Higher Education Beyond the SDGs:

Toward University-Led Regenerative Development

UNIVERSITY OF LIMERICK OLLSCOIL LUIMNIGH | Centre for Sustainable Futures and Innovation

Studio Saol

SUSTAINABLE DEVELOPMENT GOALS

Intention Of The Position Paper

This position paper originates from the Tomorrow's University programme, a collective endeavour to reimagine higher education's role in advancing regenerative futures. Drawing on established research, collaborative processes, and insights from the University of Limerick community, it offers a creative synthesis rather than a set of definitive solutions or formal strategies.

Rooted in the urgent need to address today's interconnected ecological, social, and economic challenges, this document highlights the potential of a university-centric perspective—while recognising its applicability to other social institutions. By presenting evolving concepts, emerging frameworks, and practical pathways for innovation, it serves as a living artefact that invites dialogue, experimentation, and meaningful action.

Rather than prescribing one-size-fits-all approaches, the paper encourages co-creation, context-specific adaptation, and continued learning. It aspires to spark a deeper alignment of education, governance, and community engagement with the regenerative paradigm—catalysing shared exploration toward thriving, more resilient futures.

Acknowledgements

We extend our heartfelt thanks to everyone who participated in the Tomorrow's University programme, whose creative activities and collaborative discussions shaped the ideas in this position paper. We also wish to acknowledge the creative talents of the entire design and production team for bringing this vision to life. Aligned with the exploratory and future-facing orientation of this position paper, various AI tools were used to support its research, design, and creation. Finally, we offer special gratitude to the University of Limerick for sponsoring the Tomorrow's University programme from its inception, and whose support and commitment have been pivotal to its development and impact.

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Negotiating the UN SDGs: Looking Back To Go Beyond

The Sustainable Development Goals (SDGs), adopted in 2015, provide a blueprint for advancing humanity and preserving our planet through 17 Goals and 169 targets—a globally unified agenda of unprecedented scope. Though not legally binding, the SDGs carry significant political and moral weight, underpinned by their global legitimacy and commitment to sustainability, equity, and intergenerational responsibility.

The theme of responsibility across generations resonates throughout the SDGs and was further emphasised in the Pact for the Future adopted by world leaders in 2024. While the SDGs' vision is widely embraced, progress has lagged due to the pandemic, climate crises, and geopolitical tensions, leaving significant gaps between ambition and outcomes. Many countries have also struggled to design the transformative policies and structures required to realise the SDGs' full potential. True transformation demands governments move beyond siloed thinking to adopt integrated, systems-led approaches.

The voluntary nature of the 2030 Agenda—while preserving national sovereignty—reflects the complexity of implementing the SDGs in diverse contexts. A "one size fits all" approach was neither feasible nor appropriate. As a result, this flexibility has contributed to uneven global implementation. Additionally, the finite nature of the 169 targets can create the perception that achieving sustainability is an endpoint, rather than part of a longer-term, continuous process of stewardship and renewal.

> "The post-2030 agenda must build on lessons learned, embracing systemic approaches that address the interdependencies shaping our shared futures."

Ultimately, the SDGs will be realised over a longer timespan than originally envisioned. The post-2030 agenda must build on lessons learned, embracing systemic approaches that address the interdependencies shaping our shared futures.

I congratulate the authors of this valuable position paper and commend the wisdom of their vision for a systemic framework for university-led regenerative development. Grounded in their work in Limerick, their 'learning by doing' approach advances theory through practice, inspiring bold, imaginative thinking essential for a sustainable and regenerative future. Their efforts serve as a beacon for Ireland and beyond, exemplifying the transformative potential of local action aligned with global ambition.



David Donoghue
Former Irish Ambassador and Diplomat

Co-facilitator of the intergovernmental negotiations on the 2030 Agenda for Sustainable Development, leading to the adoption of the 17 UN SDGs. Chair of SDSN Ireland

Beyond Sustainability, Toward Regeneration

Are the SDGs Enough to Guide Us Out of Systemic Collapse?

What if the SDGs Were a Bridge to Long-Term Regeneration?

Who Will Lead This Regenerative Transition?

Beyond Sustainability, Toward Regeneration

Imagine standing on a bridge, its foundations eroding beneath your feet. One side holds the world we have built—an extractive economy, deepening inequality, and ecosystems in decline. The other side promises sustainability—a future where human well-being and ecological health are balanced. But what if sustainability is not the final destination? What if, instead of carrying us toward true transformation, the bridge merely suspends us above collapse?

The Sustainable Development Goals (SDGs) were introduced in 2015 as humanity's most ambitious roadmap for sustainability. Encompassing 17 goals and 169 targets, they promised a framework to end poverty, curb inequality, restore biodiversity, and stabilise the climate—all within a single generation. Yet, as we pass the halfway mark to 2030, the world is not on track to meet them.

According to the United Nations' 2024 progress report, only 17% of SDG targets are on course, while nearly half show minimal or moderate progress, and more than a third have stalled or regressed entirely. The crises we face are not slowing down; in many cases, they are accelerating.

Despite decades of effort:

- 23 million more people live in extreme poverty today than in 2019.
- 123 million more people suffer from hunger than when the SDGs began.
- Biodiversity loss is deepening, with extinction risk increasing 12% since 1993.
- Greenhouse gas concentrations hit record highs in 2022 and continue to rise.

This is not just a matter of slow progress—it is a structural failure in how we approach sustainability. The SDGs, rather than leading us toward transformation, may be constrained by the very systems they seek to improve.

This paper challenges a core assumption: Can sustainable development, as currently pursued, deliver the scale of transformation required for a thriving planetary future? If not, what comes next?

The Crisis Beneath the Crises

This failure is not simply a matter of fragmented governance or inadequate funding, though these are symptoms of a deeper condition. It is the result of a civilisation-wide crisis of perception and systems breakdown—a world shaped by fragmented worldviews, extractive economies, and governance models ill-equipped to navigate complexity. Beneath the predicaments we face lies the metacrisis—where parallel systemic collapse is converging into entangled and increasingly complex crises.

The metacrisis is not a singular event or distant threat. It is evident in the inability of global institutions to coordinate effective responses to interwoven challenges. Despite global frameworks like the SDGs, implementation remains fragmented, contested, and selective. Governments, industries, and institutions approach sustainability through competing priorities rather than collective action, with some pursuing aggressive decarbonisation while others double down on fossil fuel subsidies. This fractured response weakens the SDGs' capacity to serve as a unifying framework for transformation.

Beyond policy fragmentation, there is a deeper crisis of perception—a failure to recognise that sustainability is not a linear process with fixed targets, but a dynamic interplay of living systems. The SDGs assume that sustainability can be achieved through incremental steps and predefined metrics. But the real world is emergent, complex, and unpredictable.

Efforts to solve one crisis often exacerbate another—expanding food production to reduce hunger depletes soil health, stabilising economies reinforces wealth inequality, and technological advancements accelerate ecological extraction. These contradictions reveal the limits of treating sustainability as a static checklist rather than an evolving process.

Institutional inertia compounds this challenge. The SDGs rely on existing institutions—governments, corporations, and universities—to lead implementation, yet these institutions are often slow to change, constrained by bureaucratic structures, and embedded in outdated economic and governance paradigms. Rather than acting as catalysts for new paradigms, they frequently serve as stabilisers of the old. Cities continue to expand into flood-prone regions despite the knowledge of climate risks, and dominant economic models remain wedded to short-term growth rather than long-term resilience.

The SDGs were never designed to address the metacrisis. They function as a set of global targets that assume sustainability can be achieved within the very systems that have produced unsustainability. While they acknowledge the interconnectedness of social, economic, and environmental challenges, their implementation remains technocratic, treating symptoms rather than root causes. As a result, they fall short of the systemic transformation needed to meet the scale and complexity of today's crises.

The Need to Rethink Sustainability

These constraints do not suggest that the SDGs should be abandoned. Rather, they reveal that without a fundamental shift in how we define and pursue sustainable development, the SDGs will remain trapped within the very systems they seek to transform. Moving beyond stagnation requires rethinking not only how we implement sustainability goals but how we conceive of sustainability itself.

The SDGs assume that sustainability is achievable within existing systems—that with the right policies, incentives, and governance, we can balance economic growth, environmental responsibility, and social equity. But the evidence tells a different story:

- This balance is not being realised. Instead, the world is shaped by compounding crises, each reinforcing and accelerating the next.
- Sustainability, as currently framed, assumes stability is the goal. But living systems do not prioritise stability—they evolve.
- Our approach is misaligned with reality. We cannot sustain an unsustainable system—we must shift toward something more dynamic, adaptive, and regenerative.

This is not merely a failure of execution. It is a sign that our approach to sustainability is misaligned with the nature of the crises we face. The question is not just whether the SDGs are on track; it is whether their underlying assumptions remain valid. If we are to navigate an era of ecological and civilisational disruption, we must move beyond sustainable development as a static framework and toward something more dynamic, adaptive, and regenerative—one that recognises that thriving is not about preserving the status quo but about evolving in response to changing conditions.

Are the SDGs Enough to Guide Us Out of Systemic Collapse?

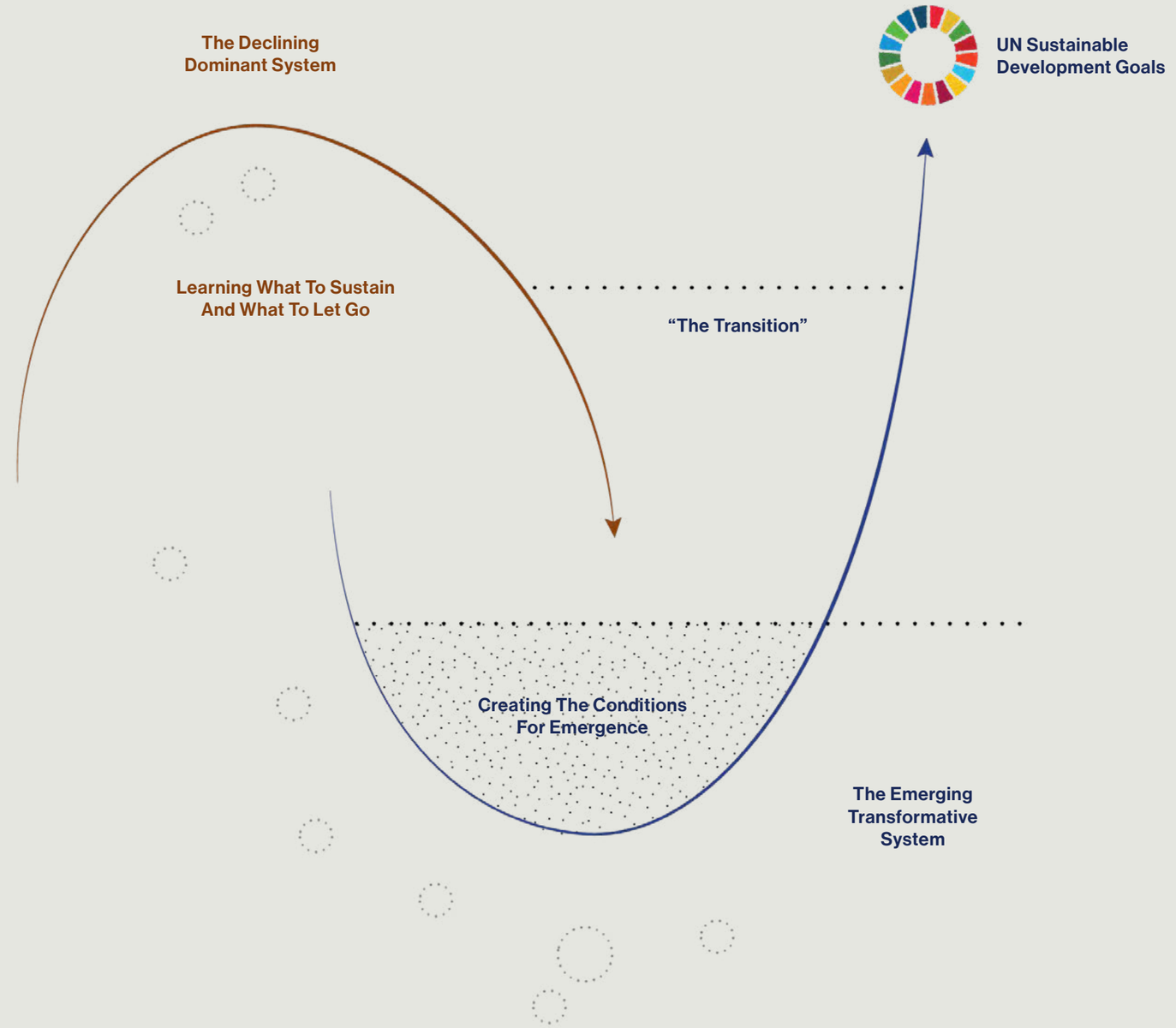
"The world we have known is disappearing and a new world is being born."
— Zachary Stein

At their core, the SDGs were devised as a roadmap for a better future—yet any roadmap presupposes solid ground, predictable routes, and a clear destination. In reality, we face a shifting landscape of climate instability, social fragility, and economic upheaval. History shows well-intended sustainable development measures can bring fragmented gains or even unintended harm: energy efficiency might rise, but overall consumption intensifies; efforts to reduce hunger deplete ecosystems through extractive agriculture.

Such contradictions reflect a deeper concern: the SDGs remain anchored in a paradigm that assumes sustainability can be achieved without reshaping the foundations of global development. Living systems do not merely maintain balance; they evolve through adaptive transformation. When we treat the SDGs as a final endpoint, we risk reinforcing the status quo rather than catalysing genuine change.

Their greatest potential lies in serving as a threshold to more transformative pathways. This realisation leads us to a deeper question: If the SDGs are insufficient as static targets, how might we reframe them for transformative impact?

What if universities understood systemic collapse as an opportunity for society-wide transformation?



Adapted from Berkana Institute's 'Two Loops' model to convey systemic collapse as an opportunity for transformation in alignment with living systems.

What if the SDGs Were a Bridge to Long-Term Regeneration?

“Sustainability alone is not an adequate goal. The word sustainability itself is inadequate, as it does not tell us what we are actually trying to sustain.”
— Daniel C. Wahl

For decades, sustainability has guided our response to global crises, with the SDGs aiming to stabilise systems and minimise harm. Yet, living systems evolve; they regenerate and adapt. Perhaps sustainability, too, is not an end state but a stepping stone—a bridge to something more expansive.

If we treat the SDGs as a transition rather than a final outcome, the focus shifts from fixed targets to evolving processes. Where sustainability often seeks harm reduction, regeneration pursues renewal and growth in harmony with nature’s patterns. Sustainability asks, “How do we prevent collapse?” Regeneration asks, “How do we create the conditions for life to thrive?”

Reframing the SDGs as a bridge could help societies and ecosystems do more than maintain equilibrium; it could inspire new pathways of adaptation and flourishing. The question then becomes: Who—or what institution—can effectively champion this deeper transformative transition?

What if universities understood sustainable development as a bridge toward long-term regeneration?



Adapted from Bill Reed’s ‘Regenesis’ in reference to the paradigms of development between degenerative and regenerative systems dynamics.

Who Will Lead This Regenerative Transition?

“We need acts of restoration, not only for polluted waters and degraded lands, but also for our relationship to the world.”
— Robin Wall Kimmerer

If the SDGs are to evolve beyond sustainability toward regeneration, who will guide the shift? Governments, bound by electoral cycles and entrenched interests, often move too slowly. Corporations remain tethered to market logic, while civil society can lack cohesive power. Universities, however, are unique in their potential. They are centuries-old institutions of knowledge creation, future visioning, and leadership development—yet they remain flexible enough in principle to accommodate radical innovation.

To fulfil this potential in an era of planetary crisis, higher education must transform itself. If universities function solely as repositories of knowledge, they risk irrelevance in the regenerative era. By embracing transdisciplinary research, adaptive governance, and and place-based action, universities could become prototypes of system-wide renewal—spaces that unify diverse perspectives and catalyse the evolution of social, economic, and cultural norms. The question, then, is not whether universities should change, but how they will recognise and embrace their role in shaping the world to come.

What if universities oriented their missions toward longer-term, regenerative transformation?



Adapted from Daniel C. Wahl’s ‘Designing Regenerative Cultures’ in reference to viewing the SDGs as a bridge toward longer-term regenerative development.

Toward a Regenerative Future

If the SDGs are not enough, then what comes next? The crises we face are not isolated problems to be solved—they are symptoms of deeper systemic failures. Addressing them demands more than new policies; it calls for a new paradigm. Moving from sustainability to regeneration means shifting from merely stabilising failing structures to cultivating the conditions for ecological, social, and economic renewal.

This transition requires more than incremental progress. It calls for new aims, new measures of success, and new institutional models capable of enabling transformation at every scale. Regenerative development is systemic, place-based, and participatory; it works with the complexity of living systems rather than attempting to control them.

Universities stand at the threshold of this transformation. As centres of knowledge, learning, and experimentation, they are uniquely positioned to pioneer regenerative approaches—but only if they reimagine their role as living laboratories for system-wide renewal. Doing so means becoming places where emerging paradigms are researched, prototyped, and embodied—ultimately serving as catalysts for a transition beyond mere incremental sustainability.

The pages that follow offer a Systemic Framework for University-Led Regenerative Development, envisioning how universities can steward bioregional regeneration, foster changemaker capacities, and cultivate collective intelligence. The question is no longer whether universities must adapt, but how they will lead. The answers lie in new kinds of institutions—ones that do not simply mirror the world as it is, but actively co-create the regenerative futures we need.

A Systemic Framework for University-led Regenerative Development

Stewarding Bioregional Regeneration:
Grounding Change in Place-based Realities

Fostering Changemaker Capacities:
Empowering Local Collective Action

Cultivating Collective Intelligence:
Global Networks for Local Innovation

Universities Leading Systemic Regeneration
for People, Place, and Planet

A Systemic Framework for University-led Regenerative Development

The closing words of the introduction chapter left us at a threshold—a recognition that sustainability, while necessary, is not sufficient. The question is no longer how to sustain the systems that have brought us to this point, but how to regenerate the conditions for life to thrive. If the past was about minimising harm, the future must be about actively renewing and reweaving the fabric of our world.

Universities have long positioned themselves as bastions of knowledge and innovation, but in a world where the very foundations of our ecological and social systems are destabilising, the role of higher education must evolve. The crisis is not simply about information deficits or technological shortcomings; it is about our collective inability to shift paradigms, to move beyond fragmented thinking and cultivate systemic renewal.

This chapter begins that shift. It does not offer a roadmap but a reorientation—a different way of seeing the university's role in an era of transformation.

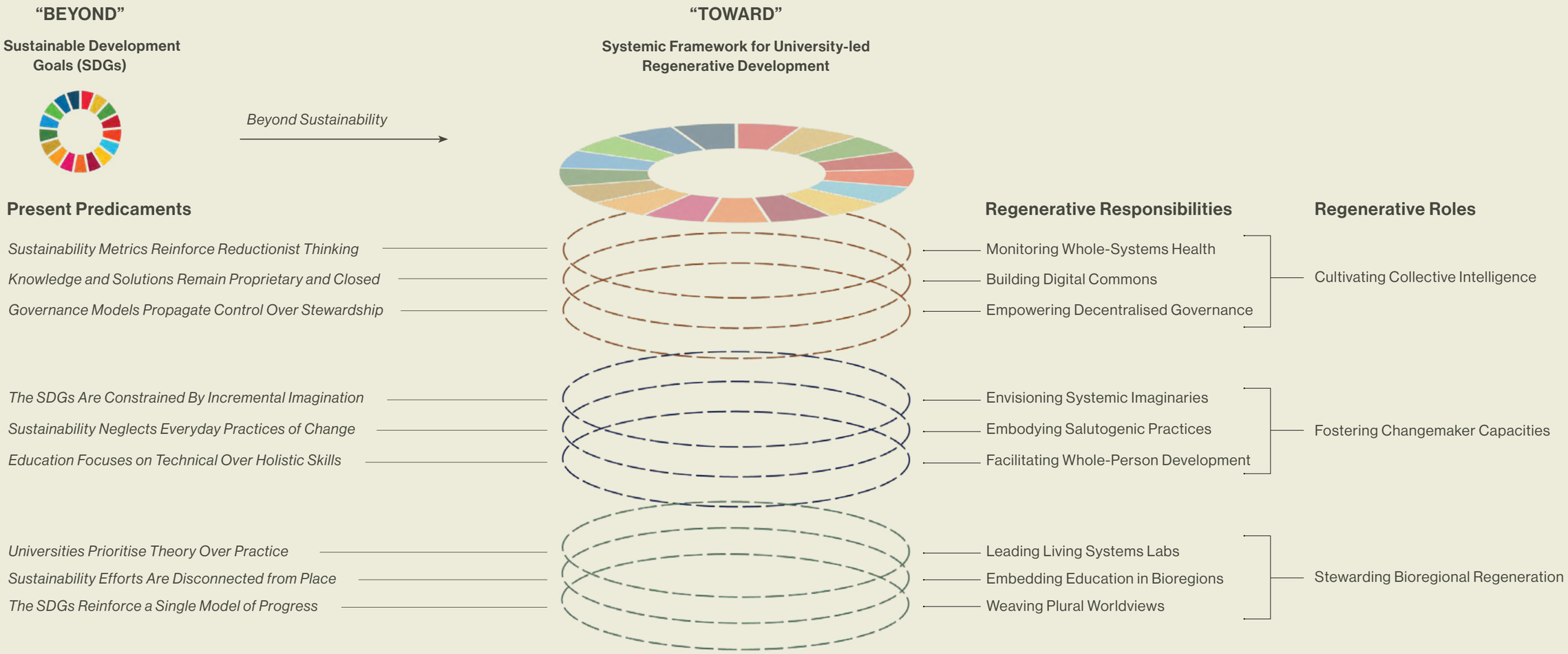
Instead of treating sustainability as a set of operational targets, we ask: How might universities become regenerative agents? How might they move from institutions of knowledge transmission to hubs of ecological and cultural restoration?

Drawing from the wisdom of living systems, this chapter introduces three interwoven pathways through which universities can transcend the limitations of sustainability: by embedding themselves within the rhythms of place, by fostering the capacities of changemakers, and by cultivating collective intelligence that links local action with planetary regeneration. These pathways are not prescriptive, but they offer a starting point—an invitation to step into new institutional identities and responsibilities.

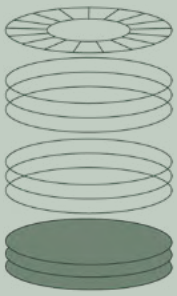
The world is already changing. The only question is whether universities will reactively change with it—or proactively step into possibility and lead the way.

A Systemic Framework for University-led Regenerative Development

The following chapter introduces a systemic framework for university-led regenerative development, responding to the present predicaments embedded in common sustainability approaches and the pursuit of the SDGs in higher education. Rather than reinforcing reductionist metrics, proprietary knowledge systems, centralised control, and incremental change, this framework advances regenerative responsibilities that reposition universities as active stewards of bioregional regeneration, cultivators of changemaker capacities, and enablers of collective intelligence. It marks a shift beyond sustainability, embedding universities in the living systems they seek to transform.



Stewarding Bioregional Regeneration: Grounding Change in Place-based Realities



1.1 Weaving Plural Worldviews

1.2 Embedding Education in Bioregions

1.3 Leading Living Systems Labs

The crises we face today are not just ecological; they are also crises of disconnection—between people and place, between knowledge and action, between the global and the local. Sustainability efforts, while well-intentioned, often treat the world as a collection of abstract problems to be solved through universal metrics, overlooking the deep entanglement of life within specific places. In doing so, they risk perpetuating a disembodied approach to transformation—one that floats above the realities of soil, water, culture, and community.

Regeneration starts with place. It asks us to step into the rhythms and relationships of the living world, to learn from the ecosystems that sustain us, and to align our ways of knowing, being, and acting with the landscapes we inhabit. Universities, as anchor institutions embedded within communities, hold the potential to become stewards of bioregional regeneration—places where the knowledge systems of academia meet the wisdom of place, where local and planetary well-being are understood as inseparable.

"We never were separate from nature and never will be, but the dominant culture on earth has long imagined itself to be apart from nature and destined one day to transcend it. We have lived in a mythology of separation."
— Charles Eisenstein

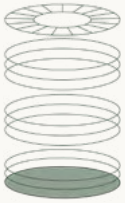
Higher education, like much of the modern world, has inherited a worldview that positions knowledge as something abstracted from place, codified in disciplines detached from the land and communities they claim to serve. The result is an education system that often produces placeless expertise—knowledge that is generalised, portable, and disconnected from the relational contexts in which real change happens.

This chapter explores how universities can reorient themselves as catalysts of bioregional regeneration. It introduces three interwoven pathways for embedding higher education within the ecological and cultural realities of place:

- **Weaving Plural Worldviews:** Facilitating shared, life-affirming values that transcend polarisation and cultivate relational ways of knowing.
- **Embedding Education in Bioregions:** Aligning university missions with the ecological and cultural dynamics of place, ensuring that learning, research, and engagement serve systemic regeneration.
- **Leading Living Systems Labs:** Transforming campuses into distributed hubs for regenerative experimentation—where new models of living, learning, and governance can be prototyped in partnership with local communities.

The absence of place-based specificity in global sustainability frameworks has led to disconnected interventions that fail to address local realities. By embedding universities within bioregional contexts, higher education can shift from abstract knowledge production to active regeneration—serving as living institutions that bridge local action with planetary well-being.

1.1 Weaving Plural Worldviews: Facilitating Shared, Life-Affirming Values



"The metacrisis says there is a spiritual crisis within the political failure to attend to myriad crises; it also says that there is an epistemic crisis in the apparent inability to see between different features of problems."
— Jonathan Rowson

The crises of our time are entangled—ecological collapse, social fragmentation, economic instability, and epistemic disarray reinforcing one another in what has been termed the metacrisis. As Zachary Stein describes, we are living in a "time between worlds", where the structures and narratives that once shaped collective coherence are crumbling, yet new paradigms remain emergent. This epistemic rupture is not a side effect of larger crises but a crisis in itself, shaping how societies perceive and respond to change. The dominant sustainability paradigms—including frameworks like the SDGs—often reinforce reductionist, technical solutions that overlook the plural, relational, and embodied knowledge systems essential for systemic renewal.

Modernity privileges reductionist progress; postmodernity critiques but struggles to offer synthesis. Pre-modern and indigenous perspectives, while profound in their wisdom, are often marginalised or romanticised. Gregory Bateson warned that "the major problems in the



world are the result of the difference between how nature works and how people think." Moreover, the industrial paradigm privileges linear progress, control, and compartmentalised knowledge, reinforcing disciplinary silos that constrain our ability to engage with interdependent, living systems. Universities, as primary institutions of knowledge production, have largely replicated these limitations, producing placeless expertise detached from the cultural and ecological realities in which real transformation must occur. Knowledge has been codified into rigid structures that fail to embrace complexity, reciprocity, and dynamism—qualities essential for navigating the metacrisis.

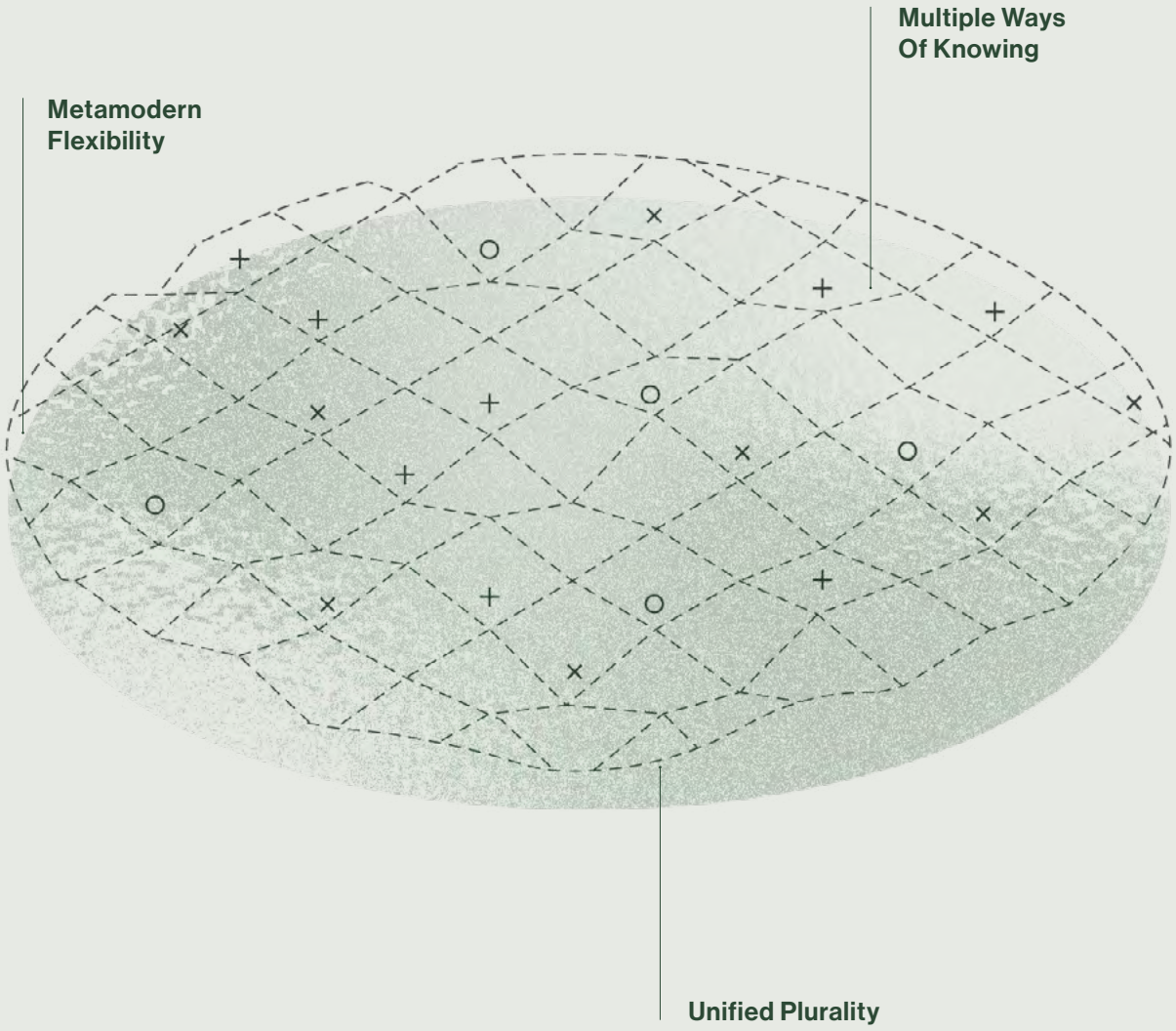
If universities are to play a transformative role, they must become sites of transdisciplinary integration, where multiple epistemologies are woven together into a coherent yet flexible framework. The pluriverse, as articulated by Arturo Escobar, provides a vital model for this shift—a recognition that multiple ways of knowing and being can coexist in reciprocal, non-hierarchical dialogue. Instead of merely incorporating diverse perspectives into existing structures, universities must cultivate epistemic humility, dismantling knowledge hierarchies and enabling scientific, indigenous, and experiential knowledge systems to interact in ways that generate new, regenerative possibilities.

Metamodernism, as articulated by Jonathan Rowson and Hanzi Freinacht, offers a framework for navigating this liminal space between the collapse of old narratives and the emergence of new worldviews. It oscillates between modernist structure, postmodern critique, and deep ecological wisdom—creating a space for coherence without stagnation. Thich Nhat Hanh's concept of interbeing reinforces this perspective, reminding us that no system exists in isolation. Knowledge must be understood as relational, embedded within ecological, cultural, and social networks—its value not in accumulation but in the ability to sustain and regenerate life.



This shift requires universities to move beyond knowledge extraction toward knowledge reciprocity, where learning is not about accumulating abstract expertise but about cultivating relational intelligence and systemic wisdom. It means transforming curricula to integrate living knowledge with academic inquiry, designing governance models that mirror the adaptive self-organisation of ecosystems, and restructuring research to prioritise co-creation with communities rather than imposing solutions upon them. It requires institutions to become curators of interwoven worldviews, where knowledge is not owned but exchanged, not static but evolving. By committing to this transformation, universities can move beyond fragmented sustainability efforts and embrace their role as catalysts of systemic regeneration—where knowledge serves life, and education becomes an evolving dialogue between worlds, fostering shared, life-affirming values that bridge perspectives toward a regenerative future.

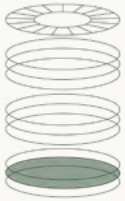
Framework Layer Overview	Envisioning a paradigm shift for universities rooted in systemic literacy, relational intelligence, and dynamic, pluralistic ways of knowing and being.
Present Issues	• Universities operate within modernist paradigms of linear progress and universalism. • Binary thinking (e.g., right vs. wrong, global vs. local) limits nuanced approaches to knowledge and action. • Curricula and research often neglect indigenous and pluralistic perspectives, failing to address the complexity of today's challenges.
Emerging Possibilities	• Universities adopt metamodern worldviews, embracing oscillation, complexity, and interconnectedness. • Knowledge systems integrate pluralistic and relational approaches to align multiple truths and perspectives. • Pedagogy and governance evolve into iterative, adaptive, and inclusive frameworks for co-creation.
Critical Uncertainties	• How might universities shift to metamodern paradigms while maintaining coherence and credibility? • What structures and incentives can embed relational and adaptive approaches into institutional systems? • Can universities maintain their current global relevance while embracing localised, contextual education and knowledge production?



FRAMEWORK LAYER 1.1

This layer of the framework grounds the importance of cultivating worldviews and values that are plural in their diversity yet unified in their alignment with living systems and regenerative principles.

1.2 Embedding Education in Bioregions: Aligning with Place-Based Realities



"To heal the Earth, we must first know our place in it." — Wendell Berry

The dominance of globalised frameworks has led to a profound disconnect between universities and the places they inhabit. As institutions have aligned themselves with international rankings, standardised curricula, and abstracted models of sustainability, they have increasingly sidelined the ecological, cultural, and social specificity of their bioregions. This detachment is more than a logistical challenge—it is a crisis of relevance. How can universities meaningfully contribute to regenerative futures if their missions, research, and pedagogies remain untethered from the landscapes and communities they exist within?



Bioregionalism offers a vital corrective to this dislocation. Unlike the static boundaries imposed by nation-states and economic regions, bioregions emerge from the living patterns of the Earth—watersheds, soils, species, and ecosystems that shape, and are shaped by, human cultures.

As Peter Berg and Raymond Dasmann describe, bioregions are not just physical terrains but "terrains of consciousness," where knowledge, memory, and practice interweave with the land. Universities, long positioned as centers of knowledge creation, must evolve into institutions that do not merely reside in place but actively participate in its regeneration. A university severed from its bioregion is not an anchor but a drifter, unable to meaningfully root its learning in the realities of the world.

For too long, the dominant sustainability paradigm has prioritised abstracted, universal solutions over contextually grounded, place-based approaches. The SDGs, while offering a necessary global framework, often fail to account for the nuances of local adaptation, leading to interventions that neglect the complexity of specific ecological and cultural contexts. The result is an education system that rewards placeless expertise—knowledge that is theoretically rigorous but experientially

detached, unable to inform the situated work of regeneration. An academic institution that overlooks its own place forfeits its ability to contribute meaningfully to the places of others.

Embedding education in bioregions is not simply an adjustment—it is a paradigmatic shift. Universities must move beyond extractive relationships with local environments and communities, where knowledge is gathered, studied, and exported elsewhere. Instead, they must cultivate deep reciprocity, where research, learning, and institutional governance are directly aligned with the regeneration of the bioregion itself. This requires rethinking the university not as an isolated campus but as a distributed learning ecosystem, enmeshed in the social and ecological networks of place. A regenerative university does not simply reside in a landscape—it learns with it, adapts to it, and co-evolves alongside it.

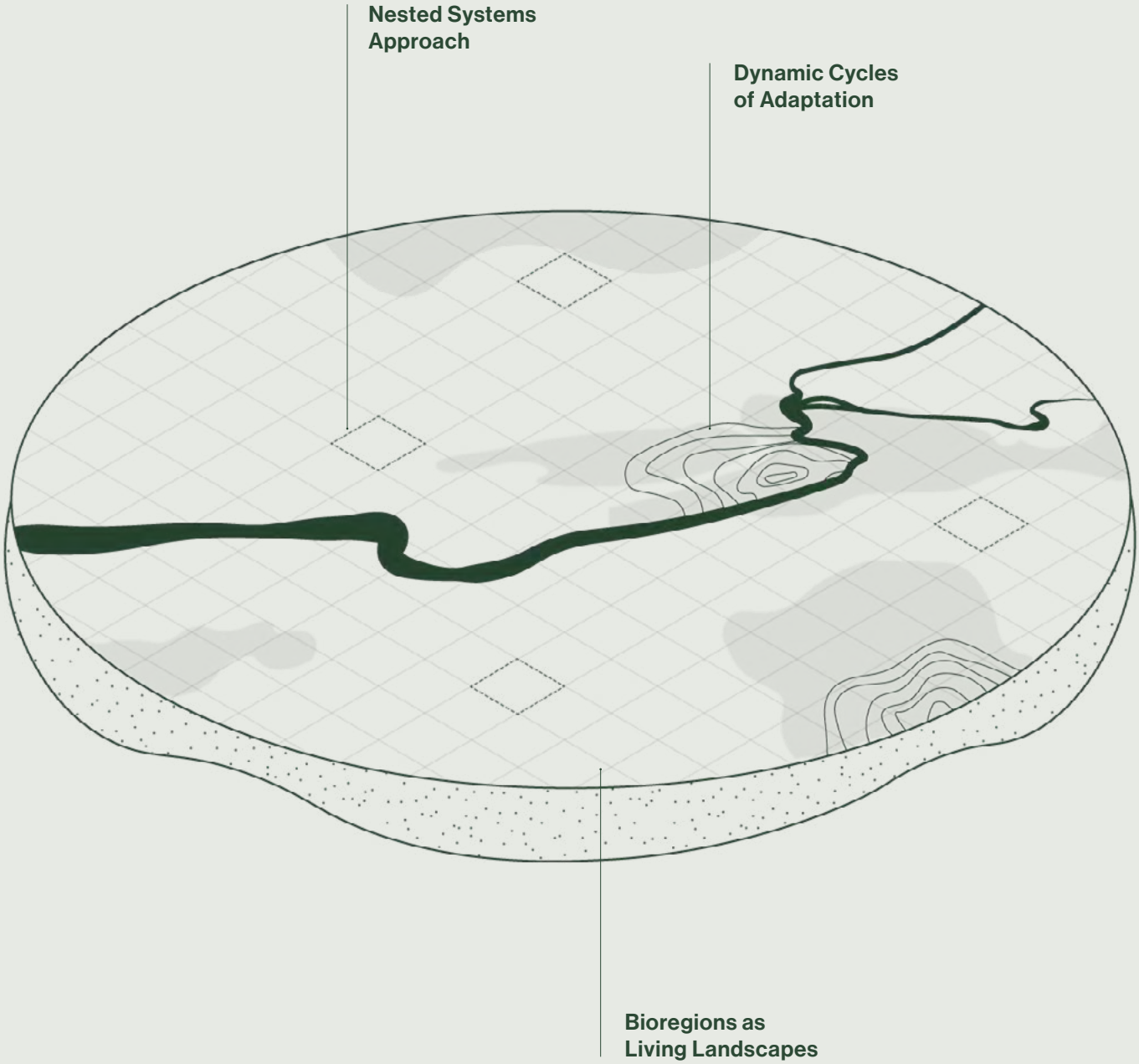
For this shift to take root, curricula must be reoriented to prioritise experiential, transdisciplinary, and participatory approaches. Learning must be embedded within landscapes, co-designed with communities, and attuned to the evolving dynamics of local ecosystems. Collaborations with Indigenous groups, community elders, and local knowledge keepers become essential, not as token inclusions but as fundamental partners in restoring reciprocal relationships with the land. Just as a forest thrives through symbiotic relationships, so too must universities cultivate mutualism with their bioregions.



Bioregional regeneration also challenges universities to rethink governance. What would it mean for decision-making structures to reflect the self-organising principles of ecosystems? How can institutions balance their participation in global networks with the necessity of deep, local rootedness? These are not hypothetical questions—they are the defining challenges for higher education in an age where global crises demand localised, adaptive responses.

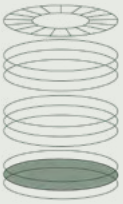
By embedding themselves in bioregions, universities can reclaim their relevance—not as detached institutions of knowledge production but as stewards of place, catalysts of local resilience, and bridges between global insights and situated wisdom. In doing so, they move beyond sustainability's limitations and into the work of regeneration—where education serves not only human societies but the living world itself. A university that roots itself in place does not simply teach about transformation—it becomes a living embodiment of it.

Framework Layer Overview	Repositioning universities as stewards of their local ecosystems and communities, integrating bioregional principles to foster ecological and social regeneration.
Present Issues	• Universities often prioritise global metrics and rankings, neglecting the ecological and social challenges specific to their local bioregions. • Physical and organisational disconnects between campuses and their surrounding ecosystems perpetuate extractive relationships with local environments and communities. • Research and education systems favour globalised, abstract frameworks, often sidelining place-based knowledge essential for contextualised solutions.
Emerging Possibilities	• Universities embrace bioregionalism as a foundational principle, embedding themselves within the ecological, cultural, and social realities of their bioregions. • Campuses expand beyond their traditional boundaries and out into the living landscapes and cultures to be found throughout the bioregion. • Research and curricula prioritise transdisciplinary and place-based approaches, bridging global insights with local ecological and social needs.
Critical Uncertainties	• How can universities balance global ambitions and partnerships with their responsibility to address the specific needs of their bioregions? • What institutional and cultural shifts are required to adopt bioregionalism as a guiding principle for governance and action? • Can universities meaningfully engage in bioregional regeneration while navigating existing economic, policy, and resource constraints?

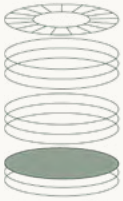


FRAMEWORK LAYER 1.2

This layer of the framework emphasises the importance of Bioregions for aligning education and action with the ecological and cultural realities of place, to catalyse university-led regeneration at local and planetary scales.



1.3 Leading Living Systems Labs: Distributed Hubs for Regenerative Experimentation



"When a complex system is far from equilibrium, small islands of coherence in a sea of chaos have the capacity to shift the entire system to a higher order."
—Ilya Prigogine

The defining challenges of our time are not merely problems to be solved but symptoms of a deeper, systemic crisis—one that resists linear interventions. The metacrisis reveals the inadequacy of fragmented responses in addressing the deeply interwoven crises of ecological degradation, social disintegration, and economic precarity. Global sustainability frameworks, such as the SDGs, attempt holistic solutions but often falter due to their reliance on static targets and top-down implementation, failing to account for the complex, adaptive nature of real-world systems.

Horst Rittel and Melvin Webber coined the term wicked problems to describe challenges that are highly complex, interconnected, and resistant to definitive solutions. Sustainability transitions are rife with such problems, where interventions often produce unintended consequences due to the nonlinear dynamics of living systems. Addressing complexity requires a shift in how universities engage with knowledge, experimentation, and governance.

Conventional research paradigms tend to isolate variables, control conditions, and seek predictable outcomes—methods ill-suited to the messy, nonlinear reality of living systems. Universities must instead embrace Living Systems Labs (LSLs), defined by Tobias Luthe as applied spaces where systemic experimentation, bioregional regeneration, and participatory governance can be prototyped in real-world contexts.

These labs function as dynamic, interdisciplinary environments that bridge theoretical inquiry with place-based, experiential learning, positioning universities as active stewards of systemic transformation rather than passive observers of change.

LSLs challenge the traditional notion of a campus as a bounded institution separate from its surroundings. Instead, they reimagine the



university as a distributed network of learning sites embedded within its bioregion. This shift reframes higher education as a co-evolutionary process, where knowledge is generated through reciprocal relationships between researchers, students, ecosystems, and communities. Rather than extracting data from a place and applying findings elsewhere, LSLs cultivate regenerative practices in situ, testing interventions in partnership with the social and ecological systems they seek to transform.

Nora Bateson's concept of warm data reinforces the need for this kind of relational learning—where knowledge is not extracted in isolation but held in context, within the evolving interdependencies of life. Gregory Bateson's foundational work on ecological thinking further underscores that understanding complex systems requires an embodied, participatory approach rather than detached, mechanistic analysis. Universities must not only teach about complexity but engage with it directly, positioning themselves as learning organisms within living systems.

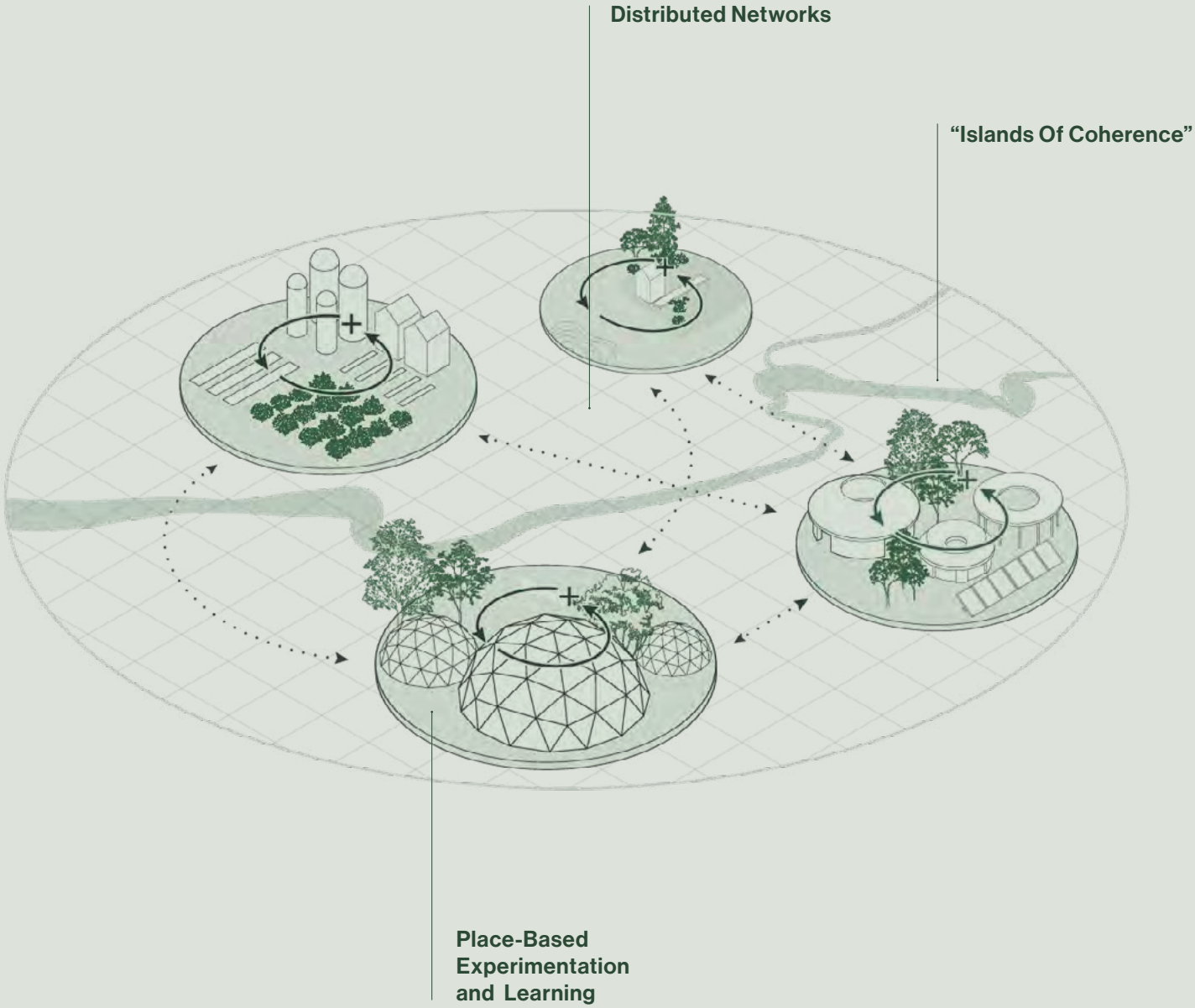
For universities to fulfil this role, they must move beyond the entrenched mindset that prioritises abstract policy frameworks over real-world application. Watershed restoration projects, regenerative agriculture initiatives, and circular economy hubs can all serve as LSLs, demonstrating how institutions can foster systemic change at multiple scales. These labs do not merely study sustainability transitions—they embody them, modeling governance structures that reflect the self-organising principles of ecosystems and fostering participatory processes that empower local actors to co-create regenerative solutions.



LSLs also serve a pedagogical function, cultivating complexity literacy in learners by immersing them in dynamic, adaptive environments. Unlike conventional classroom instruction, where problems are neatly defined and solutions pre-determined, LSLs expose students to the emergent, iterative nature of systemic change. This requires embracing failure not as a setback but as an essential part of learning. The ability to navigate uncertainty, identify feedback loops, and adapt in response to evolving conditions becomes a core educational outcome—one that is indispensable for the leaders of regenerative futures.

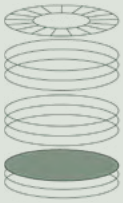
By embedding themselves within the cycles of life, universities can become catalysts of systemic renewal. Through Living Systems Labs, they move beyond the limitations of theoretical sustainability frameworks and into the realm of applied regeneration, creating the conditions for transformative change at the intersection of education, governance, and bioregional resilience. Just as ecosystems evolve through adaptive cycles of disturbance and renewal, universities must embrace their own transformation—shedding outdated institutional models to become living, learning ecosystems that shape the regenerative futures we urgently need.

Framework Layer Overview	Universities as networks of dynamic hubs for experimentation, modelling regenerative practices and whole-systems thinking to address real-world challenges.
Present Issues	• Universities often function as rigid institutions disconnected from adaptive, real-world systems. • Systems thinking and interdisciplinary approaches are underutilised in research, operations, and education. • Experimentation and applied learning are undervalued compared to theoretical outputs.
Emerging Possibilities	• Universities evolve into networks of “living systems labs,” demonstrating regenerative solutions in real-world contexts. • Governance, operations, and curricula integrate systems thinking, fostering holistic, adaptive practices. • Partnerships enable action-oriented research and teaching, connecting local contexts with global networks.
Critical Uncertainties	• How can universities support the scaling of innovations from living systems labs across bioregions and international networks? • What collaborative frameworks are required for universities to lead systemic change effectively? • Can institutions embrace experimentation and failure as integral to advancing regenerative solutions?



FRAMEWORK LAYER 1.3

This layer of the framework focuses on embedding Living Systems Labs within bioregions, where universities experiment and demonstrate regenerative practices and systemic innovations in place,



Universities as Stewards of Bioregional Regeneration

"The ultimate goal of a bioregional approach is a fractally scale-linked network of activated bioregions around the planet."
— Joe Brewer

This chapter envisions how universities can overcome the limitations of sustainable development by embedding their missions within bioregional contexts. By embodying metamodern values, systemic understanding, and the applied experimentation of living labs, universities can align their work with Earth's living systems, demonstrating care, reciprocity, and interdependence as essential principles for regenerative development.

To fulfil this role, universities must integrate these principles into governance, curricula, knowledge creation, and community partnerships. By cultivating ecological literacy, systemic thinking, and participatory research, they can empower local communities to co-create solutions that address bioregional challenges while contributing to global renewal. Place-based living labs exemplify this approach, serving as dynamic hubs for experimentation that restore relationships between people and their landscapes.

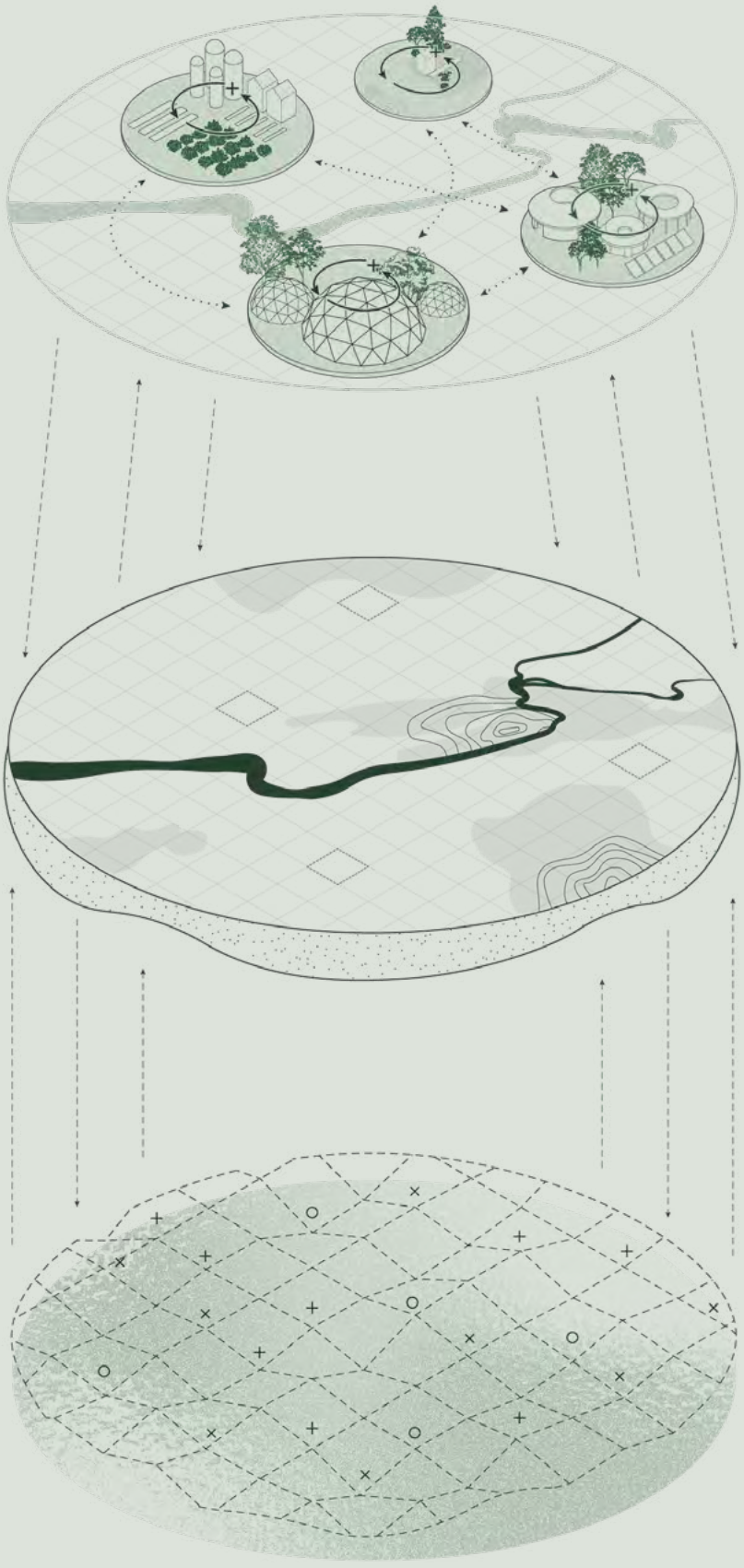
This bioregional foundation positions universities to lead in a world that demands harmony between human and natural systems. Through regenerative principles, universities can transform into agents of renewal, illuminating pathways toward thriving futures that integrate local action with planetary aspirations.

University System	Present Logic	Future Shift	Regenerative Provocation
Governance	Centralised decision-making detached from local ecosystems and community priorities.	Distributed governance rooted in bioregional and systems-based priorities, fostering collaboration and participatory decision-making.	How might universities redesign governance systems to reflect the interconnectedness of social and ecological systems?
Knowledge Creation	Research is siloed and disconnected from the needs of bioregional ecosystems and communities.	Locally grounded, transdisciplinary research addressing systemic challenges while contributing to global solutions.	What if universities prioritised bioregional knowledge creation to advance ecological and social regeneration?
Pedagogy	Curricula prioritise abstract, generalised knowledge over experiential, place-based learning.	Place-based, experiential learning models equipping students to address bioregional challenges while bridging global and local insights.	How might universities align curricula with the dynamism and complexity of their bioregions?
Community Engagement	Transactional community relationships driven by short-term institutional goals.	Universities as regenerative hubs, co-creating sustainable solutions through long-term partnerships with local communities and ecosystems.	What if universities became trusted stewards of regenerative development within their bioregions?

Leading Living Systems Labs (1.3)
Demonstrates Regenerative Impact

Embedding Action In Bioregions (1.2)
Grounds Learning Within Place

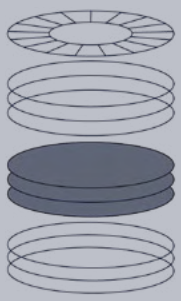
Weaving Plural Worldviews (1.1)
Sets A Foundation Of Shared Values



PATHWAY ONE

This diagram highlights the three layers of the Stewarding Bioregional Regeneration pathway, guiding universities in aligning with bioregional realities to foster systemic resilience and regeneration.

Fostering Changemaker Capacities: Empowering Local Collective Action



2.1	Facilitating Whole-Person Development
2.2	Embodying Salutogenic Practices
2.3	Envisioning Systemic Imaginaries

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has."

— Margaret Mead

The challenges of our time are not just technical; they are challenges of capacity—how individuals and communities develop the wisdom, adaptability, and agency needed to navigate transformation. Sustainability efforts often assume that education is a matter of skill-building and policy implementation, reinforcing a paradigm where knowledge is detached from the relational and systemic realities of change. The dominant educational model, rooted in industrial-era assumptions of standardisation and efficiency, has left universities ill-equipped to cultivate the deeper capacities necessary for engaging with complexity and interconnected crises.

Transformation does not emerge from knowledge alone. It requires the ability to think systemically, act collaboratively, and lead with care and responsibility. Universities have the potential to serve as incubators for these capacities, shifting from institutions of knowledge transmission to ecosystems of learning that develop relational intelligence, adaptive leadership, and systemic literacy.

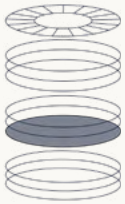
Yet, this shift remains largely unrealised. Higher education continues to prioritise technical proficiency over whole-person development, reinforcing individual achievement over collective empowerment. The result is an education system that produces professionals adept at working within existing structures but often ill-prepared to challenge, reimagine, and transform them. If universities are to contribute meaningfully to systemic change, they must cultivate environments that foster collaboration, embrace emergence, and co-create alternative pathways toward just and thriving futures.

This chapter explores how universities can embed changemaker capacities into education, expanding beyond technical expertise to cultivate the inner and collective capacities needed for systemic transformation. It introduces three interwoven pathways for reimagining higher education as a catalyst for changemaking:

- **Facilitating Whole-Person Development:** Cultivating ethical grounding, emotional resilience, and the capacity to lead transformation.
- **Embodying Salutogenic Practices:** Designing education systems that generate well-being and vitality, recognising that regeneration begins with institutions that nurture life.
- **Envisioning Systemic Imaginaries:** Harnessing the power of collective visioning and participatory sense-making to inspire and coordinate systemic action.

Approaches to the SDGs often assume that sustainability is a matter of technical solutions and institutional reform. However, systemic transformation requires a different paradigm—one that prioritises the ability to navigate complexity, build relational intelligence, and engage with the uncertainty of emergent futures. By embedding these capacities into education, universities can move beyond preparing students for predefined careers and instead empower them to shape the systems and futures in which they will live, work, and lead.

2.1 Facilitating Whole-Person Development: Cultivating Wise And Agentic Individuals



"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."
—Alvin Toffler

Education has long been shaped by industrial-era priorities—efficiency, standardisation, and economic productivity—resulting in a model that prioritises technical expertise over the deeper capacities required for systemic transformation. This paradigm, reinforced by what scholars term academic capitalism, reduces learning to measurable outputs, aligning education with short-term market demands while neglecting the broader purpose of cultivating wisdom, creativity, and systemic literacy. As Iain McGilchrist observes, this approach reflects a "hemisphere bias"—an overemphasis on analytical, reductionist thinking at the expense of relational, contextual, and creative ways of knowing.

The crises of our time demand a more expansive approach—one that fosters individuals capable of thinking relationally, acting ethically, and leading adaptively. Whole-person development offers this alternative, reimagining education as a lifelong process of self-actualisation intertwined with systemic regeneration. As Daniel Schmachtenberger articulates, the foundation of meaningful personal



development lies at the intersection of "right being, right doing, and right becoming"—integrating personal integrity with systemic responsibility. By cultivating relational intelligence and systemic awareness, learners become not just professionals, but agents of regenerative change.

Yet, mainstream education continues to reinforce fragmented learning, focusing on sectoral expertise rather than systemic literacy. Universities often teach about complex global challenges while failing to equip learners with the capacities needed to engage them meaningfully. How can institutions prepare individuals to thrive in an era of disruption if their learning models remain static, compartmentalised, and detached from real-world complexity?

To support this paradigm shift, universities must embrace self-determined and experiential learning models. Heutagogy, developed by Stewart Hase and Chris Kenyon, provides a framework for learner-directed education, where individuals design their own pathways in alignment with their evolving contexts. Life-wide learning complements this, expanding education beyond formal classrooms into diverse settings where knowledge is integrated across personal, professional, and community domains. By breaking free from rigid curricular constraints, universities can create environments where individuals engage in adaptive learning, critical inquiry, and collaborative sense-making

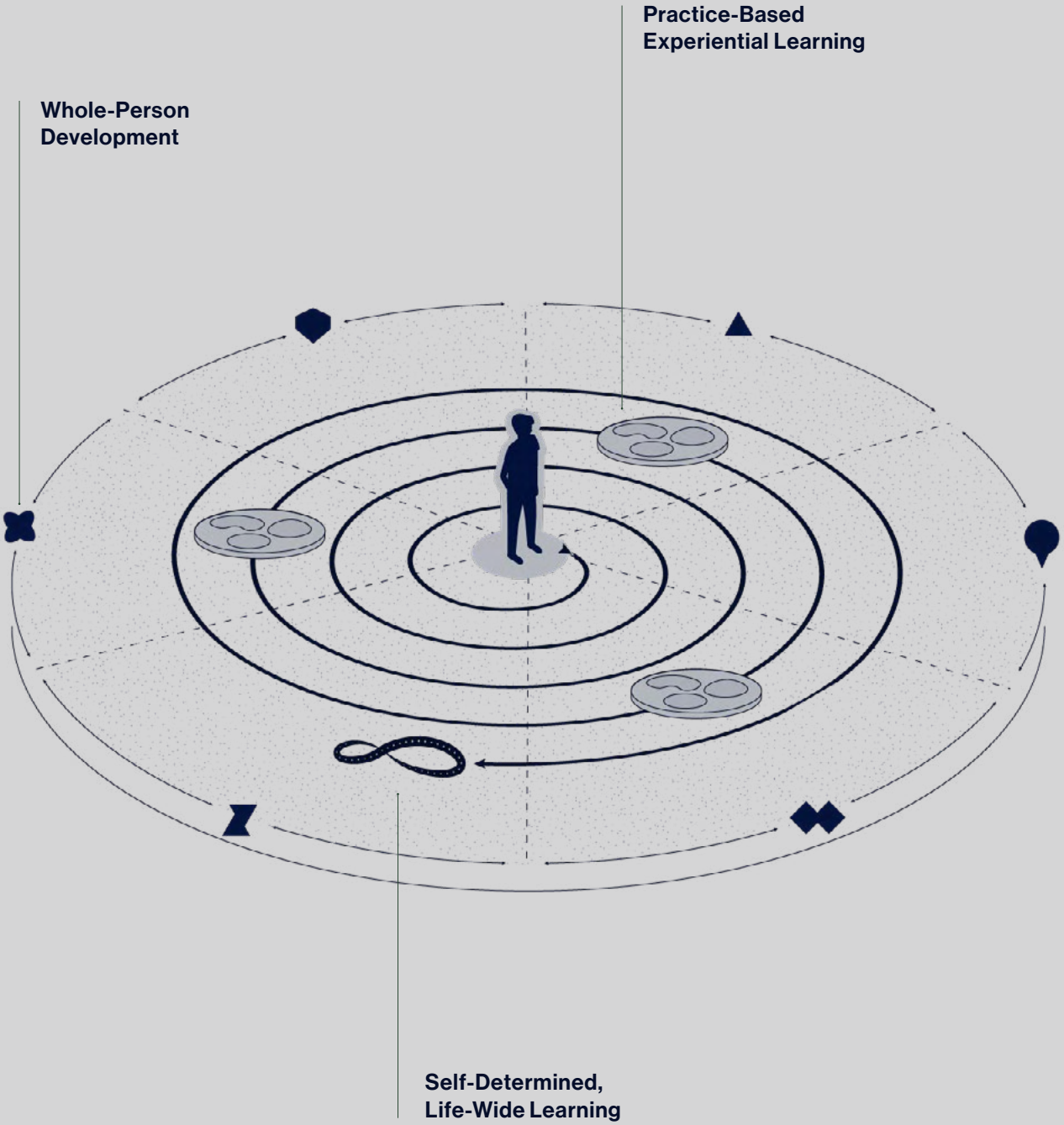
Saras Sarasvathy's concept of effectual reasoning further supports this transformation by equipping learners with the ability to navigate uncertainty and shape outcomes through iterative, resource-based problem-solving. Project-based learning initiatives—such as ecological restoration efforts or regenerative entrepreneurship—provide tangible opportunities for students to develop agency, resilience, and a sense of responsibility while bridging theory with application. These approaches align with the Inner Development Goals (IDGs) by fostering the cognitive, emotional, and relational capacities essential for navigating complexity, such as critical thinking, perspective-taking, and collaborative action. By shifting education from knowledge



acquisition to wisdom cultivation, they ensure that learners are not merely prepared for predefined roles but are equipped to create and lead in emergent contexts with the inner resilience and adaptability required for systemic transformation.

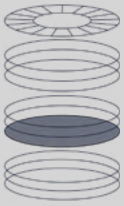
By embedding whole-person development into their missions, universities align personal growth with systemic transformation. This shift challenges institutions to move beyond market-driven logics and instead redefine success in terms of creativity, collective intelligence, and systemic wisdom. Education must no longer serve as a mechanism for sustaining outdated structures—it must become a catalyst for societal renewal, empowering individuals and communities to co-create thriving, interconnected systems. If universities fail to cultivate the capacities needed for regenerative leadership, who will?

Framework Layer Overview	Cultivating personal and systemic resilience through integrative, lifelong learning approaches.
Present Issues	• Traditional education emphasises technical skills, neglecting relational intelligence and systemic awareness. • Learners are often passive recipients of knowledge, limiting their ability to navigate complexity and uncertainty. • Educational pathways are rigid, failing to connect with diverse personal, professional, and community needs.
Emerging Possibilities	• Universities adopt self-determined and life-wide learning models, fostering creativity, agency, and adaptability. • Learning experiences integrate relational intelligence and systemic awareness, equipping learners to address complexity. • Project-based initiatives align theory with practice, enabling meaningful engagement and impact.
Critical Uncertainties	• How can universities balance structured curricula with self-determined, adaptive learning pathways? • What systems and support structures are necessary to empower learners in navigating uncertainty and complexity? • Can universities develop scalable models to integrate whole-person development into diverse educational contexts?



FRAMEWORK LAYER 2.1

This layer of the framework emphasises fostering whole-person development through integrative, self-determined learning models that cultivate personal agency, interdisciplinary knowledge, and systemic capacities.



2.2 Embodying Salutogenic Practices: Change At The Scale Of Everyday Life

"Times between worlds—liminal epochs—always involve profound educational crises."
— Zachary Stein

The crises of our time are not just structural but also deeply embedded in the way we perceive and enact change. Higher education has long approached transformation through top-down initiatives, treating sustainability as a challenge to be solved through high-level policies and technological innovation. Yet, these approaches often overlook the reality that change unfolds within the everyday actions, habits, and social norms that shape our lived experience. Without bridging the gap between high-level strategies and the rhythms of daily life, sustainability efforts risk remaining abstract, disconnected from the very communities and ecosystems they seek to serve.

As Fritjof Capra highlights, "Systems thinking is contextual, which is the opposite of analytical thinking. Analysis means taking something apart in order to understand it; systems thinking means putting it into the context of a larger whole." The entrenched mechanistic worldview in higher education reinforces fragmentation, compartmentalising knowledge and detaching it from its ecological and social context. Universities often replicate this reductionist mindset, structuring curricula and governance in ways that segment



disciplines, knowledge systems, and ways of knowing. This siloed approach limits the emergence of holistic, regenerative solutions, training students to operate within predefined systems rather than equipping them to reimagine and co-create alternatives.

The SDGs, as a global policy framework, rely on technocratic and data-driven knowledge systems, sidelining embodied, indigenous, and relational ways of knowing that are essential for systemic transformation. If knowledge remains purely conceptual, divorced from practice and lived experience, it cannot support the deep changes required for regenerative futures. Universities must therefore create learning and leadership environments centered on holistic well-being, embodied cognition, and regenerative ways of knowing, ensuring that knowledge is lived and practiced, not just intellectually understood.



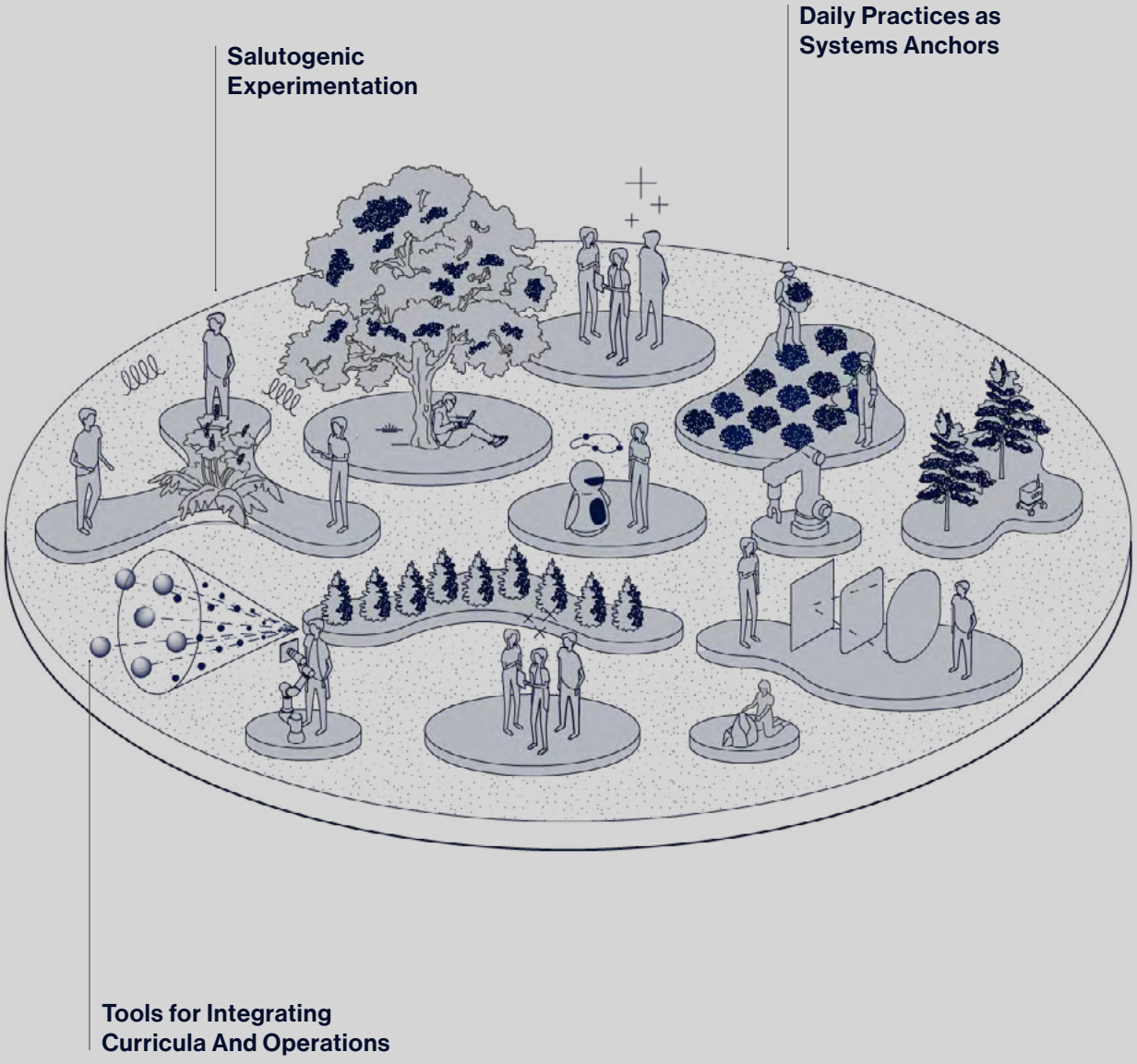
Salutogenic practices offer a shift away from this fragmentation by fostering the conditions for health, resilience, and flourishing at the scale of daily life. Rooted in Aaron Antonovsky's concept of salutogenesis—the study of factors that generate well-being rather than merely prevent disease—this perspective challenges universities to reframe learning environments, governance models, and community relationships as interconnected systems of care. It means designing institutions that not only teach sustainability but actively embody regenerative principles in their physical, social, and organisational structures.

Elizabeth Shove's social practice theory further reinforces this approach, highlighting how practices are co-produced through the interaction of cultural norms, material infrastructures, and shared meaning. Small shifts in practice—such as prioritising active mobility over car-centric commuting—do more than reduce emissions; they reshape social behaviour, infrastructure design, and cultural values in ways that ripple outward into systemic transformation. Universities, as key sites of social reproduction, have the opportunity to model and normalise regenerative ways of living by embedding salutogenic principles into campus life, governance structures, and institutional priorities.

To catalyse this shift, universities must serve as living laboratories for applied transformation, where regenerative behaviours and systemic change strategies can be prototyped, tested, and refined. Living Systems Labs—as introduced in the Stewarding Bioregional Regeneration chapter—offer a platform for experimentation, enabling students, faculty, and local communities to co-create solutions that integrate sustainability into the fabric of everyday experience. Ezio Manzini's work on design for social innovation underscores the power of such experimentation, demonstrating how small-scale initiatives can inspire widespread adoption of regenerative practices by making them tangible, accessible, and culturally embedded.

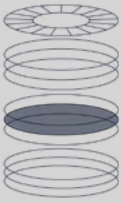
By moving beyond theoretical sustainability goals and embedding salutogenic practices into the core of institutional life, universities can bridge the divide between policy and practice, abstraction and embodiment. This shift is not merely an intellectual exercise; it is a lived commitment to fostering well-being, resilience, and regenerative cultures at every scale. If universities continue to operate as detached knowledge institutions rather than active participants in the creation of new, life-affirming systems, they risk reinforcing the very crises they aim to solve. The challenge ahead is clear: will universities choose to be platforms for 'living the questions' of regenerative transformation, or will they perpetuate the practices of an increasingly outdated paradigm?

Framework Layer Overview	Grounding systemic transformation in salutogenic social practices that foster health, resilience, and thriving communities.
Present Issues	• Top-down development models often fail to account for cultural and bioregional specificities, limiting their effectiveness. • Everyday practices are disconnected from ecological and social systems, reducing their regenerative potential. • Universities struggle to integrate salutogenic principles into their operations, curricula, and partnerships.
Emerging Possibilities	• Universities evolve into hubs of salutogenic experimentation, fostering systemic health and resilience. • Living labs support communities in prototyping and scaling salutogenic practices tailored to local and bioregional contexts. • Collaborative initiatives embed salutogenic principles into curricula, research, and community partnerships, aligning everyday actions with regenerative systems.
Critical Uncertainties	• How can universities foster scalable salutogenic practices that address systemic challenges? • What partnerships and resources are required to expand salutogenic experimentation across regions? • Can universities reconcile global ambitions with the need for locally adapted, salutogenic approaches?

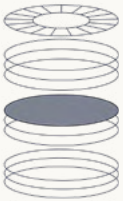


FRAMEWORK LAYER 2.2

This layer of the framework illustrates how salutogenic social practices embed systemic transformation into daily life, fostering health, resilience, and thriving communities through culturally and bioregionally grounded experimentation.



2.3 Envisioning Systemic Imaginaries: Shared Visions for Thriving Futures



"Our species is misnamed. Though sapiens defines human beings as wise, what humans do especially well is to prospect the future. We are homo prospectus."
— Martin E.P. Seligman

The ability to imagine regenerative futures is foundational to systemic transformation. Yet, the dominant sustainability paradigm remains constrained by incrementalism, reinforcing short-term planning and limiting the capacity to envision and enact transformative change. Universities, as institutions responsible for shaping worldviews, must equip students, leaders, and communities with the tools to break free from inherited constraints and cultivate the imagination necessary to co-create futures beyond the limits of present systems.



Institutional inertia, however, presents a formidable barrier. As systems thinker Donella Meadows highlights, deep change requires shifting the paradigms that underpin institutions, not just adjusting surface-level policies.

Yet, universities remain tethered to structures that prioritise short-term metrics—graduate employability, research funding, and institutional rankings—rather than long-term resilience and social transformation. Disciplinary silos, economic dependencies, and governance models designed for stability rather than adaptability reinforce an institutional inertia that stifles the emergence of regenerative futures thinking within higher education.

Joseph Voros' futures cone conceptualises a spectrum of possible futures—from probable to preferable—yet many sustainability efforts remain fixated on maintaining existing trajectories rather than exploring radically different alternatives. As Jabe Bloom argues, this failure to engage with our collective imagination limits our capacity to step into what he terms the "ideal present"— the future we could inhabit if we acted with foresight today. Building on Fred Polak's insight that "images of the future" shape the course of civilisation, this underscores an urgent reality: in the absence of compelling visions, the future unfolds by default rather than by design.

To expand the collective capacity to imagine thriving futures, universities must foster a culture of futures literacy, participatory foresight, and speculative design. Social imaginaries, as described by Charles Taylor, shape cultural blueprints, embedding aspirations into collective consciousness and guiding action. Arjun Appadurai's "capacity to aspire" further highlights how imagination is not merely an abstract exercise but a navigational tool, particularly for communities historically marginalised from shaping dominant visions of the future. If universities fail to nurture this capacity, they risk reinforcing the very systems they seek to transform.

Emerging methodologies in futures-thinking provide practical avenues for embedding these imaginaries into education. Sohail Inayatullah's scenario planning and Stuart Candy's experiential futures enable communities to prototype multiple pathways, making the future tangible and actionable. Susan Leigh Star's notion of boundary objects—such as gigamaps, design fictions, and rich picture diagrams—facilitate dialogue across disciplines, ensuring that diverse perspectives inform the co-creation of regenerative futures. Speculative design, pioneered by Dunne and Raby, challenges dominant assumptions, using design as a medium to materialise alternative possibilities.

Building on these approaches, 'strategic worldbuilding' is emerging as a systems-oriented futures method that extends beyond traditional scenario development and foresight processes. Rather than focusing solely on forecasting or backcasting, this approach integrates strategic design and creative worldbuilding to craft rich, systemic imaginaries that articulate the deeper dynamics of multi-level transformation.



This emerging discipline draws from transition design practices such as multi-level perspective mapping, which situates transitions within landscape, regime, and niche scales, and scale-linking scenario development, which explores the nested interactions between local, regional, and planetary shifts. By synthesising speculative foresight with dynamic, scale-sensitive frameworks, it fosters a multi-perspectival understanding of emergent possibilities, enabling stakeholders to co-create futures that are not just plausible but deeply situated within the complexities of socio-technical and ecological transformation.

If the future is, as H.G. Wells warned, a race between catastrophe and education, then universities must rise to the challenge—not as passive observers but as architects of possibility. By embedding the practices of futures literacy, participatory foresight, and systemic imagination into their core missions, they can move beyond sustaining existing paradigms and begin to actively shape the thriving futures the world so urgently needs.

Framework Layer Overview

Inspiring regenerative futures through imaginative thinking and shared cultural narratives that empower collective transformation.

Present Issues

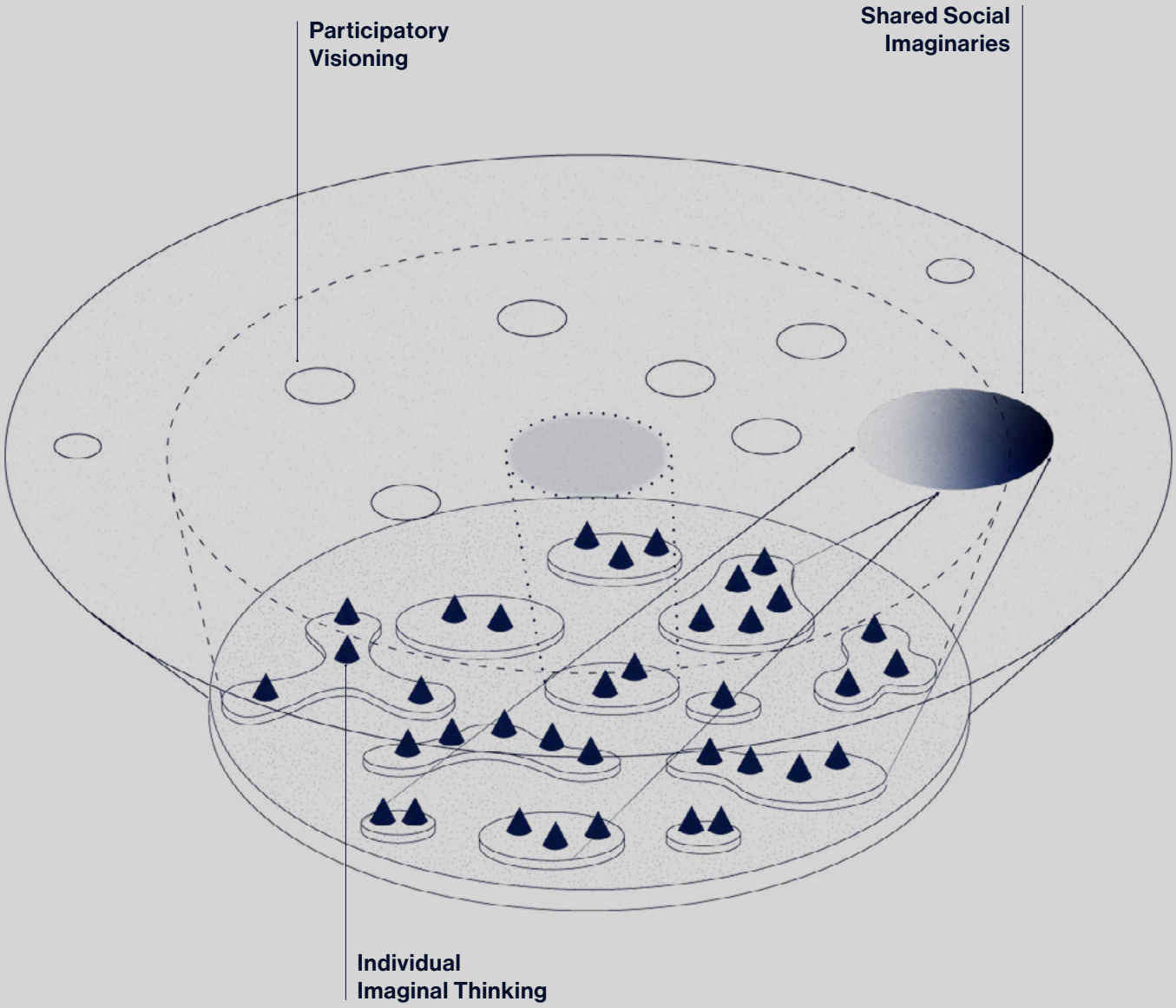
- Dominance of sustainability paradigms that reinforce existing trajectories, restricting imagination.
- Limited access to futures-thinking tools and frameworks for diverse communities.
- Institutional inertia prioritising immediate goals over long-term visionary practices.

Emerging Possibilities

- Participatory workshops and speculative design initiatives as platforms for exploring alternative futures.
- Shared narratives integrating regenerative aspirations into cultural consciousness.
- Futures-thinking methodologies fostering collective creativity and capacity to navigate systemic challenges.

Critical Uncertainties

- How can universities bridge local contextual narratives with global coherence to foster collective transformation?
- What resources and partnerships are needed to embed futures-thinking across diverse communities?
- Can universities adapt to prioritise long-term vision over short-term institutional inertia?



FRAMEWORK LAYER 2.3

This layer of the framework highlights the importance of fostering systemic imaginaries and shared cultural narratives that inspire regenerative futures.



Universities as Cultivators of Changemaker Capacities

“The future enters into us, in order to transform itself in us, long before it happens.”

— Rainier Maria Rilke

This chapter has shown how universities can embed Changemaker Capacities into their missions to drive systemic regeneration. By fostering whole-person development, embedding salutogenic practices into daily life, and cultivating systemic imaginaries, universities empower communities to bridge local transformation with planetary aspirations.

To fulfil this role, universities must integrate these principles into governance, curricula, and community partnerships. Living systems labs exemplify this approach, serving as dynamic hubs for experimentation and innovation where communities co-create solutions grounded in care, reciprocity, and regeneration.

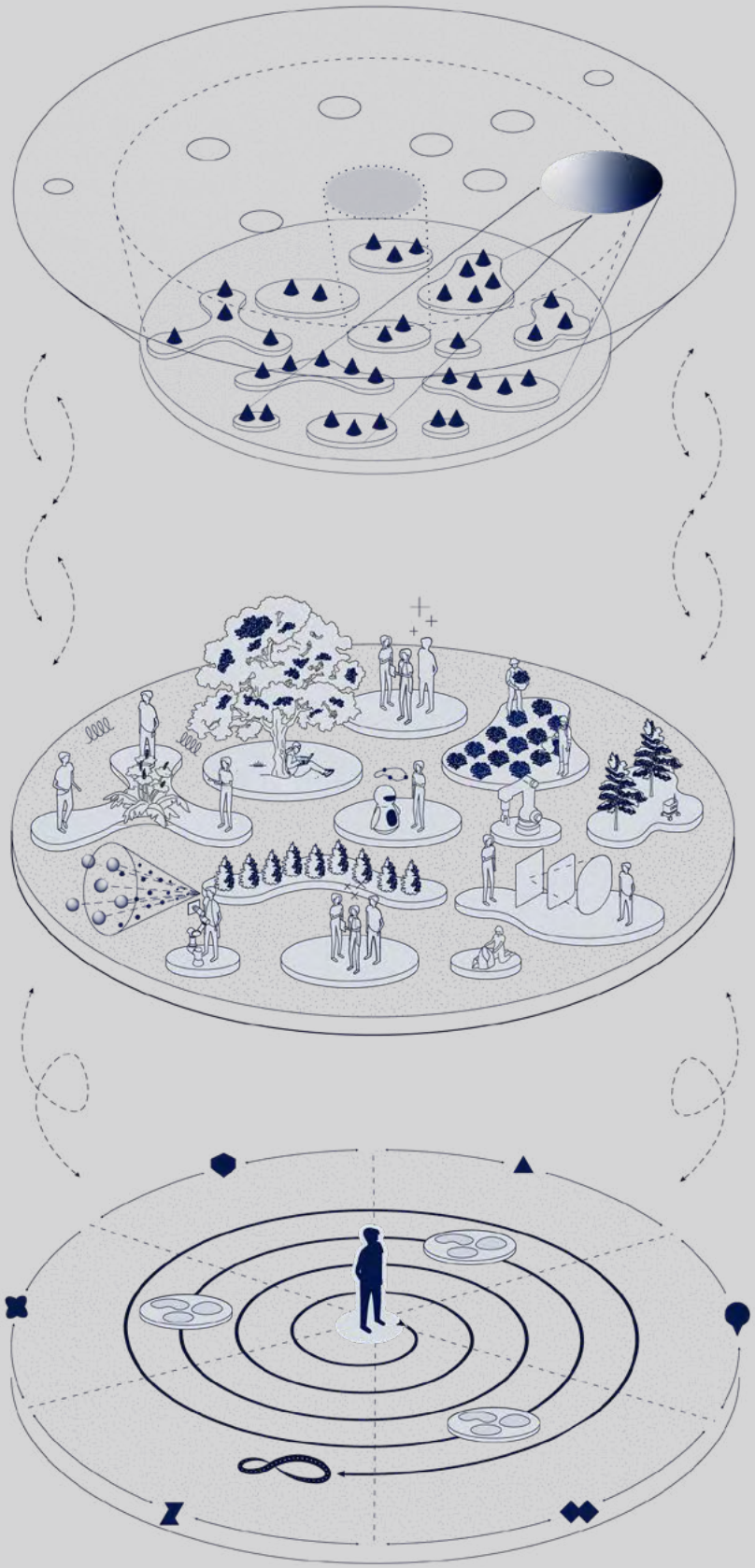
This changemaker foundation positions universities as catalysts for a world that demands collective resilience and creativity, illuminating pathways for individuals and communities to co-create regenerative futures defined by flourishing systems and shared purpose.

University System	Present Logic	Future Shift	Regenerative Provocation
Governance	Decision-making structures prioritise efficiency over inclusivity and relational intelligence.	Collaborative governance models that foster participatory decision-making and relational accountability.	How can universities design governance systems that empower communities as co-creators of regenerative futures?
Knowledge Creation	Research often focuses on disciplinary silos, neglecting systemic and community-oriented approaches.	Transdisciplinary and community-embedded research addressing local and global challenges.	What if universities prioritised knowledge co-creation with communities to align research with regenerative goals?
Pedagogy	Curricula emphasise technical competencies over holistic, transformative, and experiential learning experiences.	Educational models integrating experiential, systemic, and relational learning to cultivate changemaker capacities.	How might universities redesign pedagogy to cultivate changemaker capacities for systemic regeneration?
Community Engagement	Engagement often remains transactional, focused on meeting short-term institutional metrics rather than fostering reciprocal relationships.	Deep, reciprocal partnerships fostering mutual learning, shared responsibility, and alignment with community aspirations.	What if universities became trusted stewards of regenerative change, embedding themselves in the cultural and ecological fabric of their communities?

Envisioining Shared Imaginaries (2.3)
Shaping Local Visions Of The Future

Embodying Salutogenic Practices (2.2)
Grounding Transformation In Daily Life

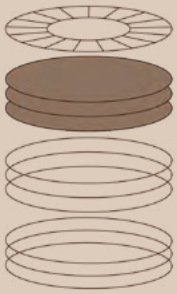
Facilitating Whole-Person Development (2.1)
Aligns Individual Growth With Systemic Transformation



PATHWAY TWO

This diagram highlights the three layers of the Fostering Changemaker Capacities pathway, guiding universities in fostering individuals and communities capable of leading place-based, regenerative development.

Cultivating Collective Intelligence: Global Networks for Local Innovation



3.1	Empowering Decentralised Governance
3.2	Building Digital Commons
3.3	Monitoring Whole-Systems Health

The crises of our time demand solutions that are both globally coordinated and locally responsive. Yet, dominant governance and knowledge systems struggle to balance these scales. Global frameworks, such as the SDGs, depend on centralised institutions and proprietary knowledge systems, making them slow, siloed, and disconnected from the emergent, adaptive problem-solving that thrives in decentralised networks. Meanwhile, hyper-localised initiatives, while effective within their contexts, often lack the scalability and connectivity needed to contribute to planetary impact. The challenge is not simply choosing between global coordination and local empowerment—it is learning how to weave them together.

Systemic transformation does not arise from isolated interventions but from understanding the relationships between local contexts and planetary frameworks. Universities, as institutions of knowledge generation and societal learning, have the potential to cultivate this capacity by reimagining themselves as open, adaptive, and intelligence-driven systems. Rather than reinforcing siloed expertise and rigid hierarchies, they must enable collective intelligence—mobilising decentralised networks, open knowledge commons, and whole-systems health monitoring to realign governance models for systemic innovation.

"The Earth is what we all have in common."

— Wendell Berry

This chapter explores how universities can bridge the gap between local ingenuity and global collaboration by fostering collective intelligence as a driver of systemic renewal. It introduces three interwoven pathways for positioning higher education as a catalyst for intelligence-sharing, decentralised governance, and planetary-scale coordination:

- **Empowering Decentralised Governance:** Transforming universities into adaptive governance hubs where intelligence flows across scales, enabling communities to self-organise in response to complex challenges.
- **Building Digital Commons:** Creating shared repositories of knowledge and digital tools that foster collaboration beyond institutional boundaries.
- **Monitoring Whole-Systems Health:** Developing dynamic feedback loops that integrate ecological, social, and technological data to inform regenerative decision-making at all levels.

Overcoming the SDGs' reliance on centralised institutions and fragmented knowledge systems requires universities to mobilise collective intelligence and cultivate new governance architectures that are open, distributed, and responsive. By embedding these practices into their structures, universities can evolve from static knowledge repositories into living intelligence networks—aligning local agency with planetary well-being, and ensuring that learning systems serve as catalysts for systemic innovation and renewal.

3.1 Empowering Decentralised Governance: Aligning Decision-Making with Place-Sourced Intelligence



"The gift economy represents a shift from consumption to contribution, transaction to trust, scarcity to abundance, and isolation to community."
— Charles Eisenstein

The crises of our time reveal the fundamental inadequacy of incremental sustainability. As Daniel C. Wahl observes, conventional sustainability efforts often prioritise harm reduction without questioning the deeper extractive and inequitable logics driving systemic collapse. Universities and institutions, structured around centralised governance and rigid hierarchies, struggle to respond to the scale of transformation required. To move beyond sustainability's maintenance mindset, we must embed governance within the broader, living patterns of regenerative systems—ones that catalyse cycles of renewal, adaptability, and thriving.

Decentralised governance offers a pathway toward systemic regeneration by aligning decision-making with bioregional priorities, ecological rhythms, and community well-being. Unlike centralised governance models that impose solutions from the top down, decentralised systems distribute agency to those closest to the context, ensuring governance structures remain adaptive,



participatory, and locally responsive. This shift is grounded in the principle of subsidiarity, which advocates for decision-making at the most local level capable of addressing a challenge effectively. For example, Elinor Ostrom's polycentric governance provides a crucial framework for decentralised systems, demonstrating how multiple, overlapping centres of decision-making foster collaboration, adaptability, and resilience across scales.

These systems contrast sharply with the bureaucratic and siloed structures embedded in current approaches to the SDGs, which often make governance slow, inflexible, and resistant to adaptive change. By moving toward polycentric governance, universities can act as facilitators of distributed coordination, enabling communities to self-organise through networked collaboration rather than hierarchical control.

Emerging regenerative finance models support this transition by leveraging decentralised tools such as blockchain and community-driven funding initiatives. Platforms like SEEDS and Regen Network illustrate how decentralised economic systems can incentivise ecological stewardship while distributing resources equitably to local communities. These models challenge the top-down distribution of wealth and power, ensuring that governance is not only participatory but also financially sustainable.

Coordination within decentralised systems often follows the principle of stigmergy—a form of indirect coordination observed in ecosystems, where shared environmental cues guide collective action. Stigmergic collaboration enables communities to self-organise, respond to feedback loops, and adapt dynamically to emerging challenges. Universities, as institutions designed for knowledge exchange, have the potential to act as hubs for stigmergic coordination, where governance experiments and participatory decision-making models are prototyped, tested, and refined.

Emerging forms of more-than-human organising are reshaping governance, granting agency and self-authorship to ecological systems and public goods. Decentralised Autonomous Organisations (DAOs) and agentic AI enable ecosystems to self-organise within broader social systems, distributing governance across hybrid networks of humans, artificial agents, and ecological intelligences. Concepts like Ecological Institutions, as envisioned by Regen Foundation, use decentralised protocols and smart contracts to facilitate autonomous and convivial ecological governance. These structures allow forests, watersheds, and biodiversity corridors to act as self-determined stewards rather than managed resources. By embedding planetary intelligence into decentralised systems,



these innovations reframe governance as a symbiotic, participatory process, where ecological and technological agents co-author the rules of collective flourishing.

Gregory Landua's Eight Forms of Capital provides a lens through which universities can expand their metrics of success, integrating social, natural, and intellectual wealth into their institutional priorities. Moving beyond traditional measures of prestige and economic output, universities can model governance systems that reflect ecological and community priorities, advancing both local and global resilience.

By shifting toward decentralised, participatory governance, universities can transition from static institutions of knowledge transmission to dynamic facilitators of regenerative transformation. This is not merely an administrative shift—it is a radical reimagining of how governance functions at every level, aligning human decision-making with the intelligence of living systems. If universities fail to cultivate decentralised, place-sourced governance models, they risk perpetuating the very crises they aim to address. The question remains: Will universities seize their potential as facilitators of decentralised transformation, or remain locked in outdated systems that inhibit adaptive, regenerative change?

Framework Layer Overview

Reimagining governance and financial systems to harmonise human activity with ecological and social well-being.

Present Issues

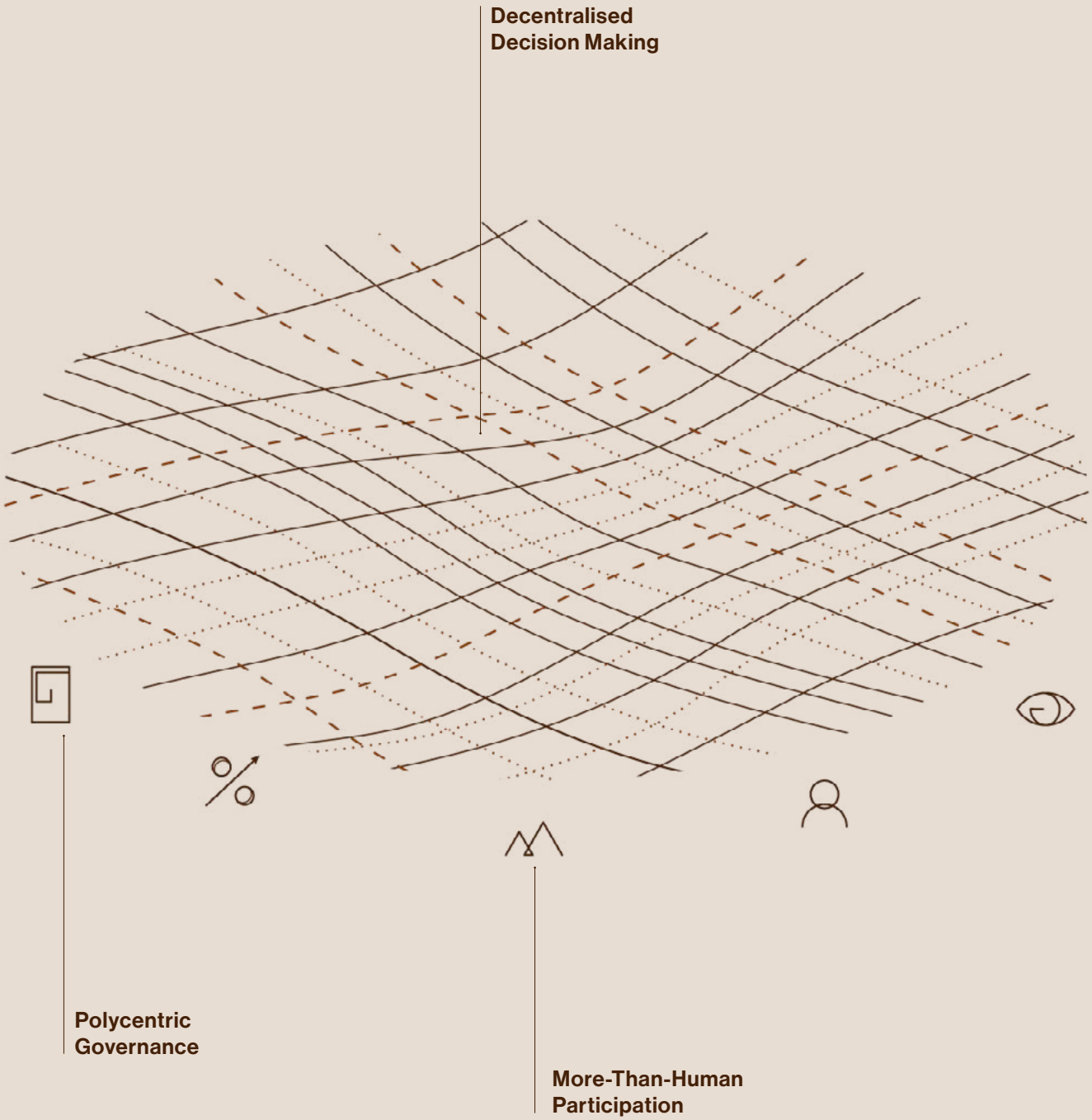
- Centralised governance systems often fail to address local needs or align with ecological dynamics.
- Financial systems prioritise extractive growth over equity and regenerative practices.
- Universities lack the frameworks to model decentralised governance or participatory coordination effectively.

Emerging Possibilities

- Decentralised governance models enable participatory decision-making aligned with ecological and bioregional priorities.
- Regenerative finance tools promote equitable resource distribution and incentivise sustainable practices.
- Universities function as experimental hubs for governance and financial innovation, advancing systemic resilience.

Critical Uncertainties

- How can universities overcome resistance to decentralised governance systems?
- What mechanisms can balance local autonomy with global networks and collaboration?
- Can regenerative finance models address systemic inequalities while scaling their impact?



FRAMEWORK LAYER 3.1

This layer of the framework illustrates decentralised governance and financial systems as essential mechanisms for aligning local actions with ecological and social well-being.



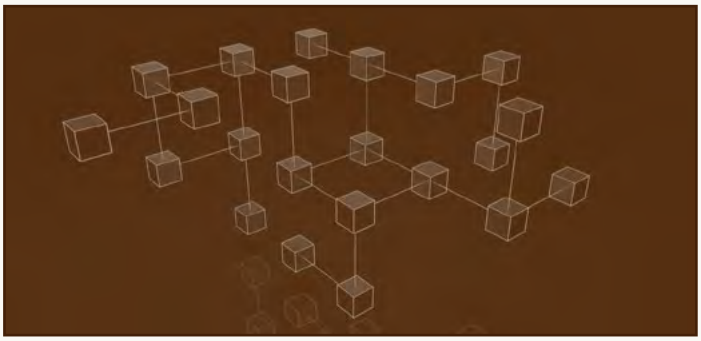
3.2 Building Digital Commons: Creating Regenerative Public Goods



"The future will be about creating open commons, shared resources where mutual flourishing becomes the rule."
— Michel Bauwens

The dominant knowledge systems of higher education remain enclosed, proprietary, and extractive, limiting the creation of open knowledge commons that can serve as public goods. Universities, as sites of knowledge production, often reinforce this scarcity by prioritising intellectual property regimes, competitive funding structures, and institutional prestige over open collaboration and shared learning. As a result, critical sustainability and regenerative knowledge remain fragmented and difficult to mobilise, preventing the kind of collective intelligence and mutual stewardship required for systemic transformation. Rather than being treated as privatised assets, knowledge, data, and digital infrastructures must be reimagined as commons—shared, open, and co-governed by diverse stakeholders for collective benefit.

The SDGs, while advocating for global sustainability, remain constrained by their reliance on centralised knowledge infrastructures and closed research ecosystems, making them slow, exclusionary, and disconnected from emerging intelligence networks. The challenge is not just expanding



access but shifting towards participatory knowledge ecosystems, where shared digital commons enable real-time collaboration, collective sensemaking, and public problem-solving. Digital public goods—such as open-source research, interoperable data systems, and community-driven platforms—are essential for embedding regenerative intelligence into knowledge infrastructures, ensuring that solutions to planetary crises are co-created, openly accessible, and continuously evolving through collective stewardship.

Expanding open knowledge networks is essential for shifting higher education from static repositories of information to dynamic ecosystems of shared intelligence. Digital commons—platforms for open-access research, decentralised collaboration, and participatory knowledge production—offer an alternative model that aligns learning with collective intelligence, shared governance, and systemic regeneration. These commons function as adaptive knowledge infrastructures, integrating diverse perspectives and ensuring that knowledge flows freely between

institutions, practitioners, and communities at multiple scales.

Emerging technologies amplify the potential of digital commons. Blockchain-enabled knowledge ledgers ensure transparency, provenance, and decentralised trust in shared research, while AI-powered analytics facilitate pattern recognition across global sustainability challenges. For example, AI-driven monitoring of peatland restoration in Ireland can generate insights applicable to smallholder farming in Ethiopia, demonstrating how digital commons accelerate cross-context learning and adaptation.

However, digital commons are not solely technological infrastructures—they require a cultural shift towards accessibility, inclusivity, and co-creation. As Ivan Illich emphasises, tools must empower communities to act autonomously rather than reinforce centralised control. Universities must translate this principle into practice by ensuring open-source learning infrastructures, inter-university knowledge commons, and globally networked regenerative learning ecosystems.

These models democratise knowledge production, allowing historically marginalised perspectives to shape the epistemic frameworks of the future. Addressing the institutional inertia of higher education is crucial for enabling this shift. As Donella Meadows observes, transformative change requires shifting the paradigms that underpin institutions, not just modifying surface-level policies. Universities must move beyond short-term institutional incentives,



proprietary research models, and competitive knowledge economies toward frameworks that prioritise collaborative intelligence, systemic literacy, and long-term resilience.

To build a resilient and regenerative future, universities must transcend proprietary models and competitive knowledge production to become stewards of the digital commons, fostering ecosystems where knowledge, data, and digital infrastructures are shared as public goods for collective well-being. This requires embracing open collaboration, participatory knowledge networks, and community-led innovation, enabling real-time problem-solving across interconnected crises. By embedding commons-based approaches at the heart of their mission, universities can play a vital role in cultivating collective intelligence that is responsive, inclusive, and regenerative. The question remains: Are universities ready to reimagine their role—not as gatekeepers of knowledge but as co-creators and stewards of global public goods for the common good?

Framework Layer Overview

Creating inclusive and collaborative platforms to foster the exchange of regenerative knowledge and innovation.

Present Issues

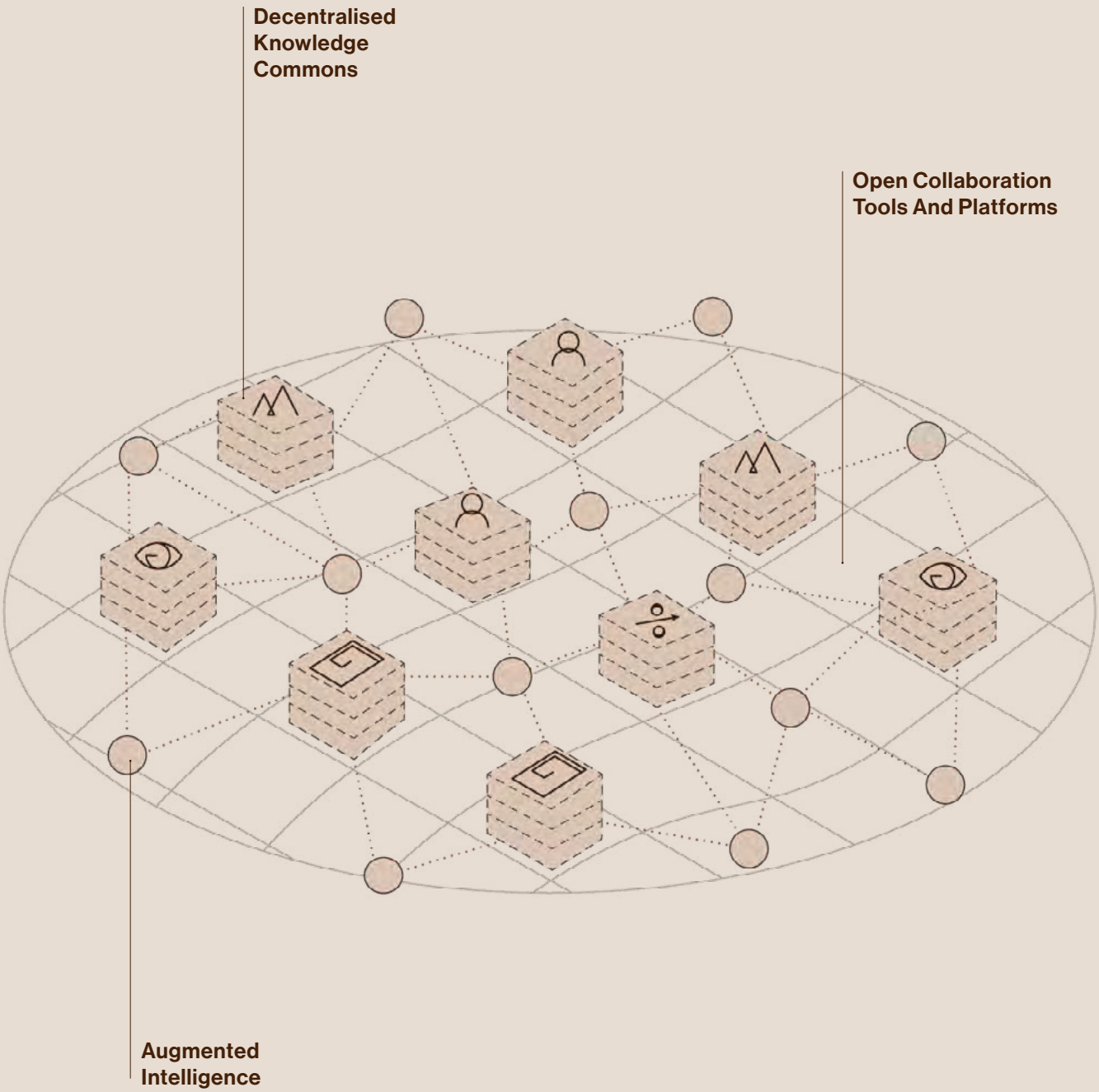
- Knowledge systems remain siloed and proprietary, limiting transformative progress.
- Universities lack the digital infrastructure needed for inclusive and collaborative knowledge sharing.
- Local innovations often struggle to integrate with global frameworks, reducing their systemic impact.

Emerging Possibilities

- Digital commons amplify collaboration and accelerate the exchange of regenerative practices.
- Universities establish decentralised digital platforms that connect local innovation with global goals.
- Emerging technologies enable transparency, scalability, and adaptive feedback loops for knowledge systems.

Critical Uncertainties

- How can universities balance inclusivity and scalability within digital commons?
- What governance mechanisms are necessary to ensure accountability and fairness in open platforms?
- Can digital commons effectively scale global frameworks while preserving local relevance and cultural diversity?



FRAMEWORK LAYER 3.2

This layer of the framework highlights the importance of creating decentralised, inclusive platforms that connect local innovation with global knowledge systems.



3.3 Monitoring Whole-Systems Health: Measuring the Dynamics of Thriving Systems



"What we measure affects what we do. If we have the wrong metrics, we will strive for the wrong things."
— Joseph Stiglitz

The dominant approaches to measuring sustainability prioritise fixed, reductionist metrics—such as carbon offsets or GDP-based growth models—that focus on isolated improvements while ignoring systemic interdependencies that emphasise quantifiable outputs—emissions reductions, efficiency improvements, and compliance benchmarks—while neglecting the deeper relational dynamics that sustain systemic health. As Carol Sanford argues, "True innovation comes from reaching for the potential in something: its possible manifestations that don't yet exist." Yet, mainstream sustainability frameworks, including the SDGs, often focus on stabilising existing systems rather than reimagining what must be sustained. This limits their ability to guide systemic renewal, reinforcing a compliance-driven mindset rather than fostering transformation.

Whole-systems health metrics offer an alternative by shifting the focus from static, outcome-driven measures to adaptive, relational indicators that reflect the complexity of living systems. Rather than assessing sustainability in isolation, these metrics examine the processes



that enable life to thrive, capturing qualities such as resilience, adaptability, and alignment with planetary health. Johan Rockström's Planetary Boundaries framework highlights how local ecological actions connect to global systemic thresholds, demonstrating the necessity of metrics that bridge place-based insights with planetary imperatives.

Dark Matter Labs' Cornerstone Indicators exemplify this paradigm by assessing adaptive capacities across ecological, social, and cultural contexts. Metrics such as biodiversity indices, soil vitality, and cultural resilience shift attention from fragmented targets toward measuring the vitality of relationships within healthy systems. Concepts like Nora Bateson's aphanipoiesis (relational processes that generate coherence) and John Vervaeke's transjective qualia (the emergent meaning created between entities) illustrate the potential for these adaptive metrics to capture the fluidity and complexity of systemic health.

Universities have a critical role in advancing this shift by integrating traditional ecological knowledge with emergent sensing technologies. Indigenous methodologies, such as ceremonial mapping and seasonal ecological monitoring, offer profound insights into relational ways of measuring thriving systems. When paired with AI-driven sensing, digital twins, and participatory monitoring platforms, these approaches create hybrid knowledge systems capable of tracking whole-systems health across diverse scales and contexts.

For example, digital commons that document soil restoration initiatives in the Burren provide transparent, real-time knowledge-sharing pathways that can inform regenerative agriculture worldwide. Similarly, universities partnering with local communities to monitor watershed health can co-create dynamic feedback loops that ensure measurement systems remain responsive to shifting ecological and social dynamics rather than relying on rigid benchmarks.

Whole-systems health metrics require a fundamental shift from evaluating success through fixed targets that often reinforce unsustainable paradigms to embracing adaptive, iterative processes that inform ongoing learning and action. A university tracking the resilience of a local watershed, for example, must adjust its indicators over time based on changing ecological and community dynamics. Rather than treating data as a static snapshot of sustainability, these approaches enable ongoing dialogues between measurement and action, ensuring that learning processes are deeply embedded within the systems they seek to understand.

By embedding these practices into curricula, governance, and community partnerships, universities can move beyond compliance-driven sustainability approaches and position themselves as stewards of systemic health. Participatory biodiversity mapping, regenerative agricultural field trials, and collaborative urban resilience projects demonstrate how integrative monitoring strategies enrich both datasets and relational intelligence. These efforts cultivate an ethos of continuous adaptation, ensuring that knowledge systems evolve in alignment with ecological, social, and cultural renewal.

The transition toward whole-systems health metrics is not simply about improving measurement—it is about redefining what success looks like in alignment with planetary health and systemic regeneration. If universities fail to lead this transformation, they risk becoming obsolete in an era that demands institutions capable of tracking, adapting to, and facilitating the evolution of thriving systems. Universities must shift from institutional inertia to regenerative leadership, ensuring that the metrics they adopt do not reinforce the very crises they aim to resolve. If sustainability is to evolve from harm reduction to systemic flourishing, we must measure not just what is being sustained, but how well life is able to thrive. The challenge ahead is clear: Will universities continue to uphold fragmented, outdated evaluation models, or will they lead the transition toward measurement systems that illuminate the pathways to regenerative futures?

Framework Layer Overview

Developing university-driven metrics that reflect the adaptive, relational, and emergent dynamics of regenerative systems.

Present Issues

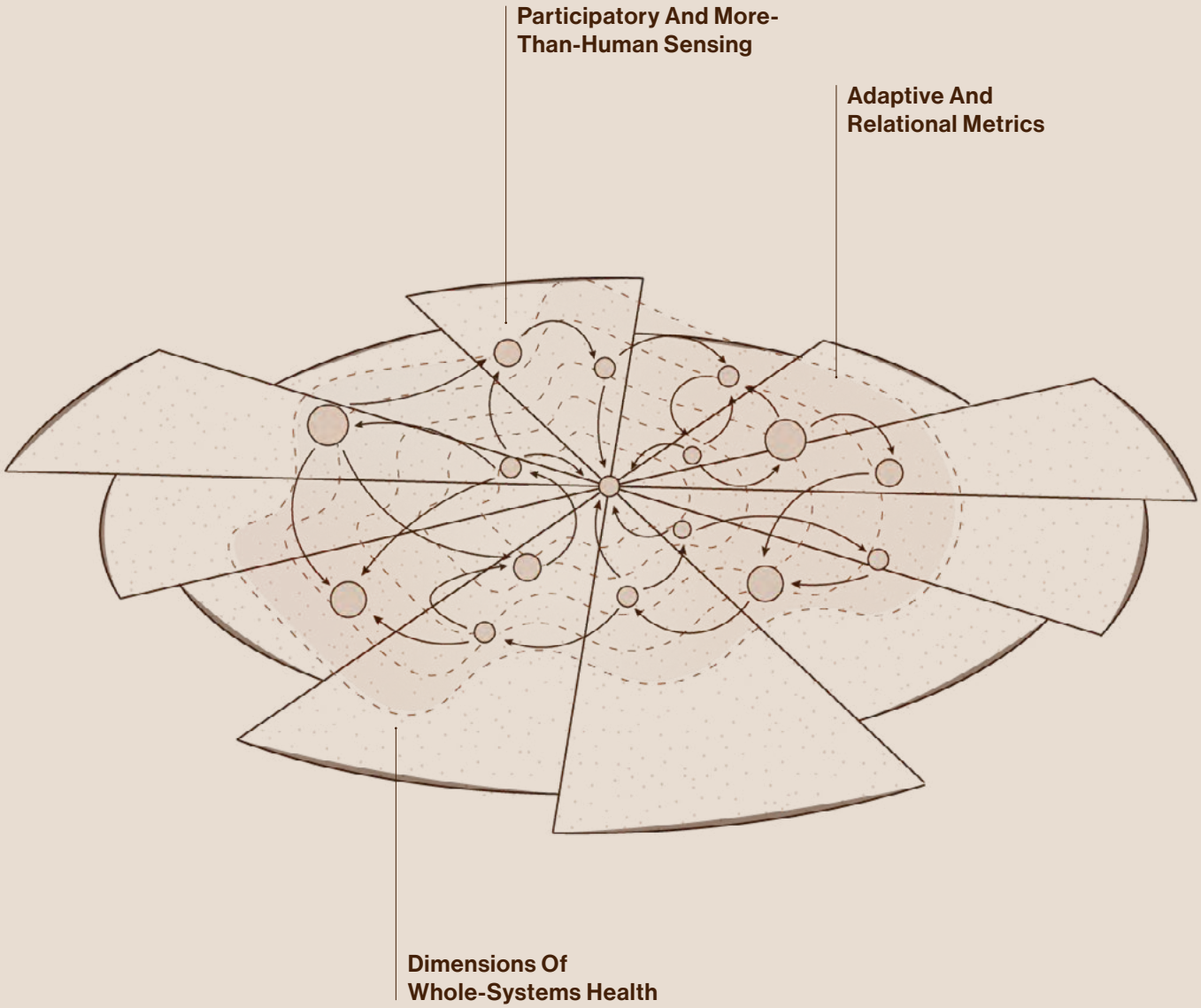
- Traditional metrics focus on extractive milestones, ignoring systemic health and relational meaning.
- Universities lack participatory frameworks to measure ecological and social vitality.
- Progress is framed as linear, ignoring the emergent dynamics of living systems.

Emerging Possibilities

- Cornerstone Indicators enable measurement of ecosystems' and communities' adaptive capacities.
- Participatory sensing systems merge local knowledge with technology to monitor systemic health.
- Universities co-create regenerative metrics through interdisciplinary approaches, aligning with cultural and ecological realities.

Critical Uncertainties

- How can universities balance traditional accountability with relational, emergent metrics?
- How can Indigenous knowledge shape whole-systems health frameworks?
- Can systemic health indicators scale globally while respecting local contexts?



FRAMEWORK LAYER 3.3

This layer of the framework emphasises the development of metrics that reflect the adaptive, relational, and emergent dynamics of thriving systems, guiding transformative action.



Universities as Custodians of Collective Intelligence

"Think globally, act locally."

— René Dubos

This chapter has outlined how universities can become custodians of collective intelligence, bridging local innovation with global collaboration to advance regenerative development. Decentralised governance aligns decision-making with ecological and social health, while digital commons facilitate the equitable exchange of knowledge and practices. Whole-systems health metrics provide insights into the adaptive and relational vitality of living systems, establishing pathways for systemic renewal.

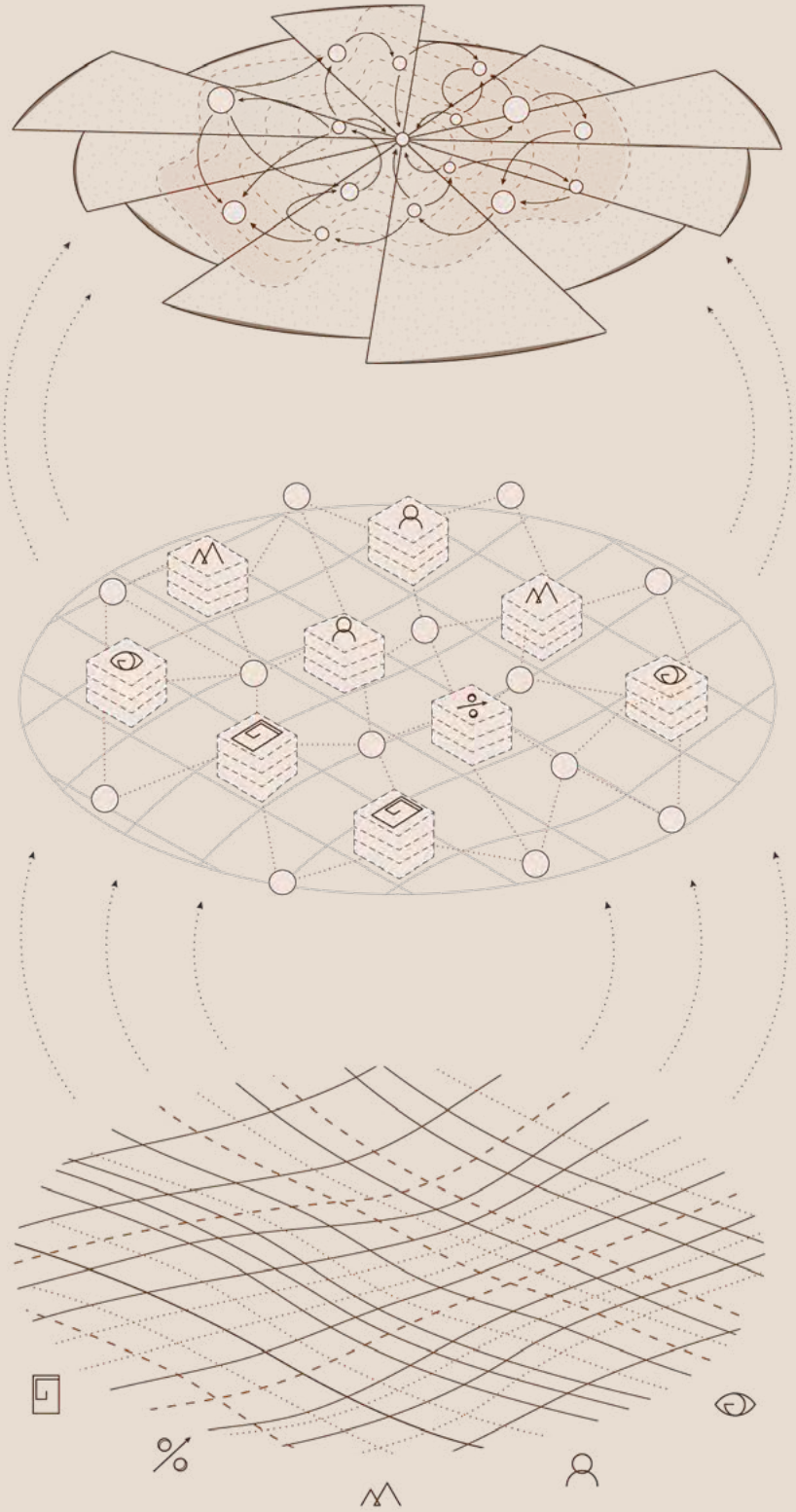
To realise this potential, universities must embed these principles into governance, curricula, and research, fostering participatory processes and interdisciplinary learning. By cultivating shared knowledge ecosystems, they empower learners and communities to co-create adaptive solutions that bridge local and global contexts. As custodians of collective intelligence, universities amplify distributed wisdom, catalyse innovation, and co-create pathways to resilience and thriving futures. This transformative role redefines education as a living process, aligning human systems with Earth's rhythms and positioning universities as regenerative hubs that integrate knowledge, governance, and action across scales.

University System	Present Logic	Future Shift	Regenerative Provocation
Governance	Centralised decision-making limits responsiveness to local and ecological systems.	Distributed governance models foster participatory decision-making and bioregional alignment.	How might universities design governance systems that bridge global collaboration with local autonomy?
Knowledge Creation	Research is siloed, proprietary, and disconnected from global collaboration.	Open, transdisciplinary knowledge systems foster co-creation and equitable access.	What if universities prioritised creating shared digital commons to bridge local and planetary innovation?
Pedagogy	Curricula focus on fixed outputs and siloed learning pathways.	Adaptive learning models integrate participatory methods and whole-systems thinking.	How might universities embed collective intelligence into teaching and learning experiences?
Community Engagement	Engagement often focuses on institutional goals over systemic collaboration.	Universities act as custodians of decentralised collaboration, fostering mutual learning and shared innovation.	What if universities reimagined engagement to prioritise co-creative partnerships that bridge local and global contexts?

Monitoring Whole-Systems Health (3.3)
Tracks And Adapts Strategies For Systemic Vitality

Building Digital Commons (3.2)
Creating Open Knowledge And Asset Neworks

Empowering Decentralised Governance (3.1)
Builds Equitable Decision-Making Tools And Systems



PATHWAY THREE

This diagram highlights the three layers of the Cultivating Collective Intelligence pathway, guiding universities in developing and acting as custodians of decentralised platforms, assets and commons inservice of enabling renenerative development.

Universities Leading Systemic Regeneration for People, Place, and Planet

“You cannot change a system unless you transform the relationships that sustain it.”

— Peter Senge

The systemic framework introduced in this chapter reimagines higher education’s role in regenerative development. Amid ecological overshoot, social fracture, and institutional inertia, universities must evolve from mere knowledge repositories into scale-linking infrastructures that connect local action with planetary renewal.

This framework integrates place-based innovation with planetary intelligence to keep regenerative initiatives both locally grounded and globally attuned. Projects like regenerative agriculture, bioregional governance, and community-led restoration offer on-the-ground solutions to environmental and social challenges. Meanwhile, planetary knowledge commons, participatory metrics, and digital infrastructures enhance and align these local efforts with wider systemic reform.

At the heart of this approach is a shift in perspective—one that transcends disciplinary silos and reductionist problem-solving in favour of a deeper, systemic orientation. Three modes of thinking are crucial for navigating regenerative transitions:

1. **Ecological Thinking –** Grounding human action within bioregional cycles and planetary boundaries.
2. **Relational Thinking –** Recognising reciprocity, interdependence, and care as foundational design principles.
3. **Planetary Thinking –** Ensuring local interventions align with global imperatives for coherent large-scale transformation.

By weaving these modes of thinking into education, governance, and research, universities are positioned to dissolve fragmentation and enable system-wide experimentation. Regeneration becomes a dynamic, ongoing process—cultivated through adaptive, place-based interventions that inform and reshape broader global strategies.

For this transformation to take root, education itself must be reimagined. Universities can no longer remain passive knowledge institutions; they must become living laboratories of regeneration, where learning transcends abstract theory to engage with real-world complexity. This requires a shift in how knowledge is created, shared, and applied. Rather than treating education as content delivery, universities must champion collaborative inquiry, place-based experimentation, and participatory research models—equipping learners to navigate complexity, embrace uncertainty, and lead regenerative transitions.

This vision demands bold imagination, fearless experimentation, and deep collaboration. It is not about predicting the future but about cultivating the capacities to regenerate it—across scales, across disciplines, and across generations.

	University Roles	Key Insights	Systemic Contribution
Stewarding Bioregional Regeneration	Stewards of bioregional ecosystems through applied research, living labs, and partnerships.	• Grounds systemic change in the specificities of place. • Enables resilience through living systems labs and place-based partnerships.	Regeneration starts with place—where cultural identity and ecological health converge to inspire action.
Fostering Changemaker Capacities	Regeneration starts with place—where cultural identity and ecological health converge to inspire action.	• Equips individuals with relational intelligence and adaptive skills to co-create thriving futures. • Builds collective agency through participatory learning models.	Changemaking is a collective endeavour, powered by individuals with the tools to navigate complexity.
Cultivating Collective Intelligence	Curators of global knowledge fl ows, decentralised governance models, and digital commons.	• Integrates decentralised governance with digital commons to link local solutions to global imperatives. • Establishes dynamic feedback loops across scales.	Thriving systems emerge when local action informs global strategies, and global frameworks inspire local innovation.

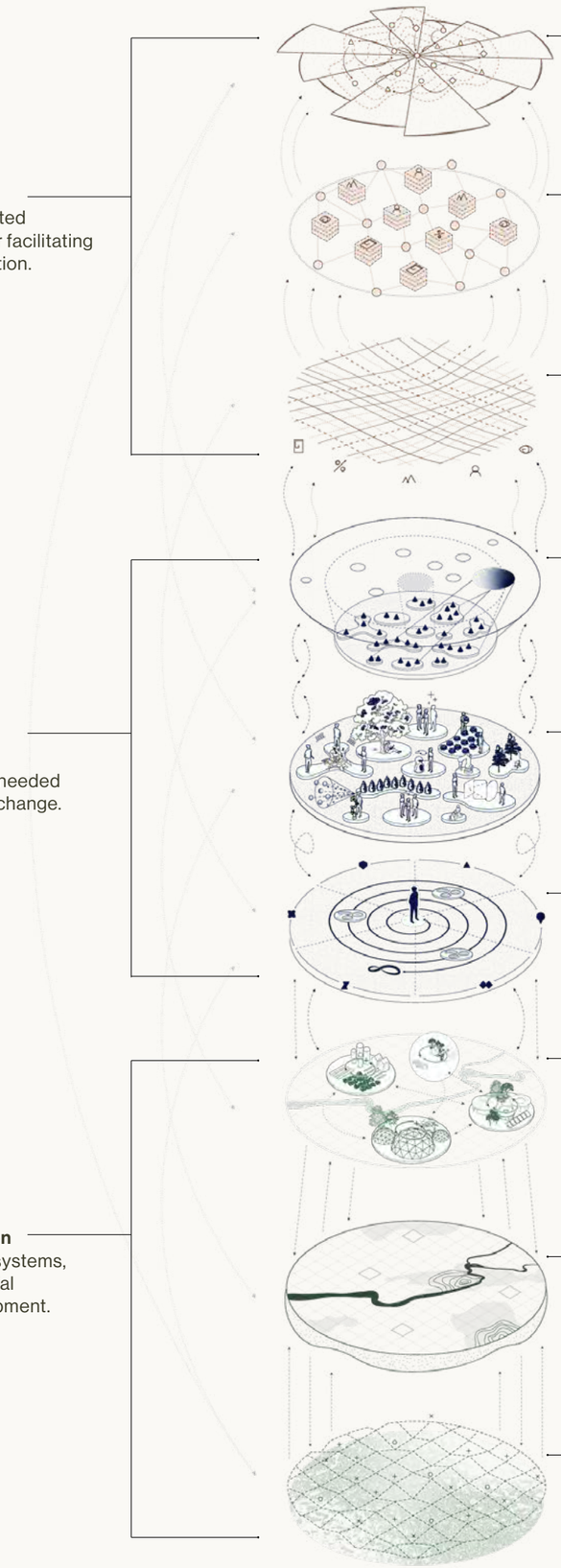
Framework for University-Led Regenerative Development

This framework outlines the transformative roles universities must adopt to lead systemic ecological, social, and cultural regeneration, offering a pathway to navigate complexity and foster thriving futures.

3. Cultivating Collective Intelligence
Universities as orchestrators of distributed knowledge and governance systems for facilitating global-local coordination and collaboration.

2. Fostering Changemaker Capacities
Universities as enablers of the skills, relationships, mindsets, and capacities needed for communities to lead transformative change.

1. Stewarding Bioregional Regeneration
Universities as leaders of place-based systems, integrating ecological, cultural, and social innovation to drive regenerative development.



3.3 Monitoring Whole-Systems Health:
Innovating tools, indicators, and metrics that provide dynamic insights into ecological, social, and cultural well-being, enabling adaptive and informed decision-making.

3.2 Building Digital Commons:
Creating open digital platforms and protocols to share knowledge, pattern languages, and resources for decentralised collective action.

3.1 Empowering Decentralised Governance:
Designing participatory governance models and tools that enable a balance of local autonomy with global cooperation.

2.3 Envisioning Systemic Imaginaries:
Empowering communities to co-envision regenerative futures through place-sourced and participatory narratives, visualisations, and prototypes of community-led transformation.

2.2 Embodying Salutogenic Practices:
Integrating health-promoting social practices into the daily life and culture of universities to foster thriving and resilient communities.

2.1 Facilitating Whole-Person Development:
Aligning personal and professional growth with systemic resilience through integrated, holistic learning models that connect individuals to the broader systems they inhabit.

1.3 Leading Living Systems Labs:
Transforming campuses into distributed hubs for interdisciplinary collaboration and demonstration of regenerative systems dynamics.

1.2 Embedding Education in Bioregions:
Grounding institutional missions in the specific ecological and cultural realities of place, fostering resilience, reciprocity, and context-specific innovation.

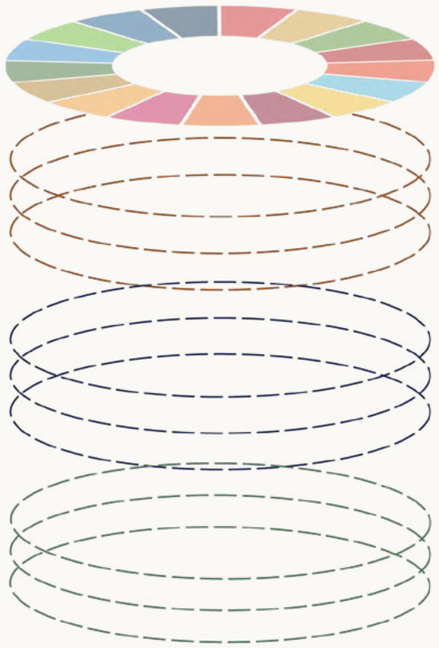
1.1 Weaving Plural Worldviews:
Facilitating the integration of diverse cultural, ecological, and disciplinary perspectives into shared, life-affirming values that guide coherent and inclusive action on complex challenges.

Beyond the Framework — A Living, Reflexive Process for Regenerative Development

Most institutional strategies rely on linear, problem-solution thinking, assuming that change happens through structured steps leading to a predictable outcome. However, in complex systems, transformation is not a sequence—it is an ongoing process of learning, feedback, and adaptation.

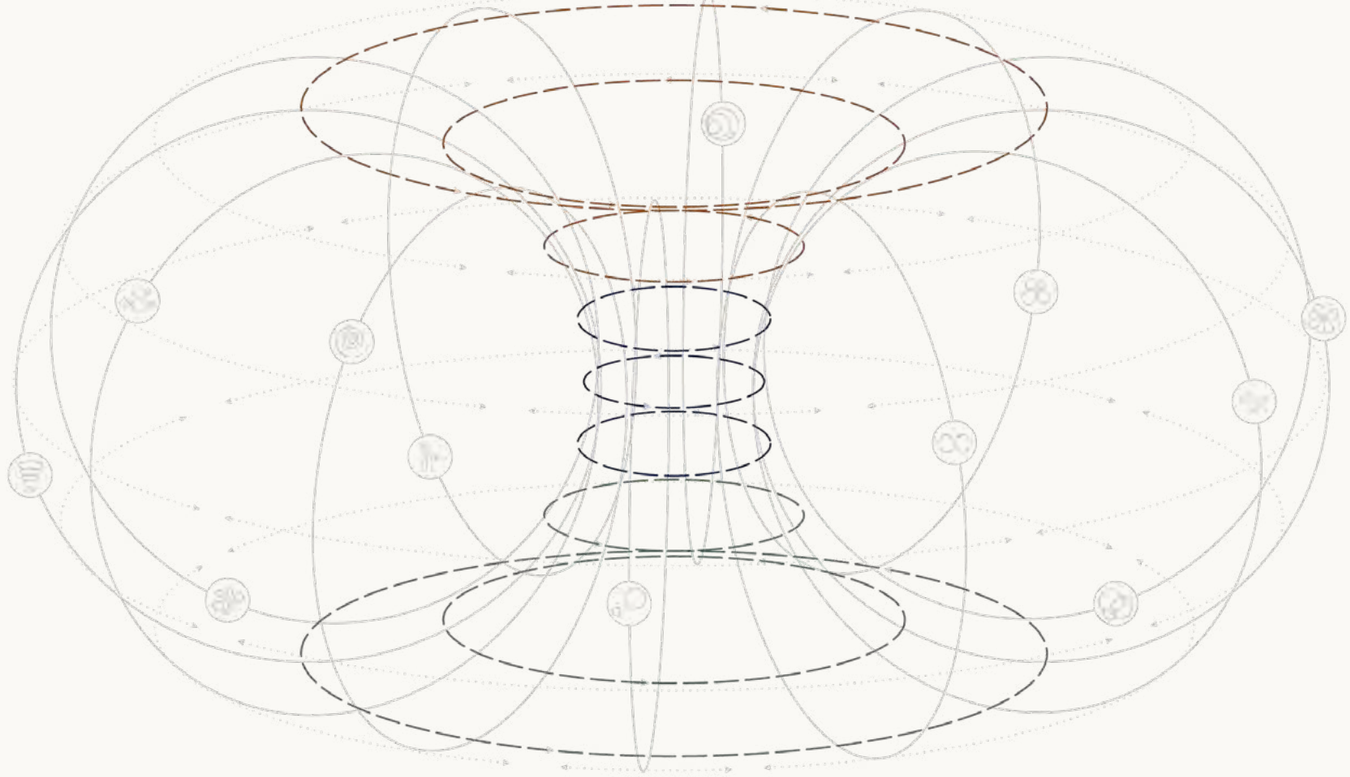
The Systemic Framework for University-Led Regenerative Development moves beyond rigid planning models and instead embraces stewardship of adaptive frameworks—structures that evolve in response to dynamic conditions. This shift is critical: instead of delivering predefined solutions, institutions must create enabling conditions for regenerative processes to emerge and self-sustain over time.

A Systemic Framework for University-led Regenerative Development



Beyond Linear Frameworks

Understanding Regenerative Development as a Living, Reflexive Process of Continuous Learning and Adaptation



Living the Questions of University-led Regeneration

The Regenerative Development Goals

The Regenerative Pluriversity

Living into Regeneration

Living the Questions of University-led Regeneration

"Another world is not only possible, she is on her way. On a quiet day, I can hear her breathing."
— Arundhati Roy

The crises of our time demand more than solutions; they require a fundamental reimagining of how we learn, lead, and live. At this pivotal moment, education must evolve from a vehicle for incremental progress to a catalyst for systemic renewal. Universities hold an immense responsibility—not merely to teach or research, but to cultivate the conditions for regeneration, aligning human systems with the living systems of Earth.

This document has articulated a scale-linking framework for regenerative development, positioning universities as stewards of bioregional renewal, enablers of changemaking capacities, and cultivators of decentralised intelligence. Yet, frameworks alone are insufficient. The deeper task lies in living the questions of regeneration, engaging in continuous experimentation, adaptation, and inquiry that transcends static strategies and sustains the conditions for life to thrive.

To move beyond sustainability as a checklist of goals, we introduce the Regenerative Development Goals (RDGs)—not as fixed targets, but as living questions that invite participation. Where the SDGs measure sustainability through standardised benchmarks, the RDGs ask: What does it mean to sustain the conditions for life itself? They challenge institutions to shift from compliance-driven approaches to regenerative capacity-building, ensuring that education fosters resilience, reciprocity, and relational intelligence across diverse contexts.

At the heart of this inquiry is the concept of the Regenerative Pluriversity—a speculative provocation that envisions universities as living, adaptive ecosystems of co-learning and co-creation. Beyond disciplinary silos and institutional rigidity, the Pluriversity challenges us to reimagine higher education as distributed, participatory, and attuned to the rhythms of place-based regeneration. This is not just an abstract vision; it is an invitation to prototype the next evolutionary step of the university.

The challenge we face is not simply defining new goals, but becoming the kinds of institutions capable of stewarding them. The final section of this document calls for collective responsibility—an invitation for policymakers, institutions, professionals, and individuals to step beyond inherited models and take an active role in co-creating regenerative futures. Universities have a unique opportunity to bridge knowledge with action, ensuring that education serves as a living system for planetary renewal.

This is the work ahead. Not to simply design solutions, but to cultivate the wisdom, agency, and relationships necessary for transformation. To embrace uncertainty, prototype new possibilities, and hold space for futures yet to emerge. The question is not just how education must change—it is whether we have the courage to make it so.

The Regenerative Development Goals

Beyond Achieving Static Goals, Toward Sustaining Dynamic Processes

Beyond Fragmented Indicators, Toward Interdependent Vitality

Beyond Global Targets, Toward Scale-Linking Missions

Charting a Regenerative Pathway Beyond 2030

Building on the systemic framework for regenerative development introduced in the earlier sections of this document, we now turn to reimagining the very notion of development goals—ensuring they are fit for an era of ecological and societal transformation. For decades, global frameworks have sought to chart a path toward planetary and social well-being. The Sustainable Development Goals (SDGs), launched in 2015, built upon their predecessors—the Millennium Development Goals (MDGs)—by addressing environmental sustainability alongside human development. Yet despite their ambition, the SDGs rely on static benchmarks and standardised indicators, which struggle to account for the adaptive, emergent nature of living systems.

"The path forward in an age when things seem no longer fixed into place may be hindered if we plan as many have been planning in the past: with a fixed set of years in mind, a set of tangible and predictable outcomes, and a set of milestones that will determine if we have succeeded, or not." – Elliot Shore

Regeneration demands a different paradigm. Rather than aiming for static sustainability outcomes, it focuses on cultivating the conditions for continuous renewal and evolution. Following the precedent set by transitioning from MDGs to SDGs, these Regenerative Development Goals (RDGs) advance global development thinking further: instead of treating sustainability as a final destination, they centre on the self-renewing capacities that enable societies, ecosystems, and economies to thrive indefinitely.

It is crucial to stress that the RDGs are not meant to replace the SDGs. Instead, they supply the missing foundation necessary for sustainability to endure over time. While the SDGs attempt to outline what must be sustained, they do not prescribe how to foster the regenerative processes that sustain these systemic outcomes. By shifting from fixed objectives to ongoing, regenerative processes, the RDGs present a new compass—one poised to guide humanity toward a genuinely life-affirming paradigm of development.

Beyond Achieving Static Goals, Toward Sustaining Dynamic Processes

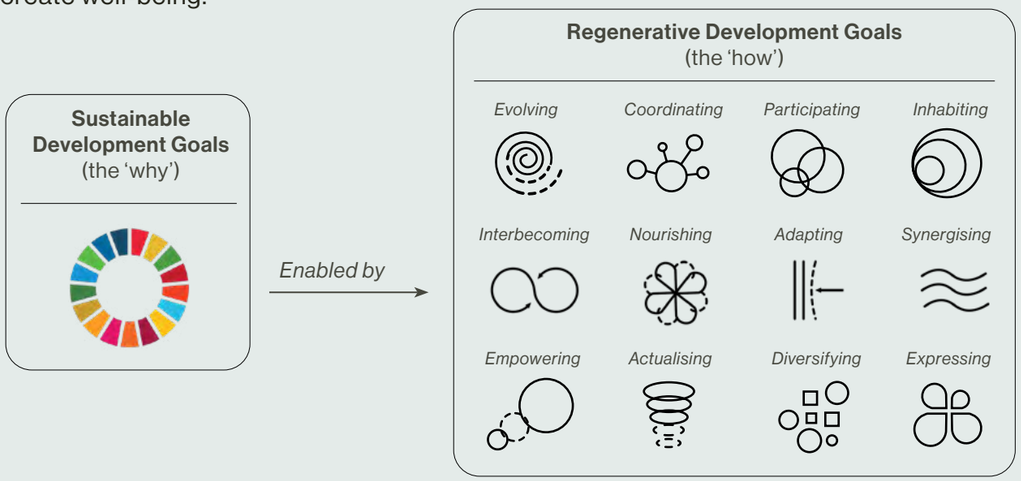
The SDGs assume sustainability can be attained through fixed policy interventions and quantifiable targets. Yet living systems are anything but static; sustainability is an emergent property that arises from continuous adaptation, renewal, and evolution. We see this reflected in Donut Economics, as conceptualised by Kate Raworth, which identifies an ecological ceiling and a social foundation as necessary boundaries. It offers a powerful vision of what must be safeguarded but leaves questions about how to achieve and sustain those conditions over time.

Here, the Regenerative Development Goals (RDGs) address the missing "how." Rather than focusing on outcomes alone—like "Zero Hunger" or "Decent Work"—they articulate dynamic processes and regenerative qualia needed to maintain balance within planetary boundaries while uplifting social foundations. Drawing on Donella Meadows' insight into paradigm-level leverage points, the RDGs emphasise a fundamental shift in how societies co-create well-being.

For instance, where the SDGs call for "Zero Hunger," the RDG of *Nourishing* highlights the ongoing regeneration of food systems through soil regeneration, local empowerment, and cyclical renewal—ensuring long-term food sovereignty, not just momentary food security.

In this way, the RDGs complement the SDGs by illuminating the regenerative qualities—such as Interbecoming, Participating, and Empowering—that foster life-sustaining patterns over time. By embracing the transjective nature of sustainability, they recognise that meaningful change emerges through evolving relationships between people, institutions, and ecosystems. The result is a regenerative framework that builds on the Donut Economics model, moving beyond merely preserving what is essential to continuously renewing the conditions that enable all life to thrive.



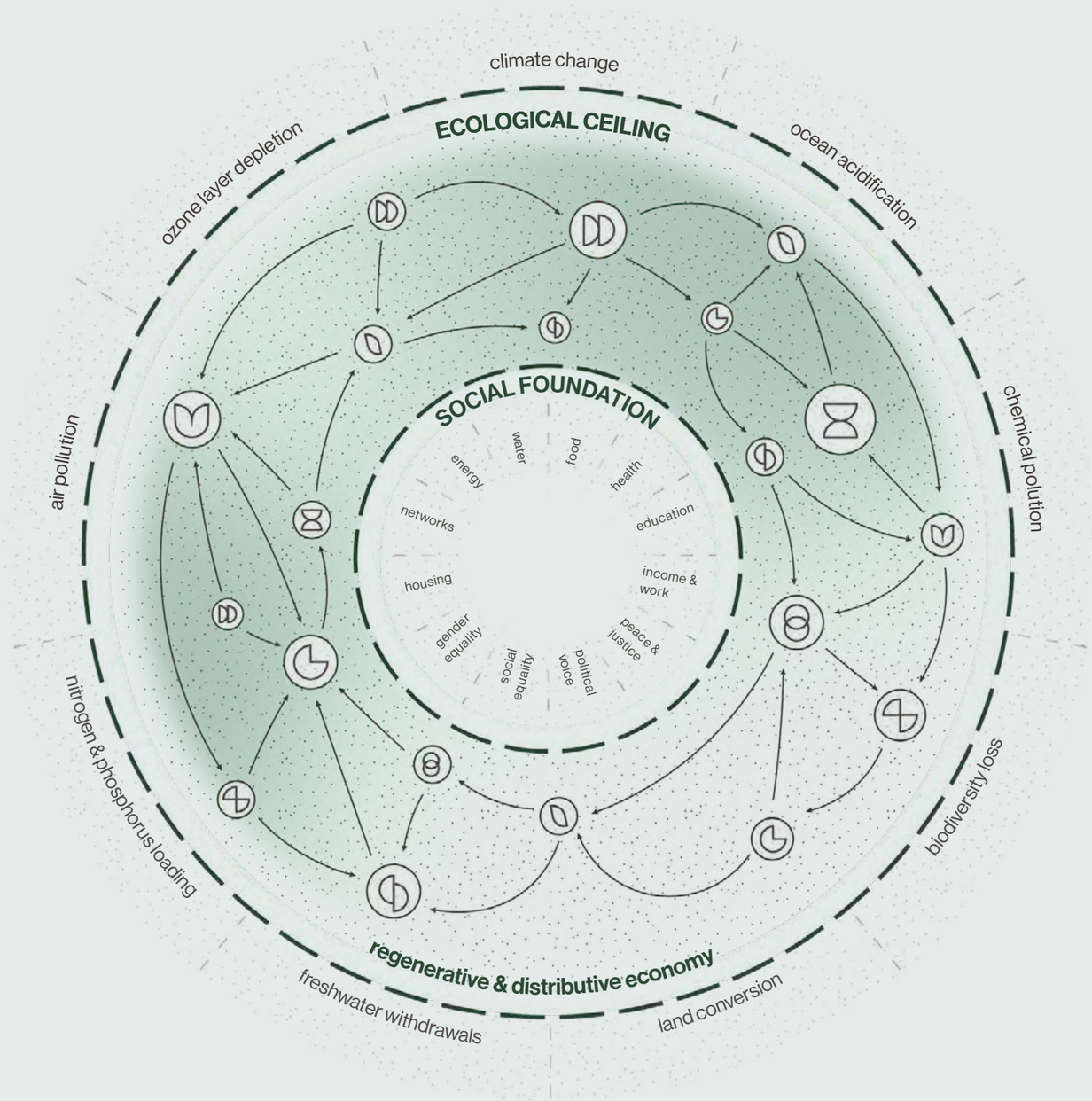


Beyond Fragmented Indicators, Toward Interdependent Vitality

Traditional development models often rely on single-variable metrics—such as GDP, carbon emissions, or poverty rates—to gauge progress. Yet these indicators fail to capture the multi-dimensional essence of regenerative systems. If regeneration is fundamentally about sustaining life-generating processes, then our measures of success must likewise reflect a system's ongoing capacity to renew and evolve.

Gregory Landua's Eight Forms of Capital address this measurement gap by expanding our notion of "capital" beyond the purely financial. Each form—Living, Social, Cultural, Intellectual, Experiential, Material, Financial, and Spiritual—represents a holistic resource base that underpins both societal and ecological vitality. By tracking these interdependent capitals, we recognise how resilient well-being arises from continuous interaction among ecological, cultural, and economic resources.

This approach not only complements the Regenerative Development Goals (RDGs)—which articulate the how of sustaining dynamic processes—but also reinforces frameworks like the SDGs and Donut Economics, which specify what outcomes we need for a "safe and just space" for humanity. Rather than stopping at harm reduction (for instance, lowering emissions or reducing poverty rates), Landua's Eight Forms of Capital urge us to measure and bolster the underlying conditions for ongoing regeneration. In doing so, we fill the gap left by conventional indicators, ensuring that development is fully aligned with the living principles of regenerative systems—actively replenishing ecological and cultural foundations while remaining economically viable.



	Form of Capital	Example: A Regenerative Farming Cooperative
	Living Capital	Regenerating soil and water systems through agroecological methods and pollinator habitats
	Social Capital	Building trusted networks, sharing equipment, and co-creating community markets
	Cultural Capital	Blending local land-stewardship traditions with modern permaculture insights
	Intellectual Capital	Partnering with universities for research, adopting evidence-based farming innovations
	Experiential Capital	Offering hands-on apprenticeships and ongoing skill-building for new farmers
	Material Capital	Developing renewable-powered infrastructure, leveraging circular resource flows
	Financial Capital	Combining microloans, grants, and local investment to fund regenerative transitions
	Spiritual Capital	Fostering a collective sense of purpose and responsibility as stewards of the land

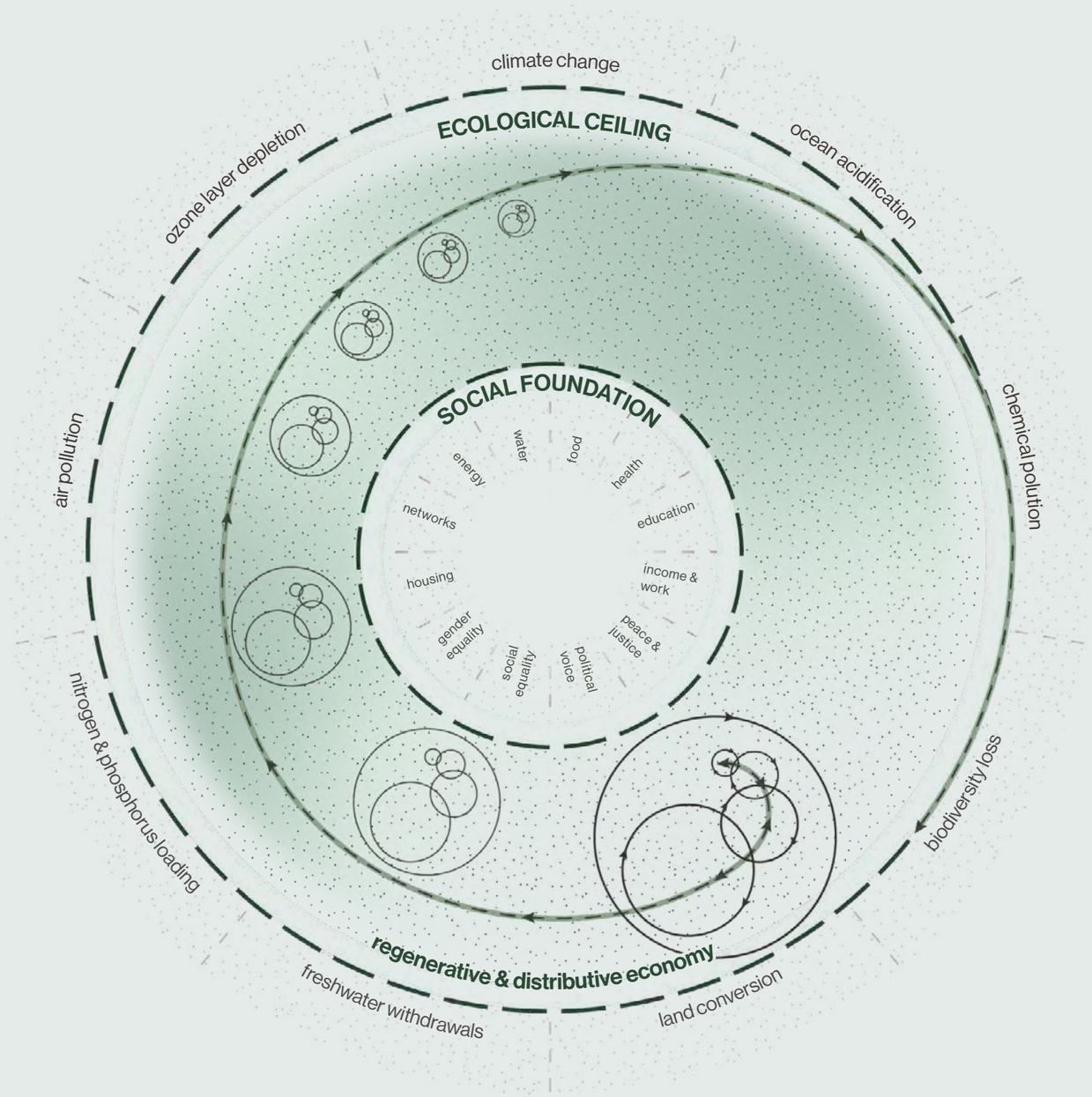
Beyond Global Targets, Toward Scale-Linking Missions

For the RDGs to be enacted in reality, they must move beyond abstract global goals and become actionable through place-based missions. While the SDGs were designed as universal targets, their implementation has often been fragmented, failing to account for localised ecological, cultural, and socio-economic realities. Regeneration cannot be driven by top-down policy alone; it must be contextually adapted through mission oriented approaches, a concept pioneered by Mariana Mazzucato and explored in design practice by Dan Hill, which align systemic objectives with local contexts.

This is where Regenerative Missions serve as the scale-linking bridge between planetary imperatives and local action. Each RDG articulates a universal regenerative process, but its realisation depends on how communities interpret and enact it within their own contexts. By adopting a mission-driven perspective, the RDGs manifest as practical, transformative efforts embedded in the places where they are needed most.

For example, consider the RDG of demonstrating Nourishing food systems dynamics. Its guiding intent is the same everywhere—supporting regenerative agriculture and food sovereignty—yet the mission would look different in a permaculture-led, urban agrihood in Ireland than in a rural, cooperative farm in India. While the overarching goal remains constant, the specific challenges, resources, and pathways reflect local conditions.

Each RDG would aspire to be demonstrated and sustaining through portfolios of parallel missions. For instance, a Housing mission focused on Salutogenic Spaces could integrate Empowering or Interbecoming as RDG-driven processes, ensuring that housing policy and design support community health, ecological connections, and inclusivity. By tying mission frames directly to on-the-ground realities, the RDGs become catalysts for systemic renewal and local self-determination.



Regenerative Processes (the 'how')

Evolving	*Coordinating*	*Participating*	*Inhabiting*
Interbecoming	*Nourishing*	*Adapting*	*Synergising*
Empowering	*Actualising*	*Diversifying*	*Expressing*

Demonstrated Through →

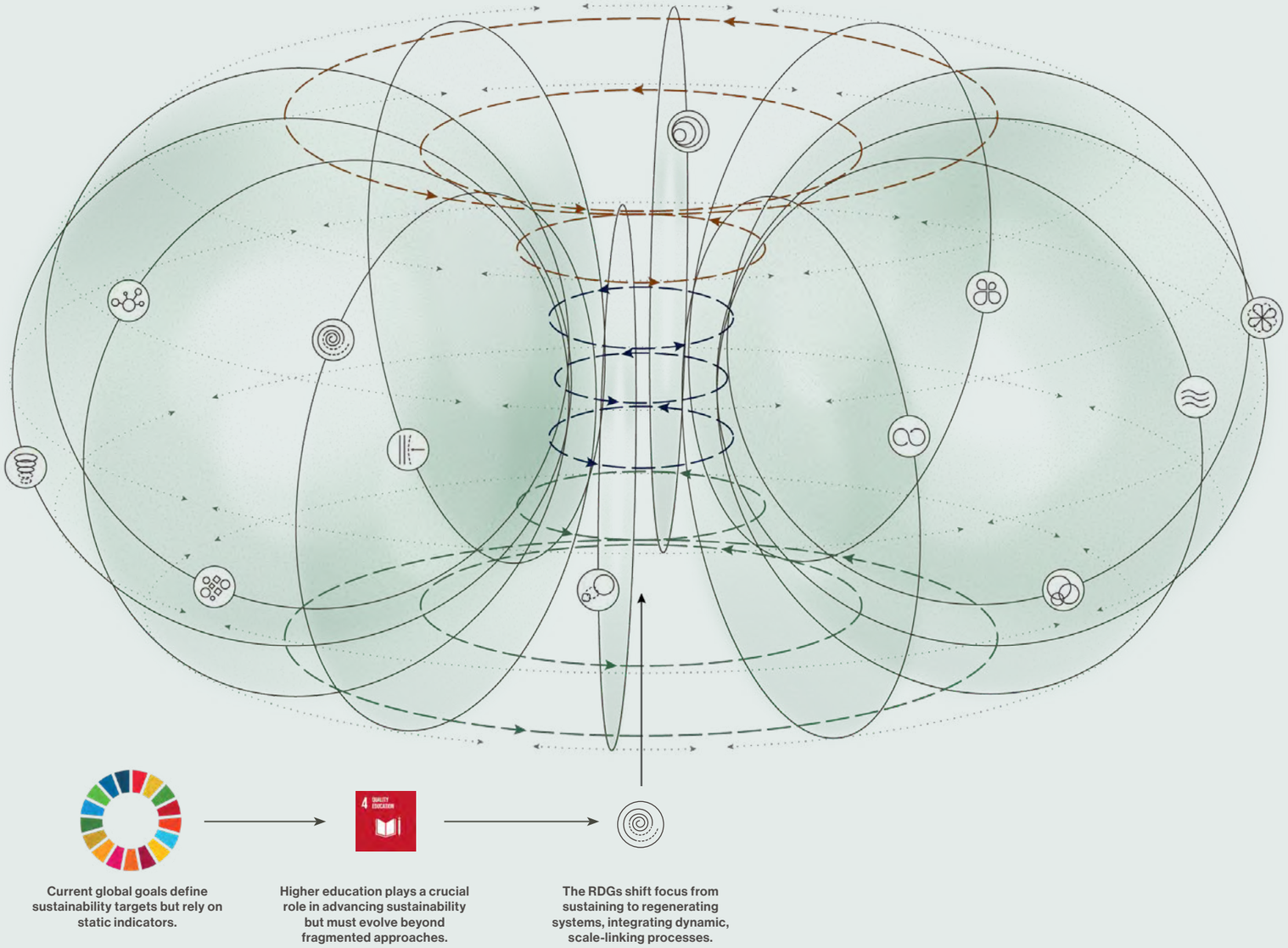
Example Regenerative Mission Frames (the 'what')

- Metabolic Cities
- Self-Determined Pathways
- Decentralised Public Goods
- More-than-Human Governance
- Regenerative Design Tools
- Self-Sustaining Micro-Grids
- Sovereign Agrihoods
- Salutogenic Spaces
- Cosmolocal Prosumption
- Resilient Neighbourhoods
- Bioregional Regeneration
- Intergenerational Custodianship

Charting a Regenerative Pathway Beyond 2030

The Regenerative Development Goals (RDGs) open new horizons for how we envision and pursue global progress. By moving beyond static goals to sustaining dynamic processes, they refocus our attention on the life-generating qualities that underpin genuine sustainability. Rather than relying on fragmented indicators, they highlight interdependent vitality through expanded forms of capital—ensuring we not only mitigate harm but actively cultivate conditions for thriving. And by shifting beyond global targets to scale-linking missions, they bridge planetary imperatives with local realities, generating context-specific transformations that resonate across diverse communities.

Together, these three frames form an integrated, adaptive blueprint that supports and extends the SDGs. While the SDGs outline what must be accomplished, the RDGs clarify how to regenerate systems in ways that remain flexible, equitable, and life-affirming. This holistic paradigm—equally concerned with ecology, culture, and economics—constitutes a novel contribution to the post-2030 development discourse. It illuminates a future where humanity actively renews, rather than merely sustains, the social and ecological foundations on which we all depend.



Current global goals define sustainability targets but rely on static indicators.

Higher education plays a crucial role in advancing sustainability but must evolve beyond fragmented approaches.

The RDGs shift focus from sustaining to regenerating systems, integrating dynamic, scale-linking processes.

The Regenerative Pluriversity

"The inability to imagine a world in which things are different is evidence only of a poor imagination, not of the impossibility of change"
—Rutger Bregman

For centuries, universities have shaped knowledge, culture, and society. Yet, as today's crises deepen, their institutional models remain largely unchanged—bound by disciplinary silos, hierarchical governance, and market-driven knowledge economies that limit their potential to catalyse systemic transformation. If higher education is to lead regenerative development, it must transcend these constraints and evolve into institutions capable of stewarding the long-term health of planetary systems.

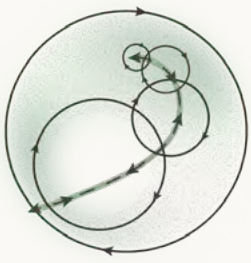
This requires more than incremental reforms. It demands a fundamental reimagining of what a university is, how it operates, and whom it serves. The Regenerative Pluriversity emerges as a response to this challenge—not as a singular organisation, but as a living, adaptive institutional ecology. Unlike traditional universities, which prioritise knowledge production within rigid boundaries, the Pluriversity fosters pluralism, transdisciplinarity, and systemic co-creation, integrating diverse ways of knowing, being, and acting to align human learning with the intelligence of living systems.

The notion of a 'pluriversity' is not without precedent. In academic and activist circles, scholars such as Boaventura de Sousa Santos, Sabelo J. Ndlovu-Gatsheni, and contributors to Pluriverse: A Post-Development Dictionary (Kothari, Salleh, Escobar et al.) have called for ecologies of knowledge that embrace multiple epistemologies, including indigenous wisdom and localised research. These thought leaders argue that higher education can be decolonised and reconstructed to honour a plurality of knowledges—thereby enabling more equitable, sustainable futures. The Regenerative Pluriversity aligns with this wider global movement, emphasising integrative and life-centred approaches within an institutional framework.

The Pluriversity is not a university in the conventional sense. It is a distributed, relational, and reflexive model of higher education—where learning is embedded in the rhythms of bioregions, co-created with communities, and dynamically shaped by evolving social-ecological needs. It goes beyond standardised curricula, proprietary research, and institutional gatekeeping to embrace open knowledge commons, participatory governance, and self-organising ecosystems of learners. This shift is not merely structural—it is epistemic: knowledge must no longer be extracted, commodified, or controlled as a product. Instead, it becomes a shared resource, a living process nurtured across networks of learners, practitioners, and local stewards of place.

Far from an abstract vision, the Regenerative Pluriversity is a necessary institutional infrastructure for enacting the RDGs. Where the SDGs define sustainability through static targets, the RDGs propose an ecology of goals—dynamic, context-dependent, and aligned with whole-systems health. Our challenge is not only to set new targets but to become institutions capable of stewarding them and acting as an observatory for systemic health. This means moving from knowledge transmission to knowledge stewardship, from hierarchies to adaptive governance, and from isolated expertise to collaborative, place- based wisdom.

Universities now face a pivotal choice: remain within legacy structures, or evolve into catalysts of planetary regeneration. The Pluriversity is not just a conceptual shift—it is an invitation to prototype the next evolutionary step of higher education. The future of universities is far from predetermined. This is a call to shape it.



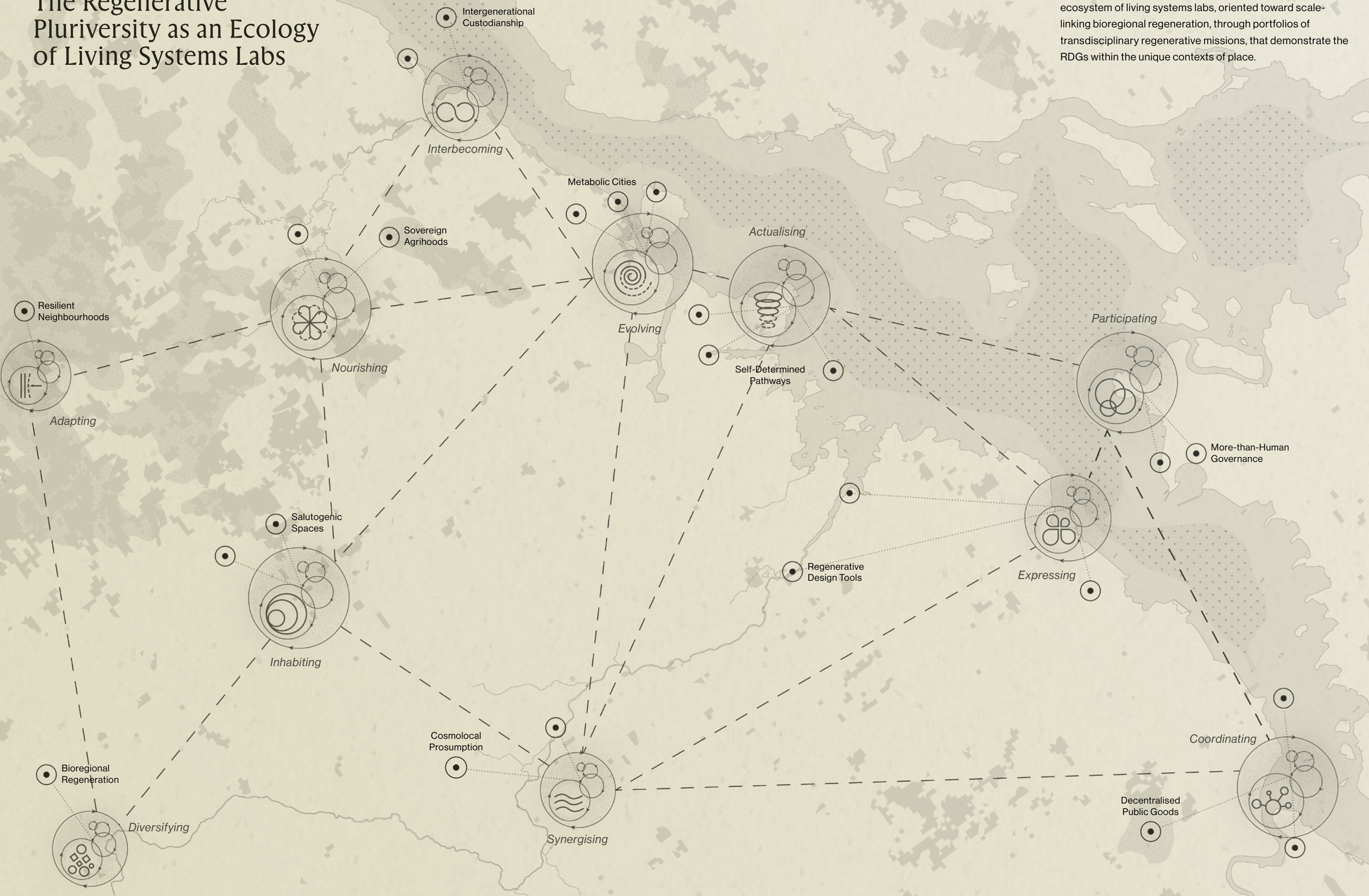
The Regenerative Pluriversity as a boundary-less platform for scale-linking regeneration.

System Shifts Toward a Regenerative Pluriversity

	Today's Unsustainable Paradigms →	Tomorrow's Regenerative Paradigms
Posture & Mindset	**Siloed-Disciplinary Thinking** Knowledge is compartmentalised into narrow disciplines, fragmenting understanding and limiting holistic insight into complex realities.	**Whole-Systems Thinking** Emphasises the interconnectedness of social, ecological, and cultural systems, fostering transdisciplinarity and resilience through integrated, living-systems epistemologies.
Societal Purpose	**Academic Capitalism** Teaching and research primarily serve market demands and institutional prestige, often neglecting local contexts and long-term societal well-being.	**Bioregional Stewardship** Aligns learning and research with the regeneration of local ecosystems and communities, recognising multiple forms of capital (e.g. social, cultural, ecological) as critical to holistic development.
Strategic Mandate	**Corporate Agendas** Institutional strategies are shaped by external corporate or political metrics, often detached from local realities and prioritising immediate financial or reputational gains.	**Place-Based Missions** Focuses on context-specific challenges and opportunities, developing long-term commitments to co-create solutions alongside local stakeholders—bridging global imperatives with regional needs.
Value Proposition	**Employable Graduates** Education often focuses on knowledge acquisition in service of graduate employability within the current market conditions, without encouraging active societal engagement.	**Active Citizenship** Education often focuses on knowledge acquisition in service of graduate employability within the current market conditions, without encouraging active societal engagement.
Engagement Model	**Standardised Learning** Paths of study and assessment are uniform, offering minimal personalisation or autonomy. Efficiency and scalability take precedence over depth, context, or learner agency.	**Self-Determined Learning** Encourages adaptive, learner-led pathways that integrate local needs, personal interests, and collaborative projects, fostering creativity, critical thinking, and lifelong growth.
Partnership Model	**Transactional Engagements** Collaboration is often limited to short-term, contract-based interactions with specific sectors. Relationships focus on one-off, win-lose transactions rather than shared value creation.	**Pluriversity Alliances** Invites a broad spectrum of stakeholders—community groups, indigenous knowledge holders, NGOs, businesses—to co-create solutions. Emphasises reciprocal, trust-based engagements that enrich the learning ecosystem and strengthen collective impact.
Time Horizon	**Generational Short-Termism** Knowledge transfer rarely extends beyond the immediate generation, with little regard for future well-being or the legacy of current actions on forthcoming societies.	**Intergenerational Wisdom Transmission** Prioritises long-term stewardship by sharing knowledge, practices, and values across age groups—embedding continuity, resilience, and foresight into educational and governance processes.

The Regenerative Pluriversity as an Ecology of Living Systems Labs

The Regenerative Pluriversity as a decentralised ecosystem of living systems labs, oriented toward scale-linking bioregional regeneration, through portfolios of transdisciplinary regenerative missions, that demonstrate the RDGs within the unique contexts of place.



Living into Regeneration: A Call to Collective Responsibility

"The only way to make sense out of change is to plunge into it, move with it, and join the dance."
— Alan Watts

At this pivotal juncture—where crises collide with emergent possibilities—regeneration is not just an intellectual aspiration but an invitation to act. The question is no longer whether transformation is needed, but whether we are willing to become the kinds of institutions, communities, and individuals capable of stewarding it.

This document has presented a scale-linking framework for regenerative development, positioning universities as catalysts in aligning human systems with Earth's living systems. By exploring bioregional regeneration, changemaker capacities, and collective intelligence, it challenges higher education to step beyond mere sustainability toward systemic renewal. Universities hold a profound responsibility to link global aspirations with place-based action. Yet their role is but one facet of a broader, collective undertaking: true regeneration demands that policymakers, professionals, and individuals all embrace shared responsibility.

- **Policymakers** can align governance frameworks with regenerative principles, replacing reactive cycles with long-term conditions for renewal. This includes designing funding mechanisms, incentives, and mission-oriented strategies that let universities become incubators of systemic regeneration. As Otto von Bismarck reminds us, politics is the art of the possible—today's moment demands we boldly reimagine what is possible.

- **Higher Education Institutions** must re-envision themselves—not as passive repositories of knowledge, but as active co-creators of a regenerative future. By embedding interdisciplinary research, participatory pedagogy, and place-based experimentation into their missions, universities can model systemic literacy and adaptive leadership. This requires new measures of success that track whole-systems health, resilience, and cultural flourishing, echoing David W. Orr's assertion that no institution is better positioned to lead a global transition toward sustainability.

- **Professionals and Practitioners** possess the power to translate regenerative principles into applied systems, rethinking business models, governance, and industry frameworks. Through systemic thinking and relational intelligence, entire sectors can shift toward life-affirming paradigms. Universities stand ready to partner in this endeavour, offering capacity-building, research, and collaborative spaces where regenerative ideals become tangible realities.

- **Individuals—Students, Citizens, Lifelong Learners**—form the foundation of transformation. A regenerative transition entails a shift in how we perceive, relate, and act in the world. By embracing complexity, cultivating relational intelligence, and aligning with Earth's living systems, individuals spark ripple effects that scale from the local to the global. As William James urges, we must act as if our choices matter—because they do.

Education bridges vision and action, aspiration and lived transformation. Universities, in particular, can anchor regenerative cultures by grounding theory in practice and fostering the capacities needed for an era of unprecedented change. By aligning pedagogy, governance, and research with regenerative principles, higher education can catalyse an epochal shift—one that prioritises long-term planetary health over short-term gains, and intergenerational well-being over extractive growth.

This work, however, is just beginning. The challenge lies not only in articulating regenerative ideals but in embodying them across learning environments, governance models, and collaborative networks. Future efforts must focus on practical tools, methodologies, and systemic infrastructures to enact regeneration at scale. The path ahead is open-ended, shaped by those ready to step beyond outdated paradigms and create something genuinely new.

Together, we stand at the threshold of a future defined by collective wisdom, ecological resilience, and systemic care—where education is no longer an institution of preservation but a living process of regeneration. The time is now to move from questions to action, from vision to realisation. The future is unwritten; it will be decided by those who have the courage to lead it.

Appendix: Reflection, Glossary, and References

Exploring Regeneration, Together.

This position paper originates from a pivotal period of reflection at the University of Limerick (UL) during the COVID-19 pandemic. Seeking to navigate societal uncertainty and explore the evolving role of higher education, UL initiated a series of strategic foresight workshops. These efforts culminated in the establishment of the University of Limerick Centre for Sustainable Futures & Innovation (UL CSFI) in 2022, dedicated to advancing systemic sustainability efforts. One of its key initiatives, the UL Mission-based Sustainability Framework 2030, set out twenty-one sustainability missions to drive transformation across the university. To operationalise these missions, UL CSFI launched Mission Lab—a campus-based innovation platform designed to foster participatory action and collaboration within the university community.

Building on this momentum, UL CSFI introduced Tomorrow's University, an initiative aimed at envisioning UL's long-term future beyond 2030. In collaboration with strategic design and futures partner Studio Saol, the programme explored new possibilities for higher education through strategic foresight, interdisciplinary creative practice, and participatory workshops. A compelling vision emerged: UL as a regenerative university—actively stewarding the ecosystems and communities within its bioregion. This position paper is a key output of that journey, synthesising the insights and ambitions that emerged through this collective process.

While the original scope of the Tomorrow's University programme has formally concluded, this document remains a living invitation. It reflects an ongoing commitment to reimagining higher education as a driver of systemic transformation. We invite you to engage with this evolving vision, bringing your perspective and expertise to the shared work of co-creating a regenerative future.

An Unfolding Vocabulary for Regeneration

Bioregionalism
Aligning human activity with the ecological and cultural dynamics of place.

Decentralised Governance
Distributing decision-making to enhance adaptability and local autonomy.

Digital Commons
Open knowledge systems enabling shared learning and collaboration.

Epistemic Crisis
The breakdown of collective sense-making in an era of fragmented knowledge.

Interbeing
The fundamental interconnectedness of all life and systems.

Living Systems Labs
Embedded spaces for real-world experimentation in regenerative practices.

Metacrisis
The interwoven crises of meaning, governance, and ecology shaping global instability.

Metamodernism
A worldview integrating structure, critique, and systemic complexity.

Mission-Oriented Innovation
Strategic, long-term innovation aimed at solving complex societal challenges.

Pluriverse
A world where multiple ways of knowing coexist without hierarchy.

Regeneration
The renewal of ecological, social, and knowledge systems beyond sustainability.

Relational Intelligence
The ability to navigate complex social and ecological interdependencies.

Salutogenic Practices
Behaviours that cultivate health, resilience, and well-being by focusing on the conditions that support systemic vitality.

Scale-Linking Systems
Ensuring regenerative action connects across local and global scales.

Social Imaginaries
The shared visions, narratives, and cultural frameworks that shape collective understanding and possibilities for the future.

Strategic Worldbuilding
Using foresight and narrative to prototype regenerative futures.

Systemic Capacities
The ability to understand and engage with complex, interdependent systems.

Transition Design
Designing long-term, systemic shifts toward regenerative futures.

Whole-Systems Health
A dynamic measure of resilience and vitality across living systems.

Referenced Sources of Knowledge & Inspiration [1]

Aaron Antonovsky – Introduced salutogenesis, a key concept in embedding well-being within regenerative education.

Alan Watts – Referenced in discussions on shifting from mechanistic to relational worldviews in education and governance.

Alvin Toffler – Cited for his insights on future adaptability and the need for transformative learning models.

Arjun Appadurai – Discussed in the context of social imaginaries and the role of cultural narratives in shaping regenerative futures.

Arturo Escobar – Used to support the concept of the pluriverse, advocating for multiple epistemologies in sustainability.

Boaventura de Sousa Santos – Referenced in critiques of knowledge hierarchies and the decolonisation of academic frameworks.

Carol Sanford – Cited in discussions on regenerative business models and holistic organisational transformation.

Charles Eisenstein – Referenced for his perspectives on the gift economy and systemic shifts toward regenerative cultures.

Charles Taylor – Used to explore how social imaginaries shape collective understanding of systemic change.

Chris Kenyon – Co-developer of heutagogy, informing new self-directed learning models in regenerative education.

Daniel C. Wahl – Key thinker in regenerative design, cited for insights on shifting from sustainability to regeneration.

Dan Hill – Pioneer of strategic design and the design-led approaches to mission-based social innovation.

Daniel Schmachtenberger – Discussed in relation to complexity science and the necessity of systemic wisdom in universities.

Dark Matter Labs – Referenced for its research on new governance architectures and systemic design.

David W. Orr – Cited in critiques of industrial education models and the call for ecologically integrated universities.

Donella Meadows – Her work on leverage points is foundational to discussions on systemic intervention strategies.

Referenced Sources of Knowledge & Inspiration [2]

Dunne & Raby – Used in exploring speculative design as a tool for reimagining university futures.

Elliot Shore – Referenced for his insights into institutional inertia and the challenges of paradigm shifts in education.

Elinor Ostrom – Cited in advocating for decentralised governance structures in regenerative university models.

Elizabeth Shove – Discussed in relation to practice theory and how daily habits influence systemic transformation.

Ezio Manzini – Referenced for his work on design-led social innovation within education and community engagement.

Fritjof Capra – His systemic view of life informs the discussion on shifting from mechanistic to ecological worldviews.

Fred Polak – Used in exploring how visions of the future shape cultural transformations.

Gregory Bateson – Cited for his work on ecological epistemology and learning systems within living contexts.

Gregory Landua – Referenced for the Eight Forms of Capital, expanding economic thinking in regenerative transitions.

H.G. Wells – Quoted in discussions on the urgency of educational reform in response to accelerating crises.

Hanzi Freinacht – Metamodernist perspective used to explore the evolution of worldviews and governance.

Horst Rittel – Co-creator of the wicked problems framework, applied to sustainability challenges.

Iain McGilchrist – His neuroscience research is referenced to critique reductionist thinking in universities.

Inner Development Goals – Discussed as an alternative to SDGs, focusing on inner capacities for systemic change.

Ivan Illich – Cited for his critique of industrial schooling and advocacy for decentralised learning models.

Ilya Prigogine – His work on dissipative structures informs discussions on how complexity drives transformation.

Referenced Sources of Knowledge & Inspiration [3]

Jabe Bloom – Discussed in relation to adaptive strategy and governance innovations.

Johan Rockstrom – Cited for planetary boundaries as a framing for universities' role in regeneration.

Joe Brewer – Referenced for his work on bioregional regeneration and cultural evolution.

John Vervaeke – Discussed in the context of meaning crises and their relevance to systemic educational shifts.

Jonathan Rowson – Cited in discussions on the metacrisis and the need for epistemic humility.

Joseph Stiglitz – Referenced in critiques of neoliberal economic models within education and sustainability.

Joseph Voros – His Futures Cone is used to discuss universities' role in shaping preferable futures.

Kate Raworth – Doughnut Economics is discussed as a guiding model for regenerative institutions.

Margaret Mead – Quoted for her belief in the power of small groups to enact systemic change.

Mariana Mazzucato – Cited for her research on mission-driven innovation and public investment in change.

Martin E.P. Seligman – His work on positive psychology informs discussions on future-facing education.

Melvin Webber – Co-creator of the wicked problems concept, linked to sustainability transitions.

Michel Bauwens – Discussed for his work on digital commons and decentralised knowledge systems.

Nora Bateson – Referenced for her warm data concept in addressing complexity in learning.

Otto von Bismarck – Quoted in discussions on pragmatic approaches to political and institutional change.

Peter Berg – Co-founder of bioregionalism, informing discussions on place-based learning.

Peter Senge – His work on learning organisations is referenced in university governance discussions.

Rainer Maria Rilke – Quoted for reflections on living with uncertainty in times of transformation.

Referenced Sources of Knowledge & Inspiration [4]

Raymond Dasmann – Co-creator of bioregionalism, discussed in grounding education in place.

Regen Foundation – Referenced for its work in regenerative finance and economic models.

Regen Network – Cited for leveraging blockchain in ecological regeneration incentives.

Robin Wall Kimmerer – Used to highlight Indigenous perspectives on reciprocal relationships with nature.

Rutger Bregman – Discussed for his radical ideas on rethinking work, welfare, and education.

Sabelo J. Ndlovu-Gatsheni – Referenced in discussions on decoloniality and epistemic justice.

SEEDS – Cited for its role as a decentralised economic platform for ecological stewardship.

Saras Sarasvathy – Effectuation theory informs regenerative entrepreneurship discussions.

Sohail Inayatullah – Used for Causal Layered Analysis in rethinking university futures.

Stuart Candy – Referenced for experiential futures and participatory foresight.

Susan Leigh Star – Boundary objects concept informs interdisciplinary collaboration models.

Thich Nhat Hanh – Quoted on interbeing, supporting relational approaches to knowledge.

Tobias Luthe – Cited for regenerative design principles and complex systems thinking.

Wendell Berry – Referenced for his advocacy of localism and ecological stewardship.

William James – His pragmatism informs discussions on action-oriented learning.

Zachary Stein – Discussed for his work on education as a driver of systemic transformation.

"True education is a kind of never ending story – a matter of continual beginnings, of habitual fresh starts, of persistent newness."
— J. R. R. Tolkien