DIGITISATION: ECONOMIC AND SOCIAL IMPACTS IN RURAL AREAS

D6.6 PROCEEDINGS OF THE FINAL CONFERENCE

MAY 2023

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Table of contents

List of tables

List of figures

1. Introduction

The DESIRA Final Conference was the closing meeting of the DESIRA project, a 4 years H2020 project focused on the study of the effects of digitalisation of rural areas. Between 26th and 27th April, the Conference brought together **around 100 participants** (142 registered and 97 signatures) interested in digitalisation of the agriculture and rural communities.

The Conference was organised by AEIDL, which is in charge of the WP6 related to Dissemination, Exploitation, Communication and Outreach of the result of the project. The conference activities were set in collaboration with DESIRA partners, especially the Coordinator and the Work Package leaders. Consequently, AEIDL worked in close collaboration with UNIPI, UCO, Hutton and CNR, among other partners, for the organisation of the sessions, workshops and other activities.

In this sense, the budget was also distributed between some of the partners, always according to the compliance with H2020 budget regulations and complying with the standards of competence, efficiency, transparency and fairness.

2. Summary and highlights of DESIRA Final Conference

The final DESIRA conference took place on the **26th and 27th of April 2023 in Brussels, Belgium,** and featured a range of speakers discussing the challenges and opportunities of digitalisation in rural areas.

On the first day, the conference started with a keynote speech by Evangelia Mourmoura, from the European Commission's Directorate-General for Agriculture and Rural Development (DG AGRI), who discussed the role of digitalisation in the context of the Common Agricultural Policy (CAP). She highlighted that the EU's agriculture sector faces challenges such as environmental sustainability and income generation for farmers, which can be addressed through digitalisation.

However, she also highlighted the challenges, such as the cost-effectiveness of digitalisation, lack of trust in data sharing, and lack of digital literacy among farmers. To tackle these challenges, Mourmoura emphasised that digitalisation solutions should be integrated, and there should be coordination among different rural policies.

In addition to the keynote speeches, Pascale Van Doren, from the Rural Pact Support Office, discussed the role of the Rural Pact in promoting digitalisation in rural areas. The Rural Pact is part of an EU-wide initiative to promote cooperation between different stakeholders, including national and local governments, NGOs, and universities in order to find practical ways in which EU and domestic policies can change to deliver the Long-Term Vision for Rural Areas.

The last part of the session was starring by Franc Bogovič, MEP, Chair of RUMRA & Smart Villages Intergroup, Radim Sršeň, Deputy Minister for Regional Development of the Czech Republic, CoR Member and Fabio Boscaleri, Coordinator of the Network of European Regions for Innovation in Agriculture, Food and Forestry. In the format of a high-level panel, they discussed the role of policies

fostering rural digitalisation, representing the three realities of the rural perspective, local, national and European.

Finally, Isabel Carvalhais MEP, rapporteur of the Long-Term Vision for Rural Areas, Member of the RUMRA & Smart Villages Intergroup, closed the first day of the Conference with a keynote speech on the importance of rural digitalisation for the future of rural communities.

During the second day, Alexia Rouby, from DG Agri, highlighted the various actions the European Commission is taking to realise a digital future for rural areas. One of the critical challenges is to increase digital literacy as less than 50% of households in rural areas have basic digital skills. Stavros Kalapothas, from DG Connect, spoke about how digitalisation is transforming rural areas and the goal to reach to all populated areas with fixed broadband connectivity as well as 5G by 2030. At the event, Arianna Pasa, from DG Agri presented the priorities of the EU research agenda aimed at improving rural digitalisation, highlighting the upcoming calls and opportunities for projects in the field. Along the same lines, Yulia Barabanova from the Joint Research Centre shared insights from the last JRC-Agri report, shedding light on the long-term implications of digital transitions for farmers and rural communities. Together, their presentations provided valuable perspectives on the challenges and opportunities in this critical area of research. To wrap up the session, Gianluca Brunori and Doris Marquardt provided a comprehensive overview of the key takeaways from DESIRA and shared their vision for the contribution of the project.

The DESIRA conference highlighted the importance of understanding the context of digitalisation and its potential to address the challenges facing the EU's agriculture sector, the need for integrated solutions and coordination among different rural policies to ensure sustainable digitalisation that benefits all stakeholders. In addition to its primary purpose, the conference also served as a platform for spreading DESIRA's results and tools. Several presentations and workshops were conducted to showcase the DESIRA Policy Road Map and Recommendations, the DESIRA Ethical Code, and various digital tools and experiences developed by the consortium. The overarching goal of all the activities, that include two sessions of pitches from projects, was to promote engagement, foster participation, and establish meaningful connections among the participants.

The DESIRA conference was great opportunity for discussing digitalisation in rural areas, the importance of context, coordination, and integration to ensure the sustainable digitalisation of the EU's agriculture sector. As the EU moves forward with its Rural Action Plan and Long-Term Vision for Rural Areas, it will be essential to continue these discussions and collaborations to ensure that the potential of digitalisation is fully realised in rural areas.

3. Agenda of the event

Wednesday | 26 April 2023

13.00 – 13.10	**Registration open**	
13.10 – 14.10	**WELCOME LUNCH**	**Demo session: Gnomee** **Demo session: Rural Digital Dashboard**
14.10 – 14.20	**Welcome to participants and introduction to the Conference** *Gianluca Brunori (UNIPI)*	
14.20 – 14.50	**Keynote speech: Digitalisation for agriculture, rural areas and forestry in the context of the CAP: navigating the present towards the future** *Evangelia Mourmoura (DG AGRI, European Commission)*	
14.50 – 15.05	**Rural Pact and its initiatives on rural digitalisation** *Pascale Van Doren (Rural Pact Support Office)*	
15.05 – 15.20	**DESIRA's vision a rural digital future** *Leanne Townsend (James Hutton Institute)*	
15.20 – 15.35	**COFFEE BREAK**	**DESIRA Digital Stories**
15.35 – 16.00	**DESIRA Policy Roadmap and Recommendations** *Mar Delgado, Maria Alonso (UCO)*	
16.00 – 16.55	**High-level panel: The role of policies fostering rural digitalisation** *Franc Bogovič, MEP, Chair of RUMRA & Smart Villages Intergroup* *Radim Sršeň, Deputy Minister for Regional Development of the Czech Republic, CoR Member* *Fabio Boscaleri, Coordinator of the Network of European Regions for Innovation in Agriculture, Food and Forestry.* *Moderated by Serafín Pazos Vidal (AEIDL)*	
16.55 – 17.40	**Workshop: Joint declaration for a digital future**	
17.40 – 17.55	**Keynote Speech** *MEP Isabel Carvalhais, rapporteur of the Long-Term Vision for Rural Areas, Member of the RUMRA & Smart Villages Intergroup.*	
17.55 – 18.00	**Wrap-up and presentation of agenda next day** *Serafín Pazos Vidal (AEIDL)*	

Thursday | 27 April 2023

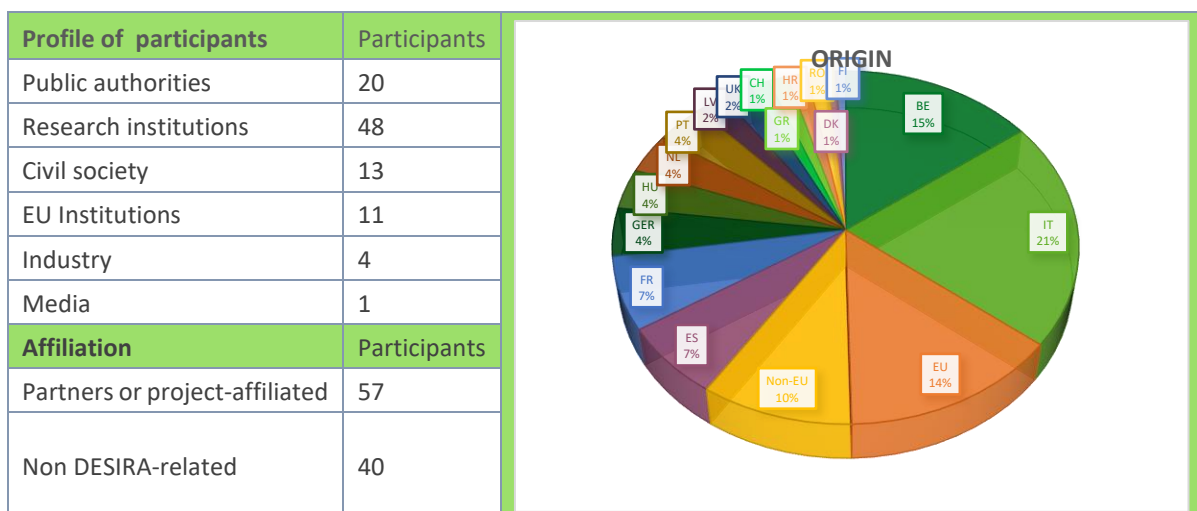|	
9.00 – 9.30	**Registration open**
9.30 – 9.45	**Keynote speech: Digitalisation for stronger, connected, resilient and prosperous rural areas by 2040** *Alexia Rouby (DG Agri, European Commission)*
9.45 – 9.55	**Welcome to participants and introduction to the day** *Enrique Nieto (AEIDL)*
9.55 – 10.20	**Reporting from day 1: Joint declaration for a digital future** *Mar Delgado, Maria Alonso (UCO)*
10.20 – 10.40	**Keynote speech: Rural digital futures and how digitalisation is transforming rural areas** *Stravos Kalaphotas (DG Connect, European Commission)*
10.40 – 11.00	**COFFEE BREAK** / **Demo session: Virtual Croft**
11.00 – 11.30	**The research agenda – upcoming calls and hot topics related to rural digitalisation** *Arianna Pasa (DG AGRI, European Commission)* *Lucia Pacillo (European Research Executive Agency)*
11.30 – 12.00	**Long-term implications of digital transition for farmers and rural communities** *Yulia Barabanova, Maciej Krzysztofowicz (Joint Research Centre)*
12.00 – 12.15	**Pitch from projects working on rural digitalisation (round 1)**
12.15 – 13.00	**Workshop 1:** *Responsible Research and Innovation – Identifying challenges coming from Living Labs / Multi-Actor platforms*
13:00 – 14:00	**LUNCH BREAK AND NETWORKING** / **Demo session: Living Lab Modeller**
14.00 – 14.15	**Pitch from projects working on rural digitalisation (round 2)**
14.15 – 15.00	**Workshop 2:** *Identifying priorities of the next research agenda*
15.00 – 15.20	**COFFEE BREAK** / **DESIRA Digital Stories**
15.20 – 15.30	**Feedback from Workshop**

15.30 – 16.00	Conclusions and closing speech: DESIRA – Achievements, Lessons learnt & Outlook *Gianluca Brunori (UNIPI)* *Doris Marquardt (DG AGRI, European Commission)*

4. Profile and origin of the participants

The DESIRA Final Conference boasted a diverse array of participants, hailing from various professional backgrounds. Notably, a substantial percentage had no direct affiliation with the project, underscoring its commitment to inclusivity and engaging a wider audience. Upon arrival, all attendees were furnished with promotional materials and asked to endorse two essential documents: a participant signature list and a filming consent form, granting DESIRA permission to capture photos and videos for promotional and reporting purposes. It is important to note that, in compliance with GDPR regulations, these documents have not been included in this report but are securely archived alongside other pertinent materials at AEIDL.

Examining the composition of attendees who signed the attendance list reveals a nuanced breakdown. Of the total, 57 individuals hailed from consortium member organizations or other entities intimately involved in the project, including the project officers of the European Commission. In parallel, 40 participants, constituting 41% of the total, were unaffiliated with DESIRA but expressed keen interest, representing diverse organizations and backgrounds. Noteworthy is the preponderance of attendees from public authorities and research institutions, with 20 and 48 participants respectively. Civil society and EU institutions accounted for 13 and 11 participants respectively. Conversely, industry and media sectors were represented by a smaller contingent. As expected many participants were Brussels based with 14% of the total belonging to the EU institutions, a key audience for a Brussels-based final conference where policy recommendations were discussed. Italy, Spain and France were particularly well represented mirroring the active engagement of participants from those activities in DESIRA's activities. Quite notable the interest from non-EU member states (10%).

Table 1. Profile and origin of the participants of the DESIRA Final Conference

Profile of participants	Participants
Public authorities	20
Research institutions	48
Civil society	13
EU Institutions	11
Industry	4
Media	1
Affiliation	**Participants**
Partners or project-affiliated	57
Non DESIRA-related	40

5. Sessions of the Conference

5.1. Keynote speeches and presentations

The Conferences started with professor **Gianluca Brunori, DESIRA's coordinator, welcoming the participants** and explaining the project in deep.

Figure 1. Gianluca Brunori welcoming the participants

Mr. Brunori highlighted the importance of understanding digitalisation and its impacts, as it is a social-technical transformation with both positive and negative consequences. They emphasised that digitalisation is not limited to precision farming and that its various aspects are interconnected, leading to specific outcomes. Context is crucial in understanding the role of digital technologies in agriculture, rural areas, and forestry as introducing digital technologies changes social relations.

> *"In digital transition, there are winners and losers in rural areas. DESIRA has been a socio-technological project in which the digitalisation context matters" –*
> *Gianluca Brunori (University of Pisa, DESIRA Coordinator)*

He pointed out that DESIRA has contributed to conceptual, capacity, technological, and policy developments. The speech concluded with four main lessons: technological development can and should be steered, sustainable digitalisation requires rural-focused strategies, digital strategies should be centred around problems, and digitalisation strategies should be coordinated with other rural policies.

This was followed by the keynote speech on **"Digitalisation for agriculture, rural areas and forestry in the context of the CAP: navigating the present towards the future"** by **Evangelia Mourmoura** (European Commission, DG AGRI). She addressed the need to lead a global transition from farm to fork. EU agriculture faces challenges, including environmental challenges and farmers' struggle to generate income while meeting consumers' preferences.

Ms. Mourmoura argued that digitalisation presents an opportunity to improve agrosystems, reduce environmental impact, and create jobs. Precision farming, decision-making software, satellite imagery, online platforms, and cloud services provide live information to farmers, monitor crops and animals, and optimise outputs. However, digitalisation also presents challenges such as cost-effectiveness, lack of trust in data sharing, and digital literacy issues. She argued that digitalisation is not a one-size-fits-all solution and must be integrated with other solutions. The Common Agricultural Policy for 2023-2027 focuses on knowledge and digitalisation to modernise agriculture and rural areas. Member states must elaborate digital strategies to promote digitalisation and tackle infrastructure and administrative modernisation. The EU Data Act and Data Governance Act will regulate data use to capitalise on its value. The EU needs a broad framework that prioritises sustainability and resilience for the new CAP post-2027.

Thirdly, **Pascal Van Doren's** speech focused on the role of the **Rural Pact Support Office** as part of the European Union's Long-Term Vision for 2040. The Rural Pact is a formal framework for collaboration between stakeholders, including national, regional, and local governments, NGOs, universities, and individuals, with the aim of amplifying the voices of rural areas and bringing them up in policy agendas. One of the 10 shared goals of the LTVRA for 2040 is focused on digital innovation, highlighting the integral role of digitalisation in the EU's future. The Rural Pact seeks to connect local communities and stakeholders with EU initiatives, and it has already attracted many committed members from various organisations and individuals. A Rural Pact Support Office has been set up to ensure the effectiveness of the Rural Pact in driving rural development in the EU. Of particular interest for DESIRA partners and living labs is the new Platform that will launch in June, and which allow willing DESIRA partners to continue cooperating once the project ends.

After that, **Leanne Townsend from the James Hutton Institute** spoke about the **"DESIRA Vision,"** which used scenario planning workshops to explore digital futures for digital areas over the next 10 years. Living Labs were invited to participate, resulting in the development of 80 different scenarios. The scenarios included both positive and negative visions of digitalisation, with a focus on environmental monitoring, citizen information, and awareness. The DESIRA Vision highlights the potential of digitalisation to make a positive impact in rural areas.

Professor **Mar Delgado, Professor of the University of Cordoba,** provided a very comprehensive presentation of the new **DESIRA Policy Roadmap** and recommendations. She argued that even if the EU Digitalisation Strategy has played a leading role in driving similar agendas at national and subnational levels, significant differences remain. Insufficient data or limited accessibility exists to assess the impact of policies on rural digitalisation. Strategies to influence rural digitalisation must involve rural communities and be organised around rural problems rather than technologies, and coordination is needed. The DESIRA Policy Map includes 10 points to ensure accessible, high-quality connectivity and digital structures in rural areas, promote innovation and digital ecosystems, and

monitor progress and efficiency of policies. Mar Delgado concluded that a clear definition of explicit responsibilities, implementation mechanisms, and supporting funds are needed, and policies should be monitored for progress and impact. The 10 points of the Policy Map were also presented.

Figure 2. Mar Delgado introducing the DESIRA Policy Roadmap during the Final Conference

After the high-level panel (see Section *4.2 High-level panel*) and the first workshop, **MEP Isabel Carvalhais, rapporteur of the Long-Term Vision for Rural Areas, Member of the RUMRA & Smart Villages Intergroup** closed the first day of the DESIRA Final Conference.

Isabel Carvalhais' speech emphasises the importance of the digital transition in rural areas. She highlights the need for digital infrastructure and the installation of 5G networks, which can improve access to information, services, healthcare, and public administration. Additionally, the diversity of rural areas requires tailored solutions that take into account their unique characteristics.

> *"The digital transition is more than a trendy or buzz concept, it's a central piece in any of today's strategic planning of the future of our rural areas" – Isabel Carvalhais (European Parliament)*

Ms. Carvalhais MEP also addressed the challenge of digital inclusion, which relates to both access to digital technologies and digital literacy. The COVID-19 pandemic highlighted the consequences of the digital divide, particularly in rural areas where lower levels of digital skills are prevalent. Inclusion issues have different dimensions: territorial, technological (not only in terms of access and availability, but also gender, age (generational, both older ages and children but also generational renewal in rural and farming activities, where loneliness among young farmers is a clear risk) as digital inclusion is social inclusion. Ms Carvalhais MEP stressed the importance of ensuring that no communities are left behind in the digital transition process.

Figure 3. MEP Isabel Carvalhais during her speech

In summing up the first day, **Serafin Pazos-Vidal** highlighted the value of DESIRA as a people-centred or, in the words of coordinator Professor Brunori, socio-technological project that is providing an EU framework and roadmap that highlights both the needs between Member States but also the data gaps between them. The DESIRA digitalisation scenarios cover both the positive and negative aspects of this process which takes a policy-practice approach, one that does pay a particular focus on digital inclusion and digital exclusion.

During the first session of the **second day,** introduced by **Enrique Nieto**, Senior Expert at AEIDL, **Alexia Rouby** from the European Commission presented a **Long-Term Vision for Rural Areas** with shared goals for 2040, which include resilience to climate change, social resilience, diversification of economic activities, empowered communities, and digital connectivity. The Rural Action Plan, which consists of 24 thematic actions with 9 flagships and 15 accompanying actions, in conjunction with the Rural Pact, is aimed at achieving these goals.

> *"The European Commission is trying to create a collaborative space for communities to act on the goals of the Long-Term Vision for Rural Areas. The digital flagship has 4 dimensions and it's not just about connectivity, but also about developing technologies, enhancing skills and tracking progress" – Alexia Rouby (European Commission)*

Digital connectivity is a crucial aspect of this plan, and the European Commission is working towards developing technologies, enhancing skills, and tracking progress in rural areas. The digital flagship has four dimensions: closing the rural-urban gap, promoting digital skills and entrepreneurship, using digital innovation and new tech for rural well-being, and developing a rural digital index to monitor progress.

However, Ms. Rouby noted that there are challenges to achieving these goals, such as the lack of basic digital skills in rural areas and limited access to new technologies. The European Commission is striving

to create a space where communities can come together to act on the Long-Term Vision and ensure a digital future for rural areas.

Figure 4. Alexia Rouby during the first session of the second day

After the stocktaking of the work of the previous day by Mr Nieto, the DESIRA partners introduced the DESIRA Declaration, a joint declaration for a better future. They aimed participants to join the declaration and engage in DESIRA conclusion and recommendations.

Then, **Stravos Kalaphotas** from **DG Connect, European Commission**, presented the **Initiative 5G for Smart Communities (5GSC).** He defended 5G as a faster, more reliable and secure connectivity to provide better services for citizens, contributing to the establishment of Smart Communities. DG Connect is focusing on infrastructures to promote connectivity but also invests in advancing skills with a target for 2030 to have 80% of the population digitally literate and with enough digital skills. The objective is to reach all populated areas with fixed broadband connectivity as well as 5G by 2030. This will facilitate teleworking from remote areas, remote patient monitoring or virtual learning between other ideas, which can promote the development and maintenance of rural communities.

"DG Connect is focusing on infrastructures to promote connectivity, but also invests on advancing skills with a target for 2030 to have 80% of the population digital literate and with enough digital skills" – Stravos Kalaphotas (European Commission)

Figure 5. Stravos Kalaphotas from DG Connect

Consequently, Kalaphotas presented the 5G in Europe's Digital Compass towards 2030, which includes the upgrade of infrastructures, skills, government services and business capacities to achieve EU goals. For working in this sense, several CEF DIGITAL & 5G4SC calls will be available.

Arianna Pasa, from DG Agri in the European Commission, provided an insightful **overview of the research agenda on rural digitalisation and highlighted the upcoming calls for proposals** and funding opportunities in Horizon Europe Cluster 6 and other related events. She emphasised the importance of research and innovation in achieving the objectives of the Rural Action Plan and the Common Agricultural Policy for Rural Areas. Specifically, Ms. Pasa discussed the Work Programme 2023-3024, which includes a 52-million-euro investment in nine European rural-focused projects across six different topics. She also shared information on the deadlines and opening dates for calls in 2023-2024, as well as other opportunities like the Mission Soil Manifesto and the 2023 EU AgriResearch Conference.

Figure 6. Arianna Pasa, from DG Agri, presenting the upcoming calls for proposals.

Yulia Barabanova from the Joint Research Centre presented the next **Foresight study**, a joint effort between DG AGRI and the Joint Research Centre, which aimed to explore the **long-term implications of digital transition for farmers and rural communities.** The study focused on potential disruptive and transformative changes and how digitalisation policies and strategies can contribute to the resilience of the agricultural sector and rural areas.

> *"We want to ask disruptive questions and try to imagine alternative futures providing strategic input for policy-makers" – Yulia Barabanova (Joint Research Centre)*

Ms. Barabanova discussed two main approaches to the digital future and the different digitalisation roles such as wisdom, autonomy, and interdependence, as well as the creation of a resilience toolkit to help users create or improve digitalisation strategies that cope with the challenges of possible futures and the benefits and pitfalls of technology.

Figure 7. Yulia Barabanova from the Joint Research Centre presented the next Foresight study

Next in the agenda, the **DESIRA Declaration**, a document signed and supported by the participants, was presented. This was followed by two project pitches (see *Section 4.4*) and two interactive workshops, which will be further elaborated in the Section 4.3. The DESIRA Final Conference was concluded with a session titled **"Achievement, Lessons Learned, and Outlook," presented by Doris Marquardt from the European Commission's DG AGRI and Gianluca Brunori, the Coordinator of DESIRA.**

Figure 8. Gianluca Brunori and Doris Marquardt closing the DESIRA Final Event.

Doris Marquardt made an overview of the way covered by DESIRA, highlighting its main achievement, as its research-based comprehensive assessment of the digital transformation in rural areas in the EU, and the development of tools and guidance for digitalisation, as well as community and capacity building and an active policy science interface. She also highlighted the importance of exploiting project results and lessons learned after the administrative closure of the project.

"There is life after the administrative closure of a project" – Doris Marquardt
(European Commission)

Consequently, she covered the main lessons learnt in the four years of DESIRA, which include:

- Rural stakeholders face challenges as both digital technologies and related policies and programs are rapidly evolving.

- Engaging with research and innovation projects at different stages of the policy cycle can result in tangible outcomes.

- Adopting a multi-level governance approach during project implementation can make it easier to develop policy-relevant results and ensure their adoption.

- Projects must be flexible enough to adapt their agenda to changes in the policy landscape.

- Social science-focused research and innovation projects can complement technology-focused ones.

- Living labs can aid in capacity building among stakeholders.

5.2. High-level panel

DESIRA Final Conference also counted with a high-level panel on the role of policies fostering rural digitalisation. The participants were:

- **Radim Sršeň**, Deputy Minister for Regional Development of the Czech Republic, European Committee of the Regions (CoR) Member

- **Franc Bogovič**, MEP, Chair of RUMRA & Smart Villages Intergroup

- **Fabio Boscaleri**, Coordinator of The Network of European Regions for Innovation in Agriculture, Food and Forestry

- **Serafin Pazos-Vidal**, Senior Expert, Rural and Territorial Development, AEIDL who acted as moderator.

Juana Lopez Pagán, Director General of Policies against Depopulation of the Spanish Ministry of Ecological Transition and Demographic Challenge had kindly accepted the invitation she could not finally participate due to an unforeseen convening of an intergovernmental commission meeting.

The session aimed to provide a wider policy perspective on the issue of Rural Digitalisation. In other words, it aimed to provide a context in which the policy tools and recommendations developed by DESIRA over the last four years would have to operate. The issue of rural digitalisation is a key part of the Long-Term Vision for Rural Areas and is a key area for the EU Rural Pact to work on. Furthermore, it is a priority in the new CAP Strategic Plans and the EU Structural and Investment Funds 2021-2027 as they were finally approved end last year to be launched in January 2023, including putting into practice the concept of smart villages. At the same time, many countries were developing new innovative strategies to revitalise rural areas and prevent their demographic decline, with Italy and the Czech Republic being two key examples, as well as Slovenia and Spain

For this purpose, **Serafin Pazos-Vidal**, highlighted that DESIRA was pleased to have brought together key players who could provide well-informed perspectives from the EU institutions (European Parliament, European Committee of the Regions), the national level (Deputy Minister from the Czech Republic) as well as the regional level and pan-European network perspective (ERIAFF and ELARD).

The session featured speakers who discussed the concept of "smart" and emphasised that it encompasses more than just digital technologies. They delved into the idea of smart villages and highlighted the crucial role of EU policies and financing in this regard, as well as the challenges faced by rural areas. The speakers also stressed the need for a place-based approach to rural development, with a focus on governance and the role of initiatives like LEADER. Additionally, they presented some national strategies aimed at addressing the challenges of digitalisation in rural communities.

Figure 9. The speakers of the high-level panel together with the moderator

Radim Sršeň, Deputy Minister for Regional Development of the Czech Republic as well as CoR Member and very recent rapporteur on Targets and Tools for a Smart Rural Europe highlighted the importance of bringing the EU and local perspective on digitalisation together (e.g. big broadband extension plans vs the problem of the last mile) and the need to marry the opportunities that digitalisation can bring with the necessary changes in mindset that is needed for them to be exploited (e.g. create an enabling environment, including an EU regulatory one for teleworking and advancing in sensoring and telemedicine vs. digital divide). He also cited the barriers for EU plans on digitalisation such as insufficient funding, silo approach (no multifunding), lack of integrated, multilevel territorial development approaches and proliferation of tools that do not allow for a holistic approach.

Franc Bogovič MEP, one of the forebearers of the smart village concept, the preparatory action including the Thematic Group in the European Network of Rural Development and its eventual adoption as part of the 2021-2027 programming period highlighted the key difference between smart cities and smart villages:

Smart Cities	Smart Villages
Large scale	Small Scale
Investment	People
Big Data	Basic Infrastructure
Technology Driven	Problem-driven
Vision	Reaction
Positive outlook	Need to address social stigmas
Interoperability	Social Innovation

He sees a great potential in Smart Villages, so much that what started as a small pilot has the potential of attracting big investments as happened to smart cities from the outset, but regretted the limited role and funding that CAP and Cohesion has given to the concept for the 2021-2027 period, though there is already a good promising start with the initiatives already being implemented.

Fabio Boscaleri highlighted the value of pan European networking on digital such as carried out by ERIAFF, a network of regions led by Tuscany. Rural digitalisation needs to build upon the experiences of Smart Specialisation (S3) but go more granular, this is why he particularly welcomed the Startup Village initiative which only recently celebrated its third forum in Brussels, with the active support of four EU Commissioners. Despite this progress his network feels that significant silos remain in what is a diverse EU policy landscape for rural digitalisation, involving at very least Cohesion Policy/Rural Development, Horizon Europe and Digital Europe.

Indeed, all three speakers insisted on the need of an integrated, place-based approach where the EU policy framework is more integrated and thus stimulates the same holistic approaches at delivery level in the territories. Mr **Sršeň** highlighted the case of the Austria LEADER model as innovation brokers, and the role that LEADER do in the Czech Republic for the support of senior people. Mr **Bogovič,** MEP gave the example of the work of Slovenia at municipal level in design polycentric development for decades now and how this model is particularly suitable for the more recent plans for rural digitalisation, whereas Mr **Boscaleri** outlined the role that Rural Development Programmes can play in precision farming, as it is the case in Tuscany.

5.3. Workshops

The Final Conference of DESIRA also included the organisation of three interactive workshops, in which participants were able to exchange experiences and contribute to the final outcomes of the project.

The **first workshop, titled "Joint Declaration for a Digital Future,"** provided an opportunity for participants to contribute to the previously presented statement on the DESIRA Policy Roadmap and Recommendations by making pledges. A5 pledge cards were provided to participants, allowing them to write pledges about one or more of the statements and paste them under the corresponding statement on flipcharts around the room.

At the end of the workshop, the contributions were collected and summarised into main points. These main points were shared on the next day during the 9.50 - 10.05 Reporting from day 1: Joint declaration for a digital future by Mar Delgado, **Maria Alonso** (UCO) and added to the final declaration.
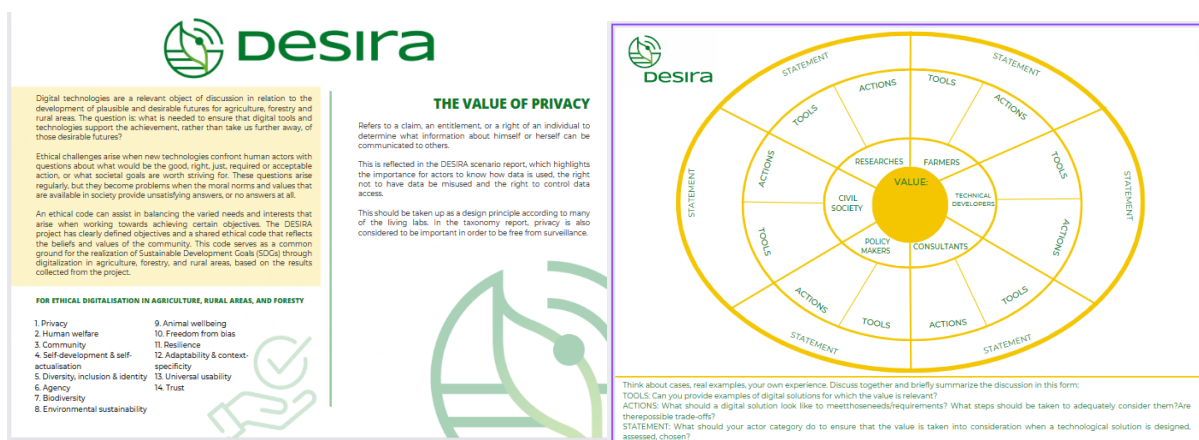
The **second workshop, titled "Ethical Code: from Values to Statements,"** focused on presenting the DESIRAS Ethical Code and exploring with participants how to translate these values into concrete statements, starting with the roles of the various actors involved in the project. Participants were asked three main questions based on their profile (a researcher, a farmer, a technical developer, a consultant, a policymaker, or a civil society member) and the value assigned to them from the 14 ethical values of the DESIRA Ethical Code.

The questions were:

- What actions can a farmer take to uphold these values?

- How can a researcher turn these values into concrete statements?

- What should policymakers do to support these values?

The ultimate objective was to formulate statements for each of these values. Each group of participants was assigned a value to discuss and tasked with completing a pre-set template to explore and collect tools, actions, and challenges in applying these values. They then summarised the results of their discussion into statements. The responses and final statements were collected to contribute to the final Ethical Code of DESIRA.

Figure 10. Some of the designs that were prepared for the workshops
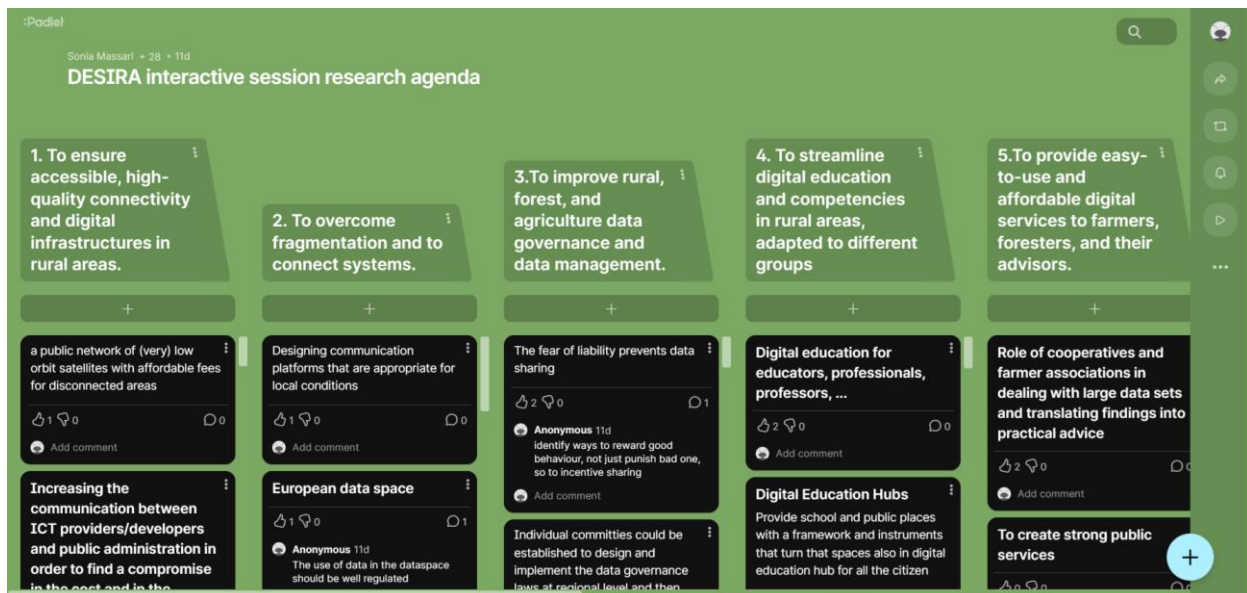

The final workshop, titled "*Responsible Research and Innovation - Identifying challenges coming from Living Labs / Multi-Actor platforms*", allowed participants to particate online though Padlet in an interactive dynamic. They were aimed at proposing solutions and initiatives to overcome common challenges of digitalisation of agriculture and rural communities. Proposed solutions were shared at the end of the session publicly, allowing room to posterior debate and development of the research agenda.

Figure 11 shows the interaction between participants and Figure 12, the contributions of participants to the research agenda in online version.

Figure 11. Participants during the workshop

Figure 12. Contributions from the participants

5.4. Pitch from projects

On the second day of the DESIRA Final Conference, attendees were treated to two engaging sessions of project pitches. The presentations were organised in a dynamic format, allowing each speaker a concise 3-minute window to showcase their work. Prior to the conference, speakers were provided with a helpful document of guidelines and a PowerPoint template to assist them in crafting their pitches. See page 22 for further details of the discussion that took place.

Nine fascinating projects were presented, including eight H2020 or Horizon Europe projects and one regional project. In Table 1, the list of presented projects and their allotted time slots are detailed.

Table 2. The list of presented projects and their allotted time slots

	NAME OF PROJECT	Speaker/Contact person	Pitches Agenda
1	AgriDataSpace	Siavash Farahbakhsh	12:00 – 12:03 (1º slot)
2	AgriBiT	Piero Scrima	12:03 – 12:06 (1º slot)
3	Small Smart Farms	Christina Noble	12:06 – 12:9 (1º slot)
4	CODECS	Gianluca Brunori	12:09 – 12:12 (1º slot)
5	SAFEHABITUS	Lucia Princikova	12:12 – 12:15 (1º slot)
6	Data4Food2030	Eva Maes	14:00 – 14:03 (2º slot)
7	AURORAL	Joana Good da Silva	14:03 – 14:06 (2º slot)
8	SHERPA	Carla Lostrangio	14:06 – 14:09 (2º slot)
9	Occitanum	Veronique Bellon	14:09 – 14:10 (2º slot)

Figure 13. The representatives of each project during their speech

6. Organisation of the Conference

6.1. Poster exposition

At the DESIRA Final Conference, attendees were treated to an engaging poster exposition featuring nearly 20 posters. These posters showcased a range of digital tools and work packages from DESIRA, as well as from other H2020 and Horizon Europe Projects. Alongside a poster featuring all projects participating in the pitches DATA4Food,AURORAL, AGRIBIT, AGRIDATASPACE several other projects - such as SHERPA, GRANULAR, XGain, and SOILdarity - collaborated in the exposition. Conveniently located in the lunchroom, attendees had the opportunity to enjoy the catering while perusing the poster exhibition.

Both in the **poster exhibition session (Figure 12)** and during the **discussion with the audience during the pitches (Figure 13)** there was a wide consensus that the potential synergies between existing and

forthcoming projects need to be capitalised further. In this respect it was widely acknowledged that while synergies, knowledge transfer and exploitation need to be carefully planned in and by each project while having into account the developments in similar projects, there is scope for wither collaboration beyond the strict project related activities, by way of joint events, joint participation to EU or academic conferences and trade fairs, but also making use of the possibilities provided by the EU Rural Pact by way of creating communities around a specific theme, (e.g. there is already a Rural Pact Community group on smart villages and digitalisation) and enable the continuation of project related activities even beyond the end of the project itself.

Figure 14. Some of the posters exhibited

Gnomee: The DESIRA Knowledge Base of potential Digital Game Changers in Rural Areas

Panagiota Koltsida
Athena RC

Eleni Toli
Athena RC

Michalis Dorgiakis
Athena RC

Christos MarinosKouris
Athena RC

Michalis Vargiamis
Athena RC

🔗 https://www.gnomee.eu

About

A community-driven knowledge base, of currently 635 Digital Tools that can act as potential Digital Game Changes in the areas of Agriculture, Forestry and Rural Areas

Digital Technologies
selected 81 times

Features

* Digital Tools are classified using a carefully selected list of taxonomies
* Free text search & filtering options
* Easy to propose new Digital Tools
* Interactive visualisationsbased on the available Digital Tools' and statistical data
* Digital Tool detailed information page

Target Users

* Farmers seeking to exploit an existing Digital Solution that fits their needs
* Innovators facilitators and consultants working on the agricultural digital transformation
* Technology providers wishing to disseminate their work relevant to Gnomee'smain domains

Welcome to
gnomee

Living Lab Modeler: A tool to add value to the activities of your Living Lab

Ebun Akinsete
Athena RC

Michalis Dorgiakis
Athena RC

Panagiota Koltsida
Athena RC

Christos Marinos Kouris
Athena RC

Eleni Toli
Athena RC

Michalis Vargiamis
Athena RC

https://livinglabmodeler.eu/

Living Lab Modeler

Problem and idea behind LLM

Living Labs are a very common method applied in co-creation processes for recording problems and solutions related to innovation and pressing societal problems

... but ...

* It is difficult to ensure the engagement of participants in the long run
* The maintenance of processes and operation requires a lot of effort

Results are unsuccessful or incomplete
The potential impact is reduced

Solution

* Offer a webtool that facilitates and organizes the participatory processes
* «Digital twin» of a Living Lab: Visualising information and relations
* Streamline and rationalise processes, assess impact of activities

Explore Connect Innovate

Living Labs

DESIRA H2020 Living Lab "Toscana Nord"

Features and functionalities

* Provides all the descriptive information of a LL
* Includes main stakeholders and participants
* Models the SCP system and visualizes its connections
* Keeps track of all the activities
* Facilitates exchanges of information among participants
* Offers interactive visualisations and analysis of the available data

* **End-user perspective:** different roles and permissions, membership management, automatic report generation and material download
* **Administrator perspective:** User Interface to manage standard classifications, Living Labs' Stakeholders and SCPs entities management

---

AgriBIT

Intelligence system applied to precision farming

Customisable and modular solutions for various types of agricultural uses and brands of crops through:

* Continuously available Precision Agriculture services
* Affordable, European source, high-precision Galileo and EGNOSS GNSS receivers
* Higher precision location services
* High-resolution analysis
* Tailor-made solutions for farmers and farm advisors
* Open service-oriented platform

Latest achievements:

* The AgriBIT platform is now available with:
  * Pilot parcels details (maps, activities)
  * Early warnings for pest and disease
  * Data monitoring showing sensors data and weather station data

* The AgriBIT mobile application can:
  * Track parcel borders
  * Acquire manual sensor data
  * Track activities
  * Route planning

ITALIAN VINEYARDS PILOT
GREEK PEACH ORCHARDS PILOT
PORTUGUESE TOMATOES PILOT
>100 USERS ENGAGED
>15 COUNTRIES ANALYSED

🌐 https://h2020-agribit.eu/
@AgriBIT_H2020

SUBSCRIBE OUR YOUTUBE CHANNEL

AGRI DATASPACE

Building a European framework secure and trusted data space for agriculture

Inventory of data sharing platforms

Exploration and design of conceptual approaches

Stock of experiences gained with data sharing and the EU Code of Conduct

Governance scheme and business models

Roadmap for the step-wise deployment of the data space

Pathway towards a secure and trusted European data space for agriculture

6.2. A paper-free Conference and sustainable materials

The DESIRA Final Conference prioritised the theme of digitalisation and sustainability, and as such, several measures were implemented to promote these values throughout the event. To minimise paper waste, no paper folders, leaflets, or printed agendas were distributed to participants. Instead, personalised accreditations featured a QR code that granted access to the Conference agenda and a summary explanation of the project, emulating the style of traditional printed leaflets.

Figure 15. The QR of the personalised accreditations

Furthermore, to reduce the environmental impact of the materials provided, participants were given a recyclable notebook and a compostable pencil with seeds inside. This innovative pencil allowed attendees to plant and reuse all the materials, promoting sustainability in a creative way.

6.3. Demo sessions

During the event coffee and lunch breaks, the materials and digital tools produced during these 4 years project were showed to the public. To facilitate that participants could enjoy animated breaks and move around the Conference space, DESIRA Digital Stories were displayed in the main conference room, while the digital tools such as Gnomee, Living Lab Modeller and Virtual Croft were presented at the beginning of the lunch or coffee breaks in the common areas. For that, both the lunchroom and the coffee break room were equipped with screens.

Figure 16. Participants gathering during the conference breaks
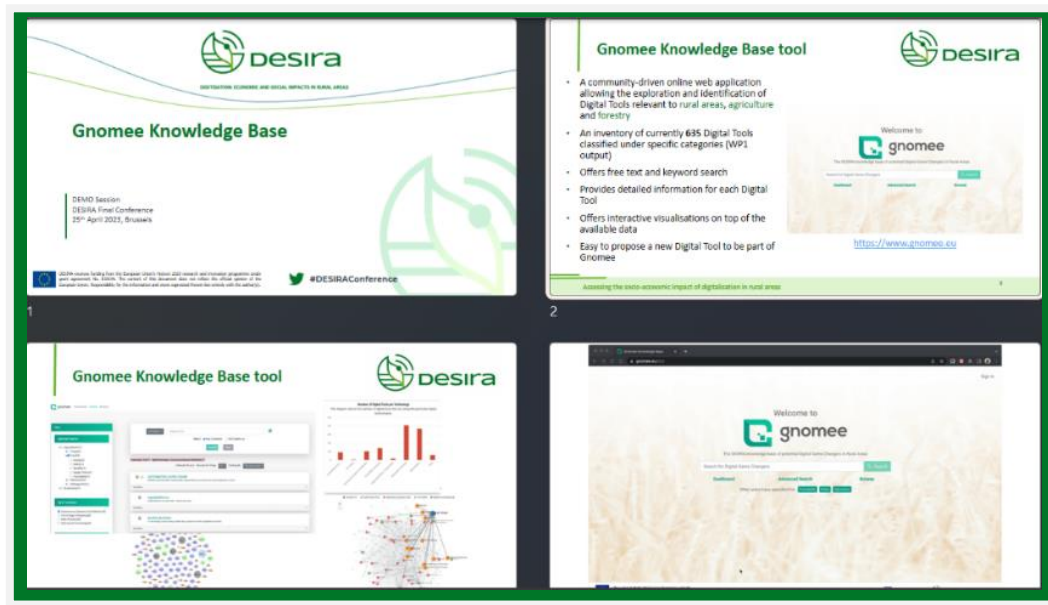
6.3.1. DESIRA Digital Stories

DESIRA Digital Stories were displayed in the main conference room. For that, a video list on YouTube was created, which includes more than 80 rural histories collected through the entire life of the project. The list can still be visited here: https://youtu.be/so9Dkaxl9g0

6.3.2. Gnomee tool

Gnome tool was presented during the first day of the Conference. The exposition of Gnome covered a short presentation on the tool followed by a tutorial on the use of the site and its several functionalities.
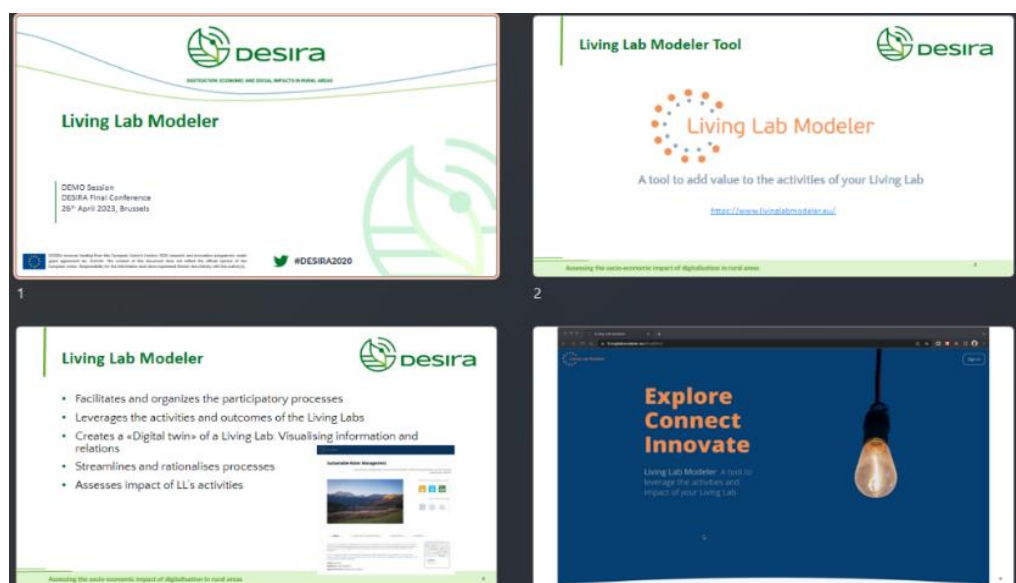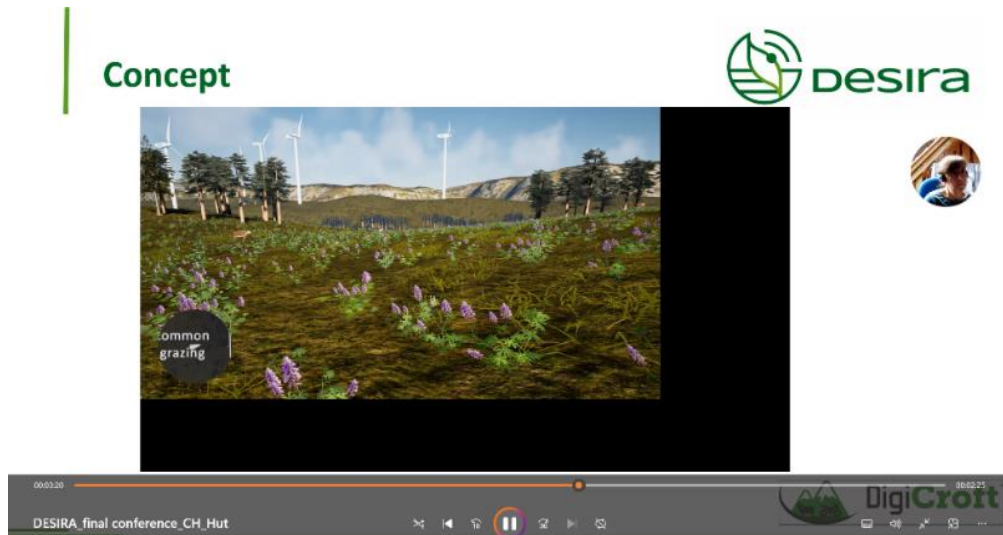
Figure 17. Slides showing the main information about Gnomee

6.3.3. Living Lab Modeller

Living Lab Modeller was presented during the second day of Conference. The exposition of the tool covered a short presentation followed by a tutorial on the use of the site and its several functionalities.

Figure 18. Slides showing the main information about the Living Lab Modeller

6.3.4. Virtual DigiCroft

The presentation of DigiCroft was displayed in the second day of Conference though a video explaining the main characteristic of the tool together with a demonstrative section, as can be seen below.

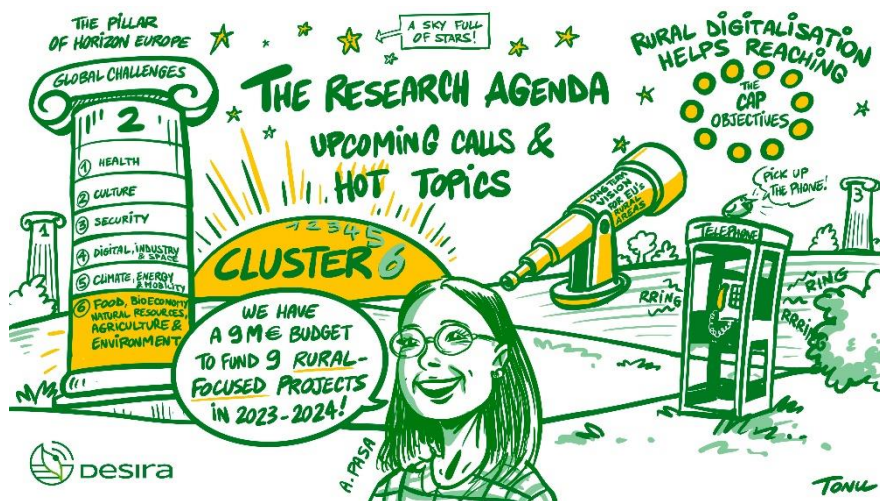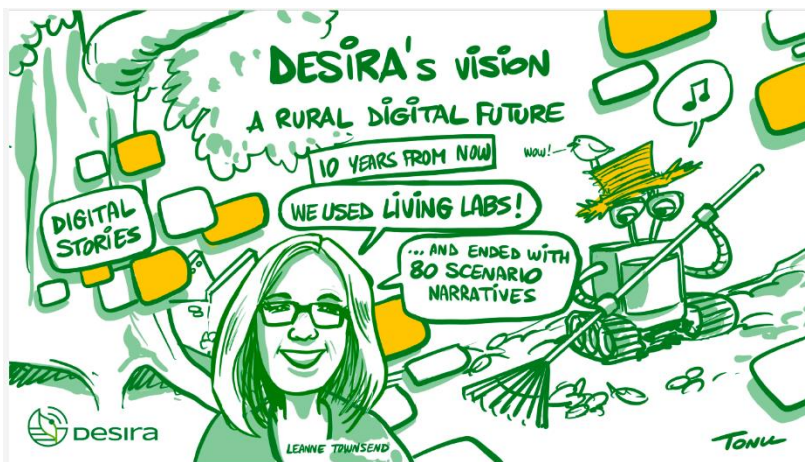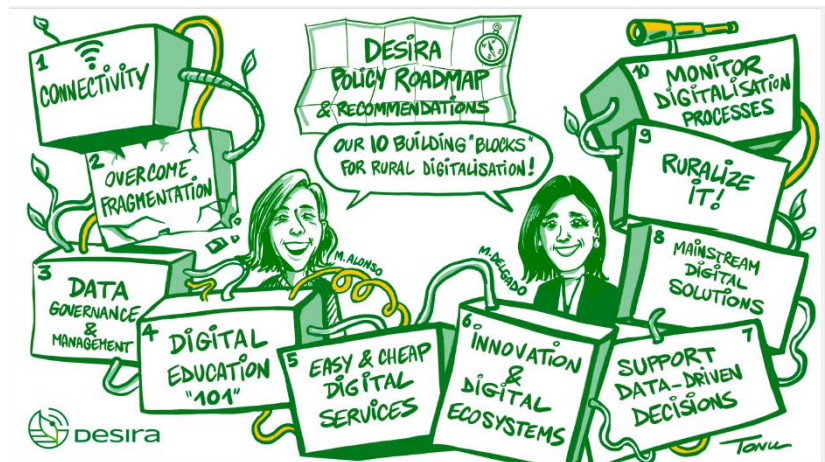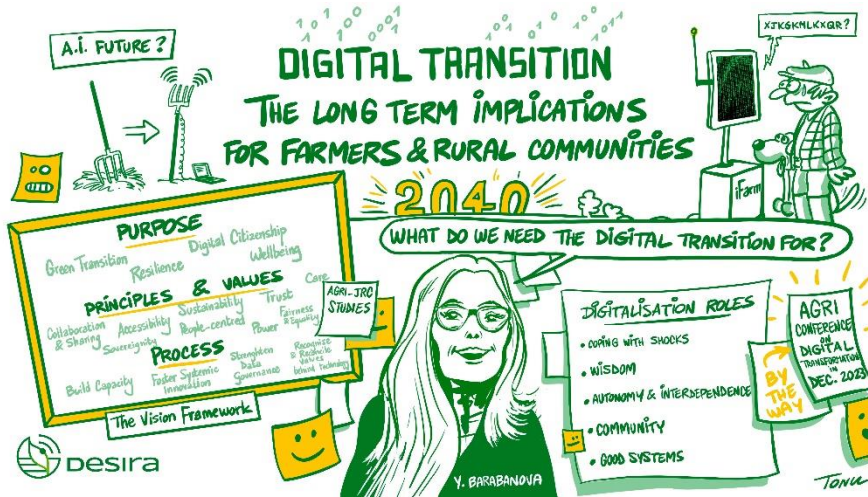Figure 19. A video explaining the Virtual DigiCroft

6.4. Communication, audio-visual outputs and social media

6.4.1. Visual artist outputs

During certain presentations and keynote speeches, a skilled visual artist enhanced the session by creating visual aids that helped participants better comprehend the primary outcomes. These drawings were subsequently shared on social media, disseminated among partners, and contributed to the communication of the projects presented in a simple, dynamic, and visually engaging manner. The goal of this effort is to make policy recommendations, information on EU initiatives and opportunities, and DESIRA activities more accessible to a broader audience. Some of the exemplary drawings can be viewed below.

Figure 20. Examples of the drawings

6.4.2. Video recording and photography

The DESIRA Conference was expertly captured by the organisation team through photography and filming. The images have been shared on social media and distributed to the speakers. Additionally, a conclusion video of the project was produced, which includes interviews with the DESIRA coordinator, partners, and participants from the European Parliament and Committee of the Regions. The video effectively captures the essence, objectives, and energy of the Conference. It has been shared on social media, the DESIRA webpage, and can be accessed on the DESIRA YouTube channel: https://www.youtube.com/watch?v=_MOSzLjdJaU

Figure 21. Behind the scenes of the interviews with high-level speakers

6.4.3. Social media and live twitting

The DESIRA event was comprehensively covered across all the project's social media channels, including a live-tweeting feature. To access the coverage, please visit the following links (Table 2).

Table 3.The coverage of the event across the project's social media channels

LinkedIn	Facebook	Twitter
Before the event: **https://bit.ly/3Wb79iV**	Before the event: https://bit.ly/3pmTf0v	Day 1: https://bit.ly/3LZvYed
After the event: **https://bit.ly/42PqfwL**	After the event: https://bit.ly/44UGg6w	Day 2: https://bit.ly/3B7qkjX

7. Closing remarks and conclusions

Professor **Brunori** closed the proceedings outlining that the DESIRA Final Conference was a resounding success, drawing more than 100 attendees from diverse backgrounds and disciplines. The conference featured a packed schedule of engaging activities, including three workshops, one high-level panel, four demo sessions, and almost a dozen presentations from researchers, EU officials, and policymakers. These activities provided a valuable opportunity for attendees to engage in meaningful discussions, share their experiences, and learn from one another. The conference was a testament to the importance of collaboration and the power of technology to shape the future of agriculture and rural development. Overall, the DESIRA Final Conference was a fitting conclusion to a project that has made significant contributions to advancing the digital transformation of agriculture and rural areas in Europe.

Figure 22. Participants smiling to the camera