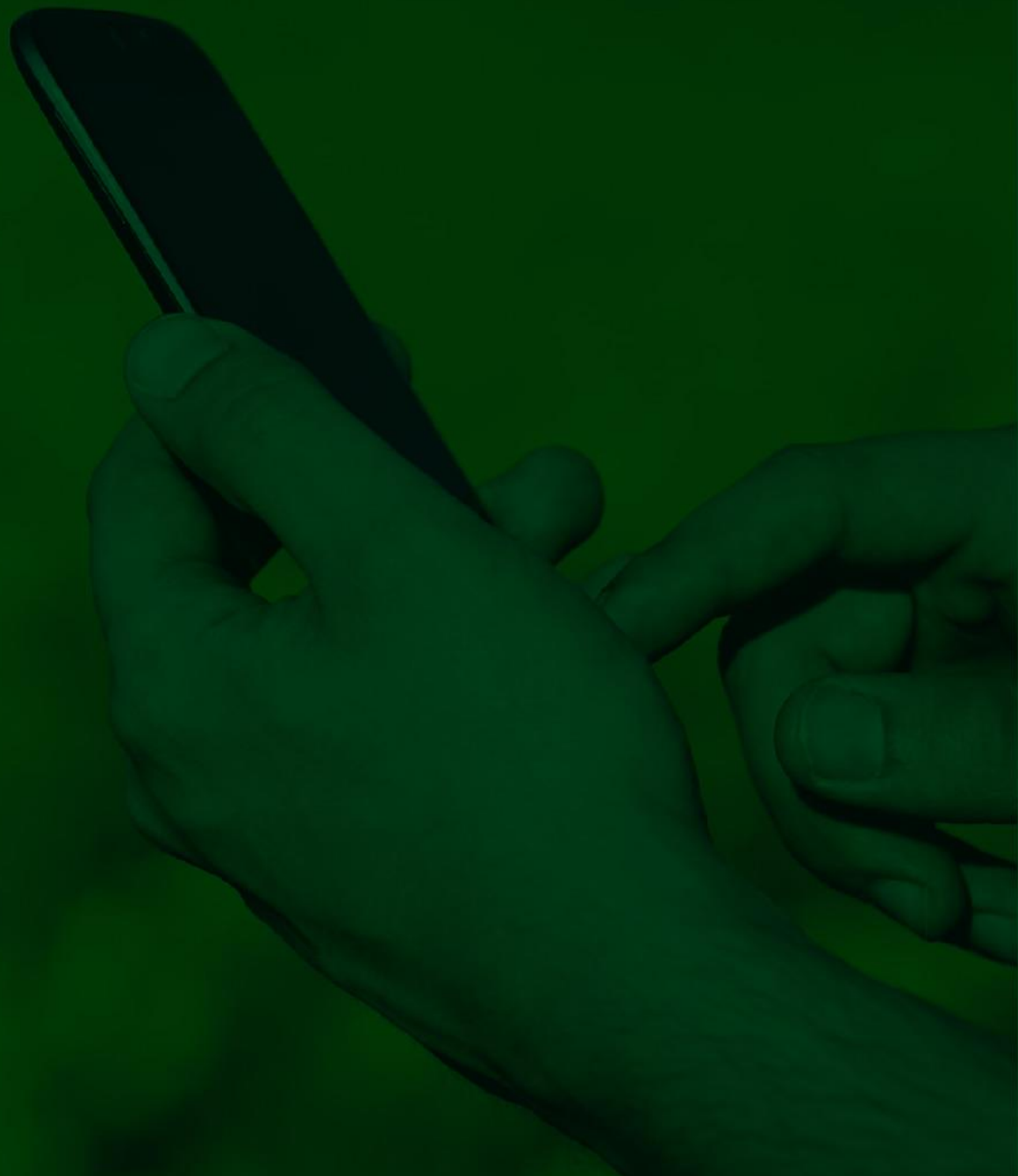




FAIRshare

DIGITAL TOOLS FOR FARM ADVISORS



D2.2: Practical Method and Recording Template for Collecting Good Practices

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Technical References

Project Acronym	FAIRshare
Project Title	Farm Advisory digital Innovation tools Realised and Shared
Project No.	H2020 818488
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Deliverable No.	D2.2
Deliverable Name	Practical Method and Recording Template for Collecting Good Practices
Dissemination level*	Public
Work Package	WP2 – ‘Good Practice’ DATS development and use
Task	Task 2.2 – Co-design of a method & template to collect Good Practices
Lead beneficiary	Idele
Contributing beneficiaries	AUA, HAFL, Karlheinz Knickel, TEAGASC
Deliverable type	Other
Due date of deliverable	31 July 2020
Actual submission date	31 July 2020

v	Date	Beneficiary	Authors
1.0	31 July 2020	Idele	Patrick Sarzeaud (Idele)

Abbreviations

DATS – Digital Advisory Tools and Services

GP – Good Practice

MA – Multi Actor

PNF – Permanent Networking Facility

WP – Work Package

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1. Introduction

Work Package 2 (WP2) aims to establish a review of ‘Good Practices’ involved in successful Digital Advisory Tools and Services (DATS) to enabling the farm advisory community to identify success factors in their development and use. Emphasis is placed upon on Good Practices impact in improving advisor effectiveness by increasing digitalisation of the agricultural sector.

The objectives of T2.2 of the WP are to co-design a template for the identification, collection, recording and animation & of approximately 200 ‘Good Practices’, which are identified in a multi-actor approach as having potential across different socio-cultural and farm system contexts.

This template will prepare the collection and recording of rich Good Practice vignettes (T2.3; D2.3). Thereafter, T2.4 (D2.4) will identify relevant Good Practice trends, bottlenecks, barriers and opportunities for application.

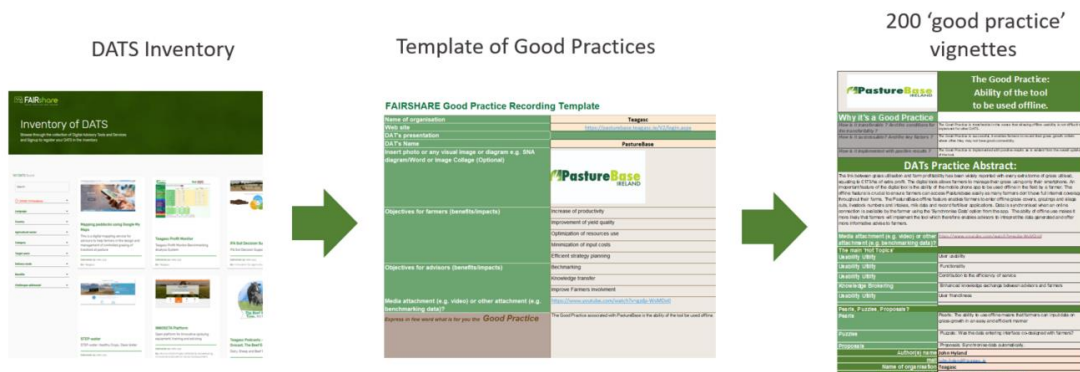


Figure 1 A conceptualisation of the relationship between the DATS inventory (WP1), the template to collect Good Practice (D2.2), and the collection of 200 Good Practice vignettes (D2.3)

2. Methodology

Following T2.1 (Framework for the Identification of Good Practices), D2.2 provides a template for the collection of Good Practices.

The contents of this deliverable are designed to be consistent with the following recommendations:

- Co-design a practical and easy to use guide for the identification of Good Practices, a methodology for the collection of Good Practices; and a template for the recording of information on the good practices.
- Follow the structure/search criteria of the inventory of WP1 but will focus mainly on “Good Practices” including useful practices and approaches in terms of delivery mechanisms and success factors.
- Provide learnings for the advisory community specifically in the form of data such like Pearls, Puzzles and Proposals.

The process chosen to establish the recording template was to organize a Multi-Actor (MA) exchange on a proposal respecting the methodological basis expressed in D2.1. A workshop gathering WP leaders and Tasks actors produced a template draft to be tested and discussed with others FAIRshare partners (Figure 2). The implementation of multi-actor approach principles assured the usability of the template and its relevance to describe the “Good Practices” able to responding to all challenges, needs and contexts.

Please refer to the [Appendix](#) for more detail of the workshop.

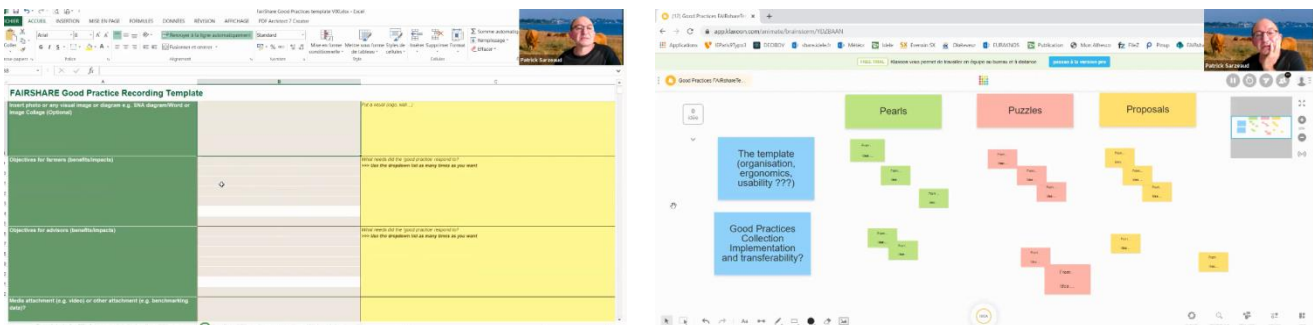


Figure 2 Screenshots of the online workshop hosted by Patrick Sarzeaud (Idele)

3. Good Practices: Definition and Application

3.1. Good Practice Definition

This section aims to provide a very brief synopsis of D2.1: Framework for the Identification of Good Practices. Understanding what constitutes Good Practice is important for partners to comprehend before collection.

A Good Practice should highlight the recognisable added value of a feature of a DATS for both advisors and farmers. Therefore, a Good Practice can be conceptualised as a key factor of any tools or service.

FAIRshare and Good Practices

A Good Practice in regards to FAIRshare refers to the critical success factors of a particular DATS in its development or use.

Any one DATS could therefore potentially have a number of associated Good Practices.

Good Practices aim to share experience and know-how (production, advice) when observations show that for similar productions good performances can be obtained through a variety of practices. This information may particularly help in decision making¹ (also refer to D3.1). The concept of Good Practice is contextual and needs to be evaluated within the context that it is implemented in and the context(s) that it is being considered for. This makes it challenging to define specific criteria for Good Practice.

Nevertheless, both the FAO² and the ENRD³ offer strikingly similar definitions of Good Practice. From their depictions we can confidently determine conceptually the specific criteria inherent to Good Practice in regards to DATS. A Good Practice should: be implemented with **positive results**; be **successful** (innovative), tested and validated; and be **transferable**.

¹ AgriLinks (2018) AgriLink's multi-level conceptual framework Theory primer: 2) "Binding" and "not binding" good practices – necessity to differentiate.

² FAO (2013) Good practices at FAO: Experience capitalization for continuous learning. Rome: Food and Agriculture Organization of the United Nations (FAO).

³ ENRD (2018) Making the most of project and good practice examples. Presentation at ENRD Workshop on 'Project Examples and Good Practices: Approaches to Collection and Dissemination'. Brussels: 8 Nov 2018.

Therefore Good Practices associated with DATS should have the following three criteria:

- **Positive results:** The Good Practice has been adopted and has had a positive impact on advisors and/or farmers.
- **Successful (innovative), tested and validated:** A creative/ forward-looking solution has been developed to address a specific issue/challenge. It contributes to the improved performance of advisors/farmers and this contribution is recognised.
- **Transferable:** Useful lessons can be drawn from the Good Practice which has the potential to serve as a model for other advisors/farmers facing similar issues. The Good Practice is transferable can be adopted in and adapted to other contexts.

Furthermore, a Good Practice associated with a DATS should adhere to **at least three** of the UN Nine Principles for Digitalisation (Refer to D2.1 for more detail):

- 1. Design with the User.
- 2. Understand the Existing Ecosystem
- 3. Design for Scale
- 4. Build for Sustainable Use
- 5. Be Data Driven
- 6. Use Open Standards.
- 7. Reuse and Improve
- 8. Address Privacy & Security
- 9. Be Collaborative

Any practice being considered by partners can be evaluated quickly using the [online](#) Good Practice Self Evaluation Tool (please refer to D2.1 for more detail).

The use of **social network diagrams** can be particularly useful to illuminate Good Practices. Partners can use such diagrams to depict Good Practices. More detail available in the [Appendix](#).

3.2. Good Practice Themes/Hot Topics

The below provides examples of what could potentially be conceived as a Good Practice. However, it is important to note that these examples are **not exhaustive** and only reflect some of the many potential Good practices associated with DATS:

- Bottom up **co-design** development that enables adequacy between the tool/service and the user needs; interactivity with potential users; user testing done; were there phases where feedback and revisions were possible?

- **Usability:** Easy to use; training provided; inputs and outputs simple and clear can be used offline.
- **Utility:** The tool/service is available to a wide range of users; is it seasonal, pulls data from other systems; feeds data to other systems; data used for research or analysis or reports for individual farmers, groups of farmers or regions; the proportion of potential users use it and why.
- **An Idea:** to save time or money; to improve an existing practice, service or product.
- **Consideration of user's skills** (farmer or advisor) to implement the tool/service as it's intended.
- **Implementation:** The manner in which the tool/service was rolled out; training events; back office support; motivation of users (did advisors/farmers want to use it or was it mandated by regulation or legislation).
- **Data management** that enables a tool/service to provide the type data required by farmer/advisor in a manner that is cognisant of issues around data governance; data that is allowed to be shared between farmers/advisors.
- The **social acceptance embedded of the tool/service** which helps to ensure a tool/services use etc.
- The tool/service has been **evaluated**; testimonials from users.
- Success factors around the **collaborative use** of a DATS where the advisor AND the farmer both interact with the DATS (same tool/ same dataset) at the same time or even at different times.

Given the importance of context, an important aspect of Good Practice should be the identification of themes. The identification of key themes (referred to as '**Hot Topics**') can also form the basis of the identification of Good Practices⁴. Good Practices categorised in this manner will also then be more useful in the context of thematic work and will serves to inform D2.4 in accessing trends in the collected Good Practices. Seven parent categories of Hot Topic were identified for D2.1, which can be broken down further into subcategories (Figure 3).

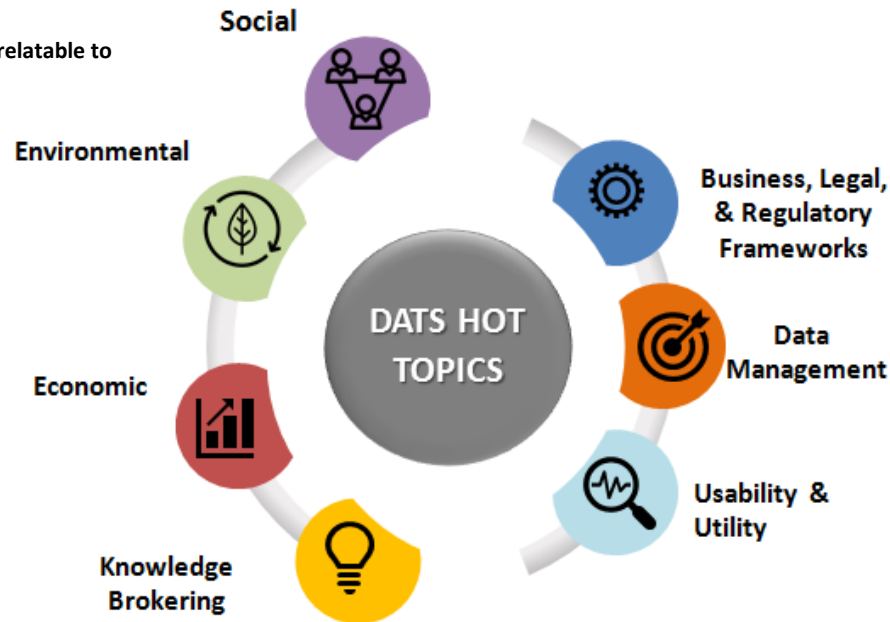
FAIRshare Hot Topics

Hot Topics are key themes that a particular Good Practice adheres to (D2.1).

By identifying Hot Topics the project will be able to classify Good Practices based on the specific key themes and therefore able to access trends etc. (T2.4).

⁴ ENRD (2014) Managing the Network. Brussels: The European Network for Rural Development.

Figure 3 Hot Topics (key themes) relating to Good Practices (D2.1)



Social

- User centred
- Gender and age considerations
- Improves quality of life for advisor/farmer
- Addresses societal issues

Business, Legal, & Regulatory Frameworks

- Business model
- Earning model
- Intellectual property
- Value proposition

Economic

- Advisory services level
- Farm level
- Macro level

Data Management

- Privacy & security
- Data application & presentation
- Data quality & reliability
- Data sharing capabilities
- FAIR principles applied

Environmental

- Management of natural resources
- Climate
- Environmental monitoring & control

Usability & Utility

- Contribution to the efficiency of service
- User usability
- Functionality
- Adaptability
- Improves decision making
- User friendliness

Knowledge Brokering

- Effective AKIS
- Enhanced knowledge exchange between advisors and farmers
- Enhanced knowledge exchange between farmers/advisors and research

4. The Good Practice Recording Template

For each Good Practice analysed, the output will be a completed template in a structured format. The version presented in (Figure 4) is for illustrative purposes and contains guidance notes. (The Excel template for your use is available on the [SharePoint](#), an online Google Sheet version is available [here](#)).

Collected Good Practices as part of T2.3 should be uploaded to the [SharePoint](#).

The Good Practice Template vs. The FAIRshare Inventory

The Good Practice Template aims to capture a critical success factor of a particular digital tool or service in its development and/or use.

A number of Good Practices can be associated with a particular digital tool or service. However, the template aims to capture only one Good Practice. If there is more than one Good Practice associated with a digital tool or service then partners will use a separate template entry to capture each of them.

Conversely, the FAIRshare DATS inventory captures broader information on a digital tool or service. It does not focus explicitly on a singular factor, which enables its success.

The template has three sections that capture all the necessarily information regarding the Good Practice being documented:

- **Section 1:** Information concerning the author of the template entry is collected at the beginning of the template.
- **Section 2:** Captures broader information around the digital tool or services where the Good Practice is found.
- **Section 3:** The final and longest section focuses explicitly on the Good Practice being documented.
 - Hot Topics (key themes) are captured related to the Good Practice.
 - The needs the GP responded to are collected.
 - Partners are required to document how the Good Practice adheres to the three criteria that define Good Practice (**positive results; successful; transferable**).
 - A narrative around the Good Practice is created through the entry of a Practice Abstract.
 - Pearls/Puzzles/Proposals captured
 - Media content/Social network diagram explaining the Good Practice.

Ideally, the template will be completed by a user of the DATS where the Good Practice is found. Figure 4 provides an example of an entry in the template. The Good Practice captured is the ability of the PastureBase DAT to be used offline.


FAIRshare DIGITAL TOOLS FOR FARM ADVISORS		FAIRshare Good Practice Recording Template	
1. Information: Author			
Author(s) name	John Hyland		
E-Mail	John.hyland@teagasc.ie		
Name of organisation	Teagasc		
2. Information: DATS			
Insert photo or any visual image (network diagram) of the associated DAT	 <p>This section concerns info about the tool or service where the Good Practice is found</p> <p>Choose an image related to the particular DAT</p>		
DATs Name	PastureBase Ireland		
DATs Owner	Teagasc		
Link (if necessary)	https://pasturebase.teagasc.ie/v2/login.aspx		
3. Information: Good Practice Associated with the Above DATS			
Briefly explain in few words what is the Good Practice	The Good Practice associated with PastureBase is the ability of the tool to be used offline. A critical success factor of the above DAT		
How is it transferable? And the conditions for the transferability?	The Good Practice is transferable in the sense that allowing offline usability is not difficult to implement for other DATs.		
How is it successful? The key factors?	The Good Practice is successful, it enables farmers to record their grass growth on farm where often they may not have good connectivity.		
How is it implemented with positive results?	The Good Practice is implemented with positive results as is evident from the overall uptake of the tool.		
Good Practice: Hot Topics			
Choose relevant parent 'Hot Topics' category from the dropdown list	Choose a relevant associated 'Hot Topic' parent subcategory from the dropdown list		
Usability Utility	User usability		
Usability Utility	Functionality		
Usability Utility	Contribution to the efficiency of service		
Knowledge Broke	Enhanced knowledge exchange between		
Economic	Advisory services level		
FAIRShare good practice 'Hot Topic(s)'	6		
FAIRShare good practice 'Hot Topic(s)'	7		
Other	If none of the Hot Topics reflect the key themes of your Good Practice please describe them here.		
Objectives for farmers (benefits/impacts)			
Choose from dropdown list Represents the needs the Good Practice responds to	Increase of productivity Improvement of yield quality Optimization of resources use Minimization of input costs Efficient strategy planning If none of the benefits/impacts listed are reflective of the DATs please describe them here		
Objectives for advisors (benefits/impacts)			
Choose from dropdown list Represents the needs the Good Practice responds to	Benchmarking Knowledge transfer Improve advice efficiency If none of the benefits/impacts listed are reflective of the DATs please describe them here		
Good Practice: Practice Abstract			
This summary should be as interesting as possible, using a direct and easy understandable language. 1000-1500 characters in length.	The link between grass utilisation and farm profitability has been widely reported with every extra tonne of grass utilised, equating to 1173/ha of extra profit. The digital tool allows farmers to manage their grass using only their smartphone. An important feature of the digital tool is the ability of the mobile phone app to be used offline in the field by a farmer. The offline feature is crucial to ensure farmers can access Pasturebase easily as many farmers don't have full internet coverage throughout their farms. The PastureBase offline feature enables farmers to enter offline grass covers, grazings and silage cuts, livestock numbers and intakes, milk data and record fertiliser applications. Data is synchronised when an online connection is available by the farmer using the 'Synchronise Data' option from the app. The ability of offline use makes it more likely that farmers will implement the tool which therefore enables advisors to interpret the data generated and offer more informative advice to farmers.		
Pearls	Elements of the GP which are positive and interesting	The ability to use offline means that farmers can input data on grass growth in an easy and efficient manner	
Puzzles	Elements of the GP which are not clear	Was the data entering interface co-designed with farmers?	
Proposals	Elements which could improve GP	Synchronise data automatically.	
Media attachment (e.g. video) or other attachment describing/depicting the Good Practice	https://www.youtube.com/watch?v=gzdp-wsMD		Use a video to explain the GP and how it's implemented

Figure 4 An example of a complete template. The template denotes a Good Practice - the ability of a tool (PastureBase) to be used offline. Guidance notes are also provided.

5. Appendix

5.1. MA Co-Creation: Evaluation of the Template Usability

A draft template was created from deliberations with all WP2 Task leads in a number of online meetings. The template developed from these initial discussions as well as gathering inspiration from Good Practice templates used in other projects⁵⁶.

The WP2 Task leaders initially tested the template on different tools and Good Practices: COUPROD and OK Eleveurs (French applications), PastureBase, NMP on line and MyMap (Irish applications). Exchanges led to determine the type of information needed to present the Good Practices and their relevance.

On the 15th of July 2020 all project partners were invited to attend an online workshop to access the draft template while also offering them the opportunity to add/omit content they thought would improve the template. Partners were also encouraged to invite advisors to attend the online workshop. The draft template was shared to partners before the workshop which they were encouraged to complete so they could provide an informed assessment of the template.

The co-creation/co-design meeting used Klaxoon as an online worksheet where partners could submit their ideas. The worksheet was structured with three headings: Pearls, Puzzles, and Proposals. Partners were invited to access the template and the collection of Good Practices under these three headings.

The workshop commenced by asking participants what are features of the template that they liked, i.e. 'the pearls', and offer them a set time (5-7 minutes) to complete. Participants were asked to submit one sticky note per idea but could submit as many ideas as they wanted.

Participants were then asked what aspects of the template they found confusing, i.e. the 'puzzles', and followed the same procedure. Finally, the features of the template they would change were assessed under the 'proposals' heading. The exact same procedure was followed to attain feedback on the collection of Good Practices. An email was sent to all partners after the workshop offering them the

⁵ Macken-Walsh, Á. (2017) Good Practice Handbook. D:2.1 Handbook for the acquisition of information and data on good practices and structure of the repository of information for the best practices. Deliverable for the SKIN H2020 project (728055).

⁶ FAO (2016) Good Practice Template. Rome: Food and Agricultural Organization of the United Nations.

opportunity to contribute to the Klaxoon worksheet if they had not attended the workshop.

Feedback obtained for both the template and the collection of Good Practices are outlined in the two subsections that follow (Figure 5).

5.1.2. The Template: Structure, Ergonomics and Usability

Several advantages of the template were raised, especially its simplicity and its complementarity with the DATS Permanent Networking Facility (PNF) inventory. It was noted that it will enable advisors to demonstrate the Good Practices relating to DATS they use. It was also suggested that it would be beneficial to see vignettes under certain categories of DATs.

FAIRshare partners felt necessary to add some suggestions related to the documentation of Hot Topics. It was noted that the key theme associated with the Good Practice may not be captured by the predefined fields from the dropdown list and that an addition 'other' field would be beneficial.

The main proposals concerned the need to be explicit about the information requested. Therefore, the template was refined to outline the exact information required as well as providing the example used in this document supplemented with guidance notes. The Excel format for the template is considered as a helpful support for this type of template and will ease the data collection and use. However, it was suggested in the workshop that an online version would also be beneficial. Therefore, an [online Google Sheet](#) version of the template was developed.

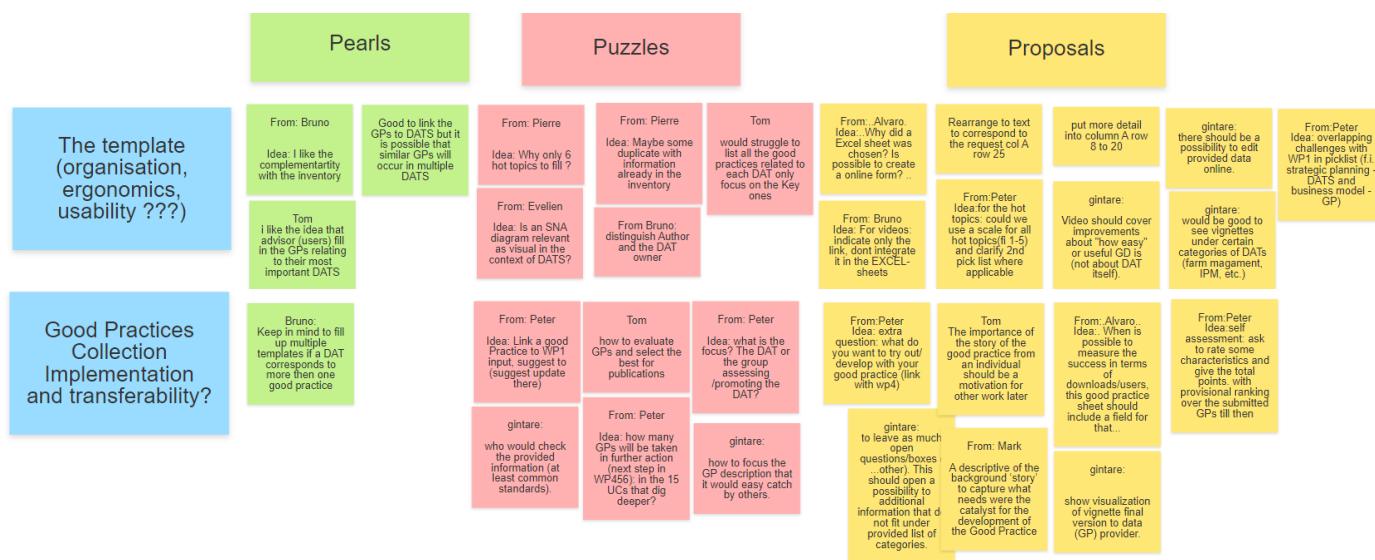


Figure 5 Klaxoon worksheet of pearls, puzzles and proposals to improve the Template usability

5.1.3. Good Practices Collection: Implementation and transferability?

Good Practices are in essence features of a particular DATS that make it successful. Therefore, as explained previously any one DATS can have a number of Good Practices associated with it. In addition, ‘Hot Topics’ are key themes associated with a particular Good Practice.

In the workshop partners noted that Good Practices need to be placed within their application context. The documentation of Good Practice should be a motivation for other work later in the project. WP4, 5, and 6 User Case studies will also help to understand the key factors involved in the DATS success.

Advisors and users will be asked to fill up multiple templates if a DAT corresponds to more than one Good Practice. The workshop highlighted that a specific analysis should be done on the similarity of Good Practices throughout the tool uses. Good Practice providers may therefore be asked to prioritise the main Good Practices associated with a DATS if that particular DATS has multiple related Good Practices.

5.2. Social Network Diagrams

A social network is a social structure made up of actors (individuals or organisations) called “nodes” connected by one or more link (edges) through socially meaningful relations. Social Network Analysis (SNA) concerns generating graphs that characterise structures, positions, connectedness and the overall distribution of relationships⁷. Actor Network Theory (ANT) theorists argue that non-humans can also have agency, and thus can be actors. ANT attempts to explain and interpret social and technological development by integrating human as well as non-human elements into the same conceptual frame/network⁸. Both SNA and ANT allow for the generation of social network diagrams.

ANT was established in order to understand of how technological artefacts are brought into being⁹. For instance, when a phone app is easy to use for an advisor to interpret farm data, we can start to wonder which elements of this complex assembly enable its functionality. At that moment, the phone app becomes a network of different features as well as different people involved in its development and use (Figure 6).

The digitalisation of agriculture is what ANT scholars refer to as a ‘cascade of inscriptions’¹⁰. Inscriptions can take a variety of digital forms: GPS coordinates; sensor measurements; numerical inputs to models etc. Many practices enable both farmers and their advisors to manage these varied digital inscriptions. ANT and SNA diagrams allow us to illuminate a Good Practice to reveal its elements in an easy to decipher way.

⁷ Borgatti, S.P., Mehra, A., Brass, D.J. and Labianca, G. (2009) ‘Network analysis in the social sciences’, *Science*, 323, No. 5916, pp. 892–895.

⁸ Randall, D., Harper, R., & Rouncefield, M. (2007). *Activity Theory, Distributed Cognition, and Actor-Network Theory*. In *Fieldwork for Design* (pp. 89–131). Springer London.

⁹ Vicsek, L., Kiraly, G. and Konya, H. (2016). Networks in the social sciences: comparing actor-network theory and social network analysis. *Corvinus Journal of Sociology and Social Policy*, 7(2), pp. 77-102.

¹⁰ Latour, B. (1999) On recalling ANT. *The Sociological Review*, 47(1), pp. 15-25.

Understanding interactions and flows between actors is often crucial to understanding why and how elements of their functioning are un/successful¹¹¹².

Examples of interactions are:

- Co-ordination (actors undertaking independent actions, but consulting with each other in relation to these actions to avoid conflict or duplication);
- Co-operation (common actions strategically taken in the context of shared objectives);
- Conflict (disagreements or confrontations);
- Control (supervision and ownership of projects and decision-making in relation to the use of resources);
- Competition (competing for limited resources)
- How the technological features of the Good Practice interact with human and non-human entities.

¹¹ Macken-Walsh, Á. (2017) Good Practice Handbook. D:2.1 Handbook for the acquisition of information and data on good practices and structure of the repository of information for the best practices. Deliverable for the SKIN H2020 project (728055).

¹² Borgatti, S.P., Mehra, A., Brass, D.J. and Labianca, G. (2009) 'Network analysis in the social sciences', *Science*, 323, No. 5916, pp. 892–895.

The following are examples of flows:

- Information (discourses and the receipt and delivery of technical information);
- Financial resources (funding and control and channelling of financial resources);
- Human resources (pooling and cooperation of human resources, and inter-sectoral human resource efforts);
- Tangible resources (receiving, delivering, sharing of resources such as equipment, facilities, transport).

Teagasc will assist partners who wish to create social network diagrams to illustrate Good Practice.

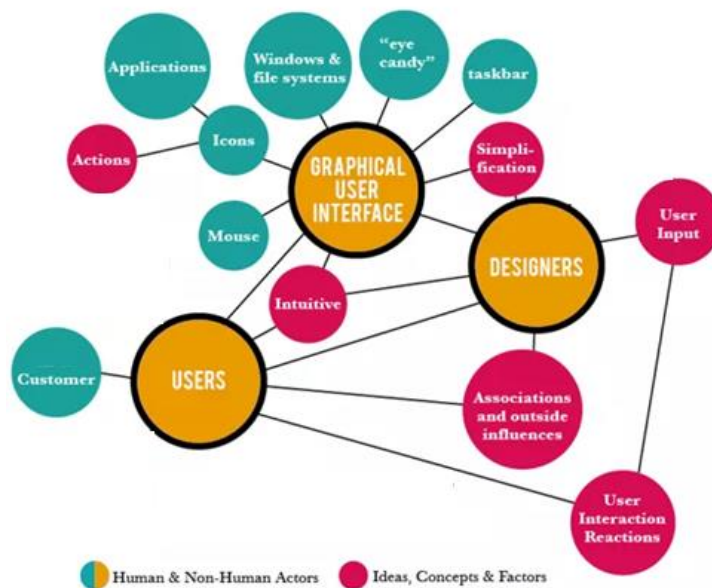


Figure 6 A hypothetical conceptualisation of an actor-network diagram (using ANT) of a Good Practice depicting the elements involved in an engaging user digital interface¹³

¹³ Adapted from <https://geography.name/actor-network-theory/>