



# Planedo White Paper

## Executive Summary

Planedo is at the forefront of a new generation of carbon reduction solutions based on **scientific validation, blockchain transparency, and sustainable economics**. This white paper provides a comprehensive overview of Planedo's mission, technology, and advantages.

## Mission and Objectives

Planedo aims to establish a global standard platform for transparent, scientifically validated, and tamper-proof carbon reduction. By leveraging cutting-edge technologies and a solid legal foundation, Planedo creates a trusted basis for long-term and credible climate action.

## Key Innovations

### 1. Blockchain-Based Transparency

- Tamper-proof storage of all carbon reduction records
- Real-time verification for investors, companies, and regulators

### 2. AI-Supported Validation

- Efficient and precise review of submitted projects
- Automatic detection of anomalies and inconsistencies

### 3. Regulatory Compliance

- Conformity with MiCA regulations and other European standards
- Strict AML/KYC procedures to ensure legal and financial integrity

### 4. Social and Environmental Responsibility

- Supporting local communities through employment and education
- Promoting projects with long-term social and ecological impact

## Economic and Environmental Benefits

### • For Companies:

- Cost savings through energy efficiency
- Competitive advantage through verifiable climate neutrality
- Access to government funding and ESG investments

### • For Individuals:

- Ability to actively contribute to carbon reduction
- Long-term value creation through sustainable investments
- Additional income from selling validated carbon reductions

## Target Audience

Planedo is designed for companies, individuals, and governments seeking transparent, scientifically sound, and economically viable climate action. Whether you're a business aiming to offset emissions or an investor focusing on sustainable technologies—Planedo offers the transparency, security, and efficiency you need.

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## 1. Introduction

Planedo is an innovative platform that leverages blockchain technology and AI-powered validation to enable transparent and scientifically grounded CO<sub>2</sub> reduction. Our goal is to replace established standards such as Verra and the Gold Standard, which are increasingly viewed as opaque and ineffective. Planedo establishes a cooperative structure that allows both companies and individuals to actively participate in CO<sub>2</sub> reduction while benefiting financially.

### **Differentiation from Existing CO<sub>2</sub> Certificates**

The CO<sub>2</sub> certificate market is marked by uncertainty. Existing certificates, such as those issued by Verra or the Gold Standard, are frequently criticized for relying on hypothetical emission reductions or lacking reliable traceability. Planedo stands out by offering blockchain-based transparency and AI-assisted scientific validation, presenting itself as a credible and verifiable alternative.

Planedo provides a holistic solution by combining both short- and long-term CO<sub>2</sub> reduction measures in a decentralized and tamper-proof environment. This model ensures clear traceability of actual reductions and sets new standards in the market.

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## 2. Challenges in the Current CO<sub>2</sub> Market

The current voluntary CO<sub>2</sub> certificate market suffers from a lack of transparency, double counting, and questionable validation mechanisms. Established standards such as Verra and the Gold Standard have come under significant criticism for certifying ineffective or unrealized CO<sub>2</sub> reductions. Moreover, there is a lack of truly independent and scientifically robust mechanisms to validate emission savings.

### Lack of Transparency and Double Counting

Many existing CO<sub>2</sub> certificates are traded within systems that do not have unified oversight or audit mechanisms. As a result, the same emission reduction may be counted multiple times—a problem known as double counting. Since these certificates are often stored in closed registries, there is no global and transparent means of tracking actual emission savings.

### Criticism of Existing Standards

Organizations like Verra and the Gold Standard have become central players in the voluntary carbon market. However, there is growing doubt regarding the reliability of their certifications:

- **Lack of scientific validation:** Many certificates are based on model assumptions that are often not verified through real-world measurements.
- **Insufficient traceability:** Buyers often cannot ensure that the certificate they purchased corresponds to an actual CO<sub>2</sub> reduction.
- **No immutability:** Certificates can be deleted or modified retroactively, providing no long-term security for buyers.

### Lack of Scientific Validation

Another major issue in the current market is the absence of scientific rigor. Many CO<sub>2</sub> reduction projects are based on vague assumptions and long-term projections without reliable control mechanisms. This creates uncertainty for investors and companies who rely on these certificates.

The market needs a solution that guarantees full transparency, robust scientific validation, and tamper-proof storage of CO<sub>2</sub> reduction data. This is precisely where Planedo comes in

## 3. The Solution: Planedo and the CO<sub>2</sub> Validation Network

Planedo is built on a transparent, tamper-proof, and scientifically sound validation process for carbon reduction measures. By combining blockchain technology and AI-powered data analysis, the platform ensures that only genuine, verifiable emission reductions are recognized.

### AI-Supported Validation

A core component of the Planedo platform is the AI-supported analysis of carbon reduction projects. This includes:

- **Automated data processing:** Incoming project data is analyzed by AI for plausibility.
- **Scientific modeling:** Actual CO<sub>2</sub> reductions are cross-checked against scientific calculation models.
- **Real-time monitoring:** Sensor and satellite data are incorporated to detect and prevent manipulation.

This multi-step process ensures that only verified carbon reductions are integrated into the system.

### Blockchain for Transparency

Planedo utilizes a decentralized blockchain to provide an immutable record of all carbon reduction activities. Key features include:

- **Smart contracts:** Automated agreements that ensure proper processing of reduction data.
- **On-chain documentation:** Each validated carbon reduction is linked to a tamper-proof digital record.
- **Platform interoperability:** Planedo can integrate with existing environmental and carbon offset systems.

### Planedo as a New Carbon Validation Authority

Through its combination of scientific data analysis, automated AI validation, and blockchain infrastructure, Planedo sets a new benchmark for carbon certificates. The system enables full traceability, secure storage, and global transparency—making it a credible alternative to opaque systems like Verra and Gold Standard.

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## 4. Market Analysis & Competitive Landscape

### 1. The Global Carbon Offset Market

The carbon offset market is growing rapidly as companies and governments intensify their sustainability goals. In 2023, the voluntary carbon offset market reached approximately \$2 billion USD and is projected to grow to \$50 billion USD by 2030. However, it continues to suffer from:

- Lack of transparency (unclear certificate quality and double counting)

- Absence of scientific validation
- Insufficient regulation and oversight

Planedo directly addresses these issues by offering a reliable, tamper-proof, and scientifically grounded alternative.

## 2. Competitor Comparison: Planedo vs. Existing Systems

A comparative analysis highlights the strengths of the Planedo platform:

Criterion	Planedo	Verra	Gold Standard	EU-ETS
Blockchain-based traceability	✓ Yes	✗ No	✗ No	✗ No
AI-supported validation	✓ Yes	✗ No	✗ No	✗ No
Immutable CO <sub>2</sub> documentation	✓ Yes	✗ No	✗ No	✗ No
Tamper-proof security	✓ Yes	✗ No	✗ No	✗ No
Decentralized and transparent structure	✓ Yes	✗ No	✗ No	✗ No
Fraud-resistant data storage	✓ Yes	✗ No	✗ No	✗ No
MiCA regulatory compliance	✓ Yes	✗ Unclear	✗ Unclear	✓ Yes

### Conclusion:

- Verra and Gold Standard rely on centralized and often non-transparent certificate systems.
- The EU Emissions Trading System (EU-ETS) is state-regulated but only applies to large corporations.
- Planedo is the first fully transparent, blockchain-secured, and scientifically validated solution accessible to all market participants.

This analysis confirms that Planedo represents the next generation of carbon reduction verification. By integrating blockchain, AI, and scientific review, Planedo positions itself as a sustainable and trustworthy alternative to existing systems.

## 5. Planedo NFTs: A New Form of CO<sub>2</sub> Compensation

Planedo NFTs represent an innovative approach to documenting and validating CO<sub>2</sub> reductions. Unlike traditional carbon credits, they are transparent, tamper-proof, and verifiable.

### NFT Composition

Each Planedo NFT represents a bundle of scientifically validated CO<sub>2</sub> reduction measures:

- **30% Direct Air Capture (DAC):** Technological removal of CO<sub>2</sub> from the atmosphere.
- **20% Humus formation & ecological restoration:** Long-term carbon storage in soil.

- **20% Energy efficiency projects:** Reduction of future emissions through improved efficiency.
- **30% Other innovative reduction methods:** Emerging technologies with high mitigation potential.

This blend ensures that both short-term and long-term effects are taken into account.

## Advantages over Traditional CO<sub>2</sub> Certificates

Planedo NFTs offer significant advantages:

- **Tamper-proof:** All data is stored immutably on the blockchain.
- **Full transparency:** All origins and validations are publicly accessible.
- **No double counting:** Each NFT documents a single, unique reduction.
- **Scientific verification:** AI ensures only real reductions are accepted.

Planedo NFTs go beyond conventional certificates and offer a credible, user-friendly, and future-proof way for both companies and individuals to contribute to carbon reduction efforts.

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## 6. Cooperative Structure and Participation

Planedo is organized as a cooperative under Liechtenstein law to ensure sustainable and transparent governance. This structure enables both companies and individuals to participate in the platform and benefit from carbon reductions.

### Planedo as a Cooperative in Liechtenstein

The cooperative model offers several advantages:

- **Member participation:** Members help shape decisions that align with carbon reduction goals.
- **Long-term stability:** Unlike profit-oriented companies, Planedo prioritizes sustainable funding of climate initiatives.
- **Legal compliance:** The structure meets legal requirements in Liechtenstein and the EU.

### Investment Opportunities and Profit Sharing

Members can participate through different models:

- **Direct shareholding:** Members receive a share of the revenue from NFT sales.
- **Long-term value creation:** As demand for carbon reduction grows, the internal value of participation increases.

- **Transferability of shares:** Under certain conditions, cooperative shares can be sold to third parties.

## Long-Term Value Growth

Through ongoing development of carbon reduction projects and increasing demand for sustainable solutions, Planedo aims to achieve long-term value growth for all members. The cooperative remains fair and transparent to ensure that all participants benefit equally from its positive development.

## 7. Regulatory Classification & MiCA Compliance

Planedo complies with all regulatory requirements within the EU and ensures that its carbon reduction proofs are neither Asset-Referenced Tokens (ARTs) nor Security Tokens under the Markets in Crypto-Assets Regulation (MiCA). This guarantees legal certainty for companies and individuals using Planedo NFTs.

### Not Classified as ART or Security Token

Planedo NFTs are digital records of CO<sub>2</sub> reductions without any financial repayment obligation. They differ from regulated crypto-assets in the following ways:

- **No direct value claim:** NFTs represent documented carbon reductions but do not imply financial returns or investments.
- **No ownership of physical assets:** Planedo NFTs solely confirm environmental performance.
- **Transparency and traceability:** Full documentation of carbon reductions on the blockchain ensures protection from speculative or manipulative value fluctuations.

### Compliance with EU Regulations

Planedo strictly adheres to applicable legal frameworks, including:

- **EU MiCA Regulation:** The NFTs are not categorized as regulated crypto-assets and require no special license.
- **Anti-Money Laundering (AML) and Know Your Customer (KYC):** Identity checks are integrated for larger investments and corporate participation.
- **Environmental certificate transparency rules:** Planedo exceeds conventional carbon certification standards by providing tamper-proof traceability.

These measures ensure that Planedo remains EU-compliant and offers a safe, long-term solution for carbon reduction documentation.



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## 8. Technological Implementation: Blockchain Integration

Planedo utilizes blockchain technology to ensure transparency, immutability, and traceability of all carbon reduction activities. The integration consists of several core components that guarantee secure and tamper-free documentation.

### Smart Contracts for Carbon Reduction Documentation

Planedo uses smart contracts to automatically validate and record every carbon reduction activity. These contracts ensure:

- **Automated carbon proof:** Each verified action is instantly documented on the blockchain.
- **Tamper resistance:** Immutable storage prevents manipulation or retroactive changes.
- **Transparent transaction history:** All stakeholders can trace the origin and validation of each carbon reduction.

### On-Chain Transparency and Decentralized Storage

To guarantee long-term, unchangeable documentation of reduction data, Planedo combines on-chain storage with decentralized technologies:

- **Carbon values are linked to the blockchain**, ensuring permanent verifiability.
- **Decentralized storage via IPFS (InterPlanetary File System)** ensures scientific data and documents remain independent of centralized systems.
- **Access for companies and individuals** allows verification of each carbon reduction proof at any time.

### Automated Validation via Oracles

Planedo integrates oracles to securely transfer external data to the blockchain. These interfaces allow:

- **Real-time sensor data** from CO<sub>2</sub> monitoring systems.
- **Satellite images and scientific models** as inputs for AI-supported validation.
- **Automated CO<sub>2</sub> validation** through independent data processing.

This technology stack ensures that all carbon reductions are scientifically verified, transparently documented, and permanently traceable.

## 9. Case Studies in CO<sub>2</sub> Validation

To demonstrate the effectiveness of Planedo's validation methods, the following real-world case studies are presented. These examples show how scientific validation, blockchain transparency, and AI-driven review contribute to secure and tamper-proof carbon reductions.

### Case Study 1: Direct Air Capture (DAC) in Germany

A leading Direct Air Capture (DAC) company uses Planedo to document its CO<sub>2</sub> removal processes. The reductions are validated through:

- **Direct measurement data** from DAC facilities.
- **Comparison with independent scientific studies** to confirm reduction rates.
- **On-chain documentation** to eliminate tampering.

**Result:** DAC systems achieved complete traceability and real-time verification through Planedo, providing high security for investors and customers.

### Case Study 2: Humus Formation & Ecological Restoration in Spain

A Spanish restoration project uses Planedo to validate carbon storage in soils. Reductions are verified using:

- **Satellite imagery and soil analysis** to assess humus development and carbon sequestration.
- **AI-powered calculations** of long-term CO<sub>2</sub> storage based on soil samples and historical data.
- **Blockchain-based traceability** to prevent double counting.

**Result:** Restoration measures were proven effective with scientific accuracy. Planedo ensured tamper-proof validation and transparent documentation of carbon sequestration.

### Case Study 3: Energy Efficiency Projects in the Netherlands

A large Dutch company implemented energy efficiency measures, significantly reducing CO<sub>2</sub> emissions. Planedo validated the savings using:

- **Smart meter data analysis** comparing energy consumption before and after implementation.
- **Integration of external energy data** for independent verification.
- **Blockchain-certified carbon documentation** to prove compliance with sustainability targets.

**Result:** Verifiable energy savings led to measurable and credible CO<sub>2</sub> reductions that investors and companies could use as reliable compensation proofs.

These case studies demonstrate how Planedo achieves a new level of CO<sub>2</sub> reduction assurance through a combination of scientific validation, AI analytics, and blockchain technology.

## 10. Use Cases for Companies & Individuals

### 1. Use Cases for Companies

Companies are under increasing pressure to implement sustainable measures and offset their carbon emissions. Planedo offers an innovative solution to help them achieve their climate goals.

#### 1.1 Carbon Neutrality for Companies

Companies can purchase Planedo NFTs to offset their emissions while ensuring transparent, tamper-proof tracking of reductions. This offers:

- **Certified carbon offsets** with verifiable documentation
- **Brand enhancement and reputation gains** through sustainable action
- **Fulfillment of ESG requirements** for regulatory sustainability reporting

#### 1.2 Tax Deductibility, Accounting & Intangible Assets

Many companies aim to make their sustainability efforts tax-deductible. Planedo NFTs can be recorded as intangible assets in financial statements and provide a legal basis for tax-acknowledged CO<sub>2</sub> reductions:

- **Classified as business expenses or intangible assets**
- **Used for CSR and ESG reporting**, allowing tax deductions
- **Recognized climate actions for corporate taxation strategies**

#### 1.3 Sustainable Supply Chains & Scope 3 Emissions

Planedo helps companies improve carbon tracking across their supply chains. With Planedo NFTs, they can:

- **Reduce emissions throughout their value chain**
- **Choose sustainable partners and suppliers**
- **Ensure climate-neutral production and logistics**

#### 1.4 Offsetting Business Travel, Employee Programs & Tax-Free Benefits

Companies often offset travel and employee-related emissions using carbon credits. Planedo NFTs can also serve as tax-neutral employee benefits to encourage sustainability:

- **Offset air and car travel directly**
- **Provide CO<sub>2</sub>-NFT benefits to staff**, such as eco-friendly bonuses or allowances
- **Incorporate CO<sub>2</sub> reductions into ESG and employee incentive strategies**

## 1.5 Validation & Sale of In-House Climate Projects for Planedo NFTs

Companies can validate or sell their own climate projects through Planedo to generate their own carbon-backed NFTs. This option is also available for individuals who carry out sustainable actions:

- **Monetize verified sustainability initiatives**
- **Gain official recognition of internal reduction efforts**
- **Sell or use carbon records to improve corporate carbon accounting**

## 2. Use Cases for Individuals

Individuals can actively reduce their carbon footprint using Planedo NFTs.

### 2.1 Everyday Carbon Offsetting

Individuals can purchase Planedo NFTs to offset personal emissions such as:

- **Driving and air travel**
- **Electricity and heating use**
- **Supporting verified sustainability projects**

### 2.2 Sustainable Investment in CO<sub>2</sub> Reduction

Planedo NFTs represent long-term investment opportunities in environmental innovation. Users benefit from:

- **Value growth driven by rising demand for carbon offsets**
- **Support for cutting-edge climate technologies**
- **Sustainable investments with measurable environmental returns**

### 2.3 Validation & Sale of Individual Climate Projects

Those practicing personal sustainability can submit and validate their own CO<sub>2</sub> reductions. These efforts can be turned into NFTs:

- **Earn income by selling validated carbon reductions**
- **Use NFTs as official carbon credentials**
- **Enhance your personal climate impact or contribute to companies' footprints**

### 2.4 Community Engagement & Rewards

Planedo allows users to participate in the climate movement and earn NFT-based recognition:

- **Join green initiatives and community efforts**
- **Earn NFTs for climate-positive behavior**
- **Track and share your personal CO<sub>2</sub> footprint transparently**

### 3. Planedo as an Investor in Carbon Reduction & Innovation

Beyond purchasing reduction credits, Planedo actively invests in future-oriented sustainability solutions. Startups and companies with new CO<sub>2</sub>-reduction methods can receive funding, with reductions feeding into the NFT system:

- **Funding for high-potential climate tech**
- **Equity participation in green startups**
- **Incorporation of investment-based reductions into the NFT framework**

Planedo opens new, transparent, and efficient avenues for both individuals and businesses to implement meaningful climate action.

## 11. Long-Term Vision and Roadmap

Planedo follows a clear long-term vision: to establish a globally recognized platform for CO<sub>2</sub> reduction that combines transparency, scientific credibility, and scalability.

### 1. Milestones for the Next Five Years

#### Year 1–2: Establishing the Foundation

- **Expansion of the NFT Portfolio:** Integration of new, demonstrably effective CO<sub>2</sub> reduction methods such as advanced biotechnologies and innovative Direct Air Capture (DAC) solutions.
- **Blockchain Architecture Optimization:** Introduction of a proprietary Layer-2 solution to reduce transaction costs and enhance speed.
- **Development of a Robust Partner Network:** Collaborations with leading scientific institutions, NGOs, and sustainable enterprises.

#### Year 3–4: International Expansion

- **Market Entry in North America and Asia:** Adapting legal and technical frameworks to operate in new markets.
- **Integration of Additional Currencies and Payment Methods:** Enhanced user experience through support for local currencies and additional cryptocurrencies.
- **Development of a Global CO<sub>2</sub> Reduction Network:** Establishment of a global ecosystem of validated climate projects offering users a wide range of verified options.

#### Year 5: Cross-Industry Establishment

- **Planedo as a Standard for CO<sub>2</sub> Reduction Validation:** Recognition by regulatory bodies and standards organizations as a scientifically robust and transparent platform.

- **Promotion of New Technologies:** Investment in emerging carbon removal technologies expected to become critical in the coming decades.
- **Long-Term Partnerships:** Signing of multi-year contracts with major corporations and governments for ongoing CO<sub>2</sub> reduction.

## 2. Vision 2030: A Global CO<sub>2</sub> Validation Standard

By 2030, Planedo aims to become the world's leading authority in CO<sub>2</sub> reduction validation and documentation. The goal is not only to offer a transparent, tamper-proof platform for companies and individuals but also to:

- **Radically improve transparency** in global carbon markets.
- **Create a global movement** for climate-focused technology and sustainable investment.
- **Make carbon reduction accessible, verifiable, and cost-efficient** for all stakeholders.

Planedo will become a reliable bridge between climate protection and the global economy by offering a platform that is sustainable, efficient, and transparent in equal measure.

# 12. Economic Impact and Market Opportunities

## 1. Economic Benefits for Companies

The integration of Planedo NFTs offers companies not only ecological but also tangible economic advantages:

- **Cost Savings through Efficiency:** Energy efficiency and sustainable production methods help reduce operational costs in the long term.
- **Increased Competitiveness:** Companies that demonstrably operate CO<sub>2</sub>-neutrally enhance their brand and improve their market position.
- **Tax Advantages and Subsidies:** The use of Planedo NFTs and their associated CO<sub>2</sub> reductions enable access to tax incentives and government support programs.
- **Attractiveness to Investors:** Sustainable business practices and participation in the Planedo ecosystem appeal to ESG investors focused on environmentally responsible companies.

## 2. New Market Opportunities for Individuals

Private individuals also benefit from the economic opportunities offered by Planedo:

- **Long-Term NFT Value Growth:** Planedo NFTs, based on scientifically validated CO<sub>2</sub> reduction measures, offer a stable and reliable foundation for sustainable investment.

- **Participation in the Climate Market:** By acquiring and using Planedo NFTs, individuals can actively engage in the growing CO<sub>2</sub> compensation market, gaining both ecological and economic benefits.
- **Additional Income Streams:** Individuals who carry out their own climate protection projects can have them validated through Planedo and sell their CO<sub>2</sub> reductions at attractive rates.

### 3. Global Market Growth Potential

The global carbon compensation market is expanding rapidly, and Planedo is well-positioned to take advantage of this trend:

- **Rising Demand for Credible CO<sub>2</sub> Certificates:** With the growing importance of carbon neutrality, companies and governments are seeking reliable, tamper-proof, and scientifically sound solutions—exactly what Planedo delivers.
- **Expansion into New Sectors:** Beyond energy and agriculture, there is potential to enter industries such as transportation, construction, and digital services.
- **Partnerships with Major Corporations:** Long-term collaborations with global enterprises will provide Planedo access to new markets and resources.

### 4. Sustainable Economic Participation

Planedo enables not only investors but also the general public to participate in the economic opportunities of climate protection:

- **Fair Access:** Thanks to the NFT-based approach, people can participate regardless of their financial background and benefit from climate action.
- **Stability and Planning Security:** With a fixed price of €200 per ton of CO<sub>2</sub>, Planedo provides a stable foundation for long-term investments.
- **Positive Feedback Effects:** Revenues from NFT sales are directly reinvested into new CO<sub>2</sub> reduction projects, reinforcing the platform's economic foundation.

## 13. Ethical and Social Responsibility

Planedo places great importance on the ethical, transparent, and socially just implementation of CO<sub>2</sub> reduction projects. The platform supports measures that offer both environmental and social benefits to promote a sustainable and fair future.

### 1. Supporting Local Communities

Many of the projects supported by Planedo generate economic and social advantages for local communities:

- **Jobs in Sustainable Sectors:** CO<sub>2</sub> reduction projects like humus formation, reforestation, and regenerative agriculture create stable, long-term employment opportunities.

- **Strengthening Local Economies:** Local supply chains are promoted by sourcing materials and services regionally.
- **Education and Knowledge Transfer:** Through the adoption of sustainable technologies and farming methods, communities learn to use resources more efficiently and environmentally.

## 2. Transparency and Fairness

Planedo relies on tamper-proof blockchain documentation to ensure that:

- **Each CO<sub>2</sub> reduction is uniquely assigned and verifiable.**
- **Double counting is prevented.**
- **Benefits are fairly distributed,** so those who actually implement the CO<sub>2</sub> reductions directly benefit.

## 3. Promoting Global Climate Justice

Planedo helps distribute the responsibility for climate protection more equitably. Companies and individuals in industrialized countries with larger ecological footprints can support projects in high-impact regions through Planedo NFTs. This helps:

- **Reduce inequalities in climate financing access.**
- **Empower developing countries in their sustainable transition.**
- **Achieve global emissions reduction goals more efficiently.**

## 4. Long-Term Social Impact

Planedo invests in projects that not only achieve short-term emissions reductions but also lead to long-term social improvements:

- **Improved Food Security:** Through regenerative agriculture.
- **Restoration of Degraded Ecosystems:** Providing communities with protection against natural disasters.
- **Long-Term Climate Stability:** By building humus layers and storing CO<sub>2</sub> in the soil.

With its focus on ethical and social responsibility, Planedo ensures that every invested euro not only improves the global CO<sub>2</sub> balance but also strengthens people and communities in a sustainable way.

# 14. Technological and Data-Based Validation

Planedo employs a combination of advanced technologies and scientifically validated methods to ensure that each CO<sub>2</sub> reduction is accurately documented. This approach guarantees maximum transparency and credibility for all stakeholders.



## 1. Blockchain-Based Transparency

All CO<sub>2</sub> reduction data is stored on a public blockchain. This technology offers:

- **Tamper-Proof Storage:** Once entered, data cannot be altered.
- **Traceable Origin:** Every step of the CO<sub>2</sub> reduction is transparent and traceable.
- **Simple Verification:** Investors, companies, and regulators can verify reduction records in real-time.

## 2. AI-Driven Analysis

Planedo uses Artificial Intelligence (AI) to verify the quality and integrity of CO<sub>2</sub> reduction projects:

- **Automated Validation:** AI algorithms assess submitted data against scientific standards.
- **Anomaly Detection:** Machine learning identifies irregularities and potential data errors.
- **Efficiency Gains:** The use of AI reduces manual effort and speeds up the validation process.

## 3. Integration of IoT Sensors and Real-Time Data

To ensure that CO<sub>2</sub> reductions are actually occurring, Planedo incorporates cutting-edge IoT technology:

- **Direct Data Transmission:** Sensors in CO<sub>2</sub> reduction facilities, such as DAC stations or agricultural projects, continuously send data to the platform.
- **Real-Time Measurement:** Live data on CO<sub>2</sub> removal or storage allows for immediate validation and tracking.
- **Accurate Verification:** IoT technology enables external auditors to access up-to-date measurement data anytime.

## 4. Scientific Validation

In addition to technological methods, Planedo's validation process adheres to strict scientific standards:

- **External Certification:** Independent research institutions and universities review underlying data and methodologies.
- **Long-Term Studies:** Multi-year data collection confirms sustained CO<sub>2</sub> reductions.
- **Peer Review Process:** Results are regularly evaluated by external experts to ensure the highest scientific integrity.

## Conclusion

Planedo combines blockchain technology, AI, and scientific expertise to create a unique validation framework. This process not only guarantees transparency and credibility but also sets new benchmarks for documenting and verifying CO<sub>2</sub> reductions.

## 15. Pricing of Planedo NFTs

### Why Does a Planedo NFT Cost €200? — A New Value Basis for Climate Protection

#### 1. CO<sub>2</sub> Reduction as a New Currency for the Planet

Instead of viewing CO<sub>2</sub> solely as a cost factor, Planedo adopts a new valuation model based on the real, physical effect of carbon reduction. The price of €200 per ton of CO<sub>2</sub> is not an arbitrary market value but a transparent calculation of the actual effort required to permanently reduce emissions.

#### 2. Climate Protection as a Tangible, Tradable Asset

Unlike inflation-prone fiat currencies that are devalued by monetary policy and market forces, a Planedo NFT represents a real asset. It reflects verified emissions reduction validated through AI and documented with blockchain-secured transparency.

#### 3. Fixed Price for Long-Term Stability & Comparability

While many carbon credits fluctuate with speculative markets, the Planedo NFT remains stable and predictable:

- **Valuation is based on real CO<sub>2</sub> reductions**—not speculation.
- **Companies and individuals receive a reliable, fair price.**
- **Price volatility from traditional financial markets has no impact on climate action.**

#### 4. Planedo Uses Capital as a Means, Not an End

Planedo uses fiat currency purely as a means to implement tangible climate projects, not as a value benchmark. 70% of revenue is directly invested in CO<sub>2</sub> reduction initiatives, including:

- **✓ Direct Air Capture (DAC)** – Active removal of CO<sub>2</sub> from the atmosphere
- **✓ Ecological restoration & humus formation** – Long-term carbon storage in ecosystems
- **✓ Energy efficiency measures** – Prevention of future emissions

The €200 per NFT is not a speculative financial value but a direct investment in measurable climate protection.

#### Why a Verifiable Price Per Ton of CO<sub>2</sub> Matters

The carbon market is riddled with uncertainty, speculation, and questionable methodologies. Many companies buy cheap carbon credits to appear climate-neutral, without actually removing CO<sub>2</sub> from the atmosphere.

Planedo instead commits to a clearly defined, verifiable price for every ton of CO<sub>2</sub> that is genuinely reduced or removed.

## Why Are Many Carbon Credits Cheaper Than €200?

Many low-cost certificates are based on **emission avoidance**, not actual CO<sub>2</sub> removal:

- Avoidance credits (e.g., Verra or Gold Standard) finance projects that prevent emissions that might have occurred. These include:
  - Protecting rainforests (which might otherwise be logged)
  - Distributing efficient cookstoves that burn less wood
  - Capturing methane from landfills

While such projects can be beneficial, they face two major issues:

1. **They prevent emissions but don't remove existing CO<sub>2</sub>.**
2. **They rely on hypothetical scenarios that are difficult to verify.**

## How Do Government Carbon Credits Differ?

State-regulated credits (e.g., the EU Emissions Trading System) present another set of challenges:

- Operate on a cap-and-trade system where companies must buy permits.
- Prices are highly volatile and subject to political influence.
- Large polluters often receive free credits, while smaller businesses and individuals lack access.
- Focused more on emission rights than actual CO<sub>2</sub> removal—more regulation than climate action.

## Why €200 Is a Reasonable Real Price

Planedo exclusively finances initiatives that **actively remove CO<sub>2</sub>** from the air or **prevent future emissions**, including:

- **Direct Air Capture (DAC):** CO<sub>2</sub> is filtered directly from ambient air and permanently stored.
- **Humus Formation & Ecological Restoration:** Long-term binding of CO<sub>2</sub> in soil and biomass.
- **Energy Efficiency:** Future emission reductions through sustainable technologies.

These methods have real costs, far exceeding the typical €5–€50 per ton associated with cheap avoidance credits. Real carbon removal isn't free—it demands:

- **Technological deployment:** DAC facilities, reforestation, humus-building, and regenerative agriculture.

- **Long-term storage:** CO<sub>2</sub> must be safely sequestered for decades, not just temporarily.
- **Transparent tracking:** Planedo leverages blockchain technology to record each verified reduction or removal.

## Why Planedo Sets a Fixed CO<sub>2</sub> Price Instead of Letting the Market Decide

The €200 price is **not influenced by speculation** but reflects **true long-term carbon reduction costs**.

- Prevents carbon credits from becoming volatile speculative assets.
- Buyers acquire a **provable climate asset**, not a financial instrument.

**Carbon reduction is the true value of the future — Planedo establishes this as the new standard of valuation.**

## 16. Conclusion

Planedo is setting new standards in carbon reduction by combining scientifically validated methods, blockchain transparency, and a sustainable funding structure. This innovative platform offers a reliable alternative to existing carbon credit systems, which often rely on ambiguous or speculative calculations.

### 1. A Scientifically Validated and Transparent Alternative

- **Planedo ensures verifiable, auditable, and tamper-proof CO<sub>2</sub> reductions.**
- **Real-time monitoring and documentation of reduction measures via AI and IoT sensors.**
- **Blockchain technology guarantees permanent traceability of every reduction.**

### 2. Sustainable Funding and Economic Viability

- **70% of proceeds are reinvested directly into CO<sub>2</sub> reduction measures.**
- **A fixed price of €200 per ton of CO<sub>2</sub> supports realistic climate finance.**
- **Offers companies and individuals long-term planning security and value stability.**

### 3. Social and Economic Benefits

- **Empowering local communities through sustainable project support.**
- **Ethical, transparent climate solutions that prevent greenwashing.**
- **Attractive market opportunities for companies seeking credible climate compensation.**



#### **4. Planedo as the Future Standard for Carbon Reduction**

- **Combining technological innovation, regulatory compliance, and economic sustainability, Planedo is becoming the trusted platform for long-term climate strategies.**
- **Planedo's aim is to become the globally recognized standard for transparent and tamper-proof carbon certification.**
- **With ongoing development and scaling, Planedo will make a significant contribution to achieving global climate goals.**

#### **Final Statement**

Planedo unites scientific credibility, technological innovation, and economic sustainability to create an effective and transparent solution for carbon reduction. The platform empowers companies, investors, and individuals to actively contribute to climate action while benefiting from a sustainable economic model.