based on the experiences in the implementation of communication and dissemination activities so far, it also provides valuable inputs to prepare the next periodic technical report. A series of recommendations have been deduced from the challenges and areas for improvement identified, and have been sorted into different categories.

Communication strategy:

- Enhance and incentivise the use of the DECO Monitoring tool by all partners through raising awareness about its importance to the project – e.g. capture all the information and activities performed by the partners and communicate them widely.

- Define efficient and easy procedures to encourage different flows of information to amplify the outreach of project results and engage the main actors in the digitalisation of rural areas.

- Enhance the communication of the project on the activities carried out and results achieved by the Living Labs to the external audience.

- Develop further tools, and guides to enhance involvement of DESIRA partners that do not have adequate capacity on communication and dissemination

Communication channels:

- Enhance the attractiveness of the newsletter by e.g. publishing early and exclusive material in the newsletter.

- Get more subscribers to the project's YouTube channel by providing more material.

- Enhance and optimise DESIRA's profile on LinkedIn by providing more technical information targeted to specific audiences (not the general public).

- Use further specific social networking platforms and repositories for scientists.

Communication product:

- Strengthen targeted communication to reach the most appropriate audience.

Content:

- Focus communication action more on DESIRA activities and outputs.

- Enhance language quality of the different communication products.

- Explore ways to enhance interaction within the RDF VRE Working Groups and facilitate the subscription to these groups by external experts.

Trainings and guidelines:

- Support to the organisations that do not have specific communication units to do things in communication if they are willing to.

AEIDL, as leader of WP6 on Communication, Dissemination, Exploitation and Outreach, will coordinate the work with the rest of partner and through the Communication Task Force, to ensure actions points are agreed and implemented by the project for the period M24-48.

6. Review of the contingency plan within the DECO Strategy

A first version of the contingency plan was included in the DECO Strategy. The plan is implemented and monitored by the communications team, in close relation to the lead coordinator. It feeds the project's reporting duties and ensures that proper and immediate follow-up steps are taken to mitigate or solve the issue.

Since the publication of the DECO Strategy in the beginning of the project, unforeseen risks have come up (e.g. due to the COVID-19 crisis), which has required new updates and contingency measures. Table 11 presents an updated version of the contingency plan.

Table 11. Updated contingency plan

Risk for implementation	Level of Risk	Risk-mitigation measure
There is a gap between communications and research activities: researchers are too focused on research to get involved in communications, and tend to downplay obligations related to communications	Medium	Each partner has to nominate a contact person in charge of communications. A communications working group is set up to coordinate communications efforts
Research results are too complex to be communicated. Researchers tend to focus on their own objectives and on scientific language, and are not trained to identify effective messages to be communicated	Medium	The communications leader and co-leader will interact with researchers to identify the main messages. Templates for practice abstracts and policy briefs will be developed. Stories, videos, webinars and other products will be developed by communications experts
Setting up a Living Lab is more complex than expected	Medium	Commitment of key partners has been asked. Coordination and support for setting-up activities are planned
Low rates of participation and/or engagement in the Living Labs exacerbated by difficulties of carrying out face-to-face meetings due to the circumstances of the COVID-19 pandemic	Medium	The project communication guidelines will provide support for facilitating remote virtual meeting or webinar as well as for using digital tool for engagement such as social networks, survey platforms, etc.
Difficulties to get insights into the work of the different Living Labs and moderate impact of the project's communication of results on local actors	Medium	Efforts will be made to increase synergies between the different levels: (i) all project partners and WP6, (ii) partners and their institutional communication units,

		(iii) partners coordinating the Living Labs and the local actors; (iv) DESIRA's project and other initiatives, networks and project.
Deliverables not contributing enough to the project objectives **When focusing on their own tasks, researchers may tend to forget the overall objectives of the project. While this may lead to good scientific results, but the fulfilment of the objectives can be undermined**	Low	DESIRA puts great emphasis on internal communications and continuous recall of general objectives. The conceptual framework has a coordination relevance as it creates space for collective learning and alignment between components of the project. The emphasis on communications to generate messages to the outside is another way of allowing researchers to focus on overall objectives
Project fails to meet the target KPI values for the different communicator (number of RDF members, social media engagement, number of scientific articles, website traffic, etc.)	Low	The partners will establish SMART target values for the different KPIs developed to avoid this risk. In case of bad performance in a specific indicator, a tailored Action Plan will be devised by the communications team
Lack of consistency of communications products (layout, language, etc.)	Low	Guidelines, quality control procedures and communications meetings will allow this risk to be overcome
Lack of visibility or low dissemination impact of project achievements and results	Low	If DESIRA's consortium distinguishes that the effectiveness of the dissemination activities is lower than expected, and especially through some of the specific channels, emphasis will be put on new dissemination actions to increase the visibility of the project achievements and results.
There is no assurance that the project results will be effectively exploited beyond the project duration.	Low	If some of the actions identified to exploit the results do not show the expected effectiveness, they will be strengthened with other complementary actions. There will be coordination within the consortium to optimise the exploitation process.

Annex I. Categories to classify DESIRA social media post

DESIRA:

- DESIRA Updates: this category refers to all posts including general updates and news about the project (e.g. consortium meetings, new sections of the website available)

- DESIRA Living Labs: this category refers to all posts regarding activities of the DESIRA Living Labs (either in general, or about one specific LL)

- DESIRA Results: this category refers to all posts that aim at promoting a product developed by DESIRA

- DESIRA RDF: this category refers to all posts regarding activities of the DESIRA Rural Digitalisation Forum

EXTERNAL TO DESIRA:

- Horizon 2020 sister projects: this category refers to all posts that reference another Horizon 2020 project working on similar topics

- Other stakeholders: this category refers to all posts including information about the European institutions and linked networks (e.g.EC, CoR), other key EU players (e.g. ENRD, EIP-AGRI, RUMRA), and international organisations (e.g. OECD, FAO, UN)

Annex II. Resources on evaluation of communication

- European Commission Communicating and promoting your project

  https://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/communication_en.htm

- European Commission (2017). Toolkit: evaluating communication activities

  https://ec.europa.eu/info/sites/info/files/communication-evaluation-toolkit_en.pdf

- European Commission (2019) Supporting guidance. Communication network indicators.

  https://ec.europa.eu/info/sites/default/files/communication_network_indicators_supporting_guide.pdf

- European Commission (2019) Supporting guidance. Communication network indicators. Annex.

  https://ec.europa.eu/regional_policy/sources/informing/webinar/ec_common_set_indicators.pdf

- European Commission (2020). Science communication. Achievements in Horizon 2020 and recommendations on the way forward. Directorate-General for Research and Innovation. DOI: 10.2777/518359

https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/4b1386ba-cbc8-11ea-adf7-01aa75ed71a1