



Fire Up the Dialogue

D1.3 WFRM TECHNOLOGY & MATURITY INDICATORS I

Project: **Cross-sector dialogue for Wildfire Risk Management**

Acronym: **Firelogue**



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List of Abbreviations

Abbreviation	Meaning
CSA	Coordination and Support Action
D	Deliverable
EC	European Commission
EO	Earth Observation
EU	European Union
IA(s)	Innovation Action(s)
TechMall	Technology Mall
WFRM	Wildfire risk management
WG	Working Group
WP	Work Package



Executive Summary

This document (D1.3) presents the first edition of the deliverable under “Task 1.3 Maturity assessment and mapping of WFRM related technologies”. By the term “technologies”, we mean everything related to equipment/materials/components/products/services that will be developed from the Innovation Actions (IAs) and from now on in this document, we will refer to all of them with the term “services”. The document allows for a comprehensive, yet concise, analysis of the level of maturity of the given services of the IAs.

The report presents the findings in the four sections described below:

- **Section 1** introduces the context of the deliverable.
- **Section 2** refers to the inventorying that will be done to gather all the relevant information of the IAs’ services that will be assessed.
- **Section 3** provides an overview of guidelines defining the methodology that will be followed to perform the assessment of the maturity, understanding the elements to construct a consolidated list of indicators and their specific parameters to be measured by all technology providers and presenting the way for the representation of the maturity.
- **Section 4** summarises the deliverable and presents the way forward.



1 Introduction

Firelogue, as a CSA and EU project, brings together expertise from all around Europe when it comes to Wildfire Risk Management (WFRM). The Connecting Dimension of Firelogue focuses on the collection of knowledge, insights and solutions from the IAs, and the consolidation of this knowledge. One example of this consolidation is the maturity assessment of technologies and derived services that will be developed by the Innovation Actions.

Task 1.3 aims to develop a tool for the maturity assessment of IAs' services and map them accordingly. The steps that will be followed under this Task can be found below:

1. A thorough **picture** of the to-be-developed services of the IAs will be constructed through contribution by the IAs until Month 36 (October 2024).

Identified services will be **grouped** to the three WFRM phases that European Commission stated in the Green Deal Calls (Prevention & Preparedness, Detection & Response, Restoration and Adaptation). During inventorying, perhaps more grouping ideas may arise to be used.

2. Then, the **maturity** assessment methodology will be followed:
 - i. The methodological steps to design the maturity assessment approach will be analysed;
 - ii. The indicators will be identified to capture the maturity levels of a given service in terms of technology, market and society.
 - iii. Information is gathered against a range of parameters.
3. At the end, a maturity level will be **assigned** to each of the services (initial – basic – intermediate – advanced – optimised) and the results of the above phases will be summarised and visually projected in the **visualisation** phase.

D3.1 is the first version of this goal and includes the first steps, described below as 2i and 2ii. The second and last version of this Deliverable will include the maturity assessment and a template of the visualisation of the services (Month 36), described above as 1-3.

Task 1.3 and D1.3 are closely linked with the Task 2.3 that develops a dedicated Technology Market Place or “TechMall”, offering a “window to the market” of the services mapped and assessed in terms of their maturity under Task 1.3. Furthermore, D1.3 is well connected with Task 1.2 “Knowledge Consolidation and Integration into FIRELOGUE platform” and D1.2 “Consolidated WFRM Knowledge Base - Report on the mapping of WFRM actors, approaches, measures and strategies and SOPs I” in order to produce a similar template to be sent to Innovation Actions with a request for input.



2 Inventorying

This section, when completed, will include an exhaustive list of services of the Innovation Actions.

This task will be accomplished by input provided by IAs, listing all their technological services together with their pilot areas (case studies) and any other useful information. During this gathering of input, their technologies are catalogued. A brief description of each technology will be requested by technology providers together with the pilot area and the phase of fire that they are linked to.

One collaborative document will be provided to the IAs to provide us with information about their services. The method that will be used to get the feedback from the IAs is to be decided in the next few months within the Firelogue consortium. This document will be co-designed with “Task 1.2 Knowledge Consolidation and Integration into Firelogue platform” and “D1.2 Consolidated WFRM Knowledge Base - Report on the mapping of WFRM actors, approaches, measures and strategies and SOPs”, as Firelogue aims at assisting the IAs and not at creating more inconvenience and workload. In general, each Innovation Action will provide input to the template that we will provide to get some insights and information needed for each service by the means of self-evaluation.

A couple of challenges of this methodology are stated below:

- The feedback from IAs may not be always on time, a fact that is expected as the timelines of the IAs are different from Firelogue’s.
- Expected feedback may have different format from each IA, as each partner may understand things differently, so a consolidation may be necessary.
- Difficulties in classifying the various services may arise as each Innovation Action may have a different understanding on what a technological service is.
- There is a gap in the literature regarding the maturity of WFRM services. Hence, it was essential to adapt general knowledge on maturity to the needs of WFRM, by consultation within Firelogue partners with various backgrounds such as the Working Group leaders, in order to extract the final maturity indicators.

All the aforementioned challenges will be taken into consideration by Firelogue to find mitigation measures and make sure that most feedback by IAs will be gathered on time and with the proper level of detail.



3 Methodology

This section provides information related to the methodology that will be used to assess each of the services in terms of maturity. There is a gap in the literature about maturity indicators regarding WFRM services. To form the final maturity indicators in this study, useful information and knowledge has been extracted from publications related to other sectors, for example *Internet of Things* (Olena Klisenko et al., 2022); *energy* (Gross et al., 2018), *agriculture* (Jostein, 2021) and *Earth Observation* (GEO-CRADLE project, <http://geocradle.eu/en/>). Despite this maturity analysis has been applied in other sectors, its application in WFRM sectors is mostly innovative.

Maturity indices are necessary for evaluating technology. In the early stages of a technology, even though the term “scientific research” would fit better, there is much room for advancements and improvements. At this point, the technology could be characterized as immature (Philibert, C, 2003). After passing that phase, technologies start becoming more and more mature; however, the advancements do not follow the exponential progress ratio of their early development.

As an example, in the manufacturing and product development sector, there are four stages of maturity in the Product Life Cycle. These stages are correlated to the sales of the product in respect to the time: *Introduction*; *Growth*; *Maturity* and *Decline* (Anderson et al., 2017; Rink et al., 1979). For the specific analysis regarding WFRM in Firelogue, instead of sales, we care about the technological advancements in respect with time and a small configuration in the terms below was made. Based on literature related to the Product Life Cycle, the four chosen stages of maturity that match WFRM services, are stated below:

- **Development:** This stage refers to the research level. A good amount of budget is spent without any revenue, as the service is not introduced to the market. The basic concept of the service is formulated and an experimental proof of concept is expected. The rate of advancement is high.
- **Introduction:** The first prototype is made. The technology is validated and tested not only in the lab but also in a relevant environment.
- **Growth:** Most of tests are made. The service is being qualified and almost ready to enter the market or wide spread use.
- **Maturity:** The service takes its final form, through innovations, which were previously observed. It is complete, qualified and fully operational. The rate of advancement becomes as steady as possible having reached the peak of possible innovations.

As shown in Figure 1, the curve of technological advancement increases from introduction stage until maturity stage, where maximum advancement is obtained, and then falls during the decline stage.

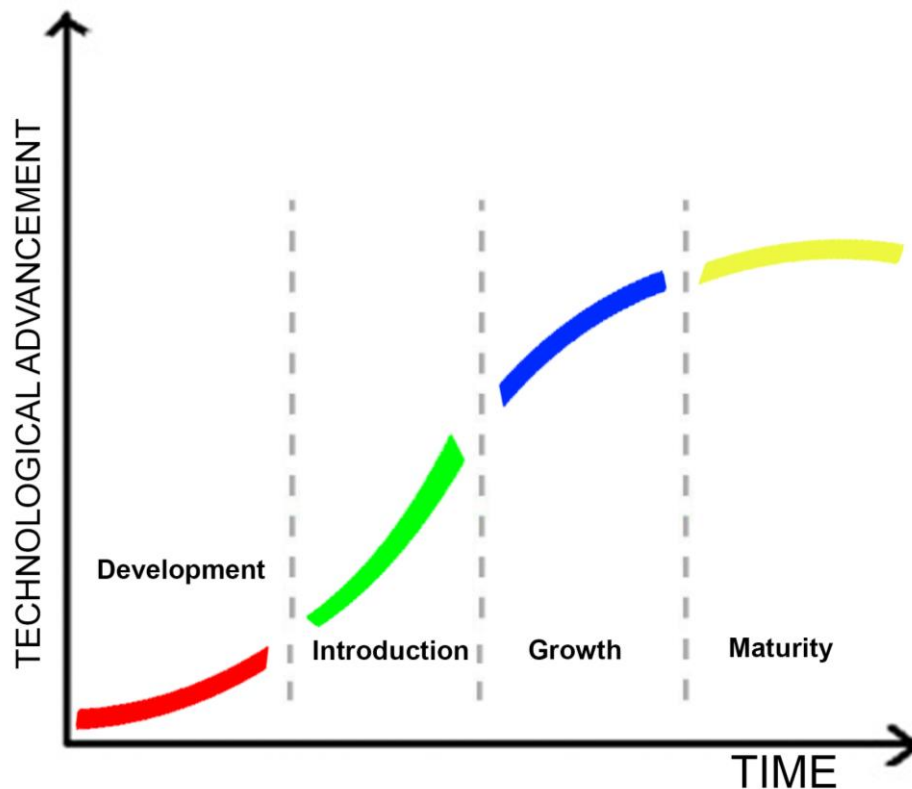


Figure 1: The various stages of WFRM service life cycle, Source: Firelogue.

All in all, there is no documentation on how to develop a maturity model that is theoretically robust, tested and widely accepted in the WFRM sector. Therefore, Firelogue follows the approach below to develop its own maturity assessment approach:

- Firstly, the possible methodological steps to **design** the maturity assessment **approach** are analysed.
- After that, specific **indicators** and **underlying parameters are defined** as tools to measure the maturity levels of the services. As it has been noted many times in literature, the development of new technology is not linear and cannot be grasped by only one indicator (Hasenauer et al., 2017).
- Finally, the **maturity assessment is conducted** by means of a self-evaluation by the IAs and the results are visualised.

3.1 Design

The starting phase of the methodology concerns the design of a maturity assessment method to measure the readiness of the IAs services. Below methods and actions selected for inclusion in this methodology are presented:

Desk research: Desktop research that needs to be conducted will be based on available literature and publications. Other main sources consulted will be the websites of institutions and companies. Finally, the IAs partners will contribute their insights and expertise into the topics to feed into the report.

Semi-structured interviews with IAs partners: To collect first-hand data and information on



perceived impacts, trends and challenges, and if need be, semi-structured interviews will be carried out with IAs partners. For the interviews, a flexible approach will be used taking advantage of events for face-to-face discussions.

Integration of information from other tasks: This includes the input by WP3 Common impact assessment methodology of WFRM innovation actions, where the term “maturity” has been discussed in various meetings.

Additional Analysis in relation to incomplete or non-available data: This will be considered for cases where we will have insufficient responses from IAs partners against a particular category. The extrapolation potential will be assessed estimating data on the basis of current information provided by IAs partners.

Comparative assessment: Based on the previous approaches, the methodology will allow for an interpretation of findings (technology level analysis) represented in the form of “maturity cards” (Section 3.5).

3.2 Indicators

In this section, we define the indicators that will play the role of metrics and allow us to capture the maturity levels of a given technology/service. This is accompanied by an explanation of each indicator’s parameters and an overview of boundaries for their application. Through the measurement and monitoring of these indicators we are able to document the state of each service of the target IA. These indicators will also help to understand where the capabilities of each technology are.

Our approach holds a multi-dimensional assessment of services readiness in order to capture their maturity. The indicators have been grouped into strategic categories that cover the basic four dimensions we explore. The table below summarises these major four groups, **Capacity, Uptake, Funding and Economy; and Education; and Society**, and indicators falling in each category. These pillars were based on previous studies (M. Miguel-Lago et al., 2018) and have been adjusted to the WFRM study related to Firelogue’s needs. The maturity indicators include both quantitative (involving numerical measurements) and qualitative measures.

These four major groups have been selected to cover many different aspects of the uneven and non-linear character of the technology development. The “**Capacity**” as a foundation tends to cover technological aspect of the service. However, maturity is not only connected with readiness of technology alone, so “**Uptake**” brings the scope of the adoption of the service in a widespread market. Furthermore, “**Funding and Economy**” could not be missed as a feature showing the trust of the system in economic terms to the specific service. Finally, “**Education and Society**” is the last group because even if a service scores high in all previous groups, another important parameter is the familiarization and user-friendliness of the end-user (e.g. policy makers, society, academia etc.), as they are the ones that apply it into their daily practices.

Table 1: Maturity indicators

Type	Indicator	Explanation	Answers
Capacity	Successful Years of Operation	The degree of successful operations in time shows the maturity of a service, as achieving performance and benefits associated with mature technology	0-2 (years) 3-5 6-10 11-15



		requires a large and focused effort over a period of time. (Lee Lynd et al., 2003).	16-20
	Technology Readiness Level	A systematic metric system that supports assessments of the maturity of a particular technology and the consistent comparison of maturity between different types of technology (Mankins, J. C., 1995; Mankins 2009; Heder 2017)	1-2 3-4 5-6 7-8 9-10 According to TRL definitions
	ISO certified service (Or other quality certifications)	ISO and/ or other certifications certify that a system, process, service, or procedure has all the requirements for standardization and quality assurance. Quality is the degree to which the service fulfils the demanded requirements. This statement corresponds with the definition of a product maturity degree (Kandt, et al., 2016).	Yes No
	General Principles have not changed for the last years (in years)	The stability of the basic principles of a service in respect of time is directly linked to maturity level.	0 (years) 1 2 5 10
Uptake	Market readiness level (Jostein V. (2021))	The market aspect of services' development and more specifically: a) the extent of their availability; b) their demand c) the market readiness to adopt them and d) the availability for widespread use (Mason, 1976; Hasenauer, 2017; CloudwatchHub, 2020).	1: Service described 2: Pilot campaign 3: Limited launch 4: Progress and early stable sales 5: Growth and stability
	Number of countries that adopted these services	The level of adoption of a service by a country indicates the level of its maturity widely spread in the global market. The more countries trust the service, the more quality this service has, showing high maturity level.	1 (country) 2 3 4 >5
	Widely/easily used by non-experts/ minimum effort from junior experts	The effort required from a junior user is related to service's maturity, as it indicates its user-friendliness (self-evaluation range from 1-5).	1 2 3 4 >5



Funding and Economy	EU (re-)funding and investments	The level of Maturity is related to whether EU has refunded multiple times the specific service for operational goals.	1 (Times) 2 3 4 >5
	Government (national) Funding	The level of Maturity is related to the national/governmental funding of a service, as the more funding, the more advancement is occurring to the development.	1 (Times) 2 3 4 >5
	Industry Funding	Industry funds mature services to ensure maximum profit.	1 (Times) 2 3 4 >5
Education and Society	Departments in Academia that have a relevant course in their study programme	The maturity of a service is correlated with the teaching activity of the Universities, as immature technologies are not presented often in study programmes.	Yes No
	Support policy and/or decision-makers	The service is used for the good of the society and the National Government trusts this technology for societal reasons.	Very low Low Intermediate High Very high
	Social acceptance readiness level	The level of knowledge about the stakeholders' interests as well as to what extent the service affects society, starting from recognition up to stakeholders' involvement. Social acceptance readiness level is correlated to maturity level and is a way of assessing the level of societal adaptation to be integrated to society (Bernstein et al, 2022).	1: Formulation of expected societal impact 2: Testing with relevant stakeholders 3: Pilot testing 4: Refinement of solutions and retesting 5: Societal adaptation completed
	Negative externalities¹ on members of society and/or ecosystems (e.g., infrastructure reducing the amenity value of a forest)	Market characteristics influence the deployment and diffusion of the technology. Thus, governance, consumer behaviour and other socio-economic characteristics determine the performance of emerging technologies (Bergerson et al. 2020). In line with the principles of social life cycle assessment, technology development should	1: Yes, externalities are to be expected 2: Externalities are highly likely 3: Externalities are possible 4: Externalities are unlikely, yet possible



		consider the social, economic and environmental dimensions of implementation (Rezaei et al. 2021).	under certain circumstances 5: No externalities are expected
	Negative externalities¹ on other/future aspects of WFRM (e.g., increased fuel loads from mitigating small scale fires)		1: Yes, externalities are to be expected 2: Externalities are highly likely 3: Externalities are possible 4: Externalities are unlikely, yet possible under certain circumstances 5: No externalities are expected

After month 12 (October 2022), this particular template together with the one from Task 1.2 will be sent to the Innovation Actions for feedback. Their feedback will have an added value to our analysis regarding maturity level so that the indicators are applicable to the services modified by the IAs. The necessary time will be provided to modulate the report according to IA's guidelines.

3.3 Assessment

The above-mentioned maturity indicators will be sent to all technological partners in the IAs to request inputs for each of them regarding their services in the form of a descriptive table (Table 2 below), which ensures that the partners would obtain the necessary information guaranteeing the basis for maturity analysis.

The Table below has been drafted with being in alignment with "Task 1.2 Knowledge Consolidation and Integration into FIRELOGUE platform", as T1.2 also holds a similar template for the collection of non-technology based WFRM measures; Standard Operating Procedures; etc., as described in D1.2 submitted in M12.

Table 2: Draft table that will be sent to IAs as guideline for the indicators

Photo (please upload a relevant photo)					
CODE	xxx	Solution Title	<i>Please write a title</i>	Project	<i>Please write your project</i>
		Solution Provider	<i>Please write your organisation</i>	Case Study to be applied	<i>Please write where will you implement your service</i>

¹ By negative externality, we refer to a negative effect or cost that arises during the implementation or use of the technology. This effect on individuals, the society or ecosystem is not borne by the provider or direct user of the technology



Description	<i>Please write a brief description of the product</i>	
Type of product generated by the solution	<i>Please, indicate here what type of product will the solution produce</i>	<input type="checkbox"/> Technology/Materials/Services (e.g., modelling fire risk, VR helmets, real time fire assessment)
Relevant Phase	<i>Please choose the phase of fire that the specific solution is applied. (You can choose more than one item)</i>	<input type="checkbox"/> Prevention/Early Warning <input type="checkbox"/> Response <input type="checkbox"/> Recovery/Restoration
Targeted Stakeholder(s)	<i>Please choose the targeted stakeholders of your solution. (You can choose more than one)</i>	<input type="checkbox"/> Emergency management organizations <input type="checkbox"/> Scientific community <input type="checkbox"/> Policy-making bodies <input type="checkbox"/> Land Management groups <input type="checkbox"/> Environmental associations <input type="checkbox"/> Media <input type="checkbox"/> Society <input type="checkbox"/> Industry, technology, and innovation
Benefits	<i>Please write any kind of benefit (economic, societal, scientific, technological etc...) that comes from this product</i>	
Results	<i>Please write the results of this product and if they meet the expectations of the concept that were created</i>	
Website	<i>Please enter the website of the specific product (alternatively enter the project's website)</i>	
Further references and resources	<i>Please write any relevant references (publications, policy briefs, handbooks etc.) to your solution (if relevant)</i>	
Maturity Indicators with regard to technological products only (Below can be found maturity indicators. Choose from the list of each indicator the value that best describes your technology)		
Capacity	Successful Years of Operation <i>The degree of successful operations in time shows the maturity of a service.</i>	Choose an item.
	Technology Readiness Level <i>A systematic metric system that supports assessments of the maturity of a particular technology</i>	Choose an item.
	ISO certified service <i>Services that get ISO or other quality certifications (meet specific standards) show high maturity level.</i>	Choose an item.
	General principles have not changed for the last years (in years)	Choose an item.



	<i>If the basic principles of the technology remain unchanged for several years, the technology is considered mature.</i>	
Uptake	Market readiness level <i>The market aspect of services' development related to a) the extent of their availability; b) their demand c) the market readiness to adopt them and d) the availability for widespread use.</i>	Choose an item.
	Number of countries that adopted these services <i>If a service is adopted by more countries, this means that it is mature enough.</i>	Choose an item.
	Widely and easily used by non-experts/ minimum effort needed by junior experts <i>The operation of the service requires minimum effort from a junior end-user without such expertise (self-evaluation range from 1-5).</i>	Choose an item.
Funding and Economy	EU (re-)funding and investments (in times) <i>The EU has refunded multiple times the specific technology for operational goals.</i>	Choose an item.
	Government (national) Funding (in times) <i>The national Government funds the production of the service.</i>	Choose an item.
	Industry Funding (in times) <i>Industries fund the production of the service.</i>	Choose an item.
Education and Society	Departments in Academia that have a relevant course in their study programme <i>The maturity of a service is correlated with the teaching activity of the Universities.</i>	Choose an item.
	Support policy and/or decision-makers <i>The service is used for the good of the society and the National Government trusts this technology for societal reasons.</i>	Choose an item.
	Social acceptance readiness level (SRL) <i>The level of knowledge about the stakeholders' interests as well as to what extent the service affects society, starting from recognition up to stakeholders' involvement.</i>	Choose an item.



	Negative externalities² on members of society and/or ecosystems (e.g. infrastructure reducing the amenity value of a forest) <i>Societal acceptance is an important driver for the broad implementation of a technology, with potential conflicts of interest curbing the diffusion of the respective product.</i>	Choose an item.
	Negative externalities² on other/future aspects of WFRM (e.g. increased fuel loads from mitigating small scale fires) <i>Societal acceptance is an important driver for the broad implementation of a technology, with potential conflicts of interest curbing the diffusion of the respective product.</i>	Choose an item.

These indicators will be sent to the IAs after submission of this report to provide any feedback in a voluntary basis. Once they reply, a preliminary maturity card (see Section 3.5) will be produced presenting an initial assessment of a technology's performance against the various indicators.

IAs will assign a score to each of the indicators, which have a range. The current proposal follows the scale score from 1-5 and after discussion with several stakeholders in the WFRM community, the ranges were considered as appropriate, and its applicability will be also evaluated by WP1 task leaders within Firelogue. Stakeholders that have participated in this discussion till now are some of the Working Groups' leaders, such as IASA as the insurance WG leader, PCF as stakeholders' managers and INESTEC as the technological WG leader.

The assessment and final version of the indicators above will be ready within the next 12 months until M24. During these 12 months, input requested by Task 1.3 and Task 1.2 will be consolidated and merged into a single document for Request of Information by IAs as well as feedback on the content will be requested.

3.4 Assigning maturity levels

The methodology proposes the assignment of values to the different indicators. The proposition for the generic maturity level is as follows (Miguel-Lago et al., 2018):

- **L1 – Initial:** The service is considered immature in the respective indicator. (Minimum mature level in terms of capacity, uptake, funding/economic, education/society)
- **L2 – Basic:** The service is in a basic level in terms of maturity in the respective indicator (Basic mature level in terms of capacity, uptake, funding/economic, education/society)
- **L3 – Intermediate:** The service is considered mature in an intermediate level in the respective indicator. (Medium mature level in terms of capacity, uptake, funding/economic, education/society)
- **L4 – Advanced:** The service is considered matured in the respective indicator. (High mature level in terms of capacity, uptake, funding/economic, education/society)

² By negative externality, we refer to a negative effect or cost that arises during the implementation or use of the technology. This effect on individuals, the society or ecosystem is not borne by the provider or direct user of the technology.



- **L5 – Optimised:** The service is considered highly matured in the respective indicator. (Maximum mature level in terms of capacity, uptake, funding/economic, education/society)

The table below (Table 3) depicts the way that the maturity levels will be visualised.

Table 3: Maturity levels explanation and symbol

Maturity Level	Symbol	Explanation
L1	○	Initial
L2	◐	Basic
L3	◑	Intermediate
L4	◒	Advanced
L5	●	Optimised

3.5 Visualisation (spider graph, maturity cards)

For visualizing the assessment that will be conducted, **maturity cards** will be used. Maturity cards offer a visualisation based on a quasi-quantitative approach that will allow us to understand how well each technology is performing against a given indicator. In detail, maturity cards characterise the capacity of the developed services across the IAs, providing concrete information. The cards illustrate the implementation of the maturity model assessment.

Each card includes some basic information about each service, as well as a concrete set of indicators that can translate information into a certain level of maturity. In other words, the maturity card allows an evaluation of performance against the indicators. For each indicator we will create a mapping between the overall range of values and a reasonable scale (sometimes quantitative, others qualitative). This mapping will dictate the final documented maturity level.

The maturity card is located in Table 4. In the beginning, a couple of general characteristics of the service is required, such as a unique code, the technology provider, the project name, title, etc. Scrolling down, a deeper explanation of the service is to be filled (Description, Benefits and results). At the core part of the maturity card, the maturity indicators are included that will be filled by the IA's.

Table 4: Maturity card model

Photo (please upload a relevant photo)					
CODE	xxx	Solution Title	xxx	Project	xxx



		Solution Provider	xxx	Case Study to be applied	xxx
Description	xxx				
Type of product generated by the solution	Technology/Materials/Services				
Relevant phase	xxx				
Targeted Stakeholder(s)	xxx				
Benefits	xxx				
Results	xxx				
Website	xxx				
Further references and resources	xxx				
Maturity Indicators with regard to technological products only)					
Capacity	Successful Years of Operation			○	
	Technology Readiness Level			●	
	ISO or other quality certifications have certified service			●	
	General principles have not changed for the last years			●	
Uptake	Market readiness level			●	
	Number of countries that adopted these services			●	
	Widely and easily used by non-experts/ minimum effort needed by junior experts			○	
Funding and Economy	EU (re-)funding and investments (in times)			●	
	Government (national) Funding (in times)			●	
	Industry Funding (in times)			●	
Education and Society	Departments in Academia that have a relevant course in their study programme			●	
	Support policy and/or decision-makers			○	



	Social acceptability assessment (SRL)	●
	Negative externalities on members of society and/or ecosystems	◐
	Negative externalities on other/future aspects of WFRM	◐



4 Conclusion

This Deliverable presented the first version of the work carried out during Task 1.3 Maturity assessment and mapping of WFRM related services. The application of the maturity indicators methodology allows a service to gain insight into the current situation of the implementation of WFRM-related activities.

As **next steps** and until Month 24, indicators will be sent to Innovation Actions to get feedback regarding their validity and feasibility. Such feedback will improve our analysis regarding the maturity level so that the indicators are applicable to the services developed by the IAs. Apart from that, Task 1.2 and Task 1.3 will work together to consolidate all input needed into a single document with the same format so that IAs are not overburdened by filling in many different forms. The form to be used and filled by IAs is to be decided to ascertain we use something easy to use and share. After these two tasks will be completed, final version will be sent to IAs to request input. Firelogue's stakeholder manager will approach the IAs coordinators and they should then circulate the information inside the consortia. When all input is gathered, the information will be consolidated and uploaded into the TechMall of the Firelogue's platform till M36. After that, it will be at each technological provider's discretion to update this information periodically to promote their visibility and attract the platform's network.

The timeline and next steps of the maturity assessment can be found below in Figure 2.

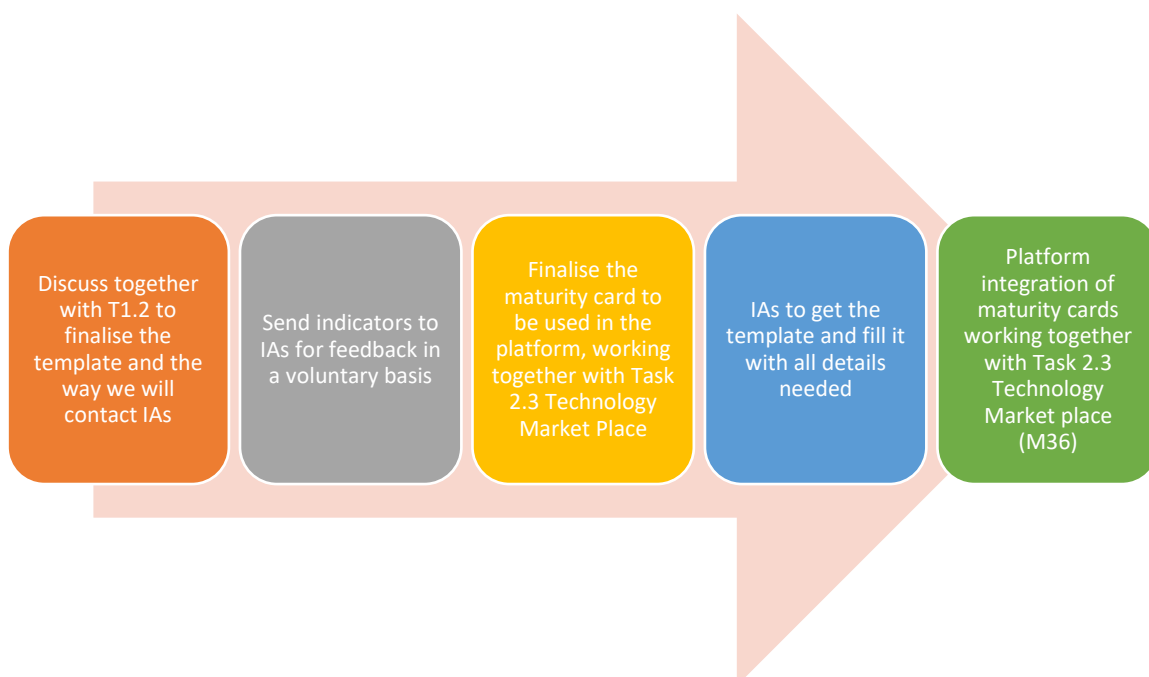


Figure 2: Timeline of Task 1.3 Maturity assessment and mapping of WFRM related technologies

After this initial approach regarding maturity assessment, benefits have been identified in using a defined group of indicators, and more specifically the indicators are considered an essential tool:

- providing quality insights to each technology;
- supporting future advancements;
- providing a common language for communication and helping understand performance.



Constraints need to be also quoted: Assessment of different services is challenging and has to be conducted across a limited set of dimensions. A single set of indicators is not and cannot be used to uniquely decide the maturity of a technology. Rather, the assessment provides the basis to decide upon a "adequate" level of maturity and provides a chain of semi quantitative evidence that can be used to support the assignment of given "scores" against the different indicators. At the definition level, there might be some subjective elements and room for interpretation and the literature for selected indicators is limited, therefore criteria for indicators might be reviewed in the future.

Overall, the feasibility of collecting adequate information is a prerequisite for success. In that regard, there is a need for sustained cooperation and networking engagement to have data updated and validated over time. IAs need to understand that updating their input is of their own benefit to advertise their products and support their business activities within WFRM.



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