



Smart Cities – Life Intentions Initiative

Business Case



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Note to the reader

This business case was created through an iterative process, in which research and solutions were constantly generated, tested, and refined throughout. As a result, there is a large amount of analysis accompanying the recommendations made within this business case. This analysis has been included in the form of a technical appendix. Individuals reading both the business case and technical appendix will notice that some slides are duplicated between the two. This is intentional, as the core insights from the analysis conducted within the technical appendix were selected for inclusion within the business case.

In order to make this document as user friendly as possible, the Technical Appendix has been included as a separate document that can be accessed for further insights if required.

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Service fragmentation and the mental effects of stigma on the homeless are two obstacles faced by those experiencing homelessness in the Canadian service ecosystem today. The focus of this business case has been to explore opportunities to alleviate the effects of these two issues. Service fragmentation is a particularly relevant topic of exploration, as Canada currently spends approximately \$33.5 billion per year in supporting more than 167,000 services for the homeless¹. For individuals experiencing homelessness, the sheer number of services available is a restriction to access as picking and choosing services is a confusing and intimidating task. Additionally, research has shown that when individuals have a negative experience receiving services for the first time, they are heavily dissuaded from seeking services again in the future. Thus when individuals access a service that is not right for them due to the large number of services available and have a negative experience, their willingness to access services in the future is limited as a result. This issue is further compounded when the effects of stigma are introduced – researchers from UBC have demonstrated a link between the negative effects that the social stigma of homelessness has on the cognitive function of the homeless. Research suggests that those experiencing this stigma dramatically cognitively under perform relative to their full capacity and this under performance leads to reduced willingness to seek and accept support².

In addressing both of these issues, the potential of a digital application has been explored. The digital application would provide three key benefits to users. First, the application will provide a broad, high level needs assessment by means of a self-assessment survey. Second, the application will use the data from the self-assessment to generate a custom tailored list of resources that are specific to the needs of the homeless individual using the application (e.g. someone seeking further education will be directed towards educational resources). Third, the application will provide a self-affirming experience, which has been demonstrated to address the effects of stigma on the homeless and thereby improve the cognitive function and willingness to seek and receive support.

The application is presently envisioned to leverage an existing resource database, such as BC211, and deliver resource suggestions to users via custom developed algorithm. The platform is also presently envisioned to be introduced to users through front-line partners (e.g. shelter workers), who interact with potential users on a daily basis. At the moment, the long term partners for the data base, the algorithm and front end application development, and the front-line partners have yet to be finalized.

The research conducted as part of this business case suggests that it is worthwhile to explore the potential of a digital application to address both of these challenges further. It is recommended that Streethome focus on developing a functional prototype for further testing through the summer months of 2019 and come to the September board meeting with a group of partners for further investment in the application. It is also recommended that before the September board meeting that formal partnership discussions are had to define a final feature list and an operating model that will be sustained into the future.

Current estimates that have been validated by third party providers place the costs of developing the Life Intentions platform between \$165,000 and \$190,000, and the costs of sustaining the platform at approximately \$20,000 a year. It is worth noting that these costs are estimates based on the present functionalities envisioned for the platform, and may be subject to change following deeper partnership discussions.

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Two Key Issues Reduce The Impact Of Existing Resources For The Homeless

Service fragmentation and the effects of stigma on the cognitive function of those experiencing homelessness are two obstacles faced by the Canadian service ecosystem today. The focus of this business case has been to explore opportunities to alleviate the effects of these two issues.



Service Fragmentation

The sheer volume of individual services for the homeless can be a barrier to entry for vulnerable individuals.

BC alone has over 14,000 resources available to the homeless. Selecting which services to use and understanding the options available is a confusing and complicated task for those experiencing or close to experiencing homelessness to understand and access¹. Many homeless individuals do not know where to begin to seek support in order to reach their goals.



Stigma of Homelessness

The effects of stigma have been demonstrated to have negative effects on the cognitive function of the homeless.

The effects of this stigma dramatically reduces the propensity for the homeless to seek and receive services, creating a vicious cycle of missed opportunities.

Those that are supported to overcome this stigma and its associated cognitive effects, have been demonstrated to be 219% more likely to pursue help and supports².

This Business Case Aims To Identify A Potential Solution To These Obstacles

The Streetohome team is exploring the development of a Smart Cities – Life Intentions platform designed to alleviate the challenges raised by service fragmentation and the stigma of homelessness.

In investigating the feasibility of such a platform, the line of questioning below was pursued to explore opportunities to alleviate these obstacles.

1 Identify The Challenge

Why are we doing it?

- What are the effects of service fragmentation?
- What are the effects of the stigma of homelessness?

2 Identify The Options

How do we do it?

- What are the platform options?
- How will the platform be administered?
- Will it be custom or off the shelf?

Who do we help, and with who?

- Who do we partner with?
- What do their roles look like?
- Who do we service?

Where will we help?

- What regions will we support?

3 Identify The Model

What will we do?

- What are the value propositions?
- What are the capabilities?
- How will we deliver value?

When will we do it?

- What are the timelines of execution?
- What are the key phases?

Why: Detailing The Effects of Service Fragmentation

In Canada, service complexity and fragmentation is a challenge

The Canadian service ecosystem is extremely fragmented, with large and often uncoordinated investments made in support services across the country. The following figures serve to highlight the fragmentation in the system nationally.

235,000

Canadians experience homelessness every year

\$33.5 billion

In annual expenditure to provide homelessness supports¹

167,000

Services, resulting in a highly fragmented array of supports

Accessing services remains a significant challenge for even the highest functioning of those experiencing homelessness. The fragmentation and complexity of services available is a key barrier to access for many experiencing homeless – consider the 14,000+ programs available in BC today as a starting point³. For those who are newly homeless, and thus with the highest likelihood of exiting homelessness in the near term, the sheer volume of resources available is a barrier to accessing the right services. Further to this point, visibility into service offerings and availability are well defined challenges identified that limit service usage by research into homelessness globally.

The fragmentation and crisis response centric nature of the Canadian service ecosystem has made the homelessness support ecosystem a largely uncoordinated endeavor nationally, with an extremely broad range of municipal, provincial, federal, and non-profit services available to support the homeless. The more complex the system grows, the less likely individuals experiencing homelessness are to use the system, if we are to use the findings in Australia (right) as indication.

Findings from Abroad

Research conducted by the Australian Housing and Urban Research Institute found similar service fragmentation in their 2011 study “Improving Access to Homelessness Services⁴.”

The study identified a number of key limitations to accessing services and service systems for their homeless population.

- Service fragmentation, based on the high number and variety of services, is a key barrier to service usage.
- Service complexity in accessing both mainstream and specialist service limits usage.
- Poor visibility into existing services limits service usage.
- Poor visibility into which services are currently available is a limitation.
- Initial experiences are key – if the initial experience with a service is negative, many will be dissuaded from pursuing further support.
- Assessment and referral processes determine much of the user experience.

Based on the social culture and the economic similarities it may be reasonable to assume that some of the same limitations apply to the Canadian homeless support ecosystem.

Why: There Are Benefits To Reducing Service Fragmentation

Based on KPMG's Integration Imperative report, reducing service fragmentation is an opportunity for Canada that has benefits for the system and service providers, as well as benefits for those experiencing homelessness⁵.

Benefits for Service Providers

Increased capacity and value for money, reduction in duplicated administrative processes:

A reduction in duplicated administrative processes (e.g. identity verification and document authentication) means that service delivery organizations can redistribute financial and staffing resources to activities that serve program goals. Practitioner job satisfaction will likely increase as a result.

Improved strategic planning and system integrity, sharing of information between different agencies and program areas:

The sharing of information between different agencies and program areas enables a better understanding of service usage patterns, system outcomes, and client needs. With the aid of data analytics, it is easier to target resources more effectively, hold providers to account, and detect fraud or procedural errors.

Swifter and more coordinated assistance can help stabilize clients' conditions, limit need for high-cost crisis interventions (e.g., ER):

Swifter and more coordinated assistance can help stabilize clients' conditions, and as a result, limit the need for high-cost crisis interventions (e.g. foster care and hospital services) at a later date.

Benefits for Homeless Individuals

Simplified, coordinated access to supports and services:

The establishment of one-stop-shops, integrated online portals, and formal networks of service delivery organizations using a "no wrong door" approach mean clients benefit from common entry points into the human and social services system.

Holistic, person-centred supports:

As duplicated processes are phased out and case managers have access to client information via shared databases, a more holistic understanding of clients' needs emerges. It becomes possible to adopt a more person-centered approach to service delivery that sees case managers or teams coordinate support around the needs of clients instead of along service lines. Clients will receive unique referrals suited to their needs and preferences, and there will be less redundant referrals made to clients.

Faster response time:

Streamlined back-office systems (e.g. eligibility assessment) improve processing times, while case workers can make quicker decisions through improved access to information.

Improved outcomes and user experience:

Evaluations show that better sequencing and coordination of interventions can improve client outcomes over time.

Why: Detailing The Cognitive Effects Of The Stigma Of Homelessness

The stigma of homelessness restricts clients from accessing supports.

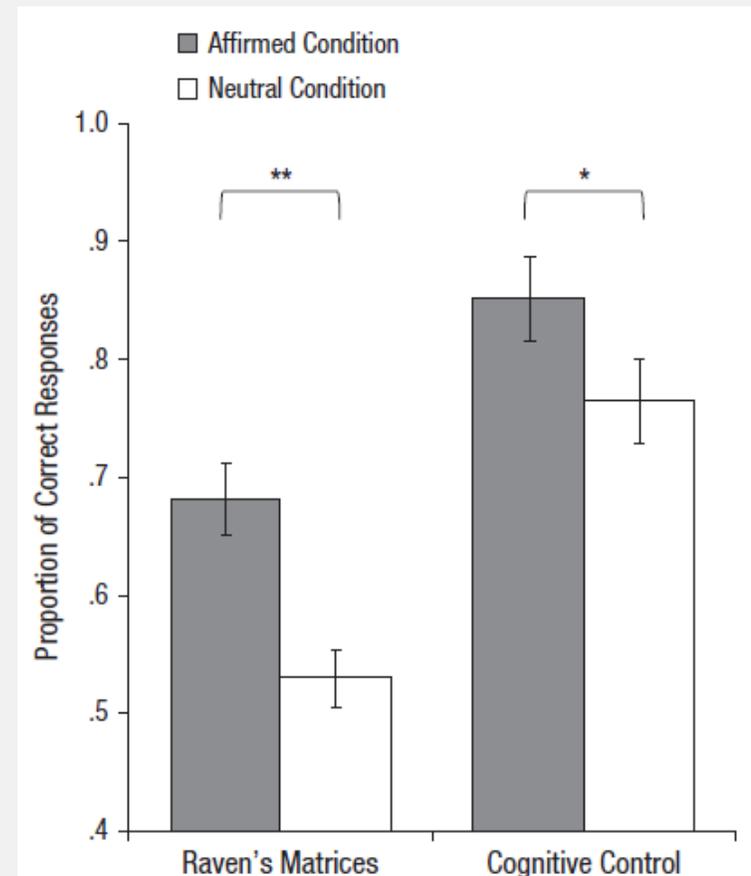
The stigma of being homeless, and the associated mental pressures that surround it, have been demonstrated to have negative effects on the cognitive function of those experiencing homelessness. Those being stigmatized experience diminished cognitive performance and cognitive distancing, which can cause those experiencing homelessness to forego services that may be beneficial to them. Additionally, this stigma can dissuade those who may be most able to benefit from services by creating negative social pressure.

However, the effects of stigma on cognitive outcomes can be overcome, using a technique called self-affirmation. Self-affirmation posits that as humans, we are driven to sustain a sense of self-worth and integrity. When that self-worth is threatened, intellectual resources are leveraged to defend against the threat and ultimately reduces overall cognitive performance. It is this defensive response that may be restricting those experiencing homelessness to avoid valuable supports. This suggests however that individuals who find their self-worth affirmed, through positive social interactions or experience, have those mental resources available and therefore cognitively perform better.

The exhibit on the right, sourced from researchers at UBC, illustrates the effect that positive affirmation can have on improving the cognitive function of those in poverty. Those who were positively affirmed before the testing performed at a consistently higher level than those who were not.

The effects of positive affirmation were also tested to assess whether those who were self-affirmed were more likely to access services. The test found that those self-affirmed were 45% more likely to improve their awareness of services, and for those that did take steps to improve awareness, they were 219% more likely to take steps towards receiving services².

Research Findings



Why: Opportunities To Alleviate The Stigma Of Homelessness

Brief motivational enhancement supports homeless individuals to overcome the cognitive effects of stigma.

Brief motivational enhancement exercises are used to strengthen an individual's motivation, and help them build a step-by-step plan for change, while addressing challenges that may arise while setting out to accomplish their goals. By empowering individuals in this way, they are more likely to take ownership of moving along their preferred life path, as well as gaining a boost in self-confidence, which has a positive effect on psychological and cognitive well-being.

Brief motivational enhancement exercises involve self-affirmation, goal-setting, plan-making, overcoming obstacles, and tracking progress. For example, individuals are encouraged to think about:

1. A previous success in their life where they overcame hardship and succeeded in achieving a goal;
2. Personal values that are most important to them; and,
3. A future goal to aspire to and concrete plans to achieve the goal.

Preliminary findings from the New Leaf Project (2018) that provided individuals (with lived experience of homelessness) with brief motivational enhancement exercises found significant improvements in executive function – the set of cognitive processes that all have to do with managing oneself and competing demands in order to achieve a goal. Further, there were significant improvements in stable housing and food security.

As each day passes the individual feels increasingly marginalized. This has been demonstrated to have a negative effect on cognitive function.

This negative effect limits problem solving, thus accentuating the individuals existing circumstances.

A self-affirming experience gives the individual a reason to feel proud about themselves and a moment of clarity.

In that moment of confidence and clarity, the individual is presented with a service opportunity that they accept, as they are feeling positive about themselves and their outlook.

The individual finds valuable supports and begins building confidence as their situations improve.

Streetohome Has Been Testing Solutions To These Two Problems And Has Seen Positive Early Results

Overview for the Pilot Project

In the winter of 2019, Streetohome conducted a paper pilot exercise that involved inviting tenants living in eight different supportive housing buildings in Vancouver (that Streetohome had contributed capital funding to) to participate in the life intention self-assessment involving five domains (Housing, Legal, Health & Wellness, Skills & Training and Employment). Tenants subsequently prioritized an intention and skimmed a resource guide for a service or opportunity that aligned with their needs and preferences. The self-assessment and resource guide had been previously focus-tested and the language revised based on the feedback of a diverse group of supportive housing tenants (i.e., adults, youth, women, Indigenous, LGBT2S+). In total, 180 tenants participated in the exercise.

In general, tenants identified needs in two or more domains. A follow-up self-assessment was conducted within three months of the original self-assessment to determine if tenants had acted on their intentions and the outcomes of those actions. The following summaries capture tenant, family and support worker voices from those interviews. In both the initial and follow-up self-assessment, candidates were compensated for their time with a gift card.

Case Studies

Lisa identified working on her dental health and eyesight as priorities for her. She decided to address her dental needs first. She chose to go to Reach Dental Clinic after seeing it in the resource guide and asking her friends about it, and has started the process to get dentures. She now plans to address her eye health.

Manny was able to narrow and focus his priorities to finding different housing that would allow him to live in one-bedroom apartment. He was able to find the appropriate contact information for BC Housing and made a call. He's now on the waitlist for Nicholson Tower, run by the Bloom Group.

Tom was very excited to find a new dental clinic and start the process of getting dentures after looking at the dental clinics listed in the resource guide. His son was just released from prison. Tom is now helping his son find the resources he needs to become a thriving citizen using the resource guide.

A tenant support mentioned that it was difficult to find affordable housing for tenants who wanted to move on to independent housing. The Life Intentions Interviewer showed her the Supporting Tenants, Enable Pathways (STEP) program in the resource guide, and explained that they provided up to \$2000 to participants to help them transition from supportive to independent housing.

Jacob identified finding employment opportunities as being a priority. Due to chronic illness and a previous surgery, he needed work that would allow him to have a flexible schedule, and saw that **WorkWithUs** would meet his needs. He is now on the priority list to start taking work assignments once he's healed from his surgery.

Why: In Summary

In Summary...

Service fragmentation in Canada is a challenge that limits homeless individuals from exiting homelessness

Homeless individuals, as well as service providers, may experience benefits if service fragmentation is reduced

Reducing service fragmentation in isolation is not enough, as homeless individuals may still struggle to overcome mental barriers to effectively access services they require

When reducing service fragmentation, returns can be amplified if homeless individuals can be supported to overcome the stigma of homelessness and increase their self worth.

Therefore...

Two clear opportunities exist for improving the supports for homeless individuals in Canada:

1. Reducing service fragmentation, and;
 2. Supporting homeless individuals to overcome the mental barriers caused by stigma and lack of self-worth, limiting service usage
-

These opportunities should be the core focus of the Life Intentions platform

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Addressing the Challenges: The Life Intentions Platform

After working with the Streetohome team, local stakeholders, and conducting external research, a model for the Life Intentions platform has been outlined below. It is worth noting that **the model requires further stakeholder engagement to confirm partnership roles, responsibilities, and resources**. This model should serve as a starting place to begin deeper conversations and begin securing commitments.

What do we do?

- Reducing service fragmentation and complexity by providing a **custom tailored resource list** to users.
- **Support the homeless to help themselves** by providing a **self affirming and self-directed experience**.
- **Generate user data that will help service providers** improve service offerings and coordinate efforts.

How do we do it?

- **It is suggested that the platform explore and test the potential of a custom digital product**, to enable modularity and scalability.
- The platform is introduced to individuals during care or support interventions.
- The platform is self-directed, although the experience may be enhanced by support worker, family, or peer assistance.

Who do we help, and with who?

- Prioritize focusing on **supporting those near or at risk of homelessness first, followed by those newly homeless**.
- **Partner with a major BC service provider to operate the platform**, ideally one with deep connections and resources to operate the platform.

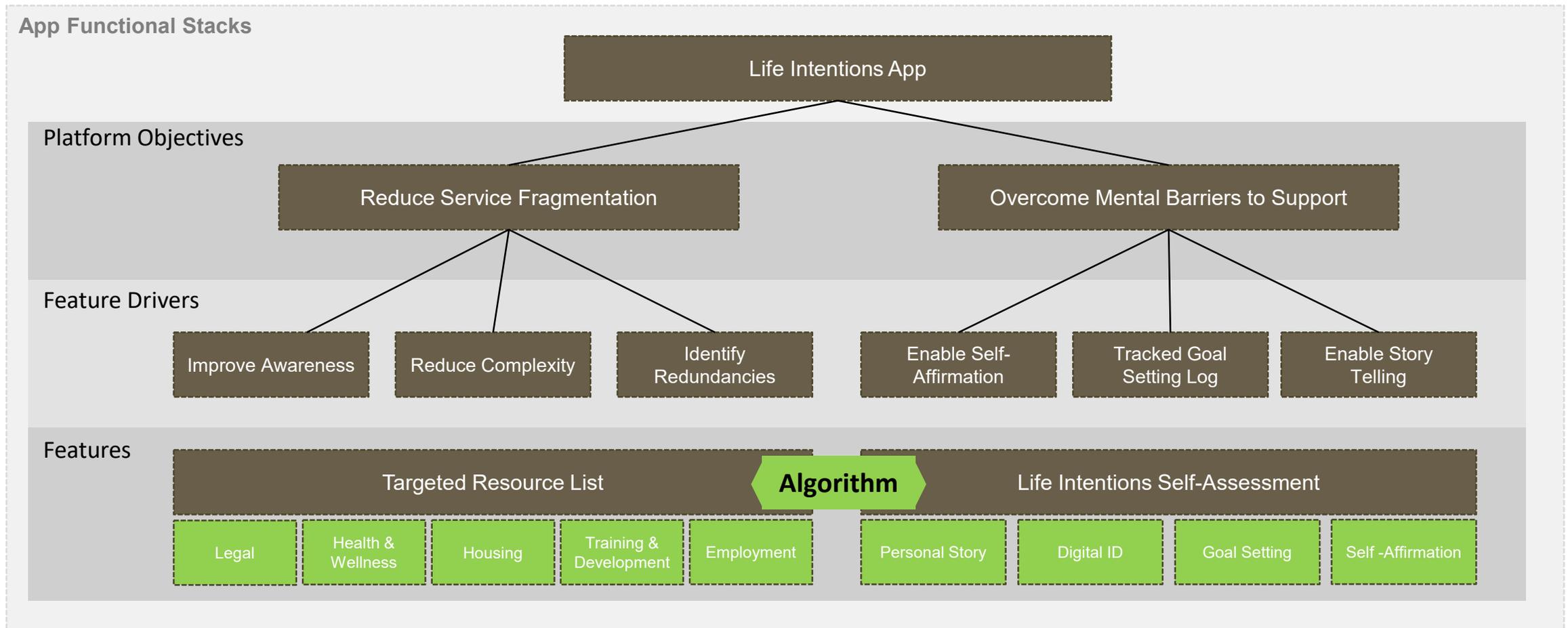
Where will we help?

- **Initial launch in Vancouver, before expanding to Victoria** and subsequently the remainder of British Columbia.

For more information on how these answers came to be, please see the technical appendix Options Analysis section.

Envisioning the Life Intentions Platform

In order to address the core objectives of the Life Intentions platform, the current application model will focus on developing two core streams of functionality, tied together in the middle with a custom recommendation algorithm. Features can be modular and core ones selected initially and less critical factors added over time.



How the Life Intentions Platform Works

It is important to understand the roles and associated benefits that the current core features will provide within the Life Intentions platform and within the Canadian service ecosystem.

Life Intentions Self Assessment

The Life Intentions Self-Assessment forms the foundation of the Life Intentions platform.

The self-assessment will provide benefits in three ways:

1. Broad high level needs assessment and prioritization.
2. Providing the relevant data required to filter the resource database in a meaningful way, and provide the desired end state of the user so that resources can be directed towards them.
3. Providing a self-affirming experience alongside brief motivational enhancement, to improve the odds that services are accessed.

Filtering Algorithm

The filtering algorithm is the brains of the Life Intentions platform, ultimately converting the data generated by the self-assessment into useful information in the form of a filtered resource list.

The algorithm will focus on matching resources to one's stated life intentions, limitations and preferences.

Targeted Resource List

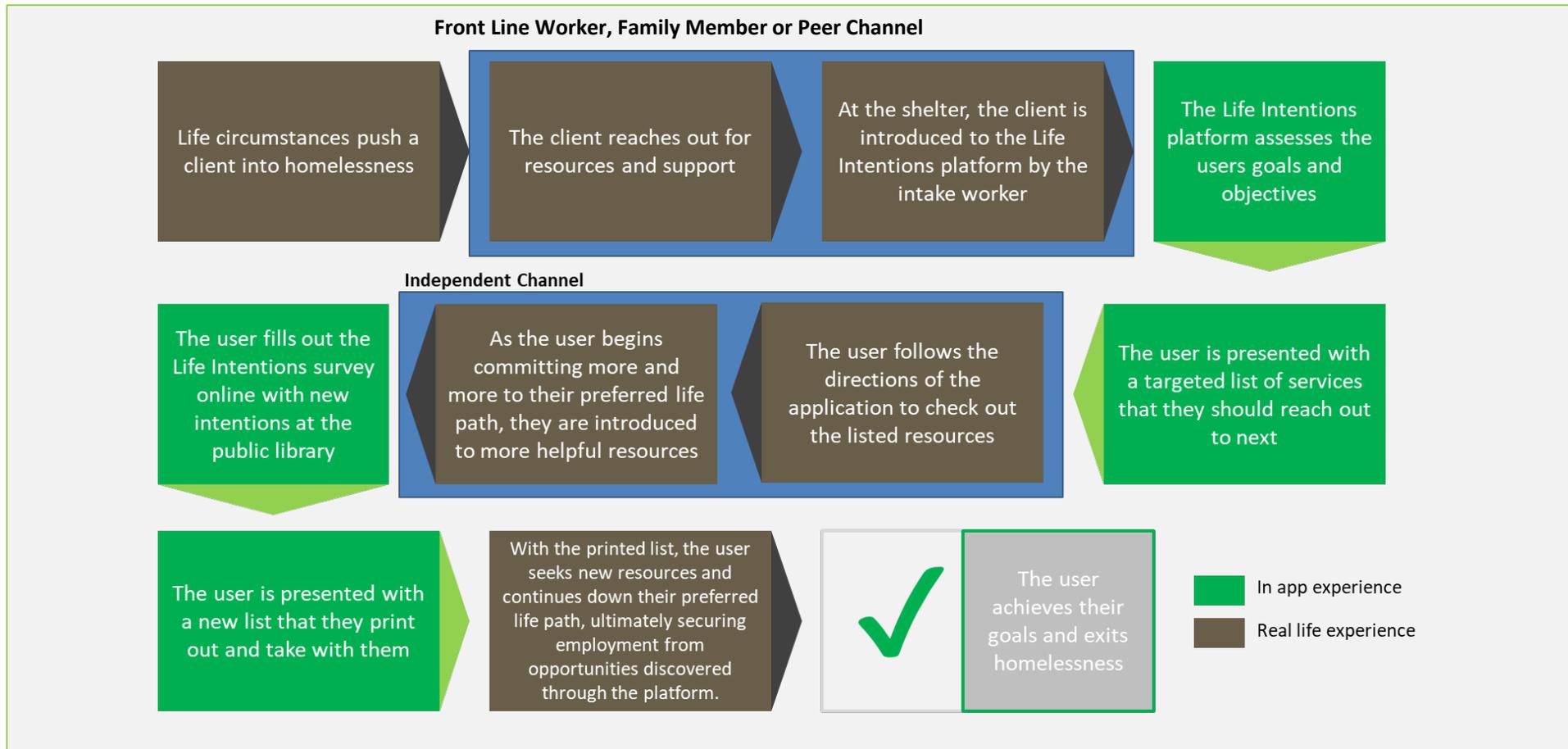
Based on their responses from the self-assessment, the resource list in the Life Intentions platform will be filtered down to provide a custom tailored list for each user.

For example, users who indicate that their objectives are to secure stable employment will be presented with employment information, training information, and other resources that would be beneficial to those on the job hunt.

The benefits of this feature would be providing the right users, with the right information, at the right time, to improve their usage of those services.

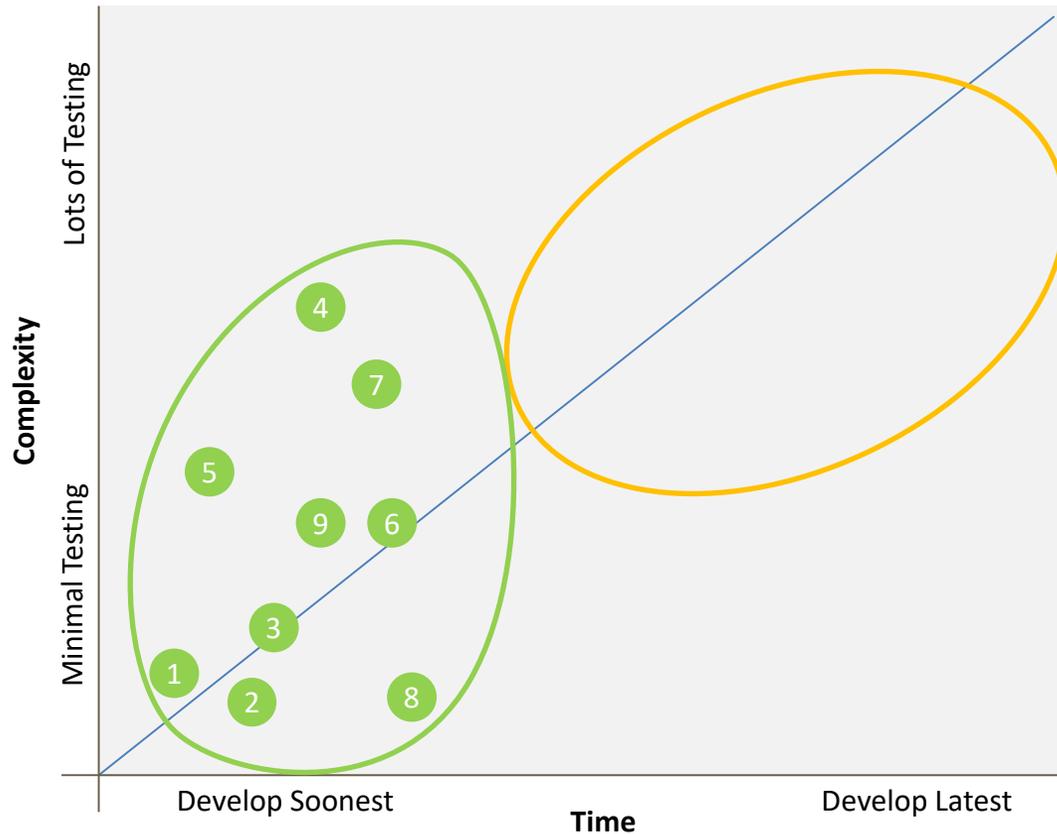
A Sample User Journey

A user interacting with the Life Intentions platform may experience the journey outlined below. Key points in the journey that are not captured within the application experience are highlighted with the blue boxes. These experiences require a push from the real world, first with a front line support worker, family or peer to introduce the platform to the user and second, for the user to independently choose to pursue their preferred life path.



Feature Development Map

The chart below illustrates the complexity and time to implementation of the various identified features of the Life Intentions platform. Complexity is defined as the need for multi-stakeholder input and testing requirements. Time is defined as the length of time it is estimated to technically develop the feature.



The chart to the left illustrates the current estimates of development complexity and timing based on the desired feature list set out by Streetohome. The basic features are defined at a high level below and potential additional features that will extend the platform beyond its minimum viable product are identified as well.

Minimum Viable Product

The minimum feature set required to bring the product to market.

Resource List	ID	Life Intentions self-assessment	ID
Resource Information	1	Life Intentions Self-Assessment	5
Geographic Map	2	Self-Affirmation Exercises	6
Public and User Resource Feed	3	User Profile	7
Service Recommendation Algorithm	4	Rules Based Access to Data	8
		Goal Setting / Activity Log	9

Possible Future Features | Year 3 and Beyond

- In-App motivational enhancement messaging
- Chat-Bot for in-app help
- Personal Story repository
- Comprehensive digital identity
- Communication system between service providers and vulnerable individuals
- Progress tracker for success and/or milestones
- User Analytics
- **TBD**

Estimated Cost Structure Based on the Current Feature List

1. What are the app development & rollout costs?

There are two principal components to starting up the platform: the initial capital investment to develop the application and the necessary professional costs associated with raising awareness and driving adoption. After that, costs are borne as sustainment costs.

Platform Development: The platform may be developed in collaboration with a technology partner such as New Leaf Project. This is envisioned to take 30-40 weeks and includes proof-of-concept, user testing, core features development and launch, and preparing the platform for sustainment activities. New Leaf Project estimates app development costs to be \$90K, anticipating subsidies / discounts based on the non-profit nature of the platform. **Cost estimates have been confirmed with an objective third party technology developer.**

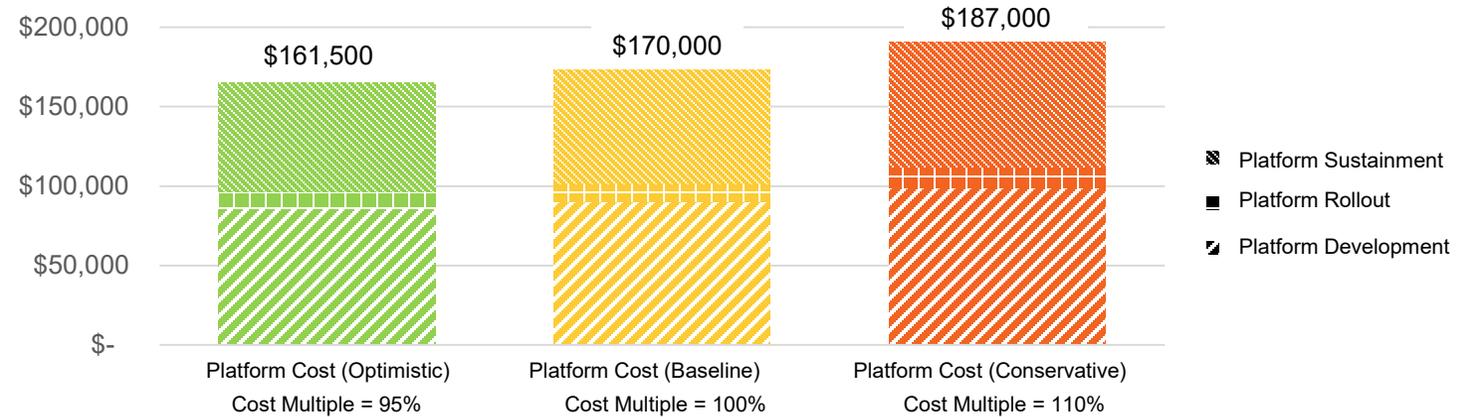
Platform Rollout: To encourage the adoption of this platform will require some advertisement and promotion (for awareness), as well as associated training. Advertisement and promotion will be largely associated with conversations with different service providers in the community. Training is envisioned to mirror that of the VAT system, which has been implemented to success by BC Housing.

2. What are the app sustainment costs?

Platform Sustainment: Subsequent to rollout, the platform will need updates, feature improvements, and fixes over time. Though web applications are generally easier than native apps (e.g., on Android or iPhone platforms) to maintain, a sustainment cost of 15% -20% of the platform development cost is expected.

Key Assumptions: Initial capital will be available through donations, in-kind arrangements, or other investment vehicles. If the platform is developed correctly, sustainment costs are expected to be minimal. Rollout costs will decrease to 0 after year 3.

Total 5 year approximated cost by scenario.



Breakdown of approximated baseline platform startup & sustainment costs.

	Year 1	Year 2	Year 3	Year 4	Year 5
Platform Development	\$90,000	\$0	\$0	\$0	\$0
Phase 1: Proof-of-Concept	\$10,000				
Phase 2: Minimum Acceptable Product	\$20,000				
Phase 3: Ramp-up to Full Production	\$45,000				
Phase 4: Preparing for Sustainment	\$15,000				
Platform Rollout	\$5,000	\$2,000	\$2,000	\$0	\$0
Platform Sustainment	\$0	\$18,000	\$18,000	\$18,000	\$18,000
Total	\$95,000	\$20,000	\$20,000	\$18,000	\$18,000

Potential Impact Measures Based on the Current Feature List

1. How will outcomes be measured?

The application should be subject to a formalized approach that measures and evaluates the program outcomes over time. The detailed collection of this data can be facilitated partly through the application itself, and will help guide the identification of opportunities (e.g., new features) and gaps. Self-reporting logs are a potential channel through which we can understand achieved outcomes for users. There may also be independent studies aimed to measuring outcomes, though these may require external funding.

An evaluation framework is drafted (see right) and will be refined and validated upon project approval.

2. What are the expected outcomes?

Given the application aims to 1) empower the homeless population to set and achieve “life intentions” and 2) better connect them to relevant resources, expected economic impact could be measured through either cost avoidance or generated benefits. That is – what costs down the line are avoided by connecting them to the resources they need now? What benefits are realized?

Per year per person, some economic benefits are estimated at:

- 1) **\$18,250** in shelter cost savings (emergency shelter vs. SRO)
- 2) **\$9,643** in social assistance cost savings (unemployed vs. employed)
- 3) **\$4,978** in taxes (unemployed vs. employed at living wage)
- 4) **\$72,444** in total savings (episodic homeless vs. no longer needing system support)⁶

These estimates do not reflect spillover benefits (e.g., an individual moving into a SRO frees up space for another individual to move from on the street into the emergency shelter).

Intermediate Outcomes

Increased likelihood of achieving set goals through motivational enhancement

Increased usage of resources available (housing, education, employment, legal, health, etc.)

Decreased service fragmentation

Personalized approach to homeless individual based on life intentions

Increased understanding of resource landscape (gaps, duplication)

Increase in taxable income

Government cost savings and avoidance

End Outcomes

Example End Outcome Indicators

Pathways out of Homelessness

- Achievement of self-defined goals
- Improvement in situation (housing, employment, health, etc.)
- Integration into mainstream society

Reallocation of Taxpayer Dollars

- Increase in resource usage rates
- Targeted programs for system gaps identified
- Reduction in healthcare spending
- Reduction in legal and justice costs
- Reduction in homeless service costs
- Generation of taxable income from long-term employment

- Community at Large
- Service providers
- Homeless population
- Vancouver citizens

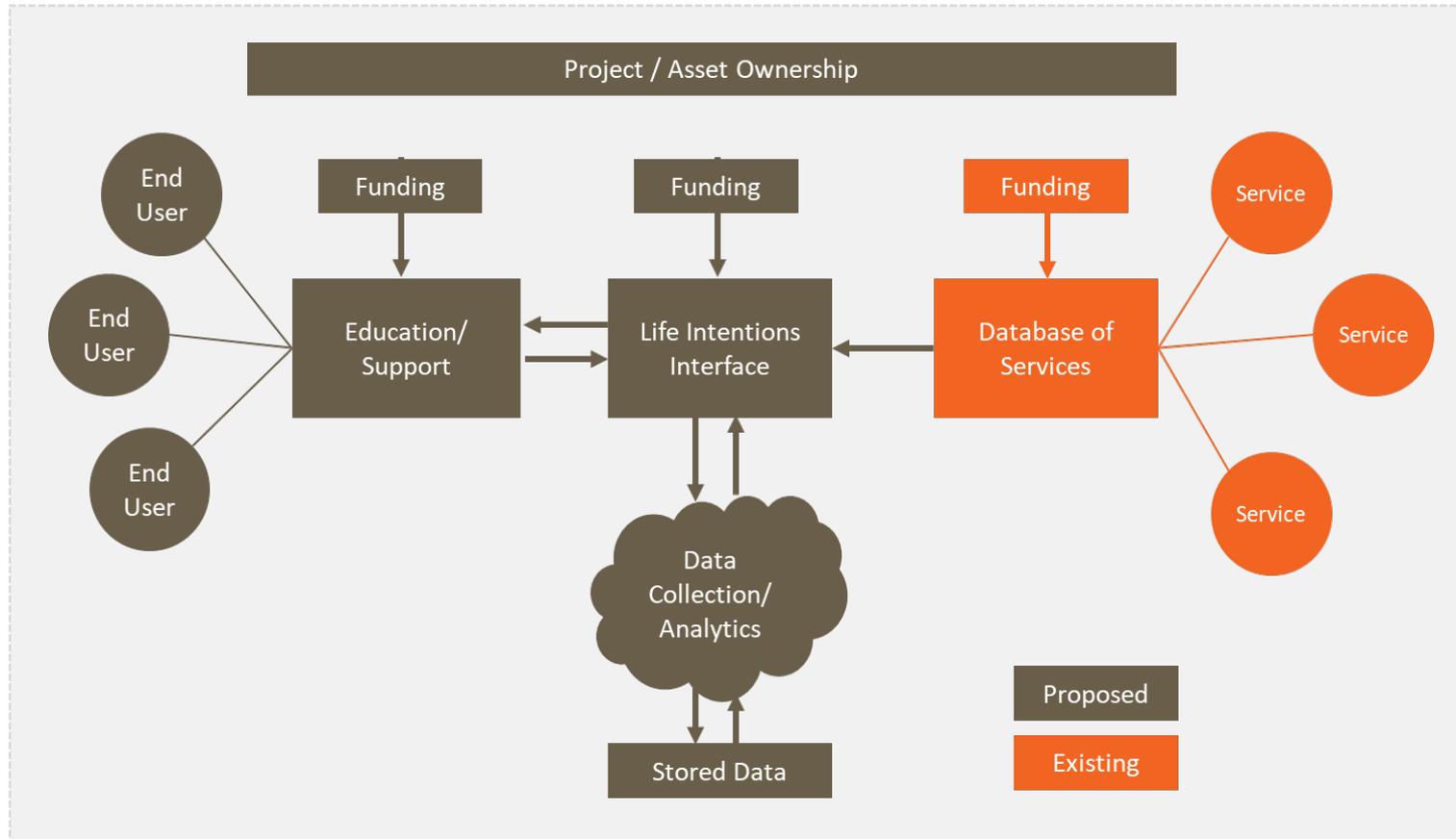
Life Intentions Platform Functions/Components

The platform is complex and will require a variety of functions/components working in tandem.

The main functions/components of the Life Intentions Platform include:

Project/Asset Sustainment	Sustainment and oversight of the overall project and resulting asset.
Funding	Funding of the upfront project costs and ongoing costs of operating the asset.
Education/Support	Management of implementation, including training of clients, peer leaders, families and support staff, and marketing/education of end users.
Life Intentions Interface	User interface that matches end users to appropriate support services based on their unique needs.
Database of Services	Database of support services, including those related to housing, employment, advocacy & legal, health & wellness, and skills & training.
Data Collection/Analytics	Collection of self-assessment data and analytics to improve service delivery and decision making.
Stored Data	Collected data that will be stored for short or long term use.

Platform Functions/Components



Potential Partner Organizations (Illustrative)

There are a range of organizations in BC and Canada that could fill the required partner roles.

These illustrative examples of public sector, non-profit, and private sector organizations have potential to fill the range of platform functions and components as required.

This list of examples is not intended to be exhaustive, and the interest and capabilities of the organizations have not been validated.

Rather, this list is intended to illustrate the types of organizations that have potential to fill each partner role.

		Project Management	Asset Owner	Funding	Frontline Partner(s)	Technology Partners / Contractors	Database Partner
Public Sector	BC Housing	✓	✓	✓	✓	✓	✓
	Vancouver Coastal Health Authority			✓	✓		
	City of Vancouver	✓	✓	✓	✓	✓	✓
Non-Profit	Streetohome			✓			
	Lu'ma Native Housing Society	✓	✓		✓	✓	✓
	United Way			✓			
	WorkWithUs		✓		✓	✓	✓
	BC211	✓	✓	✓	✓	✓	✓
	New Leaf Project	✓	✓	✓	✓	✓	✓
Private Sector	Linkvan.ca				✓		
	Help Seeker					✓	✓
	Finger Food Studios					✓	
	Scotiabank			✓			
	Bell Canada			✓		✓	
	Telus			✓		✓	

Partner Roles To Be Filled, Based on the Functions and Components

Partners will play several roles.

Based on Streetohome's values and capabilities, the local service environment, and conversations with relevant key stakeholders, a proposed partnership model may appear as follows.

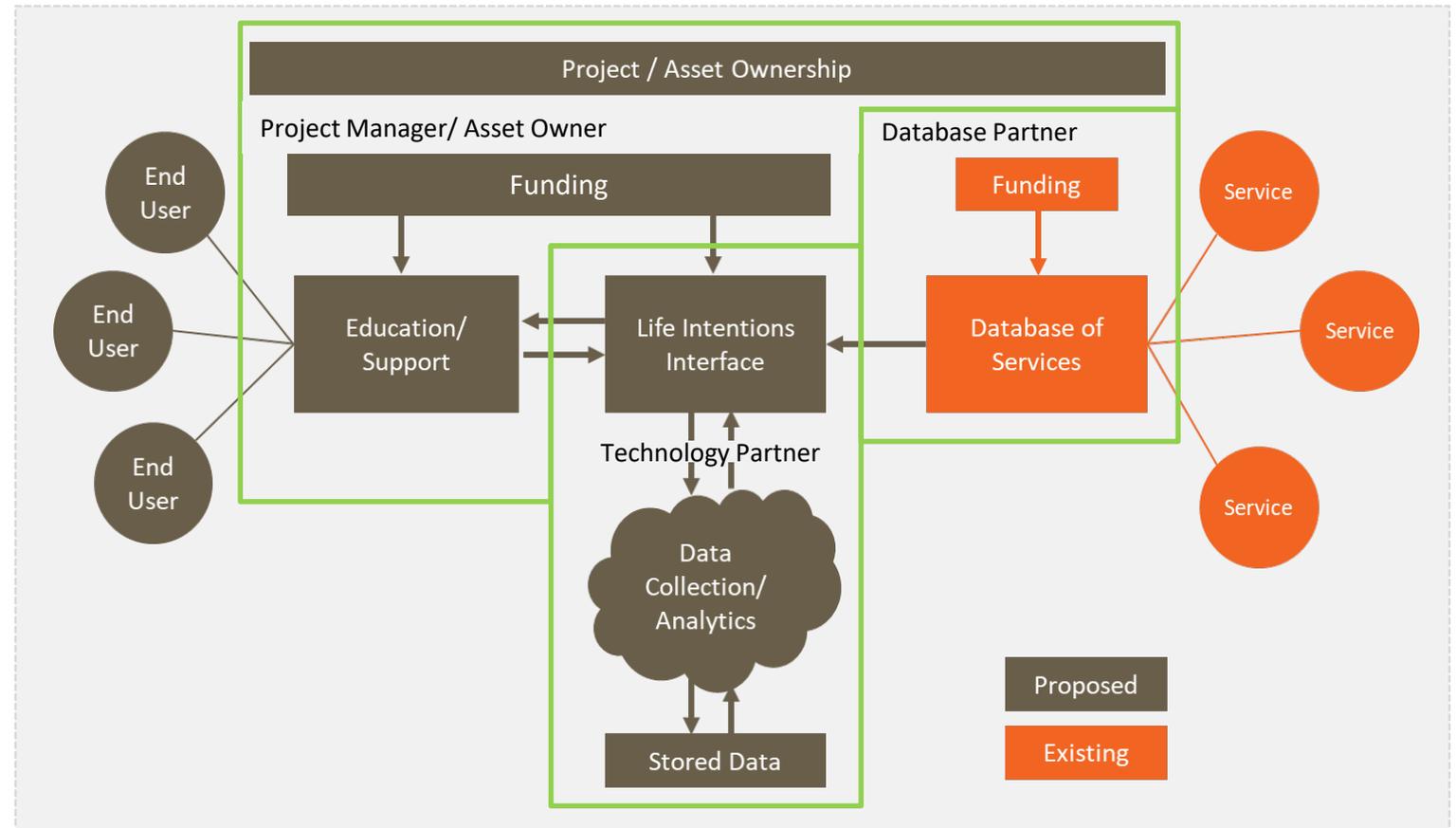
The Project Manager / Asset Owner is intended to own the application, provide the education and support necessary to operate the platform, and provide ongoing sustainment funding. Once the application is live, this partner will provide funding to the technology partner who will continue to maintain the platform and develop new features.

The Technology Partner/Contractor is anticipated to develop the platform and its back end data collection/analytics capabilities.

The Database Partner will provide the data for the list of service resources and an API for accessing this data.

A single partner may assume any of the following roles, and due to the nature and realities of development it is very well possible that the Database Partner and Technology partner will be combined.

Proposed Partnership Model



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Suggested Next Steps

Confirm the assumptions currently driving the Life Intentions platform

The Life Intentions platform, its functions, its costs and benefits, and its required roles and partners have been defined to the best they can be at this stage.

The next steps of this project require further detailed research and analysis, primarily in further validating the platform and confirming partnership assumptions.

In undertaking these next steps, the key outstanding questions that must be answered include:

- Are the partnership roles and responsibilities appropriately defined?
- Is there willingness in the ecosystem to participate with the Life Intentions platform?
- Does the current model, including the feature list, address the needs of those experiencing homelessness as understood by the partners?
- Does the platform in its current design address the needs of and provide benefits to its users?

1

Validate the Platform

There are two streams recommended for validating the platform further.

First, roll out a paper model of the self-affirmation self-assessment and combine it with a resource list to validate the value propositions of the platform.

Second, develop a version of the minimum viable product that will enable iterative testing in the hands of users.

2

Confirm Partnership Assumptions

Much of the analysis enclosed in this business case relies on assumptions of partnership roles and responsibilities.

In order to fully define the Life Intentions platform, it is recommended that these assumptions are validated with potential stakeholders that may fulfill the intended partnership roles.

3

Define Platform Outcomes

Confirm with initial users that benefits are being realized as intended. Expected benefits primarily arise from more rapid exits from homelessness and thus system cost avoidance.

Platform Validation: Recommended Approach

- 1**
Select a technology partner to develop the test case
The first stage to developing the Life Intentions platform is to select a technology partner to begin testing of a digital platform. This will help dispel assumptions made about the effectiveness of a digital platform to provide a self-affirming experience and provide concrete validation that the Life Intentions platform will be of value to those experiencing homelessness or are at risk of homelessness in Canada.
- 2**
Develop a paper version of the Life Intentions self-assessment and roll out across Vancouver
At the same time as the test case technology platform is being developed, roll out the expanded paper self-assessment (including brief motivational enhancement exercises, goal tracking and activity log) to continue testing the idea in a paper version.
- 3**
Begin testing digital platform and confirm feature list
Bring the developed digital test case to the market, leveraging Streetohome's existing relationships to introduce the platform to frontline staff, peers, family and users.
- 4**
Collect data and analyze value
Collecting data from user experiences by means of self-assessment through frontline partners and monitoring application usage statistics, collect data and determine what adjustments to the model and feature list are required to add value for end users.
- 5**
Define final model and select development partner
Once data has been collected on the value and usage of the Life Intentions platform, define the final list of features for a minimum viable product. Working with the Asset Owner partner, the Technology partner, and the Database partner, generate a plan for developing the platform and execute on the plan.

Platform Validation: Developing the Test Case Approach

Suggested Milestones and Features for Developing the Test Case

Milestone 1: App design iteration and validation

- General App design (landing page, user management, admin interface etc...)
- Self-assessment UI/UX design
- Design review by stakeholder groups
- Wireframe design & implementation
- Wireframe testing & validation by selected users (ideally 10-30 users)

Milestone 2: App Implementation

- Implement the self-assessment questionnaire frontend by either:
 - Integrating with existing products such as Survey Monkey or Google form, if their capability is feasible for the UI/UX design (preferred option)
 - Custom build
- Implement general application features such as user signup/login, account management, basic administrative features such as viewing users, self-assessment results, basic analytics.
- Stakeholder testing and early user testing.

Milestone 3: Polish and Design

- Finishing touches for UI/UX and application development
- Database & Cloud Infrastructure setup
- Release to a larger group of early users for broader Proof of Concept testing
- Application & System Documentation

It is estimated that the above work can be completed in 3 weeks or so, but will depend on how quickly we can gain feedback from users/stakeholders at each step.

Platform Validation: Developing the Test Case

New Leaf is suggested to develop the test case

Based on Streetohome's existing network and relationships, New Leaf Project (NLP) emerged as a partner for developing the proof of concept and is a strong front-runner for developing the full platform. NLP has a technology partner with a demonstrated track record of delivering on their commitment, who is willing to develop the Life Intentions proof of concept and work in an agile manner with the NLP Streetohome collaboration.

NLP contributed \$5000 to match Streetohome's contribution to proof of concept. The proposed Phase 1 scope of work (milestones 1, 2 and 3) appears to be quite good value for the price based on a third party appraisal (scope to be clarified).

NLP has voluntarily assumed the project management role and will continue to consult with Streetohome. New Leaf is also the asset owner temporarily. It is New Leaf Project's goal to create change in society by tackling innovative projects for social good, proving the concept, and embedding them in other established organizations that provide ongoing services.

Before brokering and leveraging significant investment in NLP's management of the full platform development and rollout, Streetohome should carefully consider whether NLP has the project management experience, capability, stability and sustainability to manage this project being a relatively new charitable organization in British Columbia. Streetohome may consider canvassing additional partners to see where a broader collaboration can mitigate any real or perceived risk.

New Leaf estimated scoring against evaluation criteria

	Min				Max
Price – Low unit rates and/or total estimated budget for proposed scope of work.	★	★	★	★	
Experience – Demonstrated experience successfully delivering projects of a similar magnitude and scope.	★				
Capability – Team with the technical capabilities to deliver this project.	★	★	★	★	
Stability – Large company with redundancy and ability to guarantee delivery of project and long term maintenance and support.	★				
Agility – Ability to work in an agile and flexible manner to meet changing needs/requirements of the partners.	★	★	★	★	★
Values – Alignment with the values of Streetohome and the objectives of the Life Intentions platform.	★	★	★	★	★

Partner Confirmation: Recommended Approach

1	Decide on the interim Project Manager / Asset Owner	<p>The project requires an owner to move forward. It is recommended that Streetohome consider project management / asset ownership prospects to drive the project forward further.</p>
2	Reach agreement in principle with Database Partner	<p>The backbone of the Life Intentions platform will be the database of services. A robust province-wide database (BC211) is understood to exist, with existing funding from Province of BC, City of Vancouver and United Way. Duplication of this database from scratch would require significant effort/cost. The first logical step is to reach an agreement in principle with BC211 to integrate with their existing database. If such an agreement cannot be reached, Streetohome should consider whether agreements with other database partners (e.g. Linkvan.ca) would make sense, or whether this constitutes duplication/competition with BC211. Streetohome should not consider developing a new database from scratch, and should focus on reaching an agreement to access an existing database through an API.</p>
3	Solicit Frontline / Funding Partner(s)	<p>As with any non-profit project, finding funding for the project is one of the first and limiting steps. Streetohome should approach potential Frontline / Funding Partner(s) with this business case to pitch the Life Intentions platform. It is expected that negotiations with the Frontline / Funding Partner(s) will drive the remaining decisions.</p>
4	Develop a proposed Data Governance Model	<p>The data collected is both one of the major value propositions and one of the major risks of the Life Intentions platform. A first priority for the Project Manager / Asset Owner in conjunction with the Database Partner and Funding Partner(s) should be to define and agree on a Data Governance Model that meets their objectives and legal requirements. This will include assigning a Data Trustee to manage the availability, usability, integrity and security of the data.</p>
5	Solicit Technology Partner / Contractor	<p>It is expected that there will be many capable and interested potential Technology Partners / Contractors for this project. Since the Technology Partners/Contractors best suited to implement this platform will be private corporations, the Project Manager should expect to pay fees for their services in line with industry norm. The Project Manager and the Frontline / Funding Partner(s) should consider a formal procurement process for the Technology Partner / Contractor.</p>

Partner Confirmation: Criteria for Selecting Partners

Based on the proposed partnership model, the following criteria may be used to begin shortlisting partners for the project. Once partners have been shortlisted, it should follow that partnership agreements are formed and the platform is fully defined. The platform cannot be fully defined without meaningful collaboration and co-design between the three partnership groups.

Funding / Front Line Partners

The Funding / Front Line partner is intended to play a key role in implementing the Life Intentions platform. At a high level, possible partners can be evaluated based on their:

Experience – Demonstrated experience successfully owning, operating, growing, and sustaining projects of a similar magnitude and scope.
Capability – Team with the support footprint, professional staff, regional knowledge, and technical capabilities to deliver this project.
Capacity – Ability to fund the development of the project in a sustainable manner and will not be over extended by supporting the project. Availability of frontline workers to engage with vulnerable individuals.
Stability – Large company with redundancy and ability to guarantee delivery of project and long-term maintenance and support.
Values – Alignment with the values of Streetohome and the objectives of the Life Intentions platform.

Technology Partners

Technology partners may be evaluated based on their performance across the following categories:

Price – Low unit rates and/or total estimated budget for proposed scope of work. Intended to provide the platform for the free use of users once developed.
Experience – Demonstrated experience successfully delivering projects of a similar magnitude and scope.
Capability – Team with the technical capabilities to deliver this project.
Stability – Large company with redundancy and ability to guarantee delivery of project and long-term maintenance and support.
Agility – Ability to work in an agile and flexible manner to meet changing needs/requirements of the partners.
Values – Alignment with the values of Streetohome and the objectives of the Life Intentions platform. Comfortable with open source development philosophy.

Database Partners

Database partners may be evaluated based on their performance across the following categories:

Price – Costing, if there is any, to access the database of resources.
Flexibility – Willingness to enable customization of data assets and ability to work with the technology partner as new features are developed.
Capability – Team with the technical capabilities to deliver this project.
Stability – Ability of the firm to remain operational in the long term, as it will be central to the Life Intentions platform.
Values – Alignment with the values of Streetohome and the objectives of the Life Intentions platform. Comfortable with open source development philosophy.

Platform Outcomes: Recommended Approach

1	Initiate partner talks to determine evaluation criteria	Work closely with potential partners to determine what outcomes will define success for the Life Intentions platform. Based on these discussions, integrate the changes into the expanded paper version and prepare for roll out. During these talks, define roles, responsibilities and methods for capturing and analyzing this data with potential partners.
2	Roll out expanded paper life intentions platform	Rolling out the expanded paper version will capture more data about the usefulness of the Life Intentions platform and confirm some key assumptions. This phase can be completed alongside potential partners, to test how an operating model may function for the digital platform as well.
3	Analyze new data	Analyze the data from the expanded paper version and contrast against the success metrics identified by partners in Phase 1.
4	Report on new findings, iterate current application and operating model	Based on the analysis of Phase 3, report on the outcomes. These outcomes will define what features should be prioritized in the development of the application and what operating model changes may be required should the data support further development efforts.

Platform Outcomes: Recommended Approach

Outcomes for the Life Intentions platform can be broken out into two distinct groups: Report Out KPIs, and Behavioral Change KPIs. Report Out KPIs are those metrics that measure the usage and penetration statistics of the platform. Behavioral Change KPIs measure whether the application is driving positive behavioral changes in its users.

Report Out KPIs Overview:

Report Out KPIs are routine to capture through the application, as the recording of these statistics is generally integrated into the platform design.

Examples of Report Out KPIs may include:

- Number of users
- Number of resource connections
- Number of service provider partners
- Number of goals achieved (unsure if we can accurately measure this)
- Time spent on app
- Returning users vs. unique visitors
- Click-through rates
- Penetration Rate
- Application ratings and feedback
- Can potentially measure how many people are completing the exercises and questions

Behavioral Change KPIs Overview:

Behavioral Change KPIs are more challenging to track than Report Out KPIs, as they typically require a closer relationship with end users to capture the information.

Examples of Behavioral Change KPIs may include:

- Moving from a shelter bed to more stable housing
- Finding employment
- Accessing job training opportunities
- Accessing health care opportunities

To measure these KPIs, several techniques can be used:

- Content analyses can be used to compare app features with behavior change techniques.
- Usability testing can establish how well an app functions and serves its intended purpose for a target population.
- Observational studies can explore the association between use and behavioral outcomes.
- Efficacy testing can establish whether an app impacts an outcome of interest via a variety of study designs, including randomized trials, multiphase optimization studies, etc.

Key Risks of the Current Model

A summary of the key risks identified thus far are as follows. Given that each partner involved with the project will have different capabilities and concerns, it is likely that further risks will arise as partnership discussions progress.

Foundational Risks

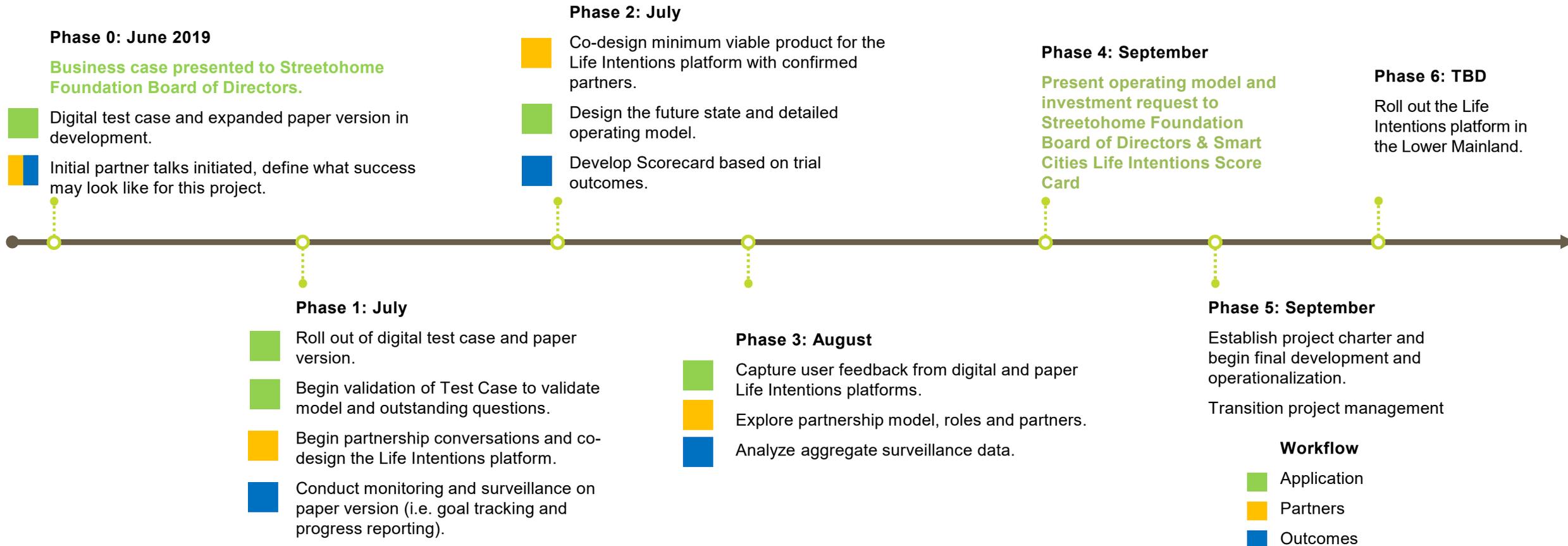
ID	Description	Impact
1	The model assumes that the Life Intentions self-assessment will provide a meaningful self-affirming experience when delivered digitally.	It may require a frontline staff and potentially peers and / or family to assist in the administration of the self-assessment to gain the most value from it.
2	The model assumes that the existing database providers will be interested in partnering together for this project.	If database partners do not want to join, then an additional phase needs to be designed to develop the database.
3	The model assumes that a partner can be identified to operate in between the key stakeholders and manage the flow of data.	If the partner cannot manage the data for everyone objectively then the platform will have to be owned by a single partner and may lose its value if it becomes biased.
TBD through conversations with Partners		

Operational Risks

ID	Description	Impact
4	The initial development partner cannot sustain the project into the future, thereby making ongoing maintenance and sustainment more challenging.	The Life Intentions platform will need to identify a sustainment development partner, who will be able to maintain the application on an ongoing basis.
5	Adoption by users, families, and support workers and staff may be slow or insufficient.	The platform will not generate data or create value for end users, which may limit the platform's development.
6	Resources in the database may become stale or inaccurate over time.	If the database is inaccurate, the platform may fail as users cannot find value in the information provided.
7	Poor user experiences may deter uses from using the platform again.	If users are deterred from using the platform it will fail.
TBD through conversations with Partners		

Suggested High Level Implementation Timeline

Based on the business plan approval occurring in Month 0, the following timeline provides a set of milestones that will lead to the application launching in Month 4. Any delays at the beginning of the timeline will push out the milestone and completion dates.



Thank You

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- 2) Hall, C., Zhao, J., & Shafir, E. (2013) “Self Affirmation Among the Poor: Cognitive and Behavioral Implications”. Sage.
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- 4) Black, C., Gronda, H., (2011.) “Evidence for Improving Access to Services”.
https://www.ahuri.edu.au/data/assets/pdf_file/0025/7279/SYN059_Evidence_for_improving_access_to_homelessness_services.pdf
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- 6) Atira Property Management Inc. (2017.), “Social Impact of Hiring Target Employee Group Individuals”. Atira.

Do you have any unanswered questions?



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