EUROPEAN CARBON FARMING SUMMIT

6 March 2024

Carbon farming as an act of transformation within holistic landscape restoration

- Willem Ferwerda, Founder

IUCN

UNITED NATIONS DECADE ON ECOSYSTEM RESTORATION 2021-2030

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Global impact of land degradation

Indirect Drivers

Population
Growth
Migration

Economic:
Markets
Trade
Demand

Governance:
Institutions
Decision making

Underlying

Direct Drivers

Urbanization

Infrastructure

Agriculture

Source: UNCCD, 2022.

It is possible to reverse landscape degradation through holistic landscape restoration.

Loess Plateau in China

Source: John D. Liu

Barriers to holistic landscape restoration

- Economic system barriers: biodiversity not valued
- Complexity of the ecosystem approach deters stakeholders
- Stakeholder complexity: top-down solutions do not take into account local people's needs
- Landscape finance: lack of experience with long-term blended landscape funding
- Policy: misalignment & silo solutions instead of the whole

Source: UNCCD, 2022.

What is needed to transition a landscape from ‘degraded’ to ‘restored’?

- A generic language and approach that people understand, unites and is practical
- A co-creative multistakeholder process
- Landscape (ecosystem) knowledge and area of large size
- Long term time frame
- Regenerative business models
- Long term blended tailor-made finance
- Being replicable to create scale

Holistic landscape restoration

Involves restoring the function of degraded landscapes by addressing their social, ecological, and economic aspects, ensuring their sustainability and resilience for the future. It recognizes the interconnectedness of physical, chemical, biological, ecological, economic, socio-cultural, spiritual and inspirational processes within landscapes, emphasizing the need for integrated, large-scale, and long-term approaches. By taking a holistic approach, problems can be addressed comprehensively, leading to lasting positive change that benefits both nature and communities.

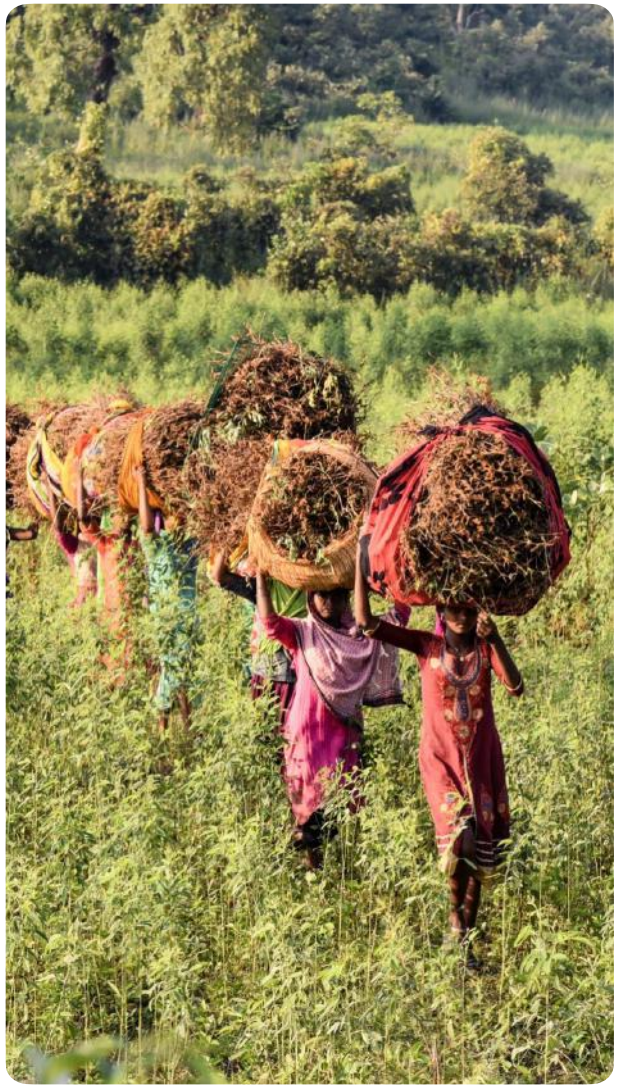
Three words unite all stakeholders: losses, risks and returns.

Ecosystem degradation leads to 4 losses

- Loss of purpose or hope
- Loss of jobs and prosperity
- Loss of biodiversity, soil and water
- Loss of long-term income

Ecosystem restoration leads to 4 Returns

- **Return of Inspiration**
  Futures to believe in
- **Social Returns**
  Communities that thrive
- **Natural Returns**
  Ecosystems that flourish
- **Financial Returns**
  Businesses that thrive through real value



Natural Zone

Regenerating a landscape's ecological foundation by restoring and protection of biodiversity within natural ecosystems such as wetlands, grasslands and forests

Combined Zone

Combining food, fiber and biodiversity productivity through regenerative agriculture, agroforestry and soil restoration.

Economic Zone

Delivering sustainable economic productivity with dedicated areas for activities that create value, typically concentrated in urban areas, infrastructure and processing.

The combined zone is where regenerative carbon farming comes in

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Guiding stakeholders to turn landscape complexity into action: The 4 Returns Framework for Healthy Landscapes

Source: Dudley, N., Baker, C., Chatterton, P., Ferwerda, W.H., Gutierrez, V., Madgwick, J., 2021, The 4 Returns Framework for Landscape Restoration. UN Decade on Ecosystem Restoration Report published by Commonland, Wetlands International Landscape Finance Lab and IUCN Commission on Ecosystem Management.

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Progress measurement and replicability

Inspiration

Increased connection to the landscape, motivating stewardship

Domain	Indicator
Connection to the landscape	Land stewardship
	Place attachment
	Beauty of the landscape
	Hope
	Purpose
	Sense of healing
Awareness	Degradation awareness
	Project awareness & participation
Behavioural change	Support for restoration & regeneration
	Improved practices in land-, agricultural-, waste-, and water management
Replication	Non-target landscapes & communities interested
	Replication of initiatives by others

Social return

Enhanced livelihood opportunities and community engagement

Domain	Indicator
Networks & engagement	Network building
	Social cohesion & solidarity
	Trust
Capacity building	Knowledge exchange
	Knowledge & skill development
Livelihood resilience	Quality of life
	Food security
	Health
	Climate adaptation
	Vulnerability to climate change
Social equity	Equitable sharing of restoration benefits
	Equal (job) opportunities
	Inclusive participation in restoration
	Voice of marginalized groups strengthened

Natural return

Healthier ecosystems: soil, water, biodiversity

Domain	Indicator
Landscape ecosystems	Land use (change) (i.e. hectares)
	Landscape connectivity
Soil	Soil erosion
	Soil permeability
	Soil biodiversity
	Soil organic matter
Water	Water quantity
	Water quality
Biodiversity	Rehabilitation / regreening
	Biodiversity & habitat protection
	Biodiversity abundance
	Biodiversity threats
GHG mitigation	GHG (carbon) sequestration
	Reduced GHG emissions

Financial return

Long-term economic resilience and prosperity

Domain	Indicator
Community & farmer income	Employment & working conditions
	Diversity of income sources & income resilience
	Profitability (yield, prices, (revenue), costs)
	Allocation of profit to sustainable transition
	Access to finance
	Economic incentives for sustainable management (price premium, PES)
Business development	Business development
	Business network & ecosystem
	Profitability (gross profit vs. net profit)
	Business size
	Localization of the value chain
	Access to finance
	Mitigation of business risks

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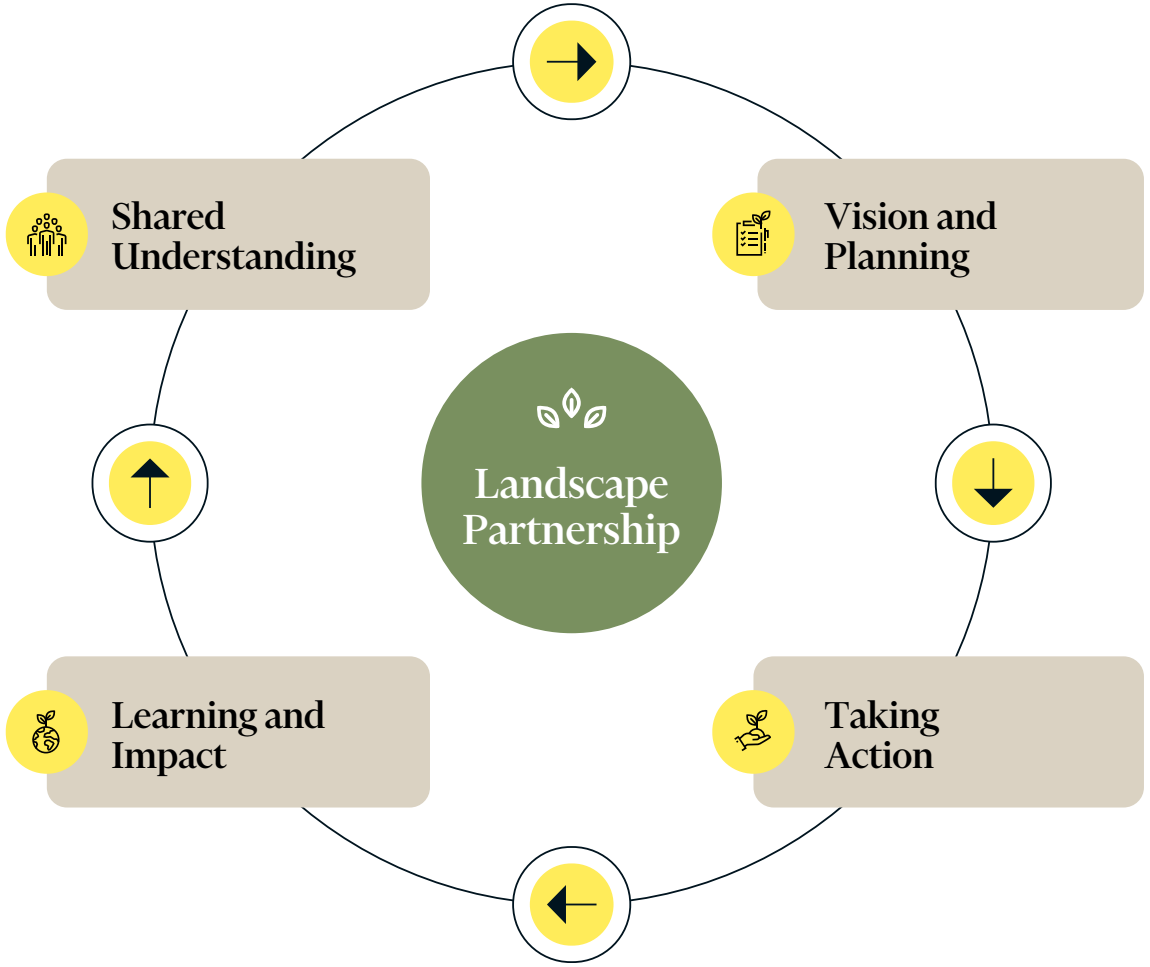
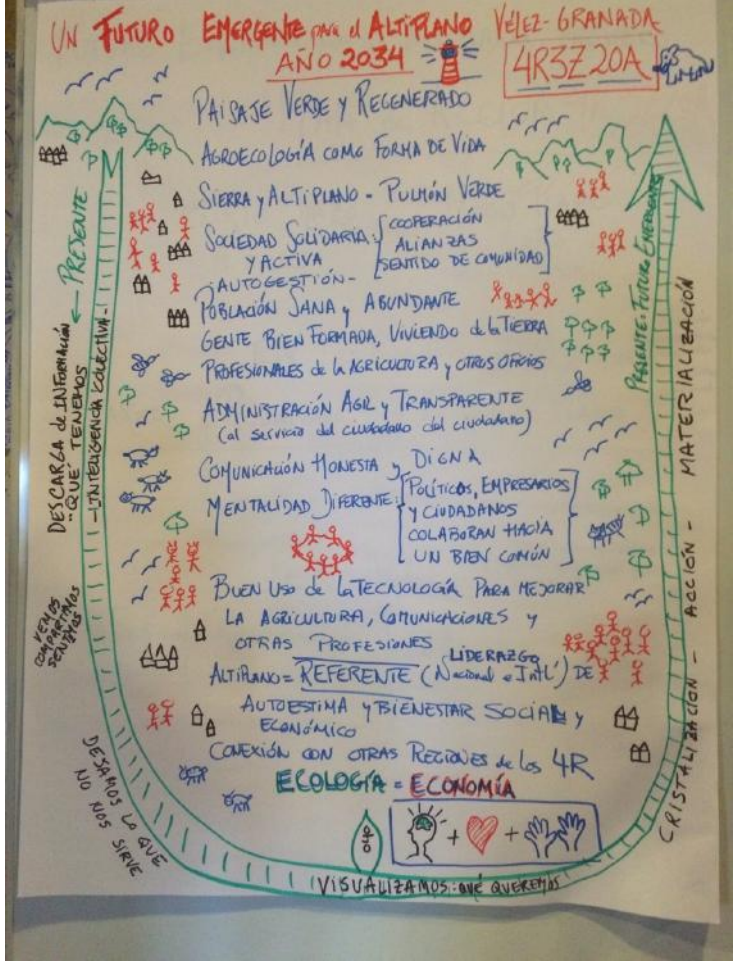
Creating a landscape partnership is the key to success.



Theory U, MIT/ Presencing Institute.


UN FUTURO EMERGENTE para el ALTIPLANO
AÑO 2034
VÉLEZ-GRANADA
4R3Z20A
PAISAJE VERDE Y REGENERADO
AGROECOLOGÍA COMO FORMA DE VIDA
SIERRA y ALTIPLANO - PULMÓN VERDE
SOCIEDAD SOLIDARIA Y ACTIVA
- AUTOGESTIÓN -
COOPERACIÓN
ALIANZAS
SENTIDO DE COMUNIDAD
POBLACIÓN SANA y ABUNDANTE
GENTE BIEN FORMADA, VIVIENDO de la TIERRA
PROFESIONALES de la AGRICULTURA y OTROS OFICIOS
ADMINISTRACIÓN AGIL y TRANSPARENTE
(al servicio del ciudadano del ciudadano)
COMUNICACIÓN HONESTA y DIGNA
MENTALIDAD DIFERENTE:
POLÍTICOS, EMPRESARIOS Y CIUDADANOS COLABORAN HACIA UN BIEN COMÚN
BUEN USO de la TECNOLOGÍA PARA MEJORAR
LA AGRICULTURA, COMUNICACIONES Y
OTRAS PROFESIONES
ALTIPLANO = REFERENTE (LIDERAZGO Nacional e Intl.) DE
AUTOESTIMA y BIENESTAR SOCIAL y ECONÓMICO
CONEXIÓN CON OTRAS REGIONES de las 4R
ECOLOGÍA = ECONOMÍA
PRESENTE
DESCARGA de INFORMACIÓN
"QUE TENEMOS"
- INTELIGENCIA COLECTIVA -
DESECHAMOS LO QUE NO NOS SIRVE
PRESENTE - FUTURO EMERGENTE
CRISTALIZACIÓN - ACCIÓN - MATERIALIZACIÓN
VISUALIZAMOS: QUÉ QUEREMOS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The 4 Returns framework provides stakeholders in and outside a landscape with a structured and systematic lens, that brings them together, while encouraging a long-term vision and focused action.

PROCESS: 5 ELEMENTS

Element	indicator	Status
LANDSCAPE PARTNERSHIP	Stakeholder map	→
	Multi stakeholder agreement	→
SHARED UNDERSTANDING	Nat/socl capital	→
	Drivers analysis	→
VISION & PLANNING	Vision	→
	Action plan	→
	Spacial plan	→
TAKING ACTION	Actions resourced	↻
	Effective implementation	→
IMPACT AND LEARNING	Monitoring system	↻
	Learning strategy	→

→ In place → Underway ↻ Adapted

IMPACT: 4 RETURNS

Returns	Indicator	Target	Status
INSPIRATION	No of members	<2.000	350
	No partnerships	<60	10
	Inspiration project	<10	3
SOCIAL	No. farmers in transition	1,600	180
	% Next generation farmers and local entrepreneurs	95	75
	% Farmers reporting high quality of life	50	36
NATURAL	Ha combined zone under restoration	<70K	14K
	% of priority eco-corridors under restoration	60%	5%
	Ton/yr of CO2 sequestration	86K	16K
FINANCIAL	Pipeline development	100	18
	4 Returns businesses	15	3

AREAS: 3 ZONES

Natural Zone - 575.000 ha
Combined Zone - 410.000 ha
Economic Zone - 15.000 ha

Source: Commonland 2021

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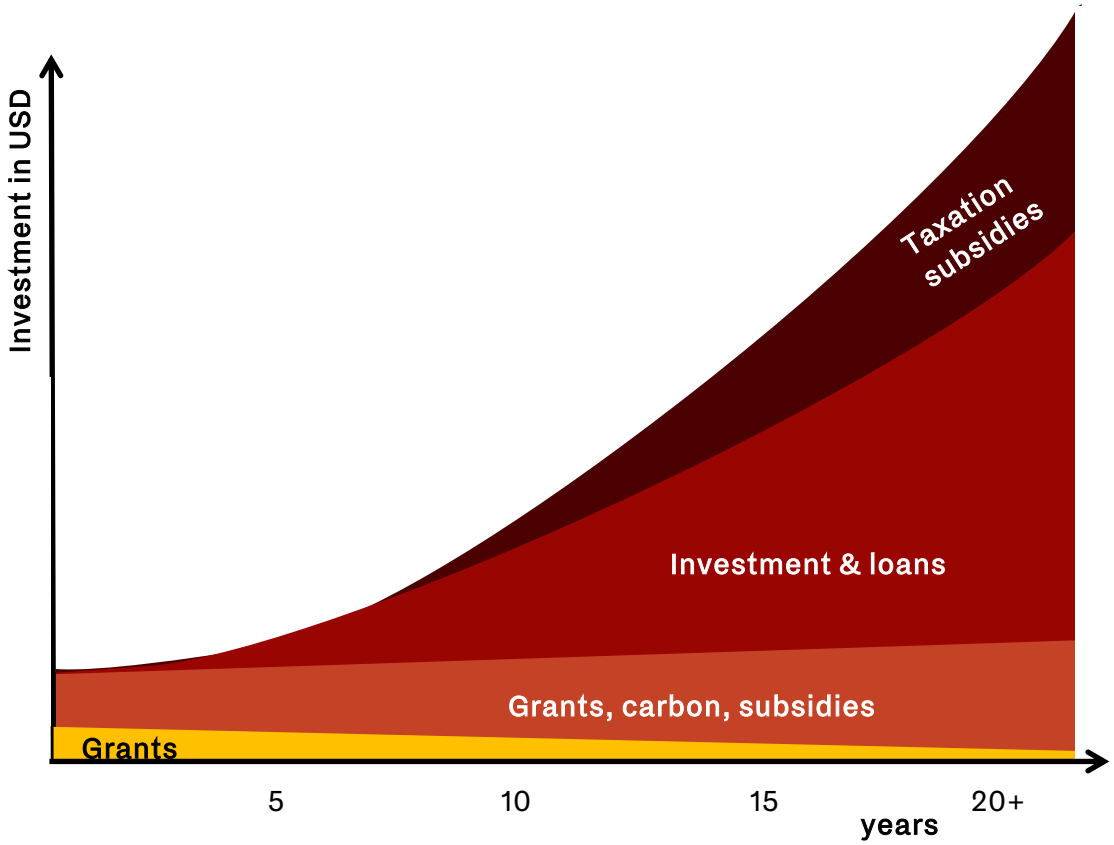
Carbon finance can accelerate landscape restoration



Size: 1 million hectares
Estimated blended finance need: USD 1b
Time horizon: 20-40 years

- Favorable policy environment
- Combined Zone (regen agr.): increase biodiversity & productivity; Economic Zone: sustainable processing
- Restore, Protect and Connect the Natural Zone
- Landscape partnerships

Source: Commonland 2022

Source: Gutierrez, V. et al. (2022). Recommendations on delivering the European Green Deal through landscape restoration: inspirational, social, natural and financial returns. A policy brief published by Commonland, the Landscape Finance Lab and others.

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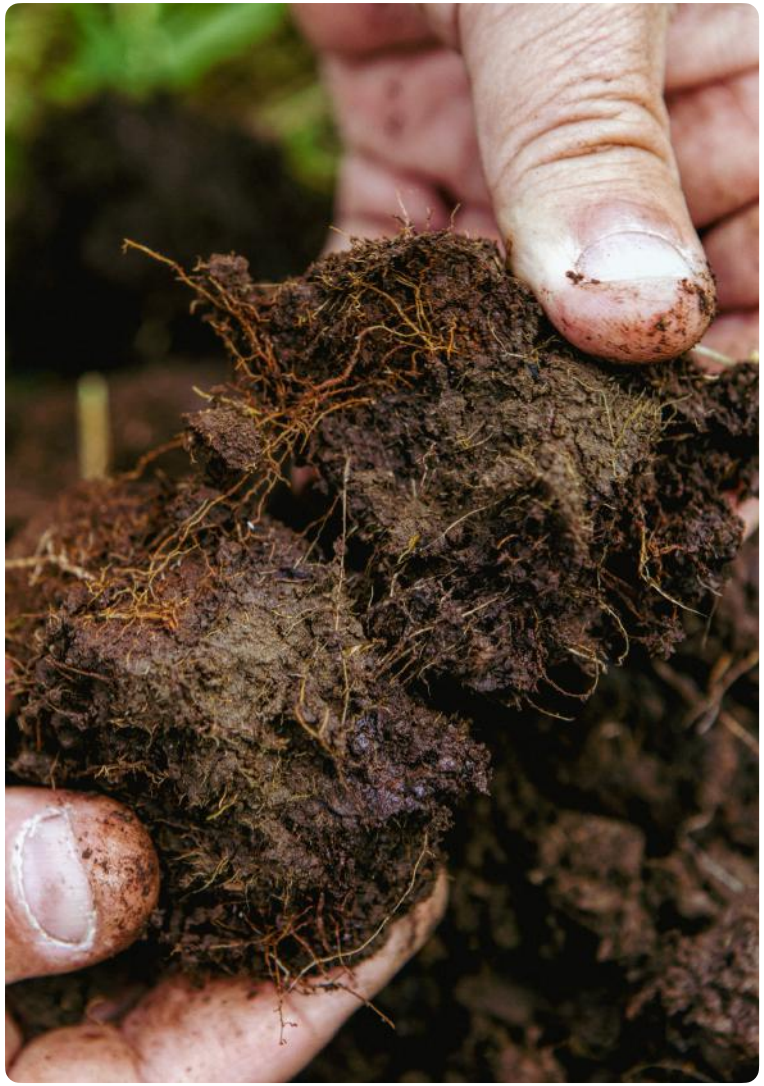
Resume

1. Carbon farming is not a panacea. It is part of the transformation, but only if maximising benefits for farmers, communities, and ecology is prioritised.

2. Voluntary Carbon Market with its Nature-Based Solutions (NBS) is an important source of Landscape Finance.

3. Minimising revenues for developers of carbon projects is necessary because it is not carbon but trust that is the most important currency.

4. Within Landscape Finance, carbon finance will provide access to the financial sector, and as such it will be an important tool to transform it.



The greatest mistake in the treatment of our landscapes is that there are physicians for agriculture and physicians for ecology, although the two cannot be separated.

-Free after Plato - 347 BC .

Further reading

"The 4 Returns Framework for landscape restoration is a practical and tested system-change framework that can be used by stakeholders to undertake a landscape approach. The "landscape approach" seeks to balance competing stakeholder demands in a mosaic of different management approaches, to supply a full range of inspirational, natural, social and economic returns. After years of testing, the 4 Returns Framework for restoring landscapes is building a sound concept that can go to scale. It will be a valuable tool to achieve the goals of the UN Decade on Ecosystem Restoration."

- Ms. Elizabeth Maruma Mrema,
  Executive Secretary of the UN Convention on Biological Diversity (at the start of the UN Decad on Ecosystem Restoration, June 2021)

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Thank you

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4 Returns for Healthy Landscapes

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