

Appendix A. Overview respondents

Interview	Type	Function	Function EMIF	Topic	Duration	
1 & 30	EFPIA2	Senior Director	Co-lead WP & AD	AD	55 min	30 min
2 & 31	EFPIA2	IT Director Research	Co-lead WP	PLATFORM	48 min	49 min
3 & 32	EFPIA4	Associate Director	Co-lead WP	METABOLIC	1h35	25 min
4 & 33	EFPIA3	Director	Co-lead Metabolic	METABOLIC	1h20	40 min
5 & 34	EFPIA3	Director	Co-lead WP	PLATFORM	1h01	50 min
6 & 35	EFPIA5	Director	Co-lead WP	AD	1h08	45 min
7 & 36	EFPIA2	Manager	Co-lead WP	PLATFORM	55 min	1h00
8 & 37	EFPIA2	Senior Director	Co-lead WP	AD	1h30	30 min
9 & 38	EFPIA2	IT Manager	Co-lead WP	PLATFORM	55min	50 min
10 & 39	Research6	Professor	Co-lead Platform	PLATFORM	56 min	15 min
11 & 40	Research4	Clinician Scientist	Co-coordinator	MANAGEMENT	34min	15 min
12 & 41	Research2	Professor	Co-lead Metabolic	METABOLIC	40min	17 min
13	EFPIA2	Global Head Neurosciences	N/A	IMI	50min	
14	SME5	Managing Consultant	Member	PLATFORM	1h50	
15	SME4	Project Manager	Project Manager	AD	1h34	
16	SME6	Professor	Member	AD	30min	
17	SME2	Director	Member	PLATFORM	1h00	
18	Research5	Professor	Co-lead WP	AD	50min	
19	EFPIA1	IT manager	Co-lead WP	PLATFORM	1h14	
20	EFPIA2	Senior Vice President	N/A	IMI	1h03	
21	Research3	Project Manager	Member	PLATFORM	32 min	
22	SME1	CEO	Co-lead WP	MANAGEMENT	1h05	
23	EFPIA6	Senior Director	Member	PLATFORM	1h25	
24	Research1	Researcher	Member	PLATFORM	1h30	
25	EFPIA2	Senior Director	Co-lead Platform	PLATFORM	1h06	
26	EFPIA2	Senior Director	Co-lead WP	AD	1h20	
27	PO1	Commercial Director	Member	MANAGEMENT	1h05	
28	EFPIA	Senior Director	Co-lead WP	PLATFORM	45 min	
29	Research7	Professor	Member	PLATFORM	43min	

Appendix B. Interview guide

About the respondents

- Your role within your company
- Your role in the project
- How did you get involved in the project?
- What is your experience so far with the project?

About the collaboration between stakeholders

- How do you feel about the mix of stakeholders? Could you describe what it is like to work with them? Probe into
 - o The benefits and challenges posed by the number and diversity of stakeholders.
 - o How informants perceive the complementary and interdependency between stakeholders.
- How is the collaboration managed? How do interactions take place? How are decisions made? Who does what? How is it determined? Probe into
 - o What actions are taken to stimulate the collaboration.
 - o How the collaboration could be improved.

About the co-leadership structure

- What is the role of the co-leaders?
- How do you feel about the co-leadership structure?

Reflection questions

- Is this the first time you collaborate in an IMI project? Is there a difference between the EMIF project and other (EU) projects you participated in?
- What are the lessons you learned from this project?

Follow-up interviews

- How did the collaboration evolve? Probe into
 - o The influence of the number and diversity of stakeholders
 - o Collaboration on the different levels of EMIF: in your work package, between the different work packages, between the topics.
 - o The factors that gained importance to stimulate collaboration.
 - o The factors that can be improved.
 - o The challenges you still foresee.

Appendix C. Coding process

To code our transcripts, we first labeled relevant words, phrases and/or passages as closely to the data as possible. During this phase, we did not use a coding scheme, but we let our codes emerge during the process. After this initial coding step, we grouped the empirically derived codes into higher-order conceptual constructs (Spiggle, 1994). On the one hand, we relied on constructs highlighted in the literature (e.g., formulating the project vision, stimulating bottom-up collaboration). On the other hand, we refined these constructs, created subcategories, and relabeled them (e.g., showcasing the project, developing project proposal). We repeated this coding process after the second round of interviews and refined and added constructs based on the new insights that emerged. This process resulted in a list of orchestration practices, supporting structures, and key challenges (Appendix C).

Next, we returned to our coding and specified relationships between the concepts. In this step, we paid specific attention to the processual nature of the network. To do so, we first created a timeline of events that had occurred since the initiation of the project, based on project documents such as meeting minutes, calendar entries, and PowerPoint presentations. The timeline captured events such as meetings, project deadlines, and outcomes in the form of publications. Based on the interview data, we then added the practices that orchestrators used over time. We also added the formal structures that supported orchestrators and the challenges that arose in the eyes of the informants.

This timeline formed the basis of the process model that we present in this paper. We observed that the orchestration practices could be grouped into three categories (connecting, facilitating and governing). We consider practices that orchestrators use to create and make the connections between stakeholders visible as ‘connecting’ practices. These practices ensure network members know who is who and who knows what. They help orchestrators create effective team compositions (e.g., when they motivate key contributors, bridge stakeholders or create smaller teams), ultimately to reduce network opacity. Practices that ensure harmony between stakeholders were coded as ‘facilitating’ practices. These practices create common cognitive representations of the project and developing relationships with high levels of cognitive and emotional trust. Facilitating practices work alongside connecting practices, by developing trustful relationships between stakeholders who are already connected, for example by discussing and raising awareness of differences between stakeholders. At the same time, they support relationship-building

between those stakeholders who are not (yet) connected, for example, when orchestrators formulate and showcase the project vision. Finally, we coded practices to create an effective network system as ‘governing’ practices. These practices ensure productive collaborative structures that support the timely delivery of agreed upon deliverables and milestones. Mapping connecting, facilitating and governing practices over time, allowed us to identify three corresponding innovation trajectories: the networks connections, network relations, and network systems trajectory.

In a final step, we contrasted the orchestration practices with the existing literature to categorize them as dominating or consensus-based, allowing us to observe how orchestrators switched between both modes. Throughout the analytical process, we continuously elaborated and refined our constructs, and relabeled them by contrasting them with prior research. All coding was conducted using the qualitative text analysis software NVivo (QSR International, 2012).

Open code	Higher order constructs	Category
Leadership practices		
Assign participants to work packages, commit full time equivalents, source within organization, decide how to spread commitment	Assigning roles	Connecting practices
Get people together, make people aware of opportunities to collaborate, keep people informed	Stimulating initial encounters	
Get people interested, know their expertise, look for commitment, identify movers and shakers, match people’s interest with the work	Motivating key contributors	
Connect people who need to know each other, connect around mutual concerns, organize meetings so stakeholders can meet	Bridging stakeholders	
Start small and then expand, create task forces, set up smaller focused projects	Creating smaller teams	
Develop a vision, explain how it aligns with IMI objectives	Formulating project vision	Facilitating practices
Explain the project, understand the bigger picture, owner and face of vision, clarify the vision	Showcasing project	
Workshops to discuss differences, no judging, set expectations, develop mutually agreed way working, determine language, identify complementarities, understand extremes, make people aware of differences, help see other perspectives, take people on the side	Discussing differences and raising awareness	

Get people on board, find support, enthusing people, empower the bottom-up, asking questions, being enthusiastic	Stimulating bottom-up collaboration	
Creating good teams and relationships, people management, build trust, build relationships	Facilitating relationships	
Define work packages, roles and responsibilities, assign deadlines, defining milestones and deliverables	Developing project proposal	Governing practices
Show results, emphasize joint efforts, create sense of belonging	Showcasing results	
Remind participants of deadlines, check if milestones are coming up, review progress, report results, reach consensus	Monitoring progress	
Allow room for innovation, re-plan and re-allocate funding	Providing flexibility	
Key network challenges		
Make sure the numbers add up	Mechanistic matching	
Figure out where to contribute, get integrated, learn role, get involved, get to know people, get to know people's expertise, get out of your own world	Ambiguity	
Silo thinking, lack of a common mission, difficult to keep an overview, differences between academia and industry, different ways of working	Fragmentation	
Slow, lack of mechanisms to steer, lack of accountability, mistrust, unclear who can make the final decision	Inertia	