

# DESIRA: Digitisation: Economic and Social Impacts in Rural Areas

## Minutes of the Kick-off Meeting in Pisa, 4-6 September 2019

10/10/2019



DESIRA



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## Present

	<b>Name</b>	<b>Organisation</b>
1	Assante Massimiliano	CNR
2	Bacco Manlio	CNR
3	Ban Ena	Ministry of Agriculture Croatia
4	Bartolini Fabio	UNIFI
5	Berzina Inga	ZSA
6	Boscaleri Fabio (AB)	Tuscany Region, Brussels
7	Brunori Antonio	PEFC Italy
8	Brunori Gianluca	UNIFI
9	Bulten Ellen	WR
10	Ciliberti Stefano	UNI PERUGIA
11	Delgado M Mar	UCO
12	Dessein Joost	EV - ILVO
13	D'Haese Marijke	UGENT
14	Dmochowska-Dudek Karolina	ULODZ
15	Dzelzkaleja-Burmistre Maira	ZSA
16	Elzen Boelie	WR
17	Favilli Elena	UNIFI
18	Ferrari Alessio	CNR
19	Folegani Marco	SISTEMA
20	Frosini Luca	CNR
21	Gallei Mortiz	UGENT
22	Galli Francesca	UNIFI
23	Grivinis Mikelis	BSC
24	Hardy Claire	HUTTON
25	Horvat Peter	UNIDEB
26	Jansma Jan Eelco	WR
27	Jelakovic Kristijan	Ministry of Agriculture Croatia
28	Kaipainen Jouni	UJYA
29	Katrakazi Olivia	ATHENA
30	Klerkx Laurens	WU
31	Knikel Marina	UNIFI
32	Koltsida Panagiota	ATHENA
33	Kotarakos Kristine	AEIDL
34	Lepore Fabio	N.A.
35	Mariano Eleonora	PEFC Italy
36	Martinez Fernandez Silverio Juan	FRAUNHOFER
37	Metta Matteo	N.A
38	Moore Kirsten	KIT-ITAS
39	Moore Oliver	CULTIVATE
40	Moschitz Heidrun	FIBL

41	Nava Anabel	AEIDL
42	Nieto Enrique	AEIDL
43	Ortolano Livia	AMIGO
44	Pagano Pasquale	CNR
45	Palacios Guillermo	UCO
46	Prosperi Paolo	UNIFI
47	Quiedeville Sylvain	FIBL
48	Rendl Clemens	SISTEMA
49	Rijswijk Kelly	WU
50	Rolandi Silvia	UNIFI
51	Rosch Christine	KIT-ITAS
52	Rovai Massimo	UNIFI
53	Scotti Ivano	UNIFI
54	Sournia Remi (AB)	PEFC International
55	Tisenkopfs Talia	BSC
56	Tobiasz-Lis Paulina	ULODZ
57	Townsend Leanne	HUTTON
58	Venturini Marco	AMIGO
59	Vieri Marco (AB)	UNIFI
60	Wallet Frederic	INRA
61	Wojcik Marcin	ULODZ

## Apologies

Name	Organisation
Filippi Maryline	INRA
Sancho Javier	SARGA
Toli Eleni	ATHENA
Vani Noemi	UNIDEB

## Action Points

- **Action ALL:** Consider the 2 questions from **KELLY Bronson**
- **Action ALL:** Provide feedback to **James** on presentation [James.Turner@agresearch.co.nz](mailto:James.Turner@agresearch.co.nz)
- **Action ALL:** Publicise the call to register for the RDF
- **Action:** if you require a DESIRA branding prior to launch i.e. urgently contact AEIDL
- **Action:** inform AEIDL about events, activities
- **Action ALL:** please contact Kelly WUR with examples of forestry digital game changers
- **Action ALL:** Consider what examples you may have to support the conceptual framework and share
- **Action ALL** partners: Develop LL Workplan by Dec
- **AEIDL** will develop WP2 workplan template
- **Action partners with LL:** Find draft work plan, complete and submit by the end of 2019
- **Action ALL:** send suggestions for additional data to be included in metadata e.g. date
- **Action:** each partner organization needs to identify a Data Protection Officer
- **Action:** To set up VRE for LL we require title of the LL Logo this can be official or fantasy logo, brief description, name of person in charge 15<sup>th</sup> Sept. Gianluca share a google doc

## Day 1

### Introductory speeches

- **Welcome from Gianluca Brunori**, *University of Pisa (DESIRA Project Coordinator)*
- **Prof. Alberto Pardossi**, *Director of the Department of Agriculture, Food and Environment, University of Pisa*

### **Introduction to the project** **Gianluca Brunori**

<https://data.d4science.net/UEd7>

What is **digitisation**? turning analogue information into digital. Existing tools are being replaced impacting both positively and negatively on our lives. Digitisation has already resulted in changes we can identify with, including the application of these digital tools e.g. IOT; drones; precision agriculture. Some tools are already available, more are being identified, these may be identified as the **game changers** e.g. genetics gene editing, code can be downloaded and edited and used. Transforming information into digital data has transformed life.

In DESIRA we will study the impact of digital game changers by looking at the interaction between **socio-cyber-physical systems**. Game changers have the potential power to change social organisations. The impact of game changers depend on 3 factors:

1. Ease of access, ICT provide access (money, skills required.)
2. Technology design planning, idea of improved new functions, design related risks cyber-attacks, missed opportunities, inaccurate responses.
3. System complexity not just robot but robots connected to sensors, these need parameters, synergies between game changers e.g. potential of cloud and robots brings in more risks.

**Responsible Research and Innovation** should explore failures, take social concerns and effects into account and necessary adaptations. We need to explore the future impact of digitisation technology, check and access in terms of sustainable development goals. DESIRA project is complex based on participation. The consortium is only one layer, there are 2 other layers: Living Labs (LL) and Rural Digitisation Forum (RDF). These interactions help us discuss the framework, game changers (refer to project flow diagram in presentation). Make the project practical and give the project a strong impact.

### **Kelly Bronson from Canada**

**Introduction:** Her research as it relates to DESIRA. Digital agriculture innovations, rural engagements, local and contextual engagements. Sustainability and ethical consideration are important for agriculture, for decision making in these areas e.g. energy, security risks, public confidence in governments. Research fits into DESIRA, access issues and design of tools largely funded by public money, land issues including small parcels of land. Ethical code, RRI are difficult to apply to digital tools.

#### **Questions**

- How will RRI be used in conjunction with sustainable development goals?
- Participation can involve public engagement How?

**Action:** Consider the 2 questions and respond directly to Kelly or to Gianluca.

### **James Turner - New Zealand Bioeconomy in the Digital Age NZBIDA**

<https://data.d4science.net/HqCs>

**Introduction** to a similar project to DESIRA. Background of Ag Research is a government owned agricultural research institute, expertise covers the entire agriculture chain seed to farm to food. Digital technologies to

impact on NZ agriculture how it will transform the sector, climate changes, environmental changes in NZ. 5 outcomes.

1. Enabling and supporting the transition
2. A prototype visualisation tool to help landowners better match agricultural enterprises to their unique farming context and visualise what their farm could look like and the consequences of the changes
3. Digital technologies that can be used to increase consumer confidence in the provenance of New Zealand food (e.g. for verifying that products such as milk come from pasture feed cows)
4. The opportunities for digital technologies to support the indigenous people of New Zealand – Māori – to realise their aspirations as significant players in New Zealand agriculture
5. Digital technologies (e.g. sensors, data analytics) to integrate data that will guide landowner decision-making. For example, for proactive fertility management of dairy cows

*Outcome 1: Enabling and supporting the transition.* This is being concentrated on at the start.

Framework for characterizing diversity of food systems (keen to work with DESIRA whilst developing the framework)

Overview of the project steps

1. Current state of the New Zealand bioeconomy –4 case studies
2. Envisioned state of the New Zealand bioeconomy –identify any barriers
3. Transition pathways – How will we get there? solutions, mitigation

**Action: ALL** send feedback to [James.Turner@agresearch.co.nz](mailto:James.Turner@agresearch.co.nz)

## Project Presentations



DESIRA Consortium

- **WP6 Impact and DECO strategy: presentation and discussion**

*DECO introduction.* Anabel AEIDL

<https://data.d4science.net/qMB4>

<https://desira.d4science.org/group/desira/workspace>

The **DECO Strategy** is a living document, including a training kit. The impact of the DECO strategy will be, regional, national and EU wide. The elements of the strategy include who; why; what; where; how. (Document and the presentation are available on the VRE for consultation). Consider the key messages and stakeholder mapping to access correct channel (main methods of communicating to the outside world

www.desira2020.eu coming soon). The website is conceived as a hub containing and redirecting to every communications tool, channel and activity.

*Rural Digitisation Forum - Enrique AEIDL*

**General RDF:** We will launch a call to reach all interested stakeholders to register. This will be the main method to create an information flow. We will give them information, some register to get informed, some want an interaction and will be willing to become involved, whole community interested in the digitization. RDF VRE will be a space for people to interact outside and within the project, we hope to engage (like a multi-actor approach) experts and interested parties to ensure outputs are suitable for all stakeholders. 2-way exchange via the VRE: post views; events; interact with wider community; Living labs part of community. Targeted invitations to meetings to discuss outputs. Thematic leaders will discuss how to proceed (see later notes). When we have enough people registered, we will launch Facebook. There will be 3 meetings with different themes 20 people max to these face to face meetings, targeted invites need to be considered and sent to get a meaningful discussion.

**Action:** ALL to publicise the open register for RDF, invite interested people to register

*Exploitation; Dissemination: Communication and Outputs (DECO) Annabel:*

With all products: Description, target audience, channel, KPIs

Stakeholder Engagement Actions: RDF, Living labs special measures, DESIRA event, training

**Communications Objectives**

- To build a robust and long-lasting collective awareness on the role and opportunities
- To create societal conscience about the power of policy and enhance uptake of policy options that convey societal and environmental concerns;
- Encourage and support innovation and research knowledge in the field of digitisation of agricultural, forestry and rural areas

**Key messages**

- Digitisation is an eco-socio-technical transformation;
- The world is a complex system linking together people, nature, objects, data;
- Different social structures may have different adaptation capacity to ICTs
- Research and innovation are key drivers of socio-technical transformation;
- RRI implies openness, inclusiveness, anticipation and responsiveness;
- Research and innovation are key to the achievements of the SDG.s

**Stakeholders mapped:** use outreach channels to communicate with identified stakeholders



Branding: logo described see VRE for more explanation, still being changed, a package will be sent, if you need it urgently contact AEIDL **Action**.

**DISSEMINATION:** Public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium.

**EXPLOITATION:** Utilisation of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardization activities.

**COMMUNICATION:** Process that starts at the outset of the action and continues throughout its entire lifetime, aimed at promoting the action and its results.

*Communications Team:* 2 tier a management team and all the partners communication liaison officers will have a monthly virtual meeting

*Campaign:* mapping MEPS, parliamentary committees, Mapping of other institutional stakeholders, Mapping of other stakeholders organisations

*Exploitation of results:* guidelines (check presentation), provide quality control, indicate how things are working mitigation measures to keep on track. Contingency plan to overcome risks.

Links with other WPs1 ,2 3, 4, 6

#### What next?

- First comms meeting
- Feed the website
- Newsletter: follow on twitter
- RDF campaign
- DGC and living labs, interviews: WUR; CNR; ILVO

#### Questions

- Can you describe the RDF?  
*Enrique:* the RDF is a created 'space' existing both virtually and, to allow the opportunity to collect feedback and foster exchange, it's an umbrella for all these actions
- *Laurens:* another DESIRA African project exists ensure no confusion, can we develop measures?  
*Annabel:* Tweet using a set of # hashtags relevant to our DESIRA, see training
- How to distinguish different groups on the VRE?  
*Enrique:* different tools will be utilized, organized in VRE, Facebook for living labs, thematic groups different in VRE  
*Gianluca:* social network allows a flow of information, connects activities on the left side you will find separate VRE areas, RDF, project etc. use links to connect to specific areas. Use VRE tools to connect to groups. All will become clear in the VRE training.
- Will the meetings for communication be virtual?  
*Annabel:* a zoom meeting will be planned, first we will check availability of participants, then give a zoom link
- *Gianluca:* visual story telling AEIDL and Hutton can we get a brief outline?  
*Leanne:* A deliverable for WP3 is to produce digital stories for each of the scenario narratives produced in the scenario development workshops (4 per living lab). Digital stories are outputs that combine elements of photography, audio and video into one output. They take the form of digital files and can be shared on social media sites just as you would a short video (and the file sizes are generally smaller than files composed of only video content). They will be are edited on tablets that will be provided for use in the workshops. We will work with workshop participants to illustrate their narratives using relevant video footage, still pictures and audio clips to narrate the stories. These will be shared widely to disseminate the developed scenarios for maximum impact, both within relevant stakeholder communities and more broadly across project networks such as the Rural Digitisation Forum.  
*Gianluca:* During the scenario planning workshop the content will be created along with the workshop participants. AEIDL will disseminate the outputs. These visual images will be used to document and communicate your work. Plan although reports are good, visual content provides a better picture for telling the story of DESIRA.
- *Annabel:* please let us know what you will provide report, visual. We will need to know size and type produced. We can help by developing templates.



- *Enrique*: AEIDL will develop a common understanding on using social media, but remember you are doing the work. AEIDL can only help communicate with the wider audience if you first communicate with them. **Action**: inform AEIDL about events, activities
- Can we get some information on GDPR guidelines please?  
*Annabel*: its personnel data collection is the main area to be affected
- Storage of data is the main issue, not on google, but securely held  
*Elena*: ethics compliance and data management plan will be covered here on Friday morning

## **DESIRA Work Packages** poster carousel session (WP Leaders, all)

Exposition of posters illustrating the content of the different WPs with an operational purpose: Deliverable, explanation and clarification of participants' roles, Q&A



## **WP1: Conceptualising and Mapping Digital Game Changers:** Joost EV ILVO



**Work Package 1: Conceptualising and Mapping Digital Game Changers**  
**ILVO (Joost Dessein)**  
**WUR (Laurens Klerck, Kelly Rijswijk, Ellen Bulten)**  
**CNR (Manlio Bacco)**

**List of deliverables**

Deliverable title	Brief description	Expected impact
D1.1: Conceptual and Analytical Framework (CAF) report 1 version	A report identifying the most relevant concepts and relations, key hypotheses, key analytical questions	Impact is within DESIRA: D1.1 will inform activities in subsequent WPs
D1.2: Final Conceptual Framework	An update of D1.1 based on participatory theory building and empirical evidence gathered	The CAF will have impact in academia (journal paper) and in policy
D1.3: Synthesis report on the Taxonomy and Inventory of Digital Game Changers (TGC)	A report containing a taxonomy of digital technologies, an inventory of existing digital tools, and the considered application scenarios.	TGC will be exploited by both internal activities and as scientific material for publication.
D1.4: 45 Practice abstracts (PA)	Short reports to communicate project, activities, and results.	PAs will have impact in thematic knowledge networks.

**Link to other WPs**

D1.1	D1.2	D1.3	D1.4
Will be tested and adapted, based on experiences in WPs 2, 3 and 4	Informs the Knowledge Infrastructure (WP5), the policy roadmap and the ethical code (WP4)	Will support the impact assessment (WP2) and the scenario development (WP3). Web interface to TGC by WP5.	As support material for WP2, WP3, WP4, and WP6 in DECO activities.

**How to build the deliverables**

Deliverables	Data collection (Who? How?)	Data analysis (Who? How?)	Reporting (Who? How?)
D1.1	Based on literature review and a series of interviews (lead: WUR)	Qualitative data analysis, based on literature review and interviews (lead: WUR)	Lead: WUR, with ILVO
D1.2	Two transdisciplinary seminars to discuss the CAF, based on evidence of WPs 2, 3 and 4, complemented with an online discussion in WIE	Qualitative data analysis, based on input from WPs 2, 3, 4, and the seminars	Lead: WUR, with ILVO
D1.3	By means of a survey, literature review, and interviews.	Based on existing classifications, to be focused in the domains of DESIRA (CNR and ATHENA).	Lead: CNR, ATHENA, with UNIFI support
D1.4	Collecting PAs from partners.	Performed by partners during survey and interviews.	Lead: CNR, with all partners

**Points of attention**

The classification of digital technologies is linked to a socio-economic impact assessment in order to derive information on expected digital game changers, and to be logically incorporated into the CAF.

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DESIRA | Digitalisation: Economic and Social Impact in Rural Areas

**Summary of the Conceptual Analytical Framework CAF**, how the concepts will be described and connected, the flow of the work, so it moves from conceptual to operational or practical and will then be reassessed to produce an analytical framework. We will use the taxonomy of digital game changers (DGC), which all partners will contribute to, by uploading data via the survey to create the taxonomy (see individual presentations).

**Questions**

- There is a lot of terminology used in connection with the framework, can we get some explanation? a glossary?  
*Kelly* in response: some will become clear during the presentation later but agreed there is a lot of confusing terminology used. Many of the concepts are fluid and require discussion. Expert interviews will be used to get ideas into practical actions.
- How to have a sufficient number of DGC?
- How will the CAF effort the work of LLS?
- Including the users of other WPs.
  - Internal vs external change technology
  - REMARK: definition of terms will be very important

**WP2: Assessing Past and Present Impact - Cristina**



## Work Package 2 Description

WP leader – UNIFI

### List of deliverables

Deliverable title	Brief description	Expected impact
D2.1 : Pan-European report on rural digitisation [UGENT - 20]	Statistical analysis of the socio-economic impact of digitization on European rural areas	Shedding light on questions such as the impact of connectivity on rural value chains or rural entrepreneurship
D2.2 : Needs, Expectations and Impact synthesis report [UNIFI - 26]	A synthesis of the 20 NEI regional reports with a comparative analysis of SESI digitisation	Describe and measure, the current benefits, trade-offs and gaps between users' and societal needs and expectation of the digitisation
D2.3 : Socio-Economic Sustainability Indicators report [KIT-ITAS 30]	A report illustrating a set of indicators on which socio-economic assessment of digitisation will be carried out and the methodology for their measurement.	A comprehensive indicator set to analyze, measure and monitor the impacts of digitization in specific fields of application

### Link to other WPs

D2.1	D2.2	D2.3
<ul style="list-style-type: none"> <li>• 4.3 Policy coherences</li> </ul>	<ul style="list-style-type: none"> <li>• 4.3 Policy coherences</li> <li>• T 3.2 scenario workshop</li> </ul>	<ul style="list-style-type: none"> <li>• 4.3 Policy coherences</li> <li>• T 3.2 scenario workshop</li> </ul>


WP4, WP5, WP6 & WP7

### How to build the deliverables

D.5	Data collection (Who? How?)	Data analysis (Who? How?)	Reporting (Who? How?)
D2.1	Primary data on connectivity & rural economy, secondary data collection through case studies - UGENT	Statistical analysis of digitization and rural economy data - UGENT	Rural Digitization Index: - correlation with rural economic data - UGENT
D2.2	Each partner in charge of LL + VRE survey following guidelines	Unipi – BBN & Multicriteria analysis + SMA	Each partner will prepare a LL report
D2.3	ITAS- Adapt ICOS, literature review, develop field questions for data collection, train team members	ITAS- select indicators for initial SESI indicators, collect feedback from participatory multicriteria analysts at Rural LLS	ITAS- based on feedback from LLS

### Points of attention

Developing a comprehensive methodology for heterogeneous LLS: a) definition of SCP space; b) focal questions (Definition of target); c) conditions of access to ICTs; d) measure of impacts on SDGs


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**Summary:** Digitisation can have both positive and negative impacts the WP will measure impact by using a series of indicators assessed against criteria aligned with **Sustainable Development Goals**, using a traffic light method to indicate impact. To identify an appropriate methodology, we will integrate insights from analysis at different levels i.e. case study and pan-European analysis levels, as well as with different methods (qualitative and quantitative). **Tasks include:** Collecting of information on available indicators; developing a list of field questions on the basis of the Conceptual and Analytical Framework provided by WP1; guidelines for data collection an online questionnaire; Pan-European digitisation to provide an overview of the state of digitisation of rural areas in Europe and its impact on their socioeconomic performance.; Socio-economic Sustainability Indicators impact of digitisation, based on Sustainable Development Goals. SESI indicators will be designed with the hypotheses and analytical questions of the Conceptual and Analytical Framework; Needs, Expectations and Impact appraisal will develop a multilevel participatory appraisal.

#### Comments/Questions

- Background methodology NEI assessment is this a literature review?
- Other data services? Farmers applying for digitalization funds + projects
- Can stakeholders come up with SES indicators? Yes
- Pan European analysis of game changers + impact, link in a report + publications
- Need for taxonomy, clustering of digitalization: based on functions, keywords
- WP1 is sufficient?

### WP3: Developing Scenarios, Use Cases and Showcase Technologies:

Leanne Hut



## Work Package 3 Description

WP leader: James Hutton Institute

### List of deliverables

Deliverable title	Brief description	Expected impact
D3.1 Comparative Scenario Reports (Hutton, M30)	20 LLs outcomes of scenario development	Input to external outputs dissemination/communication
D3.2 Policy briefs (FIBL, M30)	Relevant issues emerging in scenario development exercise	Impact on policy - threats and opportunities of digitisation
D3.3 Use case report (CNR, M36)	Describes technological solutions identified by 5 LLs	Inform showcase technology, impact in policy
D3.4 Showcase Technology, including Virtual Farm report (ATHENA, M48)	Report on tech development based on LL findings and Use Cases	Relevant sectors; developers; policy, responsible innovation
D3.5 Use Case/Showcase technology Practice Abstracts (ATHENA, M48)	6 Short documents (in EIP format) with a Synthesis of Use Cases and Showcase tech	Relevant sectors; developers; policy, responsible innovation
D3.6 Digital stories (Hutton, M30)	80 digital stories (4 per LL) for social media channels etc.	Public engagement, reaching wide audiences

Link to other WPs

D3.1	D3.2	D3.3	D3.4	D3.5	D3.6
+W2 (Living Labs) +WP4 (Policy) +WP6 (DECO)	WP4 (Policy)	+WPS (Use Cases and Showcase Technology) +WP6 (DECO)	+WPS (Use Cases and Showcase Technology) +WP6 (DECO)	+WPS (Use Cases and Showcase Technology) +WP6 (DECO)	WP6 (DECO)

### How to build the deliverables

Deliverables	Data collection (Who? How?)	Data analysis (Who? How?)	Reporting (Who? How?)
D3.1	Scenario workshops - field notes and scenario narratives. All partners	Narratives and field notes - qualitative. All partners	Reports from all LLs - involves all partners
D3.2	Policy briefs informed by scenario reports; feedback from stakeholders to validate	Derived from scenario reports	All LLs - involves all partners
D3.3	Identification/development of use cases in 5 LLs, robust guidelines	Derived from scenario reports	CNR collaborating with 5 relevant LLs
D3.4	Showcase technology based on outcomes of LLs and use cases	Derived from scenario reports and use case reports	ATHENA
D3.5	Practice abstracts based on outcomes of use cases and showcase technology	Derived from use case and showcase technology reports	ATHENA collaborating with 5 relevant LLs
D3.6	Digital stories based on scenario narratives in each LL	N/a	4 per LL - all partners



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DESIRA | Digitalisation: Economic and Social Impact in Rural Areas

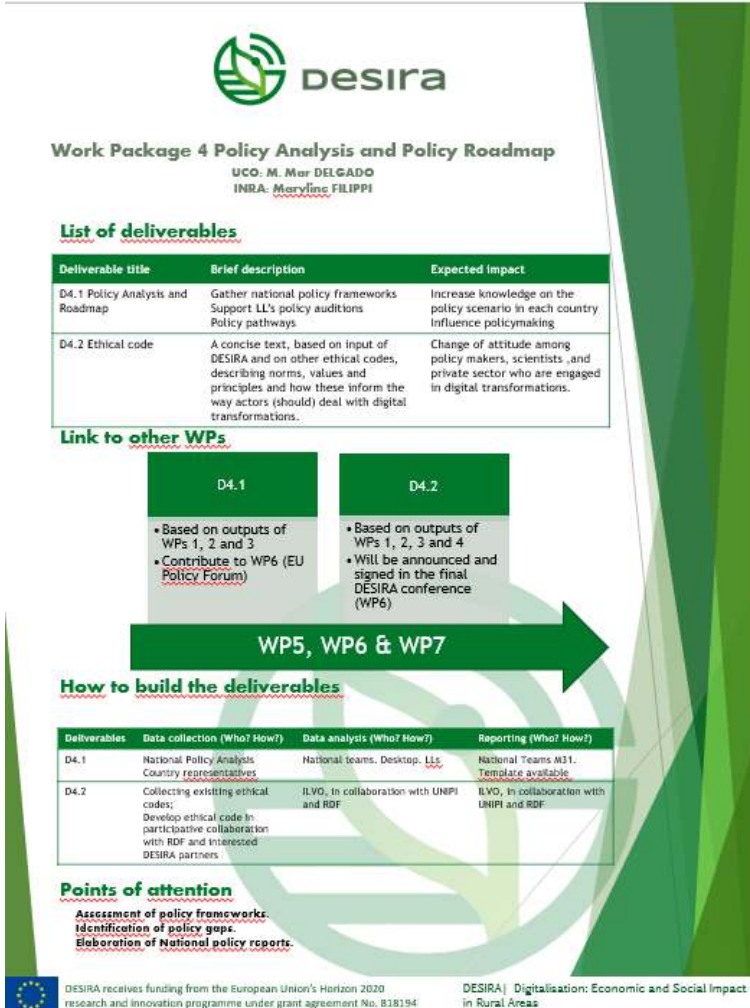
**Summary:** Future digitisation will depend on the capacity of communities, researchers and innovators to anticipate their impacts – either intended or unintended, negative or positive, as well as to identify appropriate impact pathways for development. WP3 will work with the Living Labs to co-develop plausible future scenarios and identify desirable solutions to identified problems.

**Objectives:** To produce a set of 80 scenarios and associated Digital Stories, categorized by focal questions; demonstrate the potential impact of digital game changers across sectoral, regional and European contexts, through comparison of the scenarios; elaborate Use Cases that apply ICT-based solutions to emergent agricultural, forestry and rural problems identified in the scenario workshops; develop two showcase technologies that apply RRI.

### Comments/questions

- Transition pathways of LL
- Different styles, topics + approaches, will make the stories varied and interesting
- LL's already working = existing approach
- Different stances negative or positive? Both
- Different disciplinary stances on storytelling
- Discussing digital others challenge across different stakeholders
- How to communicate showcase tech: main audience? Impacts? Communication strategy
- Showcase tech = but it is social process, socio-technical help the process to start
- How is it relevant to me?
- Showcasing not just tech what required?
- Digital stories = national languages, Subtitles when interesting beyond national context?
- What happens to the other 15 LL's?
- 5 uses cases, not equal, not RRI
- RRI process in design of LL's
- What are people developing SNS on?

## WP4: Policy Roadmap and Ethical Code Maria UCO



**desira**

**Work Package 4 Policy Analysis and Policy Roadmap**  
 UCO: M. Mar DELGADO  
 INRA: Meryline FILIPPI

**List of deliverables**

Deliverable title	Brief description	Expected Impact
D4.1 Policy Analysis and Roadmap	Gather national policy frameworks Support LL's policy auditors Policy pathways	Increase knowledge on the policy scenario in each country Influence policymaking
D4.2 Ethical code	A concise text, based on input of DESIRA and on other ethical codes, describing norms, values and principles and how these inform the way actors (should) deal with digital transformations.	Change of attitude among policy makers, scientists and private sector who are engaged in digital transformations.

**Link to other WPs**

**D4.1**

- Based on outputs of WPs 1, 2 and 3
- Contribute to WP6 (EU Policy Forum)

**D4.2**

- Based on outputs of WPs 1, 2, 3 and 4
- Will be announced and signed in the final DESIRA conference (WP6)

WP5, WP6 & WP7

**How to build the deliverables**

Deliverables	Data collection (Who? How?)	Data analysis (Who? How?)	Reporting (Who? How?)
D4.1	National Policy Analysis Country representatives	National teams, Desktop, LLs	National Teams M31. Template available
D4.2	Collecting existing ethical codes; Develop ethical code in participative collaboration with RDF and interested DESIRA partners	ILVD, in collaboration with UNRPI and RDF	ILVD, in collaboration with UNRPI and RDF

**Points of attention**

- Assessment of policy frameworks.
- Identification of policy gaps.
- Elaboration of National policy reports.

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DESIRA | Digitalisation: Economic and Social Impact in Rural Areas

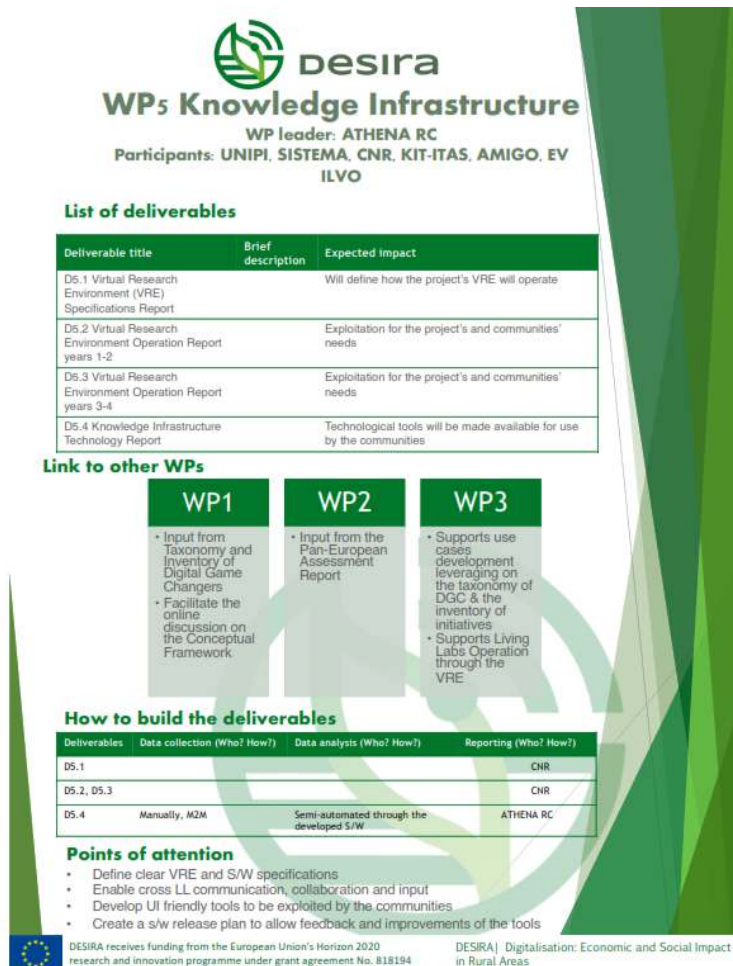
**Summary:** Digitisation policies will play a pivotal role in the future of rural areas. Digitisation and the Digital Union are among the current key priorities of the EU. Strategies and declarations at EU level have highlighted the relevance and warned the knowledge of their potential impacts are critical. We require a comprehensive analysis of the legal and policy frameworks in the different countries and guidelines to orientate future policy decisions at national and EU level.


**Objectives:** Propose a Policy Roadmap that addresses the main obstacles and policy gaps identified and aligns the digital game changers in agriculture, forestry and rural life to societal needs. Specifically: 1. To identify and assess the existing policy frameworks and instruments at national and EU levels with influence in the digitisation of rural area; 2. To assess the coherence of these frameworks and instruments with the socio-economic impacts in rural areas identified by WP2; 3. To highlight the existing policy gaps in coherence with the results of WP1, WP2 and WP3; 4. To develop an Ethical Code that will help research and innovators to anticipate the risks of digitisation and will give policy makers a criterion for assessment of innovation; 5. To develop a Policy Roadmap integrating RRI and SDG approaches.

### Questions/comments

- How to connect different policy levels? Local LL's, National desktop, EU desktop
- Connection to smart villages' policies
- What is funded by CAP? In different regions?

## WP5: Knowledge Infrastructure Panagiota Athena





**desira**

**WPs Knowledge Infrastructure**

WP leader: ATHENA RC

Participants: UNIFI, SISTEMA, CNR, KIT-ITAS, AMIGO, EV ILVO

**List of deliverables**

Deliverable title	Brief description	Expected impact
D5.1 Virtual Research Environment (VRE) Specifications Report		Will define how the project's VRE will operate
D5.2 Virtual Research Environment Operation Report years 1-2		Exploitation for the project's and communities' needs
D5.3 Virtual Research Environment Operation Report years 3-4		Exploitation for the project's and communities' needs
D5.4 Knowledge Infrastructure Technology Report		Technological tools will be made available for use by the communities

**Link to other WPs**


WP1	WP2	WP3
<ul style="list-style-type: none"> <li>Input from Taxonomy and Inventory of Digital Game Changers</li> <li>Facilitate the online discussion on the Conceptual Framework</li> </ul>	<ul style="list-style-type: none"> <li>Input from the Pan-European Assessment Report</li> </ul>	<ul style="list-style-type: none"> <li>Supports use cases development leveraging on the taxonomy of DGC &amp; the inventory of initiatives</li> <li>Supports Living Labs Operation through the VRE</li> </ul>

**How to build the deliverables**

Deliverables	Data collection (Who? How?)	Data analysis (Who? How?)	Reporting (Who? How?)
D5.1			CNR
D5.2, D5.3			CNR
D5.4	Manually, M2M	Semi-automated through the developed S/W	ATHENA RC

**Points of attention**

- Define clear VRE and S/W specifications
- Enable cross LL communication, collaboration and input
- Develop UI friendly tools to be exploited by the communities
- Create a s/w release plan to allow feedback and improvements of the tools

 DESIRA receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 818194
 DESIRA | Digitalisation: Economic and Social Impact in Rural Areas

**Summary:** DESIRA aims to increase interactive innovation within its multi-actor network and with outer circles of stakeholders, digitization will be used to change the way people communicate using existing tools. DESIRA will dedicate a relevant amount of resources to online interaction and to the necessary infrastructure. **Objectives:** To implement a Virtual Research Environment that allow advanced interaction within the DESIRA consortium and with outer circles of stakeholders; To create a knowledge base for access of users to information on ICT tools applied to agriculture, forestry and rural areas; To develop an open-access Socio-Economic Assessment tool

**Comments/questions**

- What is the timeframe for D5.1? It seems that a lot of info to be used in D5.1 will come from real use or life
- Will VRE tools be created/made available as WPs express a need?
- Type of SIW tools? Web or desktop?

**WP6 Exploitation, Dissemination, Communication and Outreach** Annabel AEIDL



**Work Package 6. Exploitation, communication, dissemination & outreach**

**List of deliverables**

Deliverable title	Brief description	Expected impact
D6.1 DECO strategy (~75p, report)	Key messages, Target audiences, Comms. Products...	Conceptual development
D6.2 & 6.3 Activity reports years 1-2 & 3-4 (~15p, reports)	Updates of the DECO strategy	Conceptual development
D6.4 Training kit (Zip folder, no less than 5 sets of guidelines)	Compilation of training material	Capacity development
D6.5 Design + implementation of the RDF report (~20p, report)	Structure, components, activities & outcomes of the RDF	Capacity development & Policy influence
D6.6 Proceedings of final conference (PPT, 25 slides before/during/after)	Structure, activities & outcomes of the final conference	Policy influence

**Link to other WPs**

D6.1	D6.2&6.3	D6.4	D6.5	D6.6
• Contribution to all WPs	• Contribution from all WPs	• Contribution from WPs 2, 3 & 4	• Contribution from WPs 2, 3 & 4	• Contribution from all WPs

**WP5, WP6 & WP7**

**How to build the deliverables**

Deliverables	Data collection (Who? How?)	Data analysis (Who? How?)	Reporting (Who? How?)
D6.1	AEIDL, UNPI, CNR (compilation)	---	AEIDL + UNPI (template)
D6.2 & D6.3	AEIDL + all (Comms, Meetings + templates)	AEIDL + all (KPIs collection)	AEIDL + all (template)
D6.4	AEIDL + WPs 2, 3 & 4 leaders	AEIDL + WPs 2, 3 & 4 leaders (drafting conclusions)	AEIDL + WPs 2, 3 & 4 leaders (template)
D6.5	AEIDL + WPs 2, 3 & 4 leaders	AEIDL + WPs 2, 3 & 4 leaders (drafting lessons learnt)	AEIDL + WPs 2, 3 & 4 leaders (template)
D6.6	AEIDL + all	AEIDL (drafting lessons learnt)	AEIDL + all (template)

**Points of attention**

- Regular comms, Taskforce meetings
- Flow of information & content

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DESIRA | Digitalisation: Economic and Social Impact in Rural Areas

**Summary:** An integrated approach to exploitation dissemination, communication and outreach strategy, embodying all these activities in the research activities. Design, implement, monitor and assess the Exploitation, Dissemination, Communication and Outreach of the project, in compliance with the Responsible (and Interactive) Research and Innovation approach (RRI). Ensure that the project's results are fully exploited and widely disseminated and that all engagement and dissemination activities are interlinked and mutually reinforcing, to create a relevant, high impact, and sustainable DESIRA community supported by the Rural Digitisation Forum.

**Objectives:** Develop and implement a Exploitation, Dissemination, Communication and Outreach strategy; organize, support and coordinate all partners in their Exploitation, Dissemination, Communication and Outreach activities; manage the workplan of the Rural Digitisation Forum

#### Comments/questions

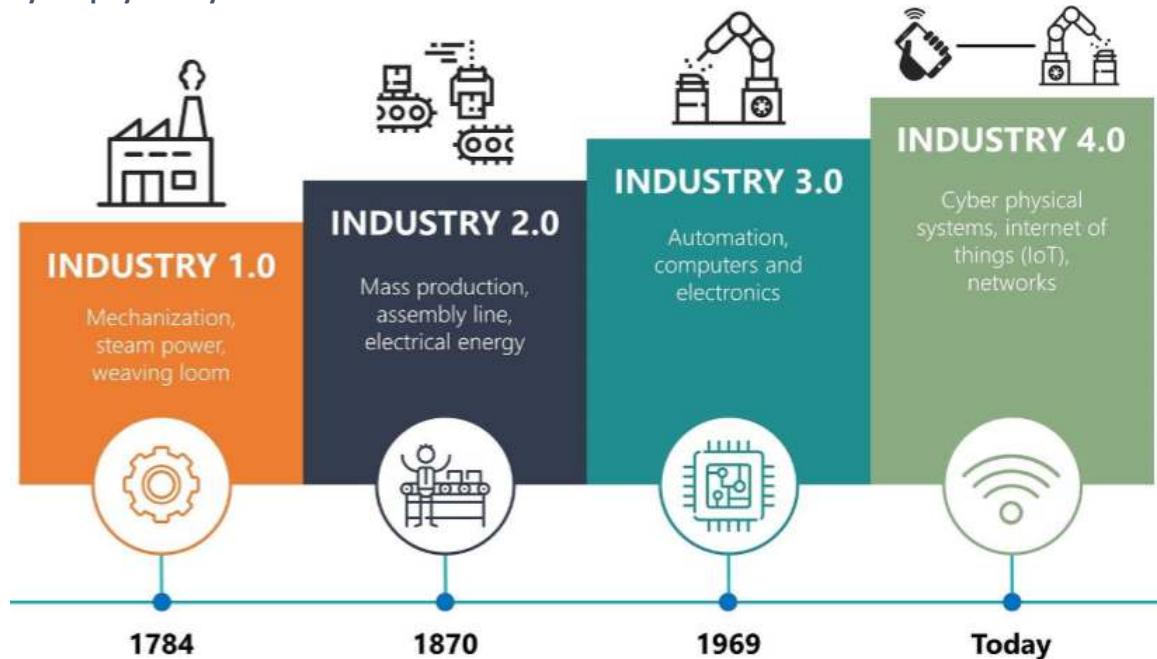
- TONE
- Deep general PPT images
- How to talk about the products? Living cbc
- Website sections on different topics
- How to deal with different languages on social media?

## WP1 Taxonomy and Inventory of Digital Game Changers: Manlio

See presentation on VRE for more details <https://data.d4science.net/7S1f>

*Digital Game Changers* (DGCs) are 'digital technologies that deeply reconfigure routines, rules, actors and artifacts of social and economic life', causing 'deep repercussions on people's lives, and thus generating losers, opponents, and winners'. See the 36 startups that could change the world <https://www.cbinsights.com/research/report/game-changing-startups-2019/>

- Not just digital technologies. **Digital game changers (DGC)**, concerned with context: What; where when; why and who
- **DGC** e.g. Drones (UAVs) are considered a mature technology from the viewpoints of the production process and of the command and control requirements: in fact, their commercialisation is rather wide and their use well widespread. - the next step is: fully autonomous fight control (in Beyond Visual Line of Sights conditions)–Drones are considered a digital game changer in several application scenarios:
  - agriculture: precision spraying, multi-spectral analyses from above, monitoring, ...
  - coverage extension for cellular networks
  - photogrammetry and other inspection purposes, like structural health monitoring
  - goods delivery
- **Cyber-physical system** fourth industrial revolution



- **Socio-cyber-physical-system:** System has different definitions; in this context it consists of several components. Physical elements, tractors, linked to weather forecasts software element. Results in internal and external impacts, create a digital twin e.g. London transport system
- Dimension of the taxonomy include domains; application scenarios; digital technologies
- Survey will be used to collect data on DGC to populate the inventory. Questionnaire on-line feedback received. Connecting ICT in domains survey already been updated and is available.
- The first aim of the questionnaire is in identifying application scenarios in your country, directly related to your field of work.
- Feedback will be collected in interactive session. Socio-economic evaluation is necessary. So far 75% from partners the rest from external companies. Fiware not used in most cases. Improved mgt and decision making, efficient.
- Strong correlation between food security and climate change
- Collective effort

### Questions

- *Leanne:* Can you give us some advice on how to select the experts, within domains or across?
- *Manlio:* someone who can forecast emergent technologies, give a digital picture and relate to context e.g. geographical area. Could relate to the LL but it's for you to decide.
- Forestry traceability in tropical areas, but the charcoal is coming to Europe, would this be a good example of DGC?
- *Gianluca:* Future development could be applicable to Europe in the future so could be usable please include



- Please explain practice abstract: short description something useful for stakeholders to share, EIP-Agri initiative in their format. Guidelines will be provided to enable these to be produced in the correct format. First one has already been produced, this can be viewed as an example
- *Leanne*: Is external feedback on new technology useful e.g. herd mgt, they imagine their technology to be a game changer? Can we include?  
*Manlio*: If you are aware of something that has an effect, but do not know if it's a game changer consider if it can be used in another domain? Identify application technologies develop a map. External user can fill out the survey later. In the beginning fill it out yourself, identify what is used in your area
- Are the number of responses capped at 20?  
*Manlio*: identify digital technology, subset of survey will identify the game changers  
*Gianluca*: identify the game, first then the problem, then the technology to help solve the problem, what are sensors for and how they are connected, several other projects have identified these already we could link to other projects
- *Enrique*: difficult to get 20? Can we ask members of forum to complete the survey? do we promote an open link to get members to complete survey?
- Need to identify cost of the project in monetary terms and the cost to society
- *Boellie*: Categorize changes in terms of labour saving, environmental benefits large, small, negative, positive, create a score? Who are experts for the future? no-one due to biases timeframe? 4-5 years or longer?
- *Manlio*: new survey gives opportunity to rank and give a scale always a bias, give distribution, clearest picture.
- Digital training courses have they been missed? But it's not an exhaustive survey we can add more when we receive feedback

- **WP1 Taxonomy: Digitization projects at national level: Workshop**  
*Group notes transcribed*

#### Group 1

- Change the wording: "PROVE THAT YOU ARE HUMAN" (to philosophical...)
- Who fills the survey? (Partners only?)
- RISK of BIAS if a MIX of partners and stakeholders fill it in.
- Remove the \* FINAL EDITING BY A NATIVE SPEAKER.

#### Specific Points

- Skip "commercial for 3rd option or add a new line for "non-commercial product, tool, service" (open source)
  - Remove the last option (4th) and specify in the opening.
- 8) Capital letters "do not" and "generally..."
  - Add comas "only hardware" ...
- 10) Remove "technological" from PROBLEM/SOLUTION ☒ replace with ....
  - Separate a question on a) "what is the problem" (socio-technical-environment) and b) "what is the digital solution"?
- 12) FIWARE: not everybody is fully aware of what it means (platform aims etc....). We need to close this gap at least with partners (IF YOU DON'T KNOW ASK LIVING LAB EXPERTS!)
- 13) Remove "OTHER". Risk of overlap in the meaning of different categories (e.g. efficiency and management are similar) ☒ need to know which is the outcome n.1 (ranking?)
- 19) Add "CONSUMER/CITIZENS" in DATA ACCESS change "supra-local" (☒ regional?).
  - Change local communities"
- 21) DATA ANALYSIS (not ELABORATION) ☒ strange word here
- 24) Difference between digital gap and digital divide for social groups?
  - CANCEL THE NO ANSWER OPTION ☒ risk that people skip questions and answers.
- 26) REMOVE "FOOD" (big) ☒ leave companies
  - Remove level of salary ☒ INCOMES

- HARD QUESTION! NEED EXTRA INFORMATION/MORE PEOPLE NEEDED TO ANSWER.
- 8) Add: “CO2 EMISSION and STORAGE”, “BIODIVERSITY”, “PERICIDES USE” ☒ (agro-industry inputs are confusing but correct), “SOIL”.

#### SUMMARY POINTS

- 1) One person is not enough to fill the survey in (do it with someone, a specialist)
  - a. VERY LONG!
- 2) There is no place to describe the tool/initiative
  - a. There must be a place where the purpose of the survey is stated clearly “the aim of the survey is...”
  - b. Add website
- 3) Final proofread by a native English
- 4) Remember to integrate CITIZENS/CONSUMERS as relevant actors.
- 5) Access to your own answers/entries (possibly to go back before submitting)

#### Group 2

- Focus on technology itself versus the application of the technology as game changers.
- Paid license ☒ focused on software, our case is an infra-structure
- Question 10: can only select 1
  - If you select “other”, it is not mandatory to fill anything in.
  - Add option: does not apply (e.g. question 11 and 12)
- Question 14: delete “in relation to un-development goals ☒ people might not know what that means. Question still clear without it.
- Question 15: is not a question ☒ needs to be clearer! Also question 17.
  - Sometimes there is a lot of green text as explanation. It might scare people away or the actual question is hard to recognize.
  - Why do you have to specify again when selecting “other”?
  - Category “no answer” in question 24 into “not sure” change “same” o “no impact”.
- Question 24: double negatives by using “increase” or “decrease” instead use widening of narrowing of “divide” (use divide for all options).
- Question 26: question is unclear. What do you consider positive and what do you consider negative? E.g. instead of “labour market” use “employment rate”. Instead of neg. vs pos. use low impact vs high impact ☒ keep it neutral. Same goes for question 27
  - Numbering is off (no question 30 for e.g.)
  - For a lot of the questions we don’t actually know the answer
  - Suggestion: make the survey in form of a decision tree. At least the structure. It is too complicated now.
  - Customize survey to type of technology. E.g. for an infrastructure all questions about software don’t apply.
  - Survey is very complicated. A lot of green text -> if a question needs that much explanation, it gets very complicated.
  - Option for question in beginning: write 5 key words ☒ so become easier to find similar projects/tools/etc....
  - No question about scale. E.g. How many users, how much users, how much money, geographical.
  - Also, no question about funding (public, private, crowd funding)
  - Optional question all the way in the end: describe the project/tool in ... words. E.g. answer questions like how, why, what, etc....

#### Group 3

- H2020 BIG DATA GRAPES
- Autonomous: to be clarified
- Date ocean and ownership
- Best candidate to fill in the survey

- Aim of the survey
- Likert scale

#### Group 4

Introduction of the survey: not clear why should one fill it? How will the results be disseminated? What should be defined?

CATEGORIES: mutually exclusive & unambiguous

QUESTIONS:!

- the focus should be straightforward
- Additional information is very useful for clarity (e.g. what is open source?)
- Question 10: a technology can “do” and aim (marketing) to something. These two things must be clear in the question.
- Question 13: what are the economic benefits for? (e.g. for those using the tool? Those developing it?)
- If you open the link o FIRMWARE, it should be in another tab otherwise you will lose the content.
- Data visualization: the categories look like “devices”.

#### Group 5

QUESTIONS

- Survey to be filled “in person” by the person we share it with, or we do it with him/her?
- Who is the survey addressed to?
- Open license for whom? End user?
- Are we looking for a quantity or for quality?
- How does knowing the degree of automation help to solve the problem?

KEY POINTS

1) New “identifier” for each project (ivano1, ivano2, ivano3, etc....)

ISSUES

- 1) Survey is not enough “self-explanatory”
- 2) “Too focused” on the technology vs results

SUGGESTIONS

- 1) Pdf version of the final version
- 2) Specify: title + acronym, website (of the project, related article...), what does forestry/rural/agriculture entails.
  - a. Question 13: Integration with other organizations
  - b. Question 26: Impact on skills of whom?
  - c. Question 9-10: should be multiple choice (2-3)
- 3) Consider more familiar terminology
- 4) Consider adding negative economic aspects (not only benefits)

#### *Discussion in plenary for Feedback session*

- Use sensors to analyses
- It's a proof of concept, not commercial prototype? Result of research activity might available later commercial. TRACE
- Website or link to news article could we add more if we want?
- Need new logins for each survey you complete
- Country
- Mainly forestry so don't complicate
- Each tree has a small solar panel mother tree collects data it has a large soar capability and collect large quantity of data
- Qu 9 should allow multiple answers not one response, should be open it's the interpretation that's important

- What is legacy equipment hardware? this requires an example or rephrase
- Other monitoring a chance to include several maybe not more than 3 for example?
- Qu 11 need more explanation
- Autonomous difficult to decide
- Fiware finding most people not heard about it
- Economic benefits less costs for visiting engineer, advance information
- Reword question 13
- From 15 more details
- Could we have sections section A general and B and C gradually more details, RRI: do not collect data that does not have a purpose, Ask Manlio what is the purpose of the data? do we need data? For what?

### Conclusion

It is important to determine the taxonomy correctly at the start of the project. Please remember it is stated in the GA 2 person months have been allocated to **ALL** partners to complete this task. Important to appraise the DGC we require this data, do not rely on others to provide the information. We need to improve our abilities. Processing the data will be further assessed before drawing conclusions.

## Day 2

Welcome from Gianluca and request for everyone's agreement to record the session and to use photos for twitter posts. Logistics for group photos and the dinner arrangements this evening. Invite presenters to take their positions.

### WP1 Conceptual framework

Introduction by Joost, presentation from Kelly

<https://data.d4science.net/ZDUV>



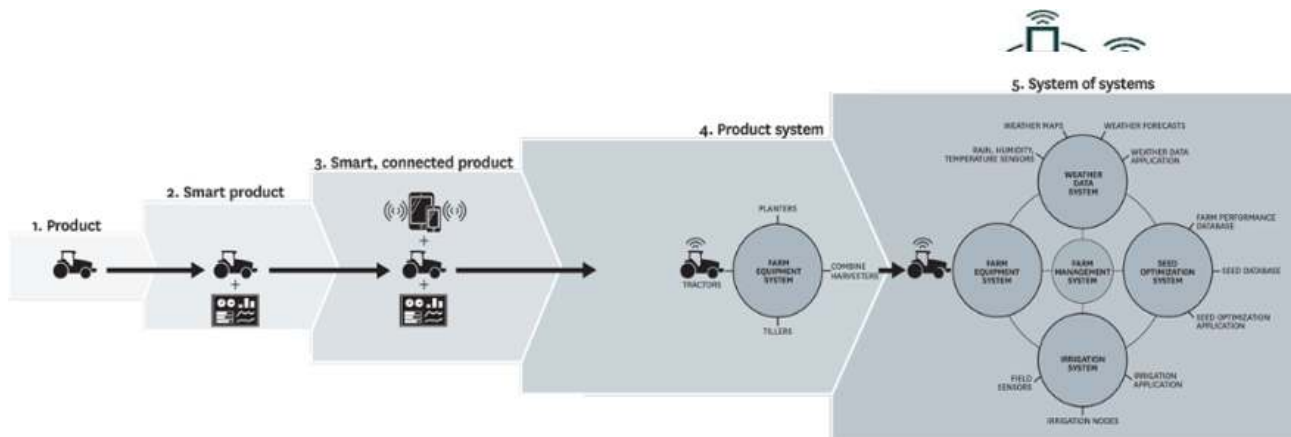
*Conceptual and analytical framework (CAF) WP. Digital of Agriculture, forestry and rural areas*

CAF link concepts and how to make use of them, it comes from theory. A draft will be developed built on 7 concepts at the onset of the project, work from WPs will gather information to develop into a final framework.

### Digital transformation

The 2 words **Digitisation** and **Digitalisation** are being used ad hoc when choosing which one to write we should be clear what we mean. First let's drop the 'z' in both words that's an American spelling that we don't need to over complicate the situation. **Digitisation** refers to the technology and the action of moving technology from analogue to digital (pen to email). **Digitalisation** encompasses socio-technical processes, all parts of the process. The word and associated actions describe a step further than just digitisation, how

its connected and organized (sensors linked together and information utilised). It is often referred to as the fourth (4<sup>th</sup>) industrial revolution, analogue to digitisation to digitalisation, this is not a straightforward process, but a more complex one. The 20 LL that we will work with in DESIRA will be somewhere along the spectrum, so either or both words may be appropriate.



**Digital game changer** can be a difficult concept. There are many different emerging digital technologies, trying to decide which may be a digital game changer may be a challenge. Gartner is a forecasting organization that describes digital technology and how long before they may become taken up, it's interesting to consider and may guide us but is not the definitive answer, gathering the inventory on the digital technologies available by completing the survey for taxonomy will help guide us further (see Manilo's presentation).

Combine knowledge and processes to redefine routine. How to decide when it's a game changer? when we can identify socio-economic impact. These are impacts to consider:

- **Impact 1:** Digital divide skills to adopt digital technologies.
- **Impact 2:** Design solutions favour one group more than another, unequal distribution of power.
- **Impact 3:** system complexity, digital traps, information overload, blurring of roles, job loss.
  
- **Sustainable Development goals (SDG):** there are 17, many are linked (check ppt).
- **Socio-cyber-physical system:** people; data; things
- **Responsible Research and Innovation (RRI):** think about positive and negative impacts.
  - Diversity and inclusion
  - Anticipation and reflection
  - Openness and transparency: but bear in mind ethical actions have consequences and these need to be taken into consideration
  - Responsiveness and adaptive change

**AKIS** – network of organizations, enterprises and individuals focus on bringing new products, new processes and forms of organizations into economic use, together with the institutions and policies that affect their behavior and performance (see ppt for diagram).

### Questions

- Conceptual framework does this now make more sense? yes
- What direction to go in? consider RRI as a guide
- Should solutionism be discussed?
- Socio-economic cost benefit with other considerations, social impact to be considered?
- How do digital game changers link to SDG? Indicators will be developed by WP2 more methodological
- 3 pathways to reach impacts, to be looked at, there may be more impacts that we will identify
- **Action ALL:** please contact Kelly with examples of forestry digital game changers. Literature about the use of digital technologies in the forestry sector. Not just which technologies people use in a technical sense but also if there has been anything written about socio-economic impacts of digital technology use in forestry areas. Or if people have some example projects that we can investigate.
- **Action ALL:** Consider what examples you may have to support the conceptual framework and share

## Living Labs methodology: systems, participatory appraisal, data collection, indicators (Fabio, Christine R.)

### Assessing past and present Impact Fabio

<https://data.d4science.net/NoQx>

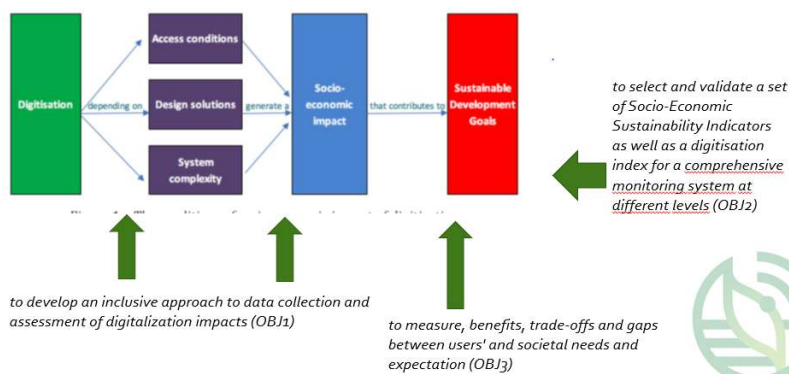
#### Background

Digitisation is a major policy goal in European rural development policies that aims to both “create strong and sustainable rural areas” (EC, 2017) and “revitalize rural areas” (ENRD, 2017).

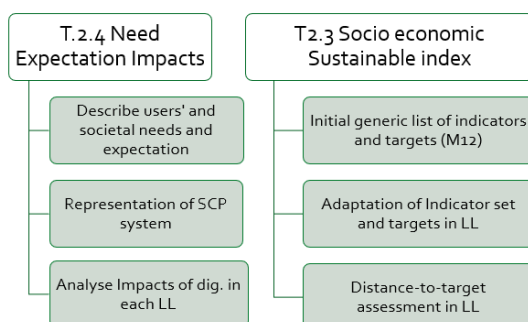
It has a huge socio-economic impact brought about by transforming productive process, creating new connectivity and new marketplaces. Digitalisation is expected to affect:

- employment and quality of life,
- functioning of markets and value chains,
- competitiveness and scalable opportunities for agricultural and rural businesses
- (re)deployment of public services

We need a clear understanding of its actual usage and relevant impacts, these are not provided. Impact assessment of digitalization needs to consider the current situation. Despite the vast literature, existing on the analyses of trade-offs in the provision of benefit and risk of digitalisation and new business models are still unsatisfying. A thorough and holistic socio-economic impact assessment is required to co-create knowledge on possible impact and shared transition pathways towards digitalisation.



**Living Labs** integrate research and innovation processes in real life communities and settings, with a focal question. **Socio-Cyber-Physical System'** is a term referring to the interconnectedness of the social world (people), the digital world (data) and the physical world (things).



Each LL will participate in the following activities

- Secondary data collection
- 5-10 interviews to keys informant
- Online survey (VRE or other - SurveyMonkey)
- Participatory workshop

For each LL the following three key questions are important:

- What are the main stakeholders that interact in the LL?
- What are the main resources mobilised in the LL?

- What are the main processes that drive changes in the LL?

#### Next steps

- WD 2.1 guidelines – month 6 (UNIFI)
- Training month 12 (KIT-ITAS) next project meeting
- First RDF workshop M14
- LL activities M12- M26

Contact for more information or to pose questions [fabio.bartolini@unipi.it](mailto:fabio.bartolini@unipi.it)

#### **Overview of Living Labs:** Livia Ortolani

<https://data.d4science.net/D5rT>

#### *Characteristics:*

- Approx. 20 members each, selected around a focal question and based on a stakeholder analysis (the focal questions can be adapted for the LL)
- Members of the Living Labs will be invited to register to the VRE by partners in charge
- Living Labs will agree a workplan to 2022

Summary: LL cover 5 tasks in 3 different work packages (2.4; 3.2; 3.5; 4.2; 5.1).



#### *3 workshops:*

- First Workshop (WP2, Summer 2020, timing can be agreed to suit local situations) – Needs, Expectations and Impact workshop
- Workshop 2 (part of WP3): Selection of critical uncertainties, reformulate the focal question in term of “what-if”
- Workshop 3: Development of four scenario narratives and digital storytelling representations of these narratives.

**Policy audits:** meetings specifically targeted to policy makers to discuss, refine and validate the results of the scenario workshops.

- Living Labs will identify the policy makers to be contacted for national/regional level Policy Auditions (WP4) at country/regional level and members will participate in the policy audition through delegates.
- Aim: to discuss the past and present problems related to digitisation in the domain defined by the chosen focal question.
- Output: will feed into a NEI report and will constitute the baseline for Digitisation Development.

**Workplan:** Each of the 20 LLs will have to agree on a workplan that will contain:

- The focal question on which the living lab will work
- The involved stakeholders
- The planning of the interviews to be carried out

- The planning of the 3 workshops to be held along the project (where, who, when)
- The planning of the policy auditions (where, who, when)
- The planning of online activities
- The chosen representative to the Rural Digitisation Forum
- The expected communication outputs such as videos, blog posts, podcasts

**Action ALL** partners: Develop Workplan by Dec **AEIDL** will develop template

**USE Cases:** 5 Living Labs will be selected by the Rural Digitization Forum to develop Use Cases on the solutions that have emerged during the scenario exercises (WP3). Use Cases will propose one or more ICT pathways to achieve the objectives set out by the Living Labs, thus embodying the RRI methodology to increase social acceptability and reduce the possibility of unintended consequences. 2 Use case workshops for each selected Living Lab

See presentation for timetables for tasks and deliverables

**VRE:** we hope LL participants will engage and communicate using the VRE in native languages (how to share across LL will be discussed). For more details and screen shots please see LL presentation.

**Pilot: Toscana Nord example:** Amigo, see separate presentation on the VRE

<https://data.d4science.net/57zT>



**Living Labs Working groups** summary of all LL

### *Athena*

**Summary:** Greek, agriculture, role in supply chain, inter-regional platform on smart farming. How to support rural economy blockchain, seamless connectivity, IOT sensor network, security and traceability of products. **Work plan:** stakeholders identified, drafting agreement, approach farmers, timing related to cultivation, re-imburement an issue to be discussed and resolved.

### *Almere Oosterwold - WUR*

**Summary:** New urban area, lines between rural and urban are blurred, DIY agriculturists, on 50% of their property they must produce food, WUR has been connected to the urban residents for 15 years. Events have already been organized on urban agriculture and are well attended. It is primary agriculture that will be developed, knowledge is very important there is a gap this has been identified and a digital solution is being sought, digital platform. Production is not the only problem but also how to supply (they need to produce food for Almere) but from many small producers. How can digital systems contribute to knowledge exchange? both materials and skills, how can digital networks help with distribution? Game changers have not been identified, possible DIY exchange of seed? notified by social media connection? digital support. No political support.

**Work plan** developed. Issues identified: cooperation between individuals; timeframe; competition.

### *Digital villages Fraunhofer Germany*

**Summary:** Communicate digital services and products, voluntary work and communication. Identify residents needs and requirements, once some solutions have been identified involve some local influencers. Bestelbar and lieferbar some apps already used. 700+ registered, 800+ items purchased, 200+ distributions deliveries.



Focal Qu: how to increase communication possibilities across application domains in rural villages. Already addressed connectivity, support systems digital tools help give advice and support to make the final decisions. Problems lack of connectivity, poor ICT skills. Game changers '**village in my pocket**' news opportunities main point of access.

Work plan developed: stakeholders identified, solutions being digitalized, digital villages platform, use VRE to communicate?

*Location of spatial conflicts in rural regional areas* University of Lodz –

*Summary:* Spatial conflict in rural areas, in 2 rural zones. Spatial conflicts, spatial planning, GIS technology for planning, ministry and private companies, H2020 projects: RELOCAL; REPAIR; PROFECY; NIMBY.

*Focal question:* how to enhance participation in rural planning, improve community's involvement in spatial planning. *Game changers:* GIS technology, internet, social media, increase access to spatial information.

*Work plan developed:* stakeholders identified, parliament elections, VRE use?

*Agrofood* - Frederic Wallet

*Summary:* France cluster of organisations. Several diverse regions, diverse, agriculture or agri-food, Agrocercle network and France IT to specifically look at ICT. 10 regions/clusters identified, diverse but all food products, contact and map, digital problems identified. Select 2 regions and go into depth.

*Timber regulation-firewood traceability in Italy* PEFC Italy

*Summary:* small enterprises, wood harvesting below EU average, main issue to increase the amount harvested, create short local supply chains, to promote the use of Italian wood, legally harvested with CoC certification. How to use digital tools to trace wood in the whole supply chain. Stakeholder identified.

*Game changers:* barcode, block chain, DNA fingerprinting, traceability platform, smart phone app

*Smart Crofting* – James Hutton

*Summary:* Rural area remote, access often difficult marginal agriculture, connectivity poor, training opportunities limited. Stakeholders contacted

*Potential Game changers:* Virtual Farm as a training platform, sensors, drones, food traceability, niche marketing

*Living Lab Hungary* – University of Debrecen, Peter Horvath

*Summary:* the Great Northern Plains region is economically disadvantaged as well as being remote. The main issue is the lack of IT skills to use the IT technology available. *Focal Qu:* to help SME adapt their business models activities and processes to make use of opportunities offered by digital technology. Game changers incubator programme to provide training. Establishing a learning community make require policy changes.

*Support tools for EU timber regulation* – Sistema

*Summary:* Mountainous remote area, intense timber production. Main issue, to introduce digitisation, digital solutions into the framework of the EUTR, in order to improve its transparency and hence effectivity and efficiency. *Focal Qu:* How can digitisation support and enforce the adoption of the EU Timber Regulation (which tools, practices, barriers) and how easy and effective is a wide adoption of new solutions? Geotag, blockchain, 5G, geo-platforms. Use of technology could help reduce illegal trading of timber. May require change in Regional policy to enforce

*The impact of individual farm-based pollution monitoring for policy, retail and society* – ILVO

*Summary:* classified as rural but densely populated, pig production. Environmental problems; and economic and societal pressure on intensive pig/dairy production. *Focal Qu:* to be defined, but around monitoring of production parameters producing certification of businesses. Sensors possibly linked to a drone. Stakeholder broadly identified but not contacted

*Living Lab Robotics in Swiss organic farming* – FiBL

*Summary:* small farm, many organic producing, weed control is difficult, manual labour is costly, satellite-controlled hoes expensive. *Focal Qu:* how to efficiently control weeds in organic farming. Develop digital

integrated solutions. Policy issues to aid introduction, impact on policy for herbicide reduction. Some stakeholders identified, refining focal Question

### *Biovalley* – Finland, Jouni Kaipainen

**Summary:** small region in Finland export orientated, focus battery and chemical production and on dairy farming. Focal Qu: Closing the (organic and inorganic) loops in Central Ostrobothnia. Environmental actions, re-use recycle. How to implement the circular economy is deficient in information. Digital game changers, sharing information, using sensors to monitor. Policy issue to be addressed to allow waste to be moved and reused?

### **Feedback from working groups** transcribed notes

#### *DRONE Group*

#### *Scottish crofters* - Hut

Summary:

- Relation with key actor (gate keeper) has changed, (Difficulties getting them on board)
- Funding aspect with LL active people (no support from the project)
- Geographical remoteness and lack of connectivity (which hinders leveraging on existing initiatives/possibilities).
- Reformulate the focal question for it to be interesting to LL members

#### *Robotics in swiss organic farming* (weed control) - FiBL

Summary:

- Appropriately considering the potential
- Effects of the technology we are introducing
- (Use of hot water to remove weeds) – Unintended impact on resource use.
- How to address “suspicion” on technology by farmers
- (Knowledge intensive vs Technology intensive)

Solutions

- Typical of organic to be supported by digital
- Different sets of values for different stakeholders

#### *Make timber regulation more effective and efficient*

**Summary:** Very slow reactions from stakeholders

#### **INTERACTION WITH PRIVATE SECTOR.** Involvement.

- (only public authorities for the moment)
- High technology excludes “small” suppliers (Consider the impact)

#### *Forest fires Andalucía* (lack of forest management)

- Mistrust in technology (or non-familiarity resistance to change)
- Integration of existing technology
- Seasonality: How to organize activities?
- Test a pilot – Upscale – How to?
- Flexibility at project level needed to adapt to LL specifications

#### *Firewood traceability* Italy

- Make firewood traceability appealing for private companies.
- Funding of stakeholders (How to involve them?)
- Privacy and commercial issues
- Vs (Traceability and transparency)
- ICT and forestry experts – Difficult match

- Legality – visibility – money

### *WEB Group*

#### *Summary of points discussed*

- How to motivate stakeholders
- To engage them in the LL, and continue the engagement
- Incentives? What it in for you? – Ask them.
- Can we offer this in DESIRA?
- What can we offer?
- E.g. Cluster of LL automatically and exchange.
- Clarify mutual expectations
- Focal Question: From too vague to too specific
- In-between needed
- Shouldn't include without a solution yet
- But the Q should link with “the digital” Document to develop issues raised.

### *WiFi Group*

- Governance
- Maintain stakeholders
- No money, but can offer rural development plan, active network, expertise can help knowledge exchange
- Local community, policy recommendations.
- Collect info on negative experiences
- Identified problems and appropriate tools to overcome

#### **Alessio Ferrai** Feedback on DESIRA: system analysis and researcher at CNR

He has been following, define the system, context, problem ‘pain point’ negotiate solutions

- Diagrams
- Different levels of development
- Positive and negative impacts
- LL is the game
- Game changers is the solution

**Action partners with LL:** Find draft work plan on the VRE, complete and submit by the end of 2019

### **Social Media training** (Prody Mwemena, AEIDL)

<https://data.d4science.net/A832>

Summary what is social media?



- Hashtag (#)
  - To see what has been posted about a subject
  - To track and search
  - NOTE: emojis, punctuation & symbols don't work in hashtags
- Handle (@)
  - Name or nickname
  - Use handle in a post when you want to address someone
  - Use handle to tag an account to call for their attention
- Have a purpose behind a post, to inform of an event, project information, engage people. Maximum attention use # about event article add a visual, align to subject
- When should you post? morning 7-10 commuting, lunchtime 11-14:00 or evening, schedule posts, live posting 'live the moment'. Share 'behind the scenes' engage
- Present information in a creative way;
- Good posts have info + image/video + URL;
- Be consistent;
- Use tools to automate your posts;
- Use link shorteners like bit.ly or ow.ly;
- Adapt content to each social media platform
- Draft a tweet
- Social media tools: tweetdeck; hootsuite; sproutsocial; falcon
  - Dissemination products
  - Communication products
  - Engage with followers
  - Include a call to action
  - Grow your networks
- Follow DESIRA social media channels;
- Twitter: @DESIRA\_H2020
- Facebook: @DESIRA.H2020
  - Use DESIRA hashtags and tag DESIRA channels when talking about project related subjects;
  - You will receive social media guidelines soon;
  - Please share your social media accounts with us;
- Engage!

## Thematic Groups and their role in DESIRA

Participants in the kick off meeting gathered in 4 different groups (one per thematic RDF Working Group - WG) to exchange interesting ideas that would engage Working Group participants and key stakeholders that will be invited to join the working group. The following document summarizes the outcome of the discussions.

### *WG1: Agriculture*

Participants outlined the work carried out under this WG should be relevant and attractive to encourage key stakeholders to join and actively contribute on a voluntary basis. In addition, they suggested the following objectives for the WG:

- Provide a space for a meta-reflection on key RDF outcomes;
- Discuss specific and relevant topics and co-create findings;
- Provide input to adapt processes within DESIRA, based on RDF-discussions;
- Agenda setting for research and policy;

In addition, participants outlined potential topics of interests:

- **Data property and data management** – There are ethical and political issues surrounding this subject, e.g. limited number of companies can create big data (owners of satellites);
- **Impact of digitalisation on labour?** Shift in labour market? Reskilling labour market? E.g. more 'technical people' might be needed; less labour (replaced by robots etc.). How to prepare for this? Consequence for e.g. agriculture education?;
- **How to counter the hegemonic position of research institutes and companies, sharing exclusively positive news about digitalisation?** 'Survival bias' as well: only success-stories are covered, failures are less omitted
- **Supply vs. demand driven process.** The taxonomy of Digital Game Changers that will be developed in DESIRA is 'supply driven'. How to balance with a demand driven process? What are contemporary challenges, and how can these be addressed?;
- **Data sharing/ownership.** Farmers are reluctant to share data. How to cope with this?;
- **Different cultural backgrounds and ICT-levels** in different countries. How to cope with this?
- The **concept 'agriculture' is blurring** does it include individual persons producing food? And 'new farmers' (urban agriculture, hobby farmers, ...);
- How to include all actors in the value chain (producers, retailers, processors, consumers, ...)?
- How does the AIS? change due to digitalization?
- Public-private ambiguity / commons vs private goods. E.g. irrigation: used to be public institutions, vs now more and more processes of privatization;
- Risk assessment and rebound effects: have to be considered systematically.
- Issue of costs and the digital divides: who can afford the purchase and maintenance of technology?; the cost of training, of consultancy, ...? The relation between reducing/increasing costs and economies of scale?.
- Digitalisation also implies new markets. How can local people benefit from these new markets?

The group also proposed interesting stakeholders to engage in the WG such as practitioners, researchers, policy-makers, companies, farmers representatives, living labs representatives, existing projects and networks etc selected and invited mainly from the RDF (e.g. 20 people for the RDF). The WG could meet three times during the project (can be the same people, can be different composition) the aim is to encourage different discursive positions.

### *WG2: Forestry*

Participants in this session identified the main challenges faced by forestry and provided some suggestions for action which could be undertaken by the WG.

Participants agreed very quickly on the fact that forestry suffers from a lack of public awareness, and a lack of recognition of its socio-economic potential and capital. Forests are clearly undervalued, lack visibility, and to a certain extent credibility. They find it hard to attract investment (the technology that's developed for forests isn't on a par with that developed in agriculture), both for the exploitation of its timber (that has become dependent on worldwide trends and competition), and for nurturing the other aspects of the eco-system (e.g. CO<sub>2</sub> storage).

Forests can and have been reified and looked upon from the limitative angle of its market value, as an economic product, a commodity, when in fact it is much more than that. Thus, it's in the benefit of all that the issue of forests is approached from a holistic perspective, and their value - or the many facets of their value - reinvented and communicated to various audiences.

Because the audiences are multiple and varied, they do not need to be approached with the same message and for the same reasons, with the same aim in mind.

While the value as an eco-system needs to be better explained to civil society - and that should start as early as in schools - the need to protect, develop and invest in them need to be brought to policy makers, investors, and other stakeholders.

One key area of action identified for the Working group is to attract influencers (e.g. public figure) and amplifiers (e.g. journalists and the media) to be 'educated' and positively driven to carry and deliver our messages. The identification of influencers and amplifiers could be given as part of the mission of the Living Labs and potentially of the Working Group. This could imply the implementation of activities by the WG such as listing the added value of forests (desk research), working together with stakeholders to develop tools to feed influencers and amplifiers, developing ways to reward achievements, and innovative approaches to preserving forests and their eco-systems, and exploiting them in a sustainable fashion.

Participants also suggested a key objective which could be further explored through discussions and exchanges through the working group: How could technological developments take part in this process of giving back value to forests?.

### *WG3: Rural Life*

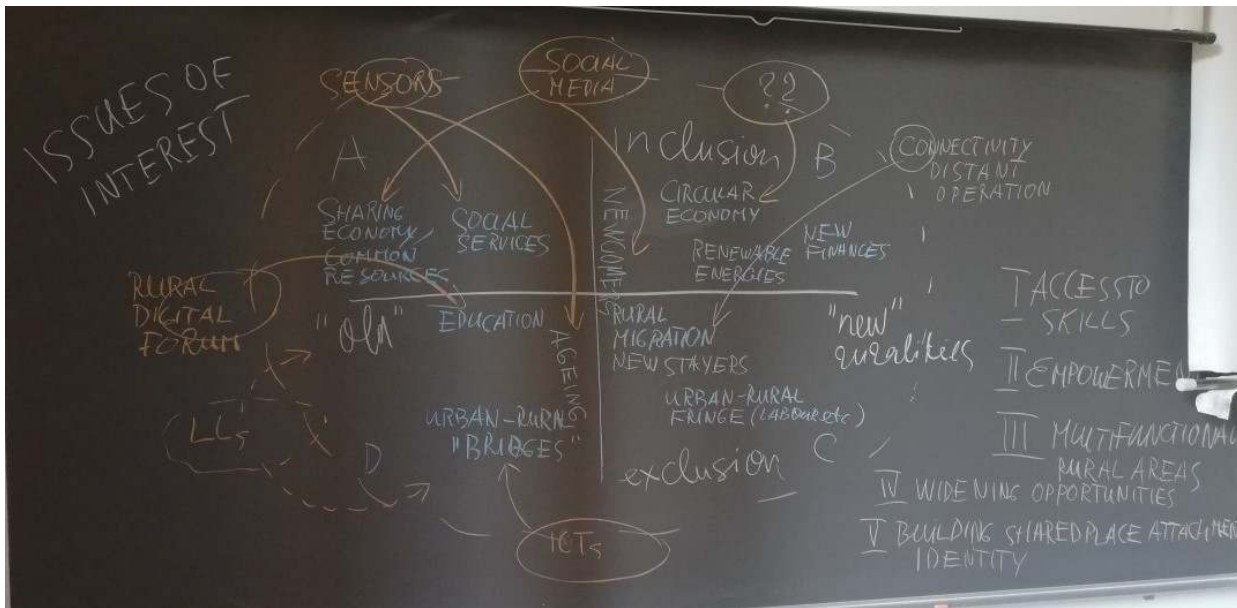
Participants reflected about issues / topics in relation to digitalisation and rural life. The identified potential issues and topics are:

- Impact of digitalisation over migration in rural areas;
- Future vs Perspectives (aging);
- Stayers, elderly people and newcomers;
- New tools (Social Media) for new comers to rural areas;
- Social services in rural areas;
- Transferring digital solution that work in rural areas;
- Renewable energy;
- Ownership of resources;
- New opportunities that digitalisation bring to rural people;
- Sharing economy in rural areas;
- Circular economy;
- Close the urban-rural gap;

Further the group discussed how these issues / topics of rural life could be classified along two axes: one being 'old' and 'new' ruralities, and the second being exclusion and inclusion. Crossing the two axes creates

four quadrants (old included, old excluded, new included and new excluded) that can be used to classify issues and topics the DESIRA project could address overall, and the RDF WG in particular (Figure 1).

**FIGURE 1: CLUSTERING ISSUES RELATED TO RURAL LIFE IDENTIFIED BY PARTICIPANTS OF THE WORKING GROUP.**



Each participant was asked to identify and locate the issues they are interested in and feel the Rural Life Working Group should address. Each issue was also commented from the point of view what kind of digital solutions and tools might help to address it (the outer orange circle in Picture 2). These are the themes participants thought DESIRA could look at:

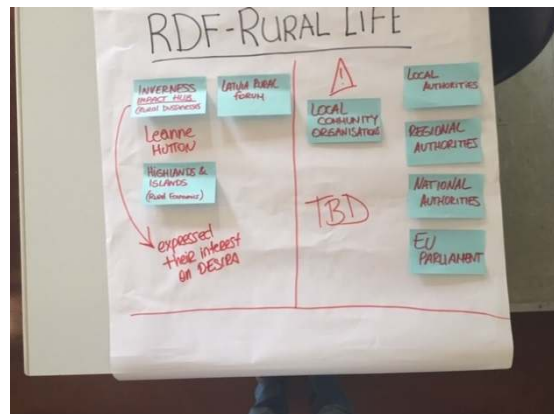
- **Migration and staying in rural areas** (and how migration is connected to ICT). In some territories (for example, islands) access to ICT might be restricted, and this heavily affects the possibilities these territories can offer.
- New financial influx and 'old' inhabitants. How to **normalise relations** between newcomers and the traditional population of a particular territory. The newcomers have chosen to move to the countryside, yet they are not financially dependent on the territory they have moved to. Meanwhile, livelihoods of the other group - the "old" inhabitants depend on their ability to benefit from the land. The needs and the expectations of the two groups are often at odds.
- **Improved social services.** It is often challenging to maintain high-quality social services for the same price as in urban settings.
- Aging is more pronounced in rural areas. The question for us should be: **how we are planning the ageing of the future?** DESIRA could be at least partly addressing this issue. Some of the solutions related to the problem of ageing could be related to the use of sensors. Ageing also strongly links with the availability and cost of social services.
- Circular economy is a buzzword in many countries. The concept is heavily connected to the countryside. DESIRA could look at the **circular economy as a part of the rural life** – how via ICT it links to and affects rural population?.
- **Links between rural and urban territories.** On the one hand, this is a question of how we can link the two so that both urban and rural areas could benefit from the strengths of the other. On the other hand, it is a pragmatic question of how the two could benefit from the urban-rural fringe. The fringe is a territory that allows physical and institutional access to the city, and the countryside and thus it is a perfect place for new initiatives to emerge.
- Territorial planning.

Some broader (horizontal) themes and suggestions emerged for the Rural Life WG to potentially address. These broader issues were also noted as desired contributions of digitalisation on livelihoods:

- help the rural population to access digital skills;
- empower rural communities;
- improve the multifunctionality of rural areas by means of digital technologies and services;
- widen opportunities;
- build a shared place attachment and identity.

The group also discussed the relationship between Rural Life Working Group (which will be more like a community of practice consisting of interested consortium members) and selected RDF members (which is intended as an open forum of stakeholders interested in rural digitalisation issues). Some stakeholder groups were particularly mentioned, and which could be invited to engage in the work:

- Inverness impact hub (mentioned by Leanne),
- Rural development forum from Latvia (mentioned by Talis),
- Highlands and islands enterprise (mentioned Leanne);
- Somebody from governing institutions (EU scale, national scale, regional scale);
- NGOs representing the rural population;
- Rural entrepreneurs.



by

#### WG4: Policy

The participants discussed the main purpose of the RDF Working Group on Policy. There was an overall agreement that the WG could be used as an expert group that can provide relevant feedback to the work conducted by DESIRA particularly in Month 18 on Policy roadmaps and audits.

Participants in the discussions felt that there is a lot of material developed in relation to policies and digitalisation (e.g. ENRD thematic Group on Smart Villages). The group should identify and exchange about all this material and how the project can add value to what already exists. Hence, the WG could be set up with the aim to:

- **Share information**, documents, research about policies implemented on digitalization (in the EU and outside the EU)
- Provide a space to **link up** private / NGO sector with policy makers;
- Identify, map and exchange about constraints identified in the Living Labs;
- Explore in detail about policy issues and communicate about them with the wider community. Particular attention is given to the way the future **Common Agricultural Policy will tackle digitalisation of rural areas**.

Participants outline that the group should be diverse and compose of stakeholders that are experienced and engaged in policy development. A particular mention was given to engaging with the private sector in order to identify their main policy constraints and explore how the project could support or investigate solutions.

Participants outlined as well specific outputs which the group could develop such as:

- Drafting policy and or scientific articles that could be further communicated through partners such as ARC2020;



- Implement dedicated webinars with policy makers and stakeholders on relevant policy matters related to digitalisation. These webinars could be linked up with the other RDF WG. The aim is to enhance the capacities of the WG and its members, so that contributing better to the development of DESIRA's outputs.

### **DESIRA Advisory board: feedback**

**Prof. Marco Vieri**, Department of Agricultural, food, environmental and forestry sciences, University of Florence - Agronomist

#### General impression on the Project

DESIRA promotes very important concepts, such as the systemic approach and Responsible Research and Innovation. The Project SPARKLE, which I coordinate, is an Erasmus + proposing an innovative approach to training on precision farming. Now we are preparing the training material and we have the same approach as DESIRA on the issue.

Innovation is not neutral, it always has social implication. Innovation in a system is not neutral. Not focus only on the tools but also on the system.

#### Points of attention

- 1) Take into account local systems and their specific needs: you have a great responsibility, because you want to introduce an innovation in a territory.
- 2) Define the eco system around LLs and include the educational system in it
- 3) Try to develop competences and skills in the territories
- 4) Take into account the scenario. Distinguish between field and closed activities/indoor and outdoor (e.g. green house farming) as they are very different. Identify in each LL which are the problems and how to maintain the results after the end of the project.

#### Suggestions

- 1) Particular attention to the educational system

**Dott. Fabio Boscaleri**, Regional Government of Tuscany, officer at the liaison office in Brussels

#### General impression on the Project

Congratulations, no specific comments on the project itself

#### Points of attention

- 1) Elaborate on this living lab concept. Be specific on the position of this LL, in order to clarify the difference with other tools and networks already existing at EU level (e.g. Operational Groups, clusters etc.)
- 2) Boundaries of the Living Labs: how they can be connected externally.

#### Suggestions for the impacts

- 1) Connecting with existing projects. Some more relevant than others, for example there is an initiative on a digital innovation hub, you should connect with this. Not only the EU level is important, but also the local level: a friendly local setting is important for implementing policies.
- 2) Build a very broad partnership. In the Netherland the province of South Holland is very active, they are very well connected and also have Living Labs already. Also Belgium has a positive eco system.
- 3) Even if you already set the Living Labs, try to connect with other existing experiences: I know that there is a business case in Flanders (livestock) that can be very helpful.

### Other comments

- 1) Tuscany Region is involved in several EU initiative. One is ERIAFF, with the activity on the S3 platform on smart specialisation. Actors can be involved. Tuscany is the lead region for precision farming.
- 2) For the forest part, there is another important connection is Rosewood Project, closed to the end. There are hundreds of best practices.

**Dott. Remi Sournia**, PEFC International

### General comments

Desira is proposing new visions and new ideas. Happy to be here.

### Points of attentions

- 1) forestry is a little bit forgotten in the whole project;
- 2) the flow of the project wasn't understood in the same way by all partners, it is necessary to improve the project understanding;
- 3) clarify better that you are not going to develop technology;
- 4) VRE is a very interesting news.

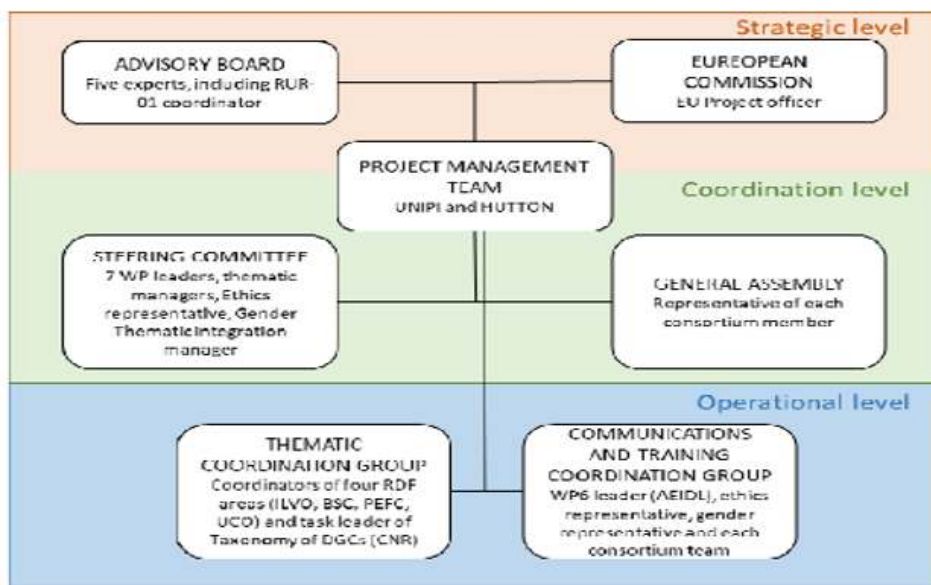
## Day 3

### **Coordination** Elena

<https://data.d4science.net/2qV2><https://data.d4science.net/WES7>

*Summary:* Specific WP to ensure the efficient achievement of the project, we can adapt in the case of changing circumstances. Administrative and finance components, also to ensure compliance with Data management plan and ethics.

- Task 7.1 Financial coordination and administration (M1-48)
- Task 7.2 Scientific coordination (M1-48)
- Task 7.3 Ethics, data management and risk assessment (M1-48)



- D7.1 Minutes kick off is a deliverable M5
- D7.2 Data management plan M6

- D7.3 Ethical guidelines M6
- 8.1 H - Requirement No. 1 (M1)
- 8.2 POPD - Requirement No. 2 (M12)

### Reporting

There are 2 levels of reporting. **Continuous reporting:** uploaded documents to the ECAS portal for deadline deliverables, milestones and publications. These should be updated regularly. **Periodic reporting:** 3 reporting periods m18 m36 m48 where reports include the technical and financial reports. The **technical review** reports results achieved, this will be compiled by the coordinator and WP Leaders. The **financial report** will be prepared and submitted by a financial officer for each partner and signed after Coordinator has reviewed by the partner organization PLSign. The budget (direct, indirect costs wp person months will be indicated, It is important to remember all deviations from the Annex in the GA will need to be detailed and justified, these include under recording or over recording of person months, deviations on budget costs.

### Budgets

- Personnel costs
- Other direct cost
- Look at the budgets: resources for LL participants 800Euros for re-imbursments are detailed
- Equipment
- Time recording system, all have own rules, but these must be kept up to date

### Regular errors

- No time records for staff not working exclusively on the project full costs of assets charged
- SME owners claiming costs as any member of staff
- Impossible number of hours claimed
- Internal charging system with no relation to real costs
- No demonstrated link of consumables to the project

### Data Management Plan Gianluca (share with project officer)

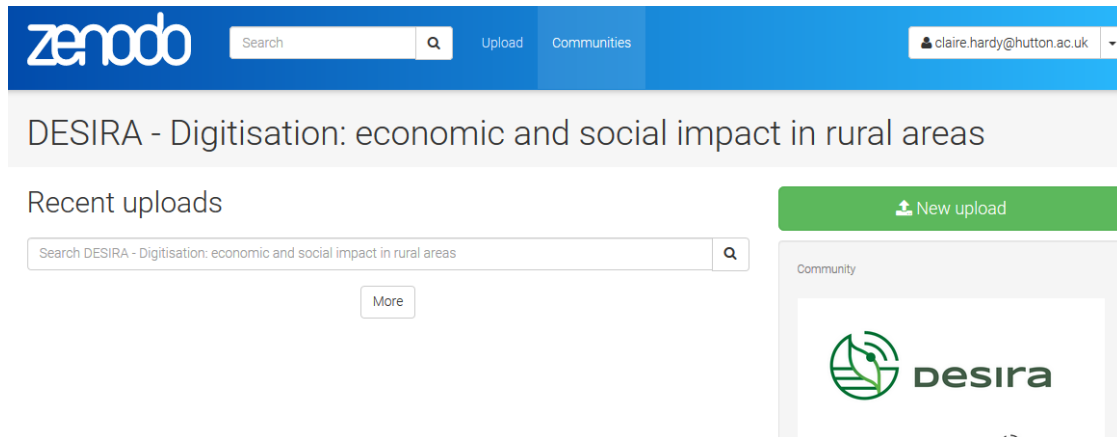
<https://data.d4science.net/WES7>

- DESIRA will develop a Data management Plan DMP detailing how research data are managed both throughout the lifecycle of DESIRA and after the end of the project. Need to plan and identify methods to collect, store and publish data. Using FAIR, findable, accessible, interoperable, reusable
- DESIRA is part of the Open research data pilot, data needs to be deposited into a repository, to ensure its findable and available to 'mine'
- How to achieve 6 objectives (see presentation summary table) WP2 interviews, the text recorded and transcribed this will require storage under specified conditions
- Data summary: types, formats, expected size, origin of data, the requirement will be guided by WP leaders (see table example in presentation)
- How to implement FAIR principles store in a repository with Digital object identifier (DOI) automatically assigned by Zenodo, requires metadata, keywords (searchable), [all project files will use a naming convention]. VRE automatically will deposit data. Database, reports, multimedia, practice abstracts. Metadata report example (table below)

Full	DESIRA - BUI - 2020-21
Research Project/Grant Title	Topic: SFB on early Socio-ecological dynamics - socio-economic and technological approaches
Project ID	BUI2020
Project website	www.sfb0801.uni-wuerzburg.de
Document type	(Deliverable, working document)
Title	
Sub-titles	
Version of final document	Draft / Final version
Internal identifier	
Responsible	

- **Action ALL:** send suggestions for additional data to be included in metadata e.g. date
- Where will data be stored on the VRE transfer to Zendo, when? Discussion to be determined

- Research deposit in Zenodo with creative commons domain



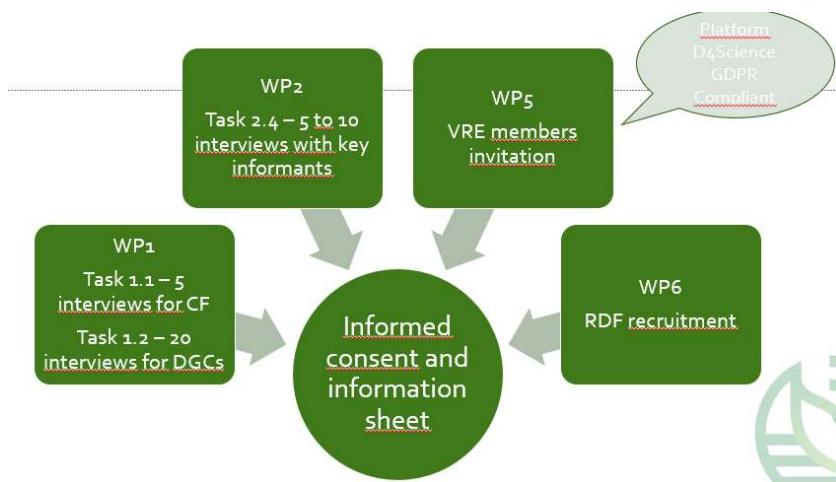
- Publications best option **Golden** free access to all but this publication costs the project (some funds for this) special issue gives good visibility
- Green open access most journals store in a pre-print form into a repository
- Website <http://sherpa.ac.uk/romeo/index.php> indicates the access policy of journals

### Qu's

- Why Zenodo?  
It's the best and recommended, look at Openaire as well

## Ethics requirements

- Work packages 8 sets requirements 2 deliverables, we include humans
- Deliverable 1 has been uploaded available on the VRE, how to select people for interview, stakeholders' general guidelines have been provided and should be consulted.
- Template of informed consent will be provided, participants to DESIRA must be offered the opportunity to withdraw consent without offering any explanation. This can be updated if other requirements need to be included for other WPs.



- Consider a strategy for interviews, focus groups, workshops
- Second deliverable m12
- **Action**: each partner organization needs to identify a Data Protection Officer

### Qu's

- DPO when do these need to be identified?
- Now
- One DMP for each partner?
- No one for the project, into which WP leaders will have input
- In the LL consent signed at each workshop?

### Deadlines

- D6.3 month 6 (end of Nov) workplans outlines are needed (already an action point).
- **Action:** To set up VRE for LL we require title of the LL Logo this can be official or fantasy logo, brief description, name of person in charge 15<sup>th</sup> Sept. Gianluca share a google doc
- PhD students working on the project create a network next meeting some activities raise issues academy

### VRE: training session (Massimiliano Assante CNR)

- D4Science platform data infrastructure 500 software components, not new 7<sup>th</sup> frame programme evolving infrastructure system, originally to support marine scientists. Now support humanities, agriculture and computer science. Connects 6500+ scientists across 46 countries (see presentation for additional detail).
- Virtual Research Environments, web-based, community-oriented, comprehensive, flexible, and secure working environments, primary aim to host and maintain data in a secure environment, to curate and manage data, to process and extract knowledge, to communicate, share and collaborate,



**Share**  
*Simulations*  
*Workflow*  
*Files*



**Communicate**  
*Posts*  
*Likes*  
*Messages*



**Organize**  
*Dynamic VRE Creation*  
*Secure*  
*Policy Control*

### VRE training session (Luca)

<https://data.d4science.net/12fm>

Any questions please contact Luca

### End of general assembly

Gianluca

Recap of decisions and workplan update

- Meetings TBD
- Check Deadlines
- Steering Group Meeting will update the To Do list
- Work plans
- Final survey test, when it is sent out complete one per organization with feedback

# Kick-off Meeting

Pisa, 4-6 September 2019

Venue – Department of Agriculture, Food, and Environment, Via del Borghetto, 80.

## Agenda

### First day, 4th September, 9.00 – 18.00

Timing 🕒	Preliminary Agenda Items
09.00 – 09.30	<b>Welcome greetings and ice-breaking</b>
09.30 – 11.00	<b>Introductory speeches</b> <ul style="list-style-type: none"> <li>▪ Gianluca Brunori – Introduction to DESIRA</li> <li>▪ Kelly Bronson – The socio-economic impact of digitization: insights from Canada</li> <li>▪ James Turner - New Zealand Bioeconomy in the Digital Age</li> </ul>
10.30 – 11.00	<i>Coffee break</i>
11.30– 12.30	<b>WP6 - Impact and DECO strategy</b> <ul style="list-style-type: none"> <li>▪ Anabel Nava Tazo (AEIDL)</li> <li>▪ Q&amp;A</li> </ul>
12.30 – 13.30	<i>Lunch break</i>
13.30 – 14.30	<b>DESIRA Work Packages:</b> Carousel poster session (WP Leaders, all) Exposition of posters illustrating the content of the different WPs with an operational purpose: Deliverable, explanation and clarification of participants' roles, Q&A.
14.30 – 15.30	<b>WP1 - Taxonomy and Inventory of Digital Game Changers</b> <ul style="list-style-type: none"> <li>▪ Manlio Bacco (CNR)</li> <li>▪ Q&amp;A</li> </ul>
15.30 – 16.00	<i>Coffee break</i>
16.00 - 17.30	<b>WP1- Digitisation projects at national level</b>

Timing 🕒	Preliminary Agenda Items
	<ul style="list-style-type: none"> <li>Manlio Bacco (CNR) &amp; Ivano Scotti (UNIFI)</li> </ul> <p>Group discussions: Four-five groups will be formed. Each national team will bring a project (or a tool) from home and discuss how to fill the survey with the group, highlighting conceptual, methodological and practical issues linked to the survey and giving inputs for the final version of the questionnaire.</p>
17.30 – 18.00	<b>Wrap up taxonomy - problems and planning</b>
18.00	<b>End of the day</b>

## Second day, 5th September, 9.00 – 18.00

Timing 🕒	Preliminary Agenda Items
9.00 – 10.00	<b>Conceptual framework</b> <ul style="list-style-type: none"> <li>Joost Dessen (EV ILVO) &amp; Laurens Klerkx (WUR)</li> </ul>
10.00 – 11.00	<b>Living Labs</b> <b>10.00 – 10.30: Living Labs methodology:</b> systems, participatory appraisal, data collection, indicators <ul style="list-style-type: none"> <li>Fabio Bartolini (UNIFI) &amp; Christine Rösch (KIT-ITAS)</li> </ul> <b>10.30 – 11.00: Overview of Living Labs</b> <ul style="list-style-type: none"> <li>Livia Ortolani (AMIGO)</li> </ul>
11.00 - 11.30	<i>Coffee break</i>
11.30 - 13.00	<b>Living Labs: Working Groups (first part)</b> Work into groups - 3 groups, 6/7 Living Labs per group (all): focal questions, stakeholders' mapping and LL work plan. Participants will present shortly their living lab on the basis of the template proposed by UNIFI
13.00 – 14.00	<i>Lunch break</i>
14.00 - 15.30	<b>Living Labs: Working Groups (second part)</b>
15.30 – 16.00	<i>Coffee break</i>
16.00 – 16.45	<b>Social Media training</b> (all, UNIFI, AEIDL) <ul style="list-style-type: none"> <li>Prody Mwemena (AEIDL)</li> <li>Practical exercise</li> </ul>

Timing 🕒	Preliminary Agenda Items
16.45 - 17.30	<b>RDF Thematic Groups and their role in DESIRA</b> In this session 4 groups, each one facilitated by thematic coordinators, will list and discuss the issues to be addressed by the group
17.30 – 18.00	<b>DESIRA Advisory board: feedback</b>
19.30	<b>Dinner</b> <b>Restaurant “La Pergoletta”, Via delle Belle Torri, 40. (at own expenses)</b>

### Third day, 6th September, 9.00 – 13.00

Timing 🕒	Preliminary Agenda Items
9.00 – 9.30	<b>Project coordination</b> Administrative issues and practicalities, time recording system, reporting, next meeting <ul style="list-style-type: none"> <li>▪ Elena Favilli &amp; Gianluca Brunori (UNIFI)</li> </ul>
9.30 – 10.30	<b>Data Management Plan and ethics requirements</b> <ul style="list-style-type: none"> <li>▪ Elena Favilli &amp; Gianluca Brunori (UNIFI)</li> </ul>
10.30 – 11.00	<i>Coffee break</i>
11.00 – 12.30	<b>VRE: training session</b> Luca Frosini (CNR)
12.30 -13.00	<b>Recap of decisions and workplan update</b>
13.00 – 14.00	<i>Lunch break</i>
14.00 – 16.00	<b>Steering Committee meeting</b> Participants: Steering Committee members: UNIFI, WP leaders, thematic groups coordinators (UCO, EV ILVO, PEFC Italy, BSC) All interested partners are welcome.