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Regenerative Innovation: Turning Breakdowns into Breakthroughs in Nature, Society and the Economy

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The Purpose of Sustainable Innovation

Our global challenges –like poverty, climate change, and species loss—are *entangled* or interconnected problems. How knotty the problem is depends on whether it is loosely or tightly entangled and whether there is convergence or divergence between those tugging at the strings. Simply pulling harder on one string will probably only make it worse. The way to untangle these problems is to work patiently, locally, carefully, and collaboratively at loosening and unraveling.

In my book, *Thriving!*¹, I present our global sustainability challenges as six tangles of knotty problems, which I call the forces of fragmentation. Together they form a web of degeneration, including degradation, depletion, disparity, discontent, disconnection, and disruption. The six forces of degeneration are, in fact, triggers for transformation, leading directly to the six counterforces of regeneration—restoration, renewal, responsibility, revitalization, rewiring, and resilience. These are summarized in Table 1 and form the heart of sustainable innovation.

Regenerative Innovation, therefore, could be defined as using market-based solutions to turn breakdowns in nature, society and the economy – notably degradation, depletion, disparity, discontent, disconnection, and disruption – into breakthroughs that result in restoration of ecosystems, renewal of resources, responsibility in supply chains and workplaces, revitalization of health, rewiring of technology, and resilience of infrastructure and institutions. These innovations take place in the ecoservices, circular, access, wellbeing, digital and risk economies.

TABLE 1: THE SIX TRANSFORMATIONS FROM DEGENERATION TO REGENERATION

FORCES OF DEGENERATION	FORCES OF REGENERATION	TYPE OF INNOVATION
Degradation of ecosystems, as a result of land-use change and pollution	Restoration of ecosystems, supported by nurturing complexity	Symbiotic innovation that turns degradation into restoration
Depletion of resources, due to overconsumption and waste	Renewal of resources, supported by circular business models	Sustainable innovation that turns depletion into renewal
Disparity in communities, exacerbated by inequality and discrimination	Responsibility in communities, ensuring creativity through diversity	Shared innovation that turns disparity into responsibility
Disease associated with unhealthy lifestyles and harmful workplaces	Revitalization of individuals, in pursuit of body-mind coherence	Satisfying innovation that turns disease into revitalization
Disconnection from or by technologies, as a result of the digital divide and automation	Rewiring of technologies, bolstered by the convergence of innovation and markets	Smart innovation that turns disconnection into rewiring
Disruption of infrastructure, due to natural disasters, pandemics, and human crises	Resilience of infrastructure, resulting in continuity in the economy and society	Secure innovation that turns disruption into resilience

1. W. Visser, *Thriving: The Breakthrough Movement to Regenerate Nature, Society and the Economy* (New York: Fast Company Press, 2022).

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Achieving synergy through regenerative innovation

Regenerative innovation is about creating regenerative value. To do this, we must focus our economic institutions and channel our creative energies toward not only tackling the six areas of societal breakdown and turning them into breakthrough opportunities, but also toward creating solutions that bring multiple, simultaneous, mutual benefits across the global system. The kind of creativity creates synergy –innovation that creates mutual benefits for nature, society, and the economy.

Can we restore ecosystems that simultaneously create economic opportunities for poor communities, whether from ecotourism or harvesting of produce from the forest or the oceans? Can we protect key habitats that simultaneously increase well-being or resilience, since they may contain vital ingredients for new medicines or provide a buffer against the ravages of climate change? Synergetic innovation – or “synnovation” – means finding single solutions with multiple benefits.

Key concept: Synergy

Regenerative value highlights the importance of synergy, a key systems thinking concept that organizational theorist Russell Ackoff and polymath Buckminster Fuller studied in great detail. Synergy is the phenomenon of the whole being greater than the sum of the parts. You may have seen it expressed at $1 + 1 = 3$. In other words, something emerges from the interaction of the parts in a system that is new and valuable. This is why, in regeneration, complexity of relationships and diversity of parts is so important, since it seeds creativity.

Let's give some examples to illustrate innovation synergies. Planet Labs analyzes and indexes 1.4 million daily satellite photos of the surface of the earth to enable researchers to track physical changes over time, including the impacts of fires, floods, earthquakes, deforestation, and urbanization. From a regenerative value perspective, this is not only a *smart* solution (using sophisticated digital technologies) but also *secure* (helping us to anticipate or respond to disruption), *symbiotic* (tackling the degradation of ecosystems), and *sustainable* (reducing the depletion of natural resources).

Garbage Clinical Insurance are bringing a *shared* solution (aiming to address poverty in Indonesia by working with underserved communities), which is also *sustainable* (the community is collecting waste, since municipal services are inadequate) and *satisfying* (since they get health insurance in return for the rubbish they have collected). Provenance UK is another case, which is *smart* (using digital finance and blockchain technology), *shared* (empowering farmers and producers from developing countries), and *sustainable* (verifying environmental and social standards in the supply chain).

Similarly, Timeless is a *smart* and *satisfying* app, developed by 14-year-old Emma Yang, that uses face identification software to help Alzheimer's patients recognize their loved ones, while Planetarians is creating a *sustainable* and *satisfying* innovation by using extrusion technology to transform food waste into nutritious food products, creating high-fiber, high-protein snacks that it says can tackle childhood obesity.

The inevitable question is whether there is a company or a technology that incorporates all six elements of regenerative value. Maybe there is, but I am not aware of one. There is an argument to be made for Tesla, although they are by no means perfect, and have a rather ambiguous CEO. Patagonia may be a safer bet, although in 2023, the company's chairman Charles Conn revealed that Patagonia does not consider itself a sustainable brand.²

2. N. Hobson, "Patagonia Just Called Itself an Unsustainable Brand. Why It's Genius Marketing," *Inc. Magazine*, May 16, 2023.

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Open innovation as a key approach to regeneration

iNNpulsa is an example of a government-funded open-innovation program, created to support and promote business growth in Colombia. Colombian companies publish their challenges, sharing them with the general public and other companies in order to co-create solutions. Typically, these co-innovators will share in the risks and the rewards. And these programs do not have to be government sponsored. More and more, we see private investors, corporate entities, and philanthropists setting up innovation prizes to crowdsource the most promising technology breakthrough ideas.

Key concept: Open innovation

The concept of open innovation—essentially crowdsourcing ideas—was articulated by American professor Henry Chesbrough as a more distributed, more participatory, more decentralized approach to innovation. It's the antithesis of the traditional approach where internal R&D activities lead to internally developed products that are then distributed by the firm. Instead, there is a two-way process: External ideas and technologies are brought into the firm's own innovation process, and underutilized ideas and technologies in the firm are allowed to go outside to be incorporated into others' innovation processes.

One of the most well-known is XPRIZE, which has designed and operated seventeen competitions since 1994 in the areas of space, oceans, learning, health, energy, environment, transportation, safety, and robotics. Their approach is to set ambitious future-positive goals and then invite innovators to compete for the prize money that will enable them to turn their designs into reality. They express their mission as wanting to inspire and guide innovators to create breakthroughs enabling a world of abundance—a world where every man, woman, and child can access all the energy, clean drinking water, shelter, education, and health care they require.

Among recent prizes are: Feed the Next Billion XPRIZE (\$15 million, to produce alternatives to chicken breasts or fish fillets that replicate or outperform conventional chicken and fish in: access, environmental sustainability, animal welfare, nutrition, and health, as well as taste and texture); NRG COSIA Carbon XPRIZE (\$20 million, to develop breakthrough technologies to convert CO₂ emissions into usable products); IBM Watson AI XPRIZE (\$5 million, to demonstrate how humans can work with AI to tackle global challenges); Rainforest XPRIZE (\$10 million, to enhance our understanding of the rain forest ecosystem); Rapid Reskilling XPRIZE (\$5 million, to quickly reskill under-resourced workers for the digital revolution); and most recently, Carbon Removal XPRIZE (\$100 million, sponsored by Elon Musk to find innovations that will remove CO₂ at a gigaton scale).

Another initiative is the Earthshot Prize, launched by Sir David Attenborough and Prince William in 2020, which will award five, £1 million prizes each year for the next 10 years, providing at least 50 solutions to the world's greatest environmental problems by 2030. It takes inspiration from President John F. Kennedy's moonshot, which united millions of people behind the goal to land a person on the moon, thus catalyzing the development of new technology in the 1960s. The Earthshot Prize is centered around five earthshots—simple but ambitious goals for our planet, which, if achieved by 2030, will improve life for us all for generations to come.

TABLE 2: THE FIVE EARTHSOTS OF THE EARTHSOT PRIZE

Protect and restore nature	By 2030, for the first time in human history, the natural world is growing—not shrinking—on our planet.
Clean our air	By 2030, that everyone in the world breathes clean, healthy air, at World Health Organization standard or better.
Revive our oceans	By 2030, to repair and preserve our oceans for future generations.
Build a waste-free world	By 2030, to build a world where nothing goes to waste, where the leftovers of one process become the raw materials of the next—just like they do in nature.
Fix our climate	By 2030, to fix the world's climate by cutting out carbon: building a carbon-neutral economy that lets every culture, community, and country thrive.

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Social entrepreneurs as the agents of regenerative innovation

Many business examples that showcase regenerative innovation are social enterprises. One of the pioneers in this field is Bill Drayton, who founded Ashoka in 1980. The organization identifies *changemakers* who are “committed to championing new patterns of social good” and supports them with training and in some cases also seed funding. Today Ashoka has become the largest network of leading social entrepreneurs in the world, with more than 3,000 lifelong fellows. It turns out, for moving from disparity to responsibility by creating an access economy, one of the most effective strategies is to invest in social entrepreneurs.

Ashoka has data to back up this claim. In a 2018 survey of a quarter of their fellows from 74 countries, they found that they were having impacts on economic development, education, health, human rights, civic participation, and the environment.³ More than half were focused on helping people living in poverty or children and youth. Other beneficiaries included women, people living in rural and remote areas, people with disabilities, migrants or refugees, and people treated unfairly due to their race, ethnicity, religion, sexual orientation, or gender preference.

Almost all of the social entrepreneurs (93 percent) had managed to influence public policy by achieving legislative change, providing research or previously missing data to policymakers, and advising policymakers or legislative bodies as an expert. They were also active in representing marginalized populations or challenging laws in court, and convincing government to allocate funds to a specific cause. Since government policy sets the rules of the game, this is a strong indicator that social entrepreneurs work on creating systemic change.

The survey found that 93 percent also altered market systems, for example, by increasing the flow of market information about prices or products to different market actors, making it easier for people to trade or access certain goods or services in the existing market, and creating a new market that allows people to trade or access a product or service they previously could not. The social entrepreneurs also focused on creating value for a product or service where value previously did not exist, and providing new ways for low-income people to generate income. Sometimes, it is about changing the code of conduct or official policy of a large organization or industry, and encouraging for-profit organizations to allocate dynamics in a new way to include previously excluded people.

One way in which Ashoka fellows drive systems change is by trying to shift societal mind-sets or cultural norms. They also strive to create a business model that can be replicated and scaled. In fact, 90 percent have seen their idea replicated and two-thirds have actively encouraged this, often by open-sourcing their idea (in other words, not trying to copyright or patent protect their intellectual property). A key enabler in replication is to embrace partnership—and indeed, around four-fifths of fellows have partnered with governments, schools, or universities.

As disruptors and transformers, many social entrepreneurs are fans of open sourcing. This is a collaborative mode of production, testing, and distribution, often involving volunteers, and where patents and related research are shared publicly through platforms. Open sourcing stands in stark contrast with legislation that seeks to protect intellectual property. For example, MIT appointed innovation engineer Cesar Harada to lead a team and come up with a better solution to oil spills.

The team of social entrepreneurs designed Protei, a remote-controlled, semi-autonomous, biomimetic (nature-inspired) marine sailing drone that is driven by the combined forces of the wind and waves. After sharing the design specifications online, sailors, scientists, and engineers from around the world contributed to improving the drone. Following the crisis, Protei resulted in the formation of Open H2O, which has a goal to develop open-source technologies to explore and save the oceans.

3. Ashoka, “The Unlonely Planet: How Ashoka Accelerates Impact—Results of the 2018 Global Fellows Study.” Available at: <https://www.ashoka.org>

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Social enterprise as a vehicle for regenerative innovation

A powerful catalyst for social entrepreneurship is the B Corporation movement, which is promoting and certifying companies that are purpose driven and that create benefit for all stakeholders, not just shareholders. The B stands for *benefit*. Certified B Corporations achieve a minimum verified score on the B Impact Assessment—a rigorous assessment of a company’s impact on its workers, customers, community, and environment—and make their B Impact Report transparent on bcorporation.net. Certified B Corporations also amend their legal governing documents to require their board of directors to balance profit and purpose.

There are over 6,800 Certified B Corporations in more than 90 countries and over 160 industries, including big brands like Patagonia, Danone, Natura, and Ben & Jerry’s. But this underestimates the impact the movement is having. More than 80,000 companies have used the free B Impact Assessment tool to gauge their impact on workers, community, environment, and customers. In the United States, there is Benefit Corporation legislation in 37 states, meaning that companies can choose the B Corp model as a form of legal incorporation. There are similar options in other countries, such as the Community Interest Company structure in the UK.

Muhammed Yunus, founder of the Grameen Bank and pioneer of the global microcredit movement, has introduced what he calls “social business”—a non-loss (meaning break-even or profit-making), nondividend, investor-owned organization, where 100 percent of its resources are for social good. All surplus (profit) is reinvested into the business for the pursuit of its social mission. In his book *Building Social Business* Yunus argues that this is different from a social enterprise, which may not be a business and may not meet the criteria he has set out.⁴ In this respect, the Grameen Group is leading by example, with 21 social businesses covering multiple sectors from telecoms and energy to textiles and food.

We should also not forget a much older form of social enterprise and one that is still more ubiquitous than B Corps and other modern-day variations. I am referring to the 3 million cooperatives around the world, which represent 1.2 billion cooperative members. The key distinction with the cooperative structure is that the enterprise is owned, controlled, and run by and for their members (rather than shareholders). The members can be customers, employees, users, or residents and each has an equal vote, regardless of the amount of capital they put in. The goal of cooperatives is for the economic and social benefits of their activity to stay in the communities where they are established, with profits either reinvested in the enterprise or returned to the members.

4. M. Yunus, *Building Social Business: The New Kind of Capitalism That Serves Humanity’s Most Pressing Needs* (New York: PublicAffairs, 2010).

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Biofabrication as a regenerative innovation case study

There are thousands of examples of regenerative innovation. For illustration purposes, let me highlight biofabrication as one exciting area of application. What if, instead of using fossil fuels, minerals, and plants to make products, we worked with nature to grow the materials we need? That's what biofabrication is: literally fabricating with biology or manufacturing using living cells. Biofabricated materials can replace textiles, plastics, and construction materials. Our future living factories include mycelium (from fungi), bacteria, yeast, and algae. Many are naturally fire retardant, hydrophobic (water resistant), and biodegradable.

Biofabrication pioneer Suzanne Lee gives the example of Biomason, which grows carbon-positive bricks at room temperature that are three times stronger than kiln-fired concrete blocks, representing potential annual CO₂ reductions of 800 million tons. And construction is not the only application of biofabrication. Algae is a regenerative material - it is solar powered, sequesters carbon, and can grow up to 12 feet a day - that is almost miraculous. ALGIX is using it to create Bloom, a bioplastics foam used in sneakers for Adidas and TOMS. Similarly, Notpla makes edible, biodegradable water sachets, LOLIWARE has innovated hypercompostable straws, and Evoware turns algae into cups, wraps, and bags.

The switch to regenerative fashion materials is well under way—and plant-based leather is the next big thing. Making alternatives to animal skin has brought eco entrepreneurs out of the woodwork, with faux leather materials being produced from mushrooms (Amadou and Mycoworks), pineapple leaves (Piñatex), cork (Corkor)—and the newest kids on the block—eggplant skins (chef Omar Sartawi), cacti (Adriano Di Marti), and apple peels (Beyond Leather Materials ApS). They will all have to demonstrate that they can be as versatile and durable as hide-based leather. But for the animals, the environment, and the climate, it's a challenge worth taking up.

To be naturally regenerative, these products and materials should be climate positive (absorb more carbon than they emit), bio-based (made from natural materials), and biodegradable (break down harmlessly to nature). Biotech company Newlight achieves all three, using microbes that turn methane (a more powerful climate warming gas than CO₂) into a new material, which they call Air Carbon. This can be fashioned into straws, cutlery, or faux leather and breaks down naturally if it gets into our rivers or oceans. MIT researchers are hoping to do biofabrication with wood, now that they have grown wood-like plant tissue from cells extracted from the leaves of a zinnia plant without soil or sunlight.

The advances in growing cells, whether through 3D printing or other methods, is about to revolutionize the food industry. Nature's Fynd, backed by \$80 million from Bill Gates and Al Gore, has just started production of alternative protein grown from bacteria that live in Yellowstone's geothermal hot springs. In December 2020 Singapore became the first country to approve the sale of cultured chicken bites grown by Californian start-up Eat Just. When fully operational, a cultured-meat factory will be able to harvest half its total volume every day, forever. Now that's what I call regenerative.

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New leadership for regenerative innovation

Realizing a regenerative future will almost certainly be impossible without breakthrough innovation, and therefore we need innovative leadership. Leaders with a creative style enjoy playing the role of designer, architect, innovator, game changer, and transformer of systems. This can mean adopting a radical persona, which is certainly not for everyone. Leaders like Anita Roddick (founder of The Body Shop) and Yvon Chouinard (founder of Patagonia) are associated with this style, with their highly visible leadership, which included taking risks; acting like a revolutionary, campaigner, crusader, or activist; and challenging the status quo. Sometimes we call this missionary leadership.

I could literally choose hundreds of great examples of innovative leadership. For inspiration, just check out Ashoka or the Skoll Foundation's fellows. Or cast your eyes over *Fast Company's* Top 50 Most Innovative Companies. Let me just tell the stories of two of them: Keller Rinaudo and Ethan Brown.

Keller Rinaudo is CEO and cofounder of Zipline, a company that builds autonomous drones designed for delivering medical supplies to remote parts of the world. The Harvard-educated Rinaudo started his career as a software engineer and a professional rock climber. For a time, he worked at Harvard University in biotechnology, building what are called molecular automata, or DNA computers. Then he discovered the wonderful world of logistics and the possibilities of using new technologies to deliver medical supplies to all of the world's inhabitants, wherever they may live.

To get an insight into how innovative leaders like him think, here's why Rinaudo first launched Zipline's technology in one of the smallest countries in Africa. "We wanted to find a country that was small enough that we could get to national scale quickly and had a government that was making active investments in technology and health-care for its citizens. Rwanda really fit that bill. So, in partnership with Rwanda's administrative health [ministry], we've been able to turn Rwanda into the first country to achieve universal healthcare access for all. They have been able to put every single one of their citizens within a 15- to 25-minute delivery of any essential medical product."⁵

The CEO of Beyond Meat, Ethan Brown, is also bringing innovation to disrupt a traditional industry, in this case the food sector. He shows how the combination of childlike curiosity and fundamental biological science can lead to innovation. He reflects that he had a wonderful opportunity as a kid to grow up in the city and spend a lot of time in the countryside, including on a dairy farm his father started.

Fast-forward, and Brown started a career in the energy sector, working for the leading company in the world on proton-exchange membrane-fuel cells, which he describes as "a terrifically elegant technology." So what changed? He really wanted to make an impact on the climate crisis and realized that livestock was a big part of the solution. "So here I returned to this issue that I had as a child," he says, referring to his time spent on his father's farm. "Once you start thinking about human health and the use of water, land, energy, it became clear to me that if you could figure out a way to separate meat from animals you could make a difference. I started thinking about, 'What is meat and how do we build meat differently?' And that was the genesis of the company."

There's a technical science-based side to innovation, but there's also the human side of what drives the innovator. Brown says his motivation is twofold: First, there's the desire to turn plant-based meat from a cottage industry into an innovation powerhouse. He compares food companies like Kraft, which might have one or two scientists working on meat substitutes, with the energy sector, where billions of dollars and hundreds of scientists are working on renewable and sustainable alternatives. The second driver is a sense of urgency to what Beyond Meat is doing, bringing a scalable solution to climate change, biodiversity loss, and health crises like diabetes and heart-disease.

5 D. Maloney, "High-flying Bird: Interview with Keller Rinaudo," *DC Velocity*, January 14, 2019.

It is clear that our global challenges—many of which are getting worse, not better—will not be solved through incremental “business-as-usual” approaches. The scale, urgency, and complexity of the societal problems we face make innovation imperative. At the organizational level, this means changing from an approach of minimizing the negative impacts of existing products and services to reorienting the organization’s core commercial offering so that it becomes a positive part of the solution, aligned with the larger societal purpose that it has articulated.

A key facet of integrated value management (a methodology I explore in more detail in my book *Thriving*) is applying innovative design thinking to products, processes, and business models to deliver high-impact and scalable solutions to our socio-ecological challenges. The main goal of this is to reorient the focus of R&D efforts toward designing solutions with societal benefits and to strategically shift the portfolio of products and services toward being inherently regenerative.

Key questions for redesigning portfolios

- Does the organization include regeneration as a design principle for product and service innovation?
- What proportion of the organization’s portfolio of products or services provides a solution to socio-ecological challenges?

Some tools or approaches that can be used for this facet are exponential thinking and design thinking, linked to the six economic spheres (the ecoservices, circular, access, well-being, digital, and risk economies) and the six innovation pathways (symbiotic, sustainable, shared, satisfying, smart, and secure).

I like BASF’s approach, which it calls the Sustainable Solution Steering method and also makes available as a free-to-download manual for third parties. Using a triple-bottom-line lens (looking at economic, social, and environmental benefits), the company assessed more than 50,000 “solutions,” which make up more than 96 percent of their product portfolio, engaging more than 2,500 experts worldwide in the process. The outcome is a clustering of its product portfolio into four categories: accelerator, performer, transitioner, and challenged.

Accelerators, which comprised 29 percent of their total portfolio in 2019, make a substantial sustainability contribution in the supply chain. This includes, for example, chemicals that are essential for renewable energy technologies or batteries. Performers are the second category, making up 62 percent; these meet basic sustainability standards on the market. Transitioners, accounting for 9 percent, are products that have specific sustainability challenges that are being actively addressed. And finally, Challenged products, responsible for 0.1 percent of sales, are associated with substantial sustainability concerns and are flagged for phasing out within five years of classification. BASF’s ambition is to increase the sales of Accelerator solutions to €22 billion by 2025, up from €15 billion in 2019.

In the end, the test for regenerative innovation will be whether it embraces exponential thinking—anticipating very rapid, radical change, such as we see with exponential growth curves. This leads to what John Elkington calls “green swans” in his book of the same title, which he believes are a sign of “the coming boom in regenerative capitalism.”⁶ The metaphor is an elegant riff on Nassim Nicholas Taleb’s black swans, which are unpredictable, rare, high-impact events with severe consequences. Green swans are the opposite—positive exponential changes.

This kind of exponential thinking is set out in a report called *The Breakthrough Effect*.⁷ The research presented is all about tipping points, which are fundamental in the pursuit of a thriving future. Tipping points are one of the phenomenon at the heart of rapid change. Change is never linear, and as change accumulates in a system, we either get breakdown or we get breakthrough.

That is a result of convergence, or positive, reinforcing feedback loops. And the tipping point is that inflection point where we reach the steep part of the exponential curve of change. We can get negative tipping points, where things really do fall apart, or break down very rapidly, but we can also get positive tipping points. And this report has looked at some of the critical tipping points, especially in relation to climate change and our economy.

The Breakthrough Effect comes up with three Super Tipping Points. These are like a nexus of convergence that’s happening in three areas that could fundamentally and irrevocably change our world. The first Super Tipping Point is a nexus of change that’s happening in the area of renewable energy, battery technology, and electric vehicles. The second Super Tipping Point is to do with converting to green ammonia, for use initially in fertilisers, but then also spilling over for use, also as green hydrogen. The third Super Tipping Point is the nexus that we get around the change of our food system, including plant based foods, cultivated meat and precision fermentation.

The work of RethinkX is worth tracking in this space. They are a think tank founded by Tony Seba and James Arbib that focuses on identifying disruptive innovations that could soon impact society. RethinkX’s Director of Research, Adam Dorr, explains in his book *Brighter*, that “radical transformations in energy, transportation, food and labour are already underway. The clean new technologies will wipe out the older, dirtier technologies, create unprecedented prosperity, and open the door to mitigating environmental impacts and restoring ecological integrity at a planetary scale – including solving climate change.”⁸

Taken together, the trend of regenerative innovation is incredibly exciting. While we see that breakdown is absolutely a possibility – where we’re exceeding those planetary boundaries or not meeting social foundations – we also know that breakthrough is entirely possible. And in fact, that it’s happening already. If we get this right, if we continue to move strongly in the direction of regenerative innovation, we will change our world forever. We will become fundamentally more sustainable, and we will bring the possibility of a thriving future massively forward. We will bring it within the realms of not only possibility, but probability. We will make a thriving future a reality, something that we can implement rather than just dream about.

6 J. Elkington, *Green Swans: The Coming Boom in Regenerative Capitalism* (New York: Fast Company Press, 2020).

7 Systemiq, University of Exeter & Bezos Earth Fund, *The Breakthrough Effect: How to Trigger a Cascade of Tipping Points to Accelerate the Net Zero Transition*, January, 2023.

8 A. Dorr, *Brighter: Optimism, Progress, and the Future of Environmentalism* (San Francisco: RethinkX, 2023).

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