

IMI2 Project 802750 - FAIRplus
FAIRification of IMI and EFPIA data

WP5 – Project management, dissemination and sustainability

D5.3 FAIRplus Handbook and project monitoring

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Document History

| Version | Date | Description |
|---------|-------------|---|
| V0.1 | 14 Nov 2019 | First Draft |
| V0.2 | 03 Dec 2019 | Comments |
| V0.3 | 06 Dec 2019 | Draft sent for review by Managing Board |
| V1.0 | 20 Dec 2019 | Final Version |

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1. Executive Summary

This report provides an overview of the development of the FAIRplus Project Handbook and the project monitoring activities implemented and carried out during the first 12 months of the IMI2 JU FAIRplus project, including: Key Performance Indicators (KPIs), risk management, financial monitoring, project sustainability, and lessons learned.

2. Methods

It was decided that the FAIRplus Project Management Team (PMT), consisting of the Project Lead and Project Coordinator (Janssen and ELIXIR Hub respectively), would work collaboratively to produce a first version of the project handbook by the end of month 3 (March 2019). The need for a project handbook during the early stages of a project was deemed paramount for the successful project management of the project, therefore, it was prioritised. Using the PM² template¹ and previous knowledge from the Project Managers of managing IMI projects, the template was adapted to accommodate the scope of the FAIRplus project and we were able to swiftly produce the first draft which, when ready, was circulated to all project participants for review.

By month 6 (June 2019) we had incorporated suggestions and addressed feedback completing a finalised first version of the handbook. This version is stored in the secure FAIRplus Google Drive, which all project participants have access to.

In addition to the project handbook, the Project Management Team devised processes early on to track project Key Performance Indicators (KPIs) and project risks. These are monitored regularly and collaboratively and are reviewed monthly during the Managing Board teleconferences (TCs).

3. Results

The results have been outlined in the following subsections.

3.1. Project Handbook

The finalised Project Handbook V1.0, up to date as of 4th December 2019, can be viewed in Appendix 1.

1

[https://webgate.ec.europa.eu/fpfis/wikis/display/openPM2/Artefacts?preview=/175357231/351800464/\(OPM2-04.P.TPL.v3.0\).Project_Handbook.\(ProjectName\).\(dd-mm-yyyy\).\(vx.x\).docx](https://webgate.ec.europa.eu/fpfis/wikis/display/openPM2/Artefacts?preview=/175357231/351800464/(OPM2-04.P.TPL.v3.0).Project_Handbook.(ProjectName).(dd-mm-yyyy).(vx.x).docx)

In Figure 3.1.1 (below) you can see the Table of Contents used in the Project Handbook which is adapted from the Open PM² template². The PM² Methodology originated from the European Commission and Open PM² provides many guidelines and templates to facilitate the management and documentation of EC project.

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Figure 3.1.1. FAIRplus Project Handbook Table of Contents

3.1.1. Update of processes as defined in the Project Handbook

All project participants are welcome to, and actively encouraged to suggest updates to the processes which were defined in the early version (V0.1) of the Project Handbook. The Project Handbook is designed to be a living, adaptable resource and therefore, as we refine and define new processes, the Project Handbook must be updated to avoid it becoming stagnant and of no help to project partners. Since V0.1 of the Project Handbook was provided to project participants in March 2019, a number of updates have been made to the originally defined processes based on working experience during the first 12 months of the project. The updates have been listed below:

1. The illustrative timelines for the production, review and delivery of both Deliverable and Milestone has been reduced based on feedback from project participants
2. GitHub has been adopted as a task tracking tool for Squad 2
3. Instead of only storing project work in the secure FAIRplus Google Drive, as originally planned, we now have a FAIRplus Organization in GitHub³ where project participants work on developing the FAIR Cookbook and recipes in a public repository⁴, allowing for collaboration from outside of the project consortium
4. Slack has been adopted by the Squads as a communication tool both within and across the two Squads in addition to email

³ <https://github.com/FAIRplus>

⁴ <https://github.com/FAIRplus/the-fair-cookbook>

5. The description of the Squad teams has been updated to include a definition of the Squad 3. The new section defines how the EFPIA Squad operates and their interacts with Squad 1 and Squad 2. FAIRplus benefits from the EFPIA partners who are focussed on knowledge acquisition, development of processes and/or tools that can be used by the EFPIA partners within their organisations. As FAIRplus is a fast moving project there are multiple potential points of engagement. Squad 3 is one of these points of engagement. In Squads 1 and 2 the participants are working on an agreed timeline so that, for example, EFPIA partners have enough time to comment on processes before these are finalised and can identify personnel or (synthetic) datasets which are relevant to e.g. BYODs. Tangible and time bound activities are clearly communicated and fuelled in Squad 3 with full EFPIA engagement. Squad 3 receives feedback and input from Squad 1 and 2 observers and the squad coordinator on frequent occasions. Squad 3 participation to the F2F meetings is highly recommended to continue alignment on expectations and objectives
6. It has been noted in the Managing Board description that in the absence of a WPL they may deputise to their pre-identified Deputy Work Package Leader
7. It has been noted in the Managing Board description that the Managing Board meetings may also be attended by the Squad Leads; indicative of their important role in the execution/delivery of the project.

3.2. Key Performance Indicators (KPIs)

Table 3.2.1. KPIs included in the FAIRplus Description of Action (DoA)

| KPI TITLE | KPI DESCRIPTION |
|---|--|
| Fully exploit IMI project data to target advances in healthcare. | Increased FAIRness of >20 datasets from IMI/EFPIA projects to be measured using a CMMI assessment and the CMMI scale and recorded in the IMI catalogue. FAIR metrics (determined in Task 3.1) will be used to iteratively evaluate our progress (Task 3.2). Data citations over time will be identified from the literature at 6-month intervals and shown on the dashboard using EuropePMC statistics. We will provide interaction representation diagrams, indicating any data linking and use through different resources. These will be generated and published on the project website before and after processing for each dataset. Narrative examples from EFPIA companies will be used to indicate where decisions have been made based on evidence from data reuse (before and after increasing FAIRness). |
| Advances in drug discovery decision making such as target discovery, selection and validation. | Narrative examples from EFPIA companies to indicate where decisions have been made based on evidence from data reuse (before and after increasing FAIRness). SMEs developing tailored tools for EFPIA participants. |
| Improved and new standards, delivery of interoperable tools, improved use of FAIR reference datasets from commercial and academic sources due to improved interoperability. | Total published/deposited links (and shared IDs) made between datasets demonstrating resource interoperability and reuse opportunities, attendance at training events, increased used of APIs and the number of organisations using APIs. FAIR validation and metric tools will be developed in Task 3.1.2 and can be reported on via the project KPI dashboard. |

| | |
|--|--|
| <p>Increasing the usability of corporate databases by integration with fast-growing public databases and other licensed or internal databases will enable future research.</p> | <p>Data usage by commercial and academic sector (links indexing, API hits e.g. from the IMI data catalogue, WP3). Increased numbers of SMEs as FAIRplus associated partners (reported on project website as news releases). In addition, the feasibility of using nano-publications (http://nanopub.org/wordpress/) as a trackable citation measure will be assessed at the Managing Board meetings, should an increase of granularity be needed for citation tracking.</p> |
| <p>Making future scientific data from IMI programmes, EFPIA and academia broadly usable and sustainable.</p> | <p>Number of requests made for input into IMI project Data Management Plans as well as references to the FAIRplus toolkit (from DMPs and data publications). Increased engagement of technical and scientific staff demonstrated by burgeoning activities in community (beyond FAIRplus) e.g. conferences and workshops - measuring attendance. Progression of IMI project data of high societal impact through the FAIR-CMMI to demonstrate value and reuse. Examples of commercial entities incorporating IMI/EFPIA data into their products or pipelines which will be tracked via: 1) surveys from Associated Partners, SMEs and EFPIA, or 2) metrics from the IMI data catalogue.</p> |
| <p>Strong increase of expertise in the creation, curation, and stewardship of FAIR databases within IT communities.</p> | <p>External attendance at FAIRplus Innovation & SME Events – our target is 20 organisations/event, tracked by job title and survey response for each event. Transfer of expertise by FAIRplus fellows (e.g. between academia and EFPIA companies) recorded by narrative examples and published on the project website. FAIR related training tracked by job title and organisation.</p> |
| <p>Building skills and increasing competitiveness for SMEs in Europe.</p> | <p>SME collaboration: Attendance by SME personnel at FAIR Innovation & SME events, feedback from SMEs, assessment of future projects and new contracts awarded as a result of collaboration through FAIRplus tracking by survey (during the BYOD and the FAIR Innovation and SME events) and SME interview.</p> |
| <p>Better understanding of the complexity, structure, and breadth of pharmaceutical data; minimum metadata standards will allow the SME community to make their data, analysis tools and services better connected and aligned to pharma data and facilitate future collaboration. Better understanding on the storage and usage of emerging data types, such as images.</p> | <p>SME collaboration: Attendance by SME personnel at FAIR Innovation & SME events, feedback from SMEs, assessment of future projects and new contracts awarded as a result of collaboration through FAIRplus tracking by survey and interviews with SMEs as part of review and annual update to report on 'Public Data Resources as a business model for SMEs'.</p> |
| <p>Interoperability of the databases will allow sophisticated data analysis in all phases of drug discovery.</p> | <p>Interaction diagram produced by project resources (see KPI above), narrative examples from WP participants (WP1) describing novel data analysis, scientific publications citing data and methods.</p> |
| <p>The project will have a significant impact on the scientific community regarding the broad adoption of FAIR data stewardship. This in itself will have a long-lasting value-adding impact on</p> | <p>Data usage, starting with IMI catalogue (WP3) and tools usage; refined and improved metrics into public domain.</p> |

| | |
|----------------------------------|--|
| effective scientific data usage. | |
|----------------------------------|--|

At the start of the project the Managing Board reviewed the list of Key Performance Indicators included in the Description of Action (see Table 3.2.1.) and decided which could be reported on early in the project.

These were added to the FAIRplus website on a dedicated dashboard page⁵ and updated monthly. For the first five months, the Work Package 1 Lead updated these figures but as the project progressed, this task was transferred to the Squad Leads.

KPI dashboard

The goal of the FAIRplus project is to make datasets from IMI projects and EFPIA partners FAIR (Findable, Accessible, Interoperable, Reusable). The following data tracks the progress in this goal. Please note that the project started in January 2019 so the data here will be updated regularly until the end of the project (June 2022).

| | |
|--|-----|
| Type of project | IMI |
| Preselected projects | 114 |
| Selected projects | 4 |
| Projects given an initial FAIR assessment | 4 |
| Projects assessed for: | |
| Findability | 4 |
| Accessibility | 4 |
| Interoperability | 4 |
| Reusability | 4 |
| Projects published in the IMI catalog | 4 |

Last updated: 28 November 2019

Figure 3.2.1. KPI dashboard available on the FAIRplus website

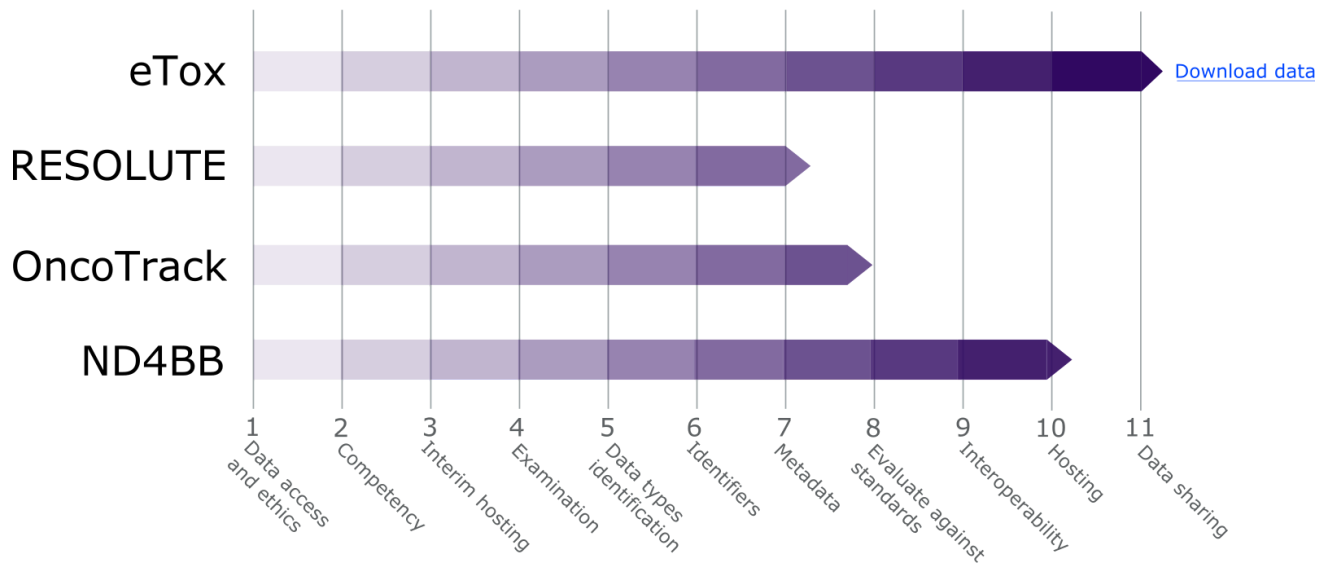
In December 2019 the Squad Leads met with PMU to review the dashboard and plan for the second iteration. A revised version of the dashboard has been mocked (see Figure 3.2.2.) and is currently being reviewed but the Squads, the FAIR-CMMI Team and the web developer. We expect that the updated dashboard will be live in Q1 2020; it will detail the stages of the FAIRplus FAIRification Process and where each of the four pilot Use Cases have reached along that process. For those Use Cases that have reached the end of the process, there will be a direct link to the project published in the IMI catalog⁶.

⁵ <https://fairplus-project.eu/about/kpi-dashboard>

⁶ <https://datacatalog.elixir-luxembourg.org/>

FAIRness maturity level of pilot datasets

Based on the progress in the FAIRification process



FAIRification of IMI projects data: Maturity level 1

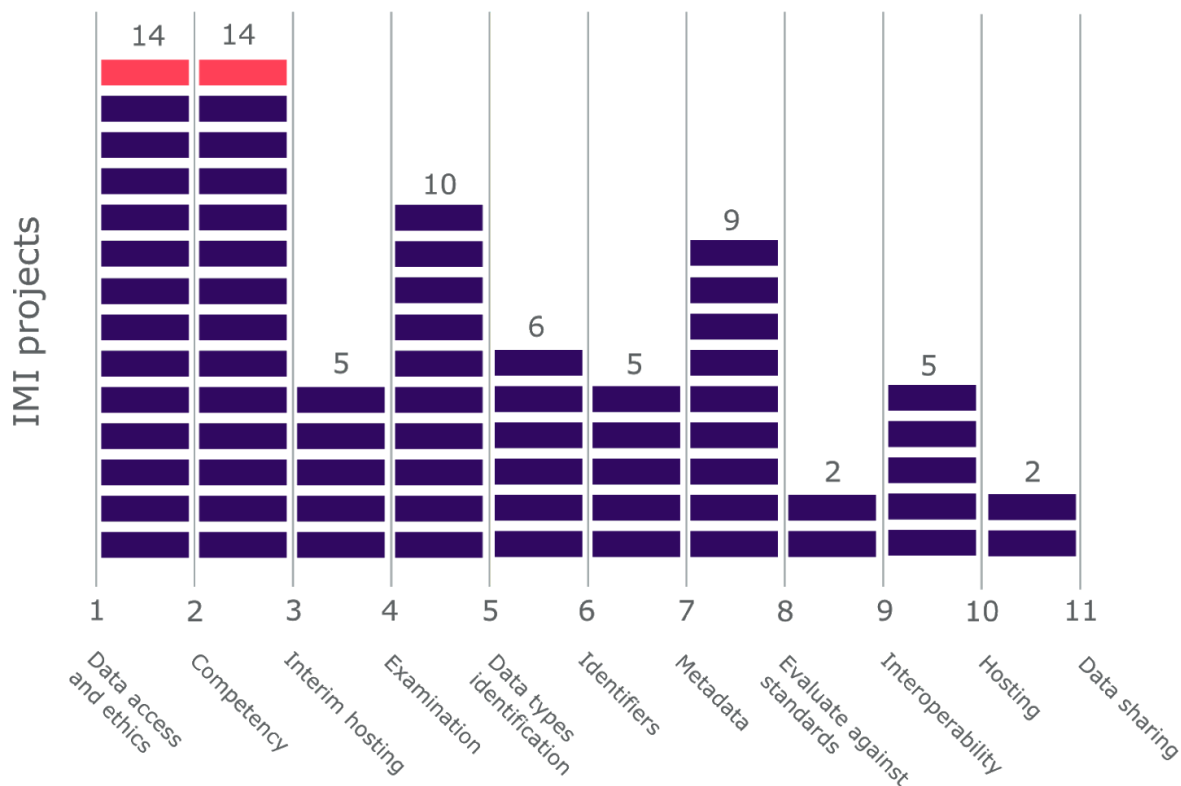


Figure 3.2.2. Mock ups of the KPI Dashboard, Version 2

In the first half of 2020, the KPI dashboard will be further expanded to showcase additional project data included in the other KPIs which are not currently represented on the live dashboard. This will include, among other things, participation statistics from the FAIR Innovation and SME Forum (the first of which is taking place in January 2020), FAIRplus citations in publications, external collaborations on the public FAIR

Cookbook⁷ and requests to join the Associate Partner Working Group and/or attend our events. These efforts will be described in D5.4 which is due in M18 (June 2020).

3.3. Governing Boards

The goals and responsibilities of each project board were formalised in the Consortium Agreement and detailed in Section 5: Project Management Structure and Responsibilities, of the Project Handbook. In line with the meeting schedules (included in the Project Handbook), the various boards have met at regular intervals throughout M1-12.

3.3.1. Ethics Advisory Board (EAB) and Scientific and Industry Advisory Board (SIAB)

Originally the EAB and SIAB were scheduled to meet face-to-face every six months, however, the Managing Board decided there was no need to have the EAB and SIAB join the Managing Board face-to-face meeting at month six. It was deemed that the input gained from the kick off meeting from these two boards would be sufficient for the first year of the project and if required, contact could be made via teleconference. Input will be required throughout the remainder of the project where face to face interaction will be more valuable. This decision also reduced the travel burden on the project during the first 12 months.

3.3.2. Associated Partners Working Group (APWG)

In the project Description of Action and Consortium Agreement it was outlined that the APWG may be invited to some or all of the Squad team TCs at the discretion of the Squad team members, based on the needs of the Squads. It was also stated that they may be invited to the Squad F2F meetings (Bring Your Own Data (BYOD) Workshops).

Early work by the Squad teams indicated that there was not a pressing urgency to have the APWG members attend the weekly meetings, or the periodic face-to-face meetings. Instead, the Squad teams have been joined by members of the IMI projects which have been brought in to FAIRplus as pilot use cases. Most notably, from the ReSOLUTE project.

Additionally, an agreement would first need to be in place between the APWG members and the FAIRplus consortium before any of the APWG members could join the Squad meetings. While the APWG members were named in the DoA having each provided an expression of interest, they were not party to the Grant Agreement and therefore, a CDA or Advisory Agreement would be needed before they were exposed to possibly confidential project information.

⁷ <https://github.com/FAIRplus/the-fair-cookbook>

While neither of the Squad teams have identified a need to have any or all of the APWG members join their meetings during M1-12, the required legal negotiations have not been prioritised by the project legal counsel. This has allowed the lawyers to focus their efforts on more important legal negotiations including the Advisory Agreements for the SIAB and EAB members and a CDA with the IMI project use cases, in particular with members of the ReSOLUTE project who have joined the Squad meetings.

The APWG members have been invited to attend the first FAIRplus Innovation and SME Forum on 29th January 2020, where it is felt their participation is most valuable at this stage in the project.

In early 2020 it will be reconsidered whether we need to prioritise their legal agreements so they can begin to attend our project meetings.

3.4. Project output monitoring - deliverables, milestones and tasks

3.4.1. Deliverables

The status of those deliverable upcoming for the next 12 months are reviewed monthly during the WPLs TC.

A deliverables tracker is stored on the FAIRplus Google Drive in the project master file and as soon as a public deliverable is submitted to IMI 2 JU it is simultaneously published on Zenodo and linked to from the FAIRplus website on the dedicated Deliverables and Milestones page⁸.

3.4.2. Milestones

As with the project deliverables, the status of those milestones upcoming for the next 12 months are reviewed monthly during the WPLs TC.

A milestone tracker is stored on the FAIRplus Google Drive in the project master file.

3.4.3. Tasks

A list of all tasks and sub-tasks, as defined in the Description of Action, is kept updated in the project master file which is stored on the dedicated FAIRplus Google Drive. Against each task and sub-task we have listed a (sub-)task lead and the (sub-)task team. These tasks are reviewed and tracked by the corresponding work

⁸ <https://fairplus-project.eu/about/deliverables>

package during the monthly Work Package TCs and any identified and related risks are brought to the attention of the Managing Board during their monthly TCs.

In addition, the two Squads teams, which comprise members across the work packages, work toward the same tasks and (sub-)tasks but have their own defined tasks per Squad in addition. Squad 1 have elected to utilise the dedicated FAIRplus Google Drive to track tasks within a Google Form. The status of each task is reviewed during their weekly TCs. Squad 2 have moved away from Google Drive and use a GitHub repository to assign and update tasks against each team member. Again, a progress check is conducted at each Squad 2 weekly TC. In addition, the Squad 1 and Squad 2 leads meet monthly with the Squads Lead to discuss the progress of the Squad teams and work to find mitigation measures in instances where tasks are not on track.

3.5. Risk Management

Table 3.5.1. Status review per risk

| RISK # | Description of Risk | Which WP | Proposed Risk mitigation | State of Play | | |
|--------|---|------------------------------|--|---|------------------------|---|
| | | | | Period 1 | | |
| | | | | Mitigation applied? | Did risk materialize ? | Comment |
| 1 | Delay in or failure of recruiting suitably qualified personnel for the assigned effort and access to skills in data science | WP1, WP2, WP3, WP4, WP5, WP6 | Monitoring of recruitment by the Project Leader and MB during project start-up; Possibility of joint recruitment (e.g. Shared advertisement) | from efpia side: all partners have engaged their transcriptomic data experts and provided input offline or during squad F2F | no | full buy-in and strong interest of pharma to squads |

| | | | | | | |
|---|---|------------------------------|--|---------------------------|--|--|
| 2 | Failure of effective management of a large consortium consisting of academic participants, large industry and SMEs. | WP5 | FAIRplus consortium and project management will build on established ELIXIR Hub and Janssen project management practice and experience in managing large international consortia; Ensure that the WPL group (MB) function effectively with regular, standardised reporting; Ensure that roles and responsibilities are clearly defined and plans align with overall strategy (MB); Establishment of Squad teams to drive an efficient work flow across WP; Establishment of an Ethics Board. | communication gap bridged | yes | much more alignment between ongoing activities, deliverables and participation |
| 3 | Inappropriate level of engagement of EFPIA participants. | WP1, WP2, WP3, WP4, WP5, WP6 | Provide clear paths for engagement and utilisation of in-kind contribution (i.e. BYOD, fellowships) to facilitate an effective and efficient collaboration and workflow. Develop early understanding of needs and requirements of EFPIA participants. Review engagement periodically to apply remedial action. | at risk until May 2019 | 1)efpia TCs and invitation to participate in July F2F at Lilly 2)requirements gathering | due date delivery of input to the squads |

| | | | | | | |
|---|--|------------------------------|---|--|----|--|
| 4 | <p>Failure of the negotiations on the exit of the United Kingdom from the European Union to secure participation in EC research programmes puts funding for UK participants at risk.</p> | WP5 | <p>Project management will closely monitor the progress of negotiations and follow advice from UK Research Councils. The Joint Report (8 Dec,2017) states: Following withdrawal from the Union, the UK will continue to participate in the Union programmes financed by the MFF 2014-2020 until their closure [...] Entities located in the UK will be entitled to participate in such programmes. [...] funding for UK participants and projects will be unaffected by the UK's withdrawal from the Union for the entire lifetime of such projects Nevertheless, risk to delivery may remain and this will be monitored as part of on-going WP activities.</p> | | no | |
| 5 | <p>Delays in sharing and managing access controlled human data due to varying GDPR implementations in member states and establishment of new policy practice.</p> | WP1, WP2, WP3, WP4, WP5, WP6 | <p>Project will closely monitor GDPR implementations and practices for research data sharing (WP1 & 5) and establish guidelines (WP1, 2 & 5). All WPs will manage data that falls under GDPR (e.g. user identities) WP1 will proactively have dialogue with IMI project and institutional data protection officers. GDPR risks are actively monitored by participants as part of their own ongoing operations today. Budget is allocated for external legal support.</p> | | NO | <p>looking into clinical data sharing processes identified in IMI_ ABIRISK can bring lessons learned to FAIRplus</p> |

| | | | | | | |
|---|-------------------------|-----|---|--------------------------|--|---|
| 6 | Data security breach | WP3 | Required as a continuous process for computational resource providers: Improvement of the security practices based on risk management (e.g., conducting audits, escalation routines, implementation of AAI). | | NO | |
| 7 | Late access to IMI data | WP1 | <p>Pilot projects will be selected in WP1, with a provisional potential group already established, to test processes that will promote early and adequate interaction with IMI and EFPIA participants to approve access to data. Engage WP1 participants providing legal expertise as required. Prioritise early access to data accessible to consortium members from pilots (Table 1).</p> <p>Progress will be checked at the bi-weekly FAIR-CMMI team meetings to monitor and react promptly in case of delays.</p> | potentially present risk | each efpia partner has reached out to internal colleagues in the lead of the listed IMI projects | the aim is to have agreement to access 10 IMI projects by Dec 31st 2019 |

| | | | | | | |
|----|--|--------------------|--|--|----------|---|
| 8 | Failure to complete the FAIRification of 20 IMI projects. | WP1, WP2, WP3, WP4 | Develop capacity to enable data experts from EFPIA and IMI projects to FAIRify their own datasets via method, process, tools, knowledge and training made available by FAIRplus. Use expert knowledge of the IMI projects FAIRplus participants have previously participated in if engagement is limited for new projects. Pilot projects are expected to cover most of the data types, ensuring gaps on tools (if any) are identified. Progress will be checked at the weekly Squad meetings to monitor and react promptly in case of delays. | Communication gap analysis was performed and this risk is monitored actively | Possible | to set priorities, between EFPIA and squads. functional requirements have been extended (column H). This should provide concrete things to work on for the squads and should allow to find more overlap between use cases. We should make sure the squads understand that the requirements are data independent, even though the use cases were often formulated with transcriptomics data in mind. |
| 9 | Lack of balance between existing IMI project data exemplars and EFPIA participant needs/expertise. | WP1, WP3 | Determine prioritisation across EFPIA participants (via WP1) and align IMI exemplars with EFPIA expertise/needs. Review quarterly to mitigate risk. Define >1 EFPIA participant per exemplar to reduce risk. | | NO | |
| 10 | Impossibility to acquire KPI data. | WP5 | Identify alternative KPI for the performance indicator affected that can be easily acquired and measured. | | NO | |

| | | | | | | |
|----|-------------------------------|---------------|--|---|-----|--|
| 11 | Lack of engagement from APWG. | WP2, WP4, WP5 | Monitor level of engagement of APWG via participation in Squad and project meetings (e.g. BYOD). | special Mutual CDA set in place by coordinator and project lead legal departments | YES | CDA to be shared with full consortium for distribution to all legal departments by Dec 15th 2019 |
|----|-------------------------------|---------------|--|---|-----|--|

Table 3.5.2. Newly identified risks

| | | |
|--|----------|--|
| Practical solution for personal data is huge challenge compared to preclinical data: clinical data is big value. Risk of continued lack of full range of datatypes on clinical trial / datasets - too few project outputs are released and clinical datasharing agreements are forming bottleneck : ELSI implementations score - DMP and sustainability implementations score - expert system for project applications | WP6, WP5 | |
| Seems we are looking too much at the problem with data processor perspective whereas the value and needs are to look at the fairification from DATA REUSE perspective Eg. we will fairify the data that come in our hands but that is not per se what the user needs | WP6,WP5 | |
| Dissemination and communication strategy lacking. Risk/challenge not reaching the companies and other beneficiaries with a few proper success stories _ | WP6,WP5 | |
| Unable to validate the impact of the fairification - KPI's identified | WP1,WP2 | |
| Overlap in number of meeting (and objectives) increases travel and brings Travel budget + contingency plan needed with potential financial deviations | WP5, | |

| | | |
|---|--------------------------|--|
| Sustainability project data management | WP1, WP2, WP3, WP4, WP5, | |
| End up with a formal “ tick the box” 1 pager that is not meeting the needs for potential customer | WP1, WP2, WP3, WP4, | |
| Administrative load | WP1,WP5, | |
| Data survey → data processing agreement (cross-consortium agreement) | WP1,WP5, | |
| Insufficient participation in fellowship program. | WP4 | |
| Stakeholder interaction plan (Deliverable March 2020): where do we want to focus on as FAIRplus? | WP4/WP5 | |

3.6. Financial monitoring

During M1-12 of the project the main focus of Work Package 5 has been on mobilising the Work Packages and Governing Boards and providing the resources they require, including the dedicated Google Drive, GitHub repository and Project Handbook.

At the start of M12 the Project Coordinator initiated the first financial monitoring session. All project partners are requested to provide their financial reporting data up to the end of December 2019 - covering the full first 12 months. This will be collated for review during the Managing Board meeting on 30th January and thereafter will be conducted every 6 months to identify early on any major deviations to the project budget and ensure project partners stay on track with the project spending.

3.7. Sustainability

Sustainability planning will be more formally addressed beyond year 1 of the project, culminating in a plan that will be delivered at M24 (D5.5) and a white paper at M36 (D3.8). However, sustainability is integral to this project. Wherever possible, FAIRplus uses infrastructure that is of a sustainable nature. As an example, ELIXIR is a sustainable infrastructure with long term funding from its Member States. The ELIXIR-Luxembourg Node Service Delivery Plan⁹ includes the “Translational Medicine Data Catalog (TMDC), which includes the IMI catalogue that is used in FAIRplus. The budget for maintaining the service will be covered by their structural (long-term)

⁹

https://elixir-europe.org/services/list?field_scientific_domain_tid=All&field_elixir_badge_tid=All&field_type_of_service_tid=All&field_elixir_node_target_id=2299&combine=

funding after the FAIRplus project. In addition, the sustainability of our FAIR processes and methodology is under continuous consideration via the Squad teams, the most obvious example being when data types are matched to available hosting solutions eg. public repositories. A final example is the FAIR Cookbook¹⁰. Guidelines ('recipes') will be open and sustained in a GitHub repository for the course of the project at a minimum. This supports long term sustainability as the recipes will be used and implemented by others beyond the project end date. During the course of the project, a comparison of different repositories will be made to ensure FAIRplus selects the most sustainable option.

Plans have been made to discuss sustainability models, in particular finance models, at the upcoming SME event in M25, with a panel that includes experts from other projects that have faced similar challenges (e.g. IMI OpenPhacts and Open Targets). Information from this session, as well as experience from other projects and collaboration between Work Packages 2-5 will be used to formulate the formal plan.

3.8. Lessons learned

Two IMI Squad teams and an EFPIA Squad have been active for 10 months. The role of these Squads is to establish a FAIRification process and increase the FAIR level of selected datasets (four IMI projects and transcriptomics data prioritised as a datatype from EFPIA to focus on). These Squads have been established in particular to cut across the boundaries of the project (WPs). The best working practises of these Squad teams have developed over the course of the first year and will develop further in the remainder of the project. The main lessons learnt are:

- 1) Interaction between Squad teams is key

During this first year, it was necessary to improve the communication between Squads, particularly between the IMI Squads and the EFPIA Squad, to ensure that the EFPIA Squad can progress with their use cases using lessons learnt from the other Squad teams.

- 2) Whilst FAIRification of specific data sets is vital, it is important to generate guidelines and processes that are generic to aid the FAIRification of future datasets

Initial work has focussed closely on dataset specific problem handling/FAIRification and it has been suggested that the FAIRification 'recipes' added to the cookbook need to be more generic.

Closer interaction between academic and EFPIA Squad coordinators, cross-checked with the project management team, is leading to a better understanding of the work to be done and what will be needed to complete this over the next 6 months.

4. Conclusion

In January 2020 we will have our first FAIRplus General Assembly, as well as the EAB, SIAB and Managing Board meetings. It will be the first time the EAB and SIAB have been brought together face-to-face since the project kick-off meeting. During this

¹⁰ <https://github.com/FAIRplus/the-fair-cookbook>

meeting the Work Package Leaders and Squad Leaders will present their SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis to the boards with the expected outputs being thoughtful and insightful feedback the Work Package and Squad Leads can use to adapt and/or improve their working methods over the following six months.

During the following six months significant focus from the Project Management Team will be spent on developing and reporting on the KPI Dashboard in Deliverable D5.4 (due M18), financial tracking and defining the project sustainability plan in collaboration with Work Package 3.

The project website will continue to develop with more Key Performance Indicators added to the KPI dashboard as the project develops and as there is more to report on. The dashboard itself will be updated to make it visually appealing by using graphics to make it more like a traditional dashboard.

Finally, sustainability planning will be considered formally in year two to ensure that FAIRplus impact is maximised and guidelines for making current and future data available for long term reuse are developed. The sustainability plan will consider different data types as well as give recommendations for future projects.

Collaboration with other IMI/H2020 projects will be explored (EJP RD, ELIXIR-CONVERGE, EOSC-Life) via FAIRplus beneficiaries who have a predominant role on those projects.

5. Repository for primary data

All project documentation is stored on the private FAIRplus Google Drive. If you wish to access anything referenced in this deliverable report, please contact fairplus-pm@elixir-europe.org stating your need for access.

Appendix 1: FAIRplus Project Handbook V1.0

The Project Handbook is accessible to all project Partners on the private FAIRplus Google Drive:

[FAIRplus_Project Handbook_V1.0](#)¹¹

¹¹ <https://docs.google.com/document/d/1bxyhGsKYsVpYSmFCUKrGDFpO2T9tOKL8ZSHOgA16CB8/edit>