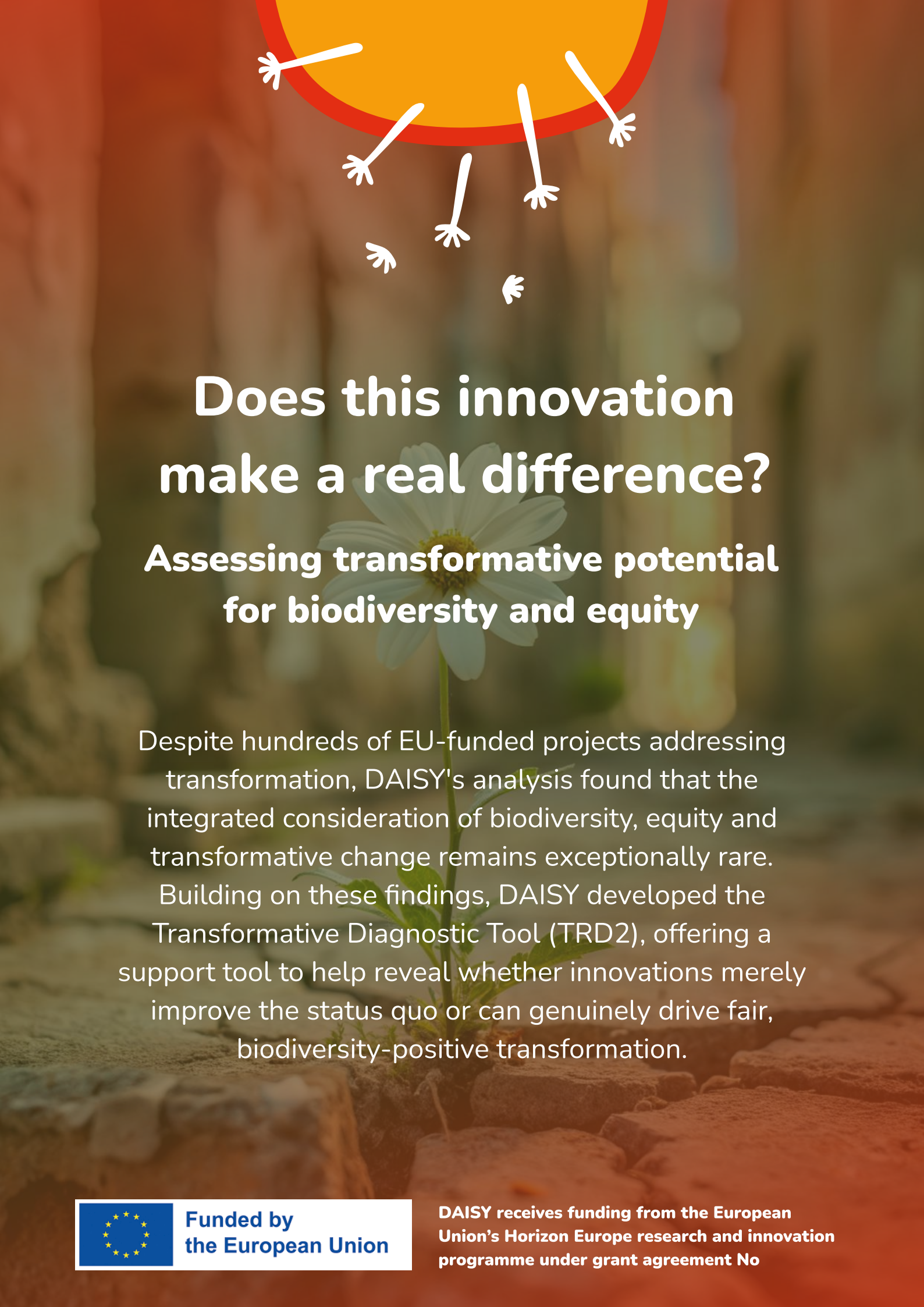




Does this innovation make a real difference?

Assessing transformative potential for biodiversity and equity

Despite hundreds of EU-funded projects addressing transformation, DAISY's analysis found that the integrated consideration of biodiversity, equity and transformative change remains exceptionally rare. Building on these findings, DAISY developed the Transformative Diagnostic Tool (TRD2), offering a support tool to help reveal whether innovations merely improve the status quo or can genuinely drive fair, biodiversity-positive transformation.



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Introduction



Biodiversity loss is both an environmental and social crisis. The degradation of ecosystems threatens human well-being, weakens essential ecosystem services, and exacerbates existing inequalities. In turn, inequality itself can accelerate biodiversity decline, creating a reinforcing cycle that current innovation and policy approaches often fail to address. Transformation is needed to break this vicious cycle.

To better understand how transformation is currently framed in Europe, the DAISY project analysed 344 EU-funded projects (2021–2024) that explicitly referred to societal transformation. The results revealed significant gaps. More than half of the projects (54%) described transformation as incremental improvement rather than systemic change, while only 10% addressed genuinely structural transformation. Just 3.2% engaged simultaneously with the personal, practical and political dimensions of change.



The findings on equity and biodiversity were even more limited. Questions of distributive justice – who benefits and who bears costs – appeared in only one project, and links between biodiversity and social justice were largely absent. Only around one-third of projects (36.6%) explicitly addressed biodiversity, with little integration across equity and transformative change.

These findings directly informed the development of DAISY's Transformative Diagnostic Tool (TRD2), designed to support a more integrated assessment of transformation, equity and biodiversity.

Establishing the TRD2

One innovation, three sets of questions



Consider a community farming platform that connects local producers and consumers while reducing food waste. Such an initiative may appear beneficial – but is it truly transformative?

Does it fundamentally change how people relate to nature, or merely improve the efficiency of existing systems? Does it enhance biodiversity, or simply optimise production? Who benefits, who is excluded, and does it alter decision-making structures or merely complement them?



While many tools assess sustainability or social impact, few examine biodiversity, equity and transformative potential together. TRD2 was developed to fill this gap by providing a single framework that evaluates innovations through all three lenses simultaneously.

What did DAISY's expert assessment reveal?

Through expert workshops, TRD2 has thus far been applied to assess several innovations spanning traditional practices, governance models, digital technologies and emerging biotechnologies.

A central finding is that transformative potential is not inherent to any innovation; it depends on governance arrangements, enabling conditions and social context.

Strong performers: community-based approaches

From amongst the innovations assessed in DAISY, community seedbanks, Indigenous and Community Conserved Areas (ICCAs) and approaches that integrate traditional and scientific knowledge consistently received some of the highest scores for both biodiversity and equity. Their strengths lie in community stewardship, local participation and knowledge sharing. However, their long-term success depends on supportive governance, equitable benefit-sharing and policy mainstreaming.

Ecological restoration and land management

Rewilding, agroforestry and organic farming showed strong biodiversity potential but more mixed equity outcomes. While they can improve habitats and ecosystem resilience, they may also create tensions around land use, access and benefit distribution, unless communities are actively involved in planning and governance.



Digital monitoring technologies

Technologies such as eDNA, remote sensing, camera traps and AI-based monitoring tools generally scored highly for biodiversity benefits but lower for equity. Experts highlighted concerns around unequal access to technology, carbon footprint, data ownership, high costs and the marginalisation of local knowledge. Their effectiveness improves significantly when combined with community participation and transparent data governance.

Governance innovations



Participatory planning, commons-based resource management, urban green space governance and Rights of Nature approaches performed relatively well across biodiversity and equity dimensions. These innovations demonstrate that institutional and governance changes can generate lasting benefits when supported by inclusive representation and long-term investment.



Emerging technologies

Technologies such as GM crops, vertical farming and some AI applications produced more complex results. While some offer potential biodiversity benefits, concerns around access, ownership, unintended ecological consequences and social inequalities reduced their overall scores. Experts repeatedly emphasised that technological innovation alone rarely delivers transformation without supportive governance and societal change.

A key finding



Importantly, none of the innovations scored highly across all three dimensions - transformation, equity and biodiversity - simultaneously. This suggests that transformative potential is not an inherent property of innovations, but emerges through their interaction with enabling conditions, governance structures, societal values, and complementary innovations.

How does the TRD2 work?

TRD2 evaluates innovations across three interconnected dimensions:

Transformation assesses whether an innovation can influence:

- Personal change (*values, attitudes and worldviews*)
- Practical change (*behaviours, practices and technologies*)
- Political change (*institutions, governance and regulation*)

Transformation occurs when change happens across all three spheres simultaneously.

Equity evaluates four dimensions of justice:

- Procedural equity (*fair participation in decision-making*)
- Distributive equity (*fair sharing of costs and benefits*)
- Recognition equity (*respect for different identities and knowledge systems*)
- Capabilities equity (*people's ability to pursue valued ways of life*)

Biodiversity examines impacts on:

- Genetic diversity
- Species diversity
- Habitat diversity
- Ecosystem diversity

For each dimension, users assess both the current situation and future potential to 2050. This creates a structured comparison between present performance and future ambition, helping identify where strategic action is needed.

Results are visualised through a radar chart showing an innovation's profile across all dimensions. Balanced profiles indicate integrated approaches, while gaps highlight areas requiring further attention. TRD2 is most effective as a structured reflection and dialogue tool, helping users explore assumptions, identify gaps and discuss transformative potential across different contexts.

Fig. 1.
The TRD2
interface and
visualisation

1 Select **2** Your info **3** Your results

Evaluate your *innovation*

The Simplified Transformative Diagnostic Tool (TRD2) is a DAISY product that aims to help evaluate an innovation's transformative potential, considering both biodiversity and equity aspects. Rate your innovation across three themes. Each question gets two ratings — **Current potential** and **Potential by 2050**. Drag each slider. If a question feels irrelevant, leave it at 50. You can download the final product at the end of the exercise. Please note that the TRD2 is more of a conversation starter than an absolute tool. We understand its subjectivity and the uncertainty context, particularly regarding its potential in 2050. At the end of this exercise, you can optionally provide your name and email address to subscribe to our newsletter and learn more about transformative change projects and events.

Step 1 of 3 — Equity 36%

Equity

Biodiversity

Transformation

Equity

Fairness, inclusion, and justice in how change is shared What does this mean?

PROCEDURAL EQUITY
Can this innovation help people trust and engage with the institutions that make decisions about their environment?

● CURRENT POTENTIAL 31 ● POTENTIAL BY 2050 71

DISTRIBUTIVE EQUITY
Does this innovation help ensure that environmental benefits (clean air, green space, water) reach people who have historically been left out?

● CURRENT POTENTIAL 36 ● POTENTIAL BY 2050 99

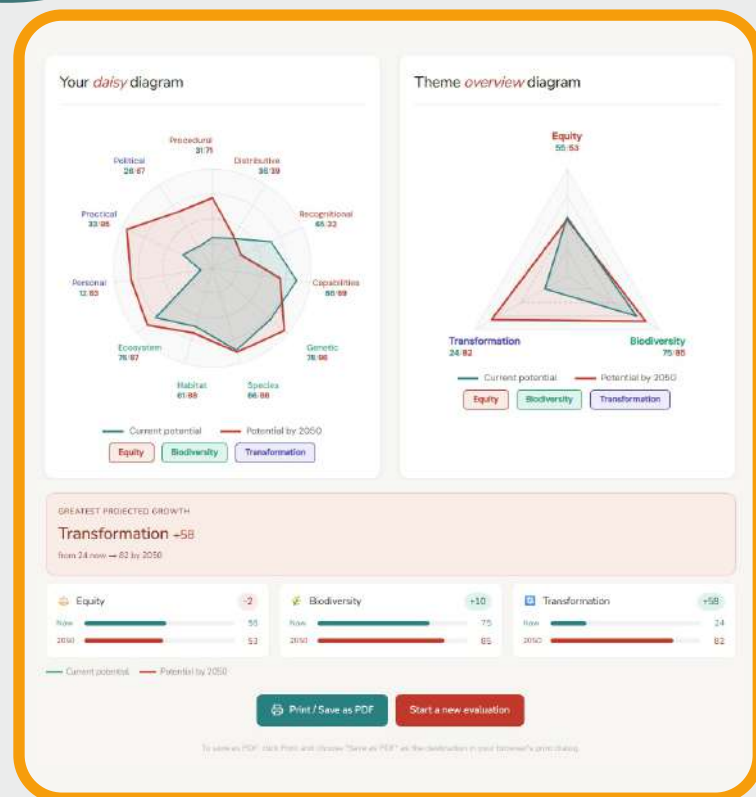
RECOGNITIONAL EQUITY
Does this innovation give a louder voice and greater recognition to communities that are often ignored in decision-making?

● CURRENT POTENTIAL 65 ● POTENTIAL BY 2050 32

CAPABILITIES EQUITY
Does this innovation give people the skills, tools, or confidence they need to act on environmental and social challenges?

● CURRENT POTENTIAL 86 ● POTENTIAL BY 2050 69

You can return to adjust answers at any time Continue → Biodiversity



TRD2 application for policy and innovation

TRD2 offers policymakers, researchers, innovators and civil society organisations a practical framework for assessing whether innovations contribute to biodiversity-positive, equitable and genuinely transformative change.

By making visible the links between biodiversity, equity and transformation, TRD2 helps move beyond incremental improvements and towards the systemic changes needed for a sustainable future.

TRD2 is freely available and ready to use on the DAISY project website. Explore the TRD2 here:
<https://mydaisy.eu/trd2/>

Read more about the research **here**
(<https://mydaisy.eu/trd2-manual>) and **contact us** if you have further queries.

