CHG

Circular economy and climate protection

SUSTAINABLE IT INFRASTRUCTURES ENSURE LONG-TERM SUCCESS

Efficient Technology Management®

The limits of the linear economy

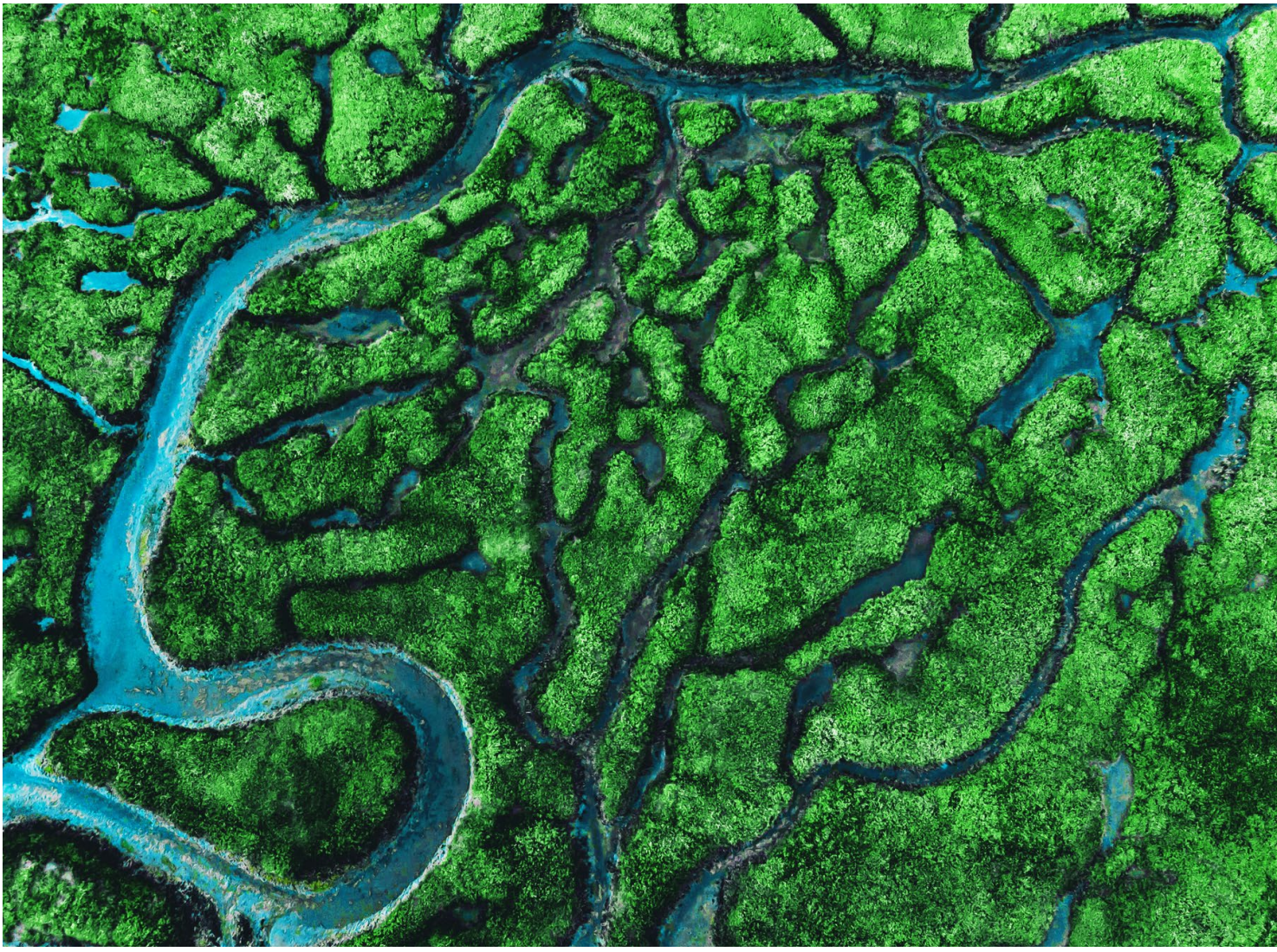
Traditional business models often assume that infinite resources, and new raw material deposits are constantly being tapped into to. But natural resources are limited, and their excessive use threatens to exceed our planet's capacity, with severe consequences for the environment and the climate. Since 1970, the global extraction of raw materials has more than tripled to over 92 billion metric tons per year, causing half of the world's greenhouse gas emissions. Overall, natural resource consumption has increased at an unprecedented rate in the last century, rising almost twice as fast as population growth.

Digitalisation is driving climate change

Digitalisation is also driving this trend. More and more IT products are in use worldwide, and innovations continually encourage new purchases. Obsolete devices usually become electronic waste before the end of their potential useful life. According to a study by the World Economic Forum (WEF), more than 50 million metric tons of e-waste were generated in 2018. Although decommissioned devices contain valuable resources, it is estimated that only 20 per-cent are collected, documented, and recycled. The growing number of decommissioned devices that are disposed of is a problem, as they contain toxic or environmentally harmful substances, and in many cases, they have not been designed for longevity or for recycling. Making digital transformation more sustainable remains a challenge that must be addressed in technology use, management, and production. Fortunately, new business models offer opportunities for sustainable growth.

Over 92 billion metric tons of raw materials are extracted and processed annually, causing **half** of the world's greenhouse gas emissions.

Less than 20 per cent of decommissioned electronic devices are **recycled**.



Toward the goal of circularity

Experts believe that the circular economy will be the next industrial revolution and the economic model of the future, as it promises solutions to major challenges such as climate change and environmental degradation.

NEW BUSINESS MODELS

The circular economy model is based on a philosophy of cycles within the economy in which the same amount of resources are removed from a cycle as are added back. Energy comes from renewable sources and leaks in natural systems are avoided. This type of circularity requires changes to processes and new business models. Such changes may include sharing platforms, product-as-a-service, product lifecycle extension, circular supply chains, and refurbishment and recycling.

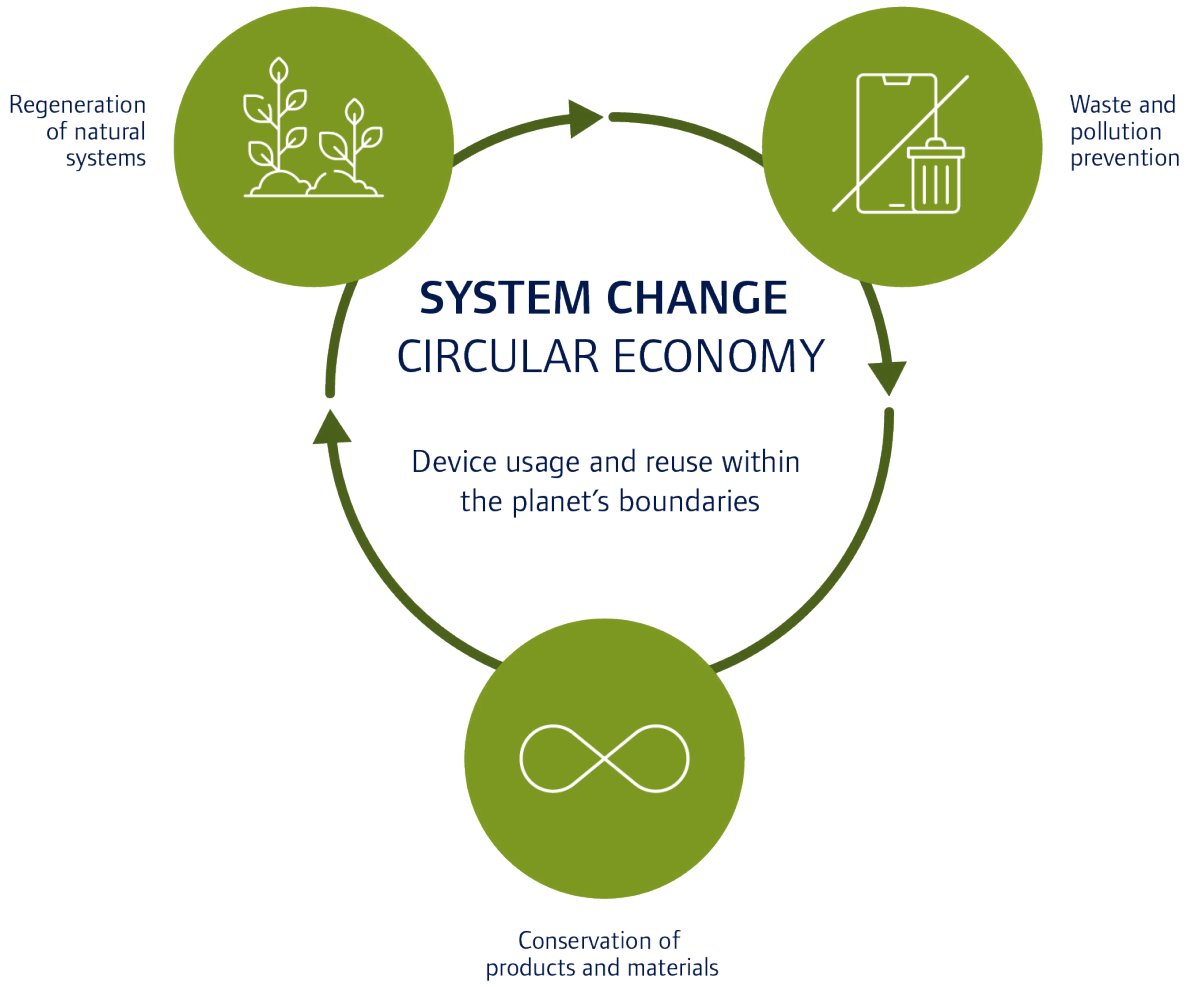
The Ellen MacArthur Foundation cites case studies from various industries where the renting and leasing of products has a role to play in the transition toward a more circular economy, enabling collection rates to be increased with the aim of reusing and remarketing assets.

SHARING RATHER THAN OWNING

The idea of the circular economy is based on the interaction of interdependent actors who use resources for a more extended period of time and in a variety of ways. Such cycles of sharing, repairing, reusing, and recycling move the focus away from product ownership and toward product use. The ability to use products for longer and more than once becomes a core principle. Recycling is currently rather uneconomical, but it could become much more effective if manufacturers incorporated this principle into their products more systematically.

Leasing and rental models increase collection rates with the aim of refurbishing and reusing assets.

Products could be more **radically designed for recycling and longevity.**



Source:
Own illustration (adapted from the Ellen MacArthur Foundation)

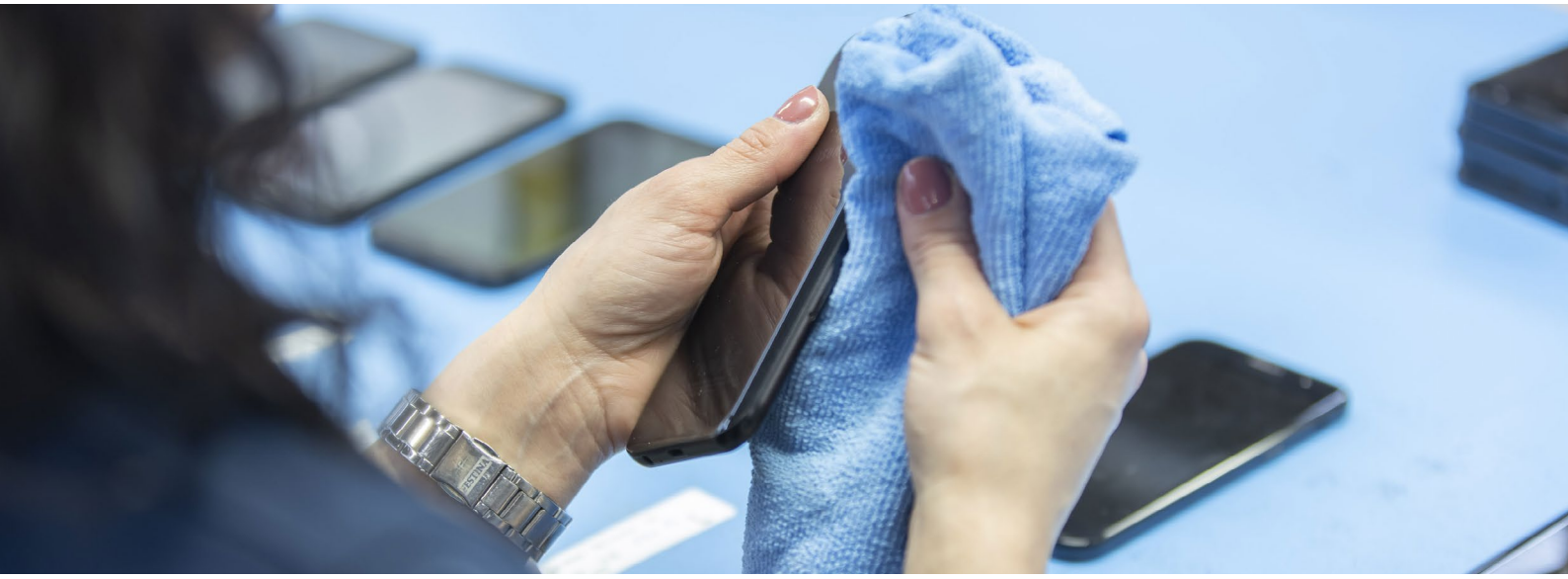
Sharing and reuse present a business opportunity

Using rather than owning, with lease or rental models

Remarketing increases the lifecycle

Using rather than owning has been the foundation of the CHG-MERIDIAN Group's business model for decades. As a technology manager in the IT, industrial, and healthcare sectors, we help companies digitalise processes and implement efficient, sustainable business practices. Based on the principle of the circular economy, a significant part of our business is the financing of IT assets. This begins with the initial planning and operational delivery phase through to customised rental and leasing models and, at the end of the lifecycle, our eraSURE® certified data erasure process and the refurbishment and remarketing of used equipment. We support and extend the lifecycle of IT devices. Our customers are large corporations, medium-sized companies, and public sector organisations that want to organise their technology investments using a closed-cycle model.

CHG-MERIDIAN takes equipment back at the end of its useful life, refurbishes it, and remarkets it on the secondary market for another lifecycle – 96 per cent of it in 2020. We work with certified recycling partners to return the remaining 4 per cent that can no longer be reused to the material cycle, within the limits of what is currently technically possible.



» End-to-end lifecycle management has always been at the heart of our business model. We support our customers from the procurement of their equipment and the use phase all the way through to the sustainable refurbishment and remarketing of devices. The intelligent procurement of IT equipment allows them to cut costs and be more resource-efficient and sustainable. «

Dr. Mathias Wagner, CEO of CHG-MERIDIAN

High-end data protection is key to lifecycle extensions

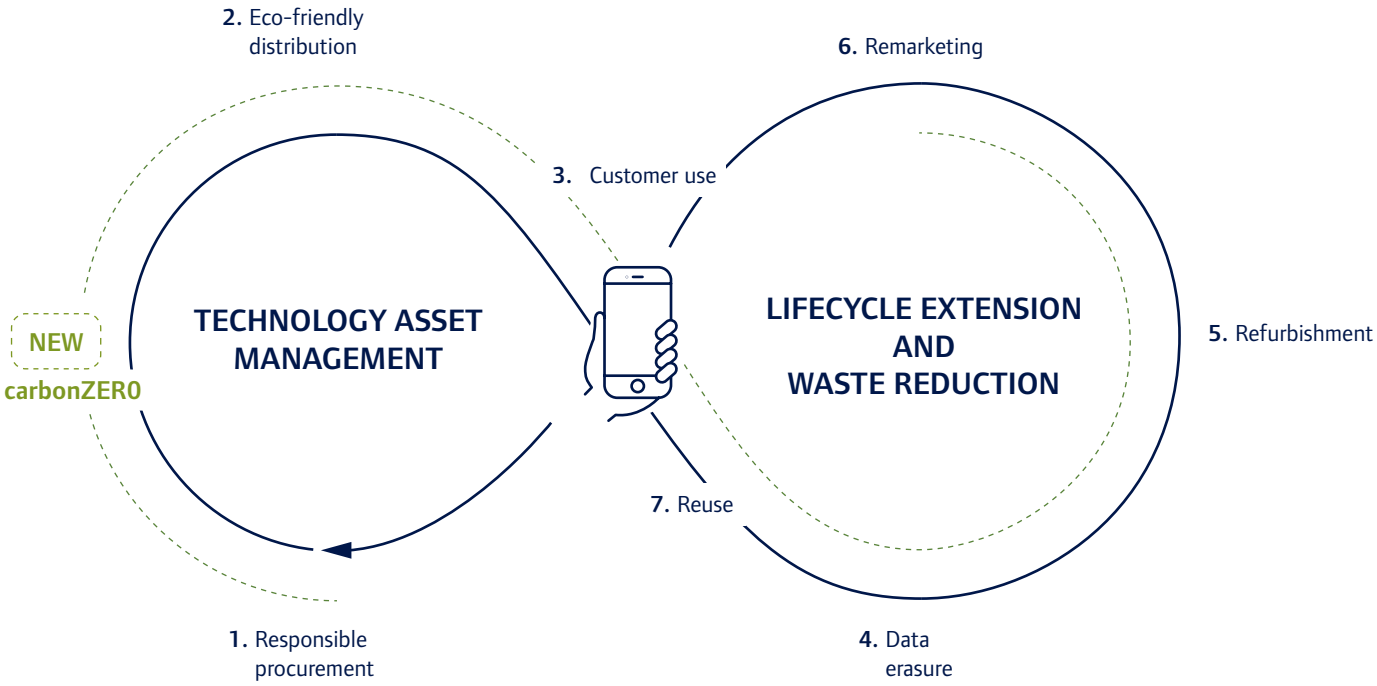
The remarketing of used IT technology extends the lifecycle and reduces e-waste, saving valuable resources and reducing the amount of greenhouse gases and pollution from potentially toxic waste. But this process requires specific expertise. Assets returned at the end of their lifecycle need to be professionally and efficiently refurbished. To avoid unnecessary transportation, CHG-MERIDIAN works with a global network of certified partners to refurbish equipment locally.

Information security is another essential factor when it comes to reusing IT assets. Data must be erased using a certified process at the end of the lifecycle to ensure that any reuse via the secondary market complies with data protection law. That is why we developed our own process, eraSURE®. This is the only way to achieve circularity for IT infrastructures.

Financing that includes remarketing saves resources and reduces greenhouse gas emissions.

Data protection-compliant reuse requires professional data erasure.

Circular economy at CHG-MERIDIAN

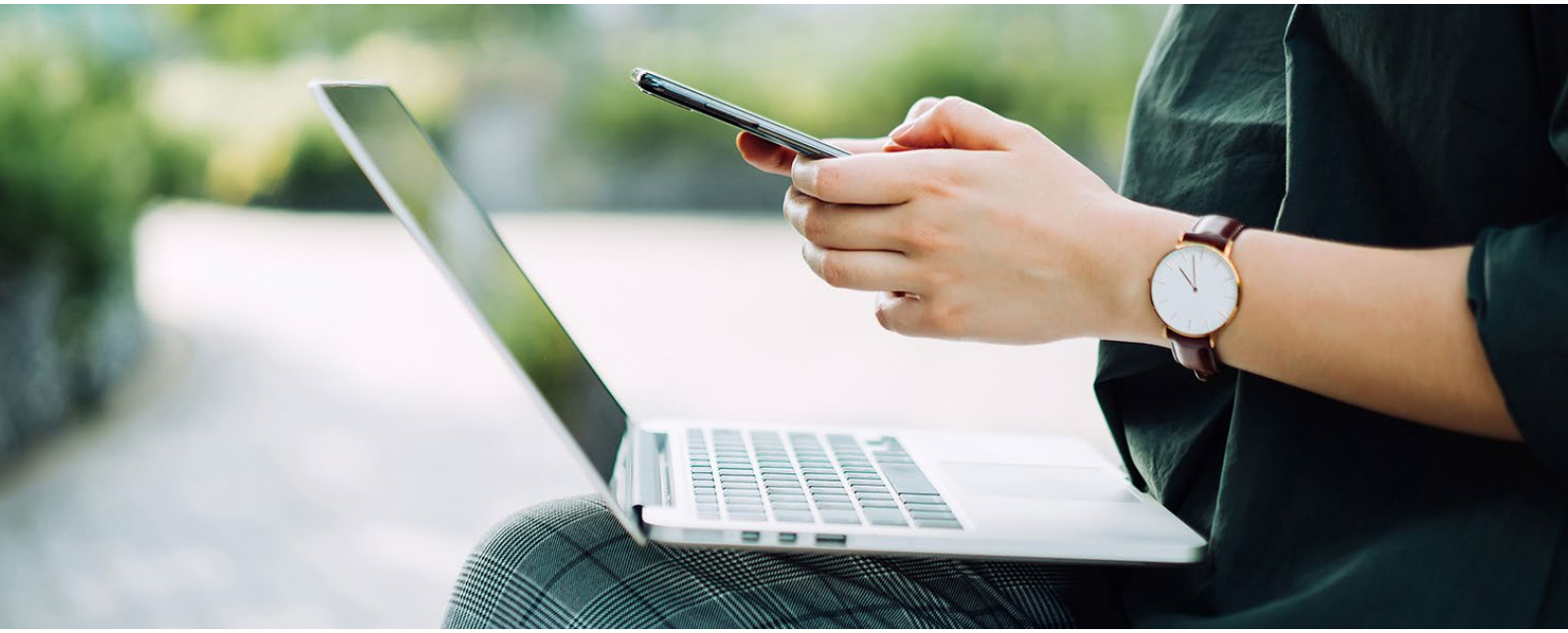


An IT asset such as a smartphone passes through two stages, technology asset management and lifecycle extension. CHG-MERIDIAN selects the assets based on a sustainable procurement policy and distributes them to its customers.

At the end of the lifecycle, CHG-MERIDIAN takes the assets back, refurbishes them, and applies a certified data erasure procedure. The assets are then reused on the secondary market and pass through a second lifecycle.

Making IT sharing carbon-neutral

By renting or leasing their IT, companies can be active in several areas defined by the circular economy. However, even the 'product-as-a-service' model generates greenhouse gas emissions that companies or institutions cannot easily account for in their environmental footprint. Climate-neutral financing of IT equipment, on the other hand, allows companies to compile and report all data for their environmental management. Climate neutrality can be achieved by calculating and then offsetting the carbon emissions generated in the production, transportation, use phase, and end-of-life scenarios of IT assets.



carbonZERO uses carbon-neutral IT financing to reduce the customer's carbon footprint

CHG-MERIDIAN does this through its carbonZERO financing option. It includes the certified calculation of emissions according to the type of device, be it a PC, a smartphone, or a laptop. The amount of CO_2 calculated is then offset through investments in certified international projects aimed at mitigating climate change. By offsetting their emissions, CHG-MERIDIAN customers make a discernible contribution to mitigating climate change while reducing their own carbon footprint.

The future belongs to IT sharing

The circular economy holds considerable business potential for the IT sector, but also has risks due to the disruption of the market. Platform-based circular business models mean fundamentally different ways of manufacturing and consuming goods and services. A more widespread adoption of the 'product-as-a-service' model would incentivise manufacturers to bring more durable products onto the market and users to take better care of them.

Any transition in the IT infrastructure segment requires industry-wide collaboration on innovative business models and new ways of collaborating in terms of financing, product design, and recycling. The focus for users will be on usability and not on owning the device. Leasing and rental is increasingly moving away from being purely a financing option and toward a sharing service that incorporates aspects of the circular economy. Using rather than owning is a guiding principle of the sharing economy and of a modern financing industry. CHG-MERIDIAN aims to act as a business enabler in this area and to work with its network partners to set new standards.

The circular economy is central to our business model, and we have been putting its principles into practice for years. We are driven by a broad interpretation of sustainability that includes economic, social, and environmental factors. That is why CHG-MERIDIAN's sustainability strategy covers more than just the environment; we also account for labor and human rights, business ethics, and sustainable procurement.

» Companies increasingly have to earn their ›license to operate‹ – as must we. In other words, they have to prove that their business practices are sustainable in the long term and at all levels, and that they are making a positive contribution to society and the environment. «

Matthias Steybe, Group Sustainability Officer CHG-MERIDIAN

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