



# Sustainability Strategy 2021- 2022

pepper motion GmbH

## A. Sustainability Policy Statement

Sustainability is at the core of our mission. At pepper motion GmbH, we want to accelerate the world's transition to electric mobility. [Transport](#) represents almost one-fifth of the world's greenhouse gas (GHG) emissions, of which road transport is the biggest contributor at about 75 percent. Moreover, air pollutants – including those from [road transport](#) – are now considered the world's largest environmental health risk, and a major cause of premature death and disease. The world needs rapid action on reducing harmful emissions, to limit global warming and to lower the threats posed to health. This, however, cannot be achieved unless we first address the enormous sunk costs in traditional fossil-fuel powered vehicles.

The average lifespan of a bus or truck is between [10 – 25](#) years, with huge upfront costs. Added to that, changing the engine, gearbox, or axle (new or refurbished) can entail further costs. For companies to replace their entire fleet with brand-new electric vehicles (EV) would not only involve a large investment, but it would also be environmentally damaging. That is why we have designed a product that allows anyone, especially municipalities, public transport operators, and bus/truck manufacturing companies, to change their existing fleet without incurring the financial or environmental costs of complete replacement. We have made it economically rational to be environmentally friendly.

Our core product is a kit that enables the conversion of diesel buses and trucks to electric vehicles. The electrification kit consists of the Vehicle Control Unit (VCU), an electric powertrain, a battery management system, an air-conditioning system, a telematics module, and other auxiliary units such as an air compressor, a servo motor pump, and a DC/DC converter. The chief innovation of the kit is the VCU, which was developed in-house and controls all other components inside the vehicle. The VCU not only connects the newly installed components such as the electric powertrain, the air-conditioning system, and the auxiliary units with one another, but also controls the residual components of the old vehicle such as the braking system, air suspension system and the automatic door system. This type of system integration through the VCU allows for faster development times and lower costs compared to the time and cost associated with building brand new EVs.

In addition to our kit, we develop software solutions in-house to manage the EV's charging infrastructure. We offer an application interface which allows the charging stations, the electric vehicles and our client's fleet management system to communicate with one other. Our clients can benefit from the energy management function of the software, which ensures a steady power flow by managing the load between the grid, the charging stations, and any stationary battery storage systems the client might have. Through its load management function, the software also optimises the charging schedule of the EVs based on parameters such as the available power in the grid and the clients' contracts with the grid operator. Through these smart solutions, our clients can not only

regulate their power consumption and keep costs low, but also forecast their energy demand and usage.

Our product is aligned with the [EU's Conference of Parties \(COP\) commitment](#), first made in Paris in 2015 and then amended in December 2020, to reduce the bloc's greenhouse gas (GHG) emissions by at least 55 percent by 2030 compared to 1990 levels. In order to meet this commitment, the EU deemed it necessary to accelerate the decarbonization of the transport sector through an array of policy initiatives.

One of these initiatives was the [EU Clean Vehicles Directive](#), passed in June 2019, which required public service sectors such as transport, civil engineering and postal services to take into account the lifetime environmental impact of road transport vehicles while procuring them. Our vehicles fall under the category 'clean zero-emission heavy-duty vehicles', as they utilize an EU-approved alternative fuel – battery-electric. Another measure was to reduce the [CO<sub>2</sub>-emission limits](#) for new heavy-duty vehicles in July 2019. The agreed-upon targets aimed to reduce CO<sub>2</sub> emissions by 15 percent starting from 2025 onwards and by 30 percent from 2030 onwards. Moreover, the European Commission is in the process of amending the [Eurovignette Directive](#), which pertains to the charging of heavy-duty vehicles. Because of this regulatory support, we see huge potential in market growth across the EU for the deployment of our low- and zero-emission vehicles.

In addition to the EU, we are in line with the German government's goal of increasing the use of clean road-transport vehicles. In November 2016, the German government adopted the [Climate Action Plan 2050](#), where GHG emissions targets for different sectors were set. The reduction target for the transport sector was set at 40 to 42 percent by 2030 compared to 1990 levels. To achieve the climate protection goals set for 2030, in October 2019, the Federal Ministry for Environment, Nature Conservation and Nuclear Safety (BMU) released its [Climate Action Programme 2030](#). One objective under this Programme was to enable Germany's transition to electric mobility, whereby one-third of all heavy-duty vehicles would be powered by electricity or electricity-based fuels such as battery-electric by 2030. Thereafter, the German government passed the [Federal Climate Change Act of Germany](#) in 2019, which was amended in August 2021, wherein national annual emission budgets were stipulated for different sectors. For the [transport sector](#), the emission budget for 2030 was set at 85 million tonnes CO<sub>2</sub> equivalent (mtCO<sub>2</sub>e), nearly 48 percent lower compared to 2019.

To enable this ambitious vision, amongst other measures, the German Ministry of Transport and Digital Infrastructure (BMVI) released a concept paper on an [Overall Approach to Climate-friendly Commercial Vehicles](#), which outlined a strategy to decarbonise the road freight transport sector. Moreover, in April 2021, the BMVI Task Force released [guidelines](#) on the minimum requirements for retrofitting light- and heavy-duty commercial vehicles. Lastly, in August 2021, the German



government launched a [funding program](#) aimed at climate-friendly light- and heavy-duty vehicles and their corresponding charging infrastructure.

As a leader in retrofitting technology, pepper motion GmbH was actively engaged in regular dialogue with the Task Force. These guidelines are an important signal to the market on the commitment of the German government in supporting the growth of electric mobility market. As such, we see huge prospects for our technology to advance locally in the German market too.

## B. ESG KPIs

As a new player on the market, an innovator, and a contributor to the e-mobility transition at a European and global level, we at pepper motion GmbH are aware of our responsibility to the environment, to society and to strong governance standards. We understand our customers', suppliers', employees', and investors' expectations regarding corporate sustainability and recognize the importance of sustainable business practices. We adhere to the relevant rules and regulations and are aligned with industry best practices to ensure we follow Environmental, Social and Governance (ESG) standards.

As such, we are committed to carrying out our commercial operations in a responsible manner. For this purpose, we are thoroughly monitoring and evaluating our internal processes through measurable ESG criteria and providing a robust and transparent Sustainability Report based on the GRI Standards ('Core' option). Added to that, our Sustainability Strategy is reviewed by our management on an annual basis as well as intermittently, depending on the urgency of the issue.

## 1. Environmental Factors

We acknowledge the importance of conducting our business activities in an environmentally responsible manner, and therefore commit to improving our environmental performance across our internal business operations and are striving hard to encourage our business partners to do the same. We will achieve this by:

- Adopting relevant environmental and social standards and requirements in our supply chain – upstream and downstream – to not only comply with ethical sourcing and disposal policies, but to also keep our supply chain short
- Encouraging environmental management initiatives such as promoting energy conservation, water preservation, waste prevention and recycling at our offices
- Conducting a comprehensive GHG emissions inventory by calculating our our corporate carbon footprint and performing a product life cycle analysis (LCA)
- Updating and establishing relevant Environmental-policy related documents









Below are our environmental KPIs for 2021:

Goal	ESG KPIs	Value (unit)
<b>Environmental</b>		
<b>Supply chain management</b>		
Adopt relevant environmental and social standards and requirements in our supply chain – upstream and downstream – to not only comply with ethical sourcing and disposal policies, but to also keep our supply chain short	Percentage of materials sourced from Tier A suppliers* with an ISO 9001: 2015 certification	100%
	Percentage of materials sourced from Tier A suppliers* with an ISO 14001: 2015 certification	83%
	Percentage of Tier A suppliers* who comply with the EU RoHS Directive	100%
	Percentage of Tier A suppliers* who comply with the EU REACH Regulation	100%
	Percentage of Tier A suppliers* within the EU	83%
* Tier A suppliers are those suppliers most relevant to the production of our electrification kit		


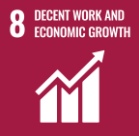
Energy Management		
Encourage environmental management initiatives such as promoting energy efficiency, efficient water consumption, waste prevention and recycling at our offices	Total energy consumed	87,755 kWh at Garching and 8,143 kWh at Denkendorf
	Number of recycling bins per office	2 in Garching; 3 in Denkendorf

Below are the environmental targets we set in Q4 2021:

Goal	ESG Targets	Date	SDGs
<b>Environmental</b>			
<b>Supply Chain Management</b>			
Adopt relevant environmental and social standards and requirements in our supply chain – upstream and downstream – to not only comply with ethical sourcing and disposal policies, but to also keep our supply chain short	Maintain sourcing from Tier A suppliers* with ISO 9001:2015 at 100%	2022	
	Increase sourcing from Tier A suppliers* with ISO 14001:2015 to 90%	2025	
	Maintain sourcing from Tier A suppliers* who meet the EU RoHS Directive at 100%	2022	
	Maintain sourcing from Tier A suppliers* who meet the EU REACH Regulation at 100%	2022	
	Maintain percentage of Tier A suppliers* within the EU at 80%	2035	
* Tier A suppliers are those suppliers most relevant to the production of our electrification kit			

Energy Management			
Encourage environmental management initiatives such as energy conservation, water preservation, waste prevention and recycling at our offices	Use electricity powered by 100% renewable energy at our offices	Q4 2021	 
Conduct a comprehensive GHG emissions inventory	Calculate our corporate carbon footprint and performing a product life cycle analysis (LCA)	Q1 2022	
Environmental Policy-related Documents			
Update Environmental Policy-related documents	Revise the Business Partner Code of Conduct to make it more comprehensive into a Supplier Code of Conduct	Q4 2021	
	Set up a business model to extend the lifecycle of lithium-ion electric batteries	Q3 2021	 
	Revise the document on 'Environmental Policy at the Workplace' to make it more comprehensive	Q4 2021	 



	Establish a policy document on 'Corporate Business Travel'	Q4 2021	 
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## 2. Social Factors






We acknowledge the importance of conducting our business activities in a socially responsible manner, and therefore commit to respecting the needs of and promoting the well-being of our clients, employees, and the wider community in general. We will achieve this by:

- | Following relevant product safety and quality regulations and guidelines
- | Securing client satisfaction through our client feedback and complaint system
- | Contributing to various forums and associations to promote electric mobility
- | Updating and establishing relevant social policy-related documents

Below are our social KPIs for 2021:

Goal	ESG KPIs	Value (unit)
<b>Social</b>		
<b>Product Safety and Quality</b>		
Follow relevant product safety and quality regulations and guidelines	Percentage of product testing requirements that have been completed	64%
	Number of product safety-related incidents	0
Secure client satisfaction through our client feedback and complaint system	Client complaint rate	1 per 4 vehicles
<b>External Memberships</b>		
Contribute to various forums and associations to promote electric mobility	Number of external forums and associations organisations pepper motion GmbH has membership in	2

Below are the social targets we set in Q4 2021:

Goal	ESG Targets	Date	SDGs
<b>Social</b>			
<b>Product Safety and Quality</b>			
Follow relevant product safety and quality regulations and guidelines	Complete 100% of the product testing requirements based on the current electric vehicle design	Q1 2022	
Secure client satisfaction through our client feedback and complaint system	Reduce the client complaint rate to 1 per 5 vehicles	2022	
<b>External Memberships</b>			
Contribute to various forums and associations to promote electric mobility	Increase membership rate by 25%	2025	 
<b>Social Policy-related Documents</b>			
Update Social Policy-related documents	Establish a Know-Your-Customer (KYC) document	Q1 2022	

### 3. Governance Factors

We acknowledge the importance of conducting our business activities in an ethical manner, and therefore commit to remain transparent, fair, and honest in our business activities. We will achieve this by:





- | Respecting human rights, not tolerating modern slavery, child labour or forced labour in our business activities, and preventing unlawful discrimination and harassment of any kind
- | Providing safe working conditions for all our employees
- | Offering equal opportunities for growth through continual professional development and training
- | Ensuring data security and privacy for our employees, clients, and our business alike
- | Updating and establishing relevant Governance-policy related documents
- | Reviewing the Sustainability Strategy annually to ensure it is still aligned and suitable to our scale and the nature of our activities
- | Reviewing ESG issues on an ad-hoc basis depending on their urgency
- | Publishing an annual Sustainability Report











Below are our governance KPIs for 2021:

Goal	ESG KPIs	Value (unit)
<b>Governance</b>		
<b>Employee Engagement</b>		
Respect human rights and not tolerating modern slavery, child labour or forced labour in our business activities, and prevent unlawful discrimination and harassment of any kind	Percentage of full-time female employees at the organization	32%
	Percentage of full-time foreign employees at the organization	15%
	Percentage of female employees in executive management	20%
Provide safe working conditions for all our employees	Number of employee engagement surveys conducted in 2021	1
	Percentage of employees who have completed their mandatory training on occupational safety	88%


Offer equal opportunities for growth through continual professional development and training	Percentage of employee attrition in H1 2021	6%
<b>Data Protection</b>		
Ensure data security and privacy for our employees, clients, and our business alike	Number of data breaches	0
	Percentage of employees who have completed their mandatory training on data security and privacy as of June 2021	85%

Below are the governance targets we set in Q4 2021:

Goal	ESG Targets	Date	SDGs
<b>Governance</b>			
<b>Employee Engagement</b>			
Respect human rights and not tolerating modern slavery, child labour or forced labour in our business activities	Hold a Human Rights training program	Q1 2022	
Prevent unlawful discrimination and harassment of any kind	Hold an Anti-Discrimination and Equal Opportunity training program	Q1 2022	 
	Hold a Harassment Prevention training program	Q1 2022	

	Retain the female employees' percentage at 30%	2025	 
	Increase the percentage of foreign employees to 25%	2025	
	Increase management diversity to 30%	2035	 
Provide safe working conditions for all our employees	Offer events and courses for employees that address health topics such as nutrition, fitness, and mental health to raise awareness on these issues	Q2 2022	
	Increase employee engagement surveys by 15%	2025	
	Increase the percentage share of employees who must complete their mandatory training on occupational safety to 100% within 2 months of joining the company	2021	
Offer equal opportunities for growth through continual professional development and training	Implement policies that better connect pay with business performance	Q4 2021	 

	Provide opportunities for vocational education and professional development	Q2 2022	
	Provide return-to-work programs for parents re-entering the workforce	Q3 2022	 
<b>Data Protection</b>			
Ensure data security and privacy for our employees, clients, and our business alike	Keep the number of data breaches at zero	2022	
	Increase the percentage share of employees who must complete their mandatory training on data security and privacy to 100% within 2 months of joining the company	2022	
	Obtain cybersecurity insurance	Q4 2021	 
<b>Governance Policy-related Documents</b>			
Update Governance Policy-related documents	Formulate documents for a Grievance mechanism and a Whistle-blower mechanism	Q3 2022	
	Revise the policy document on 'Occupational Safety' to make it more comprehensive	Q3 2022	

	Develop a stringent Data Security and Privacy Policy	Q3 2022	
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#### 4. Policy links

pepper motion GmbH has a number of existing policies in place which are linked to Sustainability Strategy document. These include:

- Environmental Policy for the Workplace
- Business Model to extend the lifecycle of lithium-ion electric batteries
- Business Partner Code of Conduct
- Occupational Safety – Rules of Conduct
- Employee Code of Conduct
- Certifications (ISO 9001:2015)

We will share this document with our customers, suppliers, employees, investors, and other relevant stakeholders. This document will be published on the company's website and be updated regularly. The existing list of policies will be revised regularly as well.