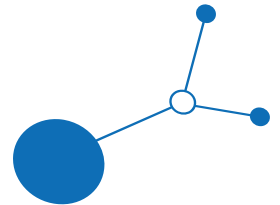


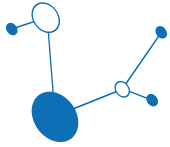
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# Validated Transnational Blue Zone Governance Strategy Document



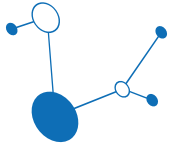
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## Purpose of this document

The **Validated Transnational Blue Zone Governance Strategy Document** provides a practical and transferable framework for establishing, validating and operating Blue Zone-inspired governance models in the BLUETWIN-CE pilot and partner regions. It translates the findings of the A.1.2 Governance Structure Assessment Report into a concrete governance strategy that can be applied by municipalities, regional authorities, health and social care actors, civil society organisations, community stakeholders, data actors and project partners.

The strategy responds to a common challenge identified across the three pilot areas: Beltinci in Slovenia, Svidník in Slovakia and Montegrotto Terme in Italy. All three territories have relevant actors, services, community assets and policy frameworks in place, but these elements are not yet sufficiently connected through a stable, integrated and evidence-informed governance system. Cooperation often remains informal, project-based or dependent on individual relationships. Health, social care, mobility, community development, urban planning, digitalisation and civic participation tend to operate in parallel rather than as one coherent wellbeing ecosystem.

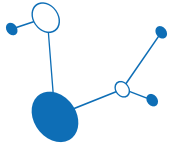
At the same time, the pilot areas have strong foundations for Blue Zone-inspired transformation. Beltinci has a dense civic network, active older residents' associations, local identity and links to the regional preventive health system. Svidník has a clear need and opportunity to strengthen local coordination for ageing, chronic disease prevention and social inclusion. Montegrotto Terme has strong health, spa, mobility, public space and community assets, as well as existing planning tools that can support data-informed governance.

The main purpose of this strategy is to create a **municipality-led, multi-stakeholder and Digital Twin-supported governance model** that can help pilot and partner regions move from fragmented activities to coordinated action. The model is not designed as a rigid new institution. Instead, it is a structured but flexible governance mechanism that connects municipal leadership, health and social expertise, civic outreach, community participation, data-based evidence and transnational learning.

The strategy has been validated through the BLUETWIN-CE cooperation process, including two online transnational workshops and partner consultations. These validation activities confirmed the need for a practical governance approach that is locally adaptable, easy to operate, capable of involving vulnerable and isolated groups, and directly connected to Digital Twin-supported decision-making. Partner feedback underlined that Blue Zone governance must not remain a conceptual framework. It must become a working system for planning, coordinating, implementing, monitoring and adapting wellbeing-oriented local interventions.

The strategy is built around seven governance pillars:

1. **Integrated and multi-level governance**
2. **Stakeholder coordination and partnership building**
3. **Community participation and co-creation**
4. **Digital Twin-supported decision-making**
5. **Policy integration and institutional embedding**



## 6. Capacity building and organisational learning

## 7. Monitoring, evaluation and adaptation

Together, these pillars provide a transferable governance pathway for Central European municipalities and rural or semi-rural communities facing ageing, depopulation, service erosion, weak digitalisation and limited governance capacity.

The strategy recommends that each pilot area establish a **Local Blue Zone Governance Group**, supported by thematic working groups and a Digital Twin/data function. This group should act as the main coordination platform for Blue Zone-related planning and implementation. It should connect existing services and actors, define shared priorities, coordinate engagement processes, use Digital Twin insights to support decision-making, and monitor progress over time.

The added value of the strategy lies in its ability to connect three dimensions that are often treated separately: **governance, community wellbeing and digital evidence**. By combining Blue Zone principles with Digital Twin-supported planning, BLUETWIN-CE can help pilot and partner regions develop healthier, more inclusive, more resilient and more attractive communities.

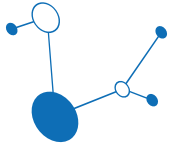
## Methodology

The strategy was developed through a multi-source and practice-oriented methodology. It combines assessment-based evidence, stakeholder knowledge, partner feedback and transnational learning.

The D.1.2.1 Governance Structure Assessment Report provided the analytical foundation for this strategy. The assessment made it possible to identify both pilot-specific and shared governance patterns. It showed that each pilot area has important assets, but that these assets are not yet sufficiently coordinated. It also confirmed that the future governance model should be structured, multi-stakeholder, municipality-led, community-based and supported by Digital Twin capabilities.

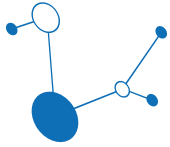
The assessment findings were synthesised into a set of transnational governance challenges: fragmented coordination between health, social care, civic actors and municipalities; limited integration of Digital Twin and data into decision-making; insufficient outreach to isolated, vulnerable or peripheral groups; dependence on informal cooperation and individual commitment; limited embedding of Blue Zone principles into municipal and regional planning.

At the same time, the assessment identified important opportunities: municipalities can act as conveners and institutional anchors; health and social care actors can provide professional knowledge and data; civic and voluntary organisations can reach residents and build trust; Digital Twin tools can support diagnosis, scenario testing and monitoring; existing policy frameworks already support ageing, prevention, accessibility and wellbeing; transnational exchange can help partners compare solutions and avoid isolated experimentation.



Two online transnational workshops and partner consultations were used to validate the strategic direction and practical structure of the governance model. The consultation process focused on the feasibility of the proposed governance approach, the relevance of the strategy pillars, the role of Digital Twin insights, and the transferability of the model across different local and regional contexts.

The result is a practical strategy that can guide both pilot implementation and future adoption by other Central European regions.



## 1. Introduction

BLUETWIN-CE addresses major governance and wellbeing challenges in peripheral and lagging areas of Central Europe. These territories often face ageing populations, depopulation, erosion of public services, weak digitalisation, limited innovation capacity and fragmented governance systems. The project responds to these challenges by combining two complementary approaches:

First, the **Blue Zone approach**, which focuses on the conditions that support longer, healthier and more fulfilling lives. In the BLUETWIN-CE context, Blue Zone principles are translated into local governance priorities such as healthy lifestyles, social connection, stress reduction, prevention, purpose, intergenerational solidarity, inclusive public spaces and community participation.

Second, the **Digital Twin approach**, which uses data, visualisation and simulation to help local authorities and stakeholders understand territorial needs, test possible interventions and monitor wellbeing-related changes. In BLUETWIN-CE, the Digital Twin is not only a technical tool, but a governance support mechanism. It helps municipalities and stakeholders make more transparent, evidence-based and future-oriented decisions.

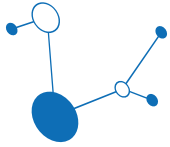
This strategy builds directly on the D.1.2.1 Governance Structure Assessment Report. While D.1.2.1 analysed the existing governance frameworks, institutional structures, stakeholder ecosystems, policy environments, baseline conditions, gaps and opportunities in the three pilot areas, D.1.2.2 translates these findings into a **validated transnational strategy**.

The assessment shows that the three pilot areas do not start from zero. They already have services, public institutions, civic organisations, policy documents, community initiatives and health-related assets. However, these resources are not yet integrated into a coherent governance system.

The main challenge is therefore not the absence of actors, but the absence of a stable mechanism that connects them. In practice, this means that:

- health and social services may operate separately;
- civic and voluntary organisations may have strong local knowledge but limited access to strategic decision-making;
- municipalities may have formal responsibilities but limited coordination capacity;
- data may exist but remain fragmented across institutions;
- prevention services may be available but not sufficiently used by vulnerable groups;
- public space, mobility, ageing and wellbeing policies may not be planned together;
- Digital Twin insights may remain technical unless they are embedded into governance routines.

A transnational strategy is needed because these challenges are shared across Central Europe. Although Beltinci, Svidník and Montegrotto Terme differ in their institutional settings, territorial profiles and local assets, they face similar governance problems: fragmented



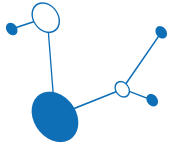
coordination, ageing-related pressure, limited data use, weak integration of prevention and social inclusion, and the need for more participatory and evidence-informed decision-making.

The strategy therefore provides a common framework that can be locally adapted. It offers shared principles, governance structures, practical tools and implementation steps, while allowing each pilot and partner region to adjust the model to its own administrative capacity, stakeholder ecosystem, data readiness and community needs.

In this deliverable, “validated” means that the strategy has been developed through a joint transnational process. It is not a desk-based document only. It reflects:

- the findings of the D.1.2.1 Governance Structure Assessment Report;
- the experience and local knowledge of pilot partners;
- feedback collected through two online transnational workshops;
- partner consultations and validation comments;
- practical implementation needs identified by municipalities and stakeholders;
- Digital Twin-related expectations and governance requirements;
- transferability considerations for other partner and Central European regions.

Validation therefore means that the strategy has been tested conceptually with the partnership and refined to increase its practical relevance, feasibility and transferability.



## 2. Key findings from the governance assessment report

Across Beltinci, Svidník and Montegrotto Terme, the assessment identified a common governance pattern. Relevant actors, services, policy documents and community assets already exist, but they are not yet connected through a stable, integrated and data-informed governance structure.

This creates several practical problems. Residents may not know where to access support. Health promotion activities may not reach the most vulnerable groups. Municipalities may not have a complete overview of available services. Civic organisations may collect important local knowledge but remain outside formal planning. Data may be available, but not integrated into a shared decision-support system. As a result, existing resources do not produce their full potential impact.

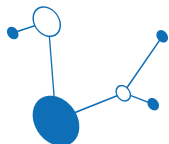
The future governance strategy must therefore focus on connection: connecting actors, connecting policies, connecting data, connecting community knowledge and connecting local pilots to transnational learning.

The main governance issue in **Beltinci** is “availability without uptake”. Services and programmes exist, but residents do not always access them. The most vulnerable residents, especially chronically ill, isolated and peripheral older people, are often the hardest to reach. The future governance model should therefore connect health prevention, GP referrals, mobile outreach, voluntary networks, transport services and municipal coordination.

**Svidník** has a clear opportunity to use Blue Zone principles and Digital Twin tools to strengthen prevention, improve planning and build a more sustainable governance model. However, cooperation between health, social services and community actors needs to become more structured. Informal cooperation is not sufficient for long-term prevention, inclusion and wellbeing-oriented transformation.

The key challenge in **Montegrotto Terme** is not the lack of assets, but fragmentation. Stakeholders identified the need for a unified coordination body to connect voluntary organisations, service providers, public planning tools, health-related data and community initiatives. Montegrotto Terme has particularly strong potential for Digital Twin-supported governance because existing tools already provide a basis for geo-referenced health and demographic analysis. The strategy should therefore help the municipality and partners connect data, spa and health assets, mobility planning, accessibility improvements and community participation into one coherent Blue Zone governance approach.



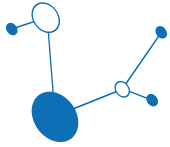


The following gaps are common across the pilot areas:

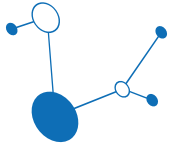
| Governance gap                          | Practical meaning                                                                | Strategic response                                                      |
|-----------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Fragmented coordination                 | Actors work in parallel and cooperation depends on informal relations            | Establish Local Blue Zone Governance Groups                             |
| Weak data integration                   | Data exists but is not shared or used systematically                             | Create a Digital Twin/data function and common indicator framework      |
| Limited prevention reach                | Preventive services do not sufficiently reach isolated or vulnerable residents   | Use outreach, referrals, transport and trusted community intermediaries |
| Unclear responsibilities                | Public, professional and voluntary actors do not always know who does what       | Use a governance responsibility matrix                                  |
| Weak policy integration                 | Blue Zone-related themes are present in policies but not operationally connected | Align Blue Zone priorities with municipal and regional strategies       |
| Limited citizen participation           | Residents are consulted occasionally rather than continuously involved           | Create recurring community feedback and co-creation mechanisms          |
| Low transferability of isolated actions | Good practices remain local and project-based                                    | Use a common transnational model, documentation and peer learning       |

The main opportunities identified are:

- existing municipal leadership potential;
- strong civic and voluntary networks;
- health promotion and preventive service actors;
- local knowledge of older residents and vulnerable groups;
- existing public planning documents and policy frameworks;
- Digital Twin development as a new evidence-support function;
- transnational partnership learning;
- the possibility to transform pilot actions into a transferable governance model.



The future strategy should not create a completely new system. Instead, it should connect and strengthen existing capacities through a clearer governance architecture.



### 3. Blue Zone governance concept for BLUETWIN-CE

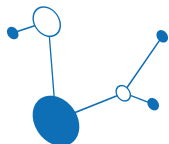
In BLUETWIN-CE, Blue Zone-inspired governance means the creation of local and regional governance conditions that support healthy ageing, wellbeing, prevention, active living, social connection, inclusion and evidence-based decision-making.

It is broader than health promotion. It is a governance approach that connects health, social care, public space, mobility, food, community life, volunteering, digitalisation and local development. Its goal is to help communities become places where residents can live healthier, more connected and more meaningful lives.

Blue Zone governance is therefore not only about encouraging individuals to change their behaviour. It is about changing the local environment, institutions, services and decision-making processes so that healthier choices become easier, more accessible and more socially supported.

The BLUETWIN-CE Blue Zone Governance Concept is based on ten principles.

1. **Prevention-oriented governance:** Governance should focus not only on responding to health and social problems, but on preventing them through early intervention, health promotion, natural movement, social connection, active ageing and supportive environments.
2. **Community-centred decision-making:** Residents, older adults, vulnerable groups, young people, civil society organisations and informal community leaders should be involved in defining needs, priorities and solutions.
3. **Cross-sectoral cooperation:** Health, social care, spatial planning, mobility, environment, digitalisation, education, culture, tourism and local economy should be connected as part of one wellbeing ecosystem.
4. **Place-based wellbeing:** Blue Zone governance must be adapted to local territorial realities. A rural municipality, a small town and a spa town need different operational models, even if they share the same principles.
5. **Active and healthy living environments:** Public spaces, walking routes, cycling paths, green areas, gardens, markets, community facilities and accessible services should be treated as health and wellbeing infrastructure.
6. **Social connection and inclusion:** The governance model should strengthen social participation, intergenerational solidarity, volunteering and outreach to isolated residents.
7. **Data-informed planning:** Decisions should be supported by baseline indicators, community feedback, service data, Digital Twin visualisation and scenario testing.
8. **Long-term institutional commitment:** Blue Zone governance should be embedded into municipal and regional planning, not limited to project activities.
9. **Participatory implementation:** Residents and stakeholders should be involved not only in consultation, but also in co-design, testing, monitoring and adaptation.
10. **Transferability:** The model should be documented and structured so that other Central European territories can adapt it to their own institutional and territorial context.



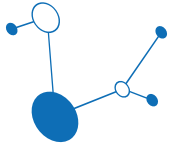
## Transnational vision

The transnational vision of BLUETWIN-CE is to create **healthy, inclusive, connected and data-informed Central European communities** where municipalities, service providers, civic actors and residents jointly govern local wellbeing through Blue Zone principles and Digital Twin-supported decision-making.

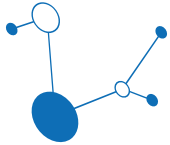
This vision means that pilot and partner regions should move from fragmented wellbeing-related actions to integrated governance systems. These systems should support prevention, active ageing, social connection, accessible services, inclusive public spaces and evidence-based planning.

## Strategic objectives

| Objective                                                                                | Description                                                                                                                        | Practical implications                                                                         |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 1. Strengthen multi-level and cross-sectoral governance for healthy ageing and wellbeing | Build cooperation between municipalities, regional actors, health and social care providers, civic organisations and data partners | Establish Local Blue Zone Governance Groups and thematic working groups                        |
| 2. Improve stakeholder coordination and institutional cooperation                        | Move from informal cooperation to regular coordination with clear roles                                                            | Use stakeholder maps, responsibility matrices and regular coordination meetings                |
| 3. Integrate Blue Zone principles into local and regional development policies           | Ensure that prevention, active living, social connection and wellbeing are embedded in planning                                    | Align the strategy with health, ageing, mobility, accessibility and spatial planning documents |
| 4. Use Digital Twin tools for evidence-based planning, monitoring and decision-making    | Connect data, visualisation and scenario testing to governance processes                                                           | Define Digital Twin use cases and integrate outputs into governance meetings                   |
| 5. Increase citizen and community participation                                          | Involve residents in identifying needs, designing actions and evaluating results                                                   | Use community walks, forums, focus groups, surveys and co-design sessions                      |
| 6. Support scalability and transferability                                               | Make the model adaptable to other rural, small-town and spa-town contexts                                                          | Document tools, lessons and local adaptation factors                                           |



| Objective                              | Description                                                     | Practical implications                                                      |
|----------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------|
| 7. Build long-term governance capacity | Ensure that cooperation continues beyond project implementation | Embed the model into municipal routines, local strategies and funding plans |



## 4. Transnational Blue Zone governance model

The proposed model is a **municipality-led Blue Zone Governance Network** supported by health and social expertise, civic outreach, Digital Twin-based evidence and project-level facilitation.

The model has five interconnected layers:

1. **Local/regional Blue Zone Governance Group**
2. **Thematic working groups**
3. **Digital Twin and data-support function**
4. **Community engagement and feedback channels**
5. **Transnational learning and validation platform**

The model should not be interpreted as a rigid institution. It is a practical coordination mechanism that can be adapted to different capacities. In smaller municipalities, it may operate as a compact working group. In more complex territories, it may include several thematic subgroups.

### 1. Local or regional Blue Zone Governance Group

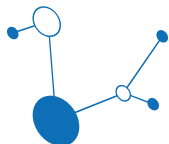
Each pilot area should establish a Local Blue Zone Governance Group. This group should be the central coordination body for Blue Zone-related activities.

Its main tasks are to:

- define local Blue Zone priorities;
- coordinate stakeholders and services;
- review Digital Twin insights;
- connect pilot actions with local policies;
- plan community engagement;
- monitor progress;
- identify risks and adaptation needs;
- document lessons for transfer.

The group should meet regularly during active implementation. Additional thematic meetings can be organised when specific actions require more detailed planning.

### Recommended composition of the Local Blue Zone Governance Group

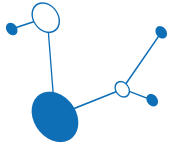


| Actor group                                                     | Recommended role                                                                                    |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Municipality or local public authority                          | Convening, coordination, policy alignment, long-term ownership                                      |
| Health actors                                                   | Prevention expertise, health data, referrals, screening, health promotion                           |
| Social care actors                                              | Knowledge of vulnerable groups, service access, social inclusion                                    |
| Civic and voluntary organisations                               | Community outreach, trust-building, local knowledge, participation                                  |
| Older residents' organisations                                  | Representation of older people, feedback on needs, peer support                                     |
| Youth organisations                                             | Intergenerational activities, digital support, community innovation                                 |
| Mobility and public space actors                                | Walking, cycling, accessibility, transport and spatial planning                                     |
| Digital/data/research actors                                    | Digital Twin development, data integration, analysis, visualisation                                 |
| Businesses and local economy actors                             | Healthy local food, tourism, service innovation, sponsorship                                        |
| Project partners                                                | Methodology, facilitation, documentation, transnational learning                                    |
| Citizens and community representatives                          | Lived experience, validation of needs and solutions                                                 |
| Education institutions (schools, kindergartens)                 | Intergenerational activities, reaching children and families, linking younger and older generations |
| Sub-municipal bodies (local community / neighbourhood councils) | Bottom-up needs identification, outreach in peripheral settlements, local legitimacy                |

## 2. Thematic working groups

The Local Blue Zone Governance Group may establish thematic working groups depending on local priorities. Suggested working groups include:

- health promotion and prevention;



- ageing and social inclusion;
- mobility and active living;
- public space and accessibility;
- community participation and volunteering;
- Digital Twin and data;
- local food, markets and healthy lifestyles;
- tourism, spa and wellbeing economy where relevant.

These groups should not create unnecessary bureaucracy. They should be activated when practical coordination is needed around a specific topic.

### 3. Digital Twin and data-support function

The Digital Twin/data function should support governance by providing evidence for decisions. Its role is to:

- identify available data sources;
- connect demographic, health, mobility, environmental and service-related indicators;
- visualise local needs and inequalities;
- support scenario testing;
- provide information for stakeholder discussions;
- monitor pilot progress;
- help evaluate transferability.

Digital Twin outputs should be presented in a way that is understandable for non-technical stakeholders. The aim is not to replace political or community decision-making, but to improve its quality.

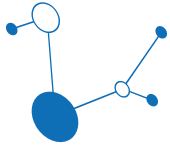
### 4. Community engagement and feedback channels

The governance model should include continuous feedback loops:

1. **Data feedback:** Digital Twin and monitoring data inform governance discussions.
2. **Stakeholder feedback:** Professional actors assess feasibility and coordination needs.
3. **Community feedback:** Residents validate whether interventions respond to real needs.
4. **Policy feedback:** Municipalities assess how actions can be embedded into strategies.
5. **Transnational feedback:** Partners compare experiences and adapt the model.

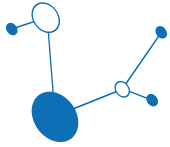
These loops make the governance model adaptive rather than static.





## 5. Transnational learning and validation platform

The **Transnational Learning and Validation Platform** connects the BLUETWIN-CE pilot areas and project partners to exchange experiences, compare governance approaches and jointly refine the Blue Zone Governance Model. Through online workshops, peer-learning sessions, partner consultations and structured feedback, the platform enables local lessons, Digital Twin use cases and implementation challenges to be reviewed from a transnational perspective. It supports the validation of common governance principles, identification of transferable practices and adaptation of the model to different territorial and institutional contexts, ensuring that the final strategy is practical, scalable and jointly owned by the partnership.



## 5. Governance strategy pillars

This chapter presents the seven strategic pillars that translate the BLUETWIN-CE vision into an operational governance framework. Together, the pillars address the institutional, participatory, technological and organisational conditions required for Blue Zone-inspired territorial transformation: integrated multi-level governance, effective stakeholder coordination, community co-creation, Digital Twin-supported decision-making, policy integration, capacity building, and continuous monitoring and adaptation. The pillars are mutually reinforcing and should be implemented as parts of one coherent system, enabling pilot and partner regions to move from fragmented activities towards coordinated, inclusive, evidence-informed and sustainable wellbeing governance.

### Pillar 1 - Integrated and Multi-level Governance

Blue Zone governance requires cooperation across institutions, sectors and governance levels. Municipalities cannot address ageing, chronic disease, social isolation, accessibility and wellbeing alone. These issues require coordination between local authorities, regional institutions, healthcare providers, social services, civic organisations, community actors and digital/data partners.

The strategy recommends that each pilot area establish a stable coordination mechanism led by the municipality or local public authority. This mechanism should connect local activities with regional and national frameworks, such as ageing strategies, public health plans, mobility plans, accessibility plans and social inclusion policies.

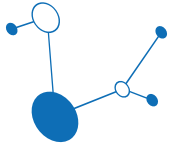
Practical measures:

- appoint a municipal Blue Zone coordinator or coordination team;
- establish a regular Local Blue Zone Governance Group;
- define links with regional health and social care systems;
- connect Blue Zone actions with local development, mobility and spatial planning;
- ensure that governance decisions are documented and followed up;
- use Digital Twin evidence to support cross-sectoral discussions.

**Expected result: fragmented activities become part of a coordinated wellbeing governance system.**

### Pillar 2 - Stakeholder Coordination and Partnership Building

Stakeholder coordination is the central operational requirement of the strategy. The assessment shows that many actors are already active, but they do not always work as an integrated system.



Stakeholder coordination should begin with mapping. Each pilot area should identify all relevant actors, their roles, resources, target groups, data sources, communication channels and potential contribution to Blue Zone governance.

Practical measures:

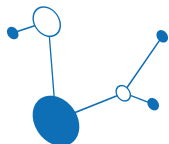
- prepare a stakeholder map;
- distinguish core partners, supporting actors and wider community stakeholders;
- clarify responsibilities through a governance responsibility matrix;
- organise regular coordination meetings;
- create referral pathways between health, social and civic actors;
- involve trusted intermediaries for vulnerable groups;
- document cooperation protocols where necessary.

### Governance responsibility matrix (template)

To make cooperation predictable rather than ad hoc, each pilot area should adopt a simple responsibility matrix that clarifies, for each core governance function, who leads the work, who is accountable for decisions, who is consulted and who is kept informed. The template below can be adapted locally; in smaller municipalities, several roles may be held by the same actor.

R = Responsible (carries out the work) · A = Accountable (final decision / sign-off) · C = Consulted · I = Informed

| Actor                                       | Convening<br>&<br>coordination | Data &<br>evidence<br>(Digital<br>Twin) | Outreach<br>&<br>participation | Implementation | Monitoring<br>&<br>adaptation |
|---------------------------------------------|--------------------------------|-----------------------------------------|--------------------------------|----------------|-------------------------------|
| Municipality<br>/ local public<br>authority | A                              | C                                       | A                              | A              | A                             |
| Health actors                               | C                              | R                                       | C                              | R              | C                             |
| Social care<br>actors                       | C                              | C                                       | R                              | R              | C                             |
| Civic &<br>voluntary<br>organisations       | I                              | I                                       | R                              | R              | C                             |



| Actor                                           | Convening<br>&<br>coordinati<br>on | Data &<br>eviden<br>ce<br>(Digital<br>Twin) | Outreach<br>&<br>participati<br>on | Implementati<br>on | Monitori<br>ng &<br>adaptati<br>on |
|-------------------------------------------------|------------------------------------|---------------------------------------------|------------------------------------|--------------------|------------------------------------|
| Digital / data<br>/ research<br>actors          | I                                  | A                                           | I                                  | C                  | R                                  |
| Residents &<br>community<br>representati<br>ves | I                                  | C                                           | C                                  | C                  | C                                  |
| Project<br>partners (LP<br>/ PPs)               | C                                  | C                                           | I                                  | C                  | R                                  |

**Expected result: actors understand their role and cooperation becomes predictable, not ad hoc, roles are unambiguous and cooperation becomes predictable from the start**

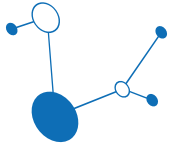
### Pillar 3 - Community Participation and Co-creation

Blue Zone governance must be community-centred. Residents are not only beneficiaries. They are co-producers of local wellbeing. Older adults, vulnerable groups, young people, informal carers, volunteers and local associations have knowledge that cannot be replaced by administrative data.

Participation should be organised in a structured and inclusive way. It should not rely only on open public meetings, because these often fail to reach isolated or vulnerable residents. Engagement methods should be adapted to local conditions.

#### Recommended methods:

- community walks to assess accessibility, mobility and public space;
- focus groups with older residents;
- intergenerational workshops;
- surveys on health, mobility and social connection;
- local forums in peripheral settlements;
- co-design sessions for Blue Zone interventions;
- interviews with health and social care providers;
- feedback boxes and local contact points;



- assisted digital participation for residents with limited digital skills
- Engagement and training formats should prioritise practical, real-life content over theoretical presentations. Residents consistently value concrete, applicable topics, which sustains participation and trust.

**Expected result: Blue Zone priorities reflect lived experience and local trust increases.**

#### **Pillar 4 - Digital Twin-supported Decision-making**

The Digital Twin is a key innovation of BLUETWIN-CE. Its value depends on how well it is integrated into governance. The Digital Twin should not be developed as a separate technical product. It should function as a back-office decision-support tool that helps stakeholders understand needs, compare options and monitor outcomes.

The Digital Twin should support four main governance functions:

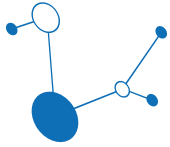
1. **Mapping needs:** Identifying demographic, health, mobility, service and environmental patterns.
2. **Identifying gaps:** Showing where services, infrastructure or outreach do not sufficiently match community needs.
3. **Testing scenarios:** Comparing potential interventions before implementation, such as new walking routes, community gardens, mobility improvements or outreach services.
4. **Monitoring progress:** Tracking changes in participation, accessibility, prevention uptake, social connection and wellbeing-related indicators.

Practical measures:

- define priority use cases for each pilot area;
- identify available data and data gaps;
- create a common indicator framework;
- ensure data protection and ethical use;
- visualise results for non-technical stakeholders;
- discuss Digital Twin outputs in governance meetings;
- combine quantitative data with community feedback.

#### **Data governance and GDPR safeguards**

Because the governance model relies on health, social and demographic data feeding a Digital Twin, it must rest on a clear data-governance basis. This does not require a new data system; it requires agreed rules on what data is used, by whom and under what conditions. Each pilot area should define the legal basis for processing, the roles of data controller and processor,



and the conditions for sharing data between institutions. Personal data should be minimised, anonymised or aggregated before use, and sensitive information should never appear in public visualisations. In small municipalities with low populations, aggregated outputs must respect statistical disclosure limits so that individuals cannot be re-identified. Data sharing between partners should be governed by written arrangements rather than informal exchange.

#### Practical safeguards:

- agree the legal basis and purpose for each dataset before collection;
- define data controller and processor roles and document data-sharing arrangements;
- minimise, anonymise or aggregate personal data, and apply small-cell suppression for low-population areas;
- keep sensitive data out of public Digital Twin visualisations;
- record retention periods and access rights, and review them periodically.

**Expected result: decisions become more transparent, evidence-informed and adaptive. Digital Twin and data use remain GDPR-defensible and trusted by institutions and residents.**

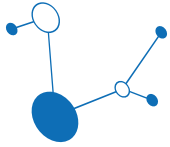
#### Pillar 5 - Policy Integration and Institutional Embedding

The assessment shows that all pilot areas operate within a generally supportive policy environment. Ageing, prevention, accessibility, mobility, social inclusion and community wellbeing are already present in local, regional or national documents. The main weakness is that these policies are not yet translated into an operational cross-sector governance system.

The strategy therefore recommends embedding Blue Zone principles into existing planning frameworks instead of creating isolated project documents.

#### Practical measures:

- review relevant municipal and regional strategies;
- identify where Blue Zone priorities already fit;
- align pilot actions with health, ageing, mobility, accessibility and spatial planning;
- include Blue Zone governance in municipal work plans;
- use pilot evidence to inform future strategy updates;
- connect Digital Twin indicators with existing monitoring obligations.



**Expected result: Blue Zone governance becomes part of existing institutional practice.**

## **Pillar 6 - Capacity Building and Organisational Learning**

Successful implementation requires capacity building. Local actors need shared understanding of Blue Zone principles, Digital Twin tools, participatory methods and integrated governance.

**Communication with older people as a capacity-building topic:** Outreach depends not only on having trusted intermediaries, but on their ability to communicate with older people. Practitioners and volunteers in regular contact with older residents report that what older people value most is conversation, yet many are unsure how to approach it. Capacity building should therefore include short, practical training in communication with older people and intergenerational dialogue, targeting trusted intermediaries, volunteers and front-line staff.

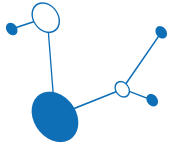
Capacity building should target several groups:

- municipal decision-makers;
- municipal staff;
- health and social care professionals;
- civic and voluntary organisations;
- community facilitators;
- data and Digital Twin users;
- local stakeholders involved in pilot actions.

Practical measures:

- organise training on Blue Zone principles;
- provide practical sessions on Digital Twin interpretation;
- train local facilitators in stakeholder engagement;
- use peer learning between pilot areas;
- document lessons learned after each major activity;
- create short practical guidance materials for municipalities
- provide short training for intermediaries and volunteers in communication with older people and intergenerational dialogue.

**Expected result: local actors become able to operate the model beyond the project.**



## **Pillar 7 - Monitoring, Evaluation and Adaptation**

Monitoring should combine data-based evidence, stakeholder feedback and reflective learning. The goal is not only to prove results, but to improve governance during implementation.

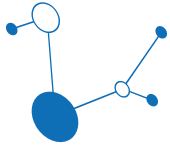
Monitoring should cover:

- governance coordination;
- stakeholder participation;
- citizen engagement;
- Digital Twin use;
- policy integration;
- implementation progress;
- institutional learning;
- wellbeing-oriented outcomes;
- transferability.

The governance model should be reviewed periodically. If participation is low, methods should be adapted. If data is missing, proxies should be used. If responsibilities are unclear, the governance matrix should be revised.

**Expected result: the strategy remains adaptive and practical.**





## 6. Practical implementation pathway

The implementation pathway translates the strategy into seven practical phases. These phases can be applied by all pilot and partner regions, but the depth and timing should be adapted to local capacity.

### Phase 1 - Governance Preparation

The first phase establishes the institutional foundation. Each pilot area should identify the main local authority or organisation responsible for convening the process. In most cases, this should be the municipality or local public authority, because it has the mandate to connect local policy, services and community actors.

Key actions:

- appoint a local Blue Zone coordinator;
- identify the initial core group;
- clarify political and administrative support;
- review existing governance structures;
- define the mandate of the Local Blue Zone Governance Group;
- agree on meeting rhythm and documentation rules.

**Output: Local Blue Zone Governance Group established.**

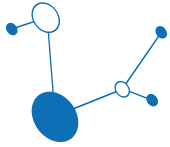
### Phase 2 - Stakeholder Mapping and Engagement Design

The second phase identifies who needs to be involved and how. Stakeholder mapping should include not only formal institutions, but also civic groups, voluntary organisations, informal community leaders, older residents, vulnerable groups, youth organisations, businesses and data actors.

Key actions:

- prepare a stakeholder map;
- classify stakeholders by influence, knowledge, outreach capacity and affectedness;
- identify missing or underrepresented groups;
- define engagement methods for each group;
- identify trusted intermediaries;
- prepare a communication and engagement plan.

**Output: Stakeholder map and engagement pathway.**



### Phase 3 - Digital Twin and Evidence Integration

The third phase connects governance with data. The aim is to identify which data can support local decision-making and which Digital Twin use cases are most relevant.

Key actions:

- list available demographic, health, mobility, environmental and service data;
- identify data owners and access conditions;
- define priority local questions for the Digital Twin;
- agree on a minimum indicator framework;
- identify data gaps and possible proxies;
- plan how Digital Twin outputs will be presented to stakeholders.

**Output: Digital Twin use-case canvas and data inventory.**

### Phase 4 - Co-creation of Local Blue Zone Priorities

The fourth phase involves stakeholders and residents in defining priorities. This phase should connect expert knowledge, data evidence and lived experience.

Key actions:

- organise participatory workshops or local forums;
- conduct focus groups with older residents and vulnerable groups;
- use community walks to assess public space and mobility;
- discuss Digital Twin visualisations with stakeholders;
- identify priority needs and possible interventions;
- validate priorities with the governance group.

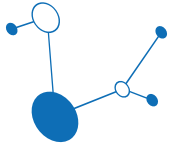
**Output: Local Blue Zone priority list.**

### Phase 5 - Strategy Alignment and Action Planning

The fifth phase translates priorities into an action plan. Actions should be realistic, locally owned and connected to existing policies.

Key actions:

- align priorities with municipal and regional documents;
- define actions, responsibilities, timeline and resources;
- connect actions with Digital Twin indicators;



- identify quick wins and longer-term measures;
- define communication needs;
- prepare local implementation sheets.

**Output: Local Blue Zone Action Plan.**

### **Phase 6 - Pilot Implementation and Adaptive Governance**

The sixth phase focuses on implementation. The governance group should remain active throughout implementation and should use data and feedback to adapt actions.

Key actions:

- implement selected interventions;
- coordinate stakeholders during implementation;
- collect participation and monitoring data;
- discuss early results in governance meetings;
- adapt actions if needed;
- communicate progress to residents.

**Output: Implemented pilot actions with adaptive coordination.**

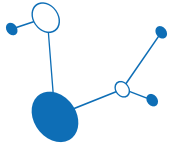
### **Phase 7 - Monitoring, Learning and Transfer**

The final phase evaluates progress and prepares transfer. Learning should be documented in a way that other municipalities can use.

Key actions:

- assess outputs and outcomes;
- collect stakeholder and citizen feedback;
- review Digital Twin indicators;
- identify lessons learned;
- document transferable tools and methods;
- share results in transnational exchanges;
- prepare recommendations for institutional uptake.

**Output: Monitoring report and transfer package.**



## 7. Digital Twin integration in Blue Zone governance

The Digital Twin should be understood as a governance support tool. Its role is to make territorial conditions more visible, support evidence-based planning and help stakeholders understand the possible impacts of interventions.

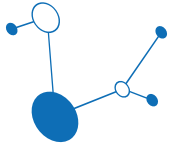
It can support Blue Zone governance in several ways:

- mapping demographic ageing patterns;
- identifying service accessibility gaps;
- analysing health and wellbeing indicators;
- visualising walking and cycling infrastructure;
- mapping public spaces and community assets;
- comparing scenarios for interventions;
- monitoring pilot implementation;
- communicating evidence to stakeholders.

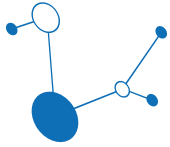
| Function           | Governance use                                   | Example                                                                 |
|--------------------|--------------------------------------------------|-------------------------------------------------------------------------|
| Diagnosis          | Understand current needs and baseline conditions | Mapping older residents, health risks or service access                 |
| Gap identification | Identify where needs and services do not match   | Detecting peripheral settlements with low prevention uptake             |
| Scenario testing   | Compare possible interventions                   | Testing the expected effect of walking routes or community gardens      |
| Monitoring         | Track implementation and progress                | Monitoring participation, accessibility or social connection indicators |
| Communication      | Make evidence understandable                     | Visualising data in workshops and governance meetings                   |
| Learning           | Support adaptation and transfer                  | Comparing pilot results across regions                                  |

Digital Twin tools can only support governance if certain conditions are met.

- **Data availability and quality:** Pilot areas need to identify which data exists, who owns it and how reliable it is. Where data is missing, qualitative evidence and proxy indicators should be used.



- **Data sharing and trust:** Institutions must be willing to share relevant data within ethical and legal limits. Data sharing should be based on clear rules and mutual trust.
- **Privacy and ethical safeguards:** Health, social and demographic data must be handled carefully. Personal data should be anonymised or aggregated, and sensitive information should not be exposed in public visualisations.
- **Technical capacity:** Local actors need basic capacity to understand Digital Twin outputs. The tool should not depend only on external experts.
- **Stakeholder understanding:** Digital Twin results should be translated into clear messages. Maps, dashboards and scenarios should be used as conversation tools, not as technical reports only.
- **Connection to decision-making:** Digital Twin outputs should be discussed in governance meetings and linked to concrete decisions. Otherwise, the tool remains separate from governance practice.



## 8. Scalability and transferability

The BLUETWIN-CE governance model is transferable because it is based on functions rather than fixed institutions. Every territory needs to perform the same governance functions, but not every territory needs the same structure.

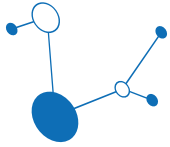
The transferable functions are:

- convening stakeholders;
- coordinating services;
- engaging residents;
- integrating data;
- planning interventions;
- monitoring progress;
- adapting actions;
- embedding results into policy.

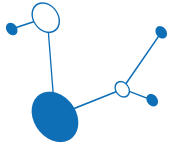
Each region can adapt these functions to its own size, capacity and institutional setting.

Adaptation factors are the followings:

| Context factor               | Adaptation recommendation                                                |
|------------------------------|--------------------------------------------------------------------------|
| Small municipality           | Use a compact governance group and avoid complex substructures           |
| Larger town                  | Create thematic working groups and stronger coordination routines        |
| Rural and dispersed area     | Focus on outreach, transport, peripheral access and local intermediaries |
| Spa or tourism-oriented area | Connect health, tourism, public space and wellbeing economy              |
| Low data readiness           | Start with simple indicators and qualitative evidence                    |
| Strong data readiness        | Use Digital Twin for scenario testing and advanced monitoring            |
| Weak civic network           | Invest first in trust-building and stakeholder mobilisation              |
| Strong civic network         | Use civic actors for outreach, feedback and co-implementation            |



| Context factor                  | Adaptation recommendation                                     |
|---------------------------------|---------------------------------------------------------------|
| Limited administrative capacity | Prioritise a small number of realistic actions                |
| Strong political commitment     | Embed Blue Zone principles into formal strategies and budgets |



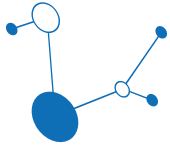
## 9. Risk management and mitigation

The successful implementation of the Transnational Blue Zone Governance Strategy depends on the capacity of pilot and partner regions to identify and address institutional, organisational, participatory, financial and technological risks at an early stage. Risk management should therefore be treated as a continuous governance function rather than as a one-time assessment. The Local Blue Zone Governance Group should regularly review emerging risks, assess their possible effects on implementation and agree on proportionate mitigation measures. Digital Twin evidence, stakeholder feedback, implementation monitoring and transnational peer learning should all contribute to this process.

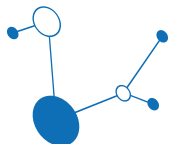
Risk management should be practical and adaptive. Not every risk can be fully avoided, particularly in smaller municipalities with limited staff, financial resources or data capacities. The objective is therefore to reduce the likelihood and consequences of risks, identify early warning signs and prepare realistic responses before implementation is significantly affected.

| Risk                           | Possible effect                                   | Mitigation measure                                                        |
|--------------------------------|---------------------------------------------------|---------------------------------------------------------------------------|
| Weak institutional commitment  | Governance group becomes inactive                 | Secure municipal mandate and assign responsible coordinator               |
| Stakeholder fatigue            | Low participation in meetings and workshops       | Keep meetings focused, practical and linked to decisions                  |
| Lack of data                   | Digital Twin cannot support decisions effectively | Use minimum indicators, proxy data and qualitative evidence               |
| Poor data quality              | Misleading analysis or low trust                  | Validate data with local actors and document limitations                  |
| Limited Digital Twin capacity  | Tool remains unused                               | Provide simple visualisations and practical training                      |
| Fragmented responsibilities    | Duplication or gaps in implementation             | Use responsibility matrix and cooperation protocols                       |
| Low citizen participation      | Actions do not reflect real needs                 | Use trusted intermediaries and accessible engagement methods              |
| Exclusion of vulnerable groups | Strategy benefits only active residents           | Use outreach, home-based contact and targeted participation               |
| Lack of funding                | Actions stop after project end                    | Connect actions to municipal budgets, regional funds and EU opportunities |





| Risk                           | Possible effect                                     | Mitigation measure                                                       |
|--------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------|
| Political change               | Loss of continuity                                  | Embed governance model into administrative routines and policy documents |
| Overly technical communication | Stakeholders do not understand Digital Twin outputs | Translate data into maps, stories and practical decision questions       |
| Weak transferability           | Results remain pilot-specific                       | Document tools, lessons and adaptation conditions                        |



## 10. Monitoring framework

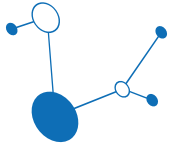
Monitoring should combine quantitative indicators, qualitative feedback and governance learning. It should not be limited to health outcomes, because many Blue Zone effects are long-term. The monitoring framework should therefore also track coordination, participation, policy integration and capacity building.

**Suggested monitoring areas and indicators can be:**

| Monitoring area              | Example indicators                                                                                                            |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Governance coordination      | Number of governance group meetings; diversity of actors involved; decisions documented; follow-up actions completed          |
| Stakeholder participation    | Number and type of stakeholders engaged; participation of health, social, civic and data actors; stakeholder satisfaction     |
| Citizen engagement           | Number of residents involved; participation of older adults and vulnerable groups; number of engagement formats used          |
| Digital Twin use             | Number of use cases defined; datasets integrated; visualisations produced; decisions informed by Digital Twin outputs         |
| Policy integration           | Number of local strategies or plans linked to Blue Zone priorities; references to Blue Zone principles in municipal documents |
| Pilot implementation         | Actions launched; actions completed; delays and adaptations documented                                                        |
| Prevention and active ageing | Participation in preventive programmes; outreach activities; physical activity-related interventions                          |
| Social connection            | Intergenerational activities; volunteer involvement; community events; feedback on loneliness or social participation         |
| Accessibility and mobility   | Walking routes improved; transport coordination; accessibility barriers identified or reduced                                 |
| Institutional learning       | Lessons learned documented; training sessions held; peer-learning exchanges completed                                         |
| Transferability              | Tools documented; external organisations engaged; adaptation guidance prepared                                                |

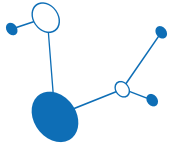
The monitoring process should follow a simple cycle:

1. Define baseline conditions.



2. Select realistic indicators.
3. Collect data and feedback during implementation.
4. Discuss results in governance meetings.
5. Adapt actions where needed.
6. Document lessons learned.
7. Share findings transnationally.
8. Integrate successful elements into local policy and practice.

This process ensures that monitoring supports learning and adaptation, not only reporting.



## Conclusion

The BLUETWIN-CE pilot areas provide a strong foundation for developing a transnational Blue Zone governance model. The main challenge is not the absence of stakeholders, services or policies, but the lack of integration between them.

This strategy responds to that challenge by proposing a municipality-led, multi-stakeholder, community-based and Digital Twin-supported governance model. It connects Blue Zone principles with practical governance mechanisms, stakeholder coordination, citizen participation, data-informed planning and long-term institutional embedding.

The strategy is validated through transnational workshops and partner consultations and is designed to be practical, scalable and transferable. It supports the three pilot areas in moving towards healthier, more resilient and more inclusive communities, while also providing a model that other Central European regions can adapt.

The strategy creates transnational added value in several ways. First, it transforms local pilot experiences into a shared Central European governance model. This allows partners to learn from each other rather than developing isolated solutions.

Second, it creates a common language for Blue Zone governance. Concepts such as prevention, active ageing, social connection, Digital Twin-supported planning and community participation can be interpreted differently across countries. The strategy provides a shared framework while allowing local adaptation.

Third, it supports comparative learning. Beltinci, Svidník and Montegrotto Terme represent different territorial contexts. Comparing them helps identify which governance elements are universal and which need local adaptation.

Forth, it contributes to integrated territorial development in Central Europe by showing how health, wellbeing, digitalisation and governance can be connected in peripheral and lagging regions.

The core message of the Blue Zone Governance Strategy is that Blue Zone-inspired transformation requires more than individual health promotion activities. It requires governance capacity, stakeholder trust, community participation, evidence-based decision-making and long-term commitment. By connecting these elements, BLUETWIN-CE can create a transferable pathway for wellbeing-oriented territorial development in Central Europe.