The Path to a Preferable Future: Investing in System Innovation

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Making The System Shift Learning Festival

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Acknowledgements

The System Innovation Initiative at the ROCKWOOL Foundation Interventions Unit connects knowledge and practice on system innovation to leaders, innovators, investors and entrepreneurs who want to have more systemic impact and meet big, shared, societal challenges in new ways.

This draft report is the product of a collective endeavour of many people across the emerging frontier of systems investing, convened over several discussions in 2021 and 2022. **A full list of participants is included in Appendix 1, along with a description of the dialogues.** Where examples draw directly from these conversations we have marked names **in bold**. The following is a synthesis of those discussions, including many unresolved questions and challenges; it is not a statement of a position taken by the ROCKWOOL Foundation Interventions Unit.

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We hope this working draft will help stimulate further debate, not least at and around the System Innovation Initiative's 2022 Learning Festival, Making the System Shift. The ultimate test of these ideas is how they help people in practice – investors, innovators, communities, governments – mobilise capital to create better, different kinds of systems.

1. Introduction

Jeff Cyr is working on an unexplored frontier which is opening up rapidly: the frontier between social change and financial capital. **Raven Indigenous Capital Partners**, the social impact investing firm Cyr co-created and the first fully Indigenous investment fund in North America, alongside its sister organisation the Raven Indigenous Impact Foundation, is finding ways to bend financial capital to the interests and values of Indigenous communities. He is not alone. Many others are now scattered along the frontier and they are slowly making contact with one another. This movement of pioneers at the frontiers of investment and social change has huge potential.

On Fogo Island off the coast of Newfoundland, former tech executive turned impact investor and philanthropist **Zita Cobb** is leading a community-wide effort through **Shorefast** to economically regenerate the island from the ground up, with investments led by community priorities. In New Jersey **Raquel Mazon Jeffers** and the **Community Health Acceleration Partnership** are leading an effort to promote new models of community health and care, including the **Widespread Care** initiative founded by **Josh Nesbit** to provide care in communities rather than in institutions. At the **UNDP** in Bangkok **Giulio Quaggiotto** devised new forms of development finance which would allow philanthropic, private and public funders to share the risks of creating new systems for energy, food and tourism in developing nations. In Manitoba **Teresa Dukes**, Executive Director of the **Manitoba Government's Social Innovation Office**, has created a portfolio of social impact bonds with communities and philanthropy to mobilise capital to meet community needs, for example to strengthen primary health care.

These are just snapshots from the frontier. What these pioneers have in common is a shared quest to create a more inclusive, less unequal, more sustainable economy. We call this system innovation, and the efforts to mobilise and deploy the resources needed to make it happen, systems investing.

Although they may be small judged by the scale of the capital markets they interact with, these pioneers are asking a fundamental question about sovereignty: how can people and communities gain more sovereignty over the capital they need for investment in what matters to them? Power over and control of capital is concentrated, and those with that control often have the final say in where investment goes. How can the voices of other people, perspectives and priorities influence decisions about investment which affect their lives? And how might this lead us toward the new and better systems so urgently needed?

We know these efforts have potential because new systems always start with small seeds, visible attractors, containing the potential to spawn entirely new systems. Those visible attractors pull investors, collaborators, government, innovators and entrepreneurs to explore the space they have opened up. The visible attractors for the first industrial revolution was Richard Arkwright's Camford Mill, which opened in 1771. The electrical revolution began not with Thomas Edison's light bulb but with his demonstration in 1878 of a system to generate and distribute electricity to light entire buildings. The child centred early years programmes of Emilia Romagna, created amidst the devastation of Italian social systems after World War II, have inspired emulators from around the world. Suresh Kumar's groundbreaking community-based palliative care system in Kerala, which mobilises thousands of trained volunteers, is now inspiring similar movements as the developed world grapples with the toll of long term conditions. From electrification and the internet, to the rise of the welfare state and the creation of public infrastructure for waste and water, libraries and schools, we know that these first seeds can carry the potential to create large scale systems.

How might this pioneering system investment activity expand and cohere, to help drive these types of shifts with intention, and at the scale and pace needed for today's urgent social and economic systems challenges? The stakes are high. Many of the systems we rely on are stressed to the point of breakdown; there are plenty of reasons to be worried about the future. Yet there are many people doing interesting and ambitious work, often in the spaces in between, trying to knit together different kinds of investment, incentives and goals to create entirely new possibilities. The solutions they are devising are homegrown and evolving, devised in situ to address an urgent need. But they contain the seeds of a remade relationship between financial capital and the demand for systemic change.

Allow us to next explain why we undertook this journey before going on to map out what we found and where we think the big opportunities lie, beyond the current frontier.

1.1. System Innovation

Systems deliver big outcomes for society, not standalone products. Edison's electric light bulb was almost useless on its own; electrification was the system that powered the twentieth century, created by the generation and distribution networks that provided electricity to innumerable machines. The extraordinary good health of most Costa Ricans depends not on drugs and doctors but on a web of community-based health care provision which melds the formal with the informal around a very inclusive ideal of wellbeing. Advances in literacy and learning have been driven by public systems for education. Everyday we turn to systems for information, money, heating, food, transport, care — without which modern life would be unimaginable. To live better lives we need better systems.

Many of the systems that we rely upon are under intense stress, as inequality deepens, the climate crisis accelerates, competition over resources intensifies and international order seems increasingly fragile just as we need to come together to tackle big shared challenges. Few of the systems we have – for food and energy, care and health, training and education – seem fit for purpose. Instead they seem designed for a different era. That is why a growing number of investors, funders and commissioners are looking to invest in the kinds of system innovations that can help us break out of old models and plot a path to the new systems we need.

Systems are invariably interconnected and complex. Shifting an existing system or creating a new one are both protracted, emergent processes that involve innovations at different levels coming together: at the micro level, new lifestyle habits and the new technologies, products and services that support them; at the meso level the new infrastructure needed to connect them along with innovations in public policy frameworks, business models, financial and institutional arrangements; which combine with shifts in social norms and values at the macro level, driven by social movements and changes in consumer demand, that put pressure on mainstream systems to change.

Critical to the prospects for change in many other systems is the system of finance itself. Finance is an enabler of change through investment in the real world of new systems, technologies and business models. But finance is not just a tool, it is also a frame. It frames how we think about change: who calls the shots, what their goals are, how we should think about the outcomes we seek. We cannot hope to shift other systems unless we shift the system which controls our investment in and capacity to bring the future to life. Too often the financial tail wags the much larger real world dog. As **Zita Cobb** of **Shorefast** put it, we have to remake our relationship with money to remake the rest of our lives.

1.2. Systems Investing

By "systems investing" we mean the various ways in which resources of many kinds – money, people, real estate, relationships – are mobilised and deployed with the goal of shifting systems or creating new and better ones.

- The word "invest" is used throughout this paper as shorthand for a range of ways of mobilising and deploying capital, including return-seeking investment, granting or other funding, and whether using private, public, philanthropic or community capital.
- By better, different systems we mean systems that will support an equitable, sustainable, flourishing and regenerative economy.

- By *shifting* systems, we mean unlocking enduring changes in the resource flows, relationships, power and purpose of a given system.

Systems investing is not just a method, a way to assemble the capital to bring about big change; it also has a goal and a direction, a sense of mission and vision, to create better ways to live. Then financing structure can follow, as appropriate to meet those goals. Form follows function.

In our explorations we were particularly interested in uncovering new practical approaches and models for systems investing, including:

- **Roles** that are emerging to enable that investment to happen in a coherent, coordinated manner.
- **Vehicles,** instruments and structures which can accelerate deliberate efforts at investment in ambitious systems change.
- **Strategies** that systems investors and innovators are employing to engage different kinds of investors and players in the system.
- **Frameworks** for aligning together different kinds of capital – private, public, philanthropic, communitarian – around social and community priorities, at scale.

System innovation and systems investing pose substantial challenges to conventional approaches to investment. Conventional investors usually make specific investments in assets, organisations and projects, on the basis of a plan to yield a measurable return over a limited period. Companies present business plans to venture capitalists; charities present theories of change to foundations; government units present budget requests for defined programming or activities.

Yet system-shifting investment requires investors to collaborate, over long periods of uneven development, to generate shared benefits which are often impossible to pin down in advance and hard to attribute to any one organisation or activity. Investing in system change poses technical challenges, to orchestrate different kinds of capital around a common mission. But it raises more fundamental questions of power and purpose, goals and values: what kind of outcomes are investors motivated by, what change to the world do they seek, and who gets to decide? Deeper change will require investors of all kinds to engage with these questions of power and purpose.

Dominic Hofstetter, from the **TransCap Initiative** reminds us that we need to think about investing for system innovation, rather than in system innovation. It is the strategic intention to invest to generate systems transformation outcomes that matters, while any particular individual investment may not achieve this directly. For example an investment in a gas-fired power plant might not on the surface be a transformational investment, but it may be argued to be an investment for system change when it is explicitly designed to enable a shift towards a power grid based on renewables. The context, intention and strategy behind the investment matters.

Three particular challenges to conventional approaches to investment stand out:

Collaboration

Investing in systems change is well beyond the reach of any single investor or any one sector. Systems change requires highly collaborative, mutually reinforcing strategies across a number of fronts involving many types of capital and forms of investment. Who will build the critical social infrastructure required for systems investing? Who orchestrates this collaborative work and how is this funded? What is the role of government as regulator, legislator and enabler in creating the conditions for system change?

Timing

Investing in system innovation requires collaboration over several scales and time periods, which demands foresight, stamina and patience. Yet the state of the world suggests it is also urgent and pressing. How can we do long term work with a sense of urgency? Mainstream investors often work with compressed timescales. Foundations typically make grants to social organisations for a limited period. Governments are capable of making long-term, game-changing investments but much of the public sector is juggling annual budget cycles. Though fund managers often have the ability to think over longer time scales, much of the most visible economy is judged on quarterly returns. How can we speed the process of systems investing to address urgent challenges, yet avoid the chronic short-termism of conventional approaches?

Value

Systems change only happens when much more value is created than first seemed possible. When Malcolm McLean ran the first ship to carry containers in 1956 no one thought it would lead to an entirely new system for transporting freight. When Alvaro Salas set up his first community health team in rural Costa Rica, only he and his team were convinced it could be the basis for an alternative health system. As noted earlier, first movers in system innovation act as "visible attractors" for other investors and entrepreneurs who take up the opportunities being created by new industries, markets and systems. Investors in initial system shifting ventures, or in the conditions for systems to shift, invariably never capture the value they create for follow-on investors. They have to be prepared to share this value with others and not stand in the way of new, unforeseen value being created by entrepreneurs, communities and citizens. How can the risks and rewards of systems investing be shared between different investors to set in train this generative process?

The good news is that more people are trying to come up with imaginative, practical answers to these questions.

2. News from the Frontier – An Emerging Field

Robin Hacke, Executive Director of the Centre for Community Investment, reflecting on a long career spanning venture capital and community regeneration, sums up her approach this way: "Resources follow coherence."

Investors are attracted to coherent, shared stories of change, a cause to which people can show their commitment. That is true of venture capital investors choosing to back a business but it's also true of community investors choosing to back a neighbourhood.

While the systems investing frontier is increasingly populated by bright sparks, there isn't yet a coherent field capable of powering the systemic transitions our times demand. The ingredients of a coherent field are emerging but they need connecting. System innovation investing needs a sense of coherence, built on shared principles and foundational knowledge, underlying new practices and products.

Below are some of those emerging ingredients – although as we'll see later, many of the pioneers featured in this paper have found themselves stretching beyond, or blurring these boundaries and roles in their own work.

2.1. Foundations

Change is starting to spread through philanthropy, much criticised for failing to use its wealth, often created by unequal systems, to catalyse systemic change. A wide range of foundations are adopting system innovation as their objective: providing trust based funding through multi-year unrestricted and collaborative grants and more reciprocal relationships with grantees; deploying endowments to back projects with investments, loan guarantees and social impact bonds, as well as shifting investment portfolios towards environmental and social goals; and generally orienting their own goals toward supporting more ambitious system change efforts – investing in longer term thinking and more speculative funding for people proposing new models and paradigms of care, work and health, for example.

We engaged with several far-sighted foundations, including the **Graham Boeckh Foundation** of Montreal which anchors a global network of mental health research funders with the aim of promoting new systems for promoting good mental health, as well as the **WES Mariam Assefa Fund** and **Trottier, Ivey, Paul Hamlyn, Laudes, Joseph Rowntree, Thirty Percy and Resolution foundations**. We also learnt from the

CARE Fund, set up by a consortium of US foundations. More foundations are becoming more open to a deeper questioning and reimagining of their role in system innovation.

2.2. Private Capital

Private capital has a critical role in the process of bringing about systemic change. While many conventional investors still focus exclusively on risk-adjusted financial returns, others have signed up to initiatives like the United Nations Principles for Responsible Investing (UNPRI) or have pledged to take into account environmental, social and governance (ESG) aspects of their investments, or even committed to investing exclusively in social impact ventures. A growing band of investors recognise that these sorts of commitments are not nearly enough to bring about deeper, lasting change. It is this leading edge of investors we are interested in.

We engaged with several of the sorts of insider-outsiders in the financial system that will play a critical role in future: they operate in the mainstream financial system, often with years of experience, but can see it from the outside and bring to it new ideas and perspectives. System change invariably requires innovation and entrepreneurship in finance, to create the new financial vehicles to bring forth new systems. The mass production revolution started by Henry Ford would have been stillborn were it not for the new financial institutions which allowed banks to provide car dealerships with money to lend to consumers. The more sustainable, inclusive, regenerative systems of the future will require their own investment innovations to bring them to life.

2.3. Government

Government is an absolutely essential player in this field, but is often overlooked. Governments everywhere recognise they urgently need new and better ways of addressing compounding social challenges, with public servants often tasked with trying to make the best of systems that are simply no longer fit for purpose. Our discussions suggest government is critical, and as demonstrated in the example of **Teresa Dukes** above and others, can often be a creative partner in systems investing efforts. Taking the mission oriented approach advocated by economist Mariana Mazzucato would mean directing public funds to support direct, mission-driven investment in new systems, for example supporting the development of new green energy systems or mental health systems. But also that government can be equally as important as a mission oriented enabler and regulator, shaping markets through subsidies, regulation, law and policy that encourages private capital to work for social goals. There is a critical role to play in crowding in investment to create new markets around public priorities. **The Centre for Community Investing**, for example, works with state governments in the US as well as anchor public institutions to shape public policy to enable greater investment in affordable housing and community economic development.

2.4. Community Capital

Place is a powerful convening point for people and systems. Among many community wealth builders, we engaged with **Zita Cobb** at **Shorefast** working on Fogo Island; **Terry Cooke** of the **Hamilton Community Foundation** in Ontario; **Gabriella Gomez Mont**, former Creative Director for Mexico City and now an advisor to the Mayors of Istanbul and Bogota, as well as learning from community wealth building initiatives from Columbus, Ohio to Preston in the UK, from community bonds to local real estate trusts and economic development initiatives.

These efforts are typically isolated, comparatively small, and often swimming upstream against the norms and practices of the economic and financial systems around them. But increasingly they are creating models of community wealth-building which can spread and be adapted more widely. One sign of what might be possible is the way the UK Impact Investing Institute created a model for more of the £360 billion in local authority pension funds to be invested in local community priorities. The most effective regeneration initiatives might start with an injection of outside investment but they only achieve lasting change if that generates new flows of resources within communities, as **Zita Cobb** puts it, from the ground up.

2.5. Movements

Change is being driven by new social movements that have emerged in response to crises in our economic and social systems, such as Indigenous Reconciliation, Black Lives Matter and Extinction Rebellion. Movements are powerful mobilisers of public opinion, often in protest against a failing status quo. One task for system innovation may be to connect with, learn from, and support these movements, to help build bridges from opposition to proposition. Stopping bad things is a laudable achievement on its own, and often all that can be asked of communities experiencing harm and working with limited resources. But how can this also lead to creating better alternatives, where problems become the starting point for possibilities? When movements can engage in both opposition and proposition, the possibilities they demonstrate too act as “visible attractors” for different ways of life.

Movements help to shape the markets in which investors and entrepreneurs operate. One priority for the next decade will be to create bridges, to connect social movements and people with lived and learned experience to systems investment. How might those most impacted by broken systems be central in reshaping them? Who creates the bridges between social movements and systems investors? The Centre for Economic Democracy in Boston calls this ‘social movement investing’: to align capital to community goals for social justice.

The social dynamics of a just, green transition may offer some of the most fertile ground for this coming together, where work and community meet the future of the planet. This is where we saw much of the most innovative systems investing practice emerging.

2.6. Framers

These practical efforts are being stimulated and supported by an increasingly articulate field of thought leaders and framers. We drew heavily and gratefully on several including: The Investment Integration Project; the Transformation Capital initiative; Omidyar Group’s work on system change; Catalyst 2030’s transformation finance group;

Deep Transitions Futures work on Transformative Investment; Rockefeller Philanthropy Advisors; the European Venture Philanthropy Association's unfolding efforts to create a Transformation Finance Lab; the Centre for Economic Democracy's work on investing in social movements; Doughnut Economics Action Lab; the Centre for Community Investment and the Yunus Centre at Griffiths University in Australia.

Across this emerging landscape the boundary blurring and pioneering actors we engaged with helped us to identify a range of elements needed to create a stronger, more capable and ambitious field of systems investors:

- Support for new roles including new intermediaries and orchestrators developing systems investment ecosystems and opportunities.
- A solid knowledge base, drawing on academic, industry and community knowledge.
- Places to share knowledge and experience, debate and argue.
- A developing community of practice based on shared experimentation.
- Common principles to underpin the ideals of systems investing.
- Practical models, vehicles, instruments and examples to be applied in different settings, especially to scale flows of capital beyond initial experiments.

3. Systems Investment Strategy and Intent

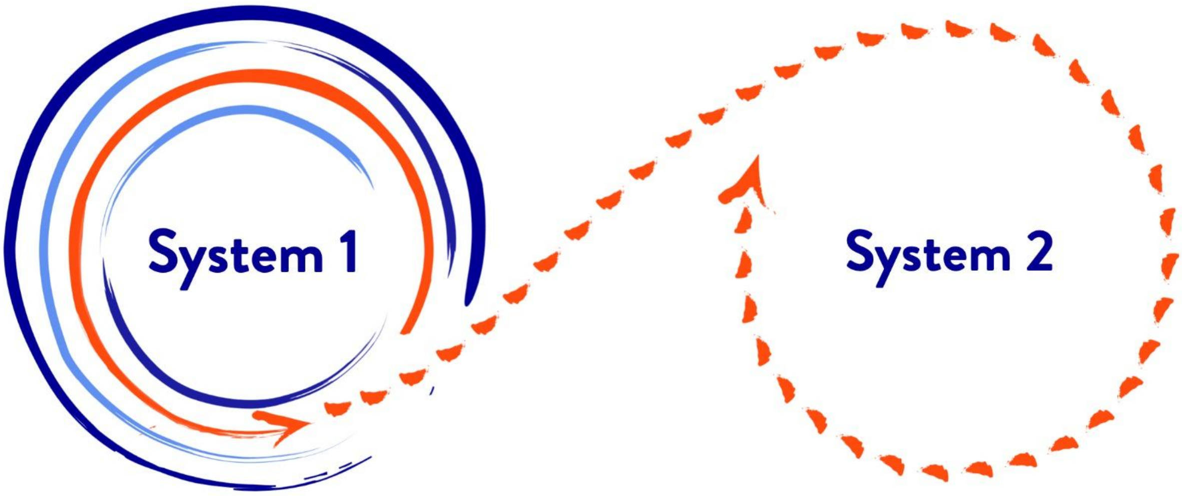
Our conversations consistently came back to the need to build systems investment strategies that are clear about their intent. Defining system innovation objectives and then considering the combinations of capital and mechanisms needed to achieve these objectives will allow us to better understand where we are trying to get to, what strategies can best achieve this, and whether it is working.

So how might we think about the goals of systems investing?

3.1. Improvement or Transformation

One crude way to visualise system change is to distinguish between innovation designed to improve the system as it stands (by making it more efficient, less wasteful and reducing the harms it might create), and innovation intended to more fundamentally shift a system to an entirely alternative way of operating.

In the diagram below we think of the first innovation as within System 1, and the second innovation as working to create System 2. There is already a mass of innovation designed to improve existing systems, and this work is important. **We are particularly interested in investment to create new, better, different systems.** Sometimes, rarely, that can involve creating a new System 2 virtually from scratch, for example addressing a new issue that has gone unaddressed: the mental health crisis among young people might be an example. More often, system innovation involves an arduous transition, shifting an existing system to a different way of working – for example reorienting health systems towards preventative, community-based wellbeing. Investing in System 2 involves both enabling the long term vision of a different system and also supporting the transition to it.



Innovation within a system: **Improvement** Innovation to create a different system: **Transformation**

Building Better Systems 2020

That dynamic is now playing out in the financial system itself. There is a growing field of innovation from within System 1, to address its shortcomings. Governments, like Manitoba, are experimenting with social impact bonds, and more show an interest in mission-driven innovation for big societal challenges. Foundations are increasingly experimenting with new ways to evolve their roles and ability to have systems level impact. Private capital has seen the massive growth of ESG funds and the emergence of a significant impact investing movement, and a growing list of financial innovations meant to better connect private capital with social outcomes. **Philipp Essl**, from **Big Society Capital** in the UK outlined a series of practical innovations BSC has pioneered to adapt existing financial products to new uses: bonds to allow charities to borrow more efficiently; investment trusts to allow mainstream investors such as pension funds to put money into impact investing funds; support for venture capital firms such as Balderton Capital which has aligned its strategy around the Sustainable Development Goals.

At the same time we are seeing ambitious visions of alternative systems, which work to a different kind of logic: restorative, regenerative, circular systems which support community wealth building. An example is Kataly Foundation's $300 million Restorative Economies Fund (REF), an integrated capital fund, REF gives grants and risk capital to organisations, enterprises and real estate projects that build community ownership and governance. Kataly is one of a small field of radical foundations like Access Strategies, Chorus Foundation, Jessie Smith Noyes, and Fund for Democratic Communities which make grants and high risk investments to back community based just transition strategies. Strategies that are both "fighting the bad and building the new." Cities, companies and foundations have gathered to support and implement Kate Raworth's ideas for economies that are circular and distributive by design, set out in her book Doughnut Economics. In response to urgent challenges people are increasingly asking big questions about how the economy should be organised from the role of work to the role of money and finance. Groups like Partners for a New Economy are funding projects to rethink the role of money and banking. All of this is going on as the mainstream financial system itself goes through continuing upheavals with the explosion and implosion of cryptocurrencies, the growing use of block chain technologies, and the emergence of digital platforms, which might make other new things possible.

A movement to shift the finance system is underway, fed by innovation from within to ameliorate its dysfunctions, combined with efforts to create entirely new models for investment to promote equity, shared wellbeing and sustainability. Most of the pioneers we spoke to were right in the thick of this, in the unmapped middle ground, somewhere between the system as it stands and the system as it could be.

3.2. Solving Problems or Opening Up Possibilities

Another way to think about systems investment is whether it is intended to address a problem or to open up a possibility. These two approaches can both be counted as system innovation but they take quite different forms and serve quite different purposes.

A problem-focused approach is designed to reduce a cost or harm created by a current system. A good example is the work the Esmée Fairbairn Foundation has done with communities, councils and businesses in the Wyre Valley to bring them together to reduce the risks and costs of flooding. That requires a systemic and collaborative approach involving many stakeholders, with the investment funded by the savings created by radically reducing flooding.

That is quite a different kind of systems investing from an exploratory approach designed to open up a possibility, where it is impossible to put a figure on the likely returns. An example might be investing in entrepreneurs and communities trying to develop new local food systems.

Unsurprisingly it is easier to find investment to solve known, quantifiable problems which have a price tag than it is to fund the exploration of a potential possibility, which might open up new markets, industries and ways of life. Modern economies devote considerable resources to creating the science, technologies and ventures which might make the future, through venture capital funds and public and private research and development. We need more investment in the social imagination which could drive investment in a different direction.

When **Jeff Cyr** launched **Raven Indigenous Capital Partners** to provide more venture funding for Indigenous entrepreneurs he found the fund had to build up the capacity of the system to imagine a different way of working with money:

> “What we quickly found out is that we had to build a foundation, a not-for-profit society alongside the private capital arm, so that we could use three or four different forms of capital, to actually push against systemic racism and build the thing that we needed to build. The venture capital fund is an Indigenous led and owned venture capital fund. It operates at the enterprise level. We employ community-driven outcomes contracts, which operate at the community level. And then we do what I would call transformative ecosystem work that we realised we need to do because of deficits in the system, through our Foundation side. Here, we do things like the Fireweed Fellowship, which is an Indigenous women’s fellowship and business investment accelerator, and then we also do business innovation labs on complex problem solving. So we have organically ended up building all these vehicles to work at the systems level, because there's so much missing in the Indigenous space. There are a lot of lessons in our journey, it does take time, much longer than a traditional venture capital approach.”

We need both systems investing to fix known problems – to reduce harms – but we also need funding to explore and develop entirely new possibilities – new systems for food, care, work, health, energy. The two can be at odds. Shoring up a failing current system can forestall urgent investments in alternatives, as **Josh Nesbitt** from **Widespread Care** and **Raquel Mazon Jeffers** from **Community Health Acceleration Partnership** pointed out. Yet they can also work together when done with intention. Investment to deal with current problems can build trust and confidence: like repairing the windows on a run down house. But to remake an entire neighbourhood a community needs a shared vision, of public space, housing, education, transport and services. Communities renew around a shared, unfolding vision of what they could become. Again, resources follow and flow from coherence, as per **Robin Hacke**.

To paraphrase the Canadian social entrepreneur Al Etmanski: solving problems in new ways will get you to the leading edge of the status quo; if you want to go beyond that you have to privilege the imagination. To imagine new, different, better solutions we have to take a leap of imagination.

The same is true for systems investing. Without investment to open up adjacent possibilities of the future, we will be trapped with an at best improved version of the status quo.

3.3. Pragmatic Steps or Transformational Intent

A third related distinction we see among the pioneers is between those who take a more evolutionary and pragmatic path, building out from the system of investing as it is, and those who take a more transformational approach, seeking to create a system with very different values from the start.

At the more pragmatic end, system investors are:

- Fixing costly problems within current systems which pose a significant risk to financial investors or the mainstream economy.
- Creating a new route to deliver a traditional mix of financial, social and environmental returns.
- Working with existing power structures to reorient them to new goals without overtly questioning or challenging their motives or power.

The case for pragmatism is that it's easier to engage traditional investors in systems change by not asking them to adopt new goals and values. Investors do not need to buy into the big picture of systems transformation to fund a discrete part of what is needed.

Giulio Quaggiotto of the **UNDP** articulated the case for the entry ramp approach to systems investing:

> “We're trying to design an instrument that has a longer time horizon than most we deal with, one that allows different players with different interests and using different financial instruments to come together to fund different parts of a portfolio, acknowledging that some of them might not have necessarily an interest in system transformation, but they might still be interested in financing parts of a portfolio.”

Good examples of this pragmatic approach are the work that Big Society Capital and Social Finance are doing in the UK to create business models and investment vehicles for mainstream investors to put money into ventures which bring about social change, for example reducing the premium paid by households in poverty for everyday goods and services.

The dilemma with this pragmatic approach is whether it’s possible to change the status quo while appealing to it.

At the transformational end of the spectrum are those who want to:

- Open up possibilities to create new systems, not just fix the systems we have.
- Imbue new systems with new purpose, goals, outcomes and measures of value.
- Give voice to those marginalised by current systems and so generate new sources of power, in new forms, in movements and communities.

Transformational strategies involve a deeper shift, to endorse a different set of values about the change they want to bring about, whether that is equity, inclusion, justice, sustainability, natural regeneration. They align their strategies, deploy resources and build alliances and coalitions around this shared sense of purpose.

One version of this spectrum comes from **Steve Waddell**'s work on financing systems transformation:

	Progressive Capital Adjustments *to* the system	**Transformations Capital** Transformation *of* the system
Intent	Triple bottom line returns	Transformation and systems change towards flourishing futures for people and planet
Strategy	Single investments or project grants	Connected portfolio/programme-driven investment/granting
Action Logic[16]	Simple (sense-categorise-respond) and Complicated (sense-analyze-respond)	Complex (probe-sense-respond)
Capital Source	Individual/institutional investors	Diverse blended sources
Investment Tools	Market orthodoxy with expanded return analysis, wealth creation	Systemic-based measures, analysis, partnering, value creation
Dynamic	Investor in control	Inherently collaborative with multiple stakeholders
Power Goals	Dominant: defaults to assumed/conventional authority and simplifying relationships	Liberatory: embracing complexity and difference to unlock potential
Investment Focus	Technological/physical infrastructure with environmental concerns	Socio-technological infrastructure within planetary boundaries

Source: Waddell, "An Investigation into Financing Transformation", 2021.

The starting point has to be clarity about what change the investment capital is being deployed to support, the expertise that is based on and the way that other stakeholders gather around the mission. One version is the community-driven systems change that **Zita Cobb** is helping to build from the ground up through **Shorefast** on Fogo Island.

> "The system that we're trying to change is the money system in the broadest sense. And if you go underneath that you're talking about: 'what is our value system?' And 'what is the relationship between things that have inherent value and

> their financial value?' My experience of most philanthropic organisations is they have the same broken relationship with money as every other organisation on the planet. Too much is being run by asset managers. I haven't come across many organisations in the philanthropy sector that are equipped with the skill sets, mindsets and soul sets to keep the asset managers in check and deploy financial capital to do the work that needs to be done."

Jeff Cyr at **Raven Indigenous Capital** argued that there isn't necessarily a trade-off here between values and capital. Some conventional investors are keen to have the opportunity to see the world through a distinctive set of values:

> "As we are Indigenous led and owned that shapes how we do investments. We innovate in the image of our culture, what's called decolonizing in a way that would not be possible under mainstream constructs. What we've also discovered is that when we came into this, we saw a deal pipeline of about fourteen deals that were robust. Right now we're probably sitting on 50-55, maybe more, and they're coming every day. So there's a catalytic effect about having an Indigenous fund management firm out there that the rest of the system, like people on the ground where real stuff happens, the people doing these things on the ground are gonna go, 'Oh, yeah, there is a way I can get funded'.... and if you take someone like Massachusetts Mutual who is an $880 billion asset holder in the United States who came in to invest with us; they've just loved the journey, where we connect investees and investors through our business impact feasts, and how we actually bring our traditional epistemology through. I think mainstream capital's found it extraordinarily rewarding to be involved with something that is so different."

That means moving toward a financial system which reflects a fairer balance of power:

> "Something Raven deals with every day is the power imbalance in the financial system for Indigenous ventures and entrepreneurs. At the enterprise level we

> work with each company now to build an Indigenous impact narrative to hard bake those values into its investment agreements."

This kind of transformational approach requires profound soul searching about our relationship with money and financial returns as the measure of success in investing. At a recent conference **Sarah Teacher** from the **Impact Investing Institute** asked: "Why does capital have the loudest say? Historically the voice of capital is prized to the exclusion of others." **Caroline Mason** from the **Esmée Fairbairn Foundation** remarked: "Something has to flip. We have to shift deep cultural norms within the financial system."

That involves unpacking why the financial system is as it is. **Stephen Huddart**, former chief executive of the **McConnell Foundation**, put it this way:

> "We need to do some excavation, the cultural anthropology that explores mindsets, and history. How did we get here? What's holding this system in place? What are the attitudes and assumptions that inform the status quo? How did we end up with the kind of financial system we have? And when we begin to pick and probe, we start to see that a lot of what we assumed about our histories needs to be remade."

The pragmatic approach aims to work with power structures as they are, to draw mainstream investors towards approaches which create wider social and environmental value, without challenging their power.

The more transformational approaches taken by the likes of Raven and Shorefast, raise issues of who should have the power to set a new kind of purpose for investing. The pragmatic approach mobilises and engages capital now in addressing current problems. The transformational approach opens up possibilities, shared visions of what the economy could become. We need both approaches, though they do not necessarily work in tandem, and the pragmatic may indeed forestall the transformational if we are not careful.

We are better at pragmatic, problem focused, System 1 oriented systems investing. Moving in a more transformational direction demands greater shifts to existing norms, deeper imagination, and questioning who has power to set purpose. These questions of power and purpose are keys to deeper change.

3.4. Four Keys to System Innovation

Our broader work on system innovation shows that when a system changes, this is related to significant shifts in:

- **Resources**, including money, people, infrastructure, real estate, and how they flow through a system.
- **Relationships**, whether systems are organised as hierarchies, networks, markets or communities.
- **Power**, who has it, what forms it takes (soft and hard), what they can do with it (to resist or to initiate) and how it can be generated (through knowledge or collaboration).
- **Purpose**, the hegemonic values and norms that guide the system, its mission and so its method.

We call these the Four Keys to unlock system change. A shift in any one of these can change a system: new resources might become available through technological innovation; relationships are recast for example from centralised to decentralised; power shifts from one group to another; purpose shifts because new norms and values spread through a community. Systems change when all four of these keys are turned in the right direction.

The most successful system innovations actively shift these four keys. System investors should seek out those ventures, platforms or movements that are designed to distribute power differently, reconfigure relational patterns and redirect resource flows, in order to bring a system with a new purpose to life. Those four keys are equally applicable to the shifts needed to create a financial system where systems investing will flourish.

Systems get stuck when the four keys are locked together in a reinforcing pattern and so change is very difficult. That's where the financial system is now: the power to set the purpose lies with asset owners and fund managers, who have typically sought to maximise financial returns; that in turn sets the tone for relationships, as capital calls the shots and determines where resources flow, to which projects, ventures and communities. People outside the circles of power have little say over its outcomes, though these outcomes directly impact their lives.

All the pioneers we spoke to are trying to find ways to mobilise the **resources** of the financial system in new ways, using social impact bonds, catalytic grants or impact investing models for example. However their work shows that it's the other three keys that are critical. Usually money is not the key factor; it's who is going to use the money for what ends that counts. Reconfiguring power, purpose and relationships will be critical to reshaping how resources flow, creating the conditions to come up with ideas for entirely new systems:

- Who has the **power** to set priorities and decide where capital should be deployed?
- How are the **relationships** in a given system, and the relationship between finance and investment, communities and movements being remade to give people more voice in decisions?
- Who is setting the **purpose** for investment, the goals and values against which it should be judged?

To shift from investing in the system as it stands to investing in the system as it could be will involve addressing these questions of power, relationships and purpose. When they are addressed openly money and investment will flow in different ways. That is true for philanthropy as much as it is for pension funds.

Derek Bardowell, an advisor to many foundations and a trustee at the **30 Percy Foundation,** argued that foundations can grant their money in ways that encourage transformation, if that is seen through the lens of restorative justice and reparation. The key questions for Bardowell, reflecting a much wider debate especially in the US, Canada and Britain, were:

> "Who are you returning the money to? Why is it yours in the first place? At present, all of this is undemocratic; how this money is distributed, and who gets the right to be able to do that. So rebalancing power is also fundamental to this, because who gets the opportunity to make these decisions is crucial."

With these higher level questions about strategy, intent and goals in mind, let's turn to what will be needed to unlock the potential of systems investing on a bigger scale.

4. Unlocking the Potential of Systems Investing

What practical steps can we take to accelerate the emergence of a more ambitious and capable field of systems investing, in support of the many systems transitions we need? This section highlights a number of key issues and five potential strategies to address them.

4.1. Orchestrate Opportunities, Convene Capital

Systems investing involves blending different kinds of capital. Some systems (water, canals, railways in the UK) start with a wave of speculative private investment, which creates a bubble and eventually leads to consolidation through public ownership. In other cases, the public sector makes investments, for example to create basic infrastructures (the Internet) which become the basis for a mass of private innovation (websites and social media). Road transport systems are a combination of public infrastructures and regulation with private vehicles and fuel. In other cases (health and education) committed social investors were the initial innovators, whether philanthropists, churches or communities, which eventually became the basis for public systems.

Systems typically go through a long period of gestation, before the first experiments create a new minimum viable system which is shown to work. That leads to a period of sustained investment – in which the core of the new system is built out – in which the system matures as services are taken up by citizens. Systems reach their full potential when people install and use new infrastructures in their homes, to change their daily lives: the reservoirs and pipes of clean water systems mean little without people starting to wash with soap in basins in domestic bathrooms; the pull of demand becomes more powerful than the push of investment. Health and care systems increasingly rely on the work done by carers, both paid and unpaid in households.

Studies show these processes can take decades to unfold, in part because it's so hard to engage the right combinations of investors at the right time. A priority is to spot and develop these opportunities, and create more effective ways to identify and combine the capital required over much shorter time spans. That requires a new set of roles to be played by system investors and intermediaries.

Steve Waddell, from **Catalyst 2030** and **Bounce Beyond** put it well when he said: "It takes an ecosystem (of finance and investors) to shift an ecosystem." With collaborators, Waddell is developing a model of "ecosystem finance transformation (EFT)" bringing together many different investors in a shared mission to attack a social challenge. They have identified several nascent EFTs around the world including one created by the Indian social enterprise Industree; another is the 1000 Landscapes initiative. One model of intermediation and structure that might be adapted to systems investing purposes is **Big Society Capital's** investment trusts which allow pension funds to put their money into impact investing funds. Another is the way that **Elana Ludman** and colleagues at the **Graham Boeckh Foundation** have used philanthropic investment to create a new model of youth mental health services which has attracted public and community investments.

Investor convenors will play a critical role in creating these combinations. One version is the "insider/outsider", who can engage big public systems, private capital and social entrepreneurs. **Raquel Mazon Jeffers** at the **Community Health Acceleration Partnership** described the role this way:

> "We are tugboats trying to navigate these large, slow moving, un-manoeuvrable systems into port. They cannot do it on their own."

Jeff Cyr at **Raven Indigenous Capital** has also found himself playing a similar role, in order to be a better investor**:**

> "I'm increasingly convinced there is a critical role for intermediaries just above the ventures. There are a number of intermediaries whom we discovered in our journey in similar specialised spaces and I don't know if by purpose or sort of de facto we collectively have become ecosystem players. We are actually, in my opinion, in the right place to do that, because we can see more of the space and what's needed to develop it. I'm wondering if there's a couple of different types of intermediaries required to build an ecosystem that need to work together."

These collaborative efforts need to be more than a relay race, passing the investing baton from one kind of investor to another, according to **Ilse Treurnicht** of the social investment fund **Twin Rivers**:

> "I think a lot of our approaches have been fairly simple sequential stacking of capital where everybody slots into their spot in the food chain. When we really think about transforming funding systems, I think we have to move to a more blended approach to creating those capital stacks. Because if the impact-first

> investors still absorb all the financial losses and financial-first investors can make their money without caring about impact, we're not going to see the change that we need to see and I still see a lot of that. And so part of what I'm trying to figure out is how do we get to a situation where the gears really engage with one another rather than follow each other sequentially.“

And one way to achieve that blending, according to **Adam Spence** of the Canadian **Social Venture Connection (SVX)** is for investors to see themselves as part of a broad-based, mission-driven movement for change. They need to locate themselves – intellectually, emotionally, morally – in social movements for change as well as capital markets. He gave **Impact United** as an example:

> “Impact United is a broad-based movement of investors, including families, foundations, individuals, institutions, and organisations looking to mobilise their capital towards social, economic and environmental justice. Its mandate is to connect these individuals and organisations so they can share, learn and collaborate as like-minded asset owners or investors. It's not an organisation, it's not a governing body, but it's a movement or campaign to move these folks collectively towards their first or next step on their impact investing journey. We've got foundations, Canada Mortgage and Housing Corporation, with credit unions and other financial institutions, like First Nations Bank of Canada. It’s premised on the idea that the investor community is disconnected, has capacity limitations, and doesn't have a means of coordinated action. But if they gather, and organise, we can realise the potential of much more capital deployed effectively and collaboratively to address challenging problems.”

Finally **Stephen Huddart** shared the following in reflecting on his experience as a board member of the **Transition Accelerator,** a pan-Canadian organisation building viable transition pathways to a net zero future:

> "A remarkable thing about this work is how readily the private sector, the financial sector, communities and governments are collaborating. Convening, stepping back, and looking at questions together is critical to systems change and it's not yet being funded adequately."

Potential priorities:

- Develop the role and business case for resourcing the new intermediaries, convenors and orchestrators who put together innovative combinations of collaborators and capital, support potential system investors to engage effectively, aggregate prospective initiatives into systems investment options, or support potential system innovation initiatives to organise themselves for system investment.
- Develop expertise, mechanisms and places for convening those that might use their capital together to address big shared challenges, but do not have the capacity to explore or develop these opportunities independently.
- Create new system investment vehicles for blended finance, which can attract investment from a variety of sources for a variety of purposes into the same process, offering different rewards and returns.

4.2. Create Attractive Systems Investment Propositions

Venture capitalists deal in growth companies. Angel investors operate at a very early stage. Foundations mostly fund nonprofits and charities. What do system investors put their money into, at what stage of the system innovation journey?

System innovators are starting to offer concrete, investable propositions linked to theories of wider social change, which show how different kinds of investments can be made at different stages of the journey, from the seeds of a new system to its full flowering. We need a pipeline of investable, system-shifting propositions. Here are four examples:

4.2.1. Get In Early

System innovation often starts with people, movements or initiatives that embody iconoclastic views, which run counter to conventional wisdom and may be ahead of their time. Often the seeds of a system shift are contained in an exemplar venture, or minimum viable system that might be able to demonstrate what is possible with comparably little investment. There is a critical role, especially for foundations and high net worth individuals, to sustain prophets in the wilderness, people who have the seeds of an idea which could be the kernel for a different operating system for education, health, welfare, housing, energy.

Timing is critical for capital to have the greatest long term leverage according to **Erica Barbosa**, from **Second Muse** which aims to support and invest in ventures when new economic systems are just forming. A good example is Second Muse's work on The Incubation Network (TIN), an initiative with programmes across South and Southeast Asian countries to reduce global ocean plastic pollution by improving plastic waste management and circular systems. In partnership with Circulate Capital's US $100+ million Ocean Plastics Fund and a number of corporate and public sector funding and strategic partners, TIN has provided financial and technical support to over 300 solutions while coordinating a broader network of ecosystem actors (governments, multinational corporations, entrepreneur support organisations, founders, and others). Barbosa told us:

> "Across all our work, there's that incubation and acceleration, very much centred around entrepreneurs and innovators, because we believe that economies are the most influenceable when they're nascent. And so it's easier to affect its culture, its composition and its values when they're just at emerging stages or moments of transition when we see a flourishing of entrepreneurship. But we do not care about the ventures only; really, our unit of intervention is ecosystems, essentially the rules, the resources and the relationships surrounding entrepreneurs. If we affect the relationship between all these different actors, the entrepreneurs, big companies, governments we think we not only create thriving conditions for many

> more ventures but can start to help influence how that broader economy looks in the future."

Louise Marston at **Resolution Ventures** made a similar point about her work on technologies to make labour markets fairer. She is looking for potential "system shifting ventures" which carry within them the kernel of a different kind of system, which can act as a demonstration, with a different logic:

> "We're backing ventures on the basis that they can have direct impact in their own right, but also that they can exemplify the use of technology that can be helpful for other people in demonstrating what the potential is."

Big Society Capital is a player in virtually every stage of this process of systems change, including supporting very early stage innovators through social incubators like Bethnal Green Ventures and alternative venture builders like Zinc. **Philipp Essl** explained:

> "We often start with a social issue, and then sort of work backwards. Take the example of the poverty premium: low income families paying a premium for basic services. We started by supporting extensive research efforts by the Joseph Rowntree Foundation RF to understand the issues and potential for venture-based solutions. We then issued a call for funds to find a fund manager designing and implementing such a fund to address these underlying social inequalities. We designed a venture fund that invests in business models that address those sorts of inequalities and how that actually matches with capital that is available to flow into business. The fund has a role for "user voice" in making decisions to ensure that venture solutions are likely to work from an end user perspective. For me that's the golden nugget, right? Where capital ultimately meets social issues and understanding how this works: this intersection of impact and business model."

4.2.2. Build a Backbone

The **Graham Boeckh Foundation** has led the field in Canada to create new systems to improve youth mental health. The Foundation has done basic research, convened stakeholders, supported nascent ideas and advocated for institutional realignment and policy innovation through grants, research and convening. But its critical investments are probably in "backbone" institutions – usually non-profits which are highly networked – around which a new system can form and grow. The **Centre for Community Investment** works with anchor institutions, like The Nationwide Children's Hospital in Columbus Ohio and health provider Kaiser Permanente to provide ballast and underpinning to local community organisations promoting neighbourhood renewal. That combination of the financial heft of the anchor institution with the grassroots work creates a dynamic that can then attract other investors, whether that's the city council, community endowments or local service providers.

4.2.3. Invest in Ecosystems, Not Single Interventions

Developing a system always requires a complementary set of technologies, services, finance, and regulations. It is never enough to just invest in ventures. System investors need to invest in these complementary assets as well as the spaces in between the ventures: transformative potential lies more in the sum and interplay of these things than in any one venture alone. System investors are creating portfolios, cohorts, coalitions and alliances in which there is a lot of shared learning and experimentation. They are also funding the intermediaries that will be needed to stitch together opportunities and actors. **Louise Marston** from the **Resolution Foundation** again:

> "We are planning to make more catalytic ecosystem grants. The more you develop the ecosystem the more you mitigate the risks for the ventures involved in it. Where you want people to change lots of things at once, as in a system, is to give them more time to test all of those things, you're going to have to test lots of aspects of the model. And that's going to take a bit more time, a bit more tolerance for risk in those early stages. So that's where I think we're most likely to

deploy some of the philanthropic wiggle room to give those models a chance to demonstrate what's possible in a way that then you can see a pathway to growth into scalability.”

4.2.4. Create Conducive Conditions for System Shifts

Investors find themselves working with ventures to help create the conditions in which they can scale, for example by helping to shift government policy or by starting a public conversation about the need for new approaches. It is not enough for investors to simply invest; they have to participate in shaping the market into which system-shifting ventures can hope to grow. Government in particular plays a vital role in opening up what **Dominic Hofstetter** calls “conduits to scale”.

According to **David Hutchison,** former chief executive at **Social Finance**:

> “I think the people with ambition are there but what they're lacking are revenue models which might attract investors. We spend our time at Social Finance looking at the system to work out how the money flows around problems because it's generally not flowing around in a way that is aligned with social value. Social entrepreneurs struggle to earn the consistent revenue that reflects the social value they contribute and which would enable them to raise investment. So I think that much more systemic thinking has to be done around revenues, which is where you get into the [UK] Social Value Act and [public] commissioners explicitly reflecting social value in the way they spend their money.”

Potential priorities:

- Create clearer yardsticks for system shifting potential in early stage ventures or initiatives. How do we spot them?
- Build new frameworks for investing in ecosystems of activity or creating backbone infrastructure for system innovation.
- Make it easier for local anchor institutions – usually with public funding – to support the development of local alternative economic systems.
- Create models for developing ecosystems, cohorts and portfolios of complementary ventures which go beyond traditional accelerators and incubators. Fund enabling infrastructure, including intermediaries.

4.3. Create Accessible Investment Vehicles

Having better orchestration of systems investing opportunities and more effective propositions will help, but systems change eventually involves capital being deployed at scale. The pioneers we talked to feel as if they are still operating in niches and margins, in part because as yet there aren't readily available vehicles for investors to put their money into.

Jeff Cyr from **Raven** put the situation this way:

> "We believe that we're drinking from the straw in terms of capital and we need to drink from the fire hose of mainstream capital to create the social change that we want. In order to do that, we have to create vehicles that [investors] can understand and buy into. And all this becomes about relationships and relationality at the end of the day, so we spend all of our time on relationships."

Giulio Quaggiotto, from the **UNDP** spoke for many when he explained how they have shifted from programmes and projects to curated portfolios of loosely linked ventures:

> "Our interventions are not a good fit with complex systemic challenges. Our interventions are very linear, focused on single point solutions; we have very limited flexibility in terms of how we deploy financing; often, they are tied to very few modalities, and the political agendas of donors. So we've been exploring moving from what we call projects to what we call portfolios, meaning interventions that are designed to address multiple systemic challenges at the same time – leverage points in the system – interventions that are designed to learn over time, and produce new options for interventions rather than hope to reduce them to one or two quick fixes which by magic scale. These interventions have a much longer time horizon. So the question is: what type of financial instruments can support this kind of change? And at least in our sector, there doesn't seem to be instruments that really meet these needs. We are designing a blueprint for what we call 'system finance for development portfolios'. Meaning we're trying to design an instrument that would allow people to invest in entire portfolios designed to enable entire systems to learn over time and hopefully give it more options for action whether that is in food, energy, tourism, education."

How can systems investing be made an everyday activity like this rather than something arcane and complex? Here again there seem to be two broad approaches: the pragmatic and the transformational. The first adapts vehicles familiar to the investors and bends them towards systems change. The second starts from system challenges and opportunities and tries to mobilise capital around those challenges.

A good example of the first is the **SVX** Platform run by **Adam Spence**, allowing investors to make an informed choice about 'investing directly into organisations, funds, and enterprises that are building a healthy, resilient, and sustainable world'. Another is to adapt a fund model to invest in promising ventures. **Louise Marston** at **Resolution Ventures** was designing a fund to invest in ventures to address inequity in labour markets. This strategy to introduce a new approach in the guise of an existing one might be taken much further to reinvent entire classes of investment and institutions: venture capital funds organised around the Sustainable Development Goals (like Balderton

Capital); a sovereign wealth fund which is genuinely participatory and builds local wealth as well as investing in international markets; an investment trust which is specifically designed to tackle systemic challenges.

Sceptics argue this strategy risks skewing the system towards mainstream models which have already been found wanting because they prioritise the interests of financial capital. **Charles Tsai**, of **Institute for the Future**, argued it was important to start from the challenge and then think about how capital could be mobilised to address it rather than trying to adapt investment models such as funds designed to invest in single ventures. **Dominic Hofstetter** of **Transformation Capital** put that point this way**:**

> "If we frame the problem as one of designing a fund, then we're steeping the whole effort in the paradigms, structures and practices of finance. If we frame the effort as one of trying to catalyse systems change, then we look upon money as one of several levers of change. We can actually start with the broader system and just ask ourselves, how do we need to deploy capital into that space? This latter approach is more radical, because it doesn't correspond to the way finance operates today."

Caroline Mason at the **Esmée Fairbairn Foundation** went further:

> "The whole fund model is a catastrophe. You have to raise money for the fund, often by offering outsized returns. The investment process uses a funnel in which a lot of good ideas are discarded in the search for a big hit unicorn. The fund usually only lasts for a few years, so there is tremendous pressure to find the right investments. Then once it is invested its wound down, the investments are sold to generate the returns. Then the cycle starts all over again."

Perhaps again, the most promising models for the moment lie in between the pragmatic and the transformational. One such model is social outcome contracts, or social impact bonds.

Pioneered by Social Finance in the UK SIBs (also known as Social Outcome Contracts or SOCs) are encouraging collaborative investments in system innovation in more than 30 countries. At an average cost of just under $3 million each, SIBs are large enough to test a social innovation's potential impact on larger systems, but small enough to be within the financial reach of the foundations and charities who typically invest in them.

A good example of the kind of bond we might learn from is the Deshkan Ziibi conservation impact bond in Canada which protects ecosystems and develops employment opportunities and community initiatives and restores landscapes at the same time in an area of Southwest Ontario. The bond comes with an elaborate structure of collaborative decision making, complementary solutions and coordinated investment. The bond creates a governance structure which gives voice to interests rarely heard in investment circles.

Teresa Dukes, at the **Manitoba Social Innovation Office** says their portfolio of social impact bonds help to expose the need for wider systems change, and seed collaborations to achieve it, because they require people inside and outside the system to work together in new ways to achieve the outcome. Dukes gave the example of how the government of Manitoba had worked with a local foundation to create a social impact bond to change primary health care. A grant to an NGO would have been a simpler way to inject resources into the system. The social impact bond took longer but in its design it forced deeper system change raising questions of power, relationships and purpose:

> "You can't just put tons of money in and expect major results. It's about how different actors work together in different ways. So we created a social impact bond around the work that a foundation had been doing to bring together all the players in primary healthcare. It was an insignificant amount of money very intentionally, because it is about changing the way that we all act together, rather than a huge financial investment. It was just enough to get all of us around the table to have different conversations. If the health outcomes are achieved then I

pay back the foundation plus a return on investment and the foundation gets to do this again. I wouldn't be able to tell you all the things that are necessary for change in the system if we didn't go through this process together. And so to me, that's where we begin to see some substantive system change: it's not just the money it's the way the money makes the system work together in new ways."

Potential priorities to create better vehicles:

- Support dedicated innovation of new forms and vehicles for systems investment
- Develop new blended system change trusts which can take in philanthropic, public, community and venture capital to promote localised transitions.
- Develop new models for social outcome bonds to promote a just and socially inclusive green transition.
- Create blended system change funds around big shared societal challenges, such as food and energy systems, which will have global reach.

4.4. Set Better Measures

Efforts to promote systems investing will stall if investors cannot judge what progress is being made to shift systems. They need better, comparable measures of progress to become better investors.

Financial investors measure risk adjusted rates of return. Foundations and international development organisations apply a range of evaluation approaches to judge impact, often supported by an armada of experienced consultants and specialists. Government has elaborate models to account for the costs and benefits of public sector investing.

The starting point for systems investing is to understand why traditional metrics are misleading, to be brave enough to be judged by impact on big outcomes that matter. **Stephen Huddart**, former chief executive of the **McConnell Foundation** and board member of the **Transition Accelerator** put it this way:

> “My predecessor at the foundation used to say environmental organisations came to us pretending that they had the solution to climate change. And we gave them grants, pretending that we believed them. But nothing was changing. Greenhouse gas emissions haven't declined appreciably in Canada over the past 15 years. The Transition Accelerator stepped into that space, to calibrate efforts against the size of the challenge to be addressed. It was agreed it wouldn’t deal with anything with less than 50 megatonnes of potential impact. It is working on the creation of a hydrogen economy to replace carbon-intense fossil fuels. It’s involved in electrification of the Northeast from Quebec through the New England states to New York. It has created an alliance of SMEs working in the electric vehicle space, and is exploring a relationship with the Canadian Steel Producers Association, which has committed to net zero emissions by 2050.“

It’s also vital to have measures which point to when a system is shifting fundamentally: a phase transition in the making. **Philip Essl** of **Big Society Capital** says it is only just starting to try to measure systemic effects of its initiatives. He’s sure that these measures will need to highlight qualitative and quantitative signs of change, both through impact on outcomes but also as measures of progress towards them:

> “We articulate systems change goals for certain subsystems that we are trying to influence in building ventures, social lending, housing, and social outcome contracts. It's important to remember that it's not just about the volume, but it's also about the quality – the right type of capital flowing to the right type of impact business models. So we are trying now to articulate indicators in terms of how we want to measure systems change, the way we want to see a system shift over time, I think there's a quality dimension to that and often a sort of a mindset practice element as well it's more than just the quantity of capital.”

Big Society Capital is trying to shift entire markets, not just build individual ventures. Given multiple factors will contribute to change it is hard to attribute the effect of a single intervention. Investors need to look at a combination of factors that have led to progress.

Systems are so complex, interconnected and emergent it's quite hard to get anything as tangible as quarterly earning reports or even annual accounts for a system. Theories of change which map how an intervention should lead to a desired outcome are too narrow and simplistic to work for systems. Most approaches to project evaluation are designed for the summative assessment of relatively linear, time-limited, point investments in particular projects or organisations, whether an investment in a company or a grant to a charity. To build the field more holistic, dynamic and developmental measures will be needed which reflect the complexity and unpredictability of systems, including how they emerge and grow through phase transitions.

And these measures themselves need to contribute to a shift in power, purpose and relationships, as **Raven**'s **Jeff Cyr** said:

> “Frankly, we’re less interested in what can be most easily measured, and more concerned that the process and learning be valued by communities.”

Building on many existing and emerging examples of rich work around evaluation, this topic is a priority for our broader System Innovation Initiative work for 2022/23, as a companion to this work on systems investment.

Potential priorities:

- Create better common frameworks for articulating system change goals.
- Create better frameworks for assessing qualitative, mindset and values changes that are indicative of shifting purpose, power and relationships, alongside resource flows
- Develop measures from priorities of communities and service users.

4.5. Craft New Portfolios of Systems Change Interventions

One speculative way to bring all this together, how different strategies could be designed and deployed to work together, is a portfolio matrix which could match types of systems challenges to different kinds of capital, inspired by the Movement Finance Matrix of the Centre for Economic Democracy.

Beginning with the system innovation goals in mind, this might include tools to assess a portfolio of system innovations strategies, including efforts to improve the system as it exists, more transformative opportunities to build the wholly new systems we need, and intentional efforts to support transitions from old to new. A complete system change strategy would account for how all three work together.

You might then build from this an investment strategy tool that considers all the possible types and combinations of capital and investors that might be brought together to make these opportunities come to life in a coordinated manner, across different horizons, incentives and ambitions.

*A rudimentary sketch of such a set of tools is included in **Appendix 2.***

5. Conclusions

We began this discussion of systems investing describing our hopes to better understand some of the practical components needed to advance the field and related system innovation outcomes, particularly the new **roles, vehicles, strategies and frameworks** that might be needed.

New **roles** are clearly emerging, often ad hoc through the efforts of those pursuing systems investment from wherever they find themselves in the existing landscape. We see an emerging set of overlapping roles that the field needs to support to accelerate systems investment:

- ***System Entrepreneurs*** developing system-level innovations that open up the possibility for new kinds of business models, and system–shifting ventures that might act as visible attractors, exemplars and the seeds of new systems.
- ***Systems Investors*,** learning how to find and support ideas that may have unfamiliar contours, finance the 'in between' activity inherent to the development of a new field, build the surrounding conditions for success, craft portfolios of complementary, reinforcing investments, and develop collaborative advantage with others.
- ***The New Intermediaries*** and ecosystem builders, helping define system innovation goals and strategies and then bringing the right capital and investors together across different incentives and time horizons. Orchestrators, aggregators, assemblers.
- ***The Condition Makers*** spotting barriers and broader opportunities to enable the development and growth of systems investing, including shifting policy, narratives, and incentives to bring larger flows of capital to bear.
- ***Framers*** helping to bring coherence, codifying learning, putting forward working frameworks and practical tools, and helping to underpin a shared mission, purpose and identity for the field of systems investing.

Investing in deeper system innovation will only be possible if these roles and activities, often conducted 'in between' recognized boundaries or off the sides of desks, are better developed and properly resourced.

People are starting to develop **vehicles** to encourage more mainstream investing in systems change whether from private capital markets, philanthropy, the public sector or community, and at times all of them together. These vehicles start from an understanding of the system innovation intent, and blend different kinds of capital rather than merely sequencing them. There is still lots to learn about how far existing models drawn from finance – for funds or exchanges or investment structures – can be adapted to the goal of systems change. Interesting experiments are underway with vehicles designed to mobilise capital around shared challenges, whether through outcome bonds, transition funds or collaborative pooled funds in philanthropy. These models need evaluating, codifying and mobilising, to identify what is working, and to make this widely available.

We saw a spectrum of investment **strategies**, from the pragmatic to the transformational. Pragmatic strategies tended to work with power to shape it to new ends; to fix known but complex and costly problems; to demand limited values shifts on the part of finance to make it easier to raise capital; and to focus on mobilising resources as a route to shifting power, purpose and relationships. Transformational strategies go in the other direction: they work on a new structure of power, sense of purpose and network of relationships so that resources will flow in new ways. Transformational strategies tend to open up opportunities for new value and new systems; to bring in new voices to shift power to shape the purpose of investing; to encourage deeper reflection on the values new systems would need. But many of these strategies are still at very early stages and there is little evidence yet of which work best in which circumstances.

Frameworks to bring all this together into a general approach to system changing investments are underway, but the **field** of systems investing is still nascent. That also presents an opportunity to those who seek to influence and shape it. One task for those keen to bring such a field into being would be to fund its development using well tested field building strategies. Systems investing needs not just new common and widely used products – vehicles to orchestrate and direct collaborative action to shift systems – but also new communities of practice among investors who use these products; recognised philosophies of how change comes about which underpin this kind of collaborative investment and a new sense of shared purpose to guide it. Systems investing needs products and practices that embody underlying principles and purpose.

Underpinning this must be shifts of culture, identity and purpose. Finance professionals, investors, wealth managers and asset owners for their part need a new sense of their role, to see themselves as active participants in society's hopes, struggles, challenges and opportunities. The role of investment can and should be generative and creative, participating with others to create positive change rather than standing on the sidelines claiming outsized power and only pursuing financial returns. Systems investors must be a part of the movements and communities which are bringing about the changes they invest in. Investment should help society to learn how to develop better ways to live, which means new and better systems, and looking beyond the predictable results of serving existing systems and markets, and embracing the possibilities and the uncertainties of creating new systems.

Much of the change and upheaval of the last 15 years, from the 2008 financial crash through the populist wave of 2016 which brought Brexit and Trump, stemmed from a question of sovereignty and control. How can people and communities feel they have sovereignty and control over money and finance in a globalised, financialised economy in which decisions are made by people far distant and detached from where most people live and work? How can finance be bent to community priorities, to generate social and environmental returns as well as financial? Will financial capital always have the loudest voice, the final say? What is the role of democratic government if its economic priorities always need to be tailored to the interests of international debt markets?

The pioneers profiled in this report and many more like them are trying to find answers to these very big questions. There will be no long term solutions at scale to the environmental and social challenges we face without the mobilisation of financial capital behind new energy, transport, food, work, education, health and housing systems. Private, public, philanthropic and community capital all have a vital role to play. We need new strategies, roles, vehicles, and frameworks, soon, and grounded in openness to challenging power and purpose in current systems. This is a daunting, but urgent and compelling task. It requires new relationships and shared, coherent stories of the futures we want, which can in turn generate the care and commitment to bring them about. To paraphrase the organisational scientist Marvin Wiesbrod, “Don’t ask, what’s the problem and how do we fix it? Ask: what's possible here and who cares about creating it?"

Appendix 1. Learning Process and Contributors

To better understand the possibilities of systems investing we convened four dialogues from a variety of entry points, supported by interviews with leaders and friendly critics, and drawing on ongoing learning at the ROCKWOOL Foundation Interventions Unit's System Innovation Initiative. The **first dialogue** gauged the state of the field to identify promising developments; the **second** discussed funds and venture portfolios as vehicles for systems investing, centring a new Resolution Foundation fund addressing inequality in work; the **third** looked at philanthropy's role; and the **fourth** engaged funders and innovators seeking to transform systems of care and the role of care as an ethic and a service in society.

Much more needs to be done to create an inclusive and dynamic field that would engage everyone from grassroots movements to mainstream fund managers. Our own convenings reflected these gaps and a need to do better engaging additional perspectives. The majority of participants were white and from the Global North, with an under-representation of Black, Indigenous and racialized voices, and those from the Global South. We largely engaged with "insiders" with significant access and power in existing finance systems. We had only limited input from public sector representatives, more traditional private sector investors and fund managers, and those driving community capital innovation.

We are indebted to those who participated in these discussions, listed below. Credit for much of the insight in this paper belongs to them, while any errors are wholly ours.

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We've been inspired by and learned from the work of many people exploring the connections between investment and system innovation, but below are some that particularly stand out:

The Investment Integration Project;
https://tiiproject.com/

Transformation Capital initiative;
https://transformation.capital/

Omidyar Group and its Systems Practice Workbook;
https://docs.kumu.io/content/Workbook-012617.pdf

The work of Catalyst 2030's transformation finance group led by Steve Waddell;
https://catalyst2030.net/resources/an-investigation-into-financing-transformation/

Deep Transitions Futures;
https://deeptransitions.net/future/

Rockefeller Philanthropy Advisors;
https://www.rockpa.org/project/shifting-systems/

European Venture Philanthropy Association's Transformation Finance Lab;
https://www.evpa.ngo/stream/transformative-finance

Centre for Economic Democracy;
https://www.economicdemocracy.us/mvpt

Doughnut Economics Action Lab;
https://doughnuteconomics.org/

Centre for Community Investment;
https://centerforcommunityinvestment.org/

Yunus Centre at Griffiths University in Australia;
https://www.griffith.edu.au/__data/assets/pdf_file/0020/1605431/DesignFoundations_SystemsCapital.pdf

Carlotta Perez;
https://carlotaperez.org/books

Mariana Mazzucato;
https://marianamazzucato.com/books/mission-economy

Appendix 2. Systems Investing Portfolio Matrix

One speculative way to bring all this together, how different strategies could be designed and deployed to work together, is a portfolio matrix which could match types of systems challenges and opportunities to different kinds of capital. Inspired by the Movement Finance Matrix of the Centre for Economic Democracy, the tables below are a very rudimentary sketch of tools that might be useful.

1) First a tool to assess a portfolio of system change strategies, from the pragmatic and evolutionary, through the transitional to the transformative. A complete system change strategy would account for how all three work together.

Type of Systems Change	**Improving System 1**	**Transitions**	**Creating System 2**
Style and strategy	Pragmatic, problem solving	Combinatorial, transitional	Transformational, possibility creating
Goals	Invest to prevent harms, to stop bads; make the system less unequal and extractive.	Pull the system towards a new sense of mission through practical examples of what is possible.	Create new systems which generate new kinds of value by being circular, inclusive and regenerative.

2) That tool, for thinking about the best combination of strategies, might then become an investment strategy tool for different kinds of investors, deploying capital in different ways using a matrix like the one below to guide the creation of portfolios of investments for system innovation, across different horizons and ambitions.

Types of Investors and Strategy	**Improving System 1**	**Transitions**	**Creating System 2**

Public Infrastructure investments Mission driven investment Remaking public markets Anchor Institutions			
Private Bonds/debt Public Equity Private equity Real estate Commodities			
Philanthropic Grants Revolving loans Guarantees			
Social Impact Investing Outcome Bonds			
Community Land Trusts Cooperatives Community Investment Trusts			

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About the System Innovation Initiative

This initiative of the ROCKWOOL Foundation's Intervention Unit connects knowledge and practice on system innovation to leaders, innovators and entrepreneurs who want to have more systemic impact and meet big, shared, societal challenges in new ways. The initiative works with system innovation experts and practitioners internationally and in Denmark to turn systems theory into system change in action.

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The ROCKWOOL Foundation

is an impartial, financially self-supporting institution. The Foundation's objective is to strengthen the sustainability of the welfare state through the creation of new, independent knowledge about the challenges faced by society and through the development of solutions to these challenges. The ROCKWOOL Foundation Interventions Unit designs, launches and scales social innovations to address social issues which affect equality of opportunity.

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