

Sustainability Software Radar

The Landscape for Sustainability and
Carbon Management Software Solutions



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Preface

Dear Readers,

How can sustainability, innovation and competitiveness be reconciled and anchored in corporate strategy and business processes? This question is currently on the minds of CEOs and corporate leaders around the globe. But above all in Europe and especially in Switzerland.

Within the last few years, the relevance of sustainability in corporate governance has increased significantly once again. Customers demand sustainable products and responsible behaviour on the part of companies. Investors demand detailed and auditable ESG reporting. And national policies are in the process of adopting binding targets for achieving net zero, which has already been done at the EU level. This means that both the carbon footprint and a path to net zero will become an important measure of company success in the future.

In practice, however, many European and Swiss companies still find it difficult to measure, analyse and reduce their greenhouse gas emissions at product and company level. Because experience, data and the right software solution for company-wide carbon management and fully integrated ESG reporting are often lacking.

With this report, Swisscom and Atlantic Ventures want to support corporate decision-makers in planning fully integrated and data-based sustainability and carbon management. The report is aimed at ESG managers and CIOs and creates transparency in the landscape of relevant software solutions and the converging product categories of carbon management, ESG reporting and supply chain transparency. In addition, the report provides insights into the development of the market and the requirements and functions of such solutions. The aim is to be able to support Swiss companies in the transformation to data-based sustainability management.

We hope that you will find this an enjoyable read.



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Executive summary



More than 1'700 companies operating in Switzerland (with more than 250 employees) will in future be required to engage in comprehensive sustainability reporting. For companies with more than 500 employees, climate reporting is compulsory according to the TCFD standard as early as 2024¹. The carbon footprint is thus becoming an important indicator for corporate governance.



The market for corresponding software solutions has developed very dynamically in recent years and now comprises around 242 suppliers with different focus areas.



Climate accounting needs to be carried out in an auditable and standard-compliant manner and include the planning, management and implementation of appropriate decarbonisation measures as part of a net-zero management approach.



Start-ups and new software-as-a-service companies play an important role as innovation drivers for cloud- and data-based carbon reporting and sustainability management. More than half (129) of the companies surveyed were not founded until 2015 or later.



With increasing complexity in terms of regulations, and the management of a wide range of emissions and ESG data, more and more companies are opting to introduce a fully integrated carbon and sustainability management software. Sustainability management is increasingly becoming digital, automated and data-driven.



Many of the start-ups and new SaaS companies are convincing in the areas of product strategy, user experience and software sales and are also developing into interesting alternatives due to large-volume VC growth financing (Sweep: USD 100 million, Watershed: USD 139 million, Persefoni: USD 160 million, Plan A: USD 43 million).



In addition to start-ups and the established ESG software suppliers such as Sphera, Cority, Diligent and UL Solutions, global software and cloud companies have also entered the market in recent years. IBM, Microsoft, Salesforce and SAP now also offer carbon and sustainability management platforms.



Furthermore, the next generation of climate and sustainability management solutions are characterised by modern, cloud-native software architectures, flexible data models and APIs for simple integration of systems and emissions data, as well as easy-to-use user interfaces (UI/UX).



Best-of-suite solutions and SaaS platforms are increasingly emerging as a trend for fully integrated sustainability management, covering carbon and ESG management along the entire value and supply chain. This is the only way that companies will be able to comply with their regulatory obligation to report their full Scope 3 emissions (upstream and downstream) including their supplier networks in future.



The interaction between the sustainability department and corporate IT plays an important role in establishing company-wide carbon management. Introduction can only be successful if appropriate IT expertise in the areas of tool selection, software implementation and data and system integration are available in house or through partners or IT service providers.



The creation of product-related climate accounting (PCFs), the assessment of physical and financial climate risks to the company and the use of AI in modelling and simulation of climate pathways are also becoming important requirements of companies when it comes to next-generation carbon and sustainability management.

¹ Source: <https://www.sif.admin.ch/sif/en/home/finanzmarktpolitik/sustainable-finance.html>

Overview of suppliers in the market



75
Global



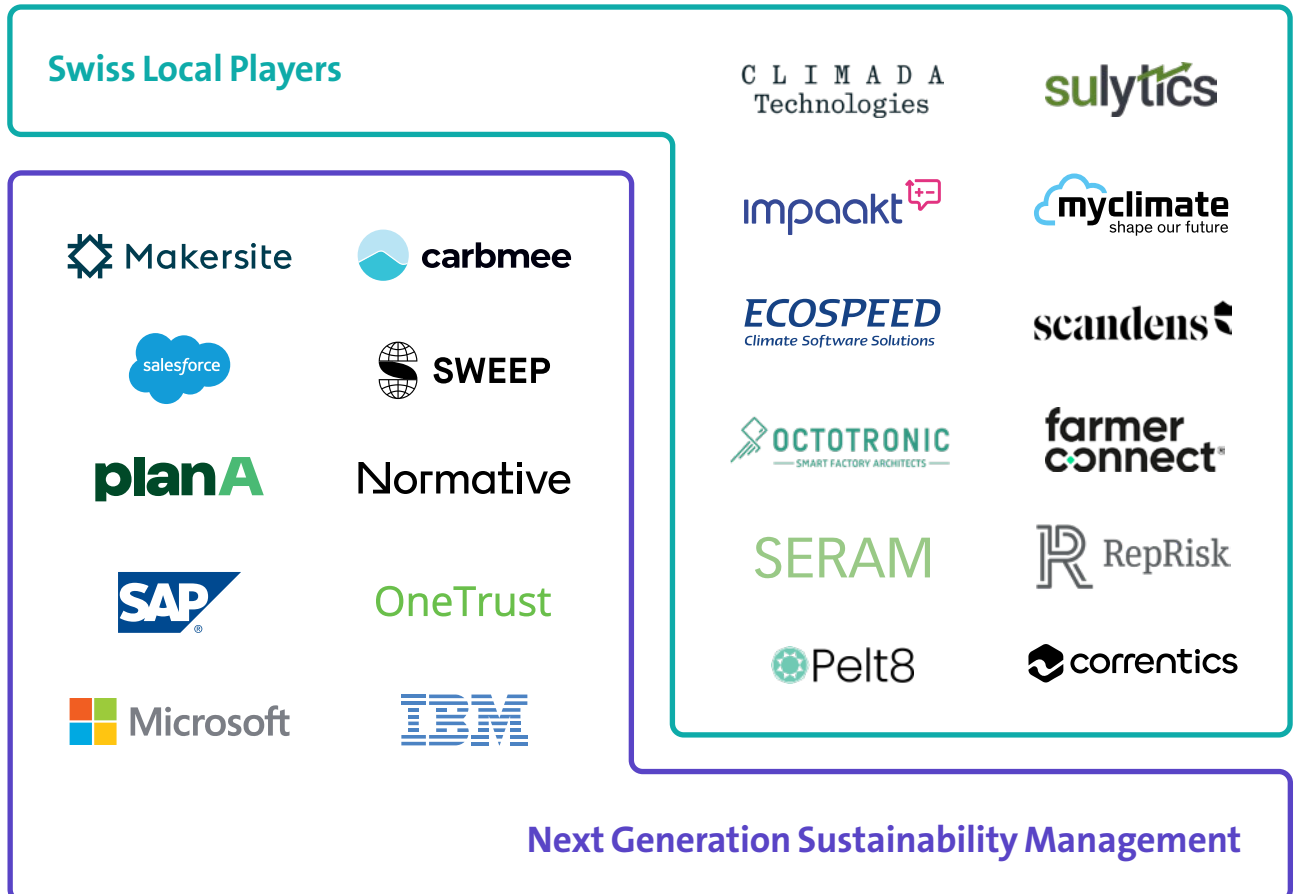
133
Europe



34
Switzerland



Profiles of selected suppliers



Next-generation sustainability management



Drivers and challenges

- National & EU regulation (CSRD, TCFD, etc.) – reporting obligation for 1'700 Swiss companies with more than 250 employees
- Integration of Scope-3 emissions and supply chains into climate and sustainability reporting
- Pressure will also increase for SMEs as reporting companies also have to disclose supply chain emissions
- In the future reporting of sustainability measures and forecasting on climate risks and financial impact will also be required
- Intransparent landscape of software solutions and complex data and system integration
- Lack of skills, data and experience in the context of ESG and sustainability projects



Requirements and evaluation criteria

- Standard-compliant, auditable GHG reporting for Scopes 1, 2 and 3 including supply chain, e. g. GRI, CSRD, TCFD, CDP etc.
- Easy-to-use user interfaces (UI/UX) in combination with workflow automation tools
- Comprehensive analytics capabilities and interactive dashboards
- Use of AI for modelling and forecasting in the context of climate pathways and climate risks
- Flexible data models and APIs for easy integration of systems and emissions data
- Modern, cloud-native software architectures
- Provision as “Software as a Service”

Swisscom – enabling sustainable success

Swisscom assists companies with evaluation, implementation, support for a suitable sustainability or carbon management tool and help with creating reduction measures and a data-based reduction pathway.



Modular, growing Data-Driven Sustainability Portfolio from Swisscom.

Sustainability management 2.0 – requirements from a customer perspective

More and more top executives are aware of the urgency, strategic relevance and responsibility of their companies with regard to sustainability and climate-neutrality. Many globally active companies have adopted their own defined climate targets and are embedding sustainability as a pillar of their corporate strategy. Accordingly, new positions such as Chief Sustainability Officer and Sustainability Manager are being created, and the relevant departments are being given powers and budgets. For example, the job portal jobs.ch lists more than 2'000 vacancies in the sustainability field in Switzerland.

In addition, there is increasing pressure on companies to measure their progress in climate and environmental protection in detail and to report in accordance with standards. For future climate and sustainability reporting, there will thus be a plethora of new requirements arising from a regulatory, financial and technological perspective. These are briefly outlined below. In addition, from 2024 companies in Switzerland with more than 500 employees and a balance sheet total of more than CHF 20 million or revenue of more than CHF 40 million are required to conduct climate reporting with double materiality according to the TCFD standard.

Regulatory pressure is growing – from voluntary disclosure to the de facto standard

For many globally active and listed companies, “non-financial” reporting or sustainability reporting has already been an integral part of their corporate communication for years. This initially voluntary disclosure is usually made via international standards and frameworks, such as the Carbon Disclosure Project (CDP), the Sustainability Accounting Standards Board (SASB) or the Global Reporting Initiative (GRI). With increasing pressure from institutional investors, sustainability and ESG reporting has now advanced to become a de facto standard. For example, many reporting

standards are based on the recommendations of the Task Force on Climate Related Financial Disclosures (TCFD), which gradually has been incorporated into international and EU-wide regulations and which has recently been incorporated into IFRS²

Climate risks, climate pathways and reduction potentials – requirements from a data, financial and operational perspective

Companies face new challenges as TCFD recommendations become more stringent. In the future, they must ensure that their climate and ESG data is auditable and be able to calculate forecasts or “climate pathways”. The modelling of organisational boundaries also plays an important role in determining the attributability of emissions within ramified company and shareholding structures in a way that is appropriate to their causes. This is particularly relevant in the context of company-wide equity and M&A activities. Analysis and reporting on physical and financial climate risks will also play an essential role for investors in the coming years. In future, the operationally responsible corporate decision-makers, for example in purchasing or manufacturing, will also have to submit, implement and report on their own plans on reduction measures or suppliers' contribution to Scope-3 savings. The EU's Carbon Border Adjustment Mechanism (CBAM)³ also plays an important role here. It aims to prevent greenhouse gas emissions from being shifted to non-EU countries. All of this greatly increases the granularity and complexity of data preparation, climate accounting and action planning.

² Source: <https://www.ifrs.org/sustainability/tcfcd>

³ Source: https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4685



From climate reporting to net-zero management – planning and managing climate targets and decarbonisation measures

Influenced by regulatory and compliance demands, a change is taking place from pure climate reporting to integrated climate and sustainability management. In the future, companies will have to define climate targets in accordance with standards and science (e.g. SBTi) and break them down into verifiable milestones (“climate pathways”). Modern carbon management solutions support the planning, control and implementation of various decarbonisation measures as part of company-wide net-zero management, which connects aspects of project management, change management and controlling with one another.

Fully integrated solutions on the rise – platforms for ESG, carbon management and supply chain transparency

In order to cover as many requirements and regulations as possible with just one piece of software, customers are increasingly demanding fully integrated and comprehensive solutions for company-wide sustainability management and reporting from their partners. The regulatory requirement to reduce Scope 3 emissions in climate accounting in the future will also lead to a convergence of carbon management and supply chain transparency activities. For example, companies will have to measure CO₂ emissions in the upstream and downstream stages of their own value chain and collect the relevant data together with their suppliers. Ideally, from a user perspective, carbon management, ESG reporting and supply chain transparency would be on a single platform (“best of suite”).

Preventing greenwashing with product-related climate accounting and LCA data

To avoid penalties and reputational damage caused by unjustified or misleading climate and sustainability statements in advertising or product communication (“greenwashing”), many companies are increasingly shifting their sustainability investments away from green and climate-neutral certificates to detailed and auditable sustainability reporting at the company and above all at the product level. Product carbon footprint (PCF) and life cycle analysis (LCA) will play an increasingly important role in the future. Only on the basis of a methodically sound analysis can sustainable and successful product and brand messages be developed.

Sustainability reporting in Swiss SMEs – more than 1’700 companies affected

In September 2023, the Swiss Federal Council adopted benchmarks for sustainability reporting for companies. Among other things, the threshold for mandatory sustainability reporting is to be lowered from 500 to 250 employees. This is being done in the context of adapting Swiss law to international developments taking account of its specific situation, and enhancing the competitiveness of Swiss companies in the international arena. As a result, around 1’700 Swiss companies will be required to report and provide due diligence on climate, environmental, social and labour, human rights and anti-corruption issues. Another aspect impacting medium-sized enterprises is that multinational companies are increasingly aligning their purchasing behaviour and supplier management according to ESG criteria. For example, when contracts are awarded under invitations to tender, a specific focus is placed on which suppliers pursue clear sustainability goals and are reducing their CO₂ emissions. In addition, there are regulatory requirements for transparency and due diligence along international supply chains.

Summary

The multitude of new regulations and requirements means that medium-sized and multinational companies face major challenges in terms of designing their climate and sustainability management. The selection of a suitable software solution therefore plays a crucial role, as modern carbon and ESG management software significantly simplifies data preparation and standard-compliant reporting. The following chapter outlines how the market for ESG and carbon reporting is developing and which trends are shaping the market.

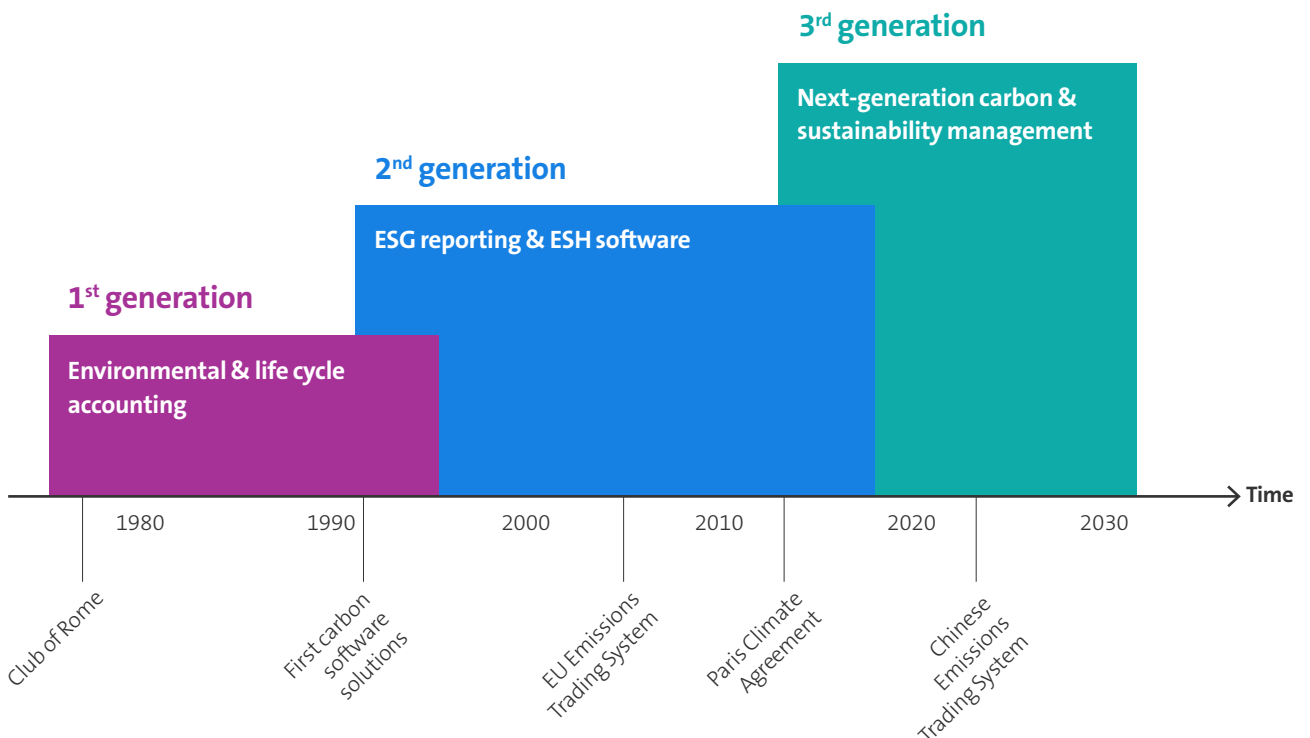


Scope 3, start-ups and AI – trends in the market for sustainability management software

The market for software-based sustainability management was created in the 1980s in response to the publications of the Club of Rome and the founding of environmental organisations. A wide-ranging debate on nature conservation and sustainability began in society and business. The first entrepreneurs began to study the environmental impact of their companies, often through expert opinions and analyses by scientists and consultants. The discipline of lifecycle management and lifecycle assessment developed on a scientific basis, followed by the introduction of initial software solutions by companies such as Sphera, Cority and others.

Development of the carbon management software market

In the 1990s and 2000s, established lifecycle accounting software providers expanded their range of services due to growing compliance requirements. This led to the emergence of comprehensive ESG solutions covering environmental, social and governance reporting and auditing. At that time, established ESG solutions included features for calculating greenhouse gas emissions, but in most cases did not yet provide a comprehensive solution for today's carbon management. The Paris Climate Agreement, the EU's enhanced Corporate Sustainability Reporting Directive (CSRD) and increasing pressure from institutional investors (TCFD) is forcing corporate managers to move towards "climate neutrality".



Development of the carbon management software market.

Start-ups are shaping innovation and market dynamics – there have been around 129 new companies since 2015

Against this backdrop, a large number of start-ups and new software companies, such as Sweep, Persefoni, Plan A and Normative, arose. The number of companies created for sustainability reporting and carbon management since 2015 amounts to 129, which is considerably more than half of all the companies investigated in this study (n=242).

IBM, Microsoft, Salesforce and others – software and cloud groups enter the market

Driven by the demand of their major customers and influenced by the innovation activities of start-ups, in recent years many global technology and software groups have also discovered the market for carbon management and are investing significantly in these solutions. For example, IBM, Microsoft, Salesforce and SAP offer their customers specific software and cloud solutions in the field of carbon management, thus completing their portfolios, some of which also include ESG reporting and solutions for supply chain transparency. In doing so, these global software providers usually combine the acquisition of specialised companies with the development of their own solutions and platforms.

Established ESG software providers expand their portfolios and acquire carbon management firms

In response to increasing competitive pressure from VC-funded start-ups and global software groups, the established ESG and EHS software companies have also expanded their portfolios to include fully integrated carbon management solutions, which in most cases was achieved by acquiring specialised companies and start-ups. Diligent acquired carbon and ESG management provider Accuvio in August 2021. In December 2021, ONETrust acquired and integrated the German carbon management start-up Planetly. In May 2023, Cority acquired UK-based ESG and carbon reporting provider Greenstone.

Scope 3 emissions and supply chain transparency characterise the product roadmap for suppliers

To visualise and calculate Scope 3 emissions along global supply chains, a multitude of suppliers have to be connected and data on different products and processes have to be collected and aggregated. To make this possible, many software companies are currently investing in corresponding features and interfaces (APIs). The focus is on cloud-based communication and collaboration with suppliers, data exchange and the connection of ERP systems and databases (CDP, SBTi). The agreement of supplier-specific reduction targets and measures as well as the possibility of analysis and comparison between different suppliers or locations based on emission intensities or absolute emissions will also play an important role in the future.



Real estate, financial sector and industry – sector-specific solutions on the rise

While a majority of start-ups in the start-up wave of 2015 to 2020 can be attributed to generic carbon and ESG management solutions, in recent years, more solutions for industry-specific sustainability management and special fields of application have been developed. The reasons for this are the complexity of the respective processes, supply chains and data structures as well as industry-specific regulations and standards, e. g. in energy supply, data centres and in the real estate sector. Since in Switzerland, climate risks need to be analysed and reported with double materiality in accordance with TCFD, a series of start-ups specialised in doing just this, such as Climada, Celsius Pro and Correntics, have emerged.

AI and ESG data management – from reporting to simulation and scenario planning

Collecting and integrating data in different formats, from a variety of sources with very different data quality, is one of the key challenges for companies in the context of climate accounting and carbon management. Accordingly, software companies are trying to expand their solutions with corresponding features and use them to differentiate themselves. In addition to APIs and connectors as well as data warehouse features (“ESG data lake”), the use of artificial intelligence (AI) is also playing an increasingly important role. For instance, machine learning methods and large language models (LLMs) can be used to validate or label data, detect anomalies and calculate climate risks. If the software provider has sufficient training data on its cloud platform due to a large number of customers and projects, algorithms and AI models for forecasting and simulation can be developed to make detailed statements to customers on the effect of various decarbonisation measures or external factors (energy prices, weather, electricity mix), providing substantial added value beyond pure reporting.



Software landscape at a glance

The market for carbon management and sustainability software solutions is constantly changing and shaped by start-ups, M&A activities and portfolio extensions by already established providers. Legal regulations and new customer requirements allow companies to continuously expand their product portfolio and place new solutions on the market. There are therefore more solutions than companies, which is taken into account in the following market overview.

The market overview starts by introducing the development of the corporate landscape. This is followed by a description of the landscape of software solutions by area of focus as well as a look at Swiss start-ups and software companies offering solutions in the field of carbon and sustainability management.

The methodological approach of the study is structured in three steps:

1

Desk research, database research and expert discussions on population in different sources such as analyst reports, databases as well as client recommendations and shortlists from completed projects.

2

Categorisation and evaluation of producers by company type, company size, solution areas (carbon management, ESG management, supply chain visibility and risk, industrial solutions, others) and by market presence in Europe and Switzerland.

3

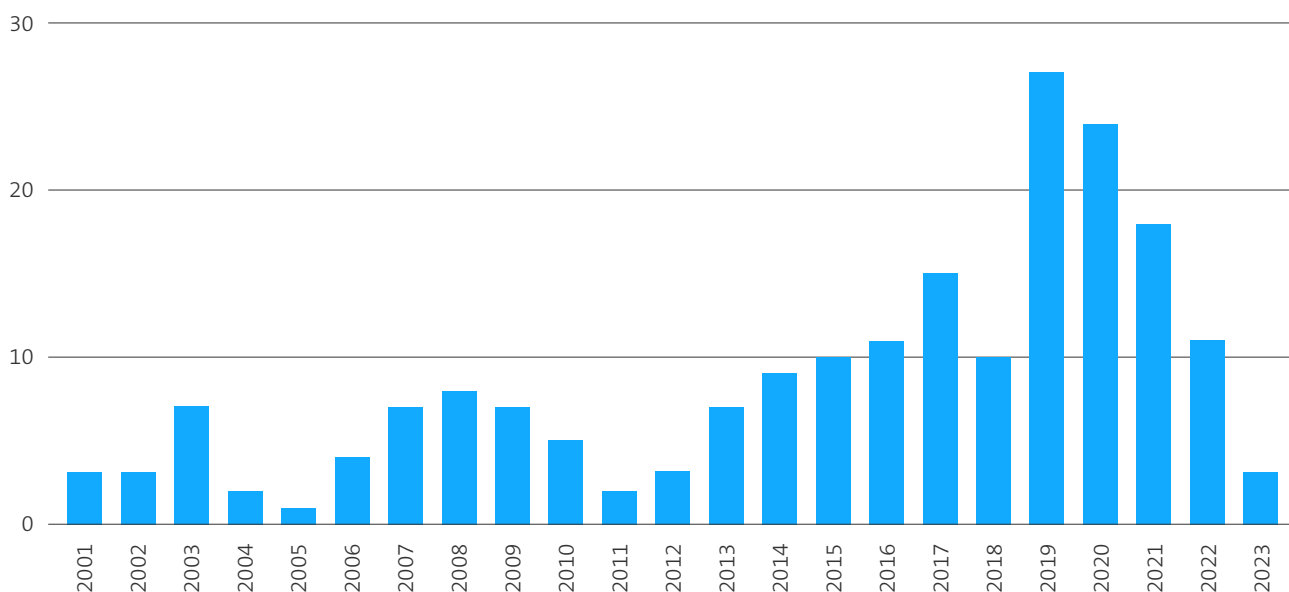
Product evaluation of solutions for selected suppliers with relevance for the Swiss market in accordance with the list of evaluation criteria defined in the chapter “Product evaluation and supplier selection”.

Company landscape at a glance

A total of 242 companies have been identified that offer at least one solution in the field of sustainability software. Looking at the historical development of business start-ups since the year 2000, the relevance of the topic since 2015 on the one hand and the decision on the Paris climate agreement of the other hand is very evident. 129 of the companies available on the market (over 50 percent) have been founded since this important milestone. Although there has been a decline in start-ups in this sector since 2021, mainly due to the general decline in clean tech investments⁴, the number of new start-ups since 2015 is very considerable.⁵

Overall, ISVs and SaaS providers (43 percent), as well as start-ups (41 percent), are by far the leading position when it comes to providing sustainability solutions. In addition, professional services nowadays often offer custom-developed solutions and bundle these together with the corresponding consulting services from a single source (9 percent). Global tech companies make up a total of just under 6 percent of suppliers.

The central role of the European market – and in particular Switzerland – in relation to sustainability offerings is also interesting. Of the 242 companies, a total of 167 are from Europe, 34 of which were founded in Switzerland. Europe's role is integral within the climate context, offering a decisive ecosystem of carbon management and sustainability solutions.

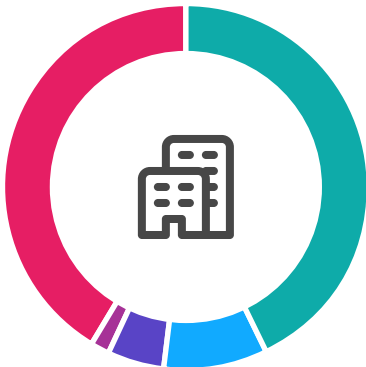


Historical development of start-ups in the field of sustainability and carbon management software.

⁴ The overall decline in clean tech investment is mainly due to the current difficult macroeconomic environment and the associated collapse in venture capital financing.

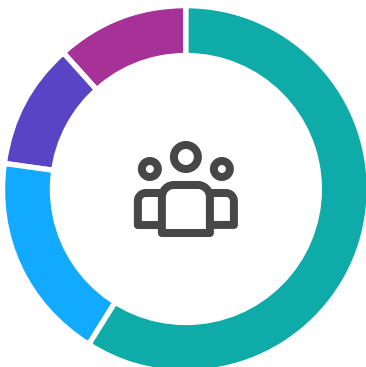
⁵ <https://www.handelsblatt.com/unternehmen/energie/greentech-verunsicherung-bei-klima-start-ups-deutschland-koennte-standortvorteil-verlieren/100002356.html> (german)

Distribution of sustainability solutions by company type



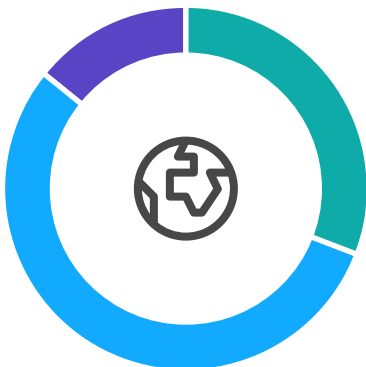
- 43.0%** ISV / SaaS provider
- 9.1%** Professional services
- 5.0%** Global tech company
- 1.7%** Open source
- 41.3%** Start-up

Company size by number of employees



- 59.1%** 1–50 employees
- 18.2%** 51–200 employees
- 11.2%** 201–1'000 employees
- 11.6%** >1'000 employees

Carbon management and sustainability solutions by place of founding














- 31.0%** Global
- 55.0%** Europe (other)
- 14.0%** Switzerland

Swiss sustainability software – local champions

As one of the pioneers of sustainability, the Swiss market also plays a decisive role in the decarbonisation of the economy. With a total of 34 companies, Switzerland succeeds in positioning itself well within Europe in the context of sustainability solutions. Most of the companies are new start-ups offering state-of-the-art carbon management solutions, in addition to international software vendors.

The following is a selection of 11 companies that we are taking a closer look at, with five of the companies representing generic carbon and ESG management solutions (Sulytics, myclimate, Seram, Ecospeed, Pelt8) and six of the companies representing industry or functionality-specific solutions.

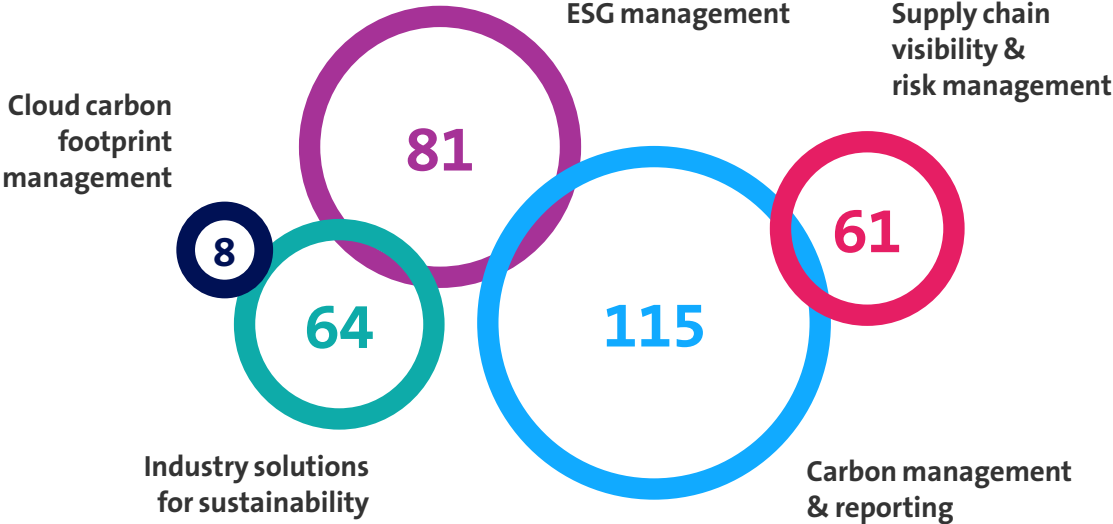
Name	Foundation	Head office	Description
C L I M A D A Technologies	2022	Zurich	Climada is a deep tech start-up, which as a spin-off of ETH Zurich already supports various universities and institutions in climate risk modelling.
 correntics	2021	Zurich	As a Swiss start-up in the field of climate risk management and supply chain risk management, Correntics enables data-driven sustainability for customers.
 ECOSPEED Climate Software Solutions	2002	Zurich	With more than 20 years in business and over 2'000 customers in the German-speaking region, Ecospeed has established itself as a successful player for the calculation of carbon footprints of complete companies, locations, buildings, fleets and individual projects.
 farmer connect	2019	Geneva	As a solution to make complex supply chains traceable, farmer connect offers an end-to-end solution for increased visibility in the supply chain. The focus is mainly on the area of agriculture and food and the corresponding standards, regulations and reporting regulations.
 impaakt	2017	Geneva	With the recent venture capital investment of just under USD 8 million, Impaakt is providing investors with a solution for ESG data and ESG risk.

Name	Foundation	Head office	Description
 myclimate shape our future	2002	Zurich	As a non-profit foundation, myclimate supports companies, educational institutions and private individuals in the development and implementation of climate strategies and the financing of climate protection projects. For this purpose myclimate offers different CO ₂ calculators for different use cases and customer groups. In addition to carbon footprinting, the myclimate smart 3 solution provides companies with additional sustainability reporting functions and is based on the SERAM software platform from the Swiss company Sirius Technologies AG.
 OCTOTRONIC — SMART FACTORY ARCHITECTS —	2020	Zurich	With its platform for smart factories, Octotronic enables the digitisation of production processes, which also provides important analytical capabilities from the point of view of sustainability.
 Pelt8	2021	Zurich	The Zurich-based start-up Pelt8 offers companies and consultants a cloud-based platform for carbon and sustainability reporting with a convincing user experience.
 RepRisk	1998	Zurich	With almost 25 years of experience in ESG, RepRisk delivers a machine learning solution that helps companies identify ESG risks and take appropriate action.
 scandens	2021	Zurich	As a young start-up and spin-off of ETH Zurich, Scandens offers a platform for the refurbishment planning and decarbonisation of buildings in accordance with standards and regulations.
 SERAM	1989	Roches	As a product of Sirius Technologies AG with origins in CSR and EHS, SERAM offers the possibility to conduct sustainability management and reporting in a fully integrated and data-based manner. As a supplier with years of experience, Sirius offers hosting from Switzerland and professional support for corporate customers.
 sulytics	2017	Zurich	Sulytics offers consulting services in the field of ESG and carbon management and an in-house tool for calculating and managing CO ₂ emissions, energy requirements, health and safety and human resource activities.

Solutions by category

As mentioned at the outset, there is a difference between the number of companies and the number of solutions that are available on the market. Many companies bundle several solutions under one roof and offer a comprehensive range. We will now turn our gaze from the corporate landscape for a brief moment and take a closer look at

the solution landscape and its composition. Here the following categories of solutions could be identified: Carbon management and reporting, ESG management, supply chain visibility and risk management, and industry solutions (including cloud carbon footprint management).



Number of solutions by solution category.

Carbon management and reporting software

Some of the solutions are specific to the area of carbon management and reporting. The dedicated focus gives rise to in-depth expertise which is also reflected in the software's features. At the same time, companies that initially focused on the carbon management discipline are increasingly acquiring features in the broader ESG segment. These mainly include solutions from start-ups such as [Sweep](#) and [Plan A](#), which have entered the market in recent years. A total of 115 carbon management and reporting solutions were identified.

ESG management

Another set of solutions, mostly those that have been on the market for longer, originates from the ESG environment. Often at the beginning the focus is not on targeted carbon management features. However, many companies that originally provided ESG solutions are progressively adding carbon management features (such as [Cority](#)). A total of 81 ESG management solutions were identified in the research.

Supply chain visibility and risk management software

Full carbon management should always take into account Scope 1, 2 and 3 emissions. Especially in Scope 3 and the associated supply chain, there are still major challenges and difficulties in accurately measuring CO₂ emissions.

Some companies are therefore focusing on the challenges of complex emissions in the supply chain with appropriate solutions. This also includes [Carbmee](#), which in addition to CCF and PCF calculation also places a special focus on the supply chain and offers targeted solutions. The same applies to the company [Makersite](#), which by focusing on the supply chain enables the creation of a holistic product carbon footprint. A total of 61 of the solutions considered provide a specific offering for the supply chain and the related carbon management challenges.

Industry solutions for sustainability

While at the beginning the solutions were often thought of across industries, in recent years it has become clear that there are some industries that have specific requirements in the area of carbon management. These can often not be covered comprehensively with standardised services.

Some solutions therefore focus on sustainability management with a specific industry focus. [Predium](#), for example, focuses its solution on the building and real estate sector, while [CarbonCloud](#) focuses on the food sector (and the supply chain). A total of 64 solutions have been identified with an industry focus.

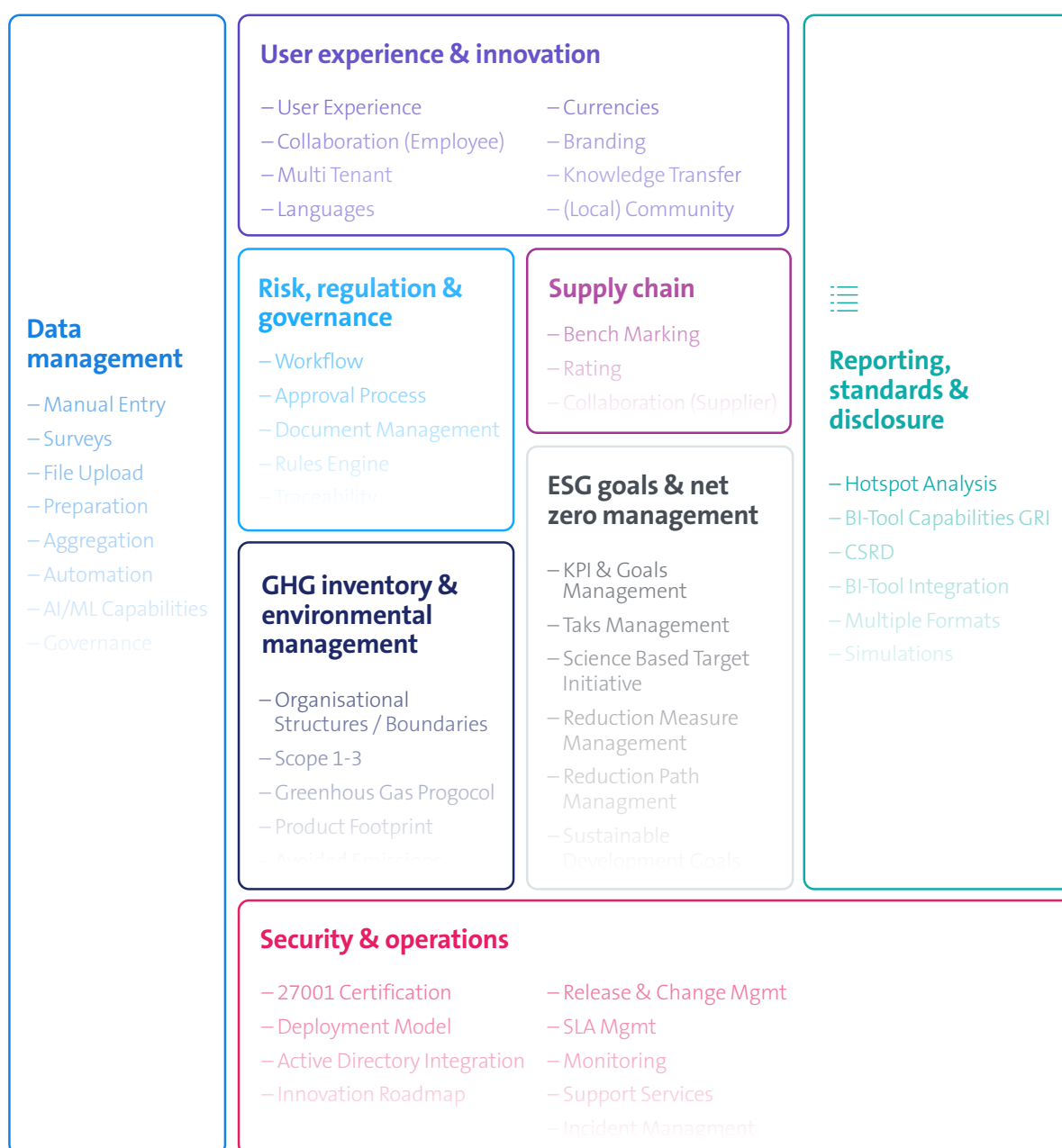
Cloud carbon management software

Companies that provide solutions for data centres and cloud providers are now also positioning themselves with a certain industry focus. Data centres account for a considerable share of one to two percent of the world's energy demand, which is also associated with significant CO₂ emissions. As the requirements for carbon management often cannot be covered by standard solutions here either, industry solutions have emerged, especially in the last two years, that are adapted to specific needs.

Some of the solutions come from the providers themselves, such as the [Emissions Impact Dashboard](#) from Microsoft. Other providers, such as [CloudCarbonFootprint.org](#), tend to adopt an open source approach and allow the calculation of emissions even in a multi-cloud setting.

Next-generation sustainability management – evaluation criteria and supplier selection

The different requirements for software solutions for company-wide carbon and sustainability management can be divided into the following eight categories. A list of the requirements is given in the annex.



Sustainability management touches on many sub-areas within the company, which can be grouped into categories (data, risk & regulation, supply chain, targets & KPI management, greenhouse gas emission inventories, security & life cycle management, reporting & analysis, basic requirements).

Sustainability Software Radar

The particularly sustainable and innovative solutions are characterised by a number of special characteristics. These are summarised below and represent the category of “next-generation sustainability management software”:

- Integration of Scope 3 emissions and supplier data to create a fully integrated GHG-compliant corporate carbon footprint (CCF)
- Options to create product carbon footprints and lifecycle assessments
- Comprehensive features for setting climate and sustainability targets based on SBTi and SDGs
- Performance management and benchmarking for planning, managing and monitoring decarbonisation measures (net-zero management)
- Assessment of climate risks from a financial and governance perspective (TCFD, PCAF)
- Use of AI for simulation and forecasting in the context of climate pathways and climate risks
- Flexible data models and APIs for easy integration of systems, business applications and emissions factors
- Easy-to-use user interfaces (UI/UX) in combination with workflow automation tools
- Comprehensive analytics capabilities and interactive dashboards as well as support for all relevant reporting standards (CDP, GRI, TCFD, GHG, CSRD)
- Cloud-native and open platform architecture that enables modular expansion and short innovation cycles
- Provision as a “Software as a Service” model












Profiles of selected companies

In the following, a selection of suppliers is presented, the majority of which meet the requirements for next-generation sustainability management software. At the same time, the ten selected suppliers are characterised by their financial soundness, growth and a regional market presence in Europe or Switzerland.

The selection criteria for the companies chosen and profiled here were:

- **Product:** Cloud-based solution/Software as a Service (category fit)
- **Product:** more than 50 percent of the functional requirements for next-generation sustainability management software are covered (functional fit – see above)
- **Company:** + 50 employees and/or 10 million VC funding (in the last 18 months)
- **Company:** Market presence or head office in Europe or Switzerland (in this case at least partner or reference customer)

Name	Type	Foundation	Head office	Employees
 carbmee	Start-up	2021	Berlin, Germany	51–200
 Makersite	Start-up	2018	Stuttgart, Germany	51–200
 planA	Start-up	2017	Berlin, Germany	51–200
 SWEEP	Start-up	2020	Paris, France	51–200
Normative	ISV/SaaS	2014	Stockholm, Sweden	51–200
 OneTrust	ISV/SaaS	2016	Atlanta, USA	> 1'000
 IBM	Tech group	1911	Armonk, USA	> 1'000
 Microsoft	Tech group	1975	Seattle, USA	> 1'000
 salesforce	Tech group	1999	San Francisco, USA	> 1'000
 SAP	Tech group	1972	Walldorf, Germany	> 1'000



Name	Carbmee
URL	www.carbmee.com
Head office	Berlin, Germany
Company type	Start-up
Year of foundation	2021
Employees	51–200
Customers (selection)	Kärcher, Ravensburger, KWS, AngloAmerican

- Founded in Berlin in 2021, Carbmee, with its Environmental Intelligence System (EIS) solution, offers, carbon footprinting, product carbon footprints (LCA) and supply chain emissions management (Scope 3) integrated into a single platform.
- The focus is on the calculation and simulation of product carbon footprints in complex supply chains in the manufacturing industry as well as on the ability to integrate and process a wide range of primary and secondary data sources in existing ERP and IT backend systems.
- Customers can use different calculation methods (spend-based, activity-based or supplier-specific) on the Carbmee platform. In addition, Carbmee supports the relevant reporting and disclosure standards, and the implementation of its calculation methods has been certified by TÜV.
- With Maersk and BASF Venture Capital in October 2023, Carbmee was able to attract new investors and its first well-known references in the industrial sector.



With a focus on product carbon footprints and emissions management in complex supply chains, the Carbmee platform is particularly well suited for customers from the manufacturing industry, logistics and the automotive sector. The recent investment by Maersk and BASF Ventures underlines Carbmee's product data-centric carbon management approach.



Name	Makersite
URL	www.makersite.io
Head office	Stuttgart, Germany
Company type	Start-up
Year of foundation	2018
Employees	51–200
Customers (selection)	Microsoft, Schaeffler, Hexpol, Vestas

- Makersite was founded in Stuttgart in 2018 and is among the technological pioneers in the field of automated and data-driven product lifecycle assessments (LCA). The Product Lifecycle Intelligence Platform from Makersite is aimed at product and ESG managers and combines carbon and ESG management with supply chain visibility and resilience in complex industrial value chains.
- Makersite was founded by Neil D'Souza, the long-term VP of Product at ThinkStep (now Sphera), one of the global market leaders in LCA software, and secured growth financing of over EUR 18 million in March 2023.
- Makersite offers customers a very high degree of automation in the creation of product lifecycle assessments and carbon reporting. The basis is open APIs, a flexible graph data model, the integration of over 140 different data sources and an AI-based mapping procedure.
- Using its data and integration platform, Makersite develops customer analytics applications for a series of use cases (EHS, ESG, compliance, supply chains) and supports all relevant reporting standards.



Makersite is one of the pioneers in the field of data- and AI-driven sustainability platforms. Makersite focuses on data and integration management for LCA and emissions data in complex industrial supply chains. Makersite is therefore a preferred partner for large and industrial users.

planA

Name	Plan A
URL	www.plana.earth
Head office	Berlin, Germany
Company type	Start-up
Year of foundation	2017
Employees	51–200
Customers (selection)	Trivago, BMW, N26, Stryber

- Founded in 2017 in Berlin, Plan A is one of the thought leaders for modern carbon management in the German-speaking region and elsewhere in Europe. In recent years, Plan A has not only expanded the functional range of its SaaS solution for carbon accounting by adding ESG reporting and compliance, now marketing it as a “sustainability platform”. Plan A also reaches a large number of ESG decision-makers through its newsletter. In addition, there is a wide range of knowledge and learning content to get customers started with carbon accounting.
- According to their own statements, more than 1’500 organisations are now using the Plan A sustainability platform. These include large and international customers such as the Trivago travel platform, the fintech N26 and the BMW subsidiary Alphabet, which is developing a solution for decarbonising vehicle fleets. Industrials are still under-represented in the portfolio of reference customers.
- With EUR 43 million in venture capital financing, Plan A has sufficient funds to further develop its own user-friendly and TÜV-certified platform in the future and drive innovation in the fields of Scope-3 emissions and AI.



Over the past two years, Plan A has successfully continued to develop the product and adapted it to the requirements of large companies to create a fully integrated sustainability management offering. The latest USD 27 million round of financing of also underlines Plan A’s growth.

SWEEP

Name	Sweep
URL	www.sweep.net
Head office	Paris, France
Company type	Start-up
Year of foundation	2020
Employees	51–200
Customers (selection)	Swisscom, Ubisoft, HP, L’Oréal

- Founded in Montpellier in 2020, Sweep is one of the start-ups that is decisively shaping the market for next-generation carbon management. Sweep offers cross-industry solutions on its platform in corporate emissions, emission factors, supply chain, compliance, ESG and carbon offsetting.
- With a total funding of almost EUR 100 million – and the involvement of Tony Fadell, the inventor of the Apple iPod – the company is well prepared for scaling and future challenges.
- Above all, the company stands out for its intuitive user experience, user-friendly workflow automation and convincing decarbonisation measures and projects.
- Sweep is also characterised by an experienced management team and a rapidly growing customer and partner base.



As a European company based in France, Sweep is well acquainted with the Swiss market and its internationally oriented enterprises. With Swisscom as one of its first customers and partners in Switzerland, Sweep has a strong local partner in consulting, implementing and expanding its Swiss customer community.

Normative

Name	Normative
URL	www.normative.io
Head office	Stockholm, Sweden
Company type	ISV / SaaS
Year of foundation	2014
Employees	51–200
Customers (selection)	Hitachi, Zurich Insurance, ecovadis

- Normative offers customers the opportunity to fully measure and understand their carbon footprint and identify reduction potentials with a high impact. Normative has also addressed the major challenges in the supply chain and offers a solution for measuring Scope-3 emissions with its Carbon Network tool.
- Normative was founded in 2014 – before the big carbon management boom – and has raised USD 45 million in venture capital to date. Due to its history, customers benefit from many years of experience in carbon management in different industries and a mature SaaS platform, which also offers an impressively clear UI.
- Normative is a long-standing and active member of the carbon management community and is working with a range of commercial partners to roll out its SaaS solution to a large number of medium-sized customers.
- In Switzerland, Normative works strategically with Zurich Insurance and has gained valuable insights into the Swiss market through this partnership.



As a Scandinavian company with over 10 years of experience, Normative is among the scale-ups in the market for modern carbon management solutions. Despite its relatively long history, Normative offers its customers a state-of-the-art SaaS platform with a very clear UI. Swiss customers benefit from the experience gained in the Swiss market through strategic cooperation with Zurich Insurance.

OneTrust

Name	ONETrust
URL	www.onetrust.com
Head office	Atlanta, USA
Company type	ISV / SaaS Provider
Year of foundation	2016
Employees	> 2'000
Customers (selection)	Osram, Schindler, Allianz, Migros

- With more than 14'000 customers, OneTrust is one of the world's fast growing SaaS companies for GRC (governance, risk and compliance). In 2022, OneTrust expanded its portfolio with the acquisition of Berlin-based carbon management specialist Planetly.
- The USD 150 million round of financing commenced in July 2023 will also be used to further expand the ESG portfolio, according to the company.
- The carbon management system originally developed by Planetly and now integrated into the OneTrust platform covers most of the relevant use cases for climate accounting and ESG reporting. The solution's strengths lie in flexible data management, user-friendly reporting and performance management for decarbonisation measures. The solution has weaknesses, however, in supplier data integration (Scope 3) and supply chain transparency.
- With the Planetly-based ESG and Sustainability Cloud, OneTrust currently offers a compelling and future-proof solution – provided that it continues to strategically invest in this portfolio segment.



For customers who want their governance, risk and compliance management closely integrated with ESG management, OneTrust provides an attractive offer. With Migros, Alpiq and Schindler, OneTrust has well-known reference customers in the Swiss market.



Name	IBM
URL	www.ibm.com
Head office	Armonk, USA
Company type	Tech group
Year of foundation	1911
Employees	> 280'000
Customers (selection)	Global customer base

- Since the beginning of 2021, following the acquisition of Envizi, a software provider specialised in carbon and ESG management, IBM has also been offering an SaaS solution for climate accounting. The IBM Envizi ESG Suite also includes the recording, consolidation, management, analysis and reporting of company-wide ESG data.
- In addition, IBM's Environmental Intelligence Suite provides an SaaS platform for monitoring, predicting and responding to weather and climate impacts. This platform provides APIs for geo and weather data as well as optional add-ons with industry-specific environmental models, and, in addition to carbon and ESG management, can be used with Envizi ESG Suite and connected via API.
- In addition, there are established supply chain transparency (IBM Supply Chain Intelligence Suite and IBM Sterling) and asset management solutions (IBM Maximo Application Suite), which must be integrated by the customer into their ESG and carbon management, as these are stand-alone solutions built on different technology stacks.



IBM has a comprehensive portfolio of sustainability solutions for large companies, which can also be combined with a “best of breed” approach. The IBM Envizi ESG Suite covers a major part of the relevant requirements for enterprise-wide ESG and carbon management and is likely to be more closely integrated with other sustainability solutions in the coming years, which will have a positive impact on user-side integration efforts.



Name	Microsoft
URL	www.microsoft.com
Head office	Seattle, USA
Company type	Tech group
Year of foundation	1975
Employees	> 200'000
Customers (selection)	Global customer base

- Since May 2022, Microsoft has been offering dedicated solutions for company-wide carbon and ESG management with Azure Cloud for Sustainability and Microsoft Sustainability Manager. Until now, customers could only view the CO₂ e-footprint of their Microsoft cloud usage.
- With Azure Cloud for Sustainability, Microsoft provides customers and partners with a powerful integration and data management tool for emissions and sustainability data. Azure Cloud for Sustainability enables data integration from a wide range of Azure services as well as external data sources. Customers can flexibly create customised and GHG-compliant CO₂ e-calculations or use the Microsoft Sustainability Manager to quickly implement ESG and carbon reporting using templates and pre-built dashboards.
- Large companies can use Azure Cloud for Sustainability not only as a basis for their carbon reporting and sustainability management, but also as a basis for the development and marketing of their own sustainability solutions, as illustrated by ABB and Honeywell.



Microsoft delivers Azure Cloud for Sustainability as a powerful and highly integrative platform for managing sustainability data. However, the features and apps for implementing fully integrated sustainability management are not yet fully mature or developed. On the one hand, customers have to take care of part of the implementation independently together with partners, but on the other hand, they have a high degree of flexibility and synergy when it comes to integrating ERP and supplier data provided that Microsoft solutions are used when doing so.



Name	Salesforce
URL	www.salesforce.com
Head office	San Francisco, USA
Company type	Tech group
Year of foundation	1999
Employees	> 70'000
Customers (selection)	Global customer base

- SaaS pioneer Salesforce has been offering a carbon and sustainability management solution with its Net Zero Cloud since 2019.
- Net Zero Cloud includes climate accounting and reporting as well as simulations and scenario planning. Nevertheless, the solution supports Scope 3 and supply chain management and includes a marketplace for the purchase of emission certificates. There are also modules for water and waste management, and diversity, equity and inclusion (DEI).
- As a global cloud provider, Salesforce not only guarantees highly scalable and secure cloud operations, but with Tableau (analytics), Mulesoft (integration and API management) and Einstein (AI), it offers additional innovative technology components for the future expansion and customisation of the Net Zero Cloud within the Salesforce ecosystem.
- In addition, there are a number of planned innovations on the Net Zero Cloud product roadmap, such as program and performance management for decarbonisation measures, improved carbon accounting including renewable energy credits, a CSRD report generator, and buying and selling emissions data through the Net Zero Marketplace.



Salesforce is one of the global cloud and software groups that are among the innovators in the field of carbon and sustainability management and boast Breitling as a prominent reference customer in Switzerland. Especially for customers with intensive Salesforce use and the corresponding skills, Net Zero Cloud can be an appealing way to use Mulesoft to connect to their own IT landscape.



Name	SAP
URL	www.sap.com
Head office	Walldorf, Germany
Company type	Tech group
Year of foundation	1972
Employees	> 110'000
Customers (selection)	Global customer base

- SAP has been offering customers different sustainability management solutions for many years (ETS, supplier risk management, circular economy).
- With SAP Sustainability Footprint Management, an SaaS-based solution for climate accounting has been available since May 2023. Deep integration with SAP S/4HANA enables activity-based (“transaction-based”) emission calculations.
- In combination with the SAP Sustainability Control Tower, which integrates various internal and external data sources as an ESG data integration platform, standards-compliant reporting can be established using different international disclosure standards.
- For SAP customers, synergies can be created through integration into existing SAP systems. However, the integration the different SAP sustainability solutions needs to be improved as the solutions are not based on the same platform.

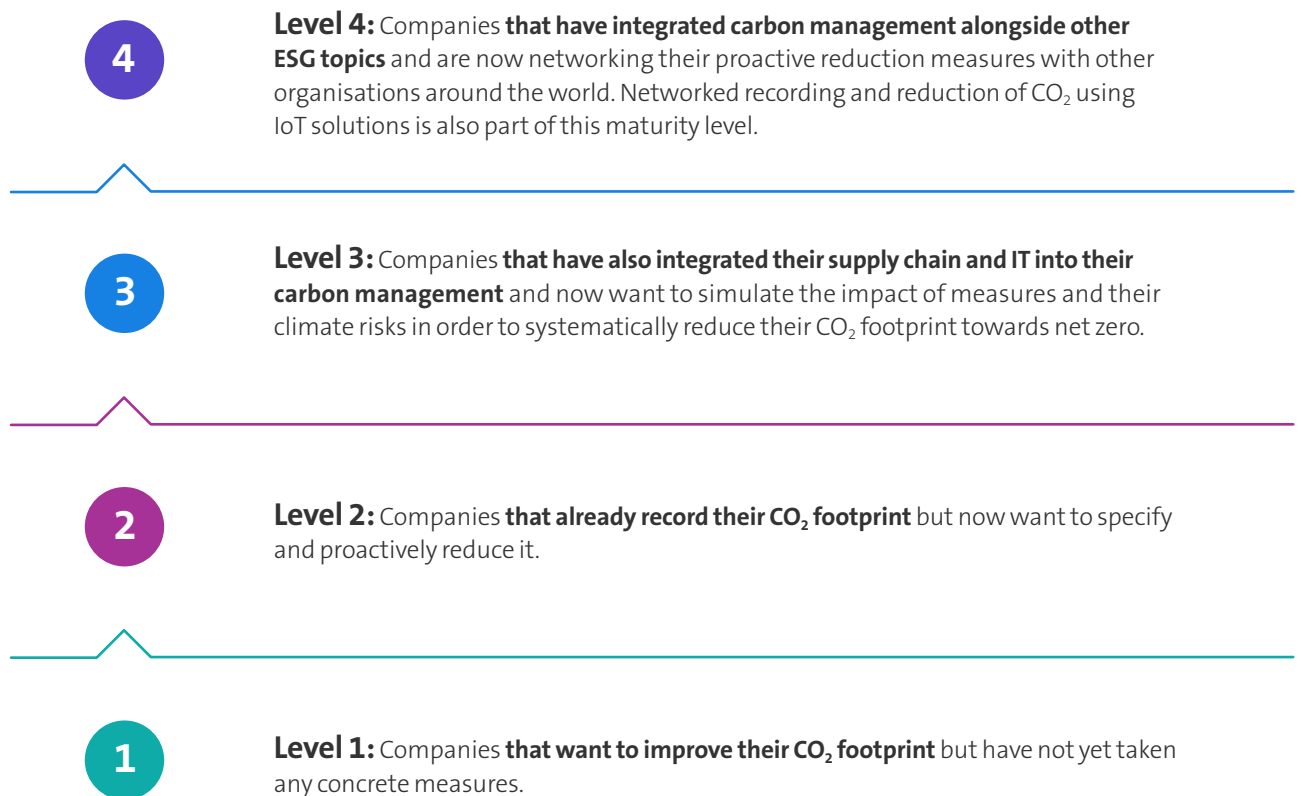


For customers whose processes and ERP data management are already primarily based on SAP S/4HANA, SAP offers a broad portfolio of carbon and ESG management solutions and synergies in data integration. This option is therefore recommended above all for large enterprises and manufacturing companies.

Successful carbon management in practice – interplay of ESG and IT

On the path to becoming a sustainable and climate-neutral company, a variety of tasks and challenges have to be overcome. Regulatory requirements must be met, concrete sustainability targets achieved and a fully integrated transformation of business models, processes and product development needs to be tackled.

The preparation of climate accounting and the introduction of company-wide, software-based carbon management are usually the starting point and an indispensable building block of a successful and data-based sustainability strategy. The degree of maturity of a company terms of carbon management can be presented in the following four stages:



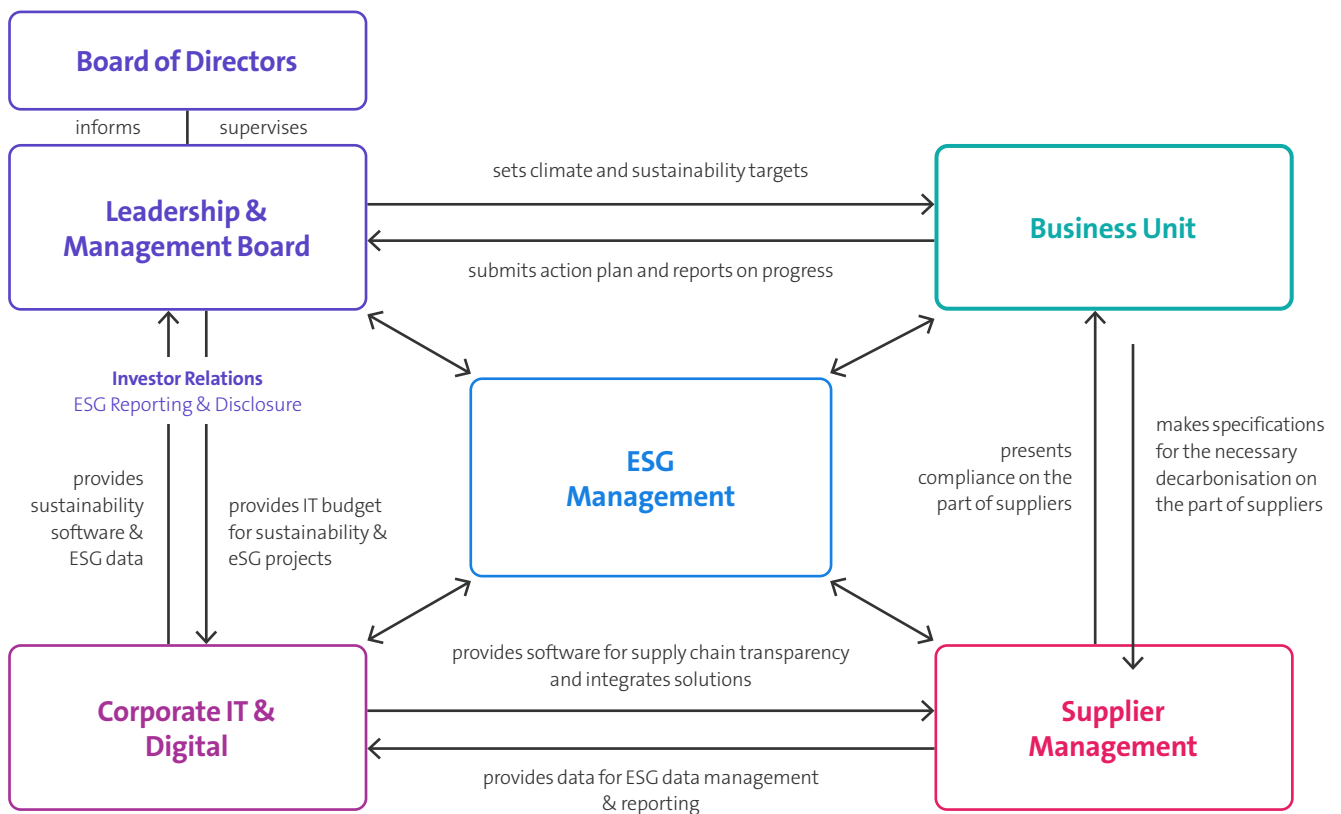
The four maturity stages of carbon management.

In the context of implementing company-wide carbon management, companies are faced with a variety of challenges such as poor data quality, integration of different data sources, a high degree of manual effort and unclear targets and KPIs. To meet these challenges, some best practices can be considered:

- ✓ **common understanding** and net-zero thinking
- ✓ **clearly defined objectives** and support from the leadership team
- ✓ **close co-operation** between sustainability management and IT department in the selection and introduction of carbon management software and beyond

- ✓ **agile and iterative approach** to the implementation of fully integrated sustainability management, which includes carbon management, supply chain transparency and ESG reporting (clear roadmap for the journey from level 1 to 4)
- ✓ **“data first” and transparency** as guidelines and design criteria for a data- and API-centric ESG data and carbon management

The roles and interaction of the various stakeholders in the context of a company-wide carbon and sustainability management are illustrated in a simplified way in the following diagram.



Stakeholder ecosystem in the context of sustainability within the company.

Selecting and introducing a suitable software solution for next-generation sustainability management involves the following tasks for the IT department and its partners:

- Support of the sustainability department in scoping the application scenarios and requirements for the future software and design of RFPs
- Product evaluation and manufacturer selection in agreement with the relevant departments and their requirements
- Definition of a solution architecture and system integration of sustainability software into the existing IT and data landscape
- Evaluation and integration of individual or sector-specific emission factors into sustainability reporting
- Onboarding and support of internal and external users
- Automation and standardisation of data acquisition, aggregation and reporting based on the software introduced as well as additional tools and AI
- Customising dashboards and providing analytics functionality for different user groups (finance, purchasing, manufacturing)

In addition, company IT can also take on the role of innovator, launching and advancing further strategic initiatives:

- Development of an ESG data lake or ESG data warehouse to manage all relevant sustainability data centrally and provide it via standardised APIs and a unified data model.
- Integration of operational and transactional data from IoT or ERP systems to enable more accurate calculations of the carbon footprint according to the activity-based approach.
- Design and establishment of “Green Twins” in order to bundle sustainability data for complex products and systems and thus enable automated calculations and simulations of product carbon footprints.

Glossary

API	Application programming interfaces
CBAM	Carbon Border Adjustment Mechanism
CDP	Carbon Disclosure Project
CSRD	Corporate Sustainability Reporting Directive
ESG	Environmental, social, governance
ESH	Energy carrier software
GHG	Greenhouse Gas Protocol
GRI	Global Reporting Initiative
ISV	Independent software vendors
KPI	Key performance indicator
PCAF	Partnership for Carbon Accounting Financials
SaaS	Software-as-Service
SASB	Sustainability Accounting Standards Board
SBTi	Science Based Targets Initiative
TCFD	Taskforce on Climate Related Financial Disclosures
UI	User interface

Annex: List of evaluation criteria product overview

Category	Comment & questions
Data management	What options does the software offer for manual data entry? Are user-friendly templates provided for data entry? How easy is it to create and manage online surveys for data entry? What option
GHG inventory & environmental management	Does the solution fully cover the calculation of the company carbon footprint (CCF) according to Scopes 1,2 and 3 and comply with GHG standards? How is Scope 1 and Scope 2 data and Scope 3 data aggregated? How is the PCAF frame
Supply chain	What features does the solution offer for data collection from suppliers? What options for collaboration are implemented? How does the solution integrate the CDP standard for CDP supply chain members? Which benchmarking KPIs and
ESG goals & net zero management	How can reduction targets be defined and adapted within the software? How does the goal-setting take place with regard to net zero and time milestones? How are reduction targets for organisational units, processes or products
Reporting, standards & disclosure	Does the solution support the relevant global reporting standards (CDP, GRI, TCFD, CSRD, GHG)? Can the reports be output in multiple data and file formats? Does the solution offer interactive and customisable
User experience & innovation	Does the solution offer clear navigation and easy-to-use user interfaces (UI/UX)? Are users actively supported by tooltips, FAQs and workflow automation tools? What are the options for collaboration?
Security & operations	Is the solution based on a modern, multi-tenant-capable software architecture and provided as Software as a Service? Is the solution or provider ISO 27001 certified and does it meet the common requirements for IT security and
Risk, regulation & governance	How is the TCFD standard implemented within the solution? Which workflow and approval processes are mapped in the solution? How granular can rules be defined and monitored using the rule engine? How is the



The detailed table is provided by Swisscom as part of the Tool Evaluation Workshop.

About Swisscom

As a demonstrably sustainable ICT company, Swisscom has been integrating sustainability considerations on environmental impact, social aspects and governance into all corporate decisions since its founding.

Swisscom is already enabling its customers to reduce their carbon footprint through innovative ICT solutions. On the one hand, it is building on its existing ICT portfolio (cloud, efficient data centres, work-smart solutions, etc.), while on the other hand, a dedicated team also supports customers on their sustainability journey – from advice on the choice of suitable ESG and carbon management software to CO₂ and ESG data integration projects and sustainable mobility and building solutions.

www.swisscom.com/net-zero

About Atlantic Ventures

Atlantic Ventures is an independent IT consultancy. Together with our customers, we develop and operate cloud and data-based solutions for a sustainable future. Our “Technology meets Purpose” mission means that we work every day to get the best out of new technologies – for our customers and for nature.

With a team of experienced digital strategists, software architects, cloud experts and data engineers, Atlantic Ventures guides customers from idea to implementation in the cloud.

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