

A Summary Report on the Systems Approach to the development of The GroundsWell Consortium



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1. Introduction

The GroundsWell Consortium has been assembled to undertake a large and complex programme of work to enable a community-engaged and data-informed Systems Transformation of Urban Green and Blue Space for Population Health. A systems approach has been taken to the development of the consortium, its wider community and the programme of work in order to achieve a shared and common understanding of the aims and desired outcomes of the programme and the completeness and coherence of the work programme.

This summary report describes the systems approach taken and includes examples of the application of the selected methods. It is not a complete documentation of all the artefacts developed.

2. Development of a shared understanding

The initial stage was to introduce a range of tools and techniques employed in a workshop format to share and agree the purpose of GroundsWell, identify the relevant stakeholders and their perspectives, and surface constraints that the programme will need to address.

The challenge to be managed here is that each of us will think about and perceive a situation differently. We have differing innate abilities, experiences and levels of training. Also an individual may hold certain pre-conceptions and objectives that can act to filter and interpret the environment in a particular way whilst generating understanding; so we need to find a way of communicating our thinking and sharing our perspectives such that a consensus of views, or at least an accommodation, is achieved. This is critical to provide a shared and robust foundation for planning and decision-making.

An initial workshop focused on developing a shared perspective and common Consortium goal, agreeing on the focus of the research, identifying the various stakeholders and their perspectives. Additionally, the beneficiaries were identified, an initial view on the scope of GroundsWell's remit and its sphere of influence, and for the consortium members to get to know each other. Finally it helped all to understand the complexity of the bid and the contribution from each Work Package system and convey essence in our bid. A second workshop was run to focus on the data aspects of the research proposal as this is a key focus of the programme of work. Finally, a third workshop was run with a wider set of interested communities and citizens to establish a shared vision of the programme, introduce the work proposed and to solicit involvement. The systems tools and techniques are described below.

2.1. Define and Understand the Problem and its Causes

The first step was to clarify the programme focus with the range of stakeholders involved; either in contributing to, or progressing the work packages, or as potential beneficiaries. The complex environment that leads to the issues being addressed can result from a range of causes, and further complicated by their interactions. Knowing where to start with developing a solutions is a challenge, and so surfacing the various perspectives and issues in an open-minded manner, listening to and hearing the perspectives and ideas of others, is essential.

Rich Pictures

Rich Pictures are a way of building a picture of the collective views and perspectives of those involved (Checkland, 2000). Using images and metaphors is helpful and will prompt those involved to expand their thoughts as well as providing a reminder of what the conversations have covered. By building a 'big picture' collaboratively, and then standing back from it helps so see what issues and challenges emerge, as well as initial thoughts as to their relationship with each other.



Figure 1 - Rich Pictures

Multi-perspectives

The Multi-perspective approach (Gareth Morgan’s ‘Pig Model’ (Morgan, 1993)) is the first step in capturing what the group imagines to be the views of the various stakeholders; what the situation means to them and what is important to them. Initially the perspectives of those present is captured, then the group imagines what the perspectives of others might be.

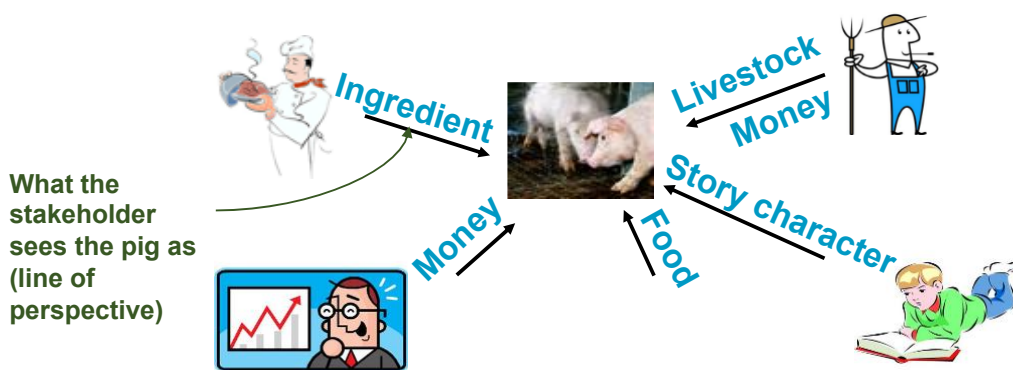


Figure 2 - The Pig Model

An understanding of how the various stakeholders see GroundsWell is important to ensure the range of perspectives is considered, and that these perspectives are represented within the programme of work.

The following stakeholders and perspectives were initially identified:

Stakeholder – having a particular interest in UGBS	How do they see UGBS?
Council	Expense + potential burden
Local health departments	Positive asset
Parks & recreation	Extra responsibility pressure
Local Planning authorities	Expense but positive asset
Education bodies	More to plan for
Local businesses	Added value on business
Local Transport Depts	More to plan for
Private land developers	Loss of land to build on
Local companies	Open to fund development
Political government	?? asset to reduce NCDs
Charities / Lottery funding	Good cause
Environmentalists	Positive cause to support
Local communities (residential)	Recreation space
Local communities (deprived)	Contested space
Ethnic groups	Controlled space
Elderly / young families	(Un)safe space / freedom
Schools / child care	Learning play environment
Sport & leisure groups	Positive space to utilize

2.2. Clarify causal and contextual factors

The next step is to explore the situation to determine the underlying factors that are believed to shape the problem, and the relationship between them. Through doing this, the factors that can be influenced through an intervention that will lead to beneficial change may be identified. The first step is to capture the varying beliefs within the group using a relatively unstructured approach called a cognitive map. Allied to this is to reflect the group's understanding about the context the situation sits within. Here you might employ a context map.

Cognitive Maps

Originally developed through research by Ackerman and Eden in the 1980's (Eden, 1988), cognitive maps are relatively unstructured graphical tools for representing relationships between a series of ideas, issues and concepts, and begin to introduce the notion of cause and effect linkages between system elements. They are used in an 'influence' context, with regard to how different elements of a system influence each other and to enable analysts and problem owners to explore the behaviours and interactions of people.

Crucially, they enable you to build a picture of the 'dynamic' map you hold as a mental model such that you can discuss it with others. Also, you can only hold so many ideas in your mind at once, so you can build a bigger picture on paper.

The cognitive map developed for the data work package is shown below at Figure 3.

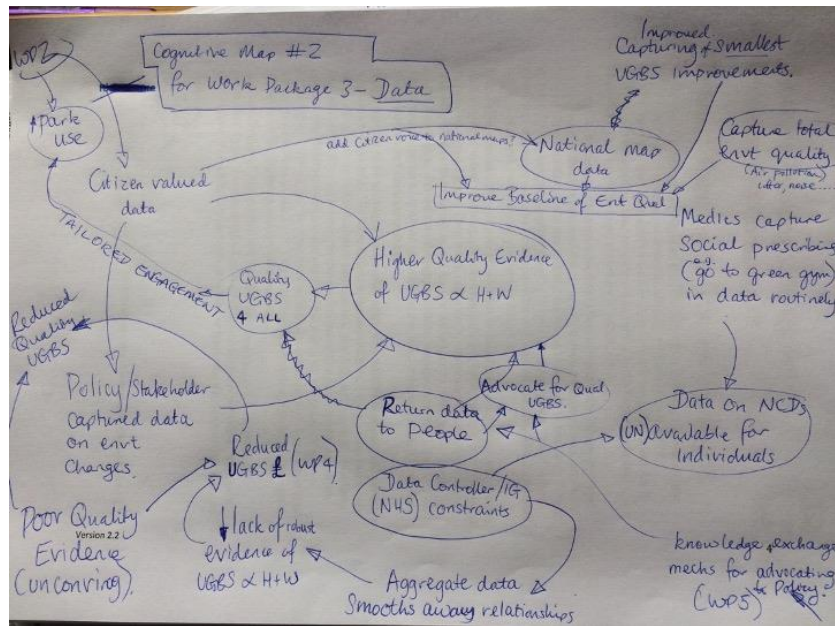


Figure 3 - Cognitive Map of Data WP

Context Diagram

Drawing a context diagram, or a context analysis, is a way of organizing thinking about factors that characterize a 'problematic situation' and is prepared from the perspective of a particular actor, normally "you". First developed by Flood and Carson (1993), a context diagram can help to develop shared mental models and understanding of responsibilities across different stakeholder groups within the system being studied. It aids appreciation of boundaries i.e. what can be controlled or influenced, what constrains your (or the actor's) options and/or actions. It challenges assumptions, e.g. do "you" really have the power to influence? Also, dependency relationships can be added between factors.

From the perspective of:
Senior decision-maker (DM)

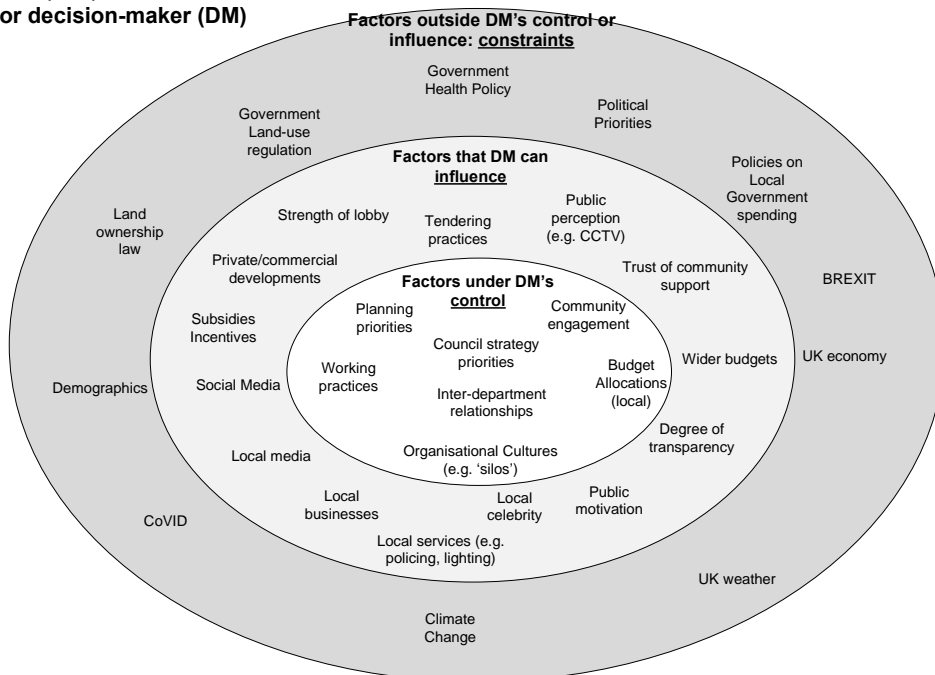


Figure 4 - Context Diagram from the perspective of a senior decision-maker

A context diagram from the perspective of a senior decision-maker who might exploit the data produced by the consortium is shown above at Figure 4.

Another perspective is that of the consortium. A context diagram from the perspective of the consortium with regard to data is shown below at Figure 5.

From the perspective of:

GroundsWell Consortium (GC)

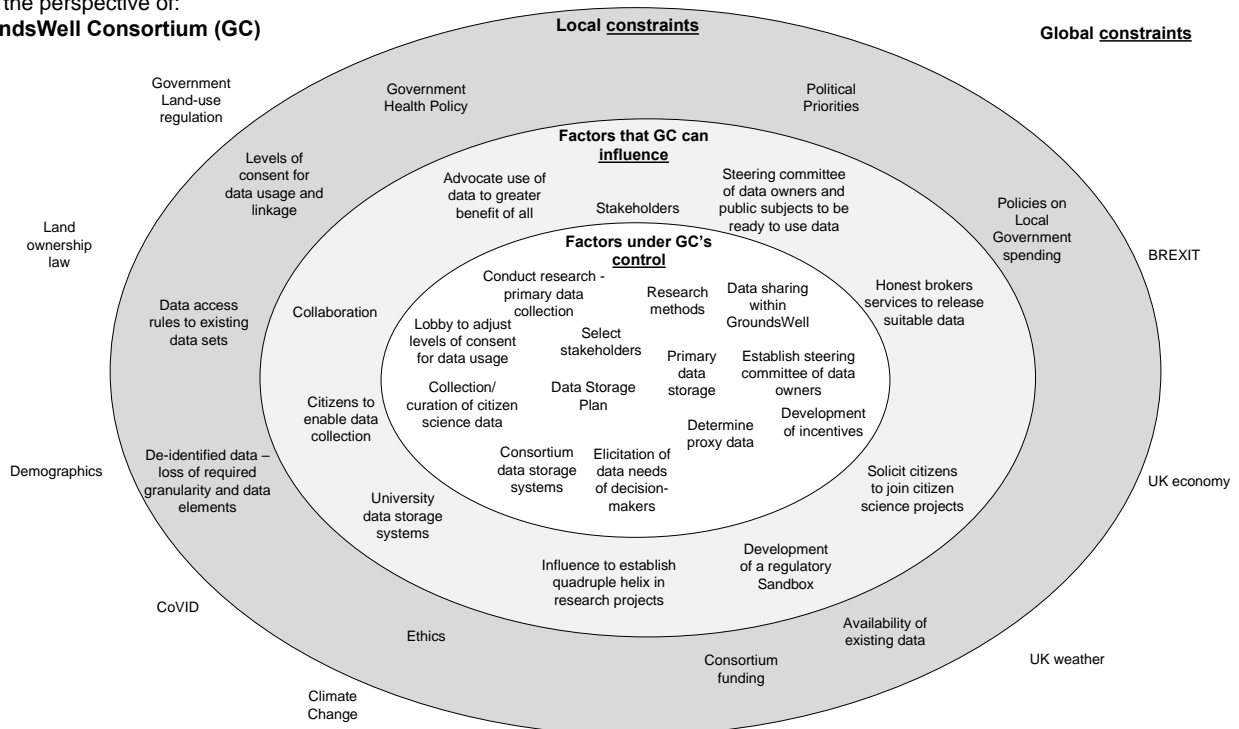


Figure 5 - Context Diagram from the perspective of the Consortium

2.3. Identify how to bring about change: the change mechanism

The thoughts that emerge when thinking about change, and what we hope to achieve with the change reflect our values and beliefs. Therefore, they will possibly differ. Even if we agree on the outcome we are seeking, what we believe needs to be done to achieve that change may differ, again according to our differing knowledge, beliefs and experience.

The final two tools support a collaborative discussion to help reach a consensus, or at least an accommodation within the group. The 6 Cohering Questions is the starting point. There may be a range of outcomes perceived and, for each one, you would develop answers to each of the Questions 2-6.

Finally we might want to confirm that we are thinking of an outcome at the right level – neither too strategic, nor too much in the weeds. The laddering technique helps to validate the level of thinking so give the group confidence in their outcome sought.

Finding a broad direction – 6 Cohering Questions

These questions focus the dialogue on the purpose of one’s own mission (the ‘we’), seeking consensus, and makes explicit the thinking about what it might take to achieve the declared purpose. The same set of questions can be used to imagine the purpose of others involved in the situation (the ‘they’). This exercise surfaces the many mental models present, as well as the different perspectives of the differing skill sets and experiences of the commander and staff. Its main value is to ensure shared understanding, specifically that an individual’s understanding is not

limited by their personal perspective and can be extended to incorporate the knowledge and views of others.

At this stage, it is useful to explore whether those in the conversation agree on the problem or purpose of the system being discussed. All the thinking captured by the previous techniques contributes to this. A set of very simple questions can be used:

1. **What are we/others trying to achieve?** – Assuming who the ‘we’ or ‘others’ actually is has been agreed, this question helps to bring out the various perspectives. Generally the prior appreciation will have aligned thinking, or the purpose or problem may be ‘given’.
2. **What do we/they need to get done to achieve that?** This questions draws out the differing belief and value systems of those involved as we all, though our different skills and experiences, will have a different view of what it takes to achieve the purpose, or address the problem agreed in the previous question.
3. **Who benefits from any potential outcomes?** This represents the customer or beneficiary such that you can agree that the outcome is the benefit desired and considered of value.. It is also useful to explore who might disbenefit as well, such that you might consider ways of mitigating the impact – unless, of course, they are intended to be a dis-beneficiary such as an adversary.
4. **Who is going to get these things done?** This helps to consider who will actually do the activities identified above. They are not necessarily all from the same organization, and some may not be under your control.
5. **Who owns it?** This identifies the ‘owner’ of the problem or system, the one who is accountable for the system’s performance. Ideally, this is a single person and not a committee!
6. **What are the constraints (for us and others)?** This is often a key question as it will identify limitations that have to be considered and acted within. They will constrain decision-making and often provide system boundaries.

Figure 6 - Six Cohering Questions

A Six Questions exercise was carried out for the UGBS Hubs with the same perspective as for the Context Diagram at Figure 4: City Council Committee responsible for decision-making regarding UGBS policies and actions.

The overall purpose of achieving the outcome for Q1 is: Healthier people with reduced NCDs across the city (i.e. improved urban health).

1. **What are they trying to achieve?**

Everyone using the space well, effectively and safely.

2. **What do they need to get done to achieve that?**

- Understand all aspects of UGBS usability
- Understand the nature of the demographic
- Identify areas of contention / areas of shared interest or benefit
- Make UGBS more readily useable
- Increase amount and range of UGBS
- Understand impact of UGBS-related actions on other services

3. **Who is going to get these things done?** This helps the council committee to consider who will actually need to do the activities identified above.

4. Who benefits from any potential outcomes?

Here is where the 'pig' diagram is used to show those who are likely to benefit from everyone using the space well, effectively and safely (e.g. children) and those who may be negatively impacted (e.g. commercial housing developers).

5. **Who owns it?** This identifies the 'owner' of the problem, being the agency who is accountable for the effective (or otherwise) use of the UGBS. In such a messy, complex problem it may not be possible to identify just one 'fat controller' or problem owner.

6. **What are the constraints (for us and others)?** Here is where the factors and actors that are around the edge of the Context Diagram is helpful; for example, budgets, planning constraints, people's ways of being, etc. There is also the issue of lack of vision or need for some innovative thinking or even more open collaboration with people in the city to create new options for action.

Laddering – the Ladder of Abstraction

At times it is necessary to confirm the problem or question being considered is the right one. It is very easy to set off on a track and plough a narrow furrow towards a particular goal. The Ladder of Abstraction (Isaksen, Dorval and Treffinger, 2011) is a particularly helpful method to confirm the focus of the problematical situation. We set off by forming a model problem statement such as the one below in Figure 7:

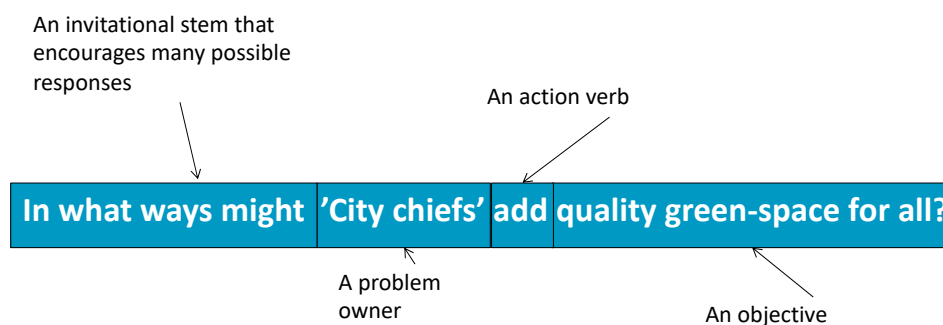


Figure 7 - Model Problem Statement

To ladder up, ask "why might this problem exist?" and also ask "why else?" to generate a set of more abstract concepts. To ladder down ask, "how might this problem manifest itself?" and also ask, "how else?" to generate a more concrete set of problems. This ladder could be extended upwards or downwards. You may need to ladder down a few times to move from Sources to Factors; it is not an automatic 'one-shot' operation and judgment must be applied in distinguishing the level at which you identify Factors.

One also considers 'why else?' and 'how else?' whilst doing this, and you can go as far left and right as is helpful. This helps one ladder up and down to the appropriate level of abstraction as well as thinking 'left' and 'right'. The important point is to phrase the central question beginning with 'In what ways might. . .' in order to open up thinking.

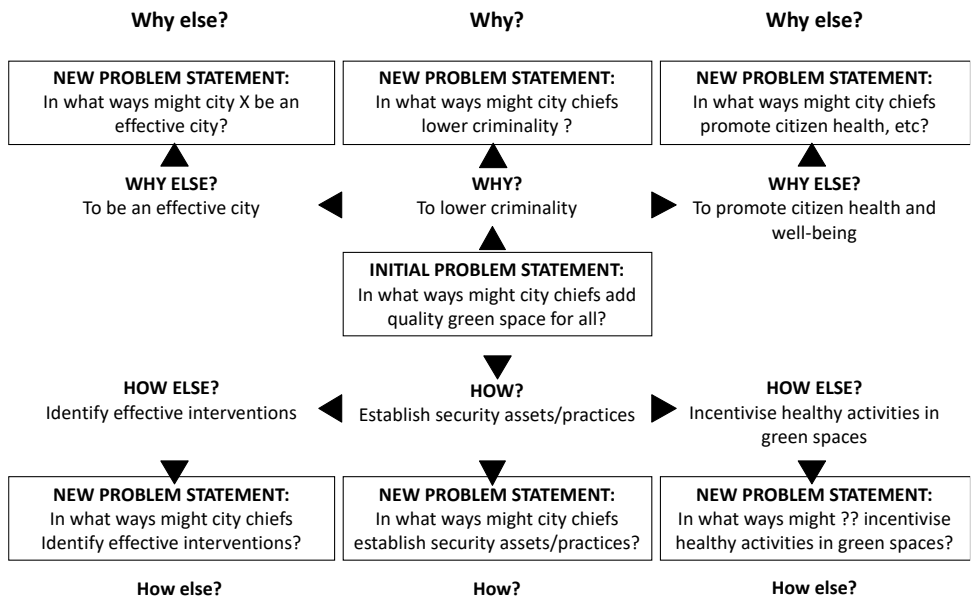


Figure 8 - Laddering Questions

3. Assembling the Consensus Primary Task Model using the Enterprise Approach

Following the workshops a more formal systems approach was taken to develop a complete and coherent set of activities relevant to the purpose of the research programme in order to confirm the coverage of the various work packages and the governance aspects.

The first stage was to develop a Soft Systems Model (SSM) employing Wilson’s Enterprise approach as a structure for thinking about a set of Root Definitions (RDs) relevant to the organisational situation (Wilson, 2001, p.111). This enables a much more detailed understanding of the activities relevant to achieving the range of purposes than could be achieved by taking Checkland’s approach (Checkland and Poulter, 2006).

3.1. Enterprise Model

Reflecting that organisations generally have a primary purpose that differentiates them from others and that all activities should align to, it is not feasible to capture all the management processes.

The elements are the core purpose or Transformation of the organisation (generally only one RD), Support systems, systems that Link the organisation to its environment and Planning, Monitoring and Control systems. Apart from the T, the other elements may have multiple Root Definitions. This is illustrated at Figure 9.

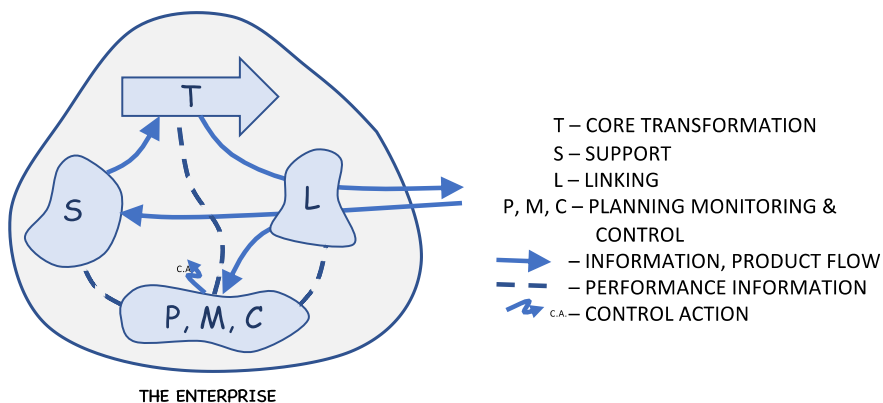


Figure 9 - The Enterprise Model (from (Wilson, 2001, p.111))

3.2. Systems Identified

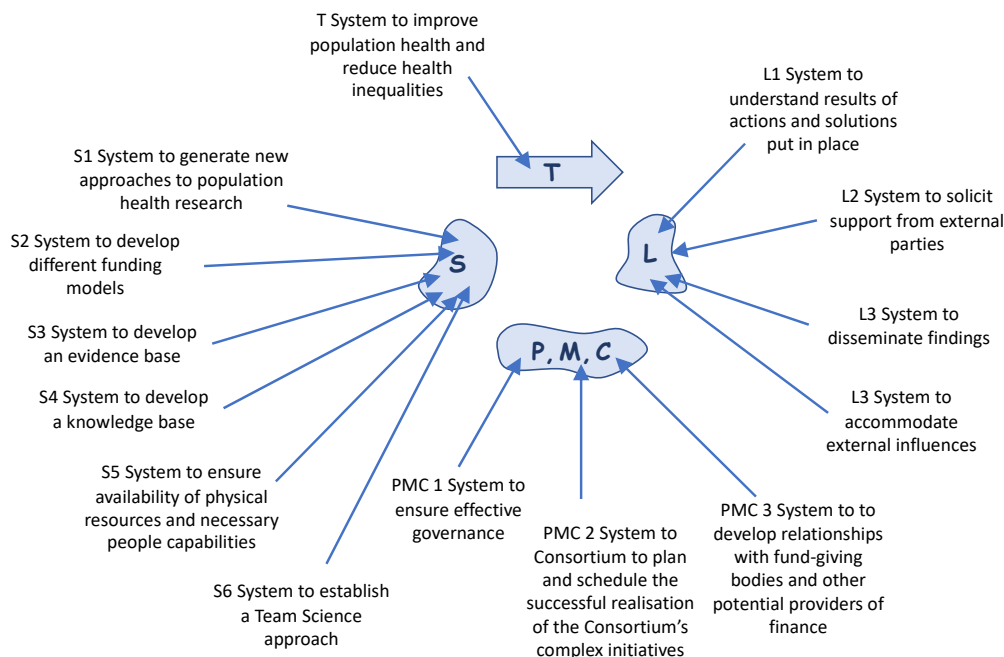


Figure 10 – Systems Relevant to the Groundswell Programme

4. Root Definitions

Each of the systems identified in Figure 10 is described by a Root Definition as included below at Annex A. A single (though rather large) conceptual model is developed from the set of Root Definitions, and then simplified into a sub-system model. These activities were tabulated and then allocated to and sorted by work packages as shown below at Figure 12. The subsystem model is shown at Figure 12. The subsystems have been colour-coded to align with work packages, the balance being part of the overall governance of GroundsWell.

The activities within the conceptual model are linked by logical dependencies, so once aggregated in to sub-subsystems, the higher-level dependencies between subsystems can be identified. The activities within the subsystems both informed the work packages and helped to clarify both the scope of work packages and the dependencies between them. Additionally, this approach to modelling both confirmed the Theory of Change model as well as identify the required programme governance activities.

4.1. Activity Analysis

Each of the subsystems will have one or a small number of “Control Action” activities. For each of these, an analysis can be undertaken to identify the quality criteria for the activity (i.e. how would you determine how well the activity was carried out) as well as measures of performance of the relevant aspect of the system (research programme element) under control of that activity. Also, one can determine the role that is Accountable for ensuring the programme element achieves its desired outcome, who is Responsible for taking action to ensure the outcome is achieved, who might be consulted in the process of taking action and who should be informed of the outcome.

4.2. Mapping to VSM

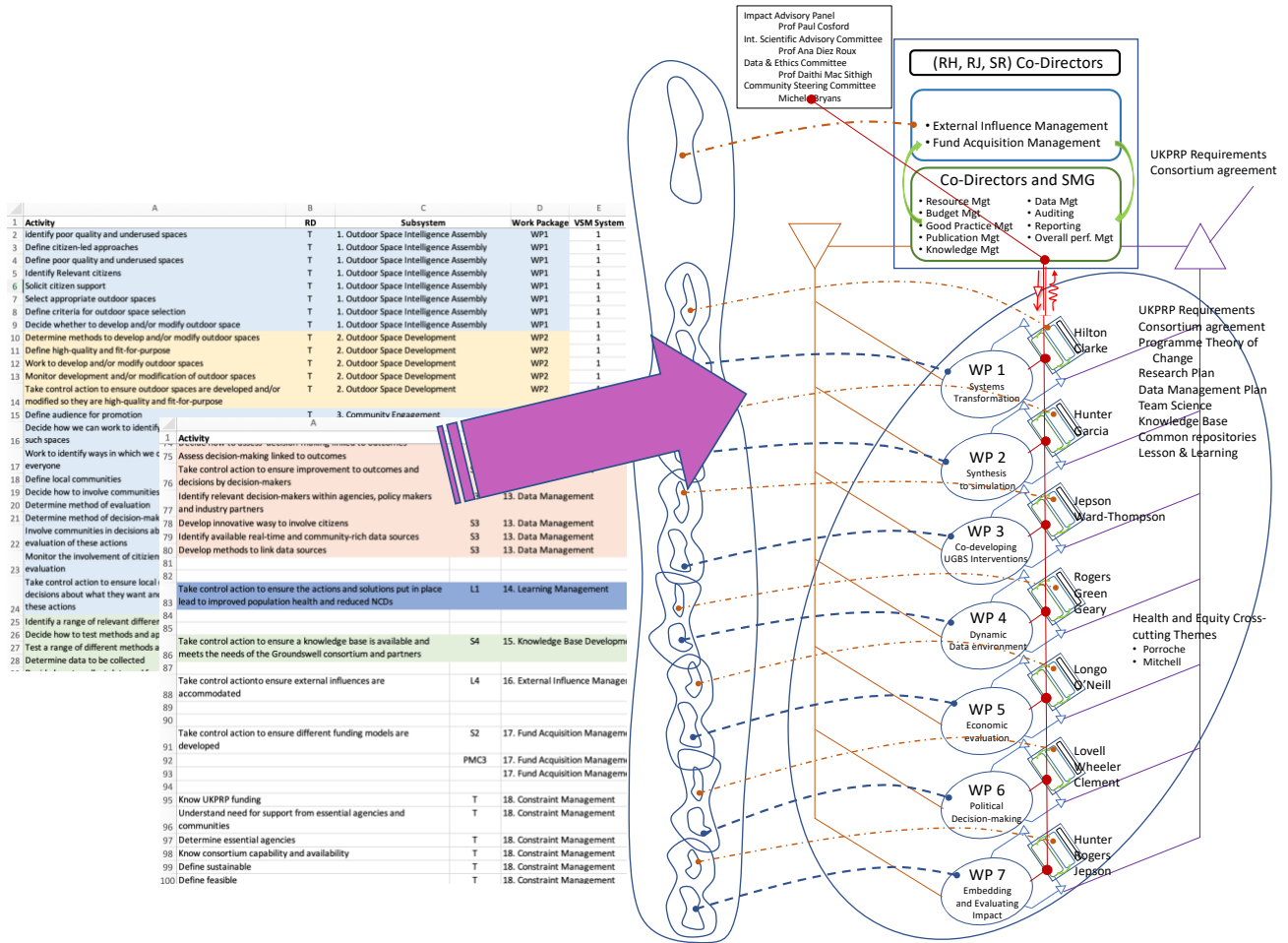


Figure 11 - Mapping the SSM activities to the VSM

Another aspect of the activity analysis is to determine to where in the consortium the activity functionally sits. For this, we map to the Viable System Model. This is expanded upon in the next section, Section 5.

4.3. Sub-System Conceptual Model

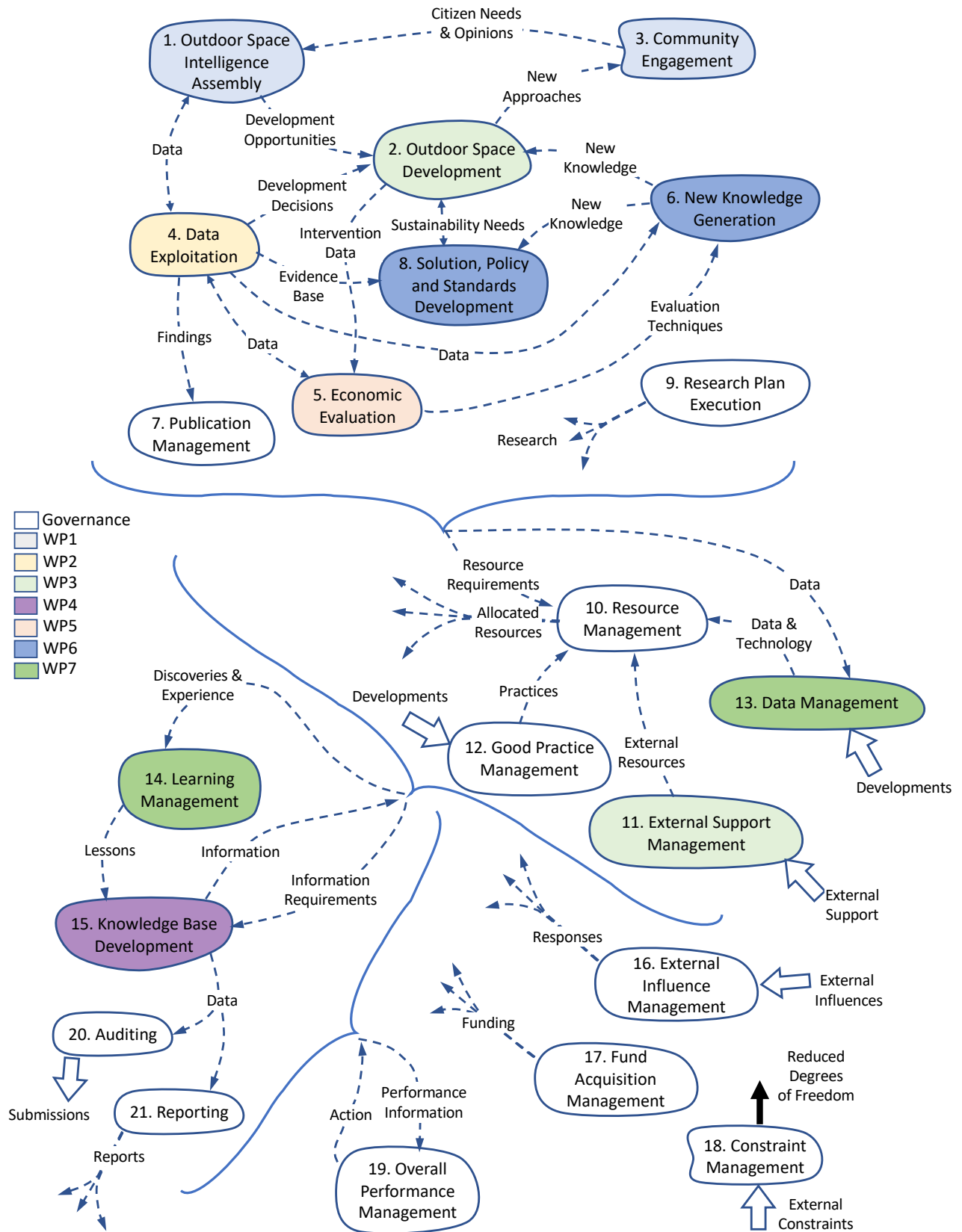


Figure 12 - GroundsWell Sub-System Model Mapped to Work Packages

5. Viable system Model

The Viable System Model (VSM) was created by Stafford Beer over 40 years ago and has extensive use as a diagnostic tool (Beer, 1985; Espejo and Gill, 1997). It is frequently used to improve the resilience and continued viability of organisations. It is used quite extensively and is regaining popularity in organisational design and improvement. It is, however, quite a challenging methodology to grasp as it is not intuitively easy. It doesn't consider organisations in the usual, organogram way, but from a functional management perspective, viewed in a recursive hierarchical manner. This enable a three-dimensional perspective, looking at each layer of the organisational hierarchy, but with the opportunity to break out peer subordinate elements of the organisation. The value of this is that you consider not only the different focus of each layer of management, but also how the organisation joins up across the layers and what coheres the organisation.

The operational and management elements are considered through 6 Systems in the Viable Systems Model as shown below in Figure 13 (3 and 3* can be considered as two different systems).

Management includes the leadership and strategic management as System 5, the future-looking and research aspect as System 4 and the day-to-day management as System 3.

System 2, Coordination and conflict resolution across the operations arms of the business are essential, ... as is System 3* which includes Periodic reviews and audits of the operating element by the senior management which bypass the local operational-level management.

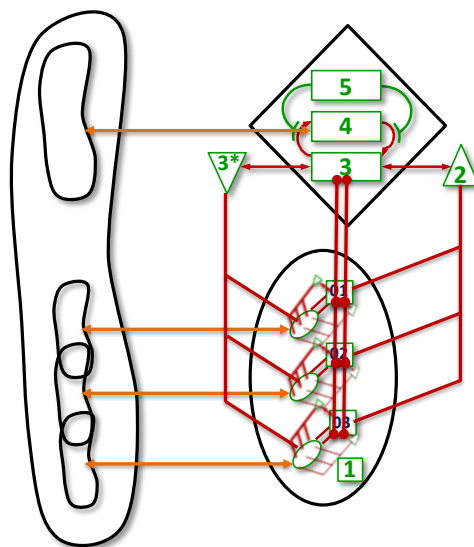


Figure 13: The 6 Systems of the VSM (Derived from (Walker, 1991))

The operating units, Systems 1, are identified and included. These are the parts of the business that add value, as opposed to the support elements such as personnel, finance, etc which sit in System 3. The Systems 1 need to be able to operate in their environments as freely as possible as they add the value to the organisation. The remaining systems serve them. Consequently, each will have its own internal policy, development, operational control, coordination and monitoring, hence the recursive nature of the model.

The Systems 1 need to be viable in their own right, but they are sub-units within the organisation, they are subject to organisational policies and direction. They will receive goals and priorities from System 5, refined by System 3 into tasks. This is via the resource negotiation vertical channel. They will be subject to the higher level's System 2 coordination and conflict resolution, adding their own

specifics, and will be subject to the higher level System 3* audits. They will report back on their to System 3

Finally, the environment the organisation operates within is included, but is shown off to one side for clarity.

5.1. Mapping SSM Control Actions to VSM

As mentioned above, the SSM activity analysis included a mapping of the control activities to the VSM as shown below in Figure 14.

- SSM Analysis will also determine for each activity:
 - Inputs
 - Outputs
 - Quality criteria
 - Measures of Performance
 - Metrics
- Mapped to the appropriate System and level within VSM
- Where the activity sits denotes who will undertake it
- Outputs will 'flow' along the lines and will clarify the 'process' and 'information flows'

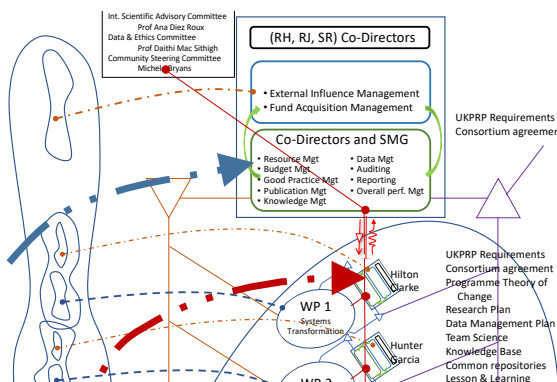


Figure 14 - Mapping SSM to VSM

This enabled us to utilise the diagnostic capability of VSM to explore the necessary governance aspects of GroundsWell as well as consider the additional elements required to enable the viability of Groundswell. The key elements for viability that were identified include the System 4 and System 2 elements. The System 4 elements of External Influence Management and Fund Acquisition Management are important at the consortium level to determine how GroundsWell is being perceived and manage expectations as well as acquiring future funding to ensure the continued outcomes of the programme beyond the initial funded period.

The System 2 elements as listed in the diagram at the right hand side of Figure 15 are necessary to cohere, coordinate the programme and mitigate any inter-workpackage conflicts. It is quite common in research projects for work packages to become autonomous and lose their linkages. In the consortium, this would have a seriously detrimental impact as there are dependencies between the work packages, the potential for duplicating work and confusing the communities and citizens involved in various work packages.

Also, the analysis of the SSM activities will inform the requirements and measures of performance (leading to metrics) that will indicate the success or otherwise of the various work packages, thus indicating the overall likelihood of success of the programme. This level of thinking also informed the risk assessment and risk map of the programme which will be maintained for the duration of the programme both for programme governance and reporting to UK PRP on an annual basis.

Each of the work packages could develop their own VSMs as it is an hierarchical model. This would enable each workpackage lead to establish conditions for ongoing viability, monitoring and risk reporting.

5.2. The GroundsWell Consortium represented by a VSM

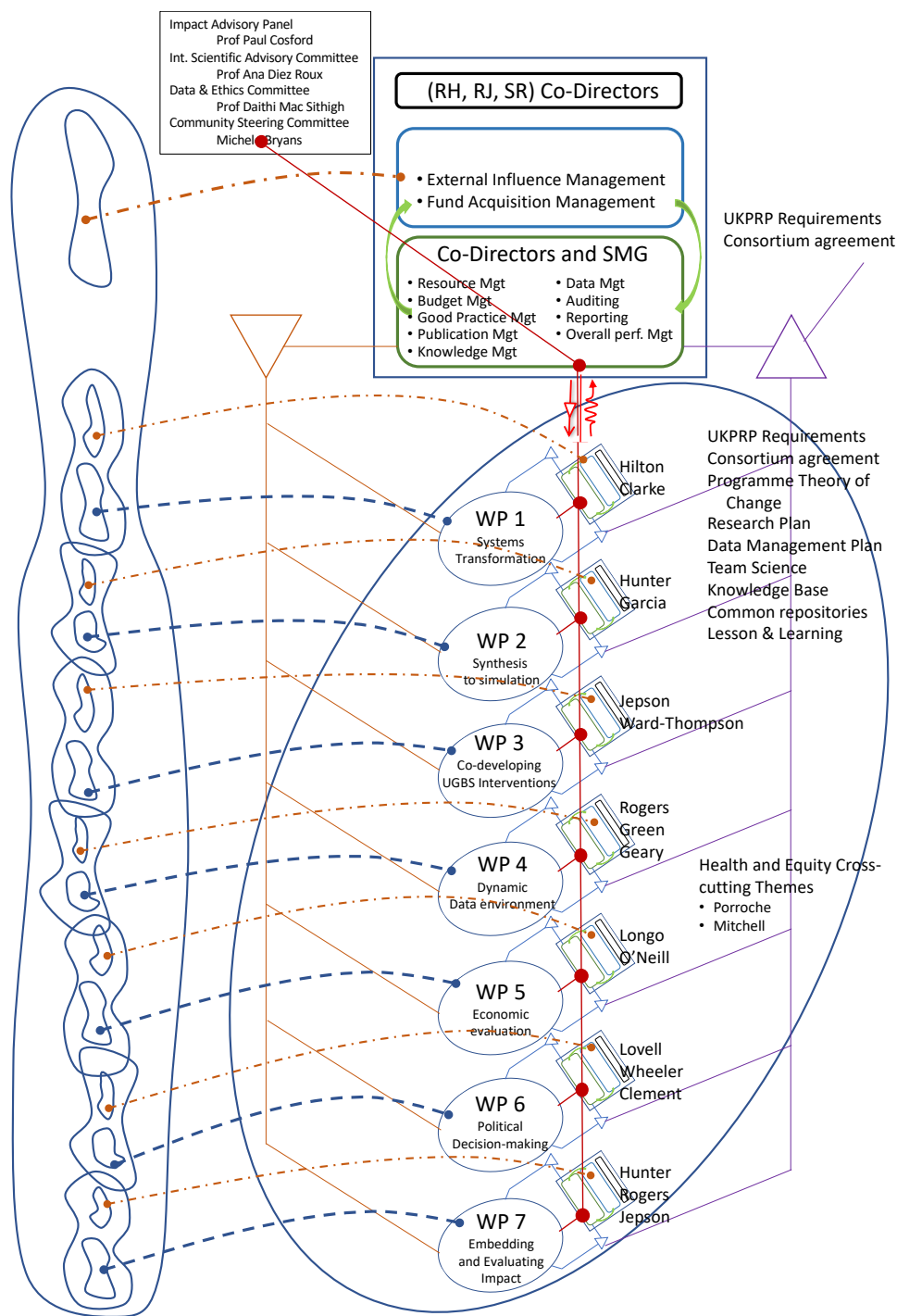


Figure 15 - VSM of GroundsWell

5.3. Analysis of VSM with regard to governance

The analysis of the VSM for GroundsWell surfaced a range of governance questions, some of which are listed below. This was used to inform the development of the Case for Support, particularly the structure of the GroundsWell Consortium, workpackage integration, co-production, and sustainability.

System 3

- Contractual arrangements between universities and with UKPRP?
- Resource and funding allocation?

- Tasking? Is it defined in proposal?
- Who defines/agrees variations in tasking?
- Who will manage the research plan, is responsible for day-to-day management and receipt of reports?
- What periodic audits do you think might be relevant?
- What are the measures of performance for work-packages? Interventions? Etc?
- How will you ensure the consortium work programme is seen as coherent from the outside (external parties may engage with more than one work-package)?

System 4

- Who will monitor the outside environment and recommend variations to the research programme and priorities?
- Will you be guided by an external stakeholder group?
- Will work-packages be adjusted during their life? Who will do this? Is it at the work-package level?

System 2

- How will you manage inter-work package coordination, conflict resolution?
- Are there to be common ways of working?
- Will there be a common data /knowledge repository?
- How will you keep the consortium up to date?

6. Relationship between WPs through to Outcomes

The final exercise of the systems approach to developing the Groundswell Case for Support was to consider the Programme Theory of Change through the lens of a cognitive map to establish and confirm the linkages between work packages, process outcomes, intermediate outcomes, outcomes and impacts. The cognitive map is included at Annex B.

The subsystem model dependencies also confirmed the development of the cognitive map, and the conversation behind its development contributed to the overall coherence of the programme, and clarified for work package leads the relationships between work packages. It also prompted discussions regarding measures of performance at work package level and overall programme level, and provided a more detailed map of the programme for easier reference by consortium members.

7. Conclusion

This summary report describes the system approach taken to the development of the Groundswell Consortium Programme of Work for funding to enable a community-engaged and data-informed Systems Transformation of Urban Green and Blue Space for Population Health under the UK Preventative Research Programme.

It describes the methods utilised and indicates at varying degrees of completeness, the artefacts employed to inform thinking. The outcome is the final Programme of Work and, more importantly, a coherent programme of research underpinned by a shared and common understanding across the consortium of the complete programme of work.

The systems approach taken to underpin the Groundswell Programme of Work illustrates many of the methods and tools that will be employed in WP1. The key additional method will be Group-Based Systems Modelling that will utilise System Dynamics. An important aspect, and significant contribution to the programme outcomes is the novel integrated application of these methods. This is very much in line with Critical Systems Theory (Jackson, 2020) being an underpinning systems philosophy for exploring social contexts.

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Annex A. Enterprise set of Root Definitions

A.1. Core Transformation

RD 'T'

A system, owned by the GroundsWell PI Collective, operated by the GroundsWell Consortium through collaborative working with researchers, clinicians, practitioners (such as Urban Designers), policymakers, and citizens, to Improve population health and reducing health inequalities through the primary prevention of Non-Communicable Diseases (NCDs), by identifying poor quality and underused spaces through citizen-led approaches, working to develop and/or modify outdoor spaces so they are high quality and fit for purpose, work to identify ways in which we can promote such spaces for everyone; ensure local communities are fully involved in decisions about what they want and be involved in the evaluation of these actions, testing a range of different methods and approaches, collecting large amounts of data and predict what could be effective over a much wider area, and understand what will not work, and informing future policies and programmes, for the benefit of all communities, but recognising the impact of UKPRP funding, the need for support from essential agencies and communities, and consortium capability and availability.

A.2. Supporting Systems

RD S1

Within the need to develop new approaches to population health research (particularly w.r.t. preventing NCDs and reducing inequalities in health), generate new knowledge that meets the needs of potential users and beneficiaries of the research in order to drive broad changes to trigger realignment of health interventions by developing solutions, policies and strategies which are sustainable, replicable, feasible and affordable recognising the capabilities and scope of the GroundsWell programme.

S2

A system to develop different funding models for green/blue space infrastructure and programmes for the benefit of Owners and implementers of actions and solutions put in place to improve population health and reduction of NCDs through looking at social economy approaches, community assets, micro-interventions and recognising local authorities and government won't have funding to support large scale infrastructure investment, and to sustain the GroundsWell Consortium endeavours.

S3

A system to develop an evidence base that leads to improved outcomes and decisions by decision-makers within agencies investing in the interventions, policy makers and industry partners by making better use of well-curated administrative data, including innovative ways to involve citizens and develop new methods that link real-time and community-rich data sources

S4

A system to develop and maintain a current knowledge base to support all activities for the benefit of the GroundsWell Consortium members and selected external partners, which allows learning from previous history together with the external information to provide that knowledge by acquiring processing and making available information as needed and by providing the source for reporting and auditing as required but recognising the constraints arising from defined access requirements, the need to protect intellectual rights, current technology and required technical standards.

S5

A system to ensure that the physical resources available including space, utilities and the people capabilities available match the requirements of all activities and enable the execution of defined activities

in a collaborative manner, while exploiting developments in technology and related best practice as a means of enhancing overall performance but recognising appropriate technical standards and current technical constraints.

S6

A system operated by appropriately skilled and experienced Team Science practitioners, to establish a Team Science approach for the benefit of the GroundsWell programme and its sustained outcomes by developing GroundsWell Consortium capabilities including facilitation, applying the key design principles of integrative networks into the ways of working of the GroundsWell programme, establishing group rules of interaction, having a diverse and inclusive membership, a core-periphery network structure and the core network utilising integrative decision-making but recognising the accommodation of existing ways of working and time available.

A.3. Linking Systems

L1

A System to understand the results of actions and solutions put in place to determine their success such that they lead to improved population health and reduction of NCDs by the same data across the different actions, establishing a way of bringing together multiple sources of data to effectively determine what works across multiple projects and settings, involve citizens in collecting data, exploit other data on health, wellbeing and the environment that is routinely collected by councils and governments to understand what works for whom and why across the cities, use the knowledge to predict what could be effective over a much wider area, and also what does not work, make decisions about what is good value for money, and what is not within the limits of technological capacity, funding, level of citizen and community contribution and access to local councils and relevant government departments.

L2

A system to solicit support from selected communities, citizens, practitioners and policymakers for the benefit of the GroundsWell programme of interventions by promoting the GroundsWell programme through social media, community engagement, available networks of practitioners, communities and local agencies, and specified events.

L3

A system to disseminate project findings by submitting papers for publication in selected journals, producing reports for appropriate audiences and making presentations at relevant conferences.

L4

A system to accommodate external influences arising from the specific setting of the Consortium, developments in related legislation and other potential sources so that opportunities may be exploited to the benefit of the Consortium initiatives and risks to the Consortium's activities minimised through appropriate contingences and procedures.

A.4. Planning, Monitoring and Control

PMC1

A system owned by the GroundsWell PI Collective and operated by the GroundsWell Consortium to undertake effective governance of the GroundsWell Consortium that leads to sustainable impact and meets the needs of providers, policy makers and industry partners, communities and citizens by altering the perception of UGBS and changing development focus from infrastructure to community usage, employing radical systems-thinking approaches, including cross-sectoral dynamic knowledge to identify upstream levers and drivers for systems-level interventions delivering solutions for large-scale and cost-effective improvements in health and NCD prevention, all contributing to the design and implementation

of interventions, and can jointly evaluate and translate evidence seamlessly into practice whilst ensuring the appropriate relationship between agency and structure within the Consortium.

PMC2

A GroundsWell PI Collective owned system operated by the GroundsWell Consortium to plan and schedule the successful realisation of the Consortium's complex initiatives through implementing a development-evaluation-implementation process within the programme, recognising the resources available, agreed timescales and funding awarded and commitment of supporting agencies and the communities.

PMC3

A system to develop relationships with fund-giving bodies and other potential providers of finance, in order to provide the finances necessary to sustain the Consortium and its ongoing initiatives, which are planned to contribute to the development aims of the Consortium, through good consortium communication, capacity building, an ambassador programme and team science, the establishment of appropriate structures and approaches, validation of findings and solicitation of comments, while undertaking such partnership and other activities that will ensure the required contribution to the Consortium's total financial need.

Annex B. Cognitive Map of the GroundsWell Theory of Change.

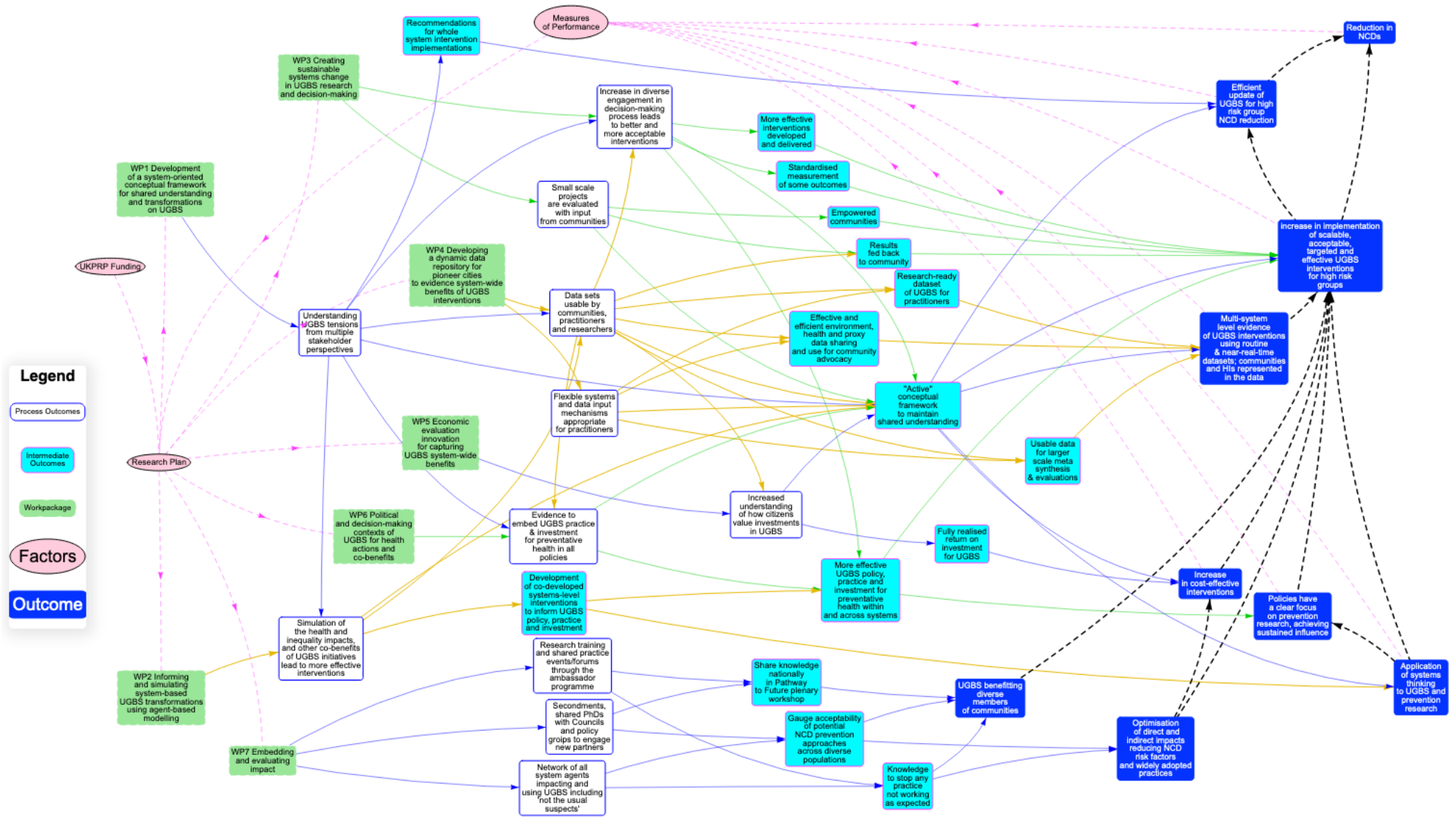


Figure 16 - Causal relationships between Work Packages through to Outcomes (not the final version)