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# A Holistic Approach to Unlocking the Impact Economy through Transparency and Collective Action

*Our planet is a complex and interconnected system of natural processes and resources that sustain life as we know it. However, human activities such as industrialization, urbanization, and agriculture have put increasing pressure on these natural systems, leading to a range of environmental challenges such as climate change, biodiversity loss, and pollution.*

BY YVES CARNAZZOLA • APRIL 12, 2023

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Our planet is a complex and interconnected system of natural processes and resources that sustain life as we know it. However, human activities such as industrialization, urbanization, and agriculture have put increasing pressure on these natural systems, leading to a range of environmental challenges such as climate change, biodiversity loss, and pollution.

To address these challenges, it is crucial to understand the natural limits and boundaries within which our planet's systems can operate sustainably, without compromising their ability to provide vital services to humans and other living beings:

- **Climate change:** The economic, environmental and social costs of climate change are projected to be substantial, including damage to infrastructure, increased healthcare costs, and reduced agricultural productivity.

- **Biodiversity loss:** The loss of biodiversity can have significant economic impacts, including reduced agricultural productivity, lost revenue from ecotourism, and increased healthcare costs due to the loss of ecosystem services.

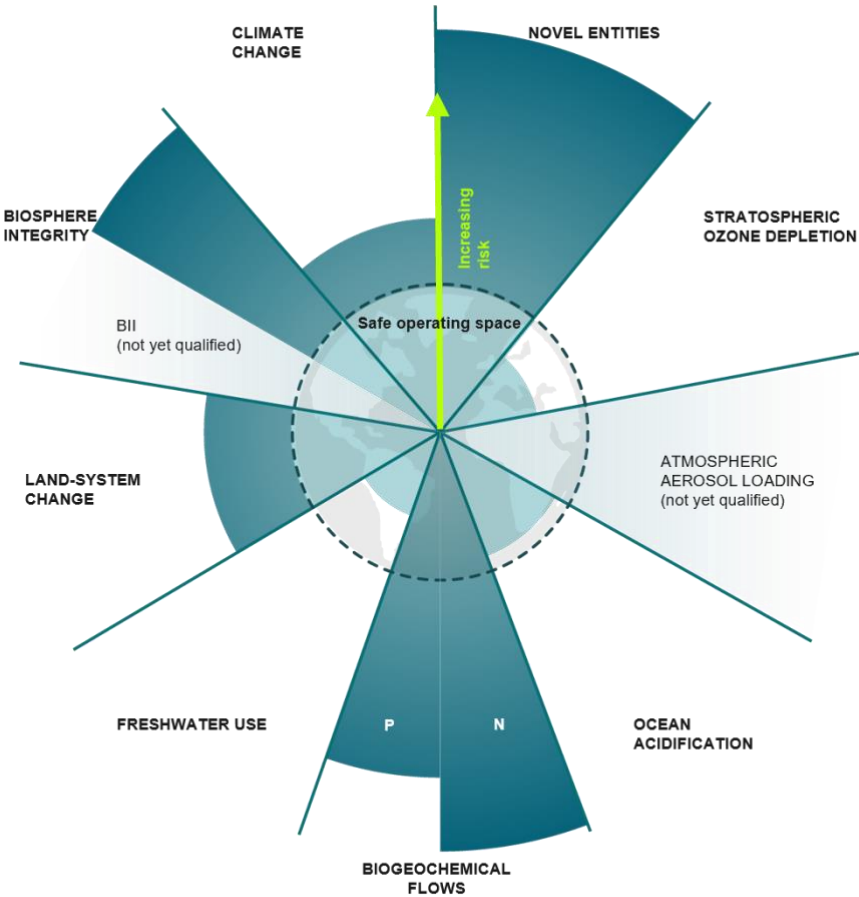
- **Freshwater use:** The depletion of freshwater resources can lead to increased costs for water treatment and infrastructure, as well as decreased agricultural productivity and other economic impacts.

- **Chemical pollution:** The health and environmental costs of chemical pollution are significant, including increased healthcare costs, lost productivity due to illness, and damage to ecosystems and the services they provide.

- **Land use change:** The loss of natural habitats can have economic impacts, including reduced productivity of natural resources and lost revenue from ecotourism.

### SDGs as planetary boundaries

As we approach the year 2030, it's becoming increasingly clear that achieving the United Nations' Sustainable Development Goals (SDGs) will require a significant amount of financing.



“Climate Tipping points occur when a change in a part of a system becomes self-perpetuating beyond a forcing threshold, leading to abrupt and/or irreversible impacts.”  
 To avoid the sixth mass extinction event.

According to estimates by the UN, the financing gap for achieving the SDGs **in developing countries alone is currently around \$2.5 trillion annually.**

At the same time, the urgency of addressing climate change and protecting biodiversity has never been more apparent. The Paris Agreement, which aims to limit global warming to well below 2 degrees Celsius above pre-industrial levels, requires substantial investments in low-carbon infrastructure, energy efficiency, and natural capital.

Meanwhile, the Green Deal and EU Taxonomy regulation, among others, is set to become a crucial tool for directing investments towards sustainable activities, including biodiversity conservation.

The challenges we face in achieving the SDGs, Paris Agreement, and other global sustainability goals are complex and interconnected, often referred to as **“wicked problems.”**

These problems are characterized by their high level of uncertainty, multiple and conflicting objectives, and significant impacts on various stakeholders.

## To tackle these wicked problems, it is crucial to adopt a collective action approach.

This means engaging stakeholders from various sectors, including governments, businesses, civil society, and academia, to work together and co-create solutions that are sustainable and impactful. Moreover, in tackling wicked problems, it is crucial to have access to a diverse range of experts, who can provide the necessary knowledge and skills to design and implement effective solutions.



## SDGs Yearly Financing Gap

Nature-based solutions, climate solutions, local communities, and decarbonization are directly connected to several of the Sustainable Development Goals (SDGs).

Estimates of yearly financing gap are **ranging from 4 trillion up to 6.9 trillion**

The Sustainable Development Goals (SDGs) and the value of nature are indeed complex and a “wicked” problems, meaning that they are characterized **by high levels of uncertainty**, conflicting interests, and incomplete information. As a result, the estimates of the SDG financing gap and the value of nature can vary widely, depending on the assumptions and methods used by different analysts and stakeholders.

Estimating this gap requires making assumptions about future economic growth, the cost of implementing SDG targets, and the availability of public and private financing. These assumptions can vary widely depending on **the context and the time horizon considered**. Additionally, there is a lack of consensus on the appropriate methods to measure the financing gap, with some estimates relying on macroeconomic modeling, while others focus on tracking specific sources of funding.

Similarly, the value of nature is a complex and contested concept that refers **to the economic, social, and ecological benefits that nature provides to society**. Estimating the value of nature requires making assumptions about the types and magnitudes of these benefits, as well as the costs of their degradation or loss. These assumptions can vary widely depending on the spatial and temporal scale of analysis, the valuation methods used, and the societal perspectives taken.

## Net zero & decarbonization

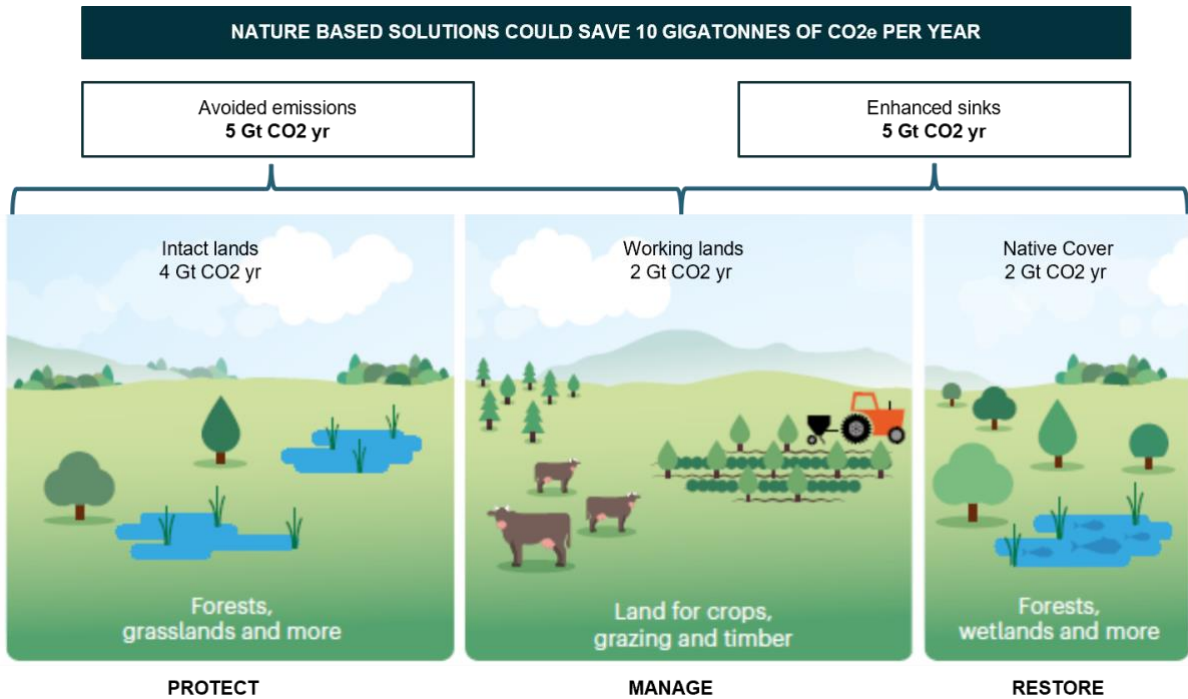
**To get emissions to net zero**, USD 275 trillion would need to be spent on physical assets alone between 2021 and 2050. That is about USD **9.2 trillion per year**, or about 30 percent more (USD 3.5 trillion) than the USD 5.7 trillion allocated today. More than 85 percent of investment in low-emission assets, or about USD 170 trillion, would be in three sectors: **mobility, power, and buildings**.

USD 2.8 trillion would support critical high-emission assets that cannot be completely phased out. The remaining USD 6.4 trillion would finance low-emission green assets or assets transitioning to be less carbon-intensive.

## Nature Based Solutions

From an emission perspective, 50 gigatons of CO<sub>2</sub>e goes into the atmosphere every year. Out of these 25% is absorbed by the forests and soils and 25% by the sea.

Out of the 25 gigatons of CO<sub>2</sub>e which ends up in the atmosphere up to 10 gigatons CO<sub>2</sub>e can be saved by NbS

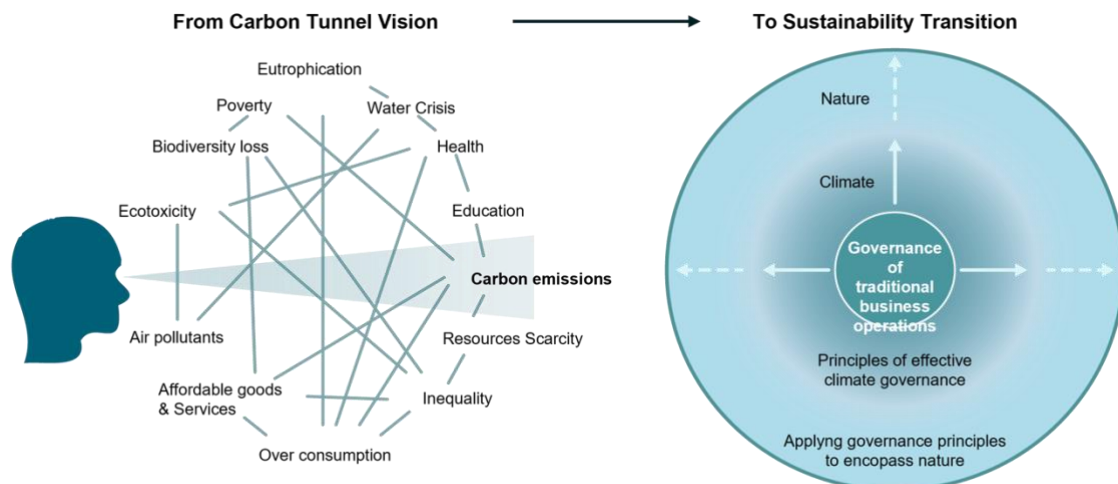


NATURE-BASED SOLUTIONS CAN HELP COOL THE PLANET — IF WE ACT NOW. CÉCILE A. J. GIRARDIN, STUART JENKINS, NATHALIE SEDDON, MYLES ALLEN, SIMON L. LEWIS, CHARLOTTE E. WHEELER, BRONSON W. GRISCOM & YADVINDER MALHI

## Moving beyond the Carbon Market

The transition from carbon tunnel vision to sustainability thinking is crucial for creating a more sustainable, equitable, and prosperous future for all.

Carbon tunnel vision focuses solely on reducing carbon emissions without considering the broader environmental impacts of our actions. Sustainability thinking takes a more holistic approach that considers the full range of environmental impacts and aims to minimize harm across multiple dimensions. This includes reducing other greenhouse gases, generating positive impacts through the SDGs, protecting biodiversity, conserving water resources, and minimizing waste and pollution as well as fueling the transition to sustainable energy sources.



**Economic Impact:** A sustainability transition can create new economic opportunities and spur innovation in clean energy and other sustainable industries, leading to long-term economic growth and job creation. In addition, a focus on sustainability can reduce the risks associated with climate change, such as extreme weather events, which can have a significant economic impact.

**Social Impact:** Sustainability transitions can also have positive social impacts by creating more equitable and inclusive communities, improving public health outcomes, and addressing social injustices. For example, investing in renewable energy and energy efficiency can create jobs and reduce energy costs for low-income households.

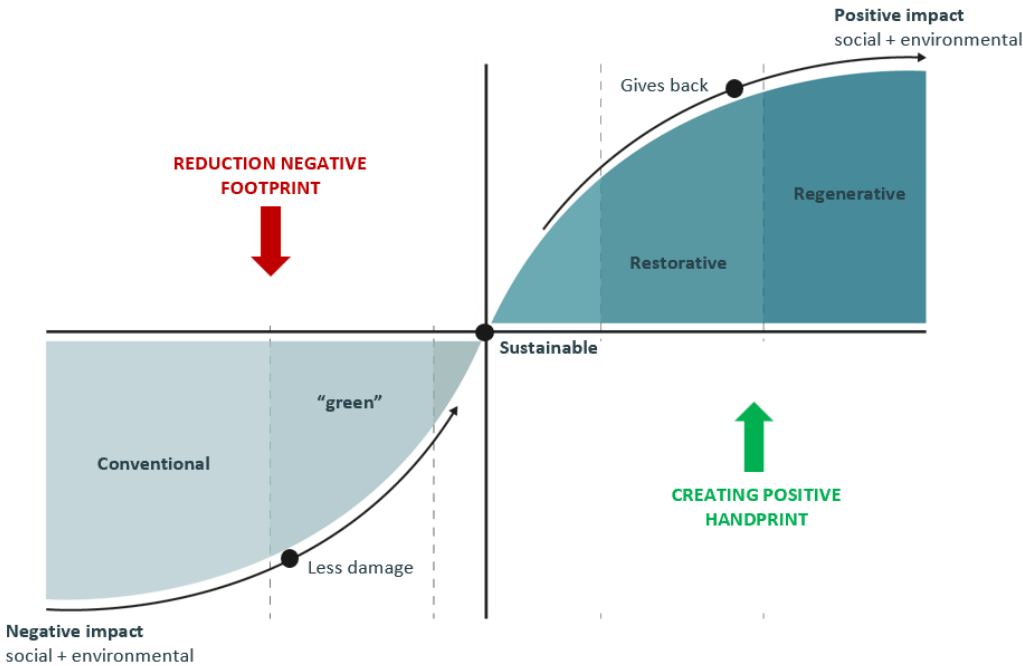
**Long-Term Thinking:** A focus on sustainability encourages long-term thinking and planning, rather than short-term fixes. This can help ensure that we create a more resilient and sustainable future for generations to come. By considering the long-term impacts of our actions, we can make better decisions that balance the needs of the present with the needs of the future.

**Climate Change Mitigation:** While reducing carbon emissions is important, it is not enough to mitigate the impacts of climate change. Sustainability thinking acknowledges the complex and interconnected nature of environmental, social, and economic challenges, and seeks to address them in a comprehensive way. This includes not only reducing carbon emissions but also adapting to the impacts of climate change and building resilience to future challenges.

Considering the magnitude of the wicked problems we are trying to face stopping at sustainable might not be enough, we need to build stronger approaches to not only change practices but also regenerate what we lost.

### From Sustainable to Regenerative

While sustainability has become a popular buzzword in recent years, it is not enough to address the real magnitude of the environmental and social challenges we face. Moving beyond sustainability to regenerative practices is crucial for restoring and replenishing our natural and social systems.



The concept of sustainability has become widely accepted as a goal for environmental and social progress. Regenerative practices go beyond sustainability, seeking to restore and regenerate natural and social systems rather than simply maintain them.

While sustainability is an important goal, it has its limitations. The focus on maintaining the status quo can perpetuate existing inequalities and injustices and may not be sufficient to address the root causes of environmental and social challenges. Additionally, sustainability often prioritizes economic growth over environmental and social considerations, which can lead to unsustainable practices.

Regenerative practices go beyond sustainability, seeking to restore and replenish natural and social systems. This includes practices such as regenerative agriculture, which improves soil health and biodiversity, and regenerative building, which incorporates natural materials and renewable energy sources. Regenerative practices also prioritize social equity and justice, aiming to create more resilient and inclusive communities.

While the benefits of regenerative practices are clear, making the transition from sustainability to regenerative practices is not without challenges. These challenges include the need for new technologies and systems, the need for changes in social and economic systems, and the need for education and awareness-raising to shift cultural norms and values.

The shift from sustainable to regenerative practices is necessary for restoring and replenishing natural and social systems. While sustainability is an important goal, it has its limitations and may not be sufficient to address the magnitude of the environmental and social challenges we face. Regenerative practices offer a more comprehensive and holistic approach, prioritizing social equity and justice, and creating more resilient and inclusive communities. While there are challenges in making this transition, the benefits are clear, and the need is urgent.

## Our solution: The Habitat

AxessImpact's decision to introduce the concept of a "**Dedicated Habitat**" is driven by the understanding that effective biodiversity conservation and climate action require an integrated approach that considers the complex interconnections between various ecological systems and their social and economic drivers.

**A habitat is a unique ecosystem** that is home to a specific set of species and provides vital ecological services. By creating a dedicated habitat for each ecosystem, AxessImpact recognizes the importance of treating each system as a unique entity with specific conservation needs and vulnerabilities.

AxessImpact's habitats are collaborative **web-based Impact Management Systems** designed to bring together project developers, emitters, investors and governments within an integrated distributed framework to create long-term positive impact.

The concept of a "**Dedicated Habitat**" is a milestone, because it creates a space for various ecosystems to interact in a holistic manner.

In complex adaptive systems, interactions between various components can create unpredictable outcomes, and a dedicated space allows for monitoring, analysis, and management of those interactions.

It offers a range of standardized and transparent services that can help investors make an impact in both **nature and climate solutions**.

By bringing technology into this space, it allows for efficiency and optimization.

The distributed by design DLT allows for secure and transparent record-keeping, which is crucial for creating trust between different stakeholders.

The use of machine learning and other data analytics tools can also help to identify patterns and potential issues within the ecosystem, allowing for proactive management.

With the concept of “**Habitat**”, AxessImpact aims to create a holistic solution that connects stakeholders at multiple scales and fosters collective action towards achieving the SDGs and the Paris Agreement goals. The habitat approach also allows for nested jurisdictional solutions, which **can help governments to create local positive impacts** while aligning with international climate commitments.

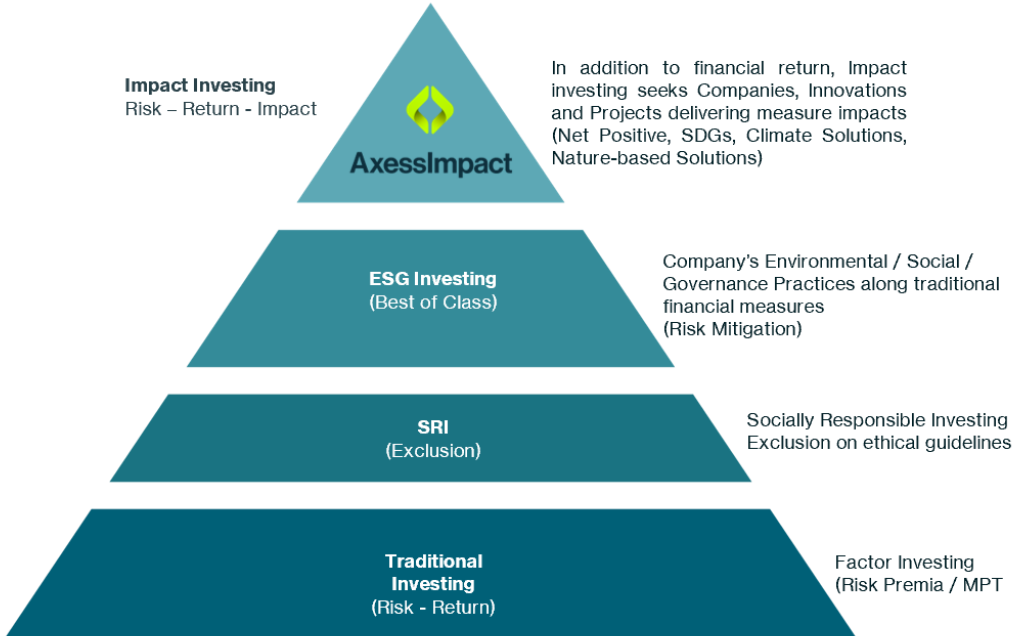
However, technology alone is not enough. **Human Capital, Collective Action, and “Experts on Demand”** are also crucial for building resilience in the face of changing conditions. By bringing together a diverse group of stakeholders, including government, private sector, local communities, and NGOs,

AxessImpact’s solution allows **for collective action and collaboration** towards shared goals. Additionally, the ability to bring in experts on demand ensures that there is always access to the latest knowledge and best practices.

**This combination** of a “dedicated habitat, » technology, human capital, collective action, and experts on demand creates a powerful tool for managing complex adaptive systems in a sustainable and **resilient way**. It allows for the creation of nested jurisdictional solutions and private-public partnerships that can be aligned with the goals of the Paris Agreement, specifically Article 6, which calls for the promotion of cooperation and coordination in implementing climate action.

The **Web-management Systems** are designed to bring efficiency and transparency to the financing of Nature-based Solutions and to support local communities in becoming key stakeholders in the conservation of their own natural resources.

Those “**Dedicated Habitats**” aim to create a holistic solution that connects stakeholders at multiple scales and fosters collective action towards achieving, the SDGs, NbS and Climate Solutions as well as the Paris Agreement goals.



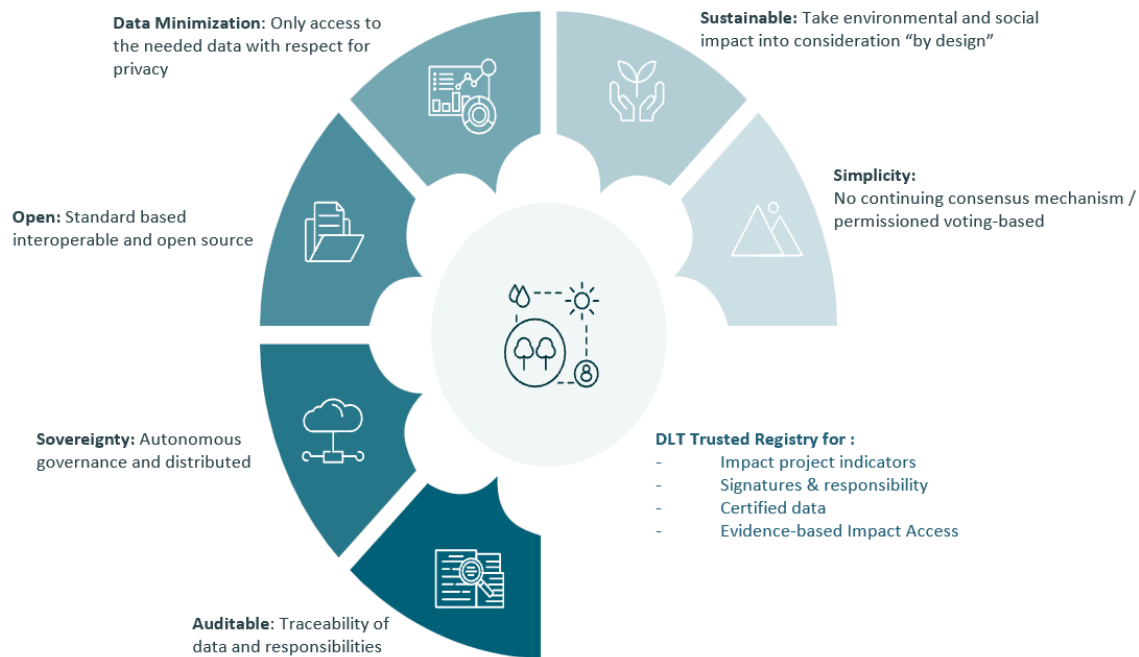


## Trust and distribution by design

AxessImpact's distributed by design web-management system is built on a permissioned blockchain, which is a type of blockchain that requires permission to access and participate in the network. This makes it a secure and trustworthy platform for all parties involved in financing natural capital projects.

**A permissioned blockchain** allows for greater control over who can participate in the network, ensuring that only trusted parties are involved in the transactions.

It also provides a transparent and auditable record of all transactions, which is crucial for demonstrating compliance with regulations and providing investors with confidence in the integrity of the system.



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Overall, the use of a permissioned blockchain provides a key foundation for the AxessImpact platform to support natural capital financing. It ensures that all parties can **trust in the security and transparency of the system**, facilitating greater investment in natural capital projects.

### Collaborative Governance

By embracing a polycentric and collaborative governance model, AxessImpact integrates symbiotic economies, token incentives, and permissioned blockchain technology. This insightful essay elucidates how AxessImpact effectively engages stakeholders and motivates them through token incentives within this unique governance framework. The organization's structure is envisioned as a blend of market and network collaborative governance, ensuring diverse stakeholder involvement and influence. By utilizing token incentives, the organization will empower stakeholders with different roles and levels of influence.

AxessImpact's governance framework combines elements of market and network collaborative governance. The market aspect promotes efficient coordination by leveraging market mechanisms to allocate resources and incentivize stakeholder participation. The network aspect facilitates collaboration and knowledge-sharing among stakeholders, fostering innovation and collective intelligence. This combination allows for dynamic interactions, harnessing the strengths of both approaches.

## Innovative financial solutions

The integrated **Portfolio Management System (PMS)** is a potential game changer when it comes to financing sustainable development goals (SDGs), particularly in the area of nature-based solutions (NbS), green tech innovations and climate solutions.

AxessImpact provides solutions for investors, project developers, and other stakeholders to connect and collaborate on financing and developing projects.

With its focus on transparency, efficiency, and sustainability, AxessImpact is well-positioned to be part of the of the **digital trend to revolutionize the way these projects are financed and managed.**

By leveraging the transparency and immutability of blockchain, the platform can provide early-stage investors and other stakeholders with real-time information about the progress of NbS projects. This not only helps to build trust and confidence in the projects themselves but also ensures that investors are able to track their investments and assess their impact.

In terms of investment vehicles, AxessImpact offers a range of options to suit different investor needs and preferences. For example, the PMS allows investors to participate in NbS projects through **direct investment, debt financing, or equity financing.** It also offers options for co-investment, blended finance and impact investing, allowing investors to align their financial goals with their social and environmental values.

## Empower the impact economy

Overall, AxessImpact is an innovative solution in the world of sustainable finance, offering a powerful web-based management system for project developers, investors, emitters, and government to collaborate on natural-climate projects and innovations.

By leveraging cutting-edge technology to bring trust and efficiency coupled with Experts on Demand, AxessImpact is helping to drive the transition towards a more sustainable, regenerative and equitable future.



Yves Carnazzola  
CEO

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