REBUILT

RESULT 3 – A1 – TEMPLATE

Company Name:	RAYMETRICS S.A.
Professional sector and company size:	**Sector**: MANUFACTURE, DEVELOPMENT AND DESIGN OF HIGH-TECH INSTRUMENTS AND SOFTWARE SYSTEMS. **Company size**: 38 employees
Need/problem/challenge addressed:	Direct and Indirect CO2 emissions
Sort presentation of the company:	Raymetrics is a technology and software company which designs and manufactures atmospheric LIDAR technology solutions. They manufacture robust, stand-alone instruments, i.e. LIDARs, which are an excellent tool for identifying all possible pollution emission sources. Using LIDAR data, they correlate specific activities and pollution emissions and provide detailed mapping of emission plumes. Website: http://www.raymetrics.com/
Initial Process and CO2 Emission Profile (tools, methodologies, theories, references):	Raymetrics is based in a rented three-storey building where their functional units are housed: (a) manufacturing (b) management and sales (c) administration. In manufacturing they import parts like lasers, telescopes and signal recorders, they manufacture supportive parts, they assemble them into stand-alone lidars, and they programme all the required functionalities. The other two units perform the standard office functionalities. The company's CO2 emissions profile includes direct and indirect emissions. The direct emissions mainly derive from transportation and travels: (a) Within Greece, by the use of the eight company cars/tracks (b) Abroad, by airplane use Its indirect emissions mainly derive from electricity consumption for: (a) Heating and Cooling (b) Electric and electronic devices that are used in all functional units of the company.
Strategic Decision of the company:	The company has decided to improve its environmental impact by cutting down both its direct and indirect CO2 emissions. At first the company contacted the property-owner for a potential energy upgrade of the building (improve insulation of external walls and the roof), to which the owner did not agree. The company also examined the potential of generating electricity on-site and reducing its reliance on power grid, by installing solar panels on the roof top but this was rejected by the manufacturing unit as they need the roof's open space for testing the LIDARS' lasers.

	Based on the above, they decided to implement softer changes that improve the company's overall environmental impact. Specifically, the measures include: 1) Replacement of all old energy-consuming air conditioning units used for heating and cooling. 2) Replacement of all working stations (servers, laptops, tv screens) as well as appliances and lighting bulbs with new low energy-demand ones 3) Install occupancy sensors (Smart Building Technologies) 4) Switch to a cleaner energy supplier. 5) Gradual replacement of company cars with electric ones 6) Recycling of batteries, office paper and plastic. 7) Reduction in business travels for sales purposes and increase remote virtual meetings with prospective customers. 8) Consider the green roof option (covered with low vegetation) mainly for reducing the heat absorbed by the building, thereby decreasing the need for cooling.
Process reengineering on selected waste (resources, methodologies, tools):	The company managed to implement the following measures: 1) They replaced all the old energy-consuming air conditioning units used for heating and cooling, with new energy-efficient inverter units. 2) They replaced all lighting bulbs with LED bulbs, and bought new energy-efficient appliances and working stations (servers, laptops, tv screens) 3) Installed occupancy sensors in manufacturing and management and sales functional units where people come and go all day long. 4) They switched to a cleaner energy supplier. They chose Protergia whose energy portfolio includes renewable energy sources, mainly wind farms and photovoltaic parks, in operation. (https://www.protergia.gr/en/articles/protergia-the-major-winner-of-the-2023-energy-mastering-awards-has-won-12-awards-this-year/) 5) They replaced one of the eight (8) company cars with an electric car and plan to replace three more in the near future. The rest of the cars are diesel trucks for moving instruments and they do not intend to replace them. 6) The company installed on all building floors waste collection containers for plastic, paper and batteries. 7) Business travels for sales purposes have been nearly halved and replaced with remote virtual meetings. 8) Green roof not yet implemented. Pending
Re-engineering outcome and results. **Emission profile improvement and other success evidence:**	After having enhanced its environmental performance, the company has been deemed to comply with the requirements of: ISO 14001 :2015 (see last page) 1. The reduction of CO2 from the replacement of one internal-combustion car with an electric car is equivalent to about 1,000 kg per 10,000 Km of mileage. 2. The transition to inverter air-conditioning units halved CO2 emissions for cooling and heating. 3. The reduction of CO2 from the replacement of rest of the energy demanding appliances (laptops, servers, refrigerators etc.) cannot be easily estimated as the company gradually increased its number of workers and turnover.

Please identify the sustainability goals (SDGs) and the specific targets achieved in the described case:	SDG 7. Ensure access to affordable, reliable, sustainable, and modern energy for all. SDG 12. Ensure sustainable consumption and production patterns. SDG 13. Take urgent action to combat climate change and its impacts. SDG 15. Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss.

Certificate No. 363/2021

TCert

CERTIFICATE

We hereby confirm that

ENVIRONMENTAL MANAGEMENT SYSTEM

of **RAYMETRICS S.A.**

32 SPARTIS str., P.C. 14452,
METAMORFOSI, ATHENS, GREECE

has been deemed to comply with the requirements of:

ISO 14001:2015

Scope of certification:

MANUFACTURE, DEVELOPMENT AND DESIGN OF HIGH-TECH MACHINERY AND SOFTWARE SYSTEMS.

Certification from: 19.11.2021

Validity to: 18.11.2024

Mgr. Petr Požár
CEO

S 3124

Place and Date of Issue:
Prague, 19.11.2021

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