



The Atlas of New Futures

AXA Foresight Report 2026



Foreword

New Futures and
their Archetypes

By Ulrike Decoene

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At AXA, anticipating change is part of our responsibility. As an insurer and long-term investor, we operate at the intersection of evolving risks, societal transformations, and technological disruption. Understanding how the world could evolve is pivotal to better protect what matters.

This year, our foresight work takes the form of an *Atlas of New Futures*. As William Gibson famously said: “The future is already here – it’s just not very evenly distributed.” That is especially true when we look at the world through the lens of territories: each region faces uneven challenges. From dense megacities facing increasing pressures on resources and infrastructure to coastal regions where ocean dynamics reshape risks and opportunities, to agricultural areas adapting to shifting demographics and economic conditions, each territory comes with its own set of transformations. Our exploration focuses precisely on how these futures emerge and unfold differently depending on the territory.

Our atlas comprises five archetypes of fictional territories, each anchored in a specific context. They are not predictions, but immersive windows into possible futures inspired by signals emerging today. As you turn these pages, you will discover *Ayokarang Reef District*, where biodiversity becomes both a strategic asset and a form of resilience. You’ll encounter *Amadare Network*, where women-led nomadic communities turn volatility into collective strength. And in *Marseille 2*, you will see how a maritime and Arctic region rethinks identity, infrastructure, and sovereignty. More territories await, each offering a distinct perspective on the transformations to come.

While speculative, these archetypes are informed by real-world data and observable signals that exemplify various adaptation challenges across the globe. We have engaged with researchers and experts to ensure these futures are thought-provoking, yet plausible. Together, they span different scales, dynamics, and interpretations of adaptation.

We invite you to explore this atlas of futures. Like a map, it helps illuminate how different forces may interact across territories and sectors. By combining creative narratives, artifacts of tomorrow, data-driven insights, and contributions from experts, this report aims to stimulate dialogue about how societies, institutions, and businesses can navigate the transformations ahead.

An introduction to 'New Future Archetypes'

Hello, New Futures

Welcome to our atlas of five New Future Archetypes. We believe you will find them useful, thought-provoking, and assumptions-challenging.

NORMALS ♥ AXA



Have you experienced the futurist's déjà vu? When you open the latest scenario report, and it feels almost exactly like the last one, just dressed up with a few new buzzwords, a couple of new technologies, and a bit of trending discourse sprinkled on top. Reading it can feel like watching the US remake of a British sitcom—you've probably come across it.

This déjà vu is not without logic. Scenario work combines three elements: past and present evidence we consider relevant to the future, uncertainties arising from how these forces interact, and existing ideas about how the future might unfold. It is not a failure of scenario work; it simply shows a focus on structuring uncertainty and supporting decisions, rather than expanding the repertoire of futures we can imagine. The creative extrapolation is usually limited to a mapping process, bundling information into future ideas that seem to match and often come as pre-established packages. Even when those are not spelled out, our minds autocomplete: cultural paradigms arrive fitted with political assumptions, technologies, aesthetics, and values already packed into a recognizable 'future' with its familiar props—from robots to flying cars.

The déjà vu is not just about content, but depth: the surface gets refreshed, while the underlying imagination barely moves.

Change can happen lightning fast or with the inertia of traveling planets, depending on where you look. Take Steward Brand's *Pace Layers* or Sohail Inayatullah's *Causal Layered Analysis*: both share the perspective of layered change, quick on the surface, sturdy as you drill deeper into the foundations of culture and society. Observing novelty is always a question of choosing the right distance. Focus on the relentless noise of daily news, and you miss the deeper movements shaping our world. Focus on the depth, and you reach a stratum of continuity from which nothing new can emerge.

Jim Dator's *Future Archetypes* operate at that deepest level. Whatever happens, you can always sort it into Transformation, Discipline, Growth, or Collapse. Understood as the construction of basic shapes or principles that can manifest in manifold ways, archetypal thinking offers an attractive template to expand the field of possibilities.

But for archetypes to function as tools for our imagination, there is a critical requirement: rather than force-fitting ideas into old boxes to confirm existing categories, we must use what we observe to create new distinctions. We need to think of archetypes not as eternal, basic shapes but as evolving cores of what we can imagine. The question then shifts away from 'which box can we sort this future into?' to 'which new boxes can we imagine to hold new futures?'

So how do we construct new archetypes for new futures—archetypes that are not eternally immutable, but propose a new logic and carry it all the way up into lived experience, where we can actually evaluate what they mean?

What are NFAs?

The *New Future Archetypes (NFA)* framework is a discovery methodology for exploring new templates of future imagination, grounded in observable signals of change. With it, our goal is to update the images of the future we carry around, and not just the language we use to describe them.

NFAs are ‘futures in a box’ combining immersive stories, visuals, and sometimes interactive mechanics rooted in role-play, to present a hypothetical yet viable world. Each archetype centers on a foundational shift—a constellation of forces that could plausibly realign incentives, infrastructures, and everyday life into a new logic—and a curated set of signals that link it back to present realities.

By linking these layers, NFAs move from evidence to a hypothesis of change, and finally to a world you can imagine, complete with artifacts, routines, technologies, and aesthetics shaped by its inherent forces.

Thus, our familiar ‘packages’ are challenged. Robots and flying cars are no longer the default fillers. Instead, each world comes with its own ingredients. This image of a future helps us shift from analyzing change in abstract terms to manifesting the mundane, where people’s routines, constraints, and desires collide, often taking on new meanings. NFAs take these ingredients seriously, because the everyday is where systems are experienced, resisted, adapted, and made real.

NFAs are not meant to be final answers, but starting points meant to be stepped into, used, challenged, and revised. Each NFA brings evidence, a foundational shift, and a lived manifestation into frame, inviting discussion at all levels at once. As new signals emerge and assumptions shift, it should evolve: some elements will sharpen, others will be replaced, and new variants may fork from the originals.

NFAs as Territories of Resilience

This report uses the NFA framework to explore different models of resilience and adaptation to climate change, its direct and indirect effects, and its collisions with other forces. Because adaptation always responds to concrete situations rather than abstract global trends alone, our ‘futures in a box’ arise from territorial conditions in which climate

pressure, demographics, infrastructure, and governance interact to produce different patterns of response. This territorial lens makes systemic change visible at a human scale, showing how large-scale forces translate into routines, constraints, and everyday life.

By *territories* we mean groups of places that share similar environmental conditions, infrastructures, economic structures, or political framings. They do not need to be geographically connected, as long as they face comparable challenges and operate under similar structural conditions. For example, tropical coastal regions that share climate risks, economic dependencies, infrastructure patterns, and governance responses can form a territory.

Seen through the territorial lens, resilience is more than the capacity to withstand global hazards. It depends on how protection is organized locally, how vulnerability is distributed, and how shocks are absorbed. As decisions are taken and paradigms shift, the ways societies cope with pressure also change. Some forms of resilience rely on technological or financial buffers, others grow from mutual aid or institutional adaptation, and some strategies can create new fragilities. NFAs show how different models of resilience take shape in specific contexts and how they reorganize exposure to risk, including who carries it, who can insure against it, and which vulnerabilities remain outside formal protection systems.

To see how these dynamics might compound into new configurations, we situate the archetypes roughly fifteen years ahead—a horizon far enough in the future for current signals to form new arrangements of systems and everyday life, yet close enough that the worlds remain anchored in today’s reality.

The Process

In an attempt to steer away from the ‘usual suspects,’ we first explored a broad field of possible futures rooted in a multitude of thematics and disciplines. By specifically searching for weak signals that are overlooked despite carrying real potential for a paradigm shift, we gained the capacity to change the rules of the game rather than its parameters.

Based on an initial scan and early framing work, we drafted 13 NFA candidates, each a basic ‘world in a box’ featuring a territory, a foundational shift, a plausible system logic,

and early signals that can ground it in present developments. These candidates were compared side by side, not as competing predictions, but as alternative configurations of adaptation and resilience.

The final selection was made together with AXA’s steering committee. From the 13 candidates, we selected five archetypes that, as a set, offered the strongest mix of distinctiveness and coverage: different logics of adaptation, different types of risk and response, and enough contrast to make strategic tradeoffs visible.

The last two were adapted from previous NFAs done together with the Climate, Climatic Change, and Society (CLICCS) Excellence Cluster at the University of Hamburg—a prominent research initiative focused on understanding climate change and its complex interactions with society by bringing together interdisciplinary expertise from geophysics, meteorology, oceanography, political science, sociology, and other fields. CLICCS aim is to explore both the natural climate system and the societal responses to climate risks, to answer critical questions about the limits of human adaptation to climate change, and to investigate which climate futures remain possible based on current and emerging trends. Among its synthesis outputs is the *Hamburg Climate Futures Outlook*. The cluster’s broader research contributes to the scientific literature used in international climate assessments, including those of the Intergovernmental Panel on Climate Change (IPCC).

These five archetypes are not competing scenarios. They are different lenses on how adaptation might take shape as new constraints and new possibilities emerge from today’s realities. Each territory responds to what it is most exposed to, with its own logic and trade-offs. Read together, the NFAs map a landscape of possible adaptations, from technological protection to social organization, economic restructuring, and ecological restoration. None is a complete picture of the future; each is a coherent world for exploring consequences.

Three of the archetypes presented in this report were built from the ground up, often combining various ingredients and logics from the earlier candidates. These are:

Ayokarang Reef District
where ecological restoration is sustained through unlikely alliances between local communities and pharmaceutical research.

Studio Odgrod
the rural accelerator welcoming unemployed city-dwellers who have pledged to restore degraded land, the influencer way.

Amadare Network
a women-led mobile community navigating climate volatility thanks to satellite data and mutual aid networks.

In October 2025, a group of scientists from CLICCS spent two days immersed in these archetypes, providing valuable insight that informed these new iterations of the NFAs, which are:

Harmony Harbor
a hub in a network of privatized, subscription-based, climate-proofed cities for a life of blissful ignorance detached from public systems.

Marseille 2
a strategic Arctic settlement where climate opportunism, sustainable development, and geopolitical projection collide.

How to Read and Use the NFAs

We have designed the NFAs to be read on three layers simultaneously. First, as a story of lived reality: what daily life looks like in that world, what people do, what becomes normal, and what new routines emerge under changing conditions. Second, as a system: the infrastructures, governance models, economic arrangements, and technological dependencies that make this world function—and the points where it might prove fragile. Third, as an archetype: the deeper logic of adaptation the world represents beyond the specific place in which it is situated.

You can use NFAs in different ways. They can act as magnifying glasses for change. Look at the present with an NFA in mind, and it can help you spot implications, opportunities, and tensions in developments that might otherwise feel diffuse. Or you can use them as prompts for situated strategy. Imagine yourself, your team, or your organization inside that world. What would you need to do to operate there? What capabilities would become essential? Which assumptions would no longer hold? The goal is not to agree with an archetype or treat it as a forecast. Rather, it is to use it as a lens that reveals blind spots, trade-offs, and new questions that may remain invisible when change is considered only through abstract trends.



The Dark Matter of NFAs

With Daniel Kaplan
Co-founder, Plurality University Network

Daniel Kaplan is a futurist and social entrepreneur, with one leg in innovation, and another in imagination. In 2000, he created the Next-Generation Internet Foundation (Fing), a think-&-do-tank to “anticipate digital transformations”. In 2018, he co-founded the Plurality University Network.

During the development of the archetypes, a conversation with Daniel Kaplan introduced a useful metaphor for the forces that lie beyond the immediate frame of each territory. Borrowing from physics, Kaplan described these forces as a form of ‘dark matter.’

In astrophysics, dark matter refers to mass that cannot be observed directly, but whose presence can be inferred from its effects on visible objects. Kaplan suggested a similar way of thinking about the environments surrounding the New Future Archetypes: the futures depicted in each NFA are shaped not only by the dynamics visible within a territory, but also by a wider set of infrastructures, institutions, and power structures that remain partly outside the narrative.

These background forces include global supply chains, technological infrastructures, digital platforms, financial systems, and geopolitical arrangements. They are rarely the focus of the local story, yet they strongly condition what becomes possible within it. A settlement may appear autonomous, but it still depends on logistics networks, regulatory frameworks, or flows of capital and information that extend far beyond its boundaries.

Recognizing this ‘dark matter’ is therefore not only an analytical observation but a methodological choice. The NFAs deliberately leave parts of this wider system implicit. By doing so, they allow readers to bring their own assumptions about the global structures that sustain each territory—and to question the arrangements that remain just outside the frame.

What’s Inside an NFA?

In this report, each New Future Archetype is composed of seven sections:

The Overview Page	Here, you find an ID Card outlining the key specifications of the NFA and a large view of the world that situates the archetype within broader global dynamics.
The Narrative Probe	A short immersive story that explores everyday life from within the NFA, offering a lived perspective on how the world might feel from the inside.
The New Future Archetype	A framing text describing the logic of the NFA. It introduces the territory where the archetype emerges, the foundational shift that makes it plausible, and the system stack, a model illustrating how this shift could take shape in practice.
Artifacts	Three Artifacts like objects, interfaces, and fragments of the built environment that quietly reveal how everyday life works in this future.
Expert Interview	Insights from researchers and practitioners who help test the plausibility of the archetype, challenge assumptions, and highlight emerging signals of change.
How Does It Future?	A section connecting the archetype to the present through a featured project and a curated set of signals, precedents, and developments that hint at how this future might unfold.
Takeaways	Reflections on what the archetype reveals for the present, including Voices from the AXA Steering Committee and a set of indicators to monitor as potential signals that the world is moving closer to, or further away from, this future.

An Atlas of New Futures

... can't be shown on a map built for an old worldview. The Dymaxion map proposed by Buckminster Fuller minimizes distortion and reorients how we view the planet. It provides a suitable canvas for situating territories where our five New Future Archetypes might emerge.

Introduction

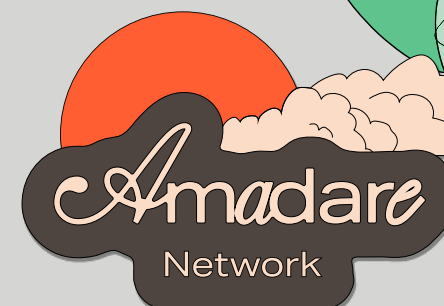
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Welcome to



NFA

Overview

Biodiversity becomes a tradable, strategic, economic asset and a form of geopolitical defense.

ID CARD

Foundational Shift

- United Nations Marine Cooperation
- Bioeconomy Growth
- Loss of Corals

Territory & Scale

- Coastal cities with fragile reefs and high-value genetic resources
- Sea-based bioeconomic nodes that are digitally networked and secured

Actors & Power Structure

- Indigenous communities and local governments
- Pharma and biotech firms, global investors, and universities
- Data-workers and technical divers tasked with acquiring samples

Ayokarang Reef District

Narrative Probe

Hyperbaric Families

Short Story



From the boat, it looks like a stadium dome submerged in the sea. Here, the athletes are not human; they are an ecosystem locked in a championship for survival. This dome is a mesocosm: a giant test tube sealing off a slice of reef from the surface to seabed. It speedruns future environmental changes for two years. Everything is tracked. When a species falters, robots swap out weak links. Evolution is on fast-forward. This square mile is packed with research facilities run by universities, start-ups, and even hobbyists. All compete to create the next best-adapted species. The Reef Commons Fund certifies multiple strains for release. Diversity always wins.

On your lap, a container cradles Symbiodiniaceae: algae engineered by one of the larger companies in the mesocosm to thrive in tomorrow's heat and acid. Now it's your turn to carry these survivors into the untamed reef. Corals depend on these invisible algae companions for energy. Without them, the reef turns ghostly white and dies.

It's still early morning. You tilt your face to the sun, soaking in its warmth with the other divers and their families. This will be your last sun for weeks. Soon, shadows from turbines and cranes stretch across the boat as you approach the deep-sea unit. At the dock, you head for the compression elevator. The kids pull grumpy faces—a tradition before each mission. "Will the elevator be slow again?" Tala groans. You shrug. Of course it will—you can't cheat pressure. Depressurizing takes even longer, so you stay down for longer. The kids count down the three-week mission on their fingers. "Why not do plankton forecasts from home like Tessa's mom?" Tala asks.

You answer with a quiet smile, gazing out the window. In a few days, they'll love it; they always do. You've done your share of surface work before. It wasn't for you—spending days mapping, bleaching, logging species, and labeling data for claims or to train machines guiding research and unlocking more funding. New businesses and jobs pop up constantly. But you're a water woman, and proud. Everything up there depends on the work divers do. The water outside teems with life—fish weaving through scaffolds, plankton sparkling in the artificial glow. You can't wait to get out there.

The elevator doors open, and the pace shifts. The kids scatter to their lessons while you get your briefing: which corals to inoculate, which patches need attention. You pull on your suit, ready to spray algae onto tagged coral stands. Elsewhere, a different strain will be tested. Diversity is the rule. In a few weeks, you will check whether the algae have settled onto the corals. You swim back to the water lock. Outside the perimeter, you spot former pearl divers with bags full of samples. If anything on the sequence ledger ever yields a breakthrough drug, they get a share. Back inside, you pass glassed lab spaces rented by smaller companies. One sports a label: Planetary Reef Labs—pushing 500 million years of research and development to the next level. Someone inside speaks to a camera.

"You can't turn back the clock," she says. "Preserving" doesn't cut it if the world keeps changing. Take the Coral Triangle: not even two percent of the ocean, but home to most reef species. Sure, you can drag icebergs, seed clouds, cool things down—it works, sort of. But it's like fighting windmills. Here at the reef, we and the other members of the Reef Commons Trust chose a different route. Together, we monitor change, predict breaking points, and intervene. We simulate future ocean conditions and breed key species to adapt, increasing biodiversity so the system can self-adapt. We need these ecosystems for survival, to protect us from floods and feed us. But we're building more: the world's most resilient reef, the largest living marine biobank. Biotech pays for verified genetic diversity. Ports and insurers pay for the reef itself: ports for protection, insurers for lower risk. Local communities receive a guaranteed share of the benefits for keeping it healthy. Biological wealth shrinks elsewhere; we grow it here.

Ayokarang Reef District

A New Future Archetype

The Territory

We are situated in an area with some of the planet's richest marine biodiversity: tropical coral reef systems such as the Coral Triangle. These function as living infrastructure, stabilizing shorelines, sustaining fisheries, and powering local economies, supporting both small insular towns and coastal megacities such as Manila or Jakarta.

As climate change and pollution push corals toward collapse, the ocean shifts from a resource to a source of systemic ecological breakdown, affecting millions of livelihoods. Ocean restoration emerges here as a necessity.

The Model

In Ayokarang Reef District, an economy has emerged that depends not only on ecological health but on ecological prosperity. It began with a discovery: a small start-up synthesized a drug from a reef-dwelling snail that restores cardiac tissue after heart attacks. The breakthrough triggered a boom in bioprospecting. Using AI models trained on vast biological datasets, research teams began scanning reef organisms for 'wonder-drug' compounds, increasing the value of genetic diversity just as it was declining elsewhere.

As profits grew, ownership of biological discoveries, rights to profit, and obligations such as reef protection had to be made clear. The Reef Commons Trust was created to manage these rights and to channel revenues into reef restoration, recognizing that both local livelihoods and the emerging bioeconomy depend on the vitality of reefs.

In this system, interests align: evolution generates resilience through diversity, and the bioeconomy generates value from that diversity. Yet environmental shocks arrive faster than reefs can naturally adapt. Restoration, therefore, shifts from preservation

The Foundational Shift

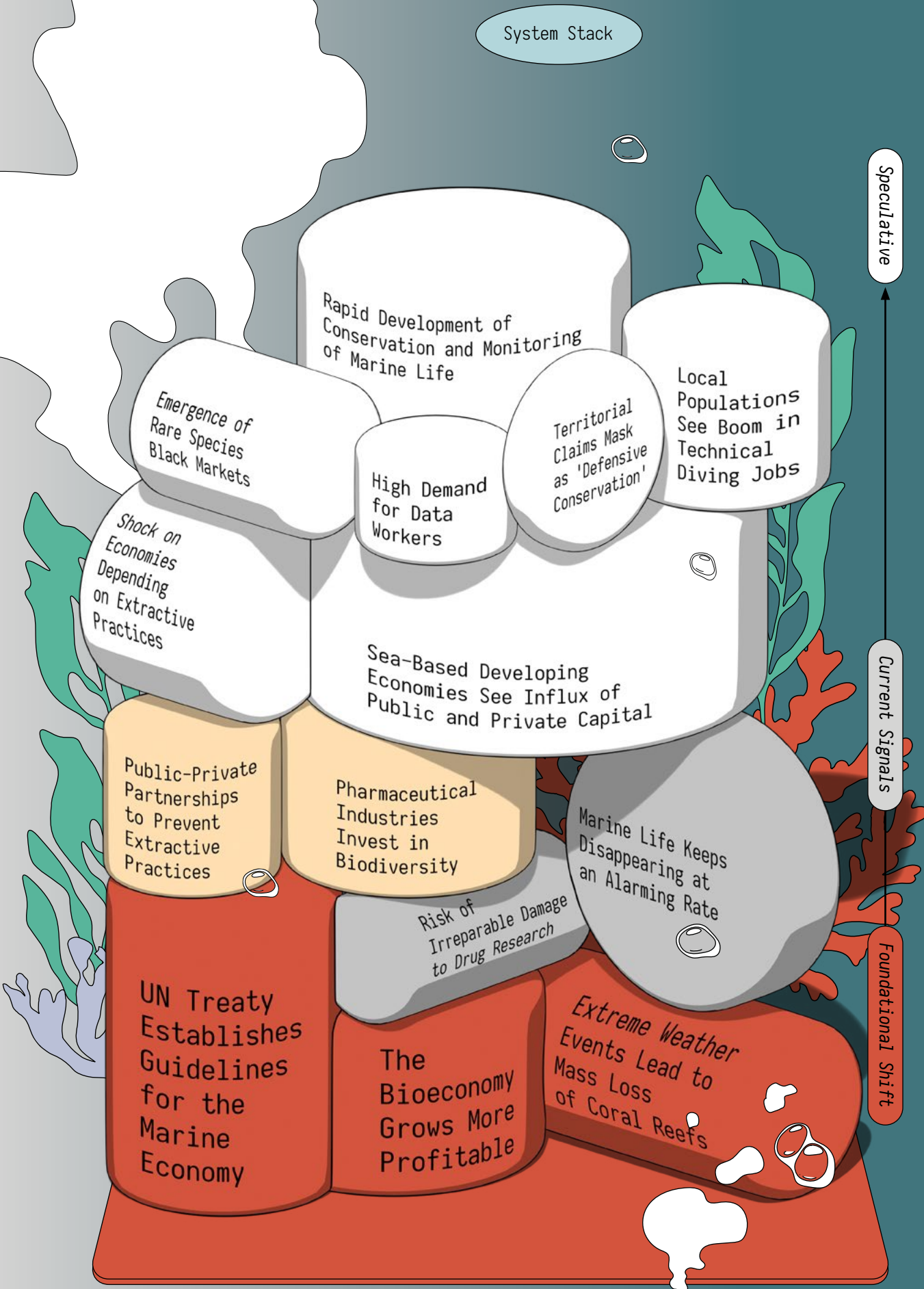
Over the coming years, the IPCC projects that up to 90% of warm-water coral reefs could be lost if warming is limited to 1.5°C, and more than 99% at 2°C without adaptation. 'Home to the planet's richest ecosystems, their collapse would trigger massive biodiversity loss with direct consequences for human livelihoods: poorer fishing seasons, rising food prices, shrinking tourism, rougher coastlines, and escalating climate damages that divert public budgets away from development needs.

Meanwhile, the expanding bioeconomy increasingly depends on genetic 'source code' and biochemical compounds found in living systems, and their economic value increases at the same time as their numbers collapse at rates unseen for millions of years. But biodiversity cannot be owned outright: too many actors depend on it and shape its health. The reefs' future hinges on shared-interest models defining who participates and how benefits are distributed. This debate is already underway, from the Nagoya Protocol to the UN High Seas Treaty, which establishes frameworks for sharing the rewards of biological intellectual property.

The loss of reef ecosystems would not just be an ecological tragedy, but one for human well-being and the economy. There is already intense research focused on preventing reef collapse: from local weather manipulation to artificial scaffolding for coral larvae, from selective breeding to genetic engineering of the weakest links in the coral ecosystem. At this point, the best chance for coral reef adaptation may be human-assisted adaptation.

to assistance. By expanding variation and shielding reefs from catastrophic shocks, assisted-evolution teams help ecosystems adapt fast enough to endure.

The result is an economy of reef monitoring and biodiversity cultivation for bioprospecting, with a data industry focused on labeling and provenance tracking. For local communities, the restored reef provides food security, storm protection, and economic opportunity.

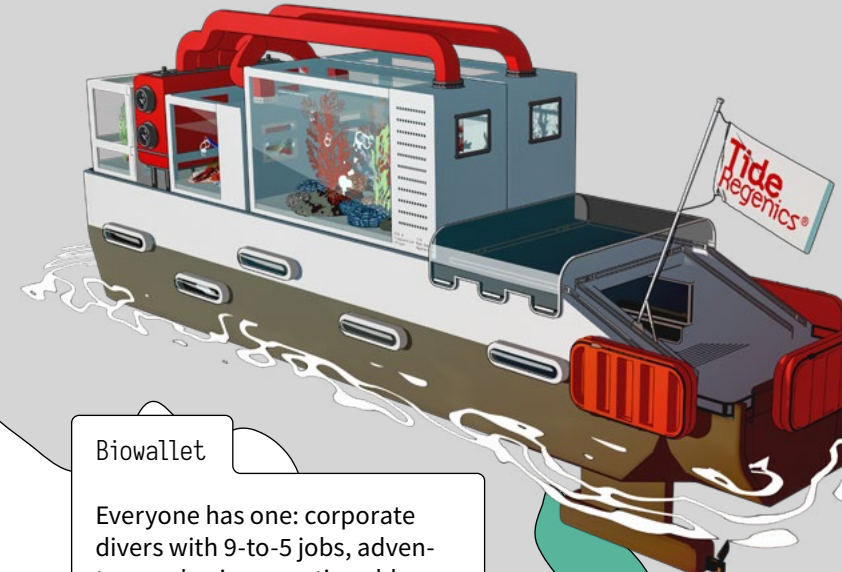


Ayokaran Artifacts



A Sentinel Buoy

Oh, Buoy, you don't wanna get in trouble with one of those. This sensor-fitted sea monster keeps watch over the reef and sniffs out bio-pirates and saboteurs from miles away; the hotline to the Coast Guard is always open. Its wards are in good care, assessing the health of the known members of the ecosystem while keeping a critical eye on new arrivals. Will they enrich or destroy? The buoy will know. On the highway of the sea, it is a mere traffic sign. Only enter with permission: ecological reserve.

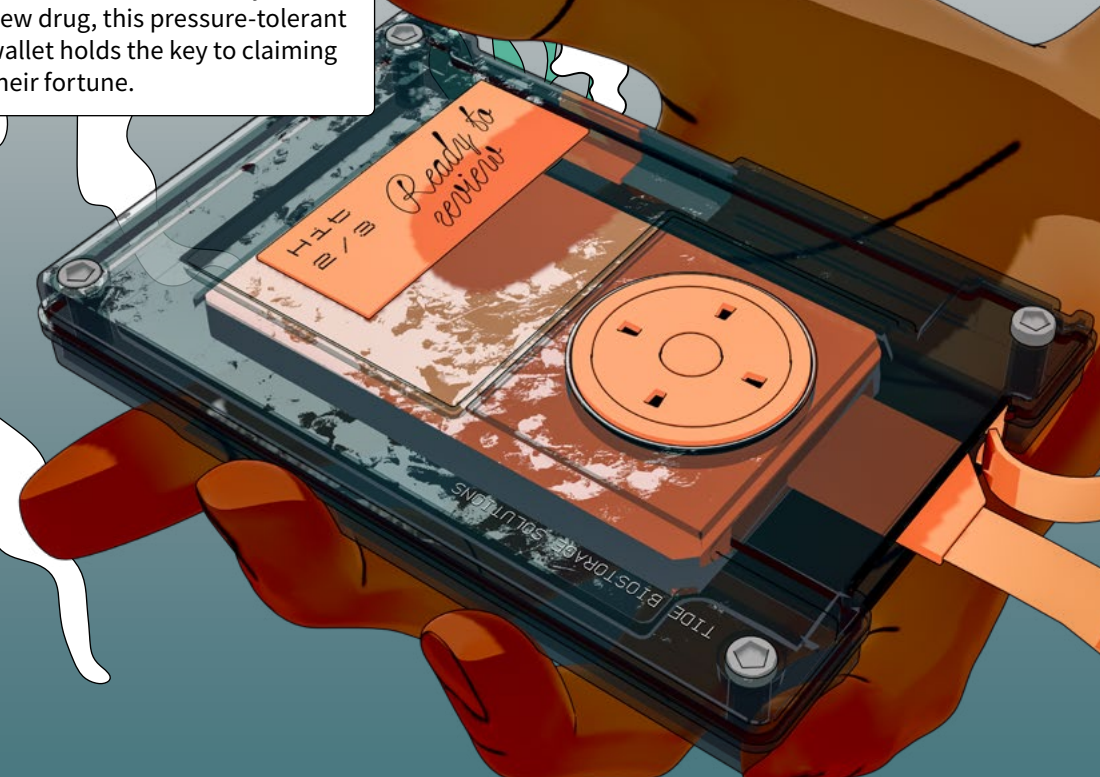


MVE Cargo Boat

The reef is a source not only of genetic code, but of life itself. Ecosystems in other parts of the planet's tropical seas that are crumbling are reconstructed using Minimal Viable Ecosystems, MVEs. These are assembled and pre-adapted in mesocosms—giant ocean test tubes—by gradually modifying the environment to match target conditions. If certain life forms cannot adapt, the reef's biodiversity will be scouted for alternatives. Here, we see an MVE cargo boat on a mission to revitalize a failing reef in the Indian Ocean.

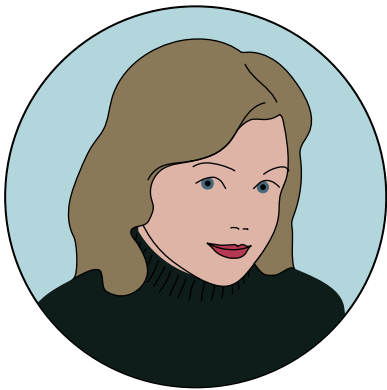
Biowallet

Everyone has one: corporate divers with 9-to-5 jobs, adventurers chasing genetic gold, poor devils hoping for a lucky catch, and regular people who join bio-prospecting clubs on weekends. All the catching and collecting of old and, hopefully, new species is followed by extensive genetic sequencing, which is widely available to everyone in Ayokarang. Should they find new genetic information, they register it in the public gene registry and store proof of discovery on their biowallet. Should any of this lead to the discovery of a new drug, this pressure-tolerant wallet holds the key to claiming their fortune.



Expert Views

From Coral Reefs to Clinical Trials



With Agathe Acchiardo

Founder, Think Next

Agathe Acchiardo is the founder of Think Next, a consultancy established in 2018 to bring strategic foresight into the health and life sciences sectors. She holds master's degrees in philosophy, business administration, and sociology, and previously spent nearly ten years in commercial roles within the pharmaceutical industry before moving into future-oriented innovation work.

Economics of Bioprospecting

The pharmaceutical industry is more likely to let other actors break ground and step in later, licensing promising therapeutics discovered upstream by startups or university labs. Even though “there could be an interest for the pharmaceutical industry to prospect in coral reefs to discover new molecules or new biological mechanisms yet unknown to us, it’s not going to take the lead on this.” What emerges instead is the prospect of “disruption by new entrants, companies that don’t even exist yet.” Such actors would be able to “find a molecule and identify the right target fit” using AI to simulate molecular arrangements or accelerate the matching of molecule and disease.

Discovery is additionally defined by governance. Aligning incentives among states, NGOs, universities, startups, and industry remains complex, and marine bio-prospecting is unlikely to be driven by a single dominant actor. Instead, it would depend on hybrid arrangements such as public-private partnerships.

Yet some areas remain strategically critical. “Antibiotic research is a huge issue,” particularly given that once developed, antibiotics

should ideally be used sparingly only to prevent resistance—a paradox institutionalized in the WHO AWaRe framework. Referring to marine sources, the suggestion is clear: if a promising antibiotic were expected to be found there, “it would definitely raise the level of interest from researchers for the coral reefs.”

A Biological Cornucopia Under Threat

Marine-derived medicine is not hypothetical. The horseshoe crab, for instance, “has been exploited for pharmaceutical purposes for about fifty years because of a test that can only be produced from its blood.” The practice continues because “the most economical way to do it has been to farm the crabs.”

Yet despite such precedents, the ocean remains mostly underexplored, especially the realm of mesophotic coral reefs (between 30 and 150 m of depth), where the biodiversity is characterized by a huge proportion of endemic species. In fact, “we know more about space than about the deep sea.”

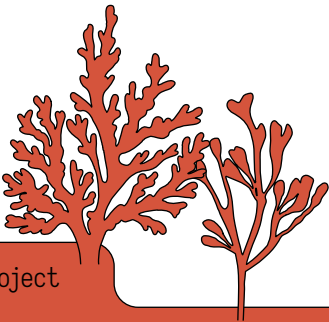
And these mesophotic reefs are critical, as they are more resilient than the shallow-water corals, which are deteriorating rapidly: “corals are dying extremely quickly, and it’s linked to the rise in ocean temperatures.” These dynamics cannot be contained within national jurisdictions; warming seas cannot be sanctuarized and “are not going to stop at territorial borders.”

The paradox is stark. Immense biochemical potential lies in environments we barely understand, just as those environments are being irreversibly altered. We risk a permanent loss of biological data, without which AI cannot efficiently function.

Computational Fragility and Biobanks

Examples of incomplete datasets compromising research abound. For decades, medical research tolerated reliance on “what is accessible, what is easy,” leaving significant populations underrepresented. The implications become sharper in the age of AI.

For marine bio-prospecting, this means that biodiversity alone is insufficient; it must be systematically sampled, preserved, labeled, and structured. The model in Ayokarang Reef District rests on two parallel imperatives: limiting biodiversity loss through long-term ecological repair, and accelerating the documentation and classification of biological material at risk of disappearing.



Featured Project

Save The Waves Coalition

[Link](#)

Ocean Stewardship Meets Coastal Economies to Protect Surf Ecosystems

Save The Waves Coalition is a California-based nonprofit organization dedicated to protecting coastal ecosystems and surf breaks worldwide. Founded in 2001, it operates at the intersection of environmental conservation, coastal planning, and community advocacy to position surf breaks not merely as recreational assets but as socio-ecological infrastructures that sustain biodiversity and regional economies.

The organization is best known for advancing the concept of *World Surfing Reserves*, a model that designates and protects iconic surf ecosystems through locally-led stewardship. By supporting grassroots mobilization through environmental science and legal frameworks, Save The Waves works to safeguard coastal zones from threats such as poorly planned infrastructure, pollution, habitat degradation, or climate change impacts.

A notable example of its approach is the study *Climate Vulnerability of California’s Natural Surfing*

Capital, which assesses the economic and environmental risks facing Santa Cruz. The report found that surfing contributes at least \$194.7 million annually to the local economy. Integrating economic valuation with sea-level rise projections, the study concluded that without adaptive measures, all 31 surf breaks in Santa Cruz could experience a decline in quality or surfable hours. With support from the Ocean Risk and Resilience Action Alliance,³ the coalition also develops a *Surf Ecosystem Insurance*⁴—a financial tool supporting rapid recovery after extreme weather events.

By quantifying surfing as an economic driver as much as a cultural practice, the coalition reframes wave ecosystems as critical coastal infrastructure, and demonstrates how environmental protection can support local economies. This approach illustrates a broader shift in climate adaptation thinking, which begins to recognize natural recreational systems as assets requiring governance and long-term stewardship.

The Signals Behind Ayokarang Reef District

How Does it Future?

Protection is easy on paper, but governance gaps are many, and enforcement at sea is hard. The concept of ocean restoration gains traction when it becomes legible as an economy and not just an environmental cause. When the potential loss outweighs the cost of inaction, various actors begin to find their own stakes in ecological repair, forming unlikely alliances with local populations and informal practices. Funding begins to flow as technological innovation and incentives for protection enter the stage, although restoration efforts are always one nearby extraction project away from failure.

Artificial Reefs and Repurposed Infrastructure

Hong Kong-based marine restoration company Archireef⁵ deploys **modular reef tiles, produced by 3D printing terracotta, which mimic the complexity of natural reefs.** They are then seeded with coral fragments before being installed on degraded seabeds. **Pilot sites show higher coral survival** and recruitment than conventional flat substrates, showing how **engineered habitats can accelerate reef recovery** or even help reefs migrate to cooler waters.⁶

Restoration also occurs over existing infrastructure, with offshore wind farms and oil rigs such as the Elly platform in California and the MX-1 rig in Peru serving as reef structures and habitats for marine species.⁷ **Artificial reefs can take more surprising shapes: along the US Atlantic coast, over 2,500 retired New York subway cars were sunk to form the Redbird Reef system,**⁸ where they provide the hard surface needed for invertebrates, algae, and fish to colonize sandy seabeds.

Signal Strength: Mid-high

Solutions are already deployed across multiple regions, but outcomes depend on local conditions and policies.

Risk of Reef Collapse and Protection Efforts

With warming temperatures due to climate change, **Coral reefs could decline:**⁹

70-90% at 1.5°C warming, around 99% at 2°C.

The Global Fund for Coral Reefs aims to **increase the protection and resilience of at least 3 million hectares of coral reefs by 2030.**¹⁰

According to a UN estimate,¹¹ the ocean economy is worth about

\$2.5 trillion

Amazon protection needs: ¹² **~ \$7 B / year**
Reality: **\$5.8 billion over the past decade**

Global ocean protection needs: ¹³ **~ \$174 B / year**
Reality: **\$25 billion per year**

The Data Labeling Market

The global data collection and labeling market size was valued at **\$3.77 billion in 2024** and is expected to reach **\$17.10 billion by 2030**, growing at a **Compound Annual Growth Rate (CAGR) of 28.4% from 2025 to 2030.**²⁸

Asia-Pacific is expected to outpace all regions with a 17.86% CAGR to 2031. China's National Development and Reform Commission has formalized a labeling-industry roadmap targeting 20% annual growth and standardized AI training professions, catalyzing both supply and demand in local language, multimodal, and 3D datasets. Regional cost advantages, vast talent pools, and accelerated AI adoption—**Asia's AI revenue could reach nearly \$300 billion in 2030.**²⁹

Assisted Evolution and Coral Adaptation

Coral Assisted Evolution is shifting reef restoration from 'protecting what's left' to 'actively accelerating what survives.' Techniques such as **selective breeding of heat-tolerant corals, assisted gene flow between populations, and rapid propagation through microfragmentation**¹⁴ aim to compress natural adaptation into human intervention timescales, giving operators the possibility to **outpace reef collapse.**

Australia's Reef Restoration and Adaptation Program is already testing heat-resilient coral strains and large-scale larval propagation on the Great Barrier Reef, and Florida-based Mote Marine Laboratory uses microfragmentation to outplant tens of thousands of corals onto degraded reefs. Digital reef models are also emerging as a planning tool, with platforms such as the Allen Coral Atlas **combining satellite mapping with ecological modeling to simulate bleaching risk and guide restoration efforts.**

As warming pushes coral bleaching beyond what conservation alone can prevent, targeted climate interventions to reduce heat stress on vulnerable reefs are explored.¹⁵ These interventions involve techniques such as **cloud whitening**¹⁶—**spraying seawater droplets into the atmosphere to increase reflectivity and reduce the solar radiation reaching the ocean surface—or pumping cooler deep water toward shallow reefs.**¹⁷

Signal Strength: Mid-high

Technically credible, with some technologies already deployed in practice, but still contested due to ecological and governance uncertainty.

Protection on Paper

A broader legal and financial architecture is emerging to protect natural environments. **The High Seas Treaty (BBNJ)**¹⁸ **establishes a framework for creating marine protected areas beyond national jurisdictions and introduces environmental impact assessments and benefit-sharing rules for marine genetic resources.** Launched by Brazil at COP30, the Tropical Forest Forever Facility (TFFF)¹⁹ offers to pay developing countries a fee for every hectare of forest they maintain, garnering criticism for pricing the ecosystem services of tropical forests to attract private investment.

Yet, despite growing commitments to the global '30x30'²⁰ target of protecting 30% of land and 30% of the oceans by 2030, **only around 2.8% of the world's ocean is currently considered effectively protected.**²¹

Signal Strength: Mid-high

Legal frameworks and conservation finance mechanisms are expanding rapidly, but enforcement remains difficult.

Marine Biodiversity Loss: a Health Risk
Around 56% of drugs approved from 1981 to 2019 are natural products, derivatives, or inspired by natural compounds.²²

Around 2.2 million marine species may exist, of which 90% remain undiscovered or undescribed.²³

Less than 1% of marine species have genomic sequence data available.²⁴

By the end of 2022, we will have **17 marine-derived drugs approved for clinical use.**²⁵ **12 of them (71%) are approved for the treatment of various types of cancer.**²⁶

The market for marine-derived pharmaceuticals alone is currently valued at \$4.1 billion and is anticipated to reach \$9.1 billion by 2033.²⁷

Insights on Risk and Adaptation

Expert Takeaways

Ayokarang Reef District illustrates how ocean restoration can evolve into a broader blue economy in which ecological recovery and economic development reinforce one another. Marine restoration projects create conditions for biodiversity to regenerate, with ripple effects extending to fisheries as well as tourism, energy, and medical sectors. At the same time, the model depends on maintaining ecological credibility: without tangible ecosystem recovery, the economic promise risks slipping into blue-washing rather than genuine restoration.

Protection Is Additive

Marine protected areas can trigger ecological benefits beyond their boundaries: as fish stocks and coral ecosystems regenerate within protected zones, surrounding waters can experience increased biodiversity, improved fishing yields, better water quality, and reduced risk of contamination. These benefits translate directly into human outcomes, including safer and more nutritious seafood, stronger food security for coastal communities, and access to marine-derived resources that drive innovation in medicine and disease prevention.

The Ocean Is Becoming a Multi-Sector Economy

Restoration efforts increasingly intersect with sectors such as offshore energy, tourism, cosmetics, and pharmaceuticals. Biodiversity itself becomes a strategic asset, particularly for industries seeking new biological compounds and genetic resources.

We Must Avoid Bluewashing

The credibility of ocean restoration depends on measurable ecological gains. Without visible regeneration of reefs and marine life, blue economy initiatives risk being perceived as superficial environmental branding rather than meaningful ecosystem recovery.

Reefs Do Not Care If the Structure Is Fossil or Renewable

While decommissioned oil platforms have long been known to host marine life, offshore wind farms show they can serve the same function, and turbine foundations in the North Sea have quickly turned into a dense habitat for communities of mussels, crabs, and anemones.

“Increasingly polarized governments struggle to tackle risks”

From **Dr. Maha Hosain Aziz**

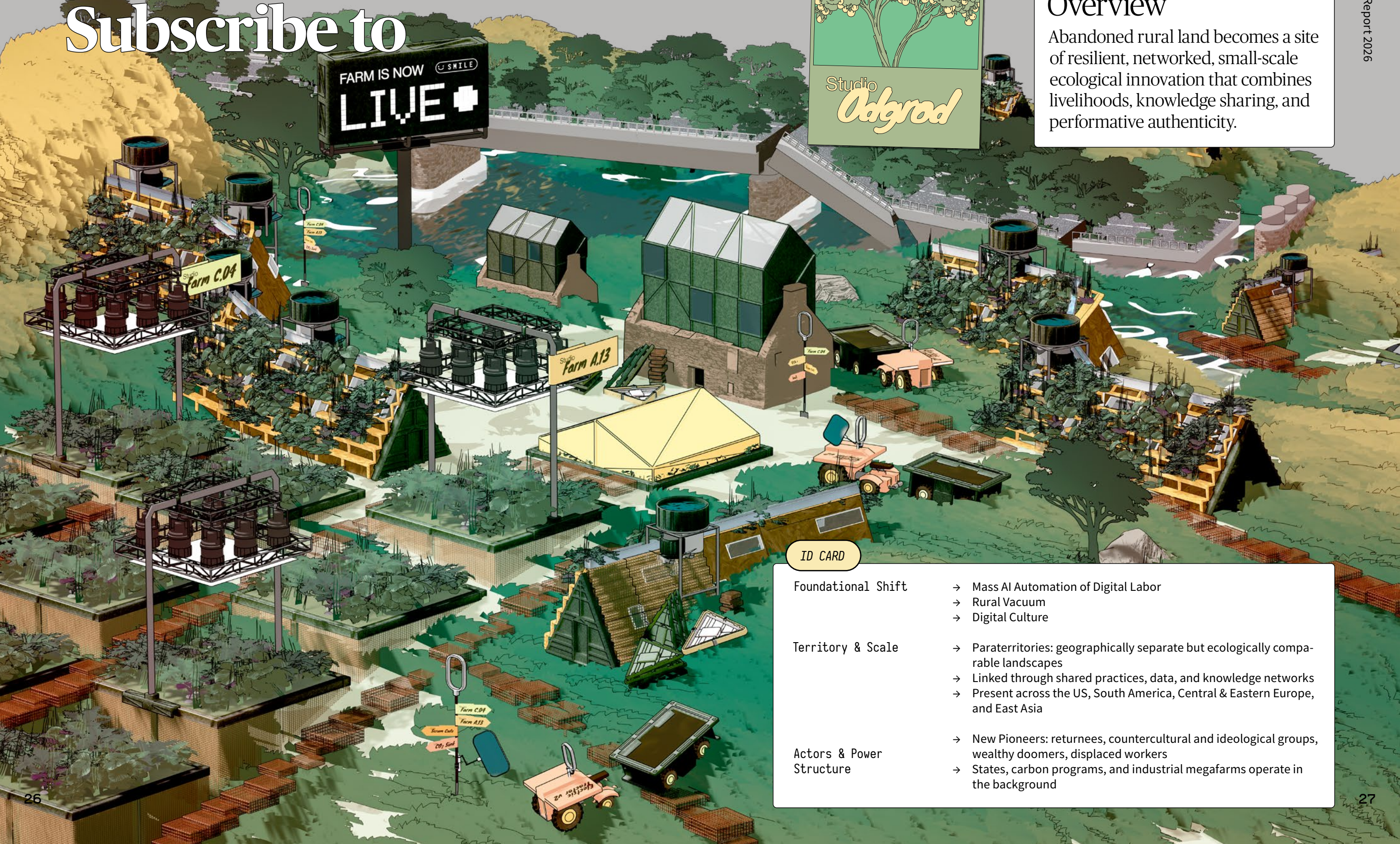
MA International Relations professor, New York University. Member of the Global Foresight Network of the World Economic Forum. Author of ‘A Global Spring: Predictions for a New World Order (2026).’

“Today the world faces a severe leadership crisis—there is no reliable global power or powers to tackle shared challenges like climate change. Democracy is also facing a 20-year decline, as increasingly polarized governments struggle to tackle risks. Citizens are angry, as they push back through protest. If this trend of waning leadership persists, what we will likely see is the dispersal of power. Other types of actors will have no choice but to fill the leadership gap to tackle issues like climate change. This could lead to a territorial archetype like Ayokarang, where unlikely alliances emerge among local communities and pharmaceutical companies. Yet one must question what role governments would have in this scenario—and to what extent they might need to have a role in overseeing the Reef Commons Trust. Perhaps a rethink of government itself will be needed to facilitate such positive change?”

10 Things to Monitor

- 1** Recognition of Coral Tipping Points in Financial Risk Models
Presence of reef mortality thresholds and ecosystem collapse scenarios in sovereign, insurance, and investment risk frameworks.
- 2** Environmental Protection Framework Implementation
Marine protected area designations, enforcement mechanisms, and benefit-sharing protocols.
- 3** Marine Biobanking and Cryopreservation Capacity
Coral, microbial, and marine DNA repositories in omics databases and cryogenic storage facilities.
- 4** AI Integration into Marine Drug Discovery Pipelines
Use of AI models trained on biodiversity datasets for compound identification and synthetic biology design.
- 5** Blue Bioeconomy Investment Vehicles
Ocean-focused venture funds, blended finance instruments, and restoration-linked investment products.
- 6** Commercialization Across Marine-Derived Product Categories
Market revenues in marine pharmaceuticals, nutraceuticals, cosmetics, enzymes, biomaterials, and fine chemicals.
- 7** Governance of Assisted Evolution
Policy debates, ethical guidelines, and regulatory proposals on coral engineering, gene editing, and other forms of evolution managed by humans.
- 8** Marine Genetic Resource Patents
Patent filings referencing marine organisms, coral genomes, or deep-sea genetic material.
- 9** Biopiracy and Benefit-Sharing Disputes
Legal cases and policy disputes over intellectual property, indigenous knowledge, and sovereign rights over marine genetic materials.
- 10** Capital Allocation Toward High-Biodiversity Regions
Investment volumes directed toward ecosystems such as the Coral Triangle, where biodiversity density intersects with biotech and conservation value.

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Overview

Abandoned rural land becomes a site of resilient, networked, small-scale ecological innovation that combines livelihoods, knowledge sharing, and performative authenticity.

ID CARD

Foundational Shift	→ Mass AI Automation of Digital Labor → Rural Vacuum → Digital Culture
Territory & Scale	→ Paraterritories: geographically separate but ecologically comparable landscapes → Linked through shared practices, data, and knowledge networks → Present across the US, South America, Central & Eastern Europe, and East Asia
Actors & Power Structure	→ New Pioneers: returnees, countercultural and ideological groups, wealthy doomers, displaced workers → States, carbon programs, and industrial megafarms operate in the background

The Rural Sprint



Short Story

The camera keeps rolling. You hit the light switch. The scene turns pitch black. Above the experimentation field and the half-collapsed barn, only the stars shine bright. The ad revenue from online streaming has declined recently. A bit of money still comes from patronage, not much, but it's alright—you have to document your farming experiments anyway.

You pack up the video gear and head for the welcome party at the rural hub. Fresh pioneers have arrived, eager to start their own transition. Everyone in the co-op started in the accelerator—except the initial bunch and Watzlaw, the village fossil. City arrivals have so much to learn, and even more to unlearn. They will help with daily work and get hands-on lessons on fieldwork and rural streaming.

The group walks uphill. Nobody speaks, just breaths. The night fills with chirping and buzzing. It's getting louder as life returns... Was that an owl? That's the sound of ecological restoration work. As nature recovers, new species keep coming.

You stash the bags at the equipment shed and grab some assistive shovels as welcome gifts. Rebecca first built one as a joke—a tool with step-by-step directions and video tutorials for city dwellers with two left thumbs: “Go two meters straight. Hold the shovel at a 90° angle, dig a hole, 60cm deep.” Then it shows how to plant a tree. It even has a label reading ‘shovel.’ It became a serious tool once the community began archiving their farming experiments and recommendations in a shared database. Other rural hubs add their own experiences, expanding what it can draw on. It's not just for newbies anymore—when conditions change, advice can come from those who already faced them elsewhere. You add two for the kids' program. Watzlaw takes an off-road wheelchair for an arriving elder.

“You know what's for dinner?” Lela asks as you continue your little hike. Everyone giggles. Of course you do. Martin planned the menu around what the system predicted would be ripe today. He even registered backup ingredients with the network to be delivered if the harvest failed. Rural hubs support each other in case of trouble and to guarantee access to the finer things in life. Martin has talked about it for weeks, so everyone knows. American Signal Crayfish as a starter. “Invasive species first,” the crew sings in unison.

You walk past the molding stations—your prefab system for cabin parts, sheds, and quick accelerator extensions. Music and laughter drift closer. You're curious about the new pioneers. Some will find their place. Others won't, and that's fine. Some who seem destined to belong may still long for a life that no longer wants them. Many would never have matched in the city—but out here they do.

In the accelerator, the kids' band launches into neorural tunes—rough around the edges, but bursting with spirit. The room is a sea of festive onesies and instructor badges. Andrea presses a glass of their latest energy bubbles into your hand for the welcome speech. You greet each new pioneer.

One of them is a doctor. A valuable skill when remote checkups reach their limits. It's important for co-ops to have a doctor to attract quality applicants, and her presence would mean everything to the elders. You hope she stays for good, so you pair her with Rebecca. She's one of the easiest to get along with and takes her role as a materials engineer seriously. When Eric broke his arm, she made a cast from a cucumber-based bioplastic. When everyone has been matched, including Watzlaw, whose unique knowledge of the region will be a treasure for the co-op's new cartographer, you deliver the closing address—the motivational bit that needs to land.

“Pioneers, you aren't just welcome to Odgrid—you become Odgrid. The accelerator we're in is what powers our community. But above all, this place is about regeneration—because we're only as strong as the land. And it extends across the entire network of neorural hubs—because no one can do it alone. Most of all, it's about thriving. You're not going back to the countryside: you're moving forward to invent the neorural.”

Studio Odgrod

A New Future Archetype

The Territory

We find ourselves in the agricultural peripheries, from the empty plains of Eastern Europe to the aging hamlets of rural Italy and Spain, the ‘ghost villages’ of Japan, or the monocultures of the American Great Plains. For over a century, these landscapes have served as a critical infrastructure of modern states, fueling the rapid expansion of cities. Today, that engine is running hot. Extraction has thinned the land, and climate volatility is pushing fragile ecosystems to the brink. What was once a reliable resource is becoming unstable, and the collapse of the traditional agricultural model meets a growing absence of human stewardship. Those who remain, predominantly male and elderly, often face crumbling infrastructure and poor public services. The younger generation, especially women, has moved to the cities in search of education and better prospects.

The Model

Odgrod embodies a transition towards a new, sustainable rural model. It is driven by a city population longing to reconnect with nature, reclaim self-sufficiency, and by a growing awareness that the old economic model no longer works for them. Disillusioned with urban prospects, more and more city dwellers see their future in the countryside and become rural pioneers, using skills from their former jobs and their urban mindset to meet these challenges.

Streaming rural life initially provides an important source of revenue and finances agricultural experiments. It rewards generating knowledge and sharing stories of adaptation, and relies on AI systems to accelerate the process, leading to a growth of degrowth. For the pioneers, the commitment to restoring ecologically damaged land and adapting it to a changing climate comes with support from state programs, which acquire land for restoration, introduce conditional-ownership models tied to ecological improvement, and support cooperative-farming accelerators to train neorurals in regenerative practices.

The Foundational Shift

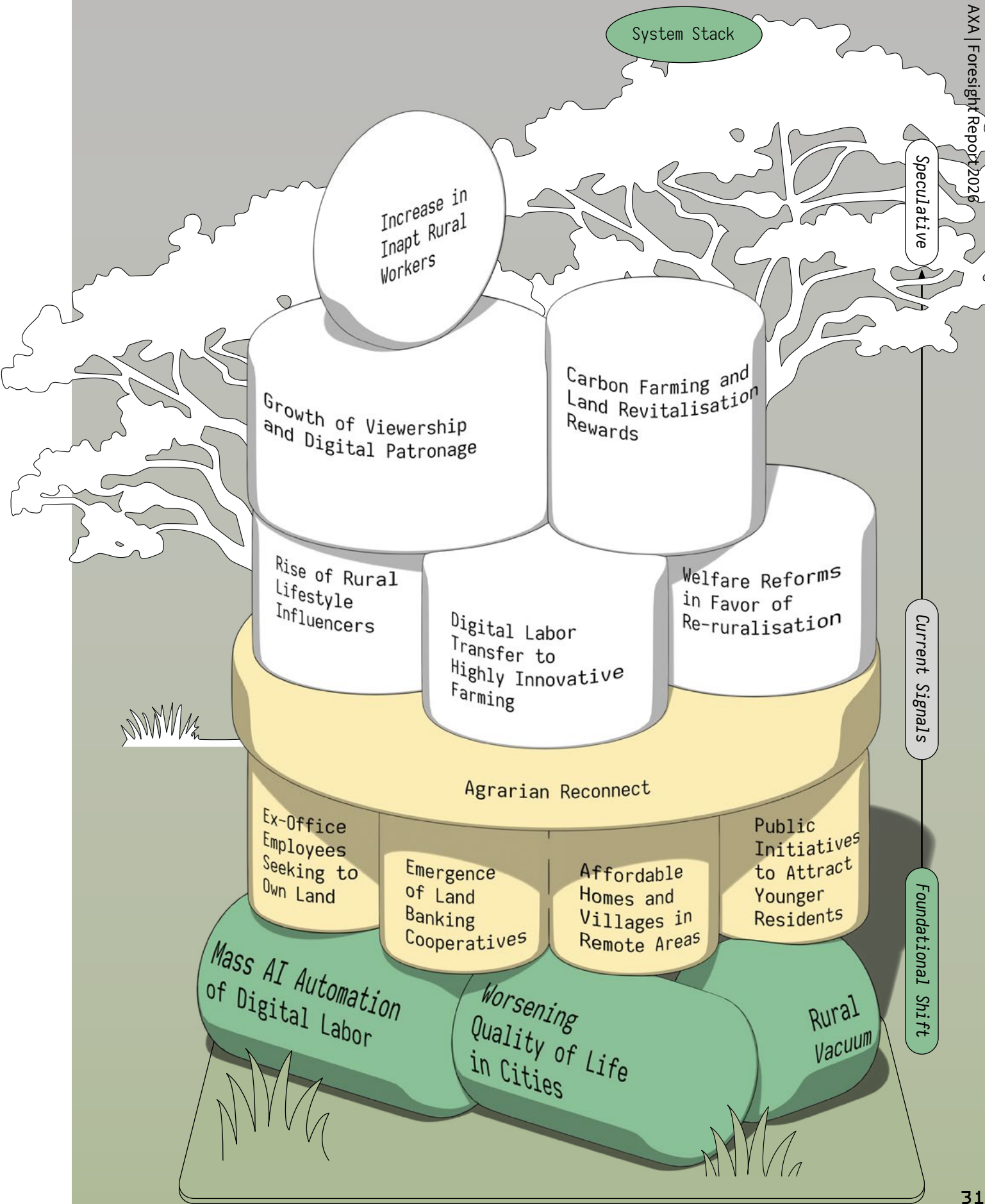
Rural population has been shrinking for decades. Abandoned houses, sold at symbolic prices such as in Italy’s one-euro villages, become attractive to a new type of buyer: urban youth with a life project, many of them pushed out of cities by a lack of opportunities in white-collar careers, or by the growing possibility of working remotely.

Meanwhile, ecosystems already impacted by over-exploitation and climate change are coming under further pressure. Some regions see soil degradation and the disappearance of pollinators push industrial agriculture towards systemic collapse. This decline reveals the need for a rural model focused on land restoration.

Food security, climate protection, and adaptation to climate change all depend on healthy, resilient ecosystems—especially as geopolitical instability increases the importance of domestic supply. Examples of good practice, like the Danish Saksfjed Wilderness³⁰ project, show the way. In addition, the expanding bioeconomy relies on organic materials, which offer much higher added value by turning crops into refined products such as bioplastics, fabrics and cosmetics. Rural areas gain in importance as strategic infrastructure, economic drivers, and potential innovation hubs—provided that population decline can be reversed and ecosystems stabilized.

In this process, technology evolves out of necessity. Dependence on large platforms gives way to small, open solutions. Pioneers use cooperation strategies inherited from their former professional lives to optimize resilience: former office workers treat agriculture like product development, and engineers develop higher-value products. What they miss from the city, they try to bring back through connectivity or other landscape hacks.

But the clock is ticking, and the question remains whether the neorurals will be able to convert the shrinking resources of their previous lives into a flourishing, sustainable model fast enough.

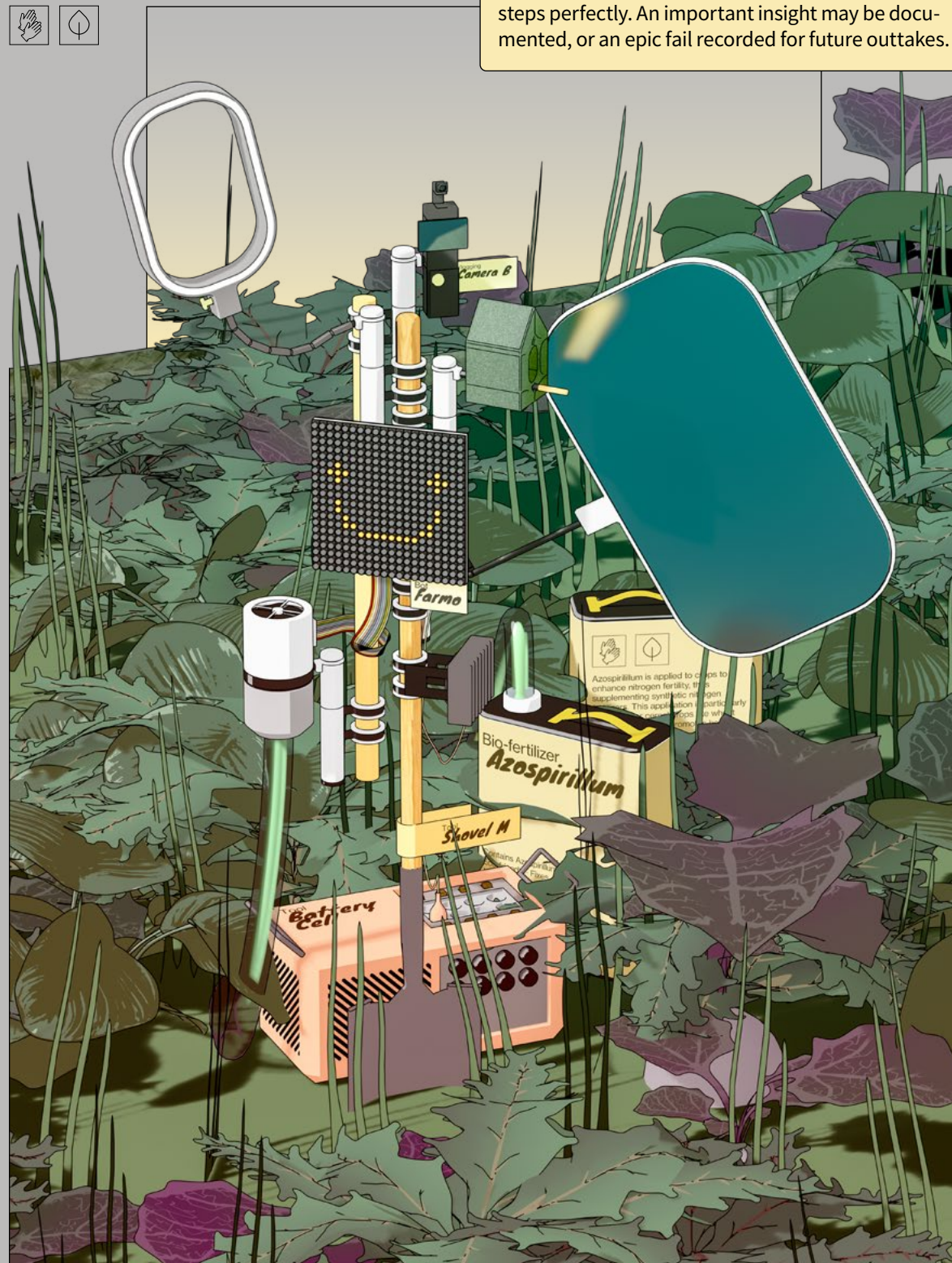


Odgrodni Artifacts



Farmo

'Neorural' is just another word for a newbie. There is so much to learn when starting a new life in Odgrod. One of the biggest challenges is making the community's knowledge easily accessible and encouraging immediate action. Which plants thrive together? What nutrients are needed? What attracts pollinators? Farmo, the farming tutor, provides support. Its ring light helps capture the first steps perfectly. An important insight may be documented, or an epic fail recorded for future outtakes.



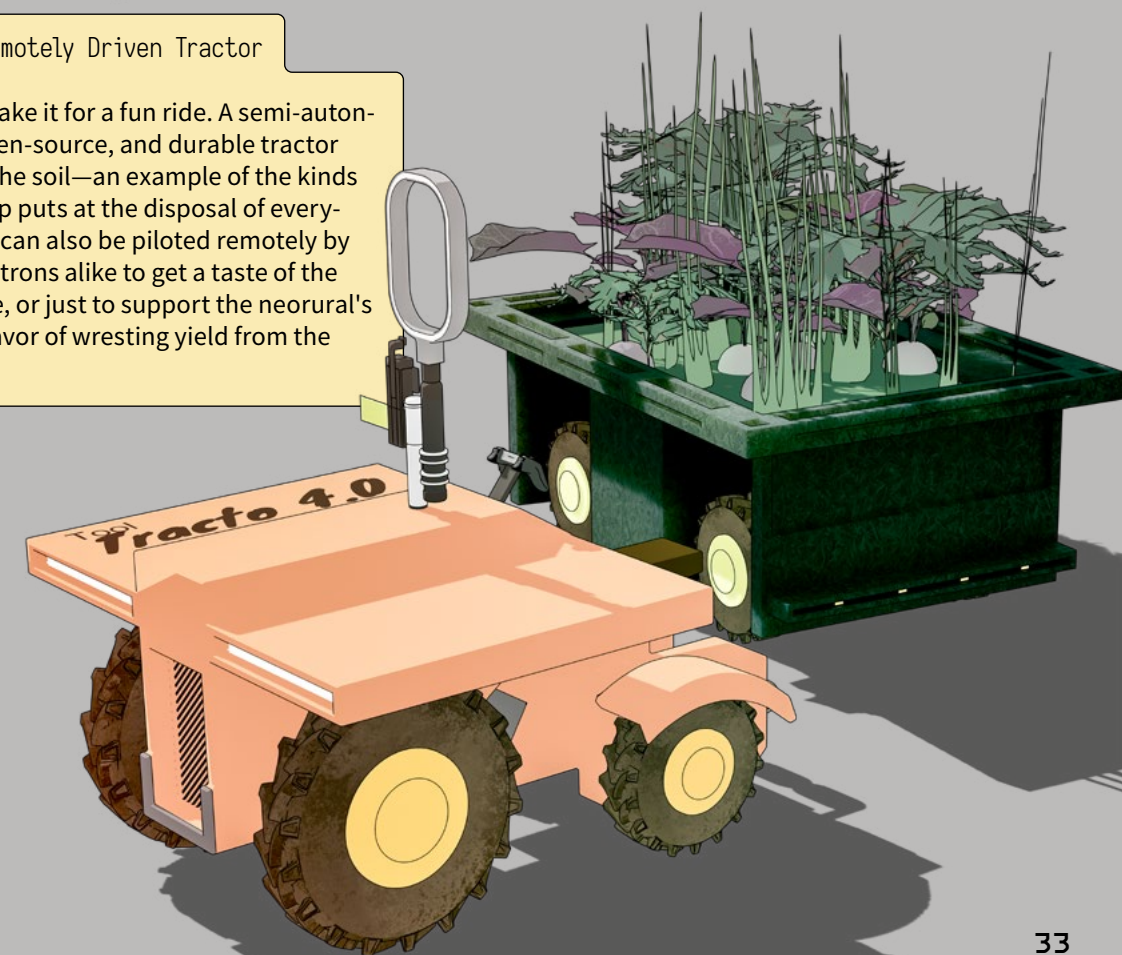
Scrum Cafe

Who can blame them for taking a well-deserved break from the mud and smells, sinking into a good old office chair, just like in the old days? But the scrum cafe is not here for resting, it is for sprinting: to-do lists, SWOT analyses, user stories, the whole toolkit. The day begins with organization, innovation, and optimization, old office skills now turned toward conquering stubborn nature. As the scale of their work shrinks from corporation to village, they believe efficiency will make the difference between poverty and prosperity.



Tracto 2.0 – Remotely Driven Tractor

It is hard not to take it for a fun ride. A semi-autonomous, easy, open-source, and durable tractor model, light on the soil—an example of the kinds of tools the co-op puts at the disposal of everyone. The tractor can also be piloted remotely by followers and patrons alike to get a taste of the 'reconnected' life, or just to support the neorural's strenuous endeavor of wresting yield from the barren soil.



Managed Retreat

With Alice C. Hill

Senior Fellow for Energy and the Environment,
Council on Foreign Relations



Alice Hill is a US policy expert specializing in climate resilience and risk governance. She currently serves as the David M. Rubenstein Senior Fellow for Energy and the Environment at the Council on Foreign Relations and previously acted as Special Assistant to the President and Senior Director for Resilience Policy at the National Security Council under the Obama administration. Earlier in her career, she advised the Department of Homeland Security, worked as a federal prosecutor, and served as a judge in the Los Angeles Superior Court.

Incentives, Opportunity, and the Pull of Movement

Among urban populations, younger generations facing mounting pressures are the most likely to relocate to a degraded countryside, while “older people will just stay where they are.” The question, then, is “can they have a better life, are there incentives, are they safer and more economically well off?”

The dynamic becomes plausible under a combination of push and pull factors: “People are willing to move for greater opportunity. And so if urban sites are degraded and there is no opportunity, this will be much more attractive.” Yet cities remain powerful economic anchors. “I don’t know with AI whether cities will remain economic engines, but they certainly are right now. What we’re seeing more is talk about managed retreat.”

For rural resettlement to move beyond rhetoric, incentives must be credible and durable. “It’s going to depend on what the incentives are, and how lasting they are.” Without long-term guarantees of public services such as health-care, infrastructure, education, or postal services, participation risks becoming precarious rather than empowering.

From Historical Precedent to Legal Constraint

Large-scale land settlement is not unprecedented. “That is how the United States was settled. You get a hundred and sixty acres, and you have to build something on it within a certain time—then, it’s yours.” History shows that innovation matters too, and public policies that invest in restoration technologies can effectively support relocation—as evidenced by the improved irrigation practices that helped resolve the Dust Bowl agricultural collapse in the late 1930s, drawing Oklahomans back to their homeland.

Legal feasibility introduces a harder constraint. “All the land in the United States is owned by somebody. And even if it’s valueless, it’s still owned.” Meaningful resettlement would likely require “very desperate circumstances.” Recast as a strategic managed retreat, rural development could reduce urban exposure while strengthening resilience. There is already “a lot more discussion about ‘fattening’ the supply chains and near-shoring,” following the realization that systems are “far too dependent on a few manufacturers in vulnerable places.” Under this framing, relocation becomes less frontier experimentation and more infrastructural rebalancing.

Conflicting Usages and the Cognition Issue

If land restoration proves profitable, industrial agriculture may simply dominate. “If it’s really technical, why would you need them living out there? Why wouldn’t you just have a bunch of robots doing the farming?” The model shifts, however, when the objective is to address combined social and environmental needs rather than merely optimize land development. Under those conditions, “there would be a pull to it—it sounds like a great opportunity as things look very dim elsewhere.”

However, rural territories are rarely empty, and adaptation policy must account for local populations. Relocation models often assume rational decision-making, but attachment complicates mobility. “People value loss more than they value gain. So how do you address

the sense of loss those who are already there experience?” Even when incentives for newcomers could benefit local communities—reviving service deserts and bringing schools back to life—“sometimes people don’t want to be rescued.”

Isolation itself introduces further risks. “I think these communities can become quite feisty. Do we really want to put a bunch of people out there who are thinking for themselves and telling them, ‘you just go do your own thing?’” That is what happened in Waco, Texas, leading to a standoff between federal agents and the Branch Davidian sect. Separation can create conditions where “these sorts of cults get started—it’s a risk.”

Featured Project

Terre de Liens

Reclaiming Farmland as a Commons Where Citizen Capital Meets Living Soil.

Founded in 2003, Terre de Liens is a French citizen-led movement that mobilizes solidarity-based savings and public support to secure long-term access to agricultural land for agroecological farmers. Structured as a national network comprising an association, a landholding company (*Foncière*), and a foundation, it enables citizens to invest directly in farmland acquisition. This removes land from speculative markets and preserves it as a shared resource dedicated to sustainable food production.

As of the mid-2020s, Terre de Liens brings together more than 30,000 members and shareholders across France and has amassed over €100 million in citizen capital. Through this collective effort, the movement has acquired and secured more than 300 farms, representing several thousand hectares of agricultural land placed under long-term stewardship. These lands are leased to farmers com-

mitted to socially responsible production models such as organic farming or agroecology, often through long-term rural leases that ensure stability and intergenerational continuity.

Citizen investments are directed toward land acquisition and preservation, which, in a context where financial speculation and generational turnover increasingly limit access to farmland, reduce structural barriers for new entrants wishing to dedicate their efforts to ecological agriculture rather than treating land as a financial asset.

By anchoring land in collective ownership and aligning citizen capital with agroecological practice, Terre de Liens contributes to the rejuvenation of farming and the resilience of food systems across France.

[Link](#)

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The Signals Behind Studio Odgrid

How Does it Future?

The future model proposed in Odgrid is shaped by various push and pull factors between urban and rural worlds, alongside deeper shifts in demography and agricultural practice. As job automation expands and remote employment normalizes, cities no longer hold an exclusive claim on opportunity. At the same time, the countryside thinning out creates both a risk of decline and a clear political incentive to reinvest in services, housing, and access to land. Increased climate stress makes land restoration and agricultural adaptation necessities, prompting the use of new tools and crops that more easily align with hybrid digital-rural livelihoods.

The Digital Labor Transition

Companies such as GitLab³² and Automattic³³ operate as fully distributed organizations, structured without central headquarters and hiring globally by default. While their model shows that digital work can scale without geographic clustering, an implication is that urban dwellers now have to compete for their jobs with people living in smaller towns with lower costs of living, or in foreign lands where lower wages remain attractive. The IMF estimates that around 40% of global employment is exposed to AI, rising to about 60% in advanced economies, with outcomes ranging from productivity gains to job displacement.³⁴

Signal Strength: Mid-high

Strong exposure, but the geography of impact depends on regulation, labor markets, and the speed of adoption.

A Quiet Demographic Reversal

The early 2020s saw a quiet disruption of long-standing migration patterns between urban and rural areas. US Census data shows that since 2020, small towns and rural counties have attracted adults aged 25–44 at the highest rate in nearly a century, and rural areas have become net migration gainers.³⁵ In China, the 2017 ‘Rural Revitalization Strategy’ emphasizes the need to modernize agriculture and reduce the income gap between the countryside and cities.³⁶ It has led to 10.1 million people returning to the countryside to start businesses or engage in ‘innovation’ in 2020 alone.³⁷

Signal Strength: Mid

Visible, but long-term persistence is still uncertain.

Europe’s Agricultural Age Gap³⁸

57
Average EU farmer age

12%
of EU farmers are under 40

Rural youth (15-24)
declined from 3.6M
2013

to 1.9M
2019

EU objective
24% young farmers by 2040, with ≥6% of agricultural spending dedicated to generational renewal.³⁹

Rewriting Agriculture for Perennial Gains

Agricultural innovation has the potential to shift farming away from annual cycles that lock producers into repeated tilling and replanting. A prominent example is perennial rice, developed by hybridizing domesticated Asian rice with the wild perennial species *Oryza longistaminata*.⁴⁰ The resulting cultivar can be harvested repeatedly from the same planting over multiple years, delivering average yields comparable to annual rice while reducing labor requirements, lowering input costs, and improving soil structure. By 2021, perennial rice was cultivated on more than 15,000 hectares by over 40,000 smallholder farmers in southern China, demonstrating uptake beyond experimental plots.

Signal Strength: Mid

Demonstrated at a meaningful scale, but still at the bleeding edge of innovation until markets, seed systems, and agronomy catch up.

Rise of the Influencer Economy

The creator economy is on an explosive growth trajectory, with market size estimates ranging from \$250 billion in 2026 to \$480 billion by 2027,⁴³ and potentially reaching \$1.18 trillion by 2032 at a 24.60% CAGR.⁴⁴

Fueling this expansion are over 207 million content creators worldwide, with video streaming alone capturing 39% of all creator economy revenue in 2024.⁴⁵

Rural and homestead vlogging has emerged as one of the fastest-growing niches, posting 16x growth with a \$6.90 Revenue Per Mille (RPM).⁴⁶

Land Under Pressure

€162B
Economic losses from climate extremes in the EU in 2021–2023 alone⁴¹

Severe droughts reduced vegetation productivity by 3% annually
2000–2019, affected areas

61% of EU soils
Are in an unhealthy state⁴²

Insights on Risk and Adaptation

Expert Takeaways

Odgrod captures the appeal of a beginner-friendly, spectacle-heavy neorural model: a return to the land that combines local production and digital work, with some land restoration sprinkled on top. Yet its viability depends on less visible conditions, such as access to land, the economics of self-provisioning, or the weariness of rural lifestyles. At the same time, the model operates within a digital culture that can both amplify and distort it, turning local experimentation into a movement whose authenticity and advantage may be difficult to preserve.

Who Actually Gives the Land Away?

The inception of Odgrod depends on mechanisms that make land accessible in the first place. ‘One-euro land’ schemes imply a mix of public incentives, land-restoration programs, and public-private partnerships designed to reactivate abandoned territories.

If People Grow Their Own Food, Whole Sectors Disappear

When communities move toward self-provisioning, demand for industrial agriculture and external food services could decline. Such a shift would not just transform rural livelihoods but could reshape regional economies built around large-scale food production.

The Rural Dream Lasts Until the Second Weekend

The romantic appeal of countryside living often fades once people confront its everyday realities. Odgrod’s sustainability depends less on initial enthusiasm than on whether its infrastructures and social systems make long-term rural life genuinely viable.

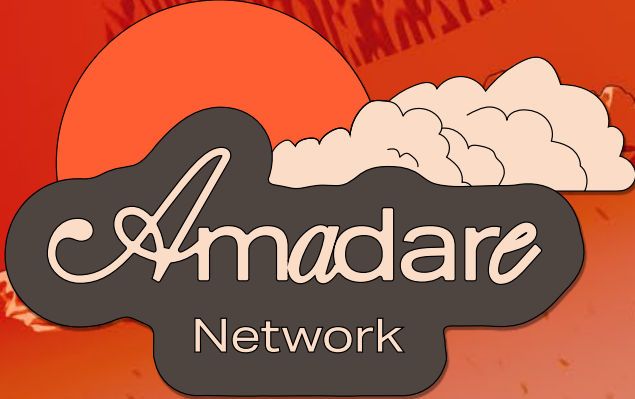
Is It a Lifestyle or a Performance?

When communities rely on digital visibility to attract members, funding, or simply to build a network, rural life risks becoming something curated and broadcast rather than simply lived. Authenticity becomes both a resource and a fragile asset.

10 Things to Monitor

- 1** **Soil Restoration and Perennial Transition**
Regenerative farming schemes, perennial crop trials, and carbon-positive agricultural models.
- 2** **Farmer Demographic Imbalance**
Age distribution and generational replacement within farming populations across rural regions.
- 3** **White-Collar Job Exposure to AI**
Labor market exposure of high-skilled urban professions to AI-driven automation and task substitution.
- 4** **Urban-to-Rural Relocation Patterns**
Residential mobility of working-age adults between cities, small towns, and rural areas, particularly among digitally enabled professions.
- 5** **Land Banking and Cooperative Land Models**
Public, civic, or hybrid mechanisms that acquire and manage farmland to enable access for new entrants.
- 6** **Enrollment in Agricultural Education**
Admissions in programs related to agroecology, regenerative agriculture, and land-based vocational training.
- 7** **Re-Skilling and Rural Transition Programs**
Public or private initiatives, including online courses, enabling mid-career workers to retrain for land-based or hybrid rural professions.
- 8** **Technological Support and AI Adoption in Farming**
Availability and use of precision agriculture technologies and digital tools in farm operations and management.
- 9** **Insurance Access for Small-Scale Farming**
Availability of affordable crop and climate insurance adapted to small, diversified farms and local conditions.
- 10** **Small-Scale Agricultural Automation**
Availability and deployment of affordable robotics and light automation for diversified or small-to-medium farms.

Warmest Salutations From



Overview

Women-led communities formed in the wake of remittance economies turn chronic stress and mobility into antifragile, networked resilience rather than vulnerability.

ID CARD

Foundational Shift	→ Harsh Climate → Remittance & Gender Gap → Nomadic Heritage
Territory & Scale	→ ‘Moving villages’: liquid, mobile territories operating across weak or ambiguous state jurisdictions → Present in the Sahel, South Asia, South America, and Mongolia
Actors & Power Structure	→ Women, youth, and elders in mobile settlements → Men working abroad as detached earners → International funders and platforms enabling coordination

Share Now, Thrive Later



Short Story

This is a good sign. The drill quickens, coarse sand churns up from the shaft. The kids open a valve, sending a rush of air down into it, as the other women clap excitedly. Then it erupts: a muddy fountain. Dirty at first, but soon it clears into water. Everyone cheers. The kids break into a jubilant dance. “Finish your work.” They pause long enough to close the valve. You watch the fountain collapse against the savanna panorama. On the horizon, a shimmer catches your eye. Is the village already approaching? Instinctively, you check the camouflage on your drilling truck. You prefer to stay unseen. Drones up: they scan the area. Settlements, routes, open ground, making sure nothing sneaks up on you. Now you see dust clouds move side by side. You check the drone’s camera feed. It’s them: the school truck with its sun sails, the elders’ house on cushioned wheels. Ten vehicles. They’ll be here in less than half an hour. Time to tidy up—you mark the spot on your map and conceal the new well.

You maintain a network of water sources along the nomadic routes of Amadare. People can only stay where there is water. From it, everything else grows: survival, food, relationships. The Amadari rely on friends everywhere—to trade, stay safe, and keep watch when they move. So your wells, cisterns, and cloud-catching kites do more than provide water. And still, you sometimes find a source emptied or sabotaged. When that happens, it’s never simply about fixing it. You seek out those responsible, you bring gifts and listen: what do they need? Medicine? News? Knowledge? Something that can even turn foes into allies.

Hadja demonstrates how to take down the drilling pipe. She talks way too fast. The apprentices’ faces say it all. “Hadja, I know your husband is arriving with the village, but please, slow down.” She grins. They haven’t seen each other for six years. Her husband works abroad helping cities adapt to heat. His remittances pay for the radio network. A true pillar of the community. “Sorry, I know. Let’s finish the school mission,” Hadja knows how it is, she went through all of it herself: drilling today, risk assessment tomorrow, then mapping, economics 101, camouflage, negotiation... The first vehicles roll in, and suddenly the kids are gone. You spot Djera’s head sticking out from behind a giant wheel. “I can see you!” you shout, while the others slip inside the provisions truck with medicines and neatly labeled seeds, or beneath the elders’ flowing garments. More vehicles arrive and form a circle. Doors open, carpets and cushions are laid out. Evening settles in. Tea is poured, stories begin to fill the air. And now, Leila raises the windhorn: A soft breeze at first, it grows into a whistle cutting through the chatter: “Everyone. It’s a festive day. Some families reunite; we will celebrate in just a moment. But first: reports. Then we adjust the route for next week.”

By sunrise, the village has already scattered. Some of you scan routes. Others visit plots co-managed with farmers. The crews deliver seeds and tools and receive provisions in return. The prevention team builds sand dams so rain sinks back into the ground and helps families prepare for floods. Over tea, they learn names, who is ill, upset, and what is quietly shifting. School and risk planners stay with the core camp, reading satellite maps and comparing them with incoming data. These signals come from their own sensor network scattered across the areas they move through. When everyone returns, the mapping unit pulls the reports together: villagers request supplies, medication, and help rebuilding. The Amadari believe sharing now means thriving later—but giving away what you might soon need sparks debate—every time.

And then comes the harder part: in the weeks ahead, you will move to higher ground, to escape the worst of the heat. That means crossing a border. Your village lives in the balance between openness and hiding, building networks of trust while remaining unseen. Crossing a border is a moment of truth—information and relationships have to hold. But you’ve done this before. With preparation, attention, and good timing.

Amadare Network

A New Future Archetype

The Territory

We are situated where arid landscapes meet accelerating climate change. From the North African Sahel's rangelands to the Central American Dry Corridor and the steppes of Central Asia, livelihoods depend on fragile agriculture and thin margins, with mobility and migration often filling the gaps. Where local economies reach their limits, many households rely on labor migration, mostly from men working abroad whose remittances help sustain daily life, build houses, and support small businesses or farming. But as extreme heat, drought, failed harvests, and floods intensify, the stability built over many years is repeatedly put at risk. A woman-led form of nomadism emerges when that cycle breaks, and remittance capital shifts from rebuilding the lost past toward financing a mobile future.

The Model

The Amadare Network operates as a mobile civic system where key functions move with the people. It forms modular communities, moving villages that split and merge in response to shifting risks and opportunities, with female leadership that is reputation-based and earned through proven competence. Early momentum comes from redirected remittances pooled through mutual-aid rules, building shared logistics, portable infrastructure, and reliable routines that keep schooling, care, and production continuous across movement.

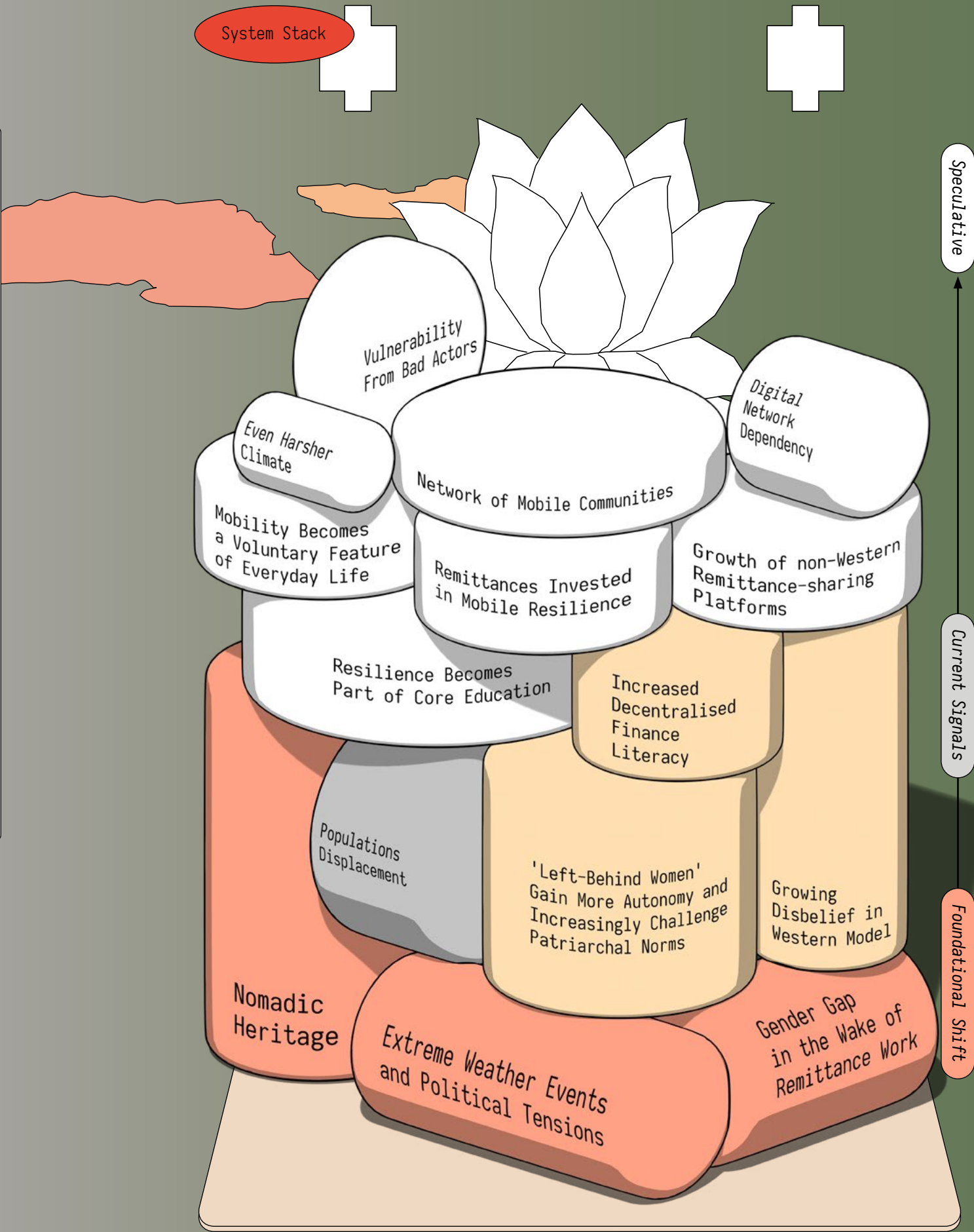
The system becomes antifragile by turning disruption into shared learning and teaching. Each shock is worked through collectively, then translated into stories, practices, and routines that are passed on to new members of the network. Children are brought into this work early, learning by helping, observing, and gradually taking responsibility. What succeeds is carried forward and shared across the network; what fails is dropped quickly. Over time, resilience becomes less a promise of recovery and more a practiced capacity for living inside volatility, shifting the logic from defending static assets to cultivating durable, transferable capabilities.

The Foundational Shift

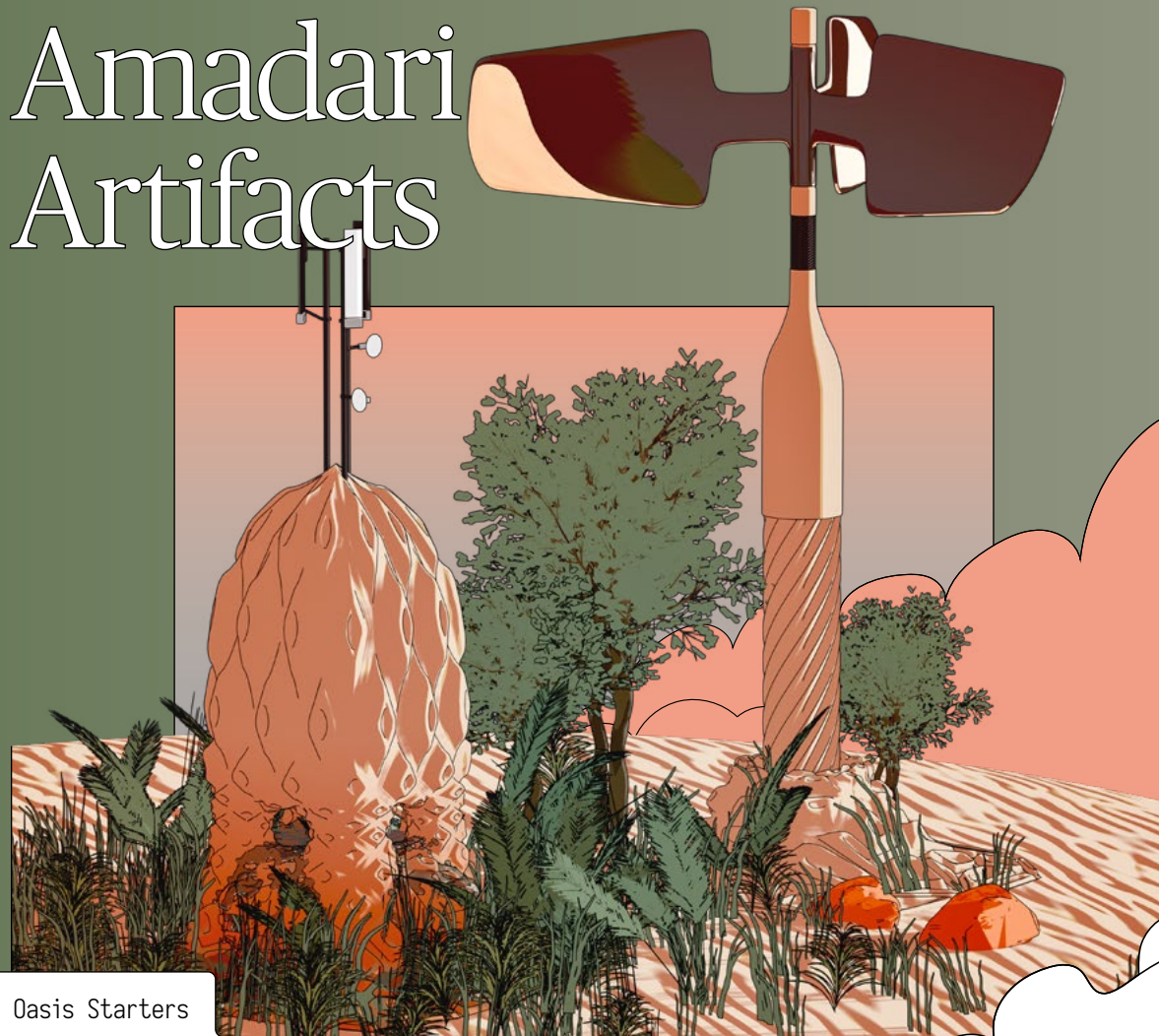
As the climate crisis accelerates, remaining in place becomes increasingly difficult. IPCC assessments and related research warn that large parts of the world's drylands face compounding threats that go beyond agricultural failure and reach into questions of basic habitability.⁴⁷ Declining groundwater, recurring food shortages, and lethal heatwaves mean the land itself, once a source of security, is becoming a source of risk.

At the same time, a parallel social transformation is unfolding. In communities shaped by male labor migration, women increasingly manage household economies, coordinate informal support networks, and steer remittance flows. Much of this money is still used to stabilize a settled way of life: rebuilding homes, rescuing crops, and propping up local businesses. But as climate shocks intensify, these investments are repeatedly wiped out, turning remittances into a cycle of repair rather than progress.

In many of these regions, nomadic know-how offers an existing toolkit for tackling volatility: move livelihoods with conditions instead of defending fixed assets.⁴⁸ The shift is the decision to treat mobility not as a breakdown, but as a strategy, and to use remittance capital accordingly. What would it take for movement to become a reliable form of continuity, not a last resort?



Amadari Artifacts



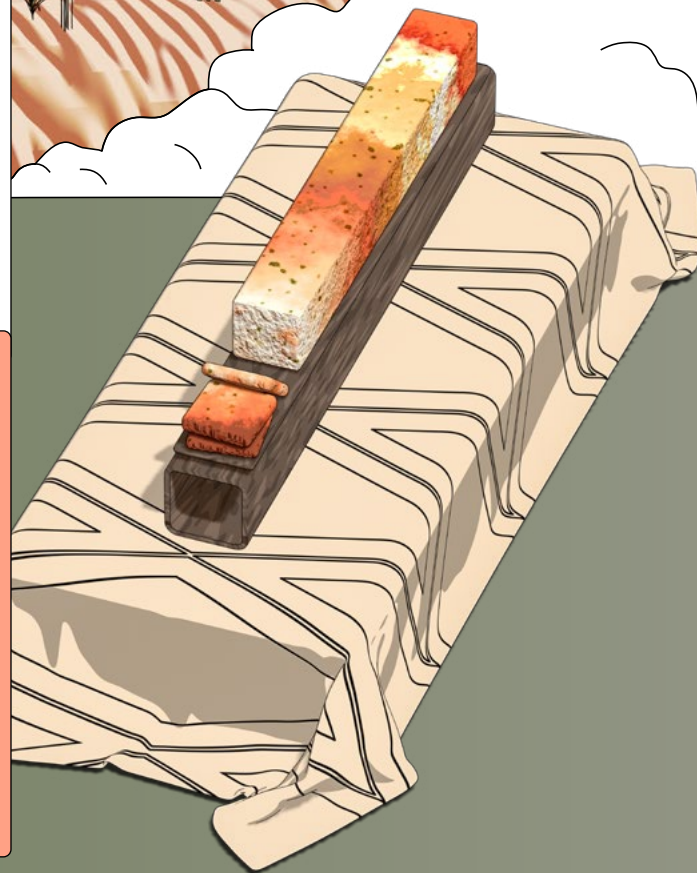
Oasis Starters

When the nomads take care of the land, the land will take care of them. Along their way, they construct Oasis Starters: they drill wells, build irrigation systems, and plant seeds that turn into a network of oases to provide food and water, holding back the desert. Here we see an experimental specimen: an autonomous drill with a flywheel to harness the chaotic kinetic energy of passing storms.

Longing Cake

The strain the nomadic lifestyle places on relationships is immense. While men spend long periods away earning remittances, the communities at home, led by women, grow more independent. In a way, men have made their greatest contribution when their contribution is no longer needed. Rituals help them mend their fear of irrelevance.

As the nomads travel, the longing cake becomes a culinary record of the journey. Each day, a small piece of food collected along their supply nodes is added and pressed into the cake. When the husbands return, they are welcomed with a ritual dinner. Thin slices are served while the family recounts the travels and moments the men have missed.



Lo-Fi Intelligence

Nomads weave together many layers of information to plan their routes. They scan for potentially dangerous groups, trace shifts in weather and climate, and detect emergencies in nearby communities. To achieve all this, they harness inexpensive tools: drones, built on the spot from metals recast using solar heating techniques, rapidly pinpoint changes in their immediate vicinity. Sensors installed along their routes are linked through mesh networks, monitor conditions and let messages travel between nomads and neighboring settlements. As the nomads move, the network grows stronger with each new node that is added.

Expert Views

Driven By Care



Kavita N. Ramdas

Former Director of the Women's Rights Program, Open Society Foundation

Kavita Ramdas is a global advocate for gender justice and a philanthropic leader focused on women's movements. She formerly served as president and CEO of the Global Fund for Women, and as director of the Open Society Foundations' Women's Rights Program.



Megnaa Mehtta

Lecturer at the Institute of Risk and Disaster Reduction, University College London, former post-doctoral grantee of the AXA Research Fund, now part of the AXA Foundation for Human Progress

Megnaa Mehtta is a social and environmental anthropologist who investigates how coastal residents experience climate and conservation regimes, and how ethnographic fieldwork can contribute to environmental litigations.



Abou Farman

Associate Professor of Anthropology, The New School for Social Research

Abou Farman is the writer of *Clerks of the Passage*, which tells stories of migration from prehistoric to modern times, a long-time collaborator with autonomous social movements in Latin America.

Kavita Ramdas: Care as Foundation, Autonomy as Horizon

Men working abroad did not create new responsibilities for women, but revealed tasks long carried informally. "There is zero recognition of care work provided for free, primarily through the labor of women and girls." For women, the shift toward nomadism in no way begins with taking on new roles, but rather with reorganizing existing duties towards sustaining mobility, resilience, and collective survival.

While they may finance early adaptation, remittances remain a liability. "The Philippines economy is hugely dependent on remittances," and workers from many countries rely on the possibility to move across borders devised "by the colonizers who just drew a line," which increasingly comes under the pressure of nationalist politics ignoring historical precedent. "You had massive migrations when we didn't have borders, and now you're trying to keep us out."

To imagine genuine resilience requires articulating a path towards locally governed, self-sustaining systems capable of reducing

structural dependency. Such examples exist: in the Panchayats village councils across India, women's increased participation in leadership resulted in "a health clinic, better access to water, and roads—there had been investments in care, in the well-being of the community."

Megnaa Mehtta: From Ecological Intelligence to Administrative Friction

Women's empowerment can also happen through infrastructure. "Mobile banking allows new kinds of freedoms" and "changes gender dynamics once women have access to money in the way they didn't use to."

When movement becomes permanent, fixed territorial sovereignty that emerged "because of taxation and property" must be challenged, shifting attention away from nation borders and toward bioregions, where seasonal mobility appears less as rupture and more as ecological intelligence. In the tradition of flood-prone areas, "the idea of moving alongside land with water was just normal," and places like "Zomia, where people moved from the highland to the upland,"

offer historical examples of seasonal organization beyond state logic. Still today, "entire communities move to adapt to temporary seasonal risk."

The "desire to make home" often exceeds risk calculation. Along vulnerable coastlines, there are places "where one would expect people to want to get out and leave, but their desire and choice is to stay." Mobility is additionally constrained by administrative systems, which make identity documents "the thing that people preserve on the topmost slats of their homes." Presented as a solution, the shift to digital identification increasingly means "face identification, retina, thumbprints, and movements being surveilled."

About Farman: Collective Autonomy in the Age of Infrastructure

While technology can empower communities, one might fear the "control and monopoly over infrastructure," which makes even the possibility of operating "a multi-purpose communal satellite" raise questions of ownership, governance, and design. This tension explains why populations living at the edge of communication networks rely heavily on "crucial, bygone tools" such as radio or walkie-talkies that "form the collective in interesting ways."

Resilience is "survival as a collective act," and it requires "networks of solidarity," where rootedness and mobility coexist without canceling each other out "along bioregional corridors," like in parts of the Amazon where "villages as a whole were used to moving from site to site because the rivers flood naturally."

To reconnect with a lifestyle of collective, permanent mobility today, culture itself must become "much more experimental" and cultivate "virtues of communalism and sharing" rather than the "self-centered maniac part of humanity."

Featured Project

Siti OSS

Crowdsourced 'Situational Intelligence Open Source Software' for Real-Time Emergency Response

During floods or landslides, emergency responders often struggle to see what is happening across affected areas. Official monitoring systems provide only partial data, while the most immediate knowledge sits with people experiencing the event. In countries such as Indonesia, where seasonal flooding affects millions each year, this makes it difficult to quickly identify flooded neighborhoods, blocked roads, or areas where help is most needed.

Siti OSS transforms everyday digital communication into a real-time disaster reporting system. Rather than requiring a new emergency app, it works through platforms people already use, such as social media. Research shows that during emergencies, people rarely adopt unfamiliar tools and instead rely on the channels they already know.

The software connects directly to these platforms and listens for disaster-related keywords such as

'flood,' 'fire,' or 'earthquake.' When such a post appears, an automated bot responds, asking the user to confirm whether they are experiencing the event. If so, the system guides them through a short report: confirming location, adding a photo if possible, and writing a brief description. Within seconds, the report appears on a live public map.

The platform is maintained by Yayasan Peta Bencana, a nonprofit organization led by urban technologist Nashin Mahtani. Working with communities, universities, and government agencies, the foundation has expanded the system across Southeast Asia, where it now supports disaster response for more than 350 million people. During major floods in Indonesia, authorities can see conditions across entire cities within minutes and direct response teams to the neighborhoods that need help first.⁵⁰

[Link](#)

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The Signals Behind Amadare Network

How Does it Future?

The model of women-led nomadic communities as a means of adaptation emerges from the convergence of remittance finance and climate-driven mobility. Large-scale labor migration is already reshaping households across parts of Africa and South Asia, where women often remain in place as de facto household heads, managing remittance income and taking key decisions about land use and adaptation. At the same time, access to satellite-based early warning systems and low-cost communication tools has the potential to make movement better informed and therefore more deliberate. Access to resources is equally crucial as climate pressures rise, and techniques for providing water without connection to a local grid greatly empower mobility.

The Remittance State and the Women Who Administer It

Remittances to low- and middle-income countries reached roughly \$685 billion in 2024, exceeding the Foreign Direct Investment and Official Development Assistance combined.⁵¹ These transfers increasingly move through digital platforms such as Remitly, landing directly in mobile money accounts rather than as physical cash. In countries where male labor migration is dominant, this often places women in charge of receiving and allocating funds.

In parts of the Pacific, these remittances are routinely communalized to rebuild homes after cyclones, and Village Savings and Loan Associations in East Africa, often led by women, integrate remittance income into pooled funds that support small enterprises or buffer climate shocks.⁵² In Mexico, the ‘3x1 Program for Migrants’ matched each dollar of remittance invested in building local infrastructure with another 3 dollars from municipal, state, and federal funds.⁵³

Signal Strength: High

Remittance flows are structurally embedded and expanding as digital services.

Remittances That Shift Power

According to an Afrobarometer survey of 22,118 women across 34 African countries⁵⁴

21.1% of women reported receiving international remittances.

Compared to those who didn’t, they were on average

+1.7%pt. more likely to report greater gender equality in their lives.

+3.1%pt. more likely to report stronger economic decision-making power.

+3.4 %pt. more likely to report higher political participation.

Recipients are also more likely to have attained secondary or tertiary education

Access to the Kenyan mobile money system M-PESA lifted 194,000 households (2% in country) out of poverty.⁵⁵

Impacts are more pronounced for female-headed households

In 2024, remittances reached US\$685 billion – surpassing foreign direct investment in many countries and amounting to roughly three times official development assistance (ODA).⁵⁶

Global account ownership increased from 51 % to 79 % between 2011 and 2024, in part due to digital banking.⁵⁷

Signal Sovereignty – Acquiring and Sharing Risk Information

Connectivity is crucial for coordinating mobility in the absence of reliable state infrastructure. Two capacities matter most: the ability to proactively acquire information about environmental risk and the ability to react quickly by sharing that information across a community.

Early warning systems are expanding globally, combining satellite weather data, geohazard monitoring, and predictive modeling to detect extreme weather events earlier and more accurately. Platforms such as SERVIR⁵⁸ provide environmental intelligence to vulnerable regions free of charge.

On the ground, decentralized mesh networks like Meshtastic⁵⁹ enable peer-to-peer communication over several kilometers using low-cost radio devices, allowing communities to share information without relying on centralized telecom infrastructure.

Signal Strength: Mid

The technologies work, but their impact depends on local adoption and sustained use.

Water Sovereignty Beyond the Pipe

A January 2026 report by the United Nations stated, “The planet has entered the Global Water Bankruptcy era.”⁶⁰ Nearly three-quarters of the world’s population lives in countries classified as ‘water-insecure.’⁶¹

In many places, water collection remains disproportionately women’s work. In Morocco’s Anti-Atlas Mountains, women-led initiatives supported by Dar Si Hmad Foundation have installed large fog-harvesting systems that capture moisture from coastal fog and convert it into potable water.⁶² Once installed, the nets require no external energy and supply several villages.

Recent breakthroughs in metal–organic framework materials for atmospheric water harvesting operate using ambient solar energy, harvesting up to 2.8 liters of water per kilogram of material in desert conditions.⁶³ Operating at a modular scale, these systems can be maintained by community members and deployed incrementally.

Signal Strength: Mid

Operational examples exist, though performance varies with climate and maintenance capacity.

Climate Driven Displacement

Up to 216 million people could be forced to move within their own countries by 2050 due to slow-onset climate impacts. In some regions, internal climate migrants could represent up to 3% of the total population.⁶⁴

Regional projections by 2050

86 million	19 million
Sub-Saharan Africa	North Africa
49 million	17 million
East Asia & Pacific	Latin America:
40 million	5 million
South Asia	Eastern Europe & Central Asia

With inclusive development and strong climate action, the projected scale of displacement could be reduced by up to 80%.

Insights on Risk and Adaptation

Expert Takeaways

The Amadare Network illustrates how, in regions exposed to repeated climate disruption, mobility can become not just a survival strategy but a new social structure organized by women in charge of managing resilience. While movement offers relief from environmental and economic pressures, the model remains shaped by external constraints such as restrictive border regimes and remittance economies, and by practical dependencies on education or water management systems—until they gain independence from them.

Mobility Is Freedom Until It Meets a Border

The success of nomadic adaptation is constrained by existing visa regimes and migration controls. Without more flexible frameworks, mobile communities risk being continually interrupted by lines that might not reflect their bioregional anchoring.

Being Part of a Network Is Better than Full Autonomy

Mobility does not immediately eliminate all infrastructure needs, and communities needing to resupply what they cannot produce—medicine, tools, manufactured goods—might still depend on periodic access to supply chains through either ports or delivery systems.

Some Men Return, Some Do Not

For the most part, men absent due to long-distance labor migration periodically return and contribute to local development. Others who chose to put distance with the group or are lost to armed conflicts leave a void that can durably impact the psyche of the community.

Mobility Can Be a Lifestyle

Nomadic movement offers more than a coping mechanism: it creates a rhythm of life that balances urban opportunity with rural well-being. In this sense, mobility can also be perceived as a less stressful and more holistic alternative to permanent settlement.

“They do not merely withstand shocks, but improve because of them.”

From **Roger Spitz**

*Founding Chair of Disruptive Futures Institute
Member of the Global Foresight Network of the World Economic Forum
Author of ‘Disrupt With Impact: Achieve Business Success in an Unpredictable World’*

“In an era of metaruptions, where interdependent systems are in perpetual flux, disruption is a constant. Resilience emerges through continuous adaptation in flow. Antifragile systems—echoing Nassim Nicholas Taleb—behave like immune systems: stressors, incoherence, and even mistakes strengthen them rather than break them. They do not merely withstand shocks, but improve because of them.”⁶⁵

The trade-off between efficiency and resilience is ultimately a choice between fragility and antifragility. The antifragile perfects being imperfect, leveraging decentralization to eliminate single points of failure. This demands a shift from predicting probabilities to preparing for the amplitude of consequences across multiple futures. The AAA Framework follows: anchor in Antifragile foundations, cultivate Anticipatory intelligence to scan emerging signals, and deploy Agility to navigate an accelerating, liminal present. In compounding uncertainty, agency is an unexercised option – it only has value when exercised.”

10 Things to Monitor

- 1 Women’s Leadership in Climate Adaptation**
Recognition of women’s expertise in resilience planning within international climate adaptation frameworks and programs.
- 2 Institutionalization of Women-Centered Mutual Aid Networks**
Presence of communal initiatives such as savings groups, childcare circles, and knowledge-sharing networks.
- 3 Collective Savings as Adaptive Finance**
Activity and financial performance of locally managed women’s savings groups relative to formal credit systems in buffering climate-related crop and income losses.
- 4 Infrastructuralization of Remittances**
Diaspora flows financing water systems, health centers, emergency shelters, and other public goods.
- 5 International Recognition of Climate Refugee Status**
Legal recognition and policy frameworks addressing climate-induced mobility and the protection of displaced populations.
- 6 Insurance Models for Mobile and Non-Traditional Living**
Development of insurance products for mobile lifestyles, mobile housing, and alternative living arrangements.
- 7 Women’s Participation in Local Governance**
Representation of women among voters, candidates, and office holders in local governance institutions.
- 8 Decentralized Energy Systems**
Deployment of solar cooperatives and other off-grid energy initiatives operating outside central infrastructure.
- 9 Distributed Climate Preparedness**
Emergency readiness systems, early warning networks, and resilience training within community life.
- 10 Informal Cross-Border Solidarity Networks**
Mutual aid systems supporting mobile communities across bioregions that span multiple national borders.

Good Tidings From



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Co-developed with CLICCS

Cluster of Excellence 'Climate, Climatic Change, and Society'

Overview

Urban life depends on a foreign, hyper-optimized supply chain ecosystem, replacing local governance with platform stability.

ID CARD

Foundational Shift	→ China's Logistical Dominance → Degrading Public Infrastructure → The Great Wealth Transfer
Territory & Scale	→ Global network of extra-territorial cities → Located in strategic logistics hubs and global trade chokepoints. → Sustains the illusion that there never was a crisis
Actors & Power Structure	→ Harmony Harbor, a state-backed private developer and logistics company → Affluent residents as 'customers' with guaranteed access → Displaced non-customers and weakened local authorities

What's a Flood on a Boat?



What's a flood on a boat? What's a flood in a basement? What's a hot day on a cold lake? And the same thing in a treeless city, full of smog and motionless air? It can be a fine line between a pleasant experience and a deadly one. You know that—you've been in either situation plenty of times. And frankly, you're a bit tired from the constant planning and adapting that your life seems to require. Now, you've secured a nice little unit in Harmony Harbor. It's being fitted as we speak. The garden gets a fresh layer of rolled turf, and based on your reference videos, a few plants are adjusted and arranged to form your own little Eden. A mango tree mimics your childhood's favorite climbing tree—just half the size.

You're unsure what the garden walls are made of, but the views they display have been chosen for personal impact: the church tower from your old office window, the beach where you met your first boyfriend, a hillside of stacked houses that could have been taken from any Brazilian postcard. The style doesn't suit you; it's kitschy, like a screensaver composed from your life's most unspectacular moments. You don't mind, though. That's not what drew you to Harmony Harbor, but rather its prediction capabilities and the vast network behind the company. The peace of mind.

Life at Harmony Harbor quickly demonstrates its advantages. The operator forecasted the last flood four weeks in advance and had already brought in a fleet of container ships to carry the endangered living units until the water receded. Normal life continued as if nothing had happened. During the national grid collapse and the inland blackouts caused by the heatwave, Harmony Harbor hauled in a floating nuclear reactor. Admittedly, the place is full of old people, the ones that can afford to be stuck in the past—but everyone's here to enjoy life.

Today, you go ice dancing at the popular skating rink entirely powered by photovoltaic modules on its roof. Ladies in their 70s link arms as they try to follow along to 'Dance of the Little Swans.' The floor displays instructions, shows arrows to follow to the rhythm of the music, and, as they complete their pirouettes, a chorus of cheerful praise erupts from the stadium speakers: "Fabulous João!" "Extraordinary, Esmeralda!" All a bit too flattering. Deep down, they know, but just don't show it. The augmented skates are quite something. For 50 Real a pop, they stabilize aging bodies, not quite turning them into ballerinas but making it safe enough to try. Accidents are rare, and when they do happen, no one talks about them. You go home, heal quietly, and return with a smile. Things are alright in Harmony Harbor, because they mostly are.

As you leave the rink, weather petals unfold above the units. Strong winds are probably predicted, or rain, or both. The petals divert the elements and collect the water. Never waste a good storm. Their undersides emit the light of a bright blue sky—probably a spectral copy of daylight from 1987 or something. Now you are on your way to the central square to do something unpleasant for once: protesting. You pick up a free banner and choose a message: "Harmony Harbor does the protecting, Brasília does the collecting." Maybe you'll think of something better. Taxes may rise to fund the national climate protection program, but you feel protected already—why pay for everyone? Still, others deserve the same. Harmony Harbor expands; they are planning new cities inland. Meanwhile, the demonstration is live-streamed as a promotion for Harmony Harbor.

Harmony Harbor

A New Future Archetype

The Territory

We find ourselves in the climate-exposed megacities and critical logistical nodes of the global economy. From the eroding coastal cities of Brazil and Indonesia to the drought-choked Panama Canal and the heat-trapping urban cores of Northern Europe, these hubs powered the growth of modern nation-states, providing the reliable energy, transport, and safety that urban life depends on. With climate change, this may become increasingly unreliable. Severe heatwaves melt infrastructure built for the cold in some places, while flooding overburden municipal capacities in others, forcing residents into constant, exhausting adaptation. Harmony Harbor emerges at key nodes of global trade, where harsh climate events converge with the decline of public services.

The Model

Harmony Harbor offers Resilience-as-a-Service. Rather than adapting to climate change, customers purchase continuity, stability, and peace of mind. They are mostly elderly, unwilling to adjust to shifting circumstances constantly, or wealthy enough to afford “simulated normality.” The city of Harmony Harbor is built on massive platforms near the harbor and is supplied and maintained directly from the sea, circumventing any supply problems from national economies. Prediction and logistics are the prevailing paradigm for guaranteeing stability: customer needs are anticipated, as are threatening events or the stress limits of the city’s structural elements. Before anything breaks, it is reinforced, replaced, or reordered. In the background, the world’s largest logistics network uses predictive models to allocate resources efficiently, ensuring they are available whenever needed. This can only be achieved with the backing of a strong state actor able to mobilize resources and assert interests, making Harmony Harbor’s Resilience-as-a-Service model a challenge to the sovereignty of host countries, its potential to take over protection and welfare functions making it a viable alternative to local governance.

The Foundational Shift

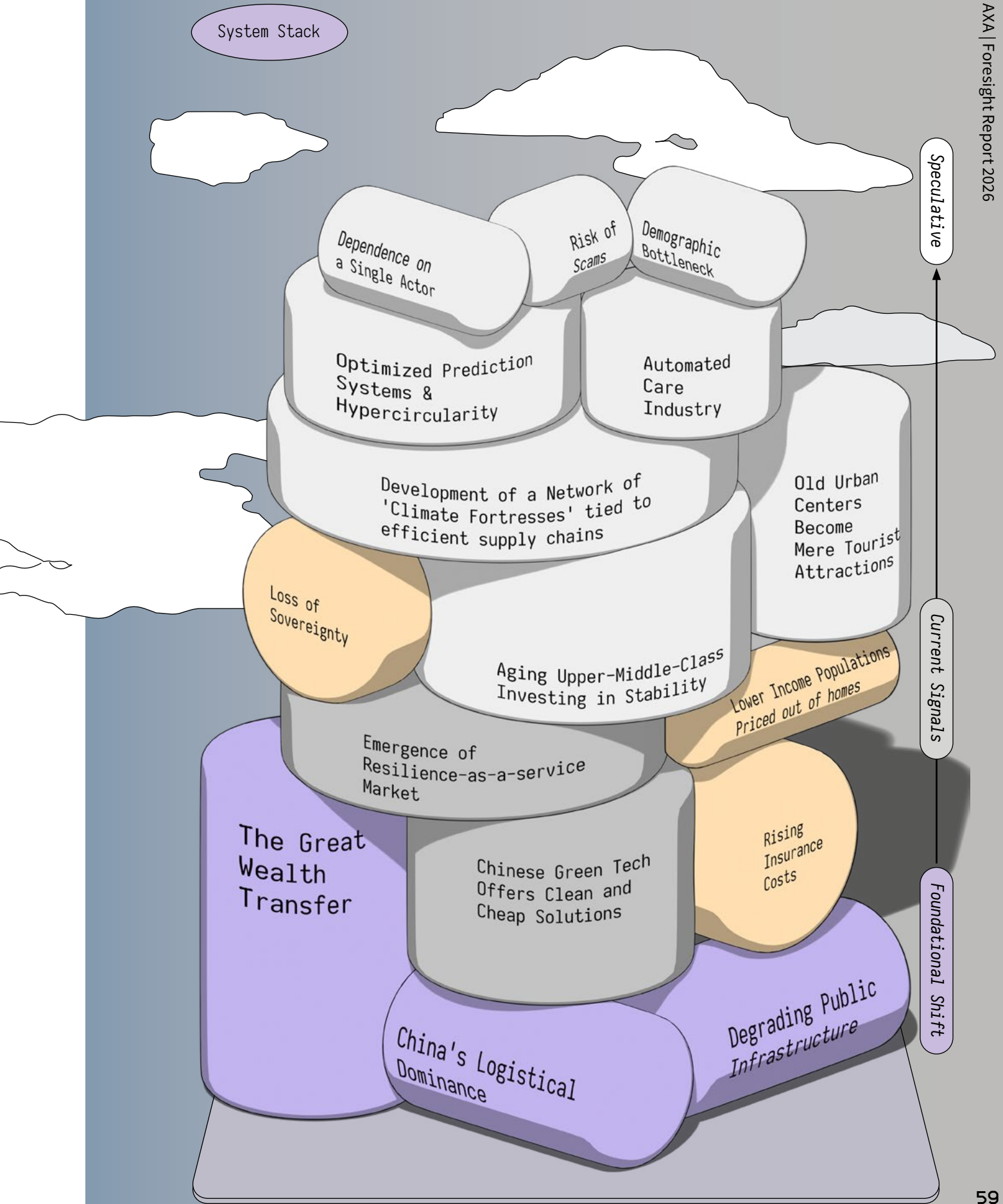
As climate risks intensify, governments may struggle to maintain reliable protection and services. The IPCC notes, “every increment of global warming will intensify multiple and concurrent hazards.”⁶⁶ Climate impacts can cascade through infrastructure and create systemic disruption.⁶⁷ This means citizens face continuous adaptation stress, which may lead them to question the state’s ability to protect them.

This instability rises alongside a massive inter-generational wealth transfer. The United States leads this shift. Brazil is second globally, with trillions set to be inherited over the next 20–25 years, according to the UBS Global Wealth Report 2025.⁶⁸ In countries with deep inequality, such transfers further undermine societal resilience. Instead, inherited wealth allows affluent groups to buy private alternatives to failing public infrastructure.

At the same time, global logistics are becoming both more centrally controlled and predictive. Chinese firms now operate terminals at more than 90 deepwater ports,⁶⁹ including Piraeus in Greece, Chancay in Peru and Darwin in Australia. This concentration of control blurs the line between economic infrastructure and geopolitical influence. Furthermore, logistics are shifting toward predictive operating models. For example, Amazon uses demand forecasts to position inventory across its warehouses. Logistics companies like DHL and software providers such as Kinaxis use control tower platforms that combine forecasting, risk monitoring, and real-time decision-making. The trend is clear: supply chains are increasingly designed to anticipate demand and prepare the logistics system in advance rather than simply react once orders appear.

Together, these factors make a ‘Resilience-as-a-Service’ model imaginable. If states get overburdened in the face of climate events, what happens when inherited wealth meets orchestrated, foreign state-backed logistics?

System Stack



Harmony Artifacts

Heaven's Petals

They are just one of the measures the city has taken to transform unpleasant or even dangerous weather conditions into a more pleasant experience. With sufficient data on a storm's exact appearance, the petals know exactly how to intervene to break it up or divert it around the city. The light modules on their underside transform the scenery into a memory of happy childhood days.

Off-the-Shelf Simulacra

The inhabitants have closed themselves off from change and long for a world that already belongs to the past. Harmony Harbor offers a mix of customizable components and inexpensive display technology to construct an imitation of that past—one that cannot truly bring it back, but, with a bit of goodwill, suffices to sustain the illusion.

Hypercircularity

The logistics systems supporting Harmony Harbor build resilience by efficiently redistributing resources in real time. This also extends to the immediate reintegration of waste as a resource into the system. Products are optimized for space utilization during transport and ease of recycling after use to avoid human bottlenecks in the system.

Expert Views

A Closed World in an Open World



With Alexander Klose

Cultural researcher and member of Beauty of Oil

Alexander Klose is a researcher and writer focused on logistics, infrastructure, and the cultural imagination of global systems. He leads the research team Chemistry in Transition at JTC Halle, examining cultural and systemic changes in petrochemical production and infrastructure. As part of Beauty of Oil, he investigates the history and aesthetics of oil and its influence on modern life. He holds a PhD focused on the standardized shipping container as a central organizing principle in modern logistics and global infrastructure.

Infrastructure as Governance and Cybernetic Control

One possible response to climate instability is the creation of controlled environments designed to stabilize local conditions using technical systems that provide climate control, logistics, or security. Under the cover of neutral optimization, they organize everyday life in ways that resemble public authority, eventually turning infrastructure into the medium through which governance is exercised. “I don’t think there’s a difference. These are state functions. This is governmentality.” Echoing Neal Stephenson’s *Snow Crash*, this “privatization of comfort zones” using systems designed to guarantee stability may preclude alternatives and become deeply restrictive—even “dictatorial.”

The technological confidence behind such environments echoes a belief that complex planetary processes can be stabilized through modeling and predictive systems—a vision of the Earth dating back to mid-twentieth-century cybernetic thinking. Although early planetary models assumed that environmental systems could be captured mathematically, many of those frameworks were simply “far

from being complex enough.” “Behind that question is an ongoing doubt about all ideas of total cybernetic control: environmental instability may not be fully manageable through technological systems, as can be concluded from the increasing occurrence of ‘third nature’ situations—man-made nature gone out of control—as the reason for environmental instabilities.” Increasing computational power may revive that ambition, but the gap between model and reality remains unresolved. At best, technological infrastructures can stabilize small zones of habitability surrounded by a turbulent environment—“a closed world made to work in an open world.”

The Container World

Another perspective emerges from the logistical systems that already organize our global economy: containerization transformed international trade by compressing spatial complexity into standardized units that circulate through coordinated infrastructures. By reducing variability in networks capable of organizing vast flows with remarkable efficiency, this architecture becomes “the whole vision of a closed world run by logistics.” Its

effectiveness lies in a simple principle: “with the most simple entities like the standardized container, you can produce a system that is quite complex.”

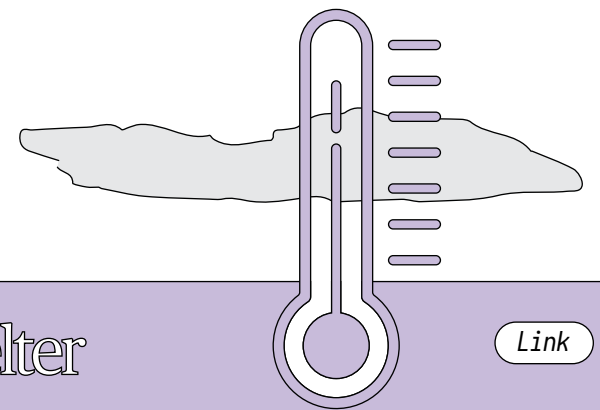
The same logic can extend beyond goods: climate stability, housing, and everyday life become elements within a logistical framework designed to maintain order inside defined boundaries. Harmony Harbor begins to resemble a container.

Nostalgia and Denial

As our response to the environmental crises remains deeply psychological, different modes of coping enter into play. Nostalgia “aims at the restoration of something gone, knowing that it cannot be brought back except in an imaginary form,” leaving space for fragments of the

past to be symbolically reconstructed without claiming that the world itself has recovered. Melancholia, when faced with the loss of control, may turn into denial by continuing to operate “as if nothing had happened.”

Against this background, protected living environments appear almost pragmatic. Their inhabitants may enjoy controlled conditions reminiscent of easier times while remaining aware of ecological breakdown and of their own “social externalization.” These spaces reflect nostalgia more than denial, but the model remains limited—catering mainly to populations “privileged and older, yet in a sense relatively insignificant in their attempt to flee the real world.”



Featured Project

Barcelona Climate Shelter Network

Turning Civic Space into Cooling Shelters and Urban Adaptation into a Shared Service

In response to intensifying heatwaves, the City of Barcelona has transformed everyday public buildings into distributed thermal refuges to provide access to much-needed respite from the heat during extreme weather events.⁷¹ Launched in 2019, the network has significantly expanded since then, designating libraries, schools, civic centers, museums, and parks as official climate shelters. It now includes hundreds of sites strategically distributed across the city, ensuring that the vast majority of residents can reach a shelter within a short walking distance.

Rather than constructing entirely new infrastructure, Barcelona repurposed existing civic assets and embedded climate adaptation into the urban fabric, while maintaining their everyday social functions outside of heat emergencies.

The project goes beyond temperature control: many shelters integrate care-oriented design principles with a focus on accessibility for elderly residents, low-income households, and socially isolated individuals. A continuous effort is made to prevent adaptation gaps in both opening hours and geography.

By positioning thermal comfort as a public service rather than an emergency measure, Barcelona’s Climate Shelter Network signals a structural shift in urban governance. Instead of relying solely on large-scale engineering responses, cities can reframe climate resilience as something embedded in local space and delivered through a network of shared assets that function simultaneously as infrastructure, commons, and care systems.

[Link](#) ⁷⁰

The Signals Behind Harmony Harbor

How Does it Future?

Multiple signals of change support the development of a Resilience-as-a-Service model, linking the future proposed by Harmony Harbor to observable economic and infrastructural shifts. As aging populations increase demand for assisted living, the private care sector expands. Alongside the Great Wealth Transfer, this suggests that many future elderly will be able to afford not only basic care, but also bundled services such as housing, healthcare, cooling, and security. Sold as a service, resilience is characterized by the reliable delivery of supplies and technology at an accessible cost. Green-tech manufacturing demonstrates the economy of scale needed for affordable ‘climate tech,’ and when combined with control over global ports and digital routes, enables such a system. China, through coordinated industrial policy and logistics management, provides the most comprehensive example of this approach.

Senior Co-Living and Cross-Border Retirement

Trabensol,⁷² near Madrid, is one of Spain’s earliest senior cohousing communities. **Founded by retirees**, it operates as **a cooperative in which residents hold rights to private apartments while jointly managing shared spaces, services, and decision-making**. Instead of entering conventional care homes, members organize mutual support to maintain autonomy while **lowering costs and reducing isolation**. Similar projects are developing across Spain **in response to an aging population and rising care costs**.

Further south, initiatives such as Resort Medical Hammamet⁷³ in Tunisia explicitly target international seniors seeking long-term stays that combine accommodation with medical supervision and wellness services. **The model blends hotel infrastructure with on-site healthcare, rehabilitation and assisted living support**, positioning itself as a **lower-cost alternative to European retirement facilities**.

Signal Strength: High

Offers for both care homes form a large part of the care economy, and alternative models are in constant growth.



Ports and Digital Routes / Investing in Chokepoints

Across the past decade, major powers and logistics firms have increasingly treated ports, cables, and data corridors as strategic assets. **Control over shipping routes shapes who can guarantee continuity in times of stress—infrastructure ownership becomes leverage.**⁷⁸

One of the clearest examples at scale, **Chinese firms own or operate container terminal assets in 96 overseas ports across 53 countries**,⁷⁹ while the Chinese **Belt and Road Initiative has paired physical port investments with the expansion of telecom networks, fibre cables, and data centers under the Digital Silk Road**.⁸⁰ The port of Piraeus in Greece, majority-owned by COSCO Shipping, is often cited as a case where **commercial management and geopolitical positioning converge in a single node**.⁸¹

Signal Strength: High

Port acquisitions, cable investments, and digital corridor strategies are active and ongoing, and infrastructure once embedded in global trade networks is structurally difficult to unwind.

The Scale Effect: How Green Tech Becomes Affordable

The decisive shift in clean technology has been the ability to scale fast enough to drive costs down. **China now produces around 80% of the world’s solar cells and 70% of lithium-ion batteries**,⁸² while accounting for **more than two-thirds of global electric vehicle production**. In 2024, **76% of global clean-tech factory investment flowed into China**, reinforcing its capacity to **expand output and further reduce unit costs**. Today, Chinese companies lodge around **75% of global clean energy patent applications**—In 2000, the figure was just 5%.⁸³

BYD’s rise to become the world’s largest electric vehicle seller by volume illustrates the effect: with most of the supply chain sitting within one ecosystem, scaling became faster and cheaper, and the company **overtook Tesla in 2025 after a surge in global deliveries**.

Signal Strength: High

Market share combined with sustained capital inflows indicates structural scaling capacity, not a short-term surge.



Insights on Risk and Adaptation

Expert Takeaways

The appeal of Harmony Harbor lies in engineered stability and—although the model works technically—its durability depends on logistic, financial, and cyber-resilience. Its unresolved ideological positioning, suspended between disciplined moderation and technological optimization, gives readers the space to project alternatives: despite China’s edge over clean-tech supply chains and logistics, hyperscalers in Silicon Valley and wealthy Gulf states could each produce their own version of a climate-secured enclave, shaped by different governance and market priorities.

It Can Be Optional, Standard, or Exclusive

By describing a Resilience-as-a-Service model that materializes specifically in logistics hubs, Harmony Harbor asks if different actors could instead scale the concept globally to support broader societal transition, or turn it into another ‘golden-gated’ community that reinforces social fragmentation.

Is This Sobriety Dressed as Solutionism, or Solutionism Dressed as Sobriety?

The project carries an unresolved ideological tension: just as it can be interpreted as the technologically enhanced continuation of current systems under a different narrative, it hints at a possibility to optimize local resilience.

A Data-Driven Enclave is a Hacker’s Playground

The model’s reliance on integrated digital systems makes cybersecurity a foundational infrastructure rather than a secondary concern—a single breach could disrupt logistics, payments, access control, energy management, or all at once.

Really Subject to Company (Mis)management

Corporate governance introduces the risk of financial priorities overriding residents’ security. Fees could rise to the point of pricing people out of their own homes or pushing them to the margins of the system, while a bankruptcy could leave entire areas without management.

“Pretty much everything meaningful in cities needs mess and meaning”

From Carlo Ratti

*Architect, Engineer, Professor of Urban Technologies
Planning Director of the SENSEable City Lab, Massachusetts Institute of Technology*

“Evaluating Harmony Harbor feels like performing an urban autopsy on an urban future that has chosen stability at the cost of its own soul. Efficiency is never neutral. In this archetype, framing technical optimization as inevitable performs a top-down political act that replaces the community of citizens—and hence the city—with a pool of customers.

Real control comes from local systems that work without needing constant permission from the foreign developer. Networks with many centers and local resources provide more stability. They avoid the risks of a fragile chain of deliveries with no room for error.”

10 Things to Monitor

- 1 Infrastructure Ratings and Climate Risk Pricing**
Financial market ratings and pricing mechanisms reflecting climate exposure and adaptive capacity.
- 2 Chinese Maritime Infrastructure Influence**
Operational control of global ports and maritime chokepoints by Chinese firms.
- 3 Platform Urbanism**
Urban services mediated by large-scale digital platforms and the resulting public-private governance arrangements.
- 4 Regulation of Platform Monopolies**
Regulatory frameworks and policy instruments applied by cities and states to platform-driven markets.
- 5 Elderly Care Automation and Robotics**
Use of AI systems, monitoring technologies, and robotic assistance within elderly care services.
- 6 Resilience-as-a-Service Models**
Private-sector service ecosystems bundling housing, risk monitoring, climate protection, and emergency response.
- 7 Geoeconomic Power Dynamics in Healthcare**
Activities of pharmaceutical firms, hospital operators, medical manufacturers, digital health platforms, and health tourism providers expanding across international markets.
- 8 Global Expansion of Consumer Brands from Emerging Markets**
Position of companies from non-Western economic centers in global brand rankings and their share of revenue generated in overseas markets.
- 9 Emergence of New Logistical Power Blocs**
Formation of new state alliances or regional blocs, gaining control over key transport routes, trade corridors, and logistics infrastructure.
- 10 Strategic Infrastructure Ownership and Governance**
National policies, regulatory decisions, and public debates concerning foreign ownership or operation of ports, terminals, and other critical infrastructure reflect tensions between efficiency and sovereignty.

New Future Archetype

Bienvenue à



Marseille 2

'The Cold Rush'

Co-developed with
CLICCS

Cluster of Excellence
'Climate, Climatic Change,
and Society'

NFA

Overview

Arctic land becomes a regulated, leaseable, multipolar frontier driven by compute-linked infrastructure and extraction.

ID CARD

Foundational Shift

- Race for Resources
- Arctic Thawing
- Migratory Pressure

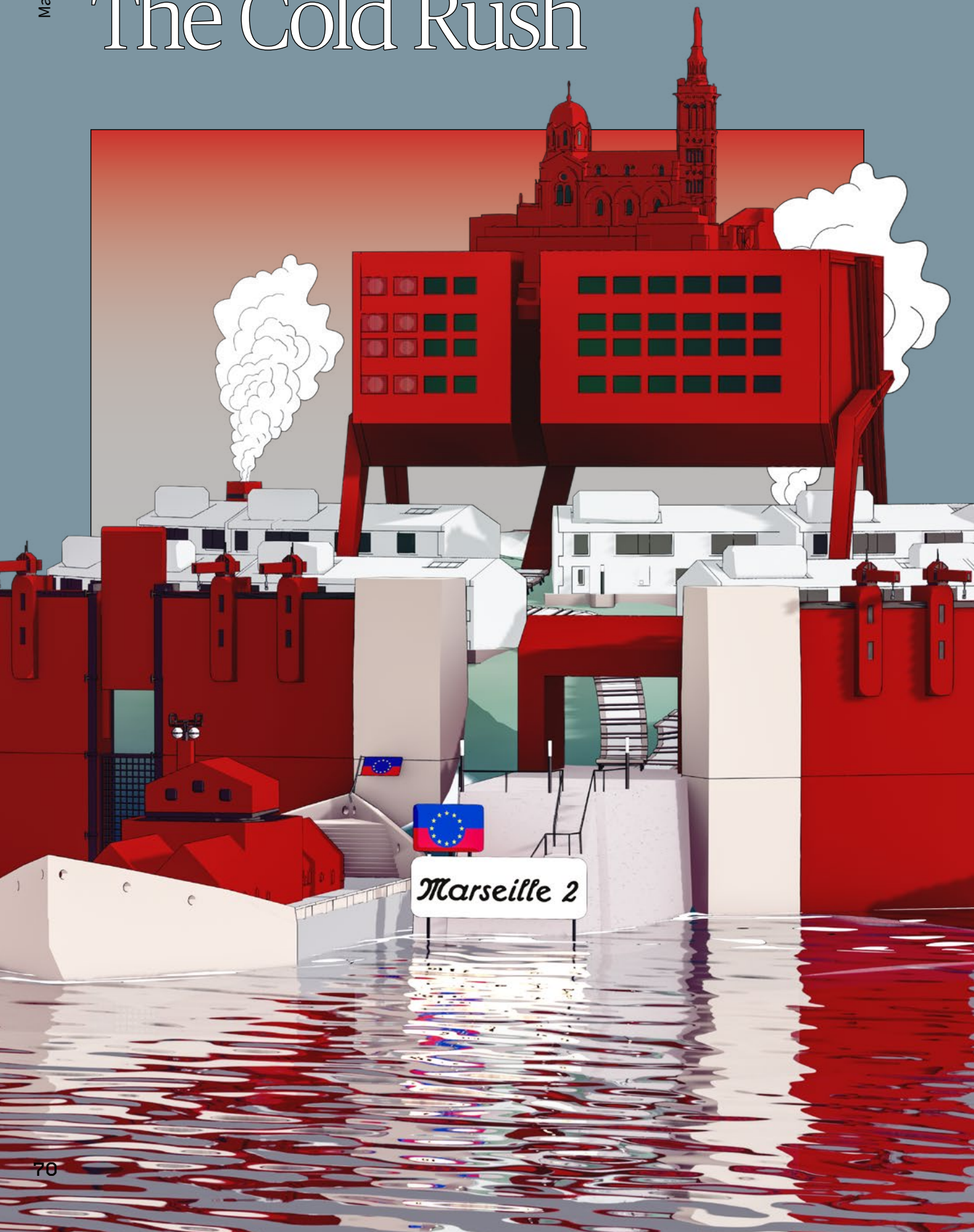
Territory & Scale

- Newly accessible Arctic lands thawed by climate change
- Patchwork of time-limited lease enclaves under international law

Actors & Power Structure

- European nations, Gulf states, and global powers
- Settlers, climate migrants, and Indigenous Arctic populations
- International regulators and lease authorities

The Cold Rush



Short Story

“Bienvenue à Marseille 2, Europe’s Northern Heart.” Greeted by information displays, you disembark from the deck of Sartine with 2,000 subsidized travelers. Children cluster everywhere; the demographic crisis seems absent here. Marseille 2 is on political education itineraries alongside New Rotterdam and Hamburg II. Officially, it’s a resilience hub. Unofficially, it’s Europe’s northern foothold: presence, compute, and resources in sight of rival flags.

In the security line, you spot a booth with a display: “Public-interest compute mix: 41% research, 23% civic AI, 19% culture, 17% commerce.” Another reads: “Shoreline upgrade: consent pending (Inuit council review).” An attendant explains, “It’s a Commons Console. EU citizens and locals give or withdraw consent. Major systems here run with visible approval.” A ticker shows local taxes, royalties, seabed and shoreline protections, co-signed by the Inuit council and the EU outpost director.

The attendant hands you an earbud: a guided audio that answers questions and keeps you on the visitor route. Following its instructions, you head to the quay. As you approach, the South Harbor Gate’s status light turns red. “Consent is red. All operations pause until citizens approve,” the guide says. Today’s hold is about a seal pup spotted near the sluice. Opening the gate might endanger her, but keeping it closed blocks all traffic.

At the hotel, you check in. The guide speaks again: “Marseille 2’s legal status lets people worldwide work here under EU labor protections, especially in tourism, healthcare, and agriculture.” A chime cuts in: “Your kelp-harvest slot starts in 30 minutes. Follow my navigation.”

At the shore, an Inuit woman, Niviaq, waves you over: “I’ll be your harvest guide.” The farm stretches in long lines, ropes heavy with kelp, workers moving steadily. “Cut along the knot, not through it,” she demonstrates. “Protect the regenerative tissue, please. See the colored rings? Green is food; blue is filter-only, don’t eat that one; red is for polymers.” Niviaq combs the kelp. “You always leave some growth.” She tells the story of Sedna, the Inuit sea goddess whose hair must be tended to for life to return. She points to a dock display: “Regeneration Index: 0.82.” Sedna should be pleased.

Next comes the cooking class: kelp quenelles. The guide notes, “Kelp anchors most Creolique dishes, a mix of EU tastes, local ingredients, and approved Inuit traditions. Everything aligns with EU law. Picture kelp pasta with aquaponic tomato sauce, no seal meat included.” Ingredient displays show origin, consent, and royalty shares. Nearby, people debate whether this is respect or cultural sanitization. As you slice kelp in class, you think about the compute voucher you received on the ship. Here, compute is so cheap that your voucher equals six months back home. But what to use it for?

At dinner, you meet Min, the Amadari: once a migrant miner, now an engineer, he plays in the Arctic Football League. “From Qivittoq to the core of Marseille 2,” he says with a grin. “Qivittoq is a figure from Inuit mythology, someone outside society who transforms in strange ways. Migrant workers call themselves that sometimes.” You wonder how Min meant that, outside of society. Don’t migrant workers benefit from EU standards?

You return to the quay. The status light is still red. The guide says, “This is due to a one-time consent vote. EU residents and Greenlandic representatives decide whether to approve an early gate closure and send a rescue boat for the pup, or wait to keep the nursery stable. You can watch, not vote.” The vote ends: orange, then green, conditional approval with mitigation. Some cheer, some shake their heads. Here, values are protocol; whether principled or performative depends on whom you ask.

It’s late by the time you reach your room, but you know how you’ll spend your compute. You prompt:

Marseille 2

A New Future Archetype

The Territory

We are in the Arctic, where North America, Europe, and Asia almost touch. For thousands of years, it has acted as the planet's thermostat, stabilizing the global climate. Now, the region is warming nearly four times faster than anywhere else on Earth.⁸⁴ As the ice cap recedes, new trade routes are opening up and hidden mineral and energy resources are being discovered. This newfound accessibility is sparking a fierce battle for control, transforming a silent guardian into a hotspot of global risks and new opportunities.⁸⁵ This is where the 'Cold Rush' emerges—as the collapse of Arctic stability triggers a race for a melting frontier.

The Model

Marseille 2 exemplifies how world powers and other states seeking presence establish enclaves in the Arctic, either within their own territories or through agreements with local nations. These settlements are rapidly becoming flagship territories due to their strategic advantages. Mining opportunities and access to large, affordable computing infrastructure attract businesses and research institutions. This infrastructure—including undersea cables—becomes strategically vital to mainland Europe, increasingly justifying greater Arctic military presence for its protection.

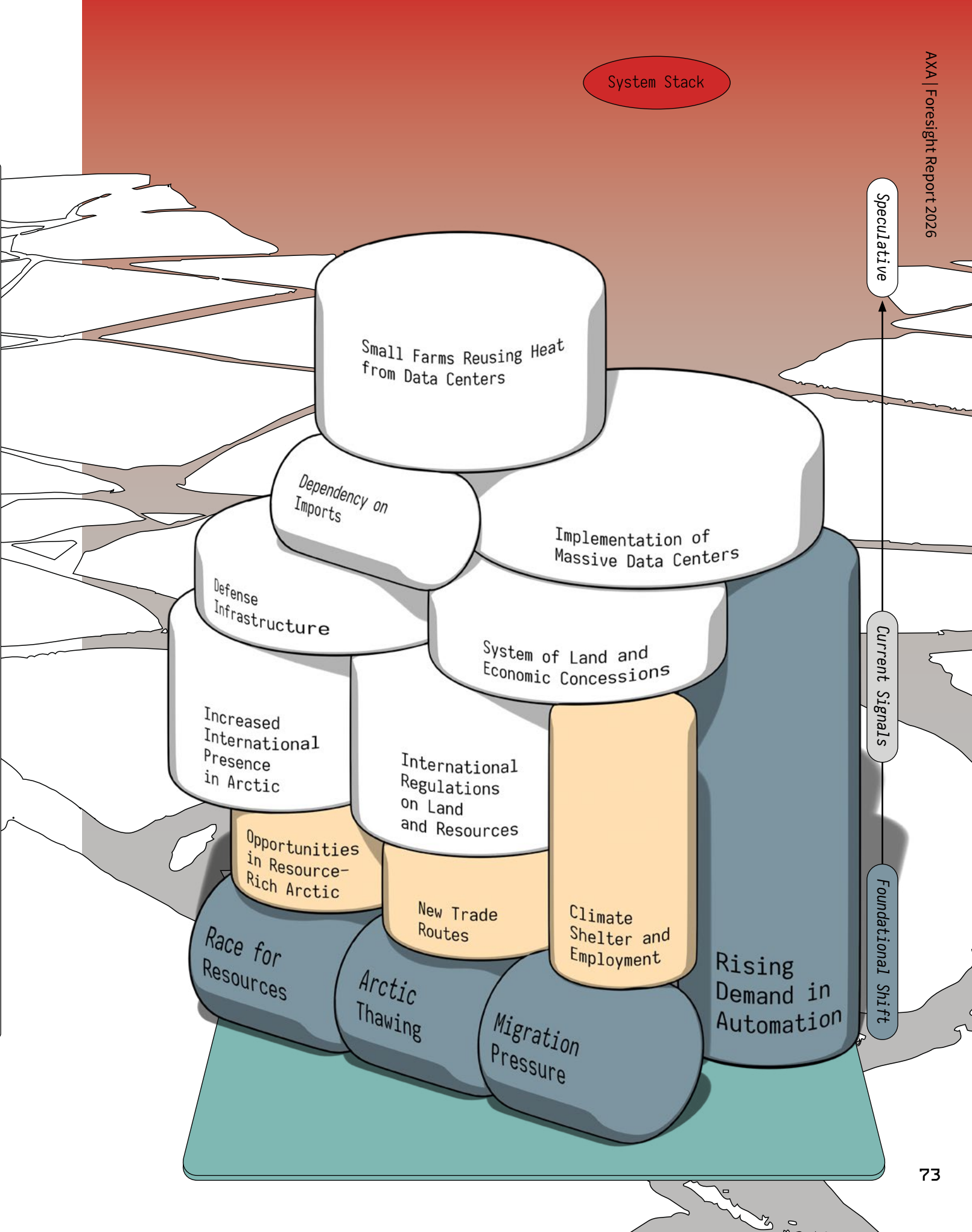
The economy relies on a workforce that includes climate refugees who have been granted asylum by the European Union. This recognition of shared responsibility for the impacts of climate change comes with visas to live and work in the cooler North—effectively joining the social systems of European nations without setting foot on European soil. To some, this is a temporary arrangement to finance resilience in their homeland. Others see it as a permanent move and dream of bringing their families to the enclave. In the Arctic, migrants escaping lands lost to the heat work with indigenous populations for the prosperity of mainland Europeans they will never meet.

The Foundational Shift

As the Arctic's natural barriers diminish, it is emerging as a key arena for major power competition. The region's significance is exemplified by Greenland's deposits, which contain 25 of the 34 critical raw materials on the EU's list, while international waters offer mining sites for many of these materials. New shipping routes significantly improve global trade prospects: a voyage between Rotterdam and Yokohama can save up to 7 days in transit time compared to the Suez Canal route, reducing fuel consumption by up to 20%. To secure influence, countries must establish a presence in the Arctic or risk losing geopolitical standing and, if applicable, sovereignty over their Arctic territories.

This geopolitical shift coincides with increasing structural pressure in the middle latitudes, such as the EU. Developed economies are facing an aging population and rising labor demand, while political resistance to migration from the Global South is growing. At the same time, the rapid growth of the AI economy requires substantial energy for computing. The Lawrence Berkeley National Laboratory estimates that, in a high-demand scenario, data center energy consumption in the US will triple between 2023 and 2028, placing increasing strain on electricity grids and, where CO2 reduction is a political goal, on carbon budgets.

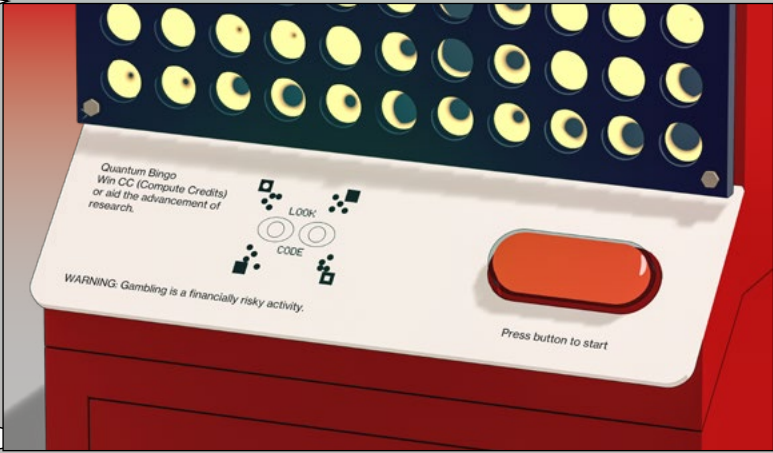
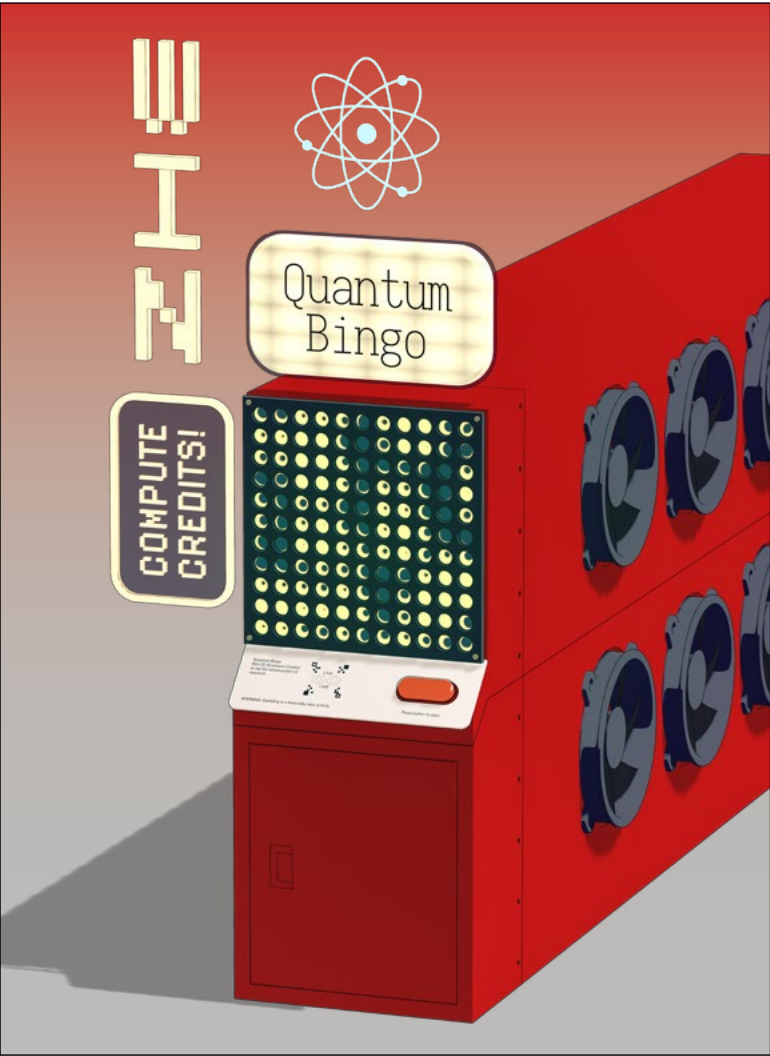
The Arctic offers several advantages in this context. Low ambient temperatures enable 'free cooling' in hyperscale data centers, reducing both energy consumption and the digital infrastructure's carbon footprint. Abundant renewable energies, such as geothermal energy, provide additional support for computationally intensive industries. At the same time, the region is becoming increasingly habitable and attractive to potential workers, especially when many people elsewhere are forced to flee due to global warming.



Neo-Marseillais Artifacts

Quantum Bingo

“You just lost 3 CC at Quantum Bingo – but don’t worry, those credits are going to cancer research.” In zones with their own rules, entertainment thrives. Here, where fortunes are built, missions are launched, and computing power is both a bargain and a goldmine. Once the polar night settles in, locals, engineers, tourists, and miners gather to gamble for computing credits. The bank wins most by the end of the day and donates its entire profits to medical research and technological experiments.

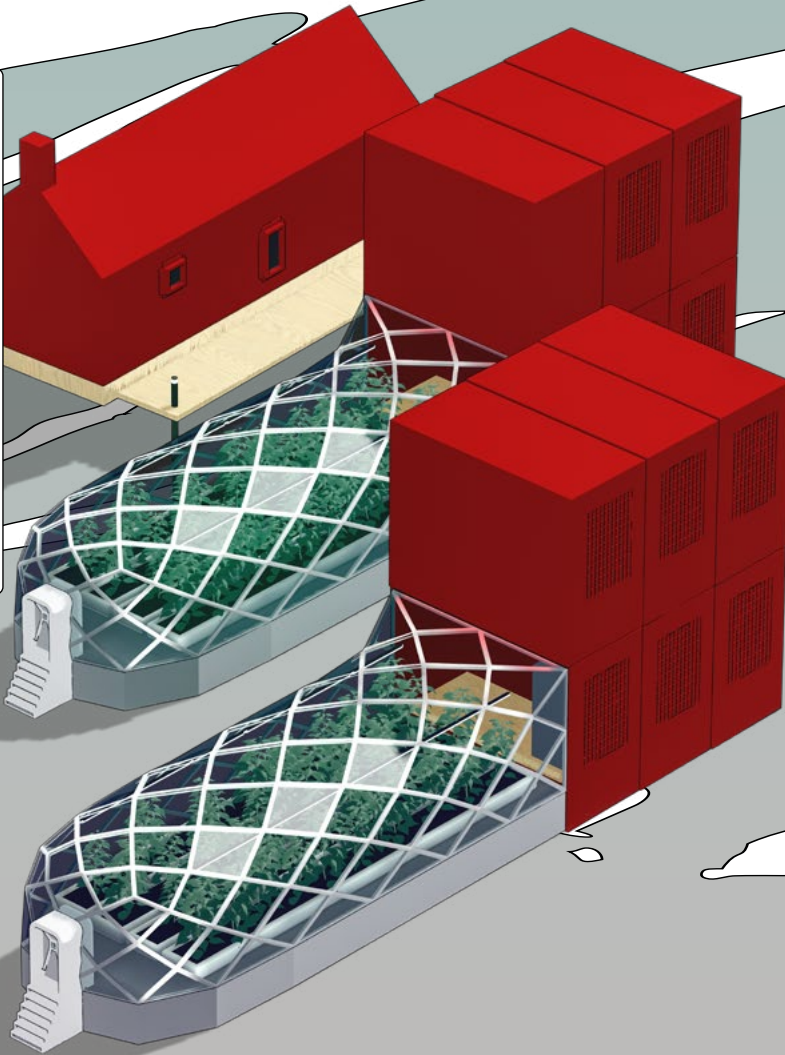


Arctic Football League

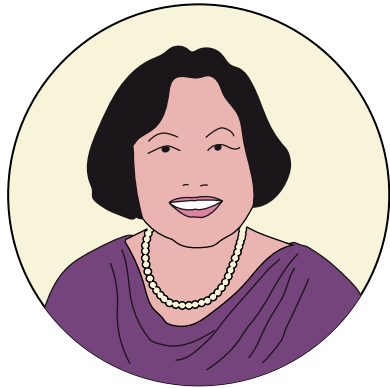
In the high north, the nations are situated so close that international matches can take place several times a week. Of course, it's all about the unifying nature of sport, which is known to reduce both physical and international tensions. But equally, it's about a spectacle served at high frequency. Consequently, motivation and resources are high on all sides. Whereas at the beginning the athletes mainly came from the predominantly migrant workforce, a flourishing business quickly developed, attracting talent from all over the world.

Literal Data Farms

The data centers in Marseille 2 form a metabolic cycle: waste heat from the servers warms greenhouses; the plants produce biomass and fish feed; the fish fertilize the plants; and the water ultimately returns to the cooling system. The computer does the gardening. Residents watch this harmonious choreography among the plants, enjoying fresh tomato soup while recharging their batteries with light and warmth in the Greenhouse Café.



The Co-Production of Possibilities



With Emma Porio

Professor of Sociology and Anthropology, Ateneo de Manila University

Dr. Emma Porio is a sociologist and urban anthropologist specializing in climate environmental governance and urban resilience. A lead author for the IPCC special report on climate change and cities, she has spent decades working at the intersection of climate science, policy, and community practice with a particular focus on informal settlements and the lived realities of climate risk.

Justice Before Adaptation

“Climate justice has three principles: identity and recognition justice, procedural justice, and distributive justice.” Together, they ask who is seen and acknowledged, whether decisions are made fairly, and how resources ultimately reach those most affected. Debates on climate adaptation, which unfold within institutional systems that already distribute authority and resources unevenly, are inseparable from these fundamental questions. Marginalized communities tend to begin from a position of disadvantage, with rights that may exist formally while the conditions required to exercise them remain absent.

This gap between law and implementation also shapes global climate governance, and ambitious international commitments often produce little change on the ground. “We have very good laws—policy rich, implementation challenged.” Without meaningful enforcement, they risk reinforcing existing inequalities instead of addressing them.

From Climate Finance to Informal Resilience

The imbalance also shows in finance plans. “The financing for climate mitigation is very clear”—incentives for industry, subsidies for technological transitions, and investments in infrastructure—yet it is “unclear for climate adaptation, which is done by the communities, citizens, and NGOs.”

As a result, “solutions cannot only come from top down.” Resilience often grows through “horizontal conversations and the co-production of possibilities” fostered across communities, such as mutual aid systems, food security networks, and informal economies that respond flexibly to environmental disruption. Although they represent forms of resilience grounded in everyday survival, such practices rarely appear in official climate strategies.

The Green Transition Relocalized

At the same time, the global shift toward renewable technologies intensifies demand for minerals and land, and the opening of colder regions as temperatures continue to rise introduces a new frontier. Such developments

follow patterns already familiar: territories once considered marginal suddenly attract industrial infrastructure. In the Arctic, mining for critical minerals and the implementation of data centers take place on territories inhabited by indigenous populations, where land conversion continues under the banner of development or sustainability.

Even where legal protections exist, economic pressures and political alliances often override them, echoing patterns that have long shaped global inequality. “The strategy of state development in the Global South is mainly based on natural resource extraction,” and the expansion of new climate frontiers risks extending the geography of extraction rather than transforming it. The transition to a low-carbon economy might therefore reproduce older structures of power, with strategies to reduce emissions still relying on resource systems that displace communities and degrade ecosystems.

Migration and ‘Climate Opportunity’

Environmental change already reshapes patterns of mobility by pushing populations to seek opportunities elsewhere, leading to a form of “global householding” in which family life and economic decisions are distributed across multiple countries. While migration improves household income, it also reveals structural dependency, often turning temporary coping strategies into national development models.

The emergence of new climate frontiers may create another layer of labor mobility, with opportunities in thawing regions attracting workers from places with intensifying environmental stress and economic precarity. “The poor are more vulnerable because they have less options,” and the fundamental asymmetries shaping who moves, under what conditions, and for whose benefit remain unresolved.

Featured Project

[Link](#)

Harnessing Digital Heat in Helsinki

Turning Computing By-Products into Urban Energy

Already central to AI, cloud computing, and global digital services, Data centers consume vast amounts of electricity and continuously produce heat as a natural by-product of computation. In Finland, which faces the dual pressures of climate neutrality goals and the rapid expansion of digital infrastructure, energy company Helen Ltd⁸⁶ and global digital infrastructure firm Equinix, Inc.⁸⁷ are pioneering a novel solution that repurposes thermal energy generated by data center servers as community heat.

The heat recovery system, implemented by heat-pump specialist Oilon, raises the temperature of server waste heat and channels it into the urban district-heating network before distributing it to homes and businesses across the city. The residual thermal energy from the HE5 facility in Viikinmäki, Helsinki can meet the annual heating demand of up to 1,500 one-bedroom apartments, significantly reducing the need for fossil-fuel-based heat and associated carbon emissions.

This collaboration forms part of a broader transition strategy toward a decentralized, renewable, and emission-free energy system, aiding Helen’s path to achieving carbon neutrality by 2030 and supporting Helsinki’s goals to phase out combustion-based production in the coming decade. For Equinix, the initiative aligns with sustainability commitments to improve data center energy efficiency and reduce its environmental footprint while providing tangible community-level benefits.

By reframing digital heat as a local energy resource rather than a waste by-product, Helsinki’s model illustrates how emerging energy and technology infrastructures can be integrated to generate social value, boost energy self-sufficiency, and support urban resilience in a warming and data-driven world.

The Signals Behind Marseille 2

How Does it Future?

Marseille 2 is made plausible by a simple physical advantage that turns into an economic one: as compute demand rises, cold air, clean power, and stable connectivity start to function like infrastructure in their own right. That pulls capital north into data centers and adjacent energy build-out, while the same warming that enables ‘free cooling’ also rewrites the map of the Arctic and its opportunities on land and at sea. The result is a region that, having become more valuable to both markets and states, attracts interest from competing actors and therefore turns into a place of competition, with infrastructural liabilities such as shipping routes and underwater cables as main vulnerabilities.

Climate as Infrastructure – The Arctic Powers the AI Economy

Data center investment could reach \$7 trillion globally by 2030,⁸⁸ driven largely by AI workloads. Cooling and air conditioning can account for up to 40% of their total energy demand,⁸⁹ making ambient temperature relevant to both operating cost and environmental impact. Cold climates offer a structural advantage as they enable ‘free cooling’ for much of the year, such that in much of northern Europe, electricity carbon intensity is 4 to 13 times lower than in California.

32 data centers are already operating in the Arctic region. In Iceland, Verne Global built a large-scale data center campus on a former NATO base at Keflavík,⁹⁰ which uses outside air cooling for most of the year and connects directly to Iceland’s renewable-heavy grid. This makes it **attractive for high-density computing such as AI training** and blockchain workloads, to clients ranging from HPC operators to global cloud companies.⁹¹

Signal Strength: High

Hyperscalers and specialized operators are already expanding northward.

Migratory Pressure in the EU

1 014 000

EU+ asylum applications (fell by ~11% in 2024 from 2023).⁹²

Countries receiving the most applications (2024):

Germany	≈237,000
Spain	≈166,000
Italy	≈159,000
France	≈159,000
Greece	≈74,000

≈178,000 detections

Irregular border crossings (EU external borders, 2025)⁹³

Decrease in irregular crossings ~30% and asylum applications ~23% in 2025 vs. the same period in 2024, partly linked to a sharp drop in Syrian applications.⁹⁴

3,105 migrants died or went missing in the Mediterranean in 2023;⁹⁵ the Central Mediterranean route (North Africa → Italy) is widely considered one of the deadliest.

Greenland – Minerals, Sovereignty, and Strategic Competition

Greenland occupies a pivotal position in the emerging competition **over critical minerals and rare earth elements⁹⁶** essential for wind turbines, electric vehicles, and advanced electronics as used in aerospace and defense. **Some of the world’s largest undeveloped rare earth deposits** make the territory **strategically important** for countries seeking **to reduce dependence on Chinese processing and supply chains.⁹⁷** The EU **signed a Strategic Partnership on sustainable raw materials with Greenland in 2023,** and a recent agreement grants Finnish steel producer Outokumpu exploitation rights on Molybdenum through the Malmbjerg project.⁹⁸

At the same time, geopolitical attention remains intense. The **US has framed Greenland as strategic to both security and resource access** and expressed a strong desire to annex the territory, **while Chinese firms have previously attempted to invest in local infrastructure and mining projects.** This external attention brings leverage and tension to Greenland, which must weigh economic development opportunities against environmental protection and political autonomy.

Signal Strength: High

Diplomatic partnerships, industrial agreements, and geopolitical positioning are already underway.

The Northern Sea Route – Shorter, but Not Yet Central

Receding sea ice is extending seasonal navigation windows across the Arctic, **gradually opening new shipping corridors.** The **Northern Sea Route (NSR)** along Russia’s Arctic coast **could reduce the distance between northern Europe and East Asia by 30–40%** compared with the Suez Canal,⁹⁹ and **Russian energy exports already transit there.** The route is also part of the ‘Polar Silk Road’ plan, which extends China’s Belt and Road Initiative into the Arctic.¹⁰⁰

In practice, the route **remains constrained by vessel ice-class certification requirements, elevated insurance and operational risks, and limited port infrastructure.** Insurers **highlight that new technologies, shifting geopolitics, and emerging trade routes** require shipping companies to reassess risk exposure and adapt supply-chain strategies, as maritime routes increasingly shift in response to geopolitical tensions and environmental change.¹⁰¹

As a result, **the corridor is currently limited to being a specialized Russia–Asia route for energy and bulk commodities,** with nearly a third of cargo ships sailing on the NSR in 2025 part of the sanctioned shadow fleet.

Signal Strength: Mid

Cargo volumes already exceed 37 million tonnes annually,¹⁰² but the route remains seasonal and operationally constrained.

Sea Ice Decline – The Physical Precondition¹⁰³

Since 1979, the Arctic has lost on average ≈ 71,000 km² of summer sea ice per year.

An almost ice-free Arctic summer is projected to be rare at 1.5°C warming, **but common at 2.5°C**

Insights on Risk and Adaptation

Expert Takeaways

Marseille 2 reflects how Arctic warming could transform remote northern territories into strategic hubs defined by the presence of critical minerals, new maritime corridors, and the deployment of digital and energy infrastructure that attract both state and corporate interests. However, this emerging frontier is a contested territory shaped by both the geopolitical ambition of external actors and the human challenges of inhabiting extreme environments.

The Arctic Is Starting to Look like Space

As states and companies position assets such as satellites or seabed infrastructure across northern latitudes, the logic of territorial claims begins to resemble the competitive occupation seen in orbital space.

A Prime Target

In a context of geopolitical rivalry, the undersea cables, energy systems, ports, and logistics hubs which form the backbone of Arctic expansion can become vulnerable points for hybrid warfare and sabotage, especially where sovereignty remains unclear.

Companies Move Faster than Governments

The long planning horizons and capital-intensive projects of international cooperation, often subject to requirements of responsible custodianship, might give faster-moving, less responsible corporations a significant edge in influencing Arctic development.

Living There Is Another Challenge Entirely

Beyond geopolitics and industry, life in the Arctic will have to contend with extreme conditions. Seasonal darkness, isolation, and environmental change introduce social and mental-health pressures that complicate long-term settlement.

“Reparations depend on who gets to define them”

From **Mausumi Moran Chetia**

Postdoctoral Researcher, Climate Reparations, REPAIR Project, Anthropology Department, University of Amsterdam.

‘Reparations’ imply acknowledging historical harm, which makes them politically charged from the outset. As the meaning shifts depending on who frames it, the term remains open to co-option, and compensation may take many forms—financial, infrastructural, or in access rights. Cities and companies, more flexible than states, could become key actors in experimenting with a type of reparations that may just become a CSR activity.” These might be understood less as a one-off settlement than as a continuous negotiation, closer to how dispersed families sustain ties across distance. In that sense, ‘repair’ echoes the logic seen in displaced and voluntarily migrating communities: maintaining relationships through flows of support, responsibility, and exchange, rather than resolving imbalance once and for all.

“I would still not think that the state would voluntarily agree for reparations, but perhaps municipalities decide to do so. [...] Who knows in the future if reparations become very specific to sub-national levels?”

10 Things to Monitor

- 1

Northern Sea Route Navigation Conditions

Duration of ice-free navigation windows, cargo volumes, and diversity of commercial operators using Arctic shipping corridors.
- 2

Foreign Stakes in Arctic Infrastructure and Minerals

Equity participation by Chinese, American, or European actors in Arctic ports, logistics hubs, and critical mineral extraction projects.
- 3

AI Infrastructure Investment and Arctic Compute Deployment

Global capital expenditure in AI-driven data infrastructure and the share of computing capacity located in Nordic or sub-Arctic regions.
- 4

Emerging Environmental and Biological Risks in Thawing Regions

Identification and monitoring of structural ground instability, pathogen release, and other environmental risks in newly habitable Arctic areas.
- 5

Maritime Insurance and Security Pricing

Insurance premiums, risk classifications, and security assessments associated with Arctic shipping routes and alternative global corridors.
- 6

Rare Earth and Critical Mineral Exploitation in Greenland

Status of exploration licenses, concession agreements, and operational mining projects related to critical minerals in Greenland.
- 7

Arctic Militarization and Strategic Presence

Military installations, surveillance infrastructure, and defense deployments across Arctic territories.
- 8

Climate Migration Toward Northern Regions

Population movements, settlement patterns, and labor migration flows into Nordic and Arctic-adjacent regions.
- 9

Data Center Waste Heat Integration

Deployment of district heating networks, greenhouse agriculture, and industrial processes using waste heat from large computing facilities.
- 10

Arctic Resource Governance and Concession Frameworks

Legal regimes allocating land, seabed, and mineral rights in Arctic territories, including national concession systems, Indigenous governance agreements, and international regulatory frameworks.

You Are Leaving the NFA Sector

Reorganizing the Foundations



With Ismahane Remonnay

Head of Anticipation & Risk, Veolia

Ismahane Remonnay leads foresight and systemic transformation initiatives across water, waste, and energy infrastructure sectors. She started the Chemical Transition Pathway Program to promote sustainable chemistry, and devised improved quality assessment protocols in the mining industry—initiatives that reflect her focus on resource governance, systems transformation, and intergenerational collaboration.

Approaching every New Future Archetype through an operational lens, Ismahane Remonnay addresses the underlying method: how adaptation is framed, how territory is defined, and how foundational resources are reordered under stress.

Foundations, Innovation, and Rediscovery

The five New Future Archetypes do not read as forecasts so much as structured possibilities to uncover “more potential discoveries.” Each explores the implications of core systems coming under sustained pressure, and imagines attempts at adaptation that tap into both innovation practices and a practice of “foundational relearning” that resembles “starting again after an accident.”

In this practice, nothing is taken for granted. Rediscovered traditions, memories, and inherited knowledge have the potential to inform “a new normal and a new period of exploration.” Adaptation can therefore mean returning to basics, reconnecting nature, human systems, and planetary limits in ways that feel both modern and grounded.

What Adaptation, to which Climate Change?

The impact of climate change looms across all five New Future Archetypes, yet each provides a different answer to the question: “where is the disruption?” Is it ecological degradation, institutional fragility, societal change, economic imbalance, or geopolitical strain?

Harmony Harbor raises the issue of “trans-generational solidarity” in the face of climate adaptation; Studio Odgrod “rethinks agricultural systems” not just to feed the population, but to discuss how individuals can reconnect with neglected territories; Amadare Network explores adaptation through permanent mobility as “a new pathway for freedom” that is “modern, pragmatic and wise” and distances itself from “miserabilism”; Ayokarang Reef District explores the potential of an under-going biological revolution to question “who governs marine life and biological data”; the Cold Rush shows how “temperature itself can become strategic” in energy management and CO2 reduction, shifting geopolitical focus toward colder regions;

Although the paths explored are “creative in their design and definition,” they also “echo with the past and history,” finding a resonance in earlier forms of adaptation—submerged

villages, green walls, migration cycles—and reminding us that “we are in constant transition.” What changes today is speed, scale, and interdependence.

People and other Resources

What the New Future Archetypes also show is that “this process is not individual. Community creates the space to test, adapt, and continue.” Not only is the future populated, it is also situated and begs the question: “What is a territory today? Where do its borders begin and end?”

It isn’t just land but resources that are “the basics, the foundation.” These aren’t vital on the same scale—the 3-3-3 rule suggests that survival depends first on air (3 minutes), then shelter (3 hours), water (3 days), and finally food (3 weeks)—nor are they bound by political lines in the same manner. Though absent from this rule, energy is crucial to modern safety feeling (light), security, and infrastructures, and is therefore equally central to all Future Archetypes.

Adapting to the “Imprevisible”

The real challenge is not only preparing to adapt, but knowing what to adapt to. To “previsible scenarios”—rising temperatures, resource stress, demographic shifts—certainly. Yet “life is imprevisible,” and we must give ourselves the resources to imagine systems capable of absorbing the unforeseen. This means surfacing challenges, conflicting priorities, alternatives in governance, and possibilities for communities to reorganize. For that, we need stable foundations as a safeguard.

From Flooded Valleys to Orbital Sentinels—Examples of Foundations Reorganized:

Tignes: The Submerged Village¹⁰⁴

The flooding of the French village of Tignes, to build a hydroelectric dam in the 1950s remains a powerful example of forced relocation for infrastructural progress. It highlights how territory can be sacrificed for energy security and modernization. The case illustrates that adaptation and transition often produce winners and losers, and that displacement for ‘progress’ is not new.

Mongol Nomadic Migration Practices (UNESCO Intangible Cultural Heritage)¹⁰⁵

UNESCO’s recognition of Mongol nomadic migration shows a seasonal movement governed by ecological knowledge, social coordination, and territorial intelligence. It demonstrates that nomadism is not a failure of settlement but a calibrated response to environmental variability.

Green Wall Initiatives^{106, 107}

Large-scale afforestation projects such as China’s Great Green Wall and the African Great Green Wall show how ecological degradation can trigger continental-scale territorial interventions. These initiatives blend climate mitigation, agricultural stabilization, and socio-economic strategy. They reflect adaptation as long-term landscape engineering tied to demographic and resource management.

Rights of Rivers Movement¹⁰⁸

The legal recognition of rivers as rights-bearing entities challenges traditional ownership frameworks by granting ecosystems legal personhood. These cases reframe natural resources not as extractable assets but as governed subjects and question whether water and nature commons are commodities or legal entities with standing.

Global Sentinels and Islands of Life for One Health^{109, 110}

Global monitoring initiatives are increasingly organized as sentinel networks designed to detect health and environmental threats before they escalate. These networks combine atmospheric monitoring satellites, wastewater surveillance, and distributed environmental sensors measuring ecosystem stress. Perceived as ‘neutral territories’ situated along major maritime routes, islands take on a strategic role as observation points. Through voluntary, cross-border data sharing, and in connection with the Global Consortium for Wastewater & Environmental Surveillance (GLOWACON)¹¹¹, these islands contribute to the emergence of a worldwide sentinel system for early outbreak detection, real-time monitoring, and pandemic preparedness.

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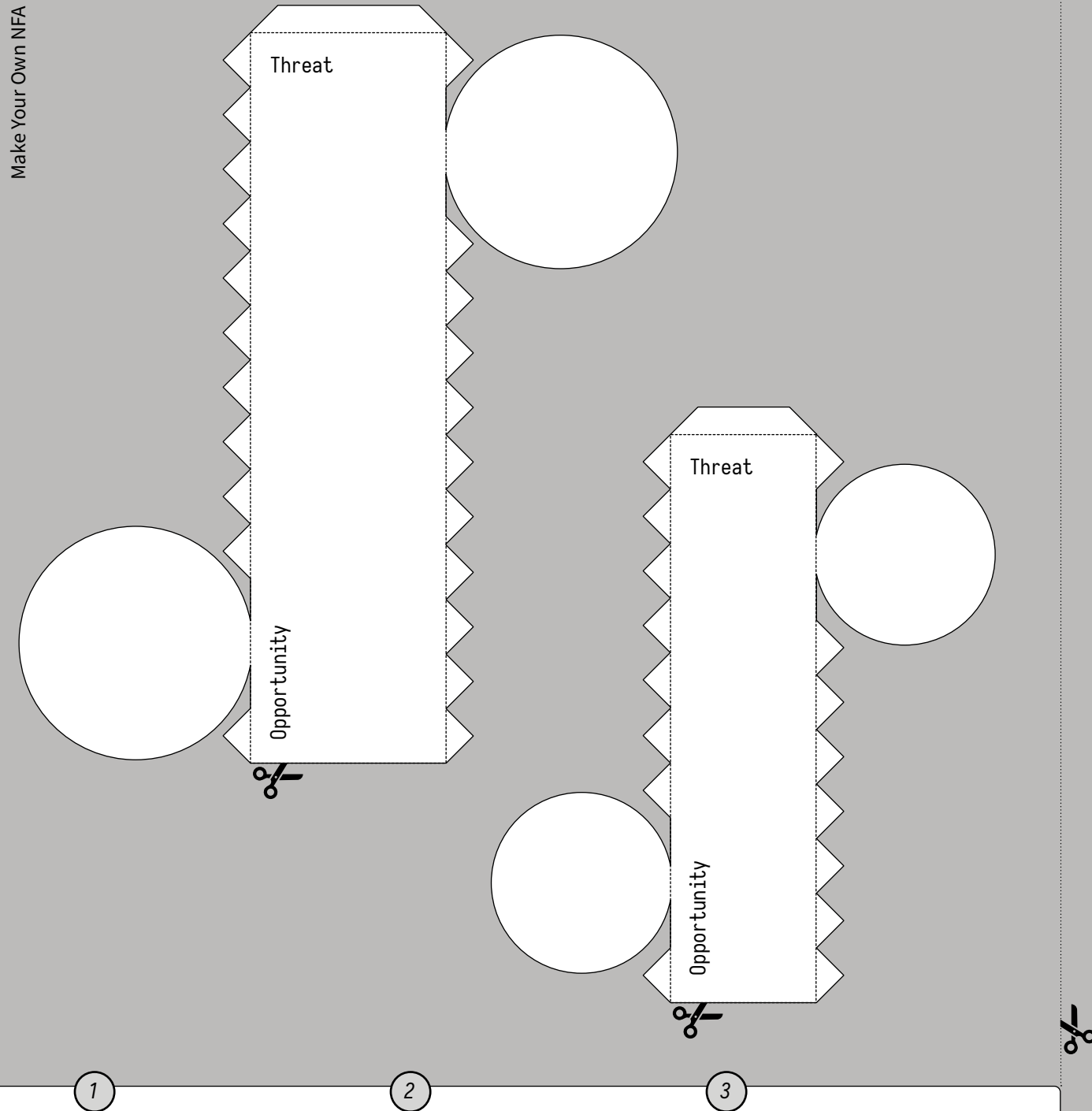
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Start Your Own NFA with the System Stack

The illustration depicts a 'System Stack' as a 3D structure of blocks. The blocks are labeled either 'Opportunity' or 'Threat'. A pair of scissors is shown cutting through the stack, symbolizing the process of building a Non-Financial Assessment (NFA). To the right of the stack, a vertical axis indicates different levels of analysis: 'Speculative' at the top, 'Current Signals' in the middle, and 'Foundational Shift' at the bottom. The entire graphic is set against a solid red background.



1

Build the Foundational Shift

Identify forces that could combine into meaningful change. Write them down as either threats or opportunities, and place them at the bottom of your stack to form the foundational shift.

Ex: 'Recurring Maritime Blockades' or 'Global Green Energy Boom'

2

Lay the Speculative Layer

Write down current developments that support your foundational shift, and plausible implications of these forces operating together. Layer them atop the foundational elements: this is a possible future.

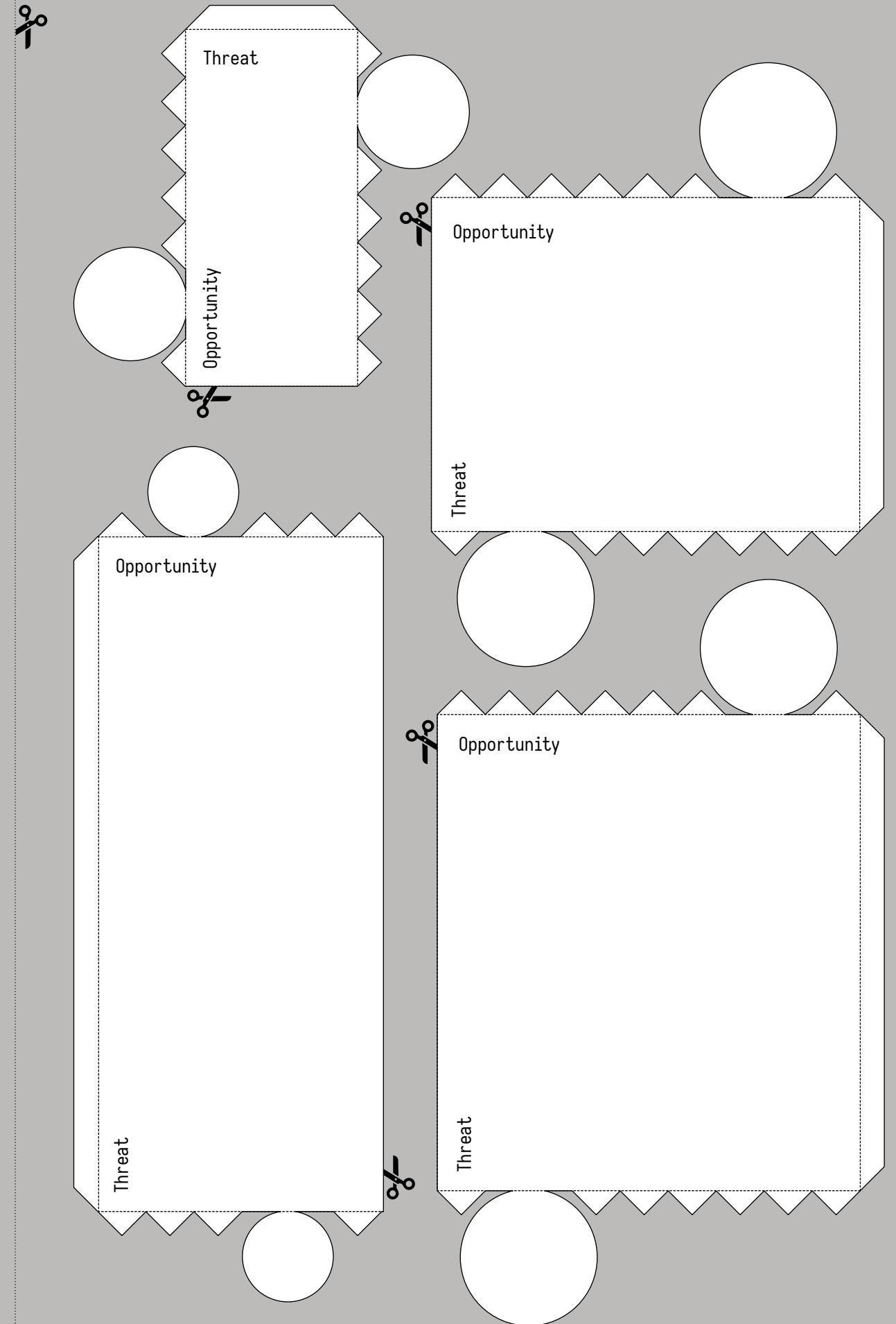
Ex: 'Energy Precarity' or 'Depletion of Rare Earths'

3

Learn from the Future

Imagine plausible threats and opportunities existing in this future. Add these new dynamics rooted in speculative explorations to the top layer, and reflect on what they might teach us today.

Ex: 'Spread of Microgrids' or 'Neodymium Black Market'





Dive into the waves of

Ayokarang Reef District

Halo Cuy (that's how you say 'hi buddy' around here!! I hope winter isn't too rough. Believe it or not, I'm required to go hang out at the beach here between two missions in the dark depths. But even there is really gorgeous, the spots where we've reacclimated corals are bursting with colours, they do this little dance with the currents. So fragile and precious. The other day, a local pearl diver invited us all for drinks. A new drug based on his sample got approved, he really hit the jackpot.

See you soon!
-J.



Stay up to date with

Studio Odgrod

Hi bestie, how's life in the city? Did any of you manage to land a new job? I'm kind of hoping you didn't, because we're recruiting at the landstead. If you're following me you know we're doing really well. The farming experiments are rewarding on their own (I managed to grow all I needed to make my own fizzy cola drink), and on top of that our audience keeps growing. So, time to escape the concrete and bring yourselves out here? I have a spot for you on my plot, and on my show!

Doublehugs
Majka



Dear, you are missed. You are missing out too. The kids are growing, the landscapes are changing. You'd have loved the last mountain pass, the scenery was so dramatic. The border crossings are getting easier too, they're starting to know us there. One of the officers was from the place we assisted when the last flood hit, he invited us all for dinner. Oh, and you'd be so proud of the girls. Djera knows her navigation better than me already, soon she'll be able to take shifts driving the village.

With much love,
Your Nadja

Merry Christmas my gremlin!

Your grandma and I are doing well and we hope you are too. We saw on our feed that there has been another storm, how is the house doing? We barely felt a thing here! I wonder how they manage this. Well, what matters is that socks, hats, and robots are dry. Are you sure you don't want to move in here too? You could surely afford one of the family plans. And we could help with the baby!

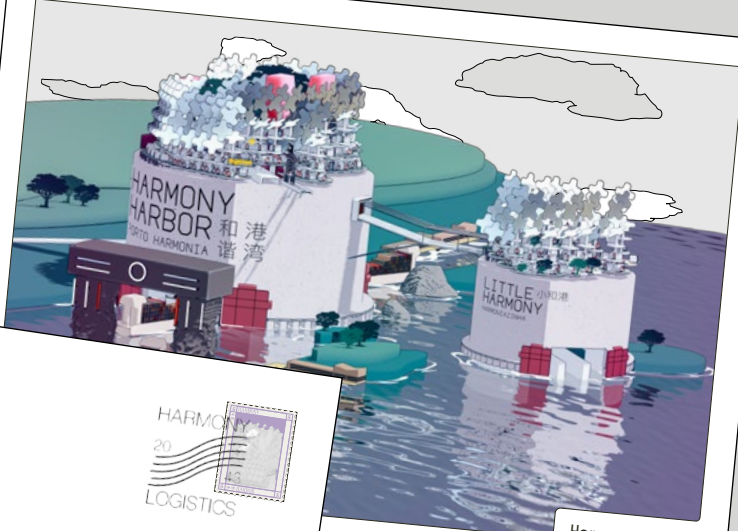
Your grandparents
who miss you very much



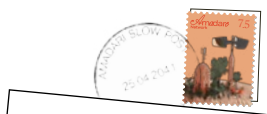
Come try your luck in

My love, it is as cold as it is beautiful here. I wish you could admire this barren landscape, with white slowly giving way to green, blue ocean always in the picture and the air, cold and crisp, it keeps you on your toes rather than weigh on your shoulders. Work is nice, I made friends from all over the French-speaking world. In a few years we can afford to fly you all, would you like to come over? Until then we can keep videocalling all day long. I get more data than I can use here.

Take care, kiss the little one for me
Abdji



Harmony Harbor



Amadare Network

Credits & Acknowledgments

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About the Authors

N O R M A L S weaves design, fiction, and strategy to expand what is commonly understood as ‘the future.’ Established in 2012 as a design collective, the group has grown into an internationally operating studio based in Berlin, working with governments, companies, and research institutions. They operate across narrative, visual, and experiential formats, with the aim to break out of repetitive future tropes and open up new ways of thinking and acting. This has recently culminated in New Future Archetypes: worlds in a box that represent distinct takes on the future, developed in collaboration with partner institutions and open for others to use and build upon.

Disclaimer
The New Future Archetypes (NFAs) in this report are fictional and created for exploratory foresight. They reflect plausible developments, but their occurrence is not guaranteed and should not be interpreted as a forecast. All characters are fictional; any resemblance to real persons, living or dead, is coincidental.

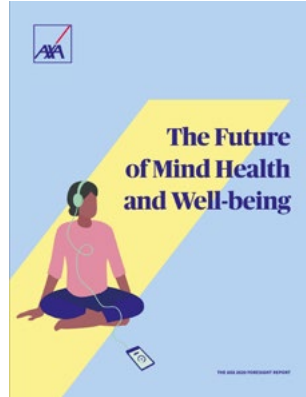
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Each year, the AXA Foresight Team publishes a forward-looking exploration that gathers innovative perspectives on ongoing societal transformations, linking them to the evolving landscape of risk and our core activities as an insurer.



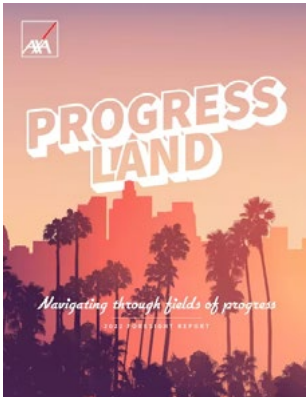
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