Verified Value Delivery
Study for carbmee

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Executive Summary

Accurate carbon management processes, along with carbon footprinting analysis, are essential for firms in today's business landscape. As transparency becomes crucial for trust and investor confidence, companies must prioritize their net zero strategy to stay competitive. With impending mandatory reporting requirements for the CSRD in Europe, non-disclosure is no longer an option. Simultaneously, stakeholder demand for carbon data is rising, Buyers are also increasingly favouring sustainable, low-carbon suppliers, in a move that is particularly pertinent for firms operating within the manufacturing sector. By utilizing dedicated carbon management and footprinting software, firms can meet these demands and gain a competitive advantage through enhanced carbon data management.

The Verdantix Verified Value Delivery (VVD) methodology assesses the financial benefits, strategic benefits and associated risks of partnering with a software provider. Verdantix has conducted this research on behalf of carbmee, a carbon management software provider with capabilities in Carbon Border Adjustment Mechanism (CBAM) compliance, CSRD reporting, and product, supply chain and corporate carbon footprinting. For this assessment, Verdantix focused on the costs and benefits of using carbmee's CBAM, PCF (product carbon footprinting), SCF (supply chain carbon footprinting) and CCF (corporate carbon footprinting) modules.

The VVD methodology leverages existing research from Verdantix surveys and insights into carbon management, regulatory compliance and carbon footprinting. The data were then enhanced with ten interviews from Verdantix subject-matter experts, focusing on the financial and strategic benefits, potential risks and mitigation strategies associated with implementing carbmee. This expert input, combined with product information from carbmee and a defined model customer profile, informed the development of the initial financial model. The study's model customer is a 9,000-employee discrete manufacturing company with €500 million in annual revenue, 2,500 CBAM-relevant suppliers and 500 PCF-subject products. The interim financial model, along with strategic benefits, risks and mitigation strategies, was refined and validated through interviews with six carbmee customers. The final outputs include financial analysis – comprising return on investment (ROI), net present value (NPV) and break-even point – comparing carbmee with manual processes for a model customer; strategic benefits; and the identified risks, with corresponding mitigation plans, for prospective carbmee users.

The model customer can expect to see a 345% ROI across 3 years from implementing carbmee's PCF, SCF and CCF modules (including associated implementation fees), with a 4-month break-even point and €1.2 million NPV. The primary savings are those of time: automated processes significantly reduce the time required to undertake essential carbon management tasks. Notable savings are also derived from lower consultant fees.

Additionally, carbmee customers gain various strategic benefits, particularly for clients transitioning from manual processes. Indeed, some benefits are likely only to be achieved by partnering with a third-party sustainability software provider like carbmee. The strategic benefits include upsides such as compliance, audit facilitation, informed product design and better decision-making.

The final section of the study outlines the potential risks of implementing a carbon data management software platform such as carbmee in the form of a risk register and matrix that can be used by prospective carbmee customers when conducting their due diligence processes. The most impactful risk was found to be incomplete implementation and change management, which was assessed to be of high impact and medium likelihood.

Most firms still lack the software they need to successfully reach their net zero targets.
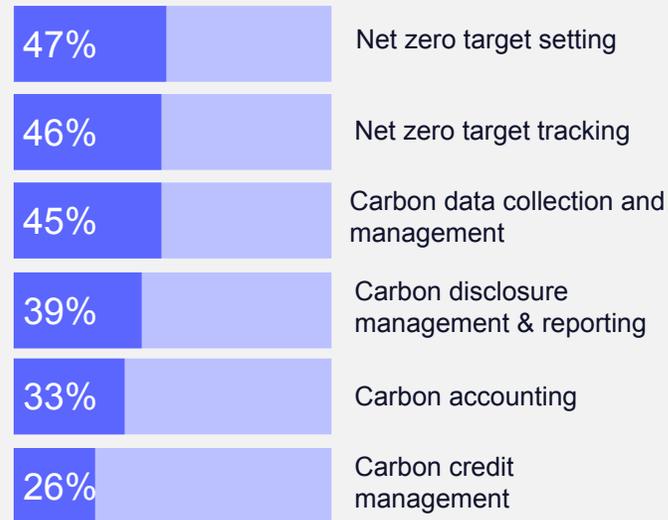
Most firms still do not have commercial software in place to manage net zero and carbon footprinting activities within their organization. However, those that have acquired software have focused their investment on net zero target setting, net zero tracking, carbon data collection and management, and carbon disclosure management and reporting. Looking forward over the next two years, firms are placing high priority on continuing to support their net zero roadmaps, complying with mandatory climate reporting workflows and integrating with their supply chain and procurement platforms.

74%

of firms plan to increase spend on carbon management software in 2025 and 2026.

Source: Verdantix Global Corporate Net Zero Survey 2024
N=353

Which of the following carbon management and net zero digital capabilities are a high priority for 2025 and 2026?

- 56% Net zero target setting, pathways & forecasting
- 45% Net zero project portfolio management
- 35% Mandatory climate reporting workflows (CSRD)
- 33% Integration with supply chain & procurement
- 33% Facility-level emissions data acquisition tools
- 30% Audit-quality emissions calculation engine
- 27% Voluntary carbon reporting
- 24% Carbon emissions financial metrics

Is your firm using commercial software to support the following net zero or climate-related use cases?

- 47% Net zero target setting
- 46% Net zero target tracking
- 45% Carbon data collection and management
- 39% Carbon disclosure management & reporting
- 33% Carbon accounting
- 26% Carbon credit management

Many firms still rely on spreadsheets and in-house software to manage carbon and sustainability activities, hindering their initiatives.

56%

of firms still use spreadsheets or in-house software to manage supply chain sustainability, while carbon management (55%) and ESG and sustainability reporting (45%) come in slightly lower.

Source: Verdantix Global Corporate ESG & Sustainability Survey 2024
N=400

Funding improvements for which of the following processes is a high priority in 2025 and 2026?

72%	Reporting ESG and sustainability data
63%	Updating sustainability strategy
58%	Obtaining external assurance of ESG and sustainability data
55%	Integrating ESG factors into spending decisions
52%	Improving product and supply chain sustainability information
47%	Increasing internal ESG and sustainability expertise
31%	Conducting double materiality assessments

Many firms struggle with obtaining reliable data from their suppliers, affecting the quality of their own carbon disclosures, from firm-level carbon footprinting to product-specific data. The lack of commercial software makes the data collection process inefficient and resource-intensive, leading firms to seek to fund improvements.

An investment in commercial software to support carbon management and footprinting delivers quick and reliable efficiency improvements across many key processes.

How significant are the following challenges to improving supply chain sustainability? (top 3)

76%	Insufficient engagement from suppliers
56%	Lack of expertise of people resources within suppliers
49%	Need for better software-based tools
42%	Inconsistent or poor-quality data from suppliers (including carbon emissions)

Firms have low confidence in their carbon footprint data, particularly when it comes to their supply chains, with the majority lacking appropriate software.

Despite struggling with confidence in carbon disclosures as they relate to firms' supply chains, only 8% of firms in 2024 were using dedicated software for LCA and product carbon footprinting. Even for supply chain regulatory compliance, this figure only rises to 37%, highlighting the gap in businesses' ability to effectively collect, process and analyse their Scope 3 data. This lack of technology means that firms are heavily relying on consulting services and manual processes, both of which can be costly, inefficient, time-consuming and inaccurate.
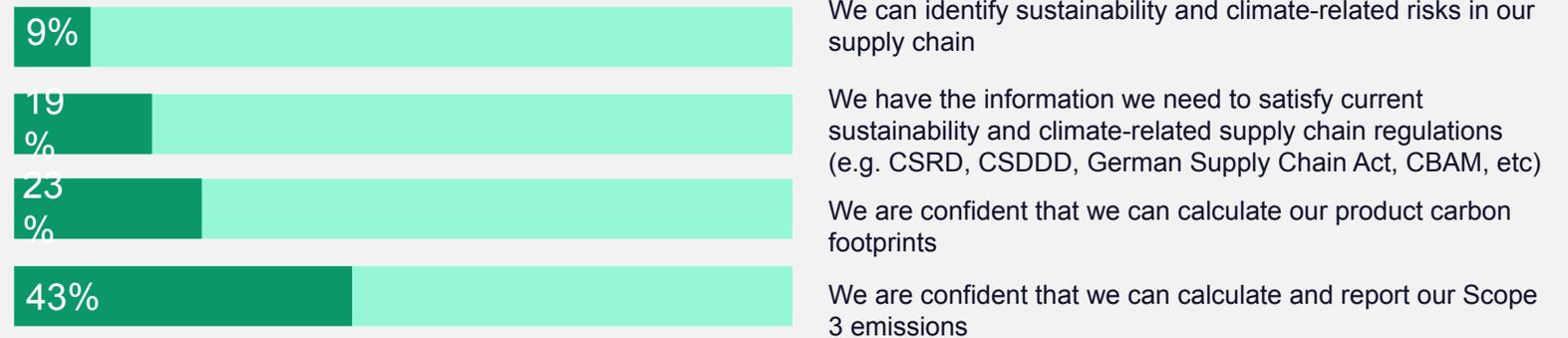
8%

of firms are using commercial software to perform LCAs and product carbon footprinting

Source: Verdantix Supply Chain Sustainability Survey 2024
N=250

To what extent do you agree with the following statements regarding your supply chain?
(% of 'strongly agree' responses)

9%	We can identify sustainability and climate-related risks in our supply chain
19%	We have the information we need to satisfy current sustainability and climate-related supply chain regulations (e.g. CSRD, CSDDD, German Supply Chain Act, CBAM, etc)
23%	We are confident that we can calculate our product carbon footprints
43%	We are confident that we can calculate and report our Scope 3 emissions

Verified Value Delivery is a digital project evaluation methodology that provides prospective buyers with a fact-based assessment of the financial upside, strategic benefits and risk mitigation actions associated with a digital project.

Strategy Lens
Technology investment is key to achieve strategic business goals. The VVD methodology documents the strategic benefits of the technology, which can be hard to quantify.

Financial Lens
Securing commitment to invest in digital projects may require sign-off by an investment committee. The VVD methodology includes a financial model with verified cost-saving line items and financial upside factors.
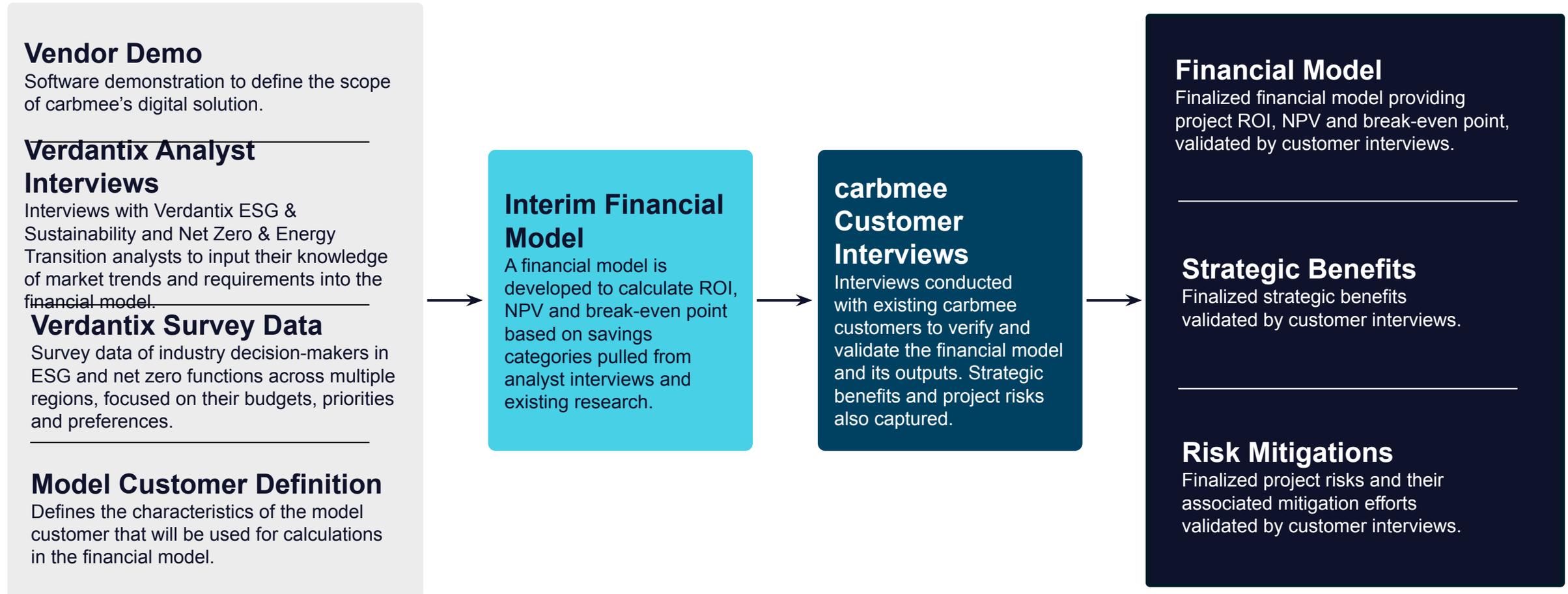
Risk Lens
Transformational digital projects have several risk vectors. The VVD process unearths these risks and recommends mitigating actions.

Verified Value Delivery utilizes the following methodology to develop and validate the financial upside, strategic benefits and risk mitigation actions.

Vendor Demo
Software demonstration to define the scope of carbmee's digital solution.

Verdantix Analyst Interviews
Interviews with Verdantix ESG & Sustainability and Net Zero & Energy Transition analysts to input their knowledge of market trends and requirements into the financial model.

Verdantix Survey Data
Survey data of industry decision-makers in ESG and net zero functions across multiple regions, focused on their budgets, priorities and preferences.

Model Customer Definition
Defines the characteristics of the model customer that will be used for calculations in the financial model.

Interim Financial Model
A financial model is developed to calculate ROI, NPV and break-even point based on savings categories pulled from analyst interviews and existing research.

carbmee Customer Interviews
Interviews conducted with existing carbmee customers to verify and validate the financial model and its outputs. Strategic benefits and project risks also captured.

Financial Model
Finalized financial model providing project ROI, NPV and break-even point, validated by customer interviews.

Strategic Benefits
Finalized strategic benefits validated by customer interviews.

Risk Mitigations
Finalized project risks and their associated mitigation efforts validated by customer interviews.

Expert Interviews

To provide insightful analysis on market drivers, customer priorities, ESG & sustainability regulations, and carbmee product capabilities, Verdantix interviewed ten experts with over 55 years of combined experience in carbon management, Scope 3, ESG & sustainability reporting, CSRD, sustainable supply chains, circular economy and ESG & sustainability services.

Interviewees	Research Focus Area(s)
Analyst, Net Zero & Energy Transition	Carbon accounting and environmental strategy
Research Director, Net Zero & Energy Transition	Net zero strategies, carbon management, climate risk and technology
Senior Analyst, Net Zero & Energy Transition	Carbon management software, climate change and consulting services
Industry Analyst, Net Zero & Energy Transition	Solutions for GHG emissions and net zero management
Industry Analyst, Net Zero & Energy Transition	Energy technologies, decarbonization and net zero strategies
Industry Analyst, ESG & Sustainability	Global market trends around supply chain sustainability
Principal Analyst, ESG & Sustainability	ESG reporting and data management software
Senior Analyst, ESG & Sustainability	ESG reporting and data management landscape
Research Director, ESG & Sustainability	ESG regulations and reporting, ESG risk, supply chain sustainability, circular economy
Industry Analyst, ESG & Sustainability	ESG reporting, circular economy and supply chain sustainability

Customer Interviews

To provide insightful analysis on the benefits and risks of deploying carbmee within an organization, Verdantix interviewed 6 decision-makers with experience of implementing and using carbmee across 6 businesses.

Interviewees	Industry	Region	Revenue	Employees
Senior Sustainability Manager	Discrete Manufacturing	Global (Europe Headquarters)	€28bn	16,000
Trade & Customs Specialist	Logistics	Global (Europe Headquarters)	€15bn	100,000
Material Management Sustainability Expert	Automotive Manufacturing	Global (Europe Headquarters)	€47bn	169,000
Purchasing Strategy & Strategic Supplier Management Sustainability	Equipment Manufacturing	Global (Europe Headquarters)	€25bn	120,000
Supply Chain and Logistics Manager	Plant Breeding	Global (Europe Headquarters)	€1.6bn	5,000
Head of Supply Chain & Logistics	Optical Manufacturing	Global (Europe Headquarters)	€11bn	46,000

Summary of the financial upside, strategic benefits and risks of using carbmee

Financial Upside

- Time savings from manual processing of data across CCF, SCF and PCF
- Consultant cost savings

Strategic Benefits

- Compliance
- Audit facilitation
- Informed product design
- Better decision-making
- Greenwashing risk reduction
- Carbon credit savings
- Easier supplier engagement
- Smarter net zero planning

Risk Mitigation

- Incomplete implementation and change management
- Lack of technical expertise by end-users
- Data uploaded are of poor quality
- Incomplete data upload for CSRD
- Data security and privacy concerns

Financial Benefits

Section Summary

This section provides details on the assumptions and savings categories used to develop the financial model; the financial KPI highlights, outlining the key benefits of carbmee; and detailed figures showcasing the financial benefits.

1 Financial Model Assumptions
The statistics of the model organization and carbmee contract that will be used to populate the financial model and evaluate the financial benefits of carbmee.

2 Financial Model Savings Tree
A detailed breakdown of the financial savings experienced with carbmee used to develop the financial model ROI calculator.

3 Financial KPI Highlights
The key outputs of the financial model showcasing the ROI, break-even point, total benefits and NPV of carbmee for the model organization.

4 Financial Model Figures
Figures showcasing the financial costs and benefits of carbmee, providing a more detailed summary of KPI highlights.

Model Company Stats

For the purposes of this study, Verdantix aggregated the interviewees' experiences with the carbmee platform and developed a model company. The company has been managing its net zero and carbon footprinting activities manually through spreadsheets, but has decided to invest in software due to the complexity of upcoming CSRD regulatory requirements and additional investor and client demands. The assumed statistics of the model company can be seen to the right.

9,000
Employees

€500m
Annual Revenue

15
ESG Team Members

Midcap
carbmee Plan

500
PCF-Subject Products

2,500
CBAM Suppliers

Model Customer Contract

Accounting for the model company's size, revenue, emissions complexity and software requirements, carbmee subscription fees and implementation costs were calculated.

Due to the revenue profile of the model firm, it is implementing the carbmee Midcap Plan, including three modules (CCF, PCF and SCF). This results in an average annual subscription fee of €130,840, with an implementation fee of €50,000 in year one.

carbmee 'Midcap' tier plan*

- Corporate Carbon Footprint (CCF)

- Product Carbon Footprint (PCF)

- Supply Chain Footprint (SCF)

Year 1	Year 2	Year 3
	130613	140408

€50,000

Implementation Cost (across 3 years)

€130,840

Annual Subscription Fee (average across 3 years)

*other plans available by carbmee include Small, Large and Enterprise tier, depending on client revenue

Financial Model Savings Tree

Based on the use cases discussed during customer interviews and those explored through existing Verdantix research on carbon management and PCF, a financial model savings tree and subsequent return on investment (ROI) calculator was developed to break down anticipated savings for the model organization.

Financial Benefits

Time Savings				
	CCF	Carbon data collection & quality control	Emissions calculations & quality control	CSRD-related carbon data reporting
	SCF (inc. CBAM)	Supplier engagement & emission calculations	Supplier emissions tracking, scenario modelling & management	CBAM reporting
	PCF	PCF calculations	PCF analysis & reporting	

Consulting Savings				
	Carbon reporting	CBAM	PCF calculations	Product ecodesign R&D

Financial KPI Highlights

> "
> Financially, carbmee saves a lot of manpower, but also otherwise we would have hired more consultants to support the process, so the savings are a whole package
> "
>
> *Supply Chain and Logistics Manager,*
> *Plant Breeding*

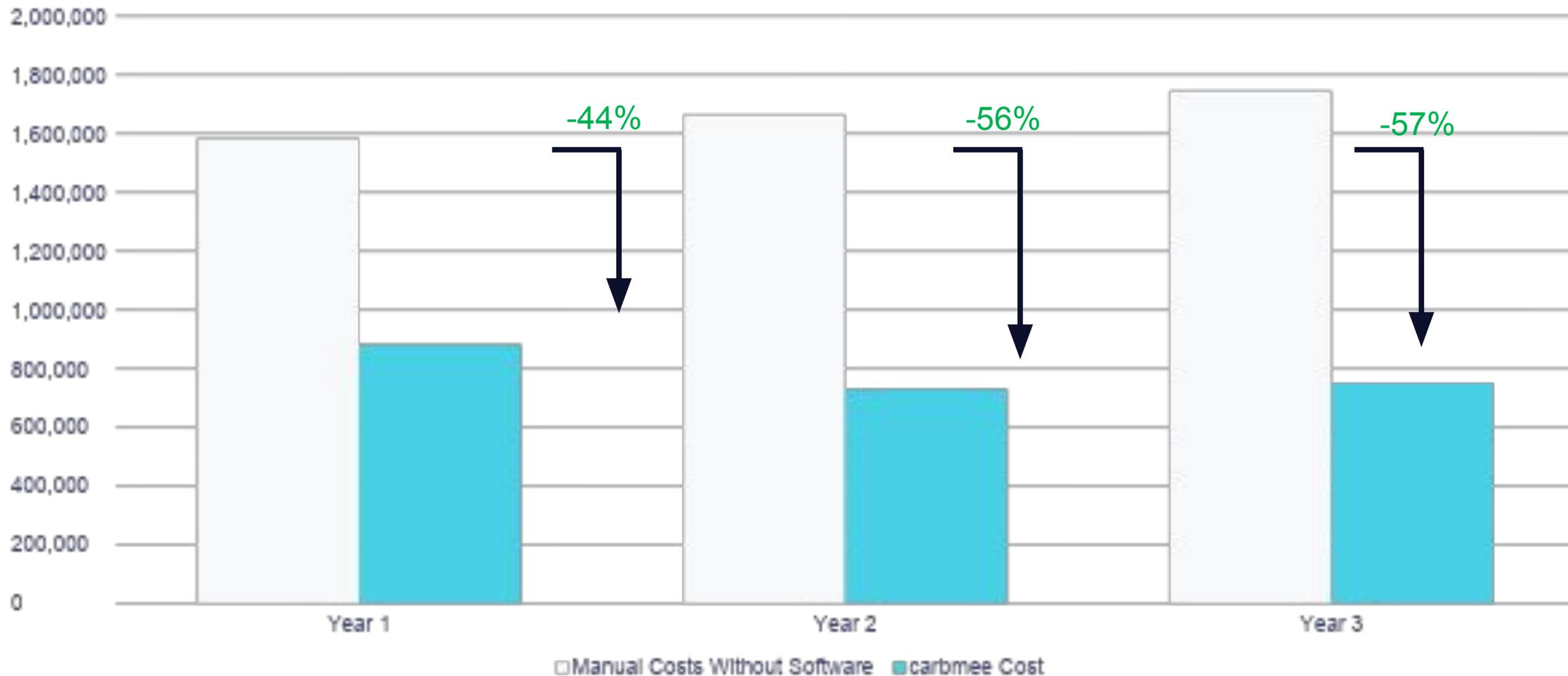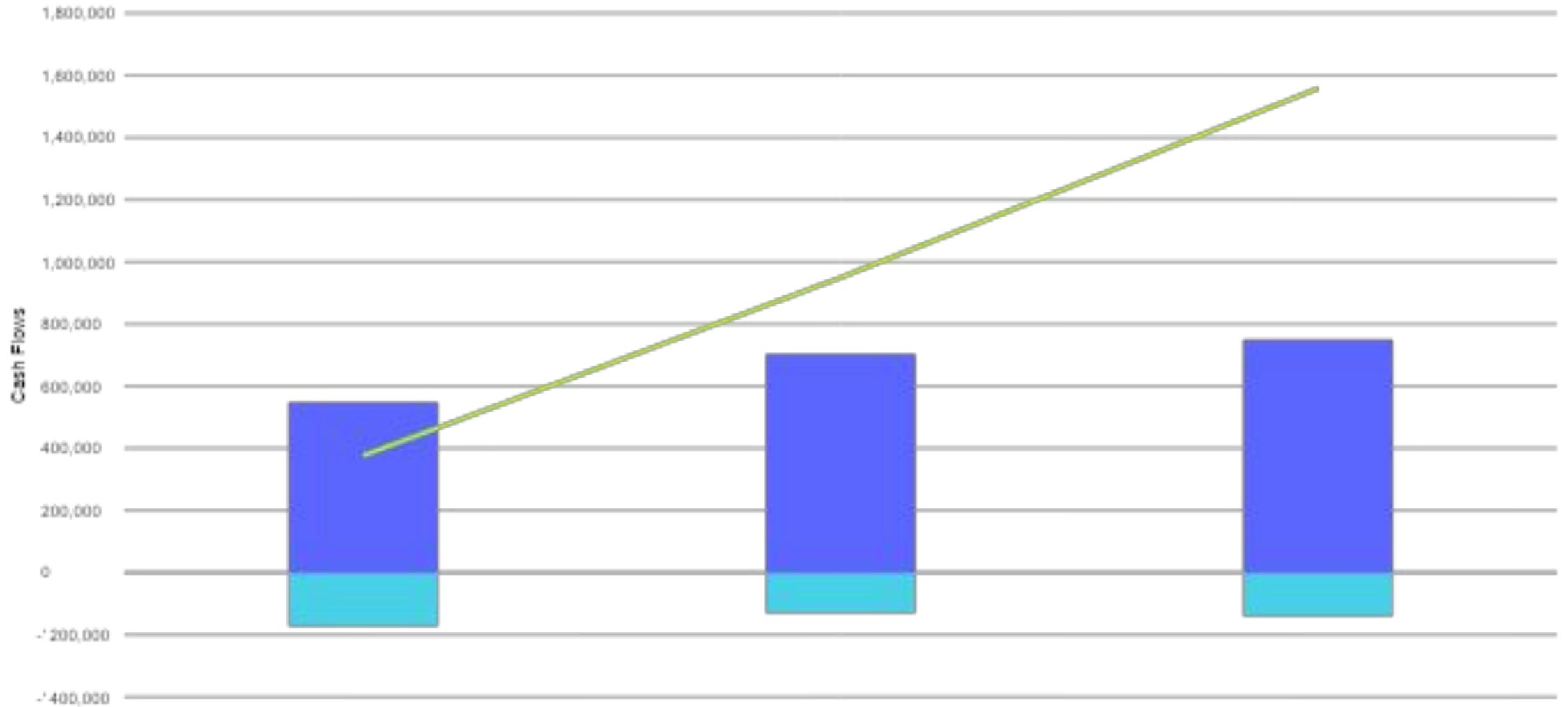|			
345%	**€1.6 M**	**€1.3M**	**4 months**
Return on Investment (ROI) - over 3 years	Total Benefits -over 3 years	Net Present Value (NPV) - over 3 years	Breakeven Point

Model Customer Cost Reduction From Using carbmee

Cost Reduction
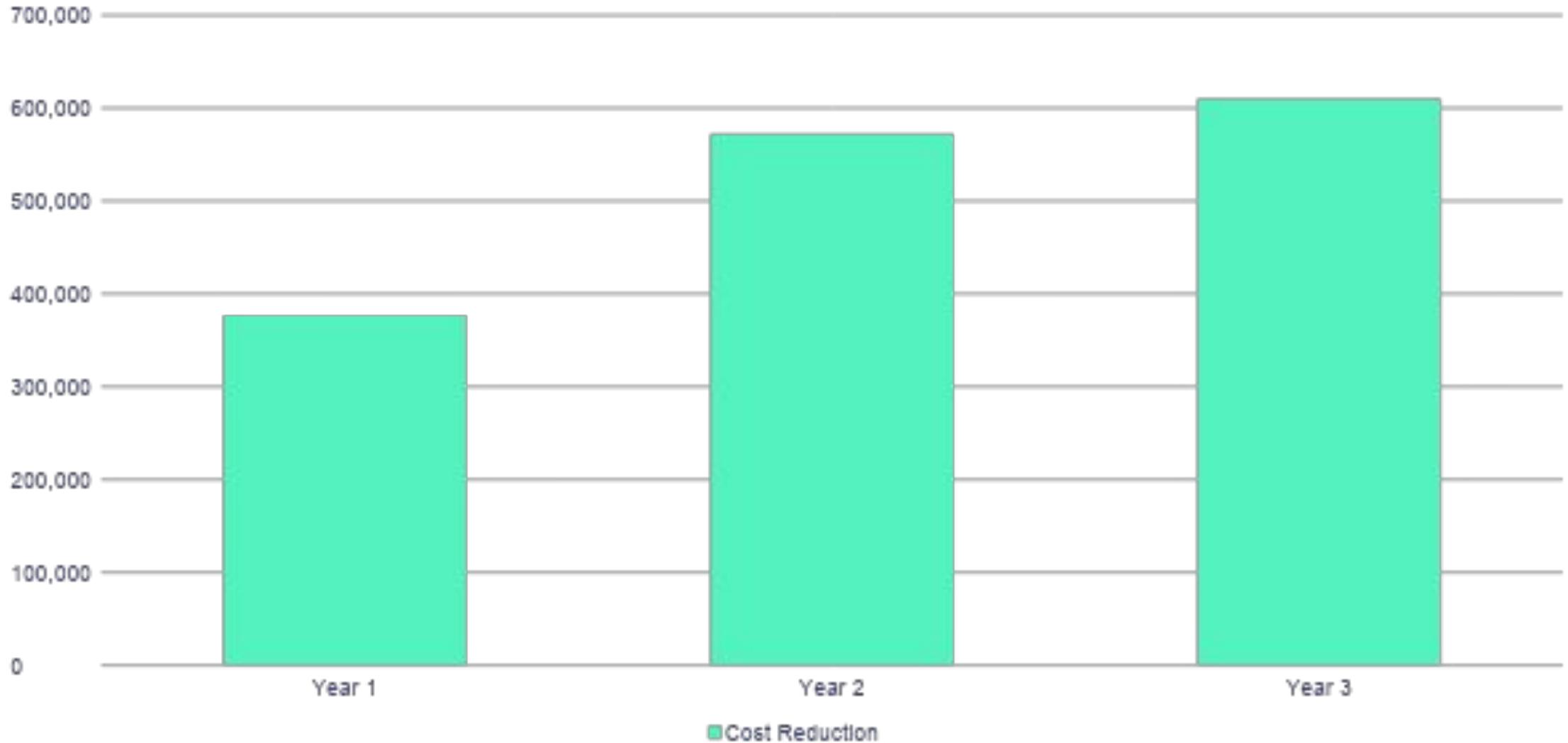
Model Customer Cost Comparison

Model Customer Three-Year Cost/Benefit Analysis

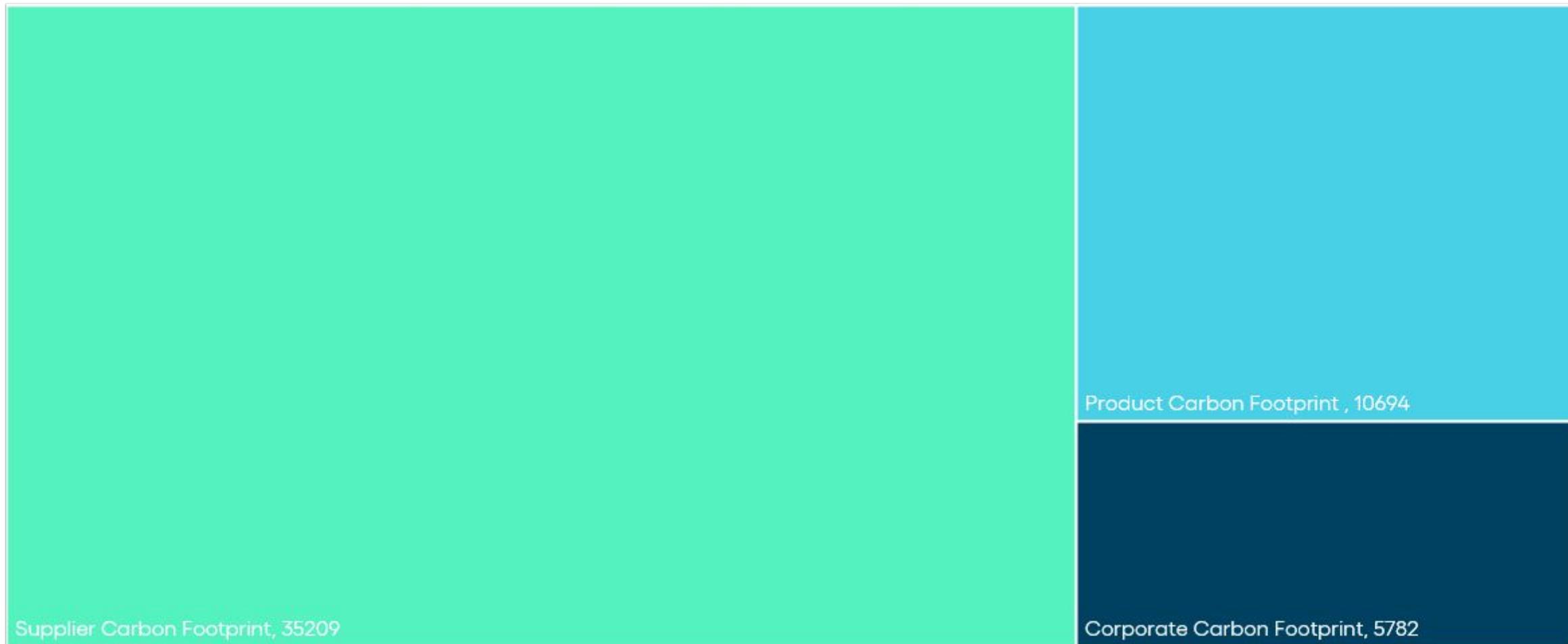# Model Customer Combined Three-Year Cost Savings by Module

Supplier Carbon Footprint, € 933,132

Product Carbon Footprint , € 678,870

Corporate Carbon Footprint, € 389,552

Model Customer Combined Three-Year Cost Savings by Module

Supplier Carbon Footprint, € 933,132

Product Carbon Footprint , € 678,870

Supplier Engagement & Emissions Calculations, € 625,110

Corporate Carbon Footprint, € 389,552

Supplier Emissions Tracking, Scenario Modelling & Management, € 308,022
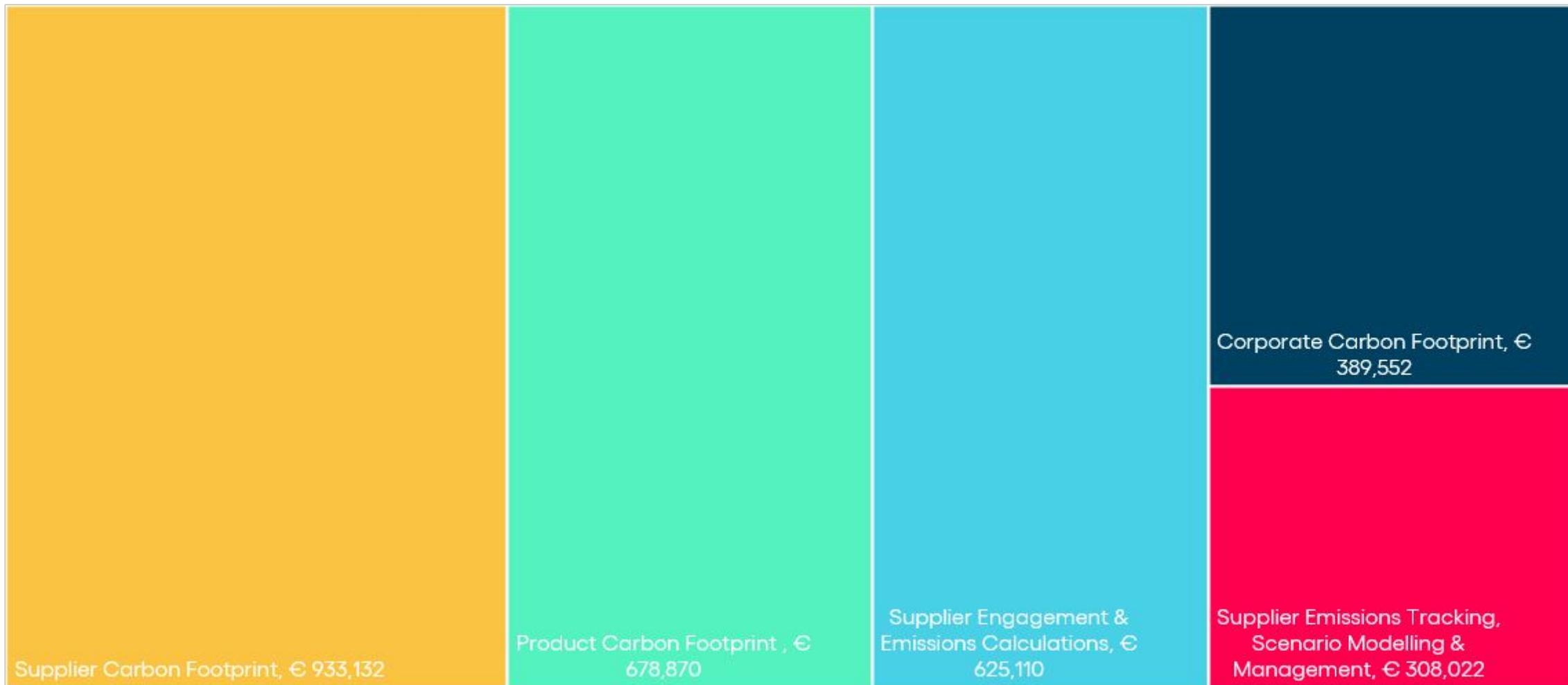
Model Customer Combined Three-Year Time Savings by Module

■ Corporate Carbon Footprint ■ Supplier Carbon Footprint ■ Product Carbon Footprint

Product Carbon Footprint , 10694

Supplier Carbon Footprint, 35209

Corporate Carbon Footprint, 5782

Model Customer Combined Three-Year Time Savings by Module

Supplier Engagement & Emissions Calculations, 27455

Product Carbon Footprint, 10694

Supplier Emissions Tracking, Scenario Modelling & Management, 7755

Corporate Carbon Footprint, 5782
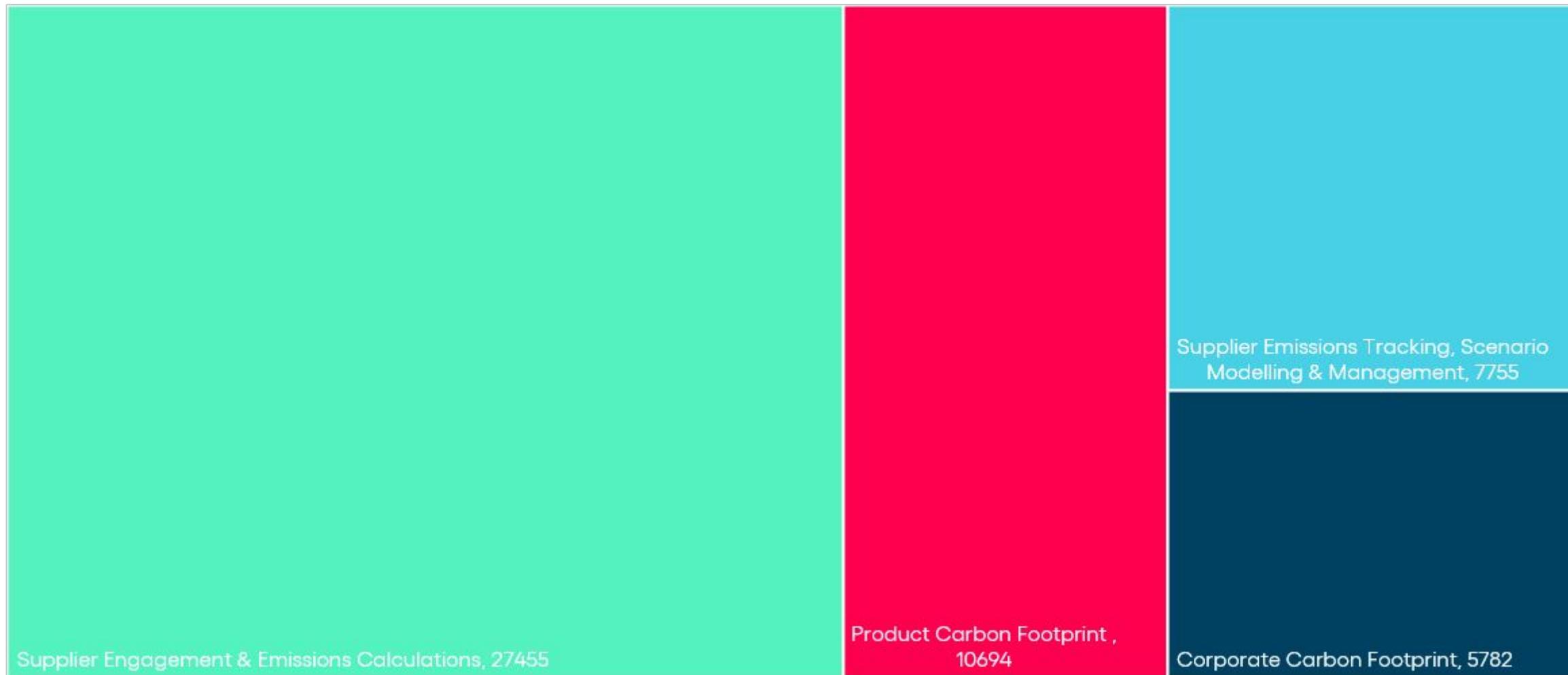
Strategic Benefits

Section Summary

This section provides customer quotes on the non-quantifiable strategic benefits of the carbmee platform and showcases the key benefits of utilizing carbon management and PCF software throughout an organization.

1 Customer Interview Quotes
Quotes from carbmee customers about the non-quantifiable benefits they have experienced from partnering with carbmee.

2 Carbon Management Strategies
The benefits and risks of deploying different strategies within an organization to support carbon management and PCF processes.

3 Strategic Benefits Breakdown
A detailed breakdown of the organizational benefits achieved by deploying carbmee, grouped into four fundamental benefits categories.

Quotes from interviews

" **The auditing process after implementing carbmee has been a lot less cumbersome on us**. The auditor said Scope 3 data was very clear and transparent, and easy to follow. This was not the case for Scopes 1 & 2 where we do not use carbmee. "

Supply Chain and Logistics Manager, Plant Breeding

" **carbmee helps us collaborate with our suppliers.** Per supplier, normally it would be at least double the time if we did it without carbmee. Before, we were gathering data on a higher level and now we can drill down to each material. The increase in transparency of our CO2 emissions is a big value-add. "

Material Management Sustainability Expert, Automotive Manufacturing

" **Data gathering [for CBAM] in general is very time and energy-consuming**. Asking for data in an e-mail fashion is very frustrating. It was never a question to send out Excels; it was always clear we needed a software solution. So if you compare it to Excel and e-mails, **carbmee is a 1,000% improvement.** "

Purchasing Strategy & Strategic Supplier Management Sustainability, Equipment Manufacturing

Strategic Benefits

"

carbmee allowed us to measure our baseline carbon footprint as a company and we used that to define high-impact levers that would drive that down over the coming years. In an annual cycle, we now update the footprint and see whether the impact that we expected is materializing or not.

"

Head of Supply Chain & Logistics, Optical Manufacturing

"

We can compare different PCFs within the software, and we use that for R&D workshops to see where, for certain materials, the emissions are higher, and **we can challenge our suppliers over that**. This is strategically important for us moving forward.

"

Senior Sustainability Manager, Discrete Manufacturing

"

We started to model our product portfolio in carbmee to understand the emission structure of our existing portfolio. For each new product development instance, we go through carbon footprint evaluation. The engineers have to determine the footprint and whether there are opportunities to reduce the environmental impact for the product. **By modelling it in carbmee, we try alternatives in terms of material, manufacturing location, manufacturing process, and so on.**

"

Head of Supply Chain & Logistics, Optical Manufacturing

Carbon management stepladder

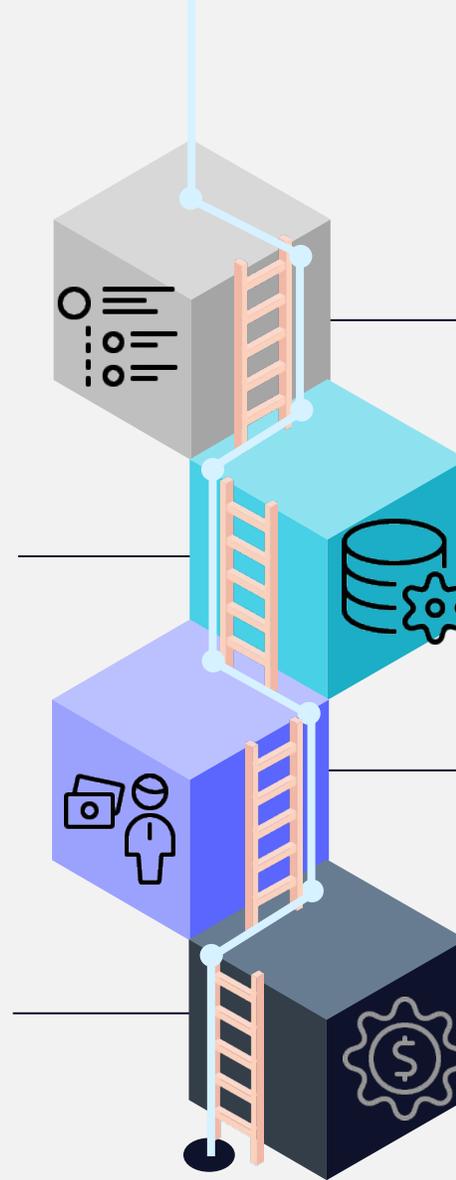## Stacked User **Benefits** and **Risks**

Partner with specialized carbon management and PCF software

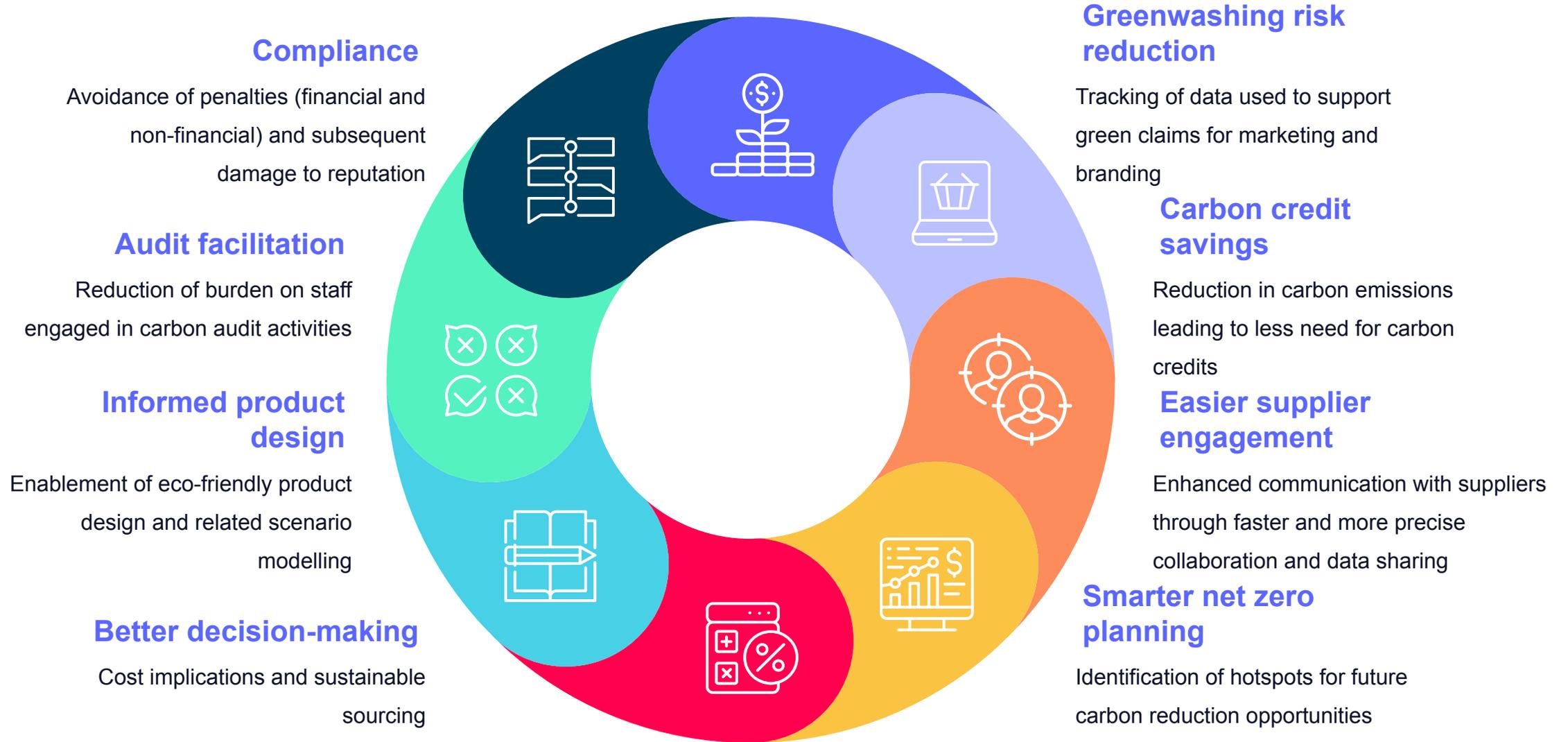Use a ready-made solution to meet regulatory deadlines and manage advanced requirements like sustainability audits, freeing up time for sustainability innovation and enabling a competitive advantage, with investor and customer expectations exceeded.

Develop in-house software

Improved data control, reliability and reporting accuracy but requires substantial amounts of time, technical and subject-matter expertise to meet regulatory, investor and auditor expectations, creating potential bottlenecks and missed opportunities. Lacking connectivity with other systems.

Partner with consultants – without software

Development of a robust sustainability strategy, and ensures that reporting is in line with regulatory requirements, but sustainability data management remains a significant time and financial burden. For PCF activities, consultants are not scalable without considerable investment.

Manual in-house processes

Meet minimum regulatory reporting requirements, but at a significant operational cost, with little time left for strategy development and implementation. Poor data management and human error can also lead to inaccurate or incomplete disclosures, risking reputational damage and financial loss. The process is managed in spreadsheets, limiting accuracy and auditability.

Do nothing

High-risk strategy, likely resulting in legal penalties, reputational damage, financial loss, and loss of investor and customer confidence.

Compliance

Avoidance of penalties (financial and non-financial) and subsequent damage to reputation

Audit facilitation

Reduction of burden on staff engaged in carbon audit activities

Informed product design

Enablement of eco-friendly product design and related scenario modelling

Better decision-making

Cost implications and sustainable sourcing

Greenwashing risk reduction

Tracking of data used to support green claims for marketing and branding

Carbon credit savings

Reduction in carbon emissions leading to less need for carbon credits

Easier supplier engagement

Enhanced communication with suppliers through faster and more precise collaboration and data sharing

Smarter net zero planning

Identification of hotspots for future carbon reduction opportunities

Compliance

carbmee significantly decreases the effort required by firms to meet compliance requirements, targeting regulations such as CBAM and CSRD and allowing firms to focus on business activities instead. This leads to avoidance of penalties – financial and operational – and limits blowback from reputational damage resulting from non-compliance.

Audit facilitation

carbmee's data audit trail reduces the level of work required by auditors to conduct the audit process, and simultaneously decreases the effort of the audited firm to comply with information requests. This may lead to shorter audit cycles, as well as a decrease in audit fees due to data availability and transparency.

Informed product design

The carbmee platform allows manufacturers to gain precise insights into the carbon footprint of their products, identifying key hotspots and the specific impact of using alternative materials. This supports eco-design efforts and enhances efficiency within product teams.

Better decision-making

carbmee increases the transparency of firms' supplier networks, enabling procurement teams to assess the carbon cost implications of their sourcing strategies and facilitating the transition to sustainable procurement practices.

Easier supplier engagement

Switching from manual processes to carbmee's EIS platform makes communication with suppliers less cumbersome on both ends, saving time across both data collection and verification. This is particularly pertinent to large firms with thousands of suppliers, where large-scale data collection is taxing for the organization.

Smarter net zero planning

The aggregated, unified view of carbon data – whether pertaining to supply chain, product or the wider firm – provided by carbmee informs net zero transition plans, boosting the accuracy of any targets and facilitating better tracking against existing goals.

Greenwashing risk reduction

carbmee's accurate and transparent data trail for materials, products and total company profile supports and substantiates low-carbon and/or carbon reduction claims, safeguarding companies against greenwashing accusations. This allows the marketing and branding department to maximize the impact of their environmentally sustainable initiatives.

~~Carbon credit~~ savings

By enabling enhanced net zero planning, carbmee indirectly allows companies to reduce their expenditure on carbon credits, which become less necessary due to the resulting decrease in carbon emissions. This is especially crucial for manufacturing firms operating with narrow profit margins.

Risk Management

Section Summary

This section provides a summary of the risks of implementing and deploying carbmee within an organization, along with the mitigation actions that can be put in place to reduce the likelihood and impact associated with each risk.
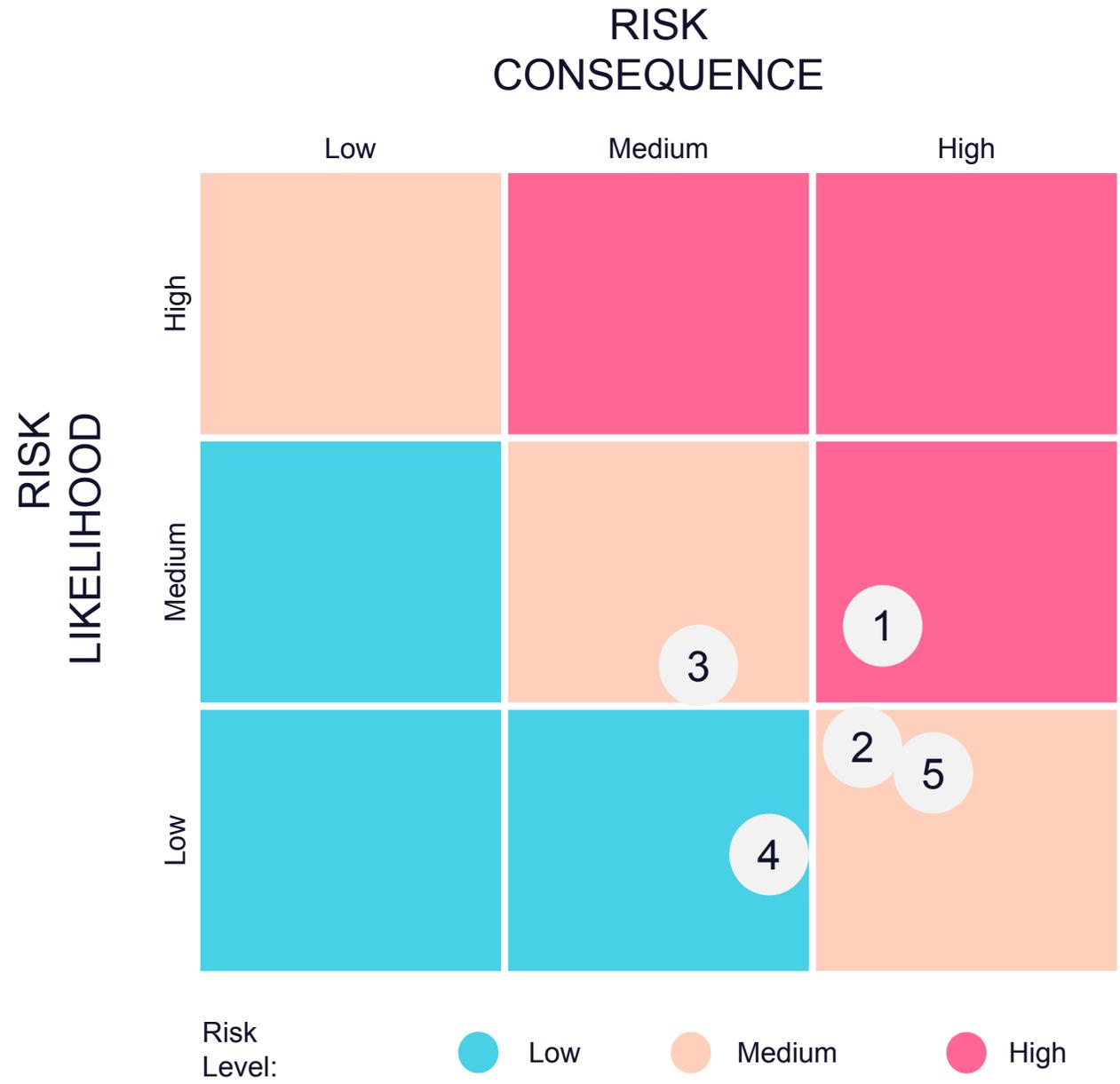
1

Risk Heat Map
The risk heat map showcases the risks associated with the digital project of implementing carbmee, the likelihood those risks will arise and the potential impact they could have on an organization.

2

carbmee Project Risk Register
The project risk register summarizes the identified risks, provides detailed analysis of the impact that could occur if these risks are not mitigated, along with the mitigation actions organizations can take to reduce the likelihood of each risk, and a note of the associated stakeholders that could be affected.

Risk Management – carbmee Project Risks

#	Risk Description
1	Incomplete implementation and change management
2	Lack of technical expertise by end-users
3	Data uploaded are of poor quality
4	Incomplete data upload for CSRD
5	Data security and privacy concerns

RISK CONSEQUENCE

RISK LIKELIHOOD

Risk Level: Low Medium High

Risk Management – carbmee Project Risks

carbmee Project Risk Register				
Risk Description	**Risk Likelihood**	**Risk Impact**	**Risk Response**	**Risk Owner**
Incomplete implementation and change management	Medium	Software rollout can be limited by user adoption, resulting in operational disruptions, with inefficiencies and potential downtime. User dissatisfaction and difficulty implementing future upgrades.	carbmee has internal experts skilled in implementation and change management services. Its modern, user-friendly interface helps users quickly become comfortable with the software, while a training platform streamlines onboarding for new employees.	C-Suite
Lack of technical expertise by end users	Low	Incorrect usage of the software, including inaccurate PCF/CCF/SCF calculations and analysis. Risk of inaccurate product design and non-compliance with relevant frameworks.	carbmee always performs the full onboarding process, which includes training of key users. The carbmee academy offers additional training on correct software usage.	CIO/CTO
Data uploaded are of poor quality	Medium	Data quality and integrity issues. Inaccurate decision-making, with a potential return to manual processes. Decreased employee satisfaction and productivity. Challenges in reporting and analytics.	On implementation, the carbmee team reviews the uploaded data and provides feedback on format, structure, quality and completeness. A 4-feedback loop structure brings added precision to the data.	CIO/CTO
Incomplete data upload for CSRD	Low	Misalignment with CSRD reporting standards, resulting in penalty fines. A return to some manual processes, creating increased cost.	carbmee has a team of in-house experts, and a dedicated Customer Success Manager, to supervise the data upload process. carbmee also offers a CBAM reporting service, which validates data quality.	CSO
Data security and privacy concerns	Low	Financial reparations for data breaches, reputational damage, potential legal consequences, operational disruption and potential loss of customers.	carbmee is ISO 27001-certified, as well as GDPR-compliant. carbmee's data are stored in Germany by AWS, which is among the most secure systems in the world.	CIO/CTO

Risk Management – carbmee Project Risks

carbmee Project Risk Register				
Risk Description	**Risk Consequence**	**Risk Impact**	**Risk Response**	**Risk Owner**
Incomplete implementation and change management	High	Software rollout can be limited by user adoption, resulting in operational disruptions, with inefficiencies and potential downtime. User dissatisfaction and difficulty implementing future upgrades.	carbmee has internal experts skilled in implementation and change management services. Its modern, user-friendly interface helps users quickly become comfortable with the software, while a training platform streamlines onboarding for new employees.	C-Suite
Lack of technical expertise by end-users	High	Incorrect usage of the software, including inaccurate PCF/CCF/SCF calculations and analysis. Risk of inaccurate product design and non-compliance with relevant frameworks.	carbmee always performs the full onboarding process, which includes training of key users. The carbmee academy offers additional training on correct software usage.	CIO/CTO
Data uploaded are of poor quality	Medium	Data quality and integrity issues. Inaccurate decision-making, with a potential return to manual processes. Decreased employee satisfaction and productivity. Challenges in reporting and analytics.	On implementation, the carbmee team reviews the uploaded data and provides feedback on format, structure, quality and completeness. A 4-feedback loop structure brings added precision to the data.	CIO/CTO
Incomplete data upload for CSRD	Medium	Misalignment with CSRD reporting standards, resulting in penalty fines. A return to some manual processes, creating increased cost.	carbmee has a team of in-house experts, and a dedicated Customer Success Manager, to supervise the data upload process. carbmee also offers a CBAM reporting service, which validates data quality.	CSO
Data security and privacy concerns	High	Financial reparations for data breaches, reputational damage, potential legal consequences, operational disruption and potential loss of customers.	carbmee is ISO 27001 certified, as well as GDPR-compliant. carbmee's data are stored in Germany by AWS, which is among the most secure system in the world.	CIO/CTO

verdantix