



Nebula

A Built4People Project

FIRST VERSION OF THE REPLICATION PLAN DELIVERABLE D5.2



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DELIVERABLE INFORMATION

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1 INTRODUCTION

1.1 BUILT4PEOPLE AND NEBULA

Built4People (B4P) is a European partnership under Horizon Europe. The partnership aims to catalyse the transition to a people-centric, climate-neutral, sustainable, and smart built environment. The B4P partnership aims to support the development and connection of regional and/or cross-border B4P Innovation Clusters (B4PICs) in a B4P ecosystem to maximise innovation impacts in line with Horizon Europe.

The NEBULA project builds upon the B4P partnership as well as the New European Bauhaus initiative to activate and nurture a network of B4P Innovation Clusters (B4PICs) by implementing:

- Improved visibility, adoption and uptake of innovative solutions that are in line with the New European Bauhaus thanks to increased awareness on benefits from innovation and better access to co-financing,
- Intensified, cross-sectorial and interdisciplinary peer-learning from frontrunners as well as cross-border cooperation and networking,
- Preparation for the long-lasting activities of the network of B4P Innovation Clusters and the integration of the next clusters.

The project, therefore, supports a first batch of existing and emerging clusters to increase their maturity through 'maturity push' activities, including peer learning on New European Bauhaus concepts, support to open innovation, business & financing opportunities, matchmaking and promotional events.



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The NEBULA project was conceived from the outset as part of a longer-term, high-level roadmap for the evolution of the B4P Partnership as can be seen in the image below:

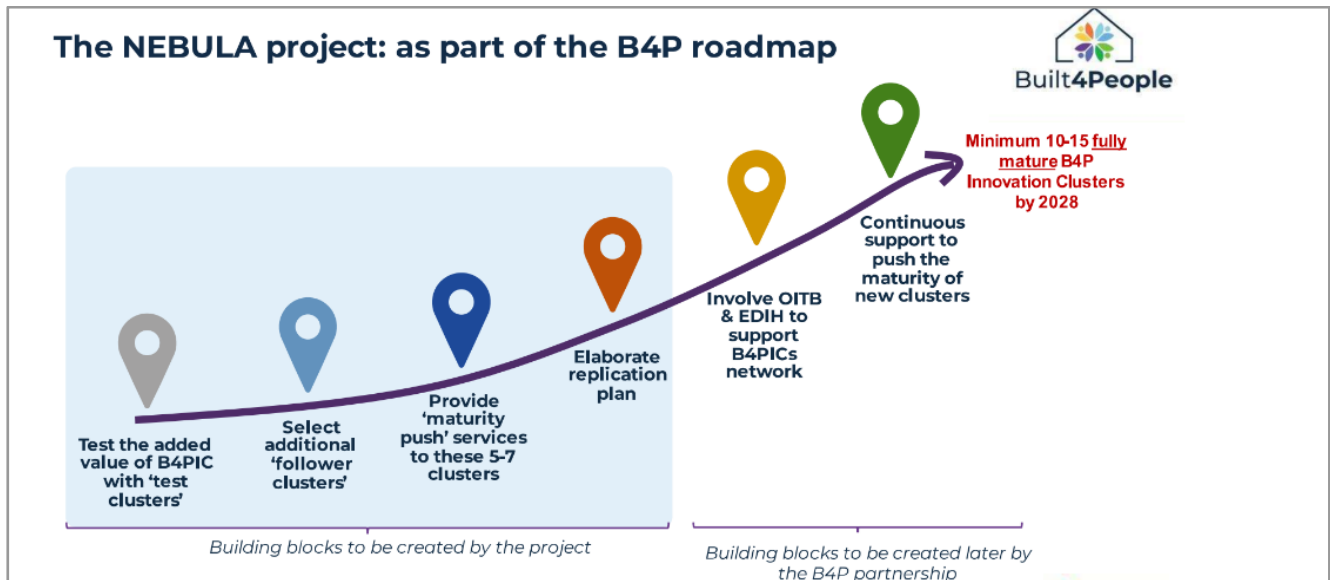


Figure 1: How the NEBULA project contributes to the long-term Built4People Partnership development

1.2 OBJECTIVE OF THIS DELIVERABLE

A key objective of the NEBULA project is to secure the sustainability of the B4PIC network. Task 5.5 “Strategic replication plan” is dedicated to paving the path for this future continuity. This initial draft of the replication plan sets out a first proposal of the process and resourcing for future replication efforts.

This first version will then be used as a discussion paper to elicit insights and feedback from the NEBULA stakeholders on the proposals. These insights will be analysed and integrated into a refined plan. By M30, this task will culminate in a final version consolidating lessons learned, processes, and best practices.



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Month:		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Communication and long-term cooperation	WGBC																																
Plan for dissemination and exploitation inc. Communication	WGBC																																
Communication within and around the B4P IC network	WGBC																																
Cooperation with B4P Partnership and relevant CSAs	ECTP																																
Coordinated participations to key events & industrial fora	R2M																																
Strategic replication plan	WGBC																																

Figure 2: Work Package 5 Gantt chart reference

The objective of the final replication plan is to provide a detailed roadmap and set of good practices to ensure the long-term sustainability and growth of the B4P Innovation clusters to meet or exceed the goals as defined in the [B4P Partnership Proposal](#).

As outlined in the Grant Agreement, the plan shall include:

- Recommendations for the B4PIC selection and accompaniment and for the related governance process.
- Recommendations to create synergies with the EC-funded Innovation test beds, the European digital innovation hubs with B4P innovation clusters, and the 5 future NEB pilots.
- Specifications for the development of demonstration spaces (pilot buildings, living labs...) and of the competences and services related to economic, environmental and social assessment of innovations.
- Recommendations on new building blocks to be created later by the B4P Partnership (see Figure 1)

This first version of the replication plan deliverable collates lessons learnt and good practices from the activities carried out in NEBULA in its first 18 months. In particular, the first Expression of Interest, the associated B4PIC selection process and the approach developed to accompany the clusters until Charter signature have resulted into useful good practices to support replication.



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The deliverable is therefore structured in two parts:

- **Replication:** good practices and lessons learnt from NEBULA so far and associated recommendations
- **Sustainability:** proposed approach to define a final strategic replication plan for sustainability by M30, including proposals for a series of replication planning workshops to gather feedback on this first version of the plan.



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2 REPLICATION - LESSONS LEARNED FROM SELECTION AND ACCOMPANIMENT OF B4PICS

This first section is built from insights gained during the processing of the first cohort of applicants to join the B4PIC Network. The efforts undertaken to advance towards having a first batch of B4PICS have so far proved highly successful, evidenced by:

- Receiving 54 applications for the Expression of Interest.
- Pre-qualifying 26 applications as Innovation Clusters, advancing them to the next stage for self-assessment of their maturity level.
- 16 Innovation Clusters have been selected to sign the B4PIC charter.

These achievements are particularly noteworthy, considering the original aim of establishing 10-15 B4PICS by 2028. This section will elaborate on the tasks and processes instrumental in achieving this success during the first batch.

2.1 UTILISING BOTH BOTTOM-UP AND TOP-DOWN METHODS TO CLASSIFY B4PIC CANDIDATES

In NEBULA, we deployed a combination of what we termed bottom-up and top-down methods to classify candidate clusters and reach out to them to elicit expressions of interest. The difference in the two approaches is explained as follows:

- Bottom-up: Open call for applications disseminated through email, website and social media. Based on an essential resources pack to disseminate information about the B4PIC network effectively, elucidating the benefits and offering guidance on how to the pack includes an informative 2-page document, website details, a social media package and a press release.
- Top-down: A master list of existing European innovation clusters pre-identified by the Consortium Partners extracted from existing European cluster registries and databases, such as the METABUILDING Platform, the European Cluster Platform, and the EU Construction Innovation Platform. This list also included clusters that were pre-identified at proposal stage (e.g. Archenerg in Hungary and STRESS in Italy)



In the first instance, the open call ensured that we achieved a broad reach across many countries and potential clusters. The more targeted, top-down approach complemented the open, bottom-up approach by engaging directly with potential candidate clusters and leveraging the contacts NEBULA partners already had. Applying both approaches together was key to generating the 54 applications that were received, exceeding the expectations for the first batch. In a similar way, going forwards, the B4PIC network should use a combination of open communication channels and targeted outreach to achieve breadth and depth of engagement with stakeholders.

2.2 DEVELOPMENT OF TAILORED RESOURCES

The development of the Expression of interest (Eoi) served as a comprehensive data collection tool to assess potential candidates based on relevant information such as cluster type, scope, objectives, geographic focus, sector, services, activities, and general contact details. The Eoi provided a filter and automatic categorisation of possible candidates. Submissions through the Eoi were monitored weekly, keeping all partners updated about the candidates.

A request to fill in an online Self-Assessment Tools (SAT) developed by NEBULA partners was then sent to candidate clusters that met the eligibility criteria, namely 1) be managed by a legal entity 2) have a clear focus on the built environment. This has enabled us to assess the initial maturity level of candidate Innovation Clusters (ICs) and their alignment with B4P objectives in a very resource efficient way. This facilitated an objective evaluation process and informed decision-making during the selection process.

Efforts to make the communication resources available in multiple languages contributed to extensive geographical coverage, reaching candidates across various European countries. This inclusive approach facilitated a diverse and representative applicant pool from Spain, Italy, France, Belgium, Finland, Greece, Bosnia and Herzegovina, Portugal, Hungary, and Serbia.

In future work, the B4PIC network can adopt similar strategies to engage and support clusters. Using online data capture provides a relatively resource efficient way to collect information from the network without needing to deploy researchers centrally. Such techniques can be used to capture information about the impact and successes of the network. Providing resources in multiple languages where possible is a way to increase accessibility and engagement in multiple markets.



2.3 CONTINUOUS IMPROVEMENT AND ADAPTATION TO CLUSTER JOURNEY NEEDS

The role of accompanying partners was created to provide guidance and support to the B4PICs in the start of their maturity journey. In this sense, accompanying partners will support the prospective B4PICs in the following:

- Explaining the context of B4P and NEBULA.
- Understanding the B4P objectives and KPIs.
- Guidance on where to find resources (e.g. Built4People publications, resources, and deliverables).
- Identify/refine initial maturity levels for different success factors.
- Assist in defining the maturity levels to be achieved and associated timeline.
- Help Prospective B4PICs to personalise and refine their B4PIC Charter to be signed, according to the initial maturity levels and targeted ones
- Make sure they assign a “NEB advisor” (among their team or one of their members).
- Helping to find answers to any other questions about the B4PIC Network

2.4 FACILITATED SUPPORT MECHANISMS

Providing supporting resources such as presentations, templates, and guidance materials significantly aids prospective candidates in navigating the application process. These resources serve as valuable tools for understanding the B4P objectives, refining charter documents, and defining success factors.

It's worth noting that several activities have emerged as good practices within the implementation:

- Conducting rounds of application reviews with the involvement of all partners.
- Prioritising engagement with the NEB agenda as a central area of interest.
- Endorsement from B4P Partnerships shows collaboration and credibility.

2.5 WHAT CAN BE IMPROVED

There are of course aspects of the work to date that can be improved upon and these are summarised in the list below:



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- **Differentiation between Innovation clusters and other organisations:** This challenge involves identifying and understanding the unique characteristics of innovation clusters compared to other types of organisations. It can be difficult to delineate between innovation clusters and, for example, regular business networks or industry associations. We have learned that it is important to be clear from the outset what constitutes an innovation cluster eligible to join the B4PIC Network and other entities that, in their own right, are not eligible. Collecting the relevant information at the point of first engagement to allow proper classification helps avoid confusion and mismanaged expectations as well as wasted time and effort to classify later.
- **Creating a personalised approach for all candidates with emails and resources:** Personalising communication and resources for each candidate presents a challenge due to the sheer volume of candidates and the diverse range of backgrounds and interests they may have. Crafting personalised emails and providing relevant resources required significant time and effort, and there is a risk of overlooking certain candidates. On the other hand, it is important that we avoid providing them with too much generic content that doesn't meet their specific needs. Getting the balance right in terms of tailored effort vs efficiency through replication is important.
- **Dealing with clusters that answer with delay or not at all:** Some innovation clusters may be unresponsive or slow to respond to outreach efforts. This challenge can stem from factors such as organisational priorities, resource constraints, or communication breakdowns. When clusters fail to provide timely responses, this can lead to delays in processing batches of communications to other clusters and expending extra effort to follow up. Having and sticking to clear internal deadlines is one way to minimise the impact of this.
- **Duplicating information requested to clusters with the EoI and SAT:** Requesting duplicate information from innovation clusters through different channels, such as expressions of interest (EoI) and self-assessment tools (SAT), poses a challenge in terms of efficiency and effectiveness. Duplicating requests can lead to redundancy and confusion for the clusters and the organisation collecting the information.



- Increasing the EU coverage:** although the EoI generated a lot of interest from a variety of countries, some Member States are over-represented (e.g. Spain, Italy, France, see Figure 3) while other Member States are not covered. Future EoI or activities carried out to expand the B4PIC network should target those countries in priority, to ensure that EU27 is covered as best as possible.

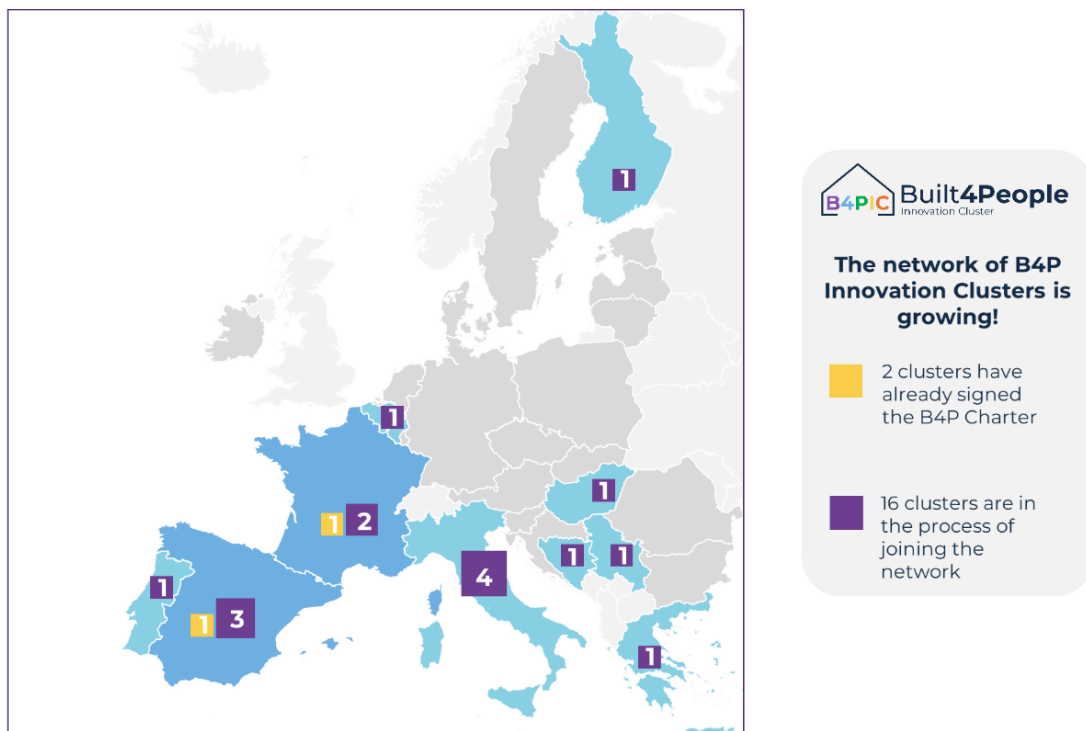


Figure 3: B4PIC network as of April 2024



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3 SUSTAINABILITY: NEXT STEPS IN THE STRATEGIC REPLICATION PLANNING PROCESS

3.1 UPDATE OF THE INITIAL APPROACH, TAKING INTO ACCOUNT THE LAUNCH OF STAR*TRACK

Since the initial concept for the replication plan was developed as part of the NEBULA proposal, the project partners, together with some new partners, have had another proposal accepted by the European Commission for a follow-on project known as STAR*track. The proposal was submitted for Built4People call topic HORIZON-CL5-2023-D4-02-04 under the destination 'Efficient, sustainable and inclusive energy use.' Subject to completion of all grant and consortium agreement signatures, STAR*Track will receive Horizon Europe funding as a coordination and support action under Grant Agreement No 101147509.

STAR*track aims to expand and strengthen the B4P Innovation Clusters (B4PICs) network initiated during NEBULA. It will complement and improve the B4PIC concept and maturity framework and continue the promotion of these elements at regional, national and EU level towards the innovation actors of the Built Environment sector. STAR*track will strengthen B4PICs through the provision of additional tools and services to their members to accelerate the uptake, development, demonstration and transfer to the market of sustainable and people-centric products and solutions. It will also continue efforts to facilitate access to private financing and public funding.

Specifically, STAR*track will address the following objectives:

1. Expand and strengthen the Built4People Innovation Cluster network through the integration of new Built4People Innovation Clusters



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2. Create enabling conditions for Built4People Innovation Clusters to develop and implement sustainable construction and renovation innovation including training and ICT tools.
3. Accelerate the development and demonstration of holistic and inclusive solutions with high market potential.
4. Facilitate access to funding for demonstration, scale-up and implementation of sustainable business by local/regional construction value chains.
5. Pave the way for replication, wide-spread use of the supporting tools and services and continuous expansion of the Built4People network.

Hence STAR*track already integrates a lot of the thinking and learnings of the NEBULA partners in terms of replication and sustainability. So, in the next section of this version of the replication plan we set out the next steps for Task 5.5 within NEBULA. These activities will lead to the final deliverable of the task, namely an updated replication plan. The task will look beyond STAR*track to consider what further efforts, activities and resources are needed to ensure the sustainability of the B4PIC network and the widespread use of methods and tools developed in both NEBULA and STAR*track to support and improve innovation processes in the built environment.

3.2 VISION AND BACK-CASTING

Neither NEBULA, nor the wider Built4People Partnership can be considered to be typical initiatives. They seek to deliver systems change across an entire sector. Hence we propose a method for elaborating the strategic replication plan that is better suited to such system change efforts. The method is derived from the EIT Climate-KIC [Toolbox for System Innovation](#) and has been used successfully by WorldGBC in several different systems change initiatives.

In order to plan for the future, it can be very helpful to describe that future state that we want to achieve and then work backwards from there to determine the changes that will need to happen to achieve that future state. Then the actions that can catalyse those changes can be planned. This method, known as vision and back-casting, is useful for planning for transition or systems change, where traditional project planning techniques often fall short.

The technique helps to identify where there are changes that can be catalysed by those directly involved and where some changes may be reliant on the actions of stakeholders beyond the direct project team or partners. For this reason we consider it a useful technique to help with the development of this strategic replication plan for NEBULA, where the long term success of the B4PIC Network is likely to depend not only on the immediate resources that the project partners can deploy, but on the engagement of many stakeholders across the network and beyond.

Here, in this first version of the replication plan, we propose an initial vision statement for what the future state should look like and this will then be further tested with project partners and key stakeholders, including the clusters in the B4PIC network.

The vision statement is elaborated from elements of the NEBULA and STAR*track proposals. It addresses both the scope and size of the network and its impact towards the B4P objectives. The statement has been framed around a time horizon of 2035. This represents a point in time that is several years beyond the anticipated end of the STAR*track project. By choosing a round number it can be considered to be symbolic and indicative rather than prescriptive – in other words it leaves open the possibility that the time horizon can be made more precise as we get closer towards the goal.

The draft vision statement is as follows:



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“The B4PIC Network has grown to include at least one cluster in each EU member state. The ICs are interacting effectively in both structured and organic ways; their participation in the network demonstrably boosts productivity and reduces time to market for built environment innovations that make a tangible and quantifiable positive impact on social, environmental and/or economic sustainability metrics.”

From this starting point, we then work backwards to define changes at different time horizons that will be necessary to achieve the vision. For this first version of the plan, we propose some tentative examples of changes in the table below as a starting point for engaging in discussion with partners and stakeholders.

Table 1: Proposed changes and actions to achieve the end-state vision for the NEBULA replication plan - for discussion and feedback from stakeholders.

Date	Change needed	Actions from B4P partners (or other responsible entities)
2035	Network of 25-30 B4PICs functioning with a self-sustaining resourcing model for core support and demonstrably scaling quantifiable impacts	Continue to monitor and communicate impact across the network, leveraging success stories to bring resources and (if applicable) new clusters to the network.
2030	B4PICs are supported to track and report quantifiable benefits from their participation in the network including, for example, productivity, time to market, investments leveraged etc.	Co-create a monitoring framework of common KPIs (aligned / complementary to B4P KPIs) with the B4PICs. Leverage best practice examples from other fields where possible
2027	Network of 15-20 ICs are increasingly recognised by industry and political leaders as the frontrunners driving innovation in sustainable built environments	Via the B4P Stakeholder Forum, Biennial Monitoring Report and other European level events, the B4PIC network has been profiled and shown to be an impactful vehicle for innovation.



		<p>B4P partners have a clear business or funding model that brings in enough resources to provide target FTE staffing. Agree operating structure beyond B4P MOU</p>
<p>2025</p>	<p>Network has digital tools to effectively collaborate across borders, for example, via the means to quickly identify members with common interests, share opportunities for collaboration, communicate</p>	<p>STAR*track project continues where NEBULA left off, delivering tools and resources for the B4PIC clusters to collaborate</p> <p>Support and encourage clusters to use the MetaBuilding platform to profile their work, priorities and collaboration opportunities</p> <p>Elaborate target operating model (including partnership structure beyond B4P MOU and EU funding) and refine business / funding model.</p>

3.3 RESOURCING SCENARIOS

To anticipate resource requirements and ensure sustainability, we propose using the Target Operating Model method. The method describes the current state of resourcing and then explores multiple future scenarios and the resourcing needs of each. Specifically, it outlines strategic elements, capabilities, and core processes to achieve each scenario and allows us to estimate staffing needs, refine processes, and streamline workflows. Whilst none of the documented scenarios is likely to represent the future, by exploring multiple options, the technique can generate more useful outputs for planning for an uncertain future.

This method has already been used by the B4P partners other than the Union (ie ECTP and WorldGBC) early in the partnership to explore potential future resourcing needs. Hence there are materials and scenarios documented for the resourcing



needs of the Partnership management, and these can be readily updated for NEBULA and used to stimulate discussions in the feedback gathering process to explore resourcing needs for the future of the B4PIC Network.

The images below illustrate how this methodology was adapted for the Built4People Partnership. Similar resources will be prepared and used to elicit stakeholder feedback in the next steps of this task, focussing on the B4PIC Network.

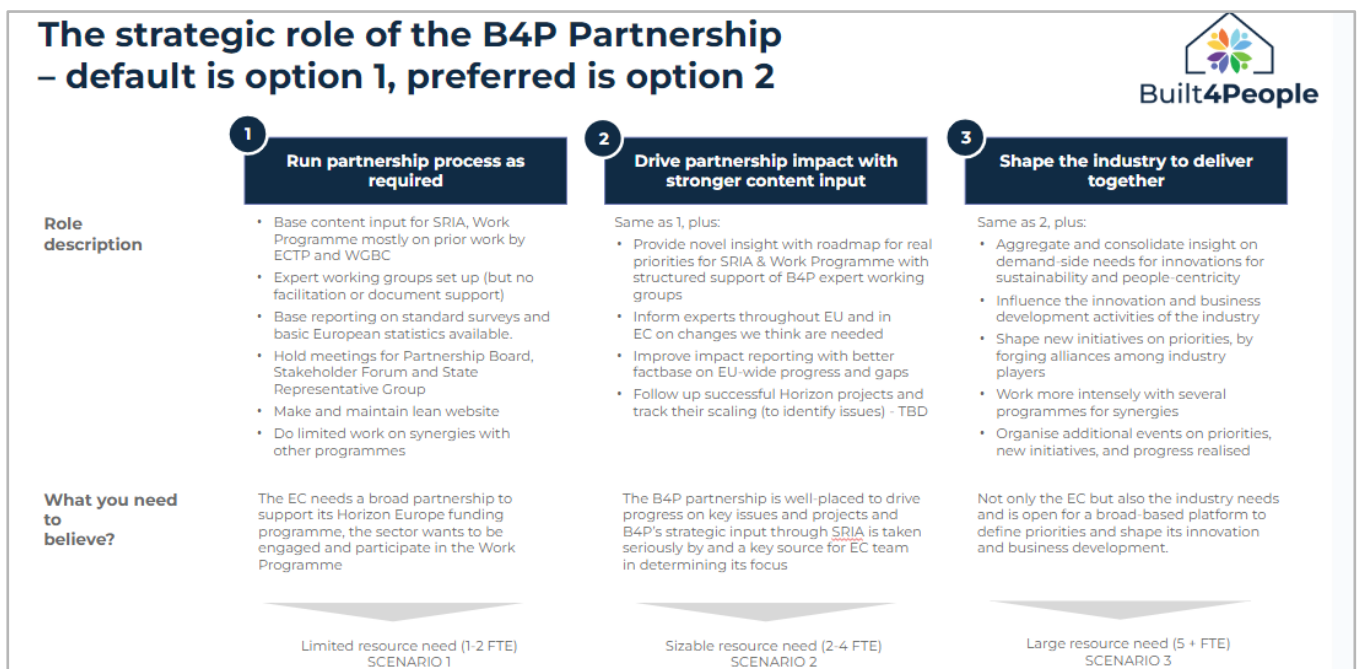


Figure 4: Example of the Scenarios of the Target Operating Model for B4P

For NEBULA and the next steps beyond STAR*track, a key consideration in the scenarios will be whether the network should continue to expand with the addition of new B4PICs or if the network should rather be sustained at the level reached by the end of STAR*track and efforts then be concentrated on deepening the collaboration within the existing network. The STAR*track project initially seeks to pursue both objectives and so we expect this experience to shed more light on



what the strategy should be beyond the end of that project. Hence, for the time being, it makes sense to consider potential scenarios covering both sustaining as well as growing the network and the different resourcing needs of each.

In the following table we have proposed a list of questions to guide discussions with partners and stakeholders during the replication plan workshops.

Table 2: Proposed questions for discussion and exploration with NEBULA partners during the foreseen replication planning workshops

Replication sphere	Proposed questions or open points for discussion
Strategic roles and capabilities	<ul style="list-style-type: none"> • How many resources are we currently deploying? • What were the key roles and capabilities for delivering? • What resources (financial, human, technical) were most crucial for the success of the project so far? • What potential new roles and responsibilities would need to be created for the work beyond STAR*track?
Core processes	<ul style="list-style-type: none"> • Are the current technology platforms and tools (e.g. website, resources, MetaBuilding platform etc) adequate for replication efforts? • What new technical resources or infrastructure are needed to support the replication of the project/initiative?
Organisation, Governance structure	<ul style="list-style-type: none"> • Are current governance structures fit for the future? • Are there voices missing from the governance that should be integrated in future
Comms channels and main messages	<ul style="list-style-type: none"> • What channels of communication work best for our key target audiences (B4PICs, European institutions, wider stakeholders)? • What resources best delivered our messages to our target audiences?
Risk management	<ul style="list-style-type: none"> • What were the main challenges or obstacles encountered during project implementation? • How were risks mitigated and what lessons were learned? • What new risks were not envisioned in the first phase that may arise?



Financial resources	<ul style="list-style-type: none"> • Which stakeholders stand to benefit from the replication efforts and can that be turned into a value proposition? • Are there any specific budgetary considerations or constraints that need to be taken into account during the replication process? • What are the possible resourcing options?
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3.4 FEEDBACK GATHERING

The next phase of this task will focus on gathering valuable insights and lessons learned from the activities and work packages conducted to date and from diverse stakeholders, including project partners and B4PICs. This phase aims to inform and guide the finalisation of the replication plan by the end of the NEBULA project.

The feedback collection process will be facilitated through a questionnaire followed by two workshops, one for NEBULA partners and one for B4PICs. The workshops will likely be online but NEBULA partners will explore potentially holding one of them in person. These workshops will serve as platforms to share their experiences, challenges, and successes encountered during the project implementation. Through structured discussions and interactive sessions building on the methodology mentioned above, the aim will be to collectively identify best practices, potential pitfalls, and areas for improvement in the replication process.

The questionnaire will be shared with partners by the end of May 2024 and the workshops will be held after the summer break (2024) in Q4, 2024.

Key focus areas of the feedback phase include:

- **Lessons Learned:** Identifying and documenting lessons learned from past activities and work packages, including successes, challenges, and areas for improvement.



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- **Resource Requirements:** Assessing the resources necessary for successful replication, including financial, human, and technical resources through a methodology developed for Built4People called Target Operating Model.
- **Risk Mitigation** involves identifying potential risks and challenges associated with replication efforts and developing strategies to mitigate these risks effectively.

By systematically gathering feedback, the final replication plan will benefit from a comprehensive understanding of past experiences and stakeholder perspectives.

4 CONCLUSION

In conclusion, this initial draft serves as a starting point, outlining the process and resources for future replication efforts. By engaging NEBULA stakeholders through discussion and feedback, the plan will evolve into a refined version, integrating insights and lessons learned. Ultimately, by M30, the project will deliver a final replication plan, providing a detailed roadmap and best practices to ensure the long-term sustainability and growth of the B4P Innovation clusters.





<https://built4people.eu/nebula>



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