FUTURE CITIES FOR FLOURISHING ACROSS 100-YEAR LIVES

An Industry-led Playbook for the Future of Intelligent Urban Design

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Part 1: Cities as Platforms for Thriving in an Age of Longevity

Introduction

As 100-year lifespans become increasingly common, cities face a systems-level opportunity to rethink how environments support lifelong flourishing. Urban environments must evolve to support not just longer lives, but more varied, multi-stage ones, at scale.

Designing for 100-year lives requires fresh thinking: reimagining health, housing, mobility, and social infrastructure ecosystems as interdependent platforms that enable and maximise human potential, delivering both transformative public value and long-term asset resilience. Longevity, in this context, is not a burden to manage, but a catalyst to reimagine how cities can enable human flourishing and asset vitality across multi-stage lives.

Core Purpose

The future city will be defined not primarily by its infrastructure, but by its capacity to support human agency, adaptability, and connection. It will shift from static service provision to dynamic, human-centered design—enabling new ways of living, working, and relating across a century-long life.

Flourishing in this context means living long, healthy, purposeful lives across the entire life course, not just the extended years at its close — lives marked not by linear progression, but by multidimensional evolution. Among the most compelling frameworks on living and working in the age of longevity comes from Lynda Gratton and Andrew Scott's The 100-Year Life, which challenges the traditional three-stage model of education, career, and retirement. In its place, they envisage a multi-stage life composed of distinct phases—each with its own rhythms, roles, and opportunities for renewal, and explore how individuals might navigate these transitions in the age of longevity.

In this playbook, we apply a new lens—one that shifts the focus from individual adaptation to systemic design at the city level, with the aim of enabling more durable and transformative conditions for human flourishing over time. It is a shift that challenges how we conceive of long-horizon value creation and asset lifecycles. We ask: how must cities evolve to enable these multi-stage life patterns at scale in the brave new era of extended longevity? For such evolution to be sustainable, it must be grounded in capital discipline and operational resilience — extending asset relevance and sustaining value creation across portfolios and cycles.

This playbook centres on four interlinked design levers. Together, they define the structural shifts required to support multi-stage lives. These levers are then translated into eight sandboxes — structured experiments designed to test commercial, operational, and social viability in live urban contexts – with digital and AI serving as cross-cutting enablers across all.

How Lives Will Change

The following shifts in individual life course dynamics —articulated by Lynda Gratton and Andrew Scott — have profound implications and potential opportunities on city design:

From Three Stages to Multistage Lives

The linear progression of education, work, and retirement is giving way to a significantly more fluid life course. People will cycle through phases of learning, working, caregiving, entrepreneurship, leisure, and personal reinvention—often multiple times. This means that to enable flourishing at both the individual and community level, cities must become adaptive platforms that enable diverse transitions across time.

Longer Periods of Exploration and Transition

Early adulthood will expand, with more time devoted to exploring identity, careers, and relationships, and options becoming more valuable over longer lifespans. Cities must offer environments that support experimentation, mobility, and flexible pathways.

Lifelong Learning Becomes Essential

Education will no longer be front-loaded. Continuous reskilling and upskilling will be vital for relevance and fulfilment. Cities will need to cultivate environments that embed learning opportunities into everyday life, where neighbourhoods, workplaces, and shared community spaces naturally support curiosity and reinvention, from intergenerational learning zones to creative third spaces that make lifelong growth part of the city's cultural fabric.

Multiple Careers and Episodic Work

Individuals will pursue several careers over their lifetime, interspersed with sabbaticals, caregiving, and personal ventures. Cities can more creatively enable flexible workspaces, entrepreneurial ecosystems, and support structures for transitions.

New Financial Models for Longevity

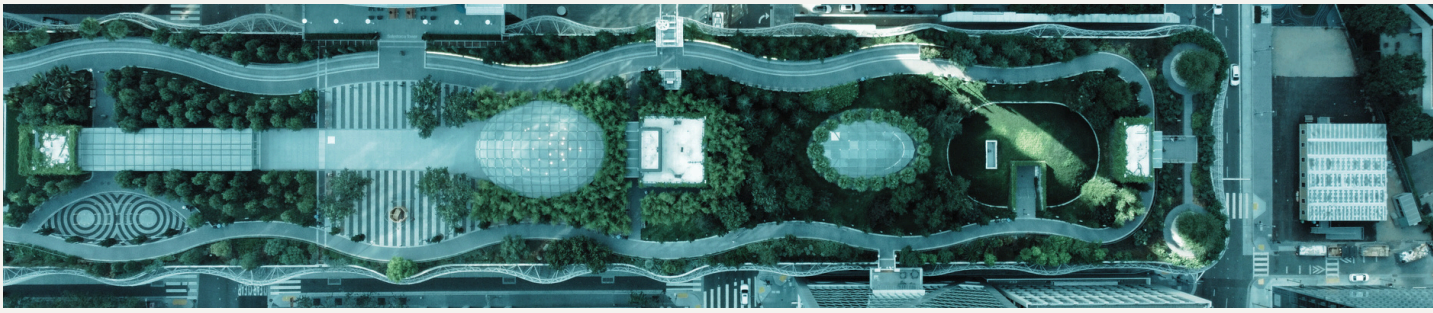
It will be unsustainable to save for a 40-year retirement from a 30-year career. People will need diversified income streams, flexible employment, and financial literacy across life stages. There is much that cities can do to evolve support and provide options for these new financial realities.

Vitality and Intangible Assets Matter More

Health, relationships, and emotional resilience will become critical assets in their own right. Cities must prioritize mental health, social infrastructure, and access to nature as core components of urban vitality.

Relationships Will Evolve More Frequently Across Life Stages

Friendships, partnerships, and family roles will shift more frequently. Cities must foster intentional connection and more diverse social networks —through inclusive public spaces, community programming, and digital platforms that bridge generational divides.



Part 2: The Three Human Assets — Reimagined at City-Scale

2.1 Conceptual Bridge

The implications of extended longevity are profound. As individuals begin to navigate a wider diversity of life phases—marked by evolving roles, rhythms, and aspirations—cities must adapt to support a wider spectrum of needs and transitions. Lynda Gratton and Andrew Scott's work on The 100-Year Life identifies three foundational assets—vitality, productive capacity, and transformational adaptability — as essential for thriving across longer lives. Building on their insights and in dialogue with other emerging longevity and urban design paradigms, we explore how these human assets can be reimagined at city scale to enable collective flourishing across multi-stage life arcs.

This section reimagines Gratton and Scott's framework through an urban lens. It positions cities as stewards and multipliers of human assets—actively enabling transitions, fostering resilience, and catalysing flourishing across multi-stage life arcs. In doing so, it offers a systems-level blueprint for regenerative urban design.

2.2 Translating Human Assets to City-Level Equivalents

As lifespans extend and life paths diversify, cities must evolve as intentional amplifiers of human potential. This means not only stewarding—but actively multiplying—the conditions under which vitality, productivity, and transformation can flourish. By translating individual assets into city-scale equivalents, we unlock a new design logic: one that positions urban environments as strategic multipliers of wellbeing across nonlinear, multi-stage lives.

These multipliers accelerate and concentrate impact. Alongside them, foundational enablers like walkable environments and embedded preventive health systems ensure that the conditions for flourishing are accessible and sustained. In such cities, any individual has a measurably greater chance of developing and sustaining these assets than in environments not designed with this purpose in mind. The following sections explore each of these assets—vitality, productivity, and transformation—in turn, mapping their city-level equivalents and the urban conditions that enable and multiply them.

Vitality Assets → Urban Vitality and Social Cohesion

Across longer lives, the cumulative impact of choices around health, connection, and emotional resilience becomes profound. Cities must evolve to support not just lifespan, but healthspan and collective vitality —**ensuring that communities remain physically, mentally, and socially well across decades.**

City-Level Equivalents

Urban Vitality

Walkable, biophilic designs that integrate movement into daily life, inviting movement throughout the day, rather than compartmentalising "exercise." as a standalone activity.

Key Metric

Healthspan density: How concentrated and accessible are environments that actively support long-term physical and mental wellbeing, and functional longevity - extent to which residents able to remain physically active, socially engaged, and emotionally resilient across decades

Social connection and cohesion

Designing neighbourhoods to maximise serendipitous interaction across generations strengthens social connection and reduces loneliness.

Key Metric

Frequency and depth of meaningful connection by people of different life stages across public spaces.

Community and emotional resilience

Density, diversity, and durability of social ties across communities

Multipliers

Healthspan-enhancing infrastructure

Community vitality corridors

Urban Enablers

Preventive health systems embedded in neighborhoods

Walkable, bikeable environments that promote active living

Nature integration for mental and physical wellbeing

Examples

Blue Zones Projects (US): Community-led interventions that extend healthspan through lifestyle design

Copenhagen's Bike Superhighways: Active mobility as a public health strategy

Singapore's AgeWell SG and Healthier SG: Neighborhood-based preventive care and health activation.

The Digital Layer (Ambient Intelligence):

When thoughtfully deployed, technology should complement rather than compete for human attention; it should support social interactions and utilise sensing technologies to provide meaningful empirical feedback about the efficacy of physical spaces to achieve the outcomes of enhancing human vitality.

1. **The Sentient Environment:** Use AI-driven environmental sensors to dynamically adjust street lighting (circadian-aligned) and soundscapes in real-time to lower collective cortisol levels.
2. **Privacy-Preserving Vitality Commons:** A "HealthSpan AI" ecosystem can empower residents to track their own vitality score while contributing anonymised, edge processed signals to a citywide wellbeing map. By combining citizen generated data with environmental sensing, emerging stress hotspots can be detected—such as overheated plazas or undershaded walkways—and trigger automated or semiautomated urban responses (e.g., activating misting systems, adjusting lighting). All analytics occur on-device or through zero knowledge protocols, ensuring that no personally identifiable information is ever shared.

Productive Assets → Innovation Networks and Distributed Learning Ecosystems

In a 100-year life, the 'learn-earn' model can no-longer sustain skillset relevance of the workforce throughout their productive lifetimes. Humans will need to embrace continuous reinvention. Productivity is no longer a frontloaded pursuit. It becomes a dynamic process of lifelong learning, re-skilling, and purpose realignment. Cities must provide the infrastructure for continuous growth—across all ages and stages.

City-Level Equivalents

Innovation and knowledge clusters

Can be explored through indicators such as the density of cross-sector R&D hubs, startup ecosystems, or collaborative zones that foster idea exchange and applied innovation.

Distributed learning ecosystems

Access to lifelong learning pathways—such as the availability of micro-credentialing, community-based education, and digital upskilling platforms across neighborhoods.

Urban Enablers

Intergenerational co-working spaces

Public-private learning partnerships

Localised skill hubs and digital access points

Multipliers

Micro-credential platforms that recognize and validate skills acquired across formal, informal, and experiential contexts, enabling individuals to upskill or pivot quickly, often in response to emerging industries or life-stage transitions.

Purpose-matching platforms that connect individuals to roles, projects, or learning pathways aligned with their evolving skills and values—especially powerful in later-life transitions or career pivots.

Civic innovation labs and spaces where residents co-create solutions to urban challenges, blending productivity with belonging and agency. These can multiply both skill development and community impact.

Embedded mentorship networks that accelerate learning and purpose transmission across life stages.

Timebanking and skill-sharing systems that reward contribution and exchange, especially for non-monetised forms of productivity (e.g., caregiving, community organising).

Examples

Seoul's Senior Startup Incubators

Older adults launching businesses with community support

London's Intergenerational Co-working Spaces

Shared productivity across life stages combining startup energy with experienced capital

SkillsFuture Singapore

Nationwide infrastructure for lifelong learning and career mobility

The Digital Layer (Agentic AI):

Productivity in the AI era is not about doing more;
it is about achieving more with higher leverage.

1. **Agentic AI Navigators:** Agentic AI Navigators—"Life Agents"—could offer individuals a secure, personalised co-pilot for lifelong learning. These systems would help people navigate evolving career pathways by curating micro-courses, surfacing relevant opportunities, and facilitating meaningful professional connections. Designed with strong privacy safeguards and user control, Life Agents could operate as voluntary tools that individuals can adopt to support their own growth, adaptability, and wellbeing.
2. **The "Skill Liquidity" Marketplace:** A city-scale AI matching engine could connect "Needs" with "Skills" in real-time, reducing friction for gig-economy workers and seniors who wish to contribute their expertise without full-time employment.

Transformational Assets → Reinvention Platforms and Network Diversity

Longer lives will be marked by more transitions — career shifts, personal reinventions, and identity evolutions. Cities must embrace these transitions as design opportunities, creating spaces and systems that support adaptability, experimentation, and social mobility. Transformational assets reflect the capacity to evolve meaningfully over time, and their urban equivalents reveal how environments can foster reinvention, belonging, and upward mobility across life stages.

City-Level Equivalents

Network diversity

Range and inclusivity of social, professional, and civic networks accessible across neighborhoods—especially those that bridge age, background, and sector.

Social Mobility

Designing neighbourhoods to maximise serendipitous interaction across generations strengthens social connection and reduces loneliness.

Multiplier

Reinvention platforms that support identity evolution, career pivots, and personal transformation—often blending learning, storytelling, and community support.

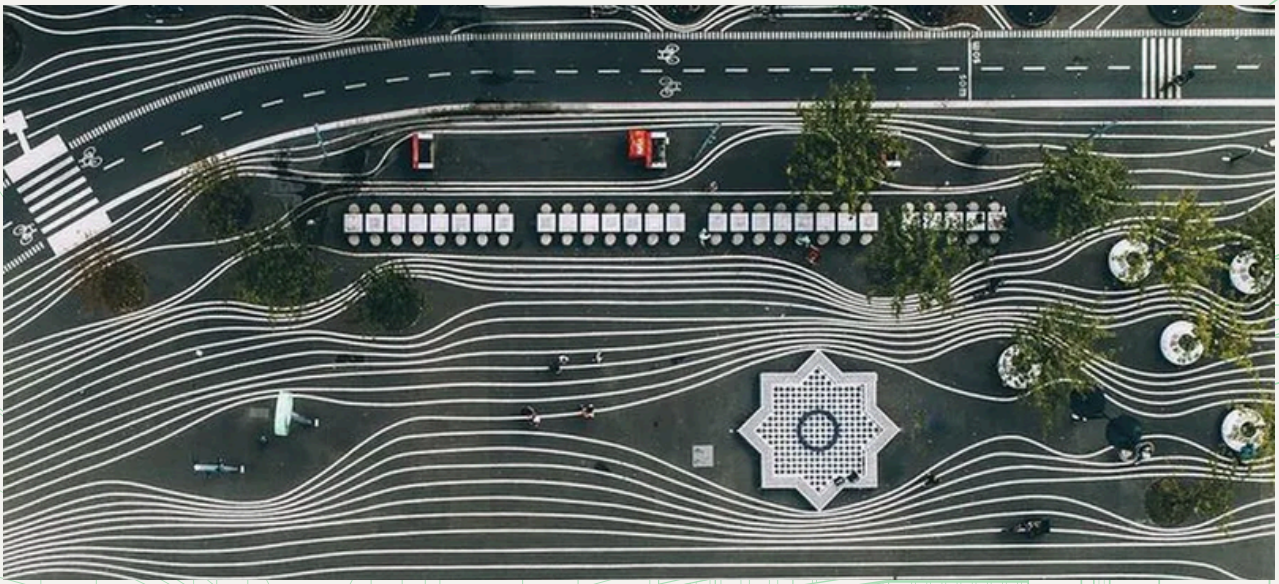
Creative placemaking zones designed to invite experimentation, expression, and co-creation — multiplying both individual agency and collective imagination.

Urban Enablers

Platforms for intergenerational mentorship and reinvention (distinct from productivity-focused mentorship, these emphasise identity and life-stage transitions)

Civic spaces for experimentation and storytelling

Access to **diverse communities and perspectives**



Examples

LX Factory (Lisbon)

Organically evolved creative district where industrial spaces became low-barrier studios and co-working hubs, enabling individuals to reinvent professional and creative identities through dense informal networks

Seongsu-dong (Seoul)

Former industrial district organically converted into a creative enclave where adaptive reuse and dense peer networks enable individuals to pivot into new entrepreneurial and design-led identities

Station F (Paris)

Startup ecosystem with intergenerational mentorship and reinvention pathways

The Digital Layer (Sovereign Identity):

1. **Self-Sovereign Identity (SSI):** Immutable (e.g. blockchain-backed) Digital Identity wallets where citizens own their credentials (e.g. degrees, health records, employment history, reputation scores, and other verified attributes.) can allow for instant verification and "trustless" onboarding to new jobs, drastically lowering the friction of starting fresh in a new organisation or new city all-together.
2. **The "Community-backed Transition DAO":** A blockchain-enabled, smart-contract–governed mechanism inspired by Decentralised Autonomous Organisation (DAO) principles that individuals or communities choose to participate in, pooling resources to provide support during periods of career reinvention or personal transition, providing financial and social stability while an individual pivots.

Collective Amplification

Cities are not merely aggregators of individual lives—they are amplifiers of collective human flourishing. When designed intentionally, urban environments can generate spillover effects: where one person's growth catalyzes another's, and shared purpose becomes a multiplier of resilience.

Realising this potential requires designing for networked wellbeing, intergenerational reciprocity, and civic belonging. Cities must function as ecosystems of mutual flourishing—where vitality, productivity, and transformation are not just personal aspirations, but shared systemic outcomes. In this context, these dimensions shape both social outcomes and economic dynamism, while sustaining asset relevance and strengthening the long-term resilience of urban systems.

As we move toward a future of 100-year lives, the challenge is not simply to extend years—but to enrich them. By reimagining human assets at city scale, we unlock the potential for regenerative urban ecosystems that support thriving across every stage of life.

Part 3: Unlocking Possibility — Design Levers for Regenerative Cities

Cities Are Evolving—And New Possibilities Are Emerging

As cities adapt to longer, more varied life paths, the opportunity is not just to improve existing systems—but to unlock entirely new forms of value. Some of the most transformative levers remain underexplored globally: infrastructure that evolves with users, environments that normalize reinvention, and systems that embed health and connection into daily life. While early pilots and experiments exist, the full potential of these approaches has yet to be realized globally, at scale.

This chapter surfaces four interlinked design levers that—when activated in concert—can powerfully reposition cities as regenerative engines of human flourishing across longer life arcs.

1. Design for Adaptive Life Trajectories

Moving beyond static infrastructure and fixed-use zoning, cities can better support the non-linearity of modern life trajectories by creating spaces that evolve with users—modular, programmable, and emotionally intelligent—and embedding support for life transitions: career pivots, caregiving shifts, and personal reinvention.

- **What's emerging:** Experimental, reconfigurable public realms like Toyota's Woven City and transition-supportive platforms such as Seoul's 50+ Foundation campuses hint at how cities can institutionalise second-career pathways and structured reinvention across life stages. But these remain isolated pilots. The greater opportunity lies in scaling adaptive design across housing, workspaces, and public infrastructure. This logic need not be confined to civic space. Adaptive trajectories can be supported in spaces traditionally considered private — such as residential units that double as commercial venues, caregiving hubs, or creative studios. The opportunity here is to move beyond static functions and systematically unlock multi-use potential, infusing everyday spaces with new layers of function and meaning. Imagine the chef hosting intimate dining experiences from home, or the artist transforming a living room into a public gallery — lowering barriers to small-scale enterprise, care, and cultural production.

2. Activate Community-Led Urban Futures

Flourishing is relational. Cities that enable residents to co-create their environments foster deeper engagement, responsiveness, and collective agency. This goes beyond consultation—it is about multimodal interaction, real-time programming, and shared authorship of urban life.

Geospatial technology has the potential to become a transformative enabler of participatory urban futures. When embedded into broader urban systems, geospatial platforms can become regenerative multipliers—linking physical infrastructure with social intelligence to foster belonging, adaptability, and wellbeing.

- **What's emerging:** Amsterdam Smart City shows how living labs can embed community co-creation into city-scale innovation efforts.
- Singapore and the City of Helsinki also signal how open data and digital twin infrastructure can unlock shared geospatial intelligence at city scale. Such examples point toward a broader, transformative possibility: digital and spatial platforms evolving from operational backbones into enablers of more adaptive, community-driven urban futures. Such infrastructure has the potential to help sustain communities that are resilient, equitable, and responsive to life-stage transition.

1. Design for Adaptive Life Trajectories

Health should not be siloed—it should be ambient, embedded, and regenerative. Cities can integrate preventive care, active movement, and mental wellbeing into the everyday systems people already use: housing, transit, public space.

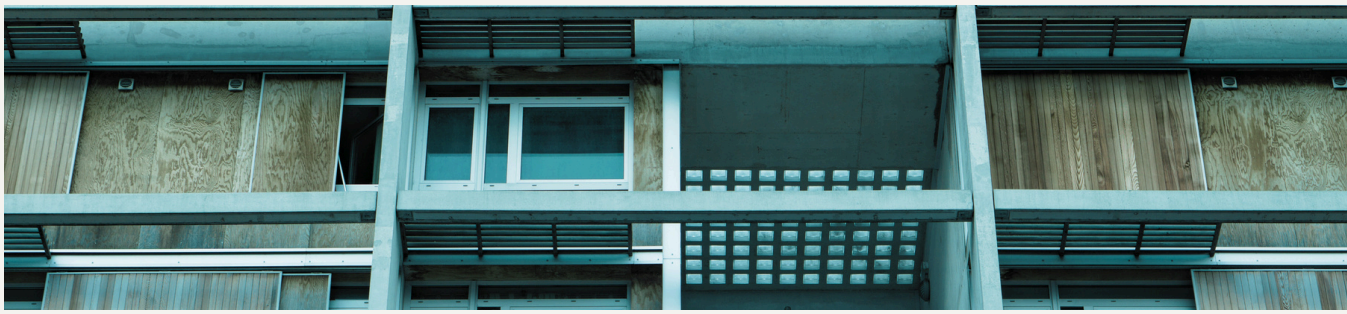
- **What's emerging:** In Mitsuke, structured walking routes and health incentives have been associated with lower medical expenditures among participating seniors. Evaluations of participating seniors found significantly lower annual medical expenditures — often cited at roughly 20–30% below non-participants — suggesting that preventive urban design can measurably influence long-term health outcomes.City of Copenhagen embeds daily movement into routine mobility through cycling and pedestrian-first design. In Singapore, active mobility networks and Healthier SG integrate preventive care into neighbourhood life. Together, they point toward cities where healthspan is supported by everyday systems rather than isolated interventions. The next frontier is cultivating cities where healthspan is a default systems outcome—supported by frictionless access to movement, preventive care, and rich connection across all life stages.

4. Design for Regenerative Multipliers

The most powerful cities of the future will multiply human potential through intelligently-designed systems that amplify vitality, productivity, and transformation — not in isolation, but as interdependent assets. It requires seeing cities as platforms for lifelong development, where each element — physical, digital, social — contributes to a regenerative whole.

- **What's emerging:** Individual pilots exist across infrastructure, programming, and community engagement. Around the world, individual pilots are testing preventive health integration, adaptive zoning, civic labs, and digital learning ecosystems. Few cities, however, have integrated these elements at scale into a self-reinforcing regenerative model. The opportunity is to connect these threads — to build environments where any one person has a measurably greater chance of flourishing than in environments not designed with this purpose in mind.

The following section will explore how this vision can take shape in practice—through sandboxes that, individually or in concert, prototype the systems, partnerships, and spatial logics of such an regenerative urban future where flourishing becomes a systems outcome rather than left to circumstance.



Part 4: 8 Sandboxes for the Future — Testing the Hypotheses

Why Sandboxes Matter

Designing cities for multi-stage lives requires testable environments where new ideas can be trialed, refined, and scaled. Sandboxes offer a way to do this: structured experiments built around clear hypotheses, strategic partnerships, and commercial viability. They allow cities to move from aspiration to evidence—while remaining agile, inclusive, and exportable. Examples such as Toyota Woven City reflect an emerging model of programmable urban infrastructure oriented toward continuous iteration and integrated systems testing. The sandboxes proposed here extend this logic into live urban environments, with a stronger emphasis on community participation and cross-sector collaboration.

Rather than proposing universal solutions, such sandboxes help surface what works, for whom, and under what conditions. They create space to test new configurations of space, service, and social interaction—especially in areas where traditional urban models fall short.

The below sandboxes are conceived not only as design interventions, but as long-term asset strategies — improving utilisation, reinforcing operational resilience, extending asset relevance, and enabling scalable returns beyond pilot environments. Taken together, the sandboxes form a diversified portfolio of experiments — balancing near-term commercial viability with longer-horizon strategic optionality.

Sandbox Logic

- **Strategic Partnerships:** Cross-sector collaboration with aligned incentives and shared learning goals
- **Clear Hypotheses:** Each sandbox is built around a specific gap and a testable proposition
- **Commercial Viability:** Designed to unlock new forms of value—economic, social, and experiential
- **Exportability:** Structured for replication across districts, cities, and regions

Sandbox Portfolio → 8 Sandboxes to Test What Cities Could Become

Multi-Stage Living Ecosystems

1

Hypothesis:
Embedding micro-entrepreneurial ecosystems into residential environments can support purpose, wellbeing, and space efficiency across life stages.

Testbed:
Mixed-use hubs where residents operate home-based enterprises—childcare, consulting, creative services—within a curated live-work-connect platform.

Potential Outcomes:
Round-the-clock vibrancy, optimised space use, increased social serendipity.

Care-Adjacent Lifestyle Platforms

2

Hypothesis:
Premium environments for caregivers can enhance wellbeing, engagement, and commercial activation during care-related downtime.

Testbed:
Integrated wellness, retail, learning and co-working spaces adjacent to care settings — designed for emotional renewal and purposeful use of time.

Potential Outcomes:
Increased caregiver satisfaction, dwell time, and spending; scalable across hospital networks and wellness districts.

Adaptive Commercial Commons

3

Hypothesis:
Flexible, experience-led commercial spaces can enhance urban vibrancy while embedding essential services.

Testbed:
Rotating enterprise zones with embedded healthcare, dining, and civic programming — activated across time and designed for participation.

Potential Outcomes:
Increased footfall, optimized land use, greater relevance to evolving urban lifestyles.

Healthspan-Enhancing Zones

4

Hypothesis:
Curated vitality districts can proactively support physical and emotional wellbeing across all life stages.

Testbed:
Walkable, climate-responsive precincts with embedded diagnostics, vitality retail, mobility layering, and social activation.

Potential Outcomes:
Higher vitality, spontaneous social interaction, longevity gains.

Sandbox Portfolio → 8 Sandboxes to Test What Cities Could Become

Integrated Vitality Loops 5

Hypothesis:
Spatial integration across health, retail, and mobility can transform passive time into regenerative experience.

Testbed:
Clinic–mall–mobility corridors designed as seamless journeys for preventive health, purposeful retail, and active movement.

Potential Outcomes:
Increased uptake in preventive health actions, retail uplift, and mobility engagement.

GeoVital Intelligence Pilots 6

Hypothesis:
Health-linked geospatial routing can nudge movement and reduce isolation, especially when embedded in participatory urban systems.

Testbed:
Urban intelligence systems layered with behavioral design and mobility cues—infused with health data.

Potential Outcomes:
Increased daily movement, reduced frailty, stronger social ties, exportable urban IP.

Precincts of Possibility 7

Hypothesis:
Intergenerational precincts can foster shared contribution, relational depth, and reinvention.

Testbed:
Mixed-use environments for co-care, co-learning, and co-living—where life transitions become opportunities for civic and personal growth.

Potential Outcomes:
Increased network diversity, adaptability, and civic participation.

Active Mobility Platforms 8

Hypothesis:
Behaviorally intelligent design can reward movement and drive sustained healthspan gains.

Testbed:
Spatial systems that offer perks, incentives, and civic credits for movement—linked to retail, health services, and community engagement.

Potential Outcomes:
Behavior change, commercial engagement, and improved wellbeing.

Part 5: The role of AI, Robotics and Frontier Technologies in Accelerating City Transformation

Sandboxes make visible what is otherwise diffuse: how spatial design, service models, and social behaviour interact within a larger whole. In such environments, sensing and coordination are built into the system — shaping how scenarios are tested, how signals are interpreted, and how responses are coordinated. AI, robotics, and frontier technologies extend this capacity across the lifecycle of the urban system: from modelling possibilities, to responding in real time, to enabling scalable integration. This section explores how these technologies can deepen adaptive capacity — strengthening feedback loops and increasing the city's ability to learn, adjust, and compound value over time. **The technologies described here are not a separate domain from the preceding sandboxes; they operate horizontally across them.** Whether in co-design, data collaboratives, adaptive housing, or regenerative construction, each sandbox relies on the capacity to sense conditions, model possibilities, and coordinate response.

Phase 1: The Co-Design Sandbox

From Visualising to "Generative Simulation"

Current View: Multi-modal Generative AI already enables people to articulate their aspirations for the future city they want to live in, while immersive tools such as Virtual Reality (VR) and digital twins help visualize and simulate possible design choices.

The Deep Tech Shift (Generative Lifepath Simulation): The next frontier builds on these foundations by moving from static 3D models to **living, physics-based simulations.**

- As digital twins and immersive tools become standard in visualising future neighbourhoods, a new frontier is emerging: **generative lifepath simulation**. Instead of modelling only environmental or infrastructural dynamics, this approach explores how different life trajectories might unfold within a place over decades. AI can generate thousands of plausible scenarios—how a young family, an older adult living alone, or a midcareer worker navigating caregiving responsibilities might experience daily routines, social networks, and wellbeing as their circumstances evolve. AI-enhanced digital twins can also simulate how spaces are experienced from different perspectives — how a street feels to an older adult with limited mobility, how a junction is navigated by someone with visual impairment, or how daily routines shift for a mid-career worker balancing caregiving responsibilities.
- **Why this is empathetic:** By anticipating how design choices interact with real human lives across time, generative lifepath simulation offers a deeper understanding of how different people might experience a place across life stages. By embedding differentiated human experience into simulation — across age, ability, and life stage — design choices can be evaluated not only for efficiency or aesthetics, but for lived impact.

Phase 2: The Data Collaborative
From Sensing to "The Urban Immune System"

Current View: Cities collect a wide range of information—from digital flows to data exchanges across agencies and private partners—to understand conditions on the ground and schedule interventions when needed.

The Deep Tech Shift (Autonomous Caretakers): As sensing, robotics, and embodied AI mature, a new class of systems may take shape: autonomous maintenance agents that respond to microissues in real time. The data doesn't just sit on a dashboard; it triggers physical action by **Embodied AI** and **Service Robotics.**

- Instead of waiting for a human crew to fix a pothole or prune a vertical garden, autonomous maintenance bots (the city's "white blood cells") detect and repair infrastructure micro-failures in real-time.
- Why this is empathetic: In a 100-year life society, human labour is scarce and precious. By offloading dangerous, repetitive maintenance to robotics, cities can reduce physical strain on workers and improve operational resilience. This allows more human effort to be directed toward roles that depend on judgment, care, creativity, and social interaction.

Phase 3: The Scaling Engine
From Open APIs to "Regenerative Construction"

Current View: Advanced technologies are already being deployed across buildings and districts, but each system—whether a robotic platform, smartbuilding module, or digital service—often requires bespoke integration. This creates complexity for innovators and limits how quickly new solutions can be adopted beyond pilot sites.

The Deep Tech Shift (Harmonised Ecosystems & Common Standards): A Unified Digital-Physical Common Standard (e.g., JTC's Open Digital Platform) demonstrates how common protocols and shared data environments can reduce integration complexity across building systems and emerging autonomous technologies. By standardising how systems interface — from elevators and security to sensors and robotics — such platforms lower barriers to interoperability and enable more scalable innovation beyond isolated pilot deployments.

- Such unified digital-physical platforms show how shared protocols can reduce integration complexity — an essential precursor to enable more adaptive, reconfigurable built environments. Imagine "agile infrastructure" where robotic systems can reconfigure the interior walls of a community center — transforming it from a kindergarten in the morning to a senior wellness clinic in the afternoon.
- **Why this is empathetic:** People's needs evolve far more quickly than traditional construction cycles. A city built with modular, robotically adaptable components can adjust as its residents move through different life stages. By reducing technical friction and enabling flexible, reconfigurable environments, these ecosystems support spaces that remain useful, inclusive, and responsive over time.

Part 6: From Vision to Ground — Prototyping the Future

- This playbook is not a blueprint — it's a launchpad. It offers a way to reimagine what cities can become when designed to support vitality, productivity, and transformation across the full arc of human life. Each chapter builds toward a simple but powerful idea: cities need not merely accommodate aging—they can actively amplify human potential at every stage.
- We see this as an open invitation. To CEOs shaping the future of work and wellness. To innovators building new platforms for care, connection, and creativity. To community builders and citizens who want to co-author the environments they inhabit. The ideas here are meant to be tested, adapted, and expanded—through collaboration, experimentation, and shared ownership.
- We are encouraged that this effort is already sparking real-world exploration. Several sandbox concepts outlined in Part 5 are being considered for trial on an upcoming site in Johor, Malaysia, led by Thomson Medical Centre. This collaboration opens the door to exploring how spatial design, health integration, and community-led innovation might converge to support multi-stage lives.
- While outcomes remain to be seen, the Johor site offers a valuable opportunity to engage with these ideas in practice. Learnings from this initiative may inform future iterations of the playbook and inspire other districts, developers, and civic leaders to explore what flourishing could look like in their own contexts.
- Flourishing is not a static goal – it's a dynamic possibility. By enabling multi-stage lives at scale, next-generation cities will foster greater human flourishing, while also achieving greater institutional resilience, asset relevance, and greater capacity to create and compound value over the long term.

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We are grateful to the team led by Dr. Melvin Heng at Thomson Medical Centre for their openness to exploring new possibilities and for partnering us to initiate real-world trials of several sandbox concepts on the Johor site. Their leadership in health and urban innovation has helped bring this work from concept toward application. This has created the conditions for CEOs, technologists, and community builders to test next-generation ideas in practice, not merely in theory.

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- Jill Lee, Board Member, Schneider Electric / PSA International
- Nathaniel Farouz, CEO, Keppel, Sindora Living
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- Tan Boon Khai, Former CEO, JTC
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To innovators, developers, entrepreneurs, and community builders who will carry these ideas forward: we offer this playbook as a starting point. The future of flourishing cities will be shaped not by any single blueprint, but by the collective imagination and action of those willing to prototype what comes next.

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