Right-Sizing for Impact: Tailored Impact Measurement & Strategic Data for Early-Stage Ventures

A Case Study on Vanagon Ventures' impact measurement methodology.

Why a balanced approach at Pre-Seed Stage matters.

This whitepaper examines Vanagon's science-based methodology for impact measurement and reporting within the context of early-stage venture capital. It focuses on the integration of the Twin Transition and the evolution of impact standards.

The paper outlines how Vanagon's customised framework, designed to balance feasibility and meaningfulness, addresses the challenges of assessing impact measurement in early-stage startups while aligning with emerging impact investment practices and strong business performance potential.

> WHITEPAPER BY Beate Fleps & Vanagon Ventures



How can early-stage investors implement tailored impact measurement approaches that strategically gather the right data, without overburdening pre-seed startups?

Navigating the New Frontier of Impact Investing

The impact investing sector is experiencing a period of rapid growth, with over \$1.1 trillion currently under management.¹

An increasing number of investors are seeking opportunities that combine financial returns with tangible sustainability outcomes.

This whitepaper addresses a critical question: How can early-stage investors implement tailored impact measurement approaches that strategically gather the right data, without overburdening pre-seed startups?

Recent studies indicate that impact investing is on a path of becoming the new standard.² The 2022 Institutional Investor Study by Schroders reveals that 48% of institutional investors now prefer impact investing for sustainability, representing a 10% increase from the previous year, with Europe reaching 50%.³ With 95%, the vast majority of experienced investors believe that shareholders should drive sustainability.

This makes it increasingly challenging for funds that ignore these aspects when attracting investors.

Vanagon, as an SFDR Article 8+ fund, is well positioned to address the above question due to its concentration on the digital green transition, the socalled "Twin Transition". The Twin Transition refers to the simultaneous pursuit of environmental sustainability and digital transformation, enabling businesses to achieve measurable impact while driving technological innovation.

Vanagon's investment thesis focuses on digital deeptech solutions accelerating the creation of a regenerative and circular economy. This paper will detail the development of a customised methodology based on IRIS+ and SDG Impact Standards. The methodology integrates business KPIs as well as startup-specific and standardised impact metrics, and ensures a comprehensive evaluation and reporting of investment impacts.

The subsequent sections will address how these methodologies respond to Vanagon's key theses. These include the normalisation of impact investing, the distinction between ESG and impact, the feasibility of measurement, and the evolution of impact reporting.



Evaluating Impact: Standards and Systems

A review of existing scientific and practical literature reveals a multitude of frameworks and impact metrics for measuring and managing impact.

This variety highlights the advances made in the field but also the absence of a universal standard and indicates ongoing efforts to refine impact measurement.⁴

We are currently at the onset of the Twin Transition, the digital and green mega transformation driven by frontier technologies such as artificial intelligence, advanced IoT, and distributed ledger technologies. These developments are driving a much-needed shift in our economy from extractive and linear business models to regenerative and circular ones.

In its 1972 publication, "The Limits to Growth", the Club of Rome already diagnosed more than 50 years ago that our economic system is fragile because it is linear and extractive.⁵ In order to become resilient, our economy has to become regenerative and circular. This offers significant economic opportunities while addressing pressing global challenges.

Investing in Twin Transition business models is a form of impact investing as it involves achieving measurable positive outcomes towards driving the creation of an economy within planetary boundaries alongside financial returns. This kind of impact investing is expected to become the new standard of investing.

Vanagon anticipates this development and is designing a tailored methodology that balances impact and financial performance. As part of the Twin Transition, software plays a pivotal role as a key enabling technology as it drives the transformation of our physical world, serving as a catalyst for hardware and other real world innovations. Software builds on decades of advancements - from the beginnings of the Internet to AI and the machine economy - allowing in climate tech, the development of tools that enhance distribution, customization, interconnection, education, efficiency, transparency and financing within the green transformation.

However, quantifying software's impact remains challenging due to its indirect effects and the complexity of outcomes it enables.⁶ Unlike hardware or direct interventions, software often facilitates improvements across interconnected systems, making it difficult to isolate and measure its specific environmental contributions. Even major funds conducting Life Cycle Assessments (LCAs) struggle to measure the precise impact of software solutions, as their enabling potential often drives value in ways that are hard to quantify.

MRV (Measuring, Reporting, and Verification) software is sometimes seen as an exception, as it directly quantifies client-related impacts.⁷

Yet, even here, the broader environmental impact of its use can be difficult to evaluate. However, while MRV solutions create transparency through data, which undoubtedly constitutes a massive enabler for managing and outcome-based financing of related activities, it is difficult to quantify this impact created by the use of such MRV solutions. As a result, pragmatic approaches are needed. For instance, for enabling software startups with a genuine impact mission, a qualitative impact description in combination with quantitative business KPIs such as revenue and client numbers can reflect the growing effectiveness of their solutions to sustainability goals.

Based on Vanagon's insights and experience, as well as findings from recent reports, their thesis is that impact investing will become the new normal.⁸

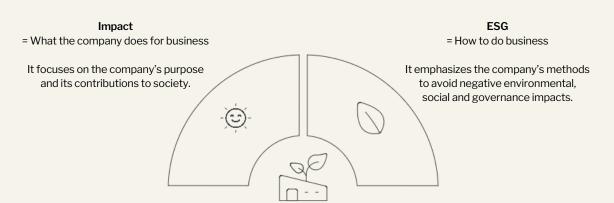
Impact investing goes beyond traditional ESG metrics, which are designed to mitigate risks, by actively seeking to generate positive social and environmental outcomes.

While still often mixed up by investors, ESG vs. Impact demonstrates a clear distinction: whereas ESG metrics are centred on risk management, impact investing is geared towards generating quantifiable favourable outcomes.

Systems like IRIS+ facilitate this by providing a comprehensive framework for measuring social and environmental performance in alignment with the SDGs.⁹ It is a set of tools and guidelines from the Global Impact Investing Network (GIIN) that seeks to translate impact intentions into measurable outcomes.

However, IRIS+ presents certain challenges for earlystage startups, primarily due to its complexity and the extensive resources required for implementation.

Difference between ESG and Impact



Furthermore, it is crucial to assess the **feasibility of impact measurement** in early-stage technology startups. Traditional frameworks can be overly complex and resource-intensive, making it essential to develop tailored, more efficient evaluation methods.

To address these challenges effectively, it is essential to implement streamlined approaches in order to achieve an appropriate balance between effort and the quality of the data produced.

For example, the World Bank Group has reduced the number of indicators in its impact measurement framework from 150 to 22, reflecting a shift towards more practical metrics.¹⁰ Vanagon's objective was to maintain this balance by aligning with new standards while managing reporting effort and relevance, particularly given the early stage of their startups.

As a result, Vanagon's approach to **Impact Reporting** is organised into distinct areas:

- 1) Core business metrics as well as customised impact KPIs reported quarterly
- 2) Impact metrics aligned with SDGs and Planetary Boundaries

All impact metrics are defined in the due diligence process. These metrics will be complemented by ESG reporting in compliance with SFDR Article 8+ standards.

This approach aims to ensure transparency, comparability and compliance while keeping reporting **efforts manageable and reportings meaningful.**



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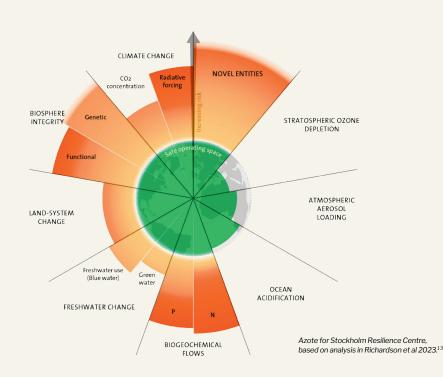
The *Scientific* Background

Vanagon's approach to impact measurement is grounded in a scientific process.

The creation of a tailored taxonomy to classify earlystage startups required a detailed, iterative approach. Initially, this taxonomy was based on the method outlined by Nickerson, one of the established standard approaches for taxonomy development, and was adapted to navigate the unique complexities of early-stage ventures.¹¹ This approach incorporated feedback from various experts, including investment advisors, venture capital partners, and startup founders.

Semi-structured interviews with these experts helped refine the taxonomy for comprehensibility and applicability. Additionally, feedback sessions with startups ensured that the taxonomy accurately captured their nature-positive potential. This iterative development process confirmed the relevance and utility of the taxonomy for assessing impact in earlystage investments. The development of Vanagon's taxonomy emphasises the importance of aligning impact investment theses with specific Sustainable Development Goals (SDGs) as well as the Planetary **Boundaries** framework developed by Johan Rockström and a group of 28 internationally renowned scientists.12

This supports a clear vision of the fund and establishes transparent and standardised criteria for evaluating the impact potential of startups. This methodology integrates scientific insights with practical considerations, ensuring that the impact measurement process is both rigorous and applicable to the unique needs of early-stage technology startups.





The methodology, presented in this whitepaper, was developed as part of an academic collaboration and featured in a scientific paper created at the Munich University of Applied Sciences, combining innovative research with practical insights.

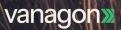
Conducted by Beate Fleps and reviewed by Professor Markus Thimmel, this scientific work laid the foundation for a structured and actionable framework designed to evaluate nature-positive potential in startups. Vanagon's involvement ensured that the model was grounded in real-world applicability, providing invaluable support to refine and implement the framework. Building upon these foundational insights, the collaboration seamlessly bridged academic research and practical application. This whitepaper translates these combined efforts into actionable strategies tailored for the impact investment field, offering a blueprint for aligning early-stage investment practices with sustainability and value creation.

The following chapter shows how the developed taxonomy is applied in practice at Vanagon. The taxonomy has been integrated into existing processes to improve the effectiveness of impact measurement for early-stage investments.

The result is Vanagon's customised impact measurement methodology.



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What is the *result* of this process?

Impact Measurement and Evaluation at Vanagon

Vanagon utilises a dual approach for measuring and evaluating the impact of their investments, distinguishing between **One-Time Impact Key Metrics and Ongoing Impact Key Metrics.**

This system is embedded into the due diligence process and subsequent monitoring phases. Initially, one-time metrics are determined to inform investment decisions or profile startups that are already part of the portfolio. These metrics are pivotal for understanding the founding motivation and vision of the startup, the enabling focus, the type of technology used, and the geographic limitations of the impact.

Moreover, they encompass the primary and secondary Sustainable Development Goals and Planetary Boundaries targeted, a qualitative description of the impact, and the establishment of custom quantitative impact goals.

This comprehensive initial evaluation is vital for aligning the startup's vision and technological potential with Vanagon's impact thesis and investment strategy.



Founding Motivation & Vision

Evaluates the founding team's intrinsic motivation by discussing their original purpose and drive for starting the company.

This assessment includes interviewing the founders to align their personal and professional goals with Vanagon's broader mission, ensuring that the impact startup is genuinely committed to solving real-world problems and not just focused on profit.

Type of Impact Enablement

Classifies the general type of enablement the software is intended to provide to drive impact i.e. finance (funneling funds towards an impact area), transparency (creating transparency via data), efficiency (e.g. reducing emissions and pollution, speeding up progress) or education (creating awareness / knowledge for a specific impact field).

Type of Technology Used

Assesses the innovative nature and market potential of the technology employed by the startup.

Vanagon examines whether the technology offers a sustainable and nature-positive solution within its sector, ensuring it contributes effectively to the fund's impact objectives and stands out in a competitive market landscape.

Is the Impact Geographically Limited?

Determines the reach of the startup's impact by evaluating whether their initiatives are confined to a specific region or have a broader scope.

This understanding helps Vanagon to identify how the startup fits into their overall impact strategy and whether it addresses the needs of underserved communities in different geographic areas.

Planetary Boundaries

Evaluates in which categories the startup's activities help reduce the strain on the Earth's ecological limits, focusing on areas like biodiversity, climate, and resource use.

The framework provides a more granular yet standardised view on planet-positive impact.

Primary & Secondary SDG Goals

Identifies which Sustainable Development Goals the startup aims to address as primary and secondary targets.

Using the IRIS+ framework, Vanagon facilitates a structured impact-reporting process, which allows for a clear comparison between the startup's impact goals and those set by the fund, ensuring a coherent strategy towards achieving the SDGs.

Qualitative Description of Impact

Encourages startups to provide a narrative on how their business model generates positive outcomes for society and the environment.

This qualitative description is crucial for early-stage startups, where quantitative data might be scarce, and it enables Vanagon to grasp the startup's vision and approach to impact more fully.

Quantitative Custom Impact Goals

Requires startups to set and regularly monitor specific, measurable goals that reflect their progress in creating social or environmental impact.

These custom metrics offer a tangible way for Vanagon to track the startup's performance over time, helping to ensure that the initial vision and strategy translate into real-world results.

The Ongoing Impact Key Metrics are determined jointly with the startup in the due diligence phase but are subject to continuous monitoring post-investment.

This ongoing evaluation provides a dynamic view of the startup's impact progress and overall performance. Regular reporting includes financial and general KPIs correlated with impact, as well as impact-specific KPIs. Vanagon ensures that each startup's performance is comprehensively documented, reflecting both the current status and future objectives. This structured and systematic process allows venture capitalists to refine their impact strategy continuously and adjust their support to meet the evolving needs of the startups, enhancing the potential for sustainable development.

General KPIs

Tracks critical financial health indicators such as cash balance at the end of the quarter, monthly burn rate, revenue and EBIT for the past quarter, liquidity status, and operational metrics like the number of full-time positions (in FTE) created and customers helped.

These KPIs provide a comprehensive snapshot of the startup's business performance and its correlation with the impact they aim to achieve.

Quantitative Custom Impact Goals

Reviews the quantitative impactspecific KPIs established together with the startup, using the most current data available to evaluate their ongoing progress towards their impactrelated goals.

This periodic assessment ensures transparency on the alignment with Vanagon's impact investment thesis and can adapt its strategies as necessary.

These KPIs can for instance be # of subscriptions and positive impact per subscription (e.g. CO2e emissions avoided).

Quarterly Goals and past quarters Achievements

Documents the top three goals set by the startup for the current quarter and their top three achievements from the past quarter.

Additionally, notable news, posts, or media mentions of the company are summarised, offering a clear and concise overview of the startup's progress, strategic direction, and key milestones.



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Guiding principles

As mentioned, this whitepaper presents a detailed exploration of Vanagon's advanced system for integrating ESG and impact measurement in their investment processes. The development of this system is underpinned by five key theses, which collectively guided the approach to creating a comprehensive and actionable framework.

Here's a summary of these and how they have been integrated into Vanagon's system:

01 Twin Transition

The Twin Transition underscores the necessity for businesses to undergo both environmental and digital transformations to stay competitive. Vanagon's approach integrates metrics that consider these aspects, ensuring startups are evaluated on their ability to contribute to environmental sustainability while leveraging technological innovation.

02 Impact will be the New Normal

This concept emphasises that impact is no longer an option consideration in business operations but a fundamental expectation. Vanagon has integrated this understanding into their approach by prioritising impact measurement as a core element of their evaluation process.

03 ESG vs. Impact

Both are important but it's important to understand the difference. ESG is centred on risk management, compliance and governance, while impact measurement is concerned with tangible positive outcomes generated from the startup's core business. Vanagon addresses this distinction by separating ESG from impact reporting and integrating impact reporting in their quarterly business KPI reporting cycle.



04 Feasible & Meaningful

This principle highlights the importance of practical and achievable standards for impact measurement. While maintaining the necessity for thorough impact assessment, Vanagon's approach strikes a balance between comprehensive measurement and realistic implementation, making it manageable and meaningful for startups at various development stages.

05 Co-Creation

This approach emphasises the necessity of jointly establishing with the startups **ESG** and **Impact KPIs** and reporting during the due diligence phase. The goal is to foster acceptance and awareness, enabling startups to focus early on their own **KPIs** and reporting. This strategic alignment can create a competitive advantage vis-à-vis future investors and customers, empowering startups to strengthen their market position and maximise their impact.

In conclusion, this whitepaper illustrates Vanagon's methodology for integrating ESG and impact measurement, shaped by these five key principles: addressing the Twin Transition of environmental and technological changes, normalising impact as a core expectation, distinguishing between ESG and impact, ensuring feasibility, and engaging in collaborative development and structured reporting. This comprehensive approach enhances investment decision-making and drives sustainable growth.

The paper further explores the complexities of impact measurement in early-stage investments, emphasising the need for tailored and pragmatic approaches that align with both the business objectives of startups and the broader impact goals of investors. Vanagon's methodology demonstrates that a streamlined yet robust framework is achievable, even for pre-seed ventures with limited resources.

Implication & Outlook

Looking ahead, the rapidly growing landscape of impact investing presents both challenges and opportunities for early-stage investors and startups alike.

As impact becomes the new normal, the pressure to demonstrate measurable outcomes will only increase. However, a one-size-fits-all approach to impact measurement often leads to unnecessary complexity, especially for startups in their early stages. This is where right-sizing methodologies can drive significant value.

⁰¹ Implications for Startups

By adopting a right-sized approach to impact measurement, early-stage startups can better align their limited resources with the strategic priorities that matter most to their mission. This ensures that impact reporting is not only feasible but also meaningful, allowing these ventures to attract the right kind of investors and partners who are aligned with their vision.

02 Outlook for Investors

Investors who embrace customised, flexible frameworks like Vanagon's can differentiate themselves in an increasingly crowded market. By integrating ESG with tailored impact metrics, funds can gain deeper insights into the potential of their portfolio companies, allowing for more strategic decision-making and long-term value creation.

⁰³ The Future of Impact Measurement

As impact investing continues to evolve, the focus will likely shift from compliance-driven metrics to outcome-oriented approaches that prioritise genuine impact over sheer volume of data. The need for agile, adaptive methodologies will become ever more critical as investors seek to align their strategies with both, the SDGs and the demands of the Twin Transition.



Impact That Fits.

In a world where impact is the new normal and impact investing is experiencing rapid growth, managing over \$1.1 trillion in assets¹, early-stage ventures and investors are adopting tailored strategies for measurement.



Right-Sizing for Impact is not just about reducing the data burden - it's about maximising meaningful impact. By focusing on what truly drives value for each startup, Vanagon's scientifically-based methodology offers a blueprint for the future of impact investing, proving that sometimes, less is more when it comes to right-sizing for impact.

This approach enables pre-seed ventures to gather the right data strategically, ensuring alignment with emerging impact investment practices while supporting strong business performance potential.

By prioritising value drivers, it provides early-stage investors with a pathway to implement impact measurement that is both strategic and impactful, marking a new frontier in venture capital.



Right-Sizing for Impact is not just about reducing the data burden - it's about maximising meaningful impact.

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If you have any questions or would like to discuss our findings further, please don't hesitate to reach out to us.

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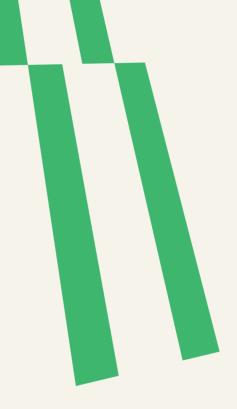
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