

# ILI.DIGITAL

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## SUSTAINABILITY AS THE KEY INDICATOR FOR SUCCESS

**Why a positive ROI can only be  
achieved with a healthy CCF**



# Science to business

Scientific advancement is driven by being inquisitive, and business is no different. ILI.DIGITAL has emerged from research: we bring together science, business, and technology to foster new thinking and business model disruptions.

We believe that data driven disruptions bring fascinating changes to the industrial landscape: better customer experience, new value business models, increased operational efficiency, and more.

With our origin, digital mindset, and solution competence, we provide the right setup to do so. Our multidisciplinary team combines data analysts, software developers, engineers, sociologists, etc., with a deep expertise in design research, behavioral economy, artificial intelligence, and beyond.

We see it as our responsibility to accelerate the transition from scientific concepts to executable business. With the intention in mind, ILI.DIGITAL Team presents a series of white papers on the trending topics — sustainability, circularity, digital health, metaverse, behavioral economics, — that show scientific advances in each area and their application in practice.

# How ILI.DIGITAL Can Help You Achieve Sustainability Goals

At ILI.DIGITAL AG, we destroy your business model for you. Only then can we help you revolutionize your digital business model to focus on achieving sustainability goals. Those we have digitally transformed have seen a rise in efficiency alongside waste reduction. In turn, these businesses have been able to utilize this dynamic form of sustainable innovation to reach their ESG targets.



**You can certainly debate whether actions are ambitious enough, or guard rails are good or bad. I'm convinced: it is better to go step by step in the right direction and with motivation than to point fingers and paralyze discussions."**

CEO and Founder of ILI.DIGITAL Dr. Serhan ILI

## SUSTAINABLE DEVELOPMENT GOALS



Corporations without transparent CCF reporting will therefore be at a clear disadvantage. As experts in implementing these topics with the help of technologies and digitization, we at ILI.DIGITAL AG, supports companies in tackling these challenges. We accompany our customers from calculating the CCF based on their economic footprint to the resulting recommendations for action. The quicker and earlier you know where your company stands, the better you can position yourself for the future. Which of the SDG are you targeting? Are You Ready for Green Transformation?

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# Management summary

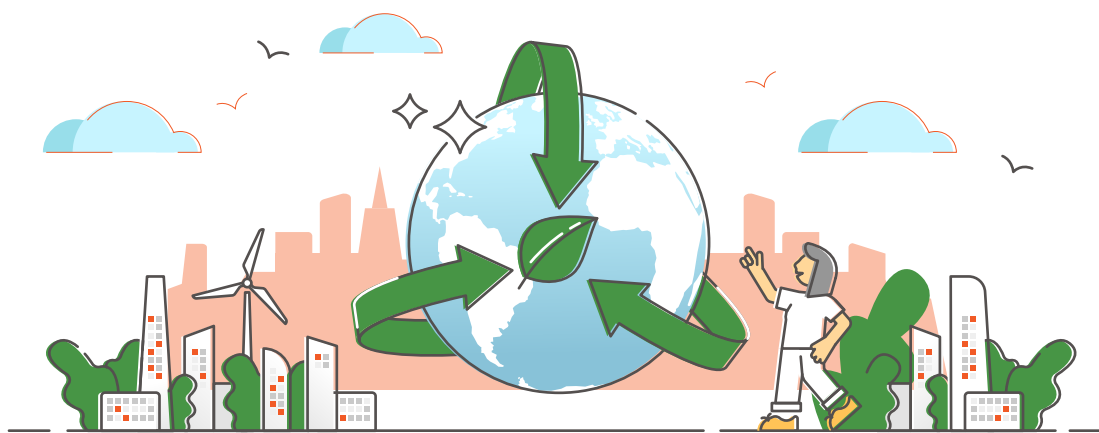
- Sustainability has already overtaken digitalization as the top issue of CEOs
- In the near future, a positive ROI can only be achieved with a healthy CCF!
- It is better to go step by step in the right direction and with motivation than to raise forefingers and paralyze discussions.



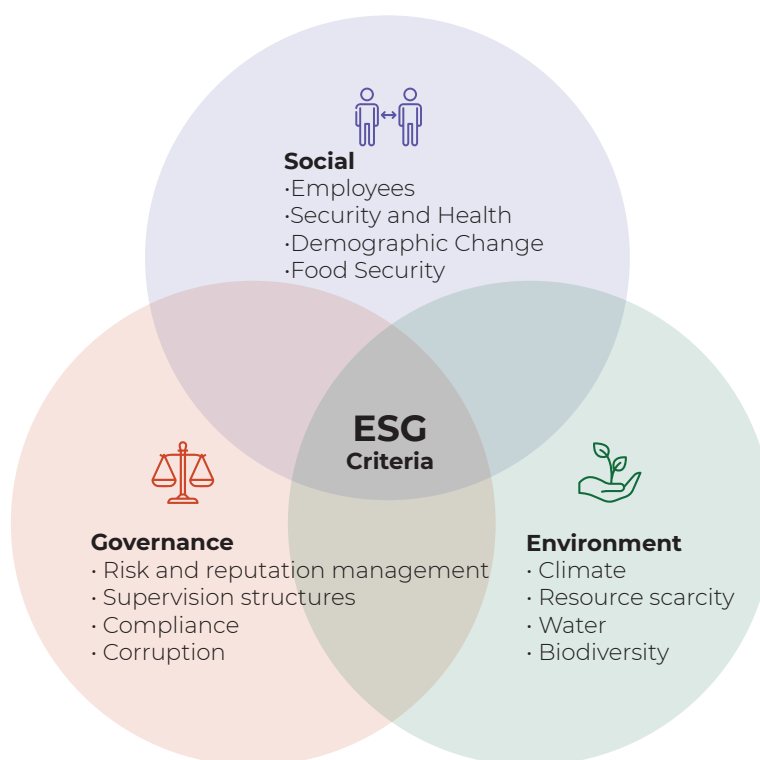
# Introduction

Sustainability covers three dimensions: economic, social, and environmental. The goal of sustainability in the environment is manifested in the conservation of the planet's resources. This objective can only be achieved through a harmonious relationship between the environment and society, which means that social domains such as health, transport, and culture must be sustainable. To maintain the balance,

the level of consumption as well as the economy itself (business model, product, and process) must be sustainable. Tackling sustainability issues has become a key target for corporations across the globe. ESG (Environment, Social, and Governance) transparency and progression are at the forefront of many company goals.



Sustainability is more than a business opportunity. It is a necessity and a critical value driver. Green tech and climate technology companies are rapidly altering the competitive landscape: in 2020–2021, the number of companies committing to science-based sustainability targets tripled. In a world where sustainability has come to the forefront of corporate social responsibility, businesses are challenged to find new ways to reduce their environmental impact, and digital transformation can be the answer. The most reliable indicator to interpret the level of sustainability in a company is the Corporate Carbon Footprint (CCF). Keeping this indicator in mind means being capable of acting and improving sustainability. But why is it so important? How to calculate the CCF? And how can digitalization help sustainability?



# Sustainability for business: challenges & opportunities

Today, it is no longer possible to imagine running a company without thinking about sustainability. But why is this so important?

## Sustainability is the key to competitiveness.

First, raw materials are becoming scarce and expensive; their delivery gets problematic, less safe, and more costly. Second, the market punishes polluting brands.

## Sustainability is an issue for many brands.

For example, Michelin is aiming for 100% sustainable tires by 2050; Unilever has committed to switching to 100% renewable energy by 2030. Being sustainable means respecting the needs of society, increasing the level of customer satisfaction, but also being able to optimize costs. To achieve this goal, a company needs to innovate its transport, logistics, and production cycles and maybe even reconsider their working mode.

Sustainability is also a factor in making decisions about a place to work. For the new generation, working is not only a matter of salary. Highly skilled talents pay more attention to social and ecological orientation of a potential employer. New requirements and needs arise that the companies must keep up with to stay attractive as employers in many dimensions.

Legislation is yet another driving force behind the sustainability agenda. The European parliament and the Council are introducing new rules on corporate sustainability reporting. Certain companies are already required to report. By 2024, the non-financial reporting directive will make capital market-oriented companies disclose their financial statement documents. The new metrics will be either mandatory or relevant for most companies before 2024. Many corporations already take into consideration the CCF of their suppliers.

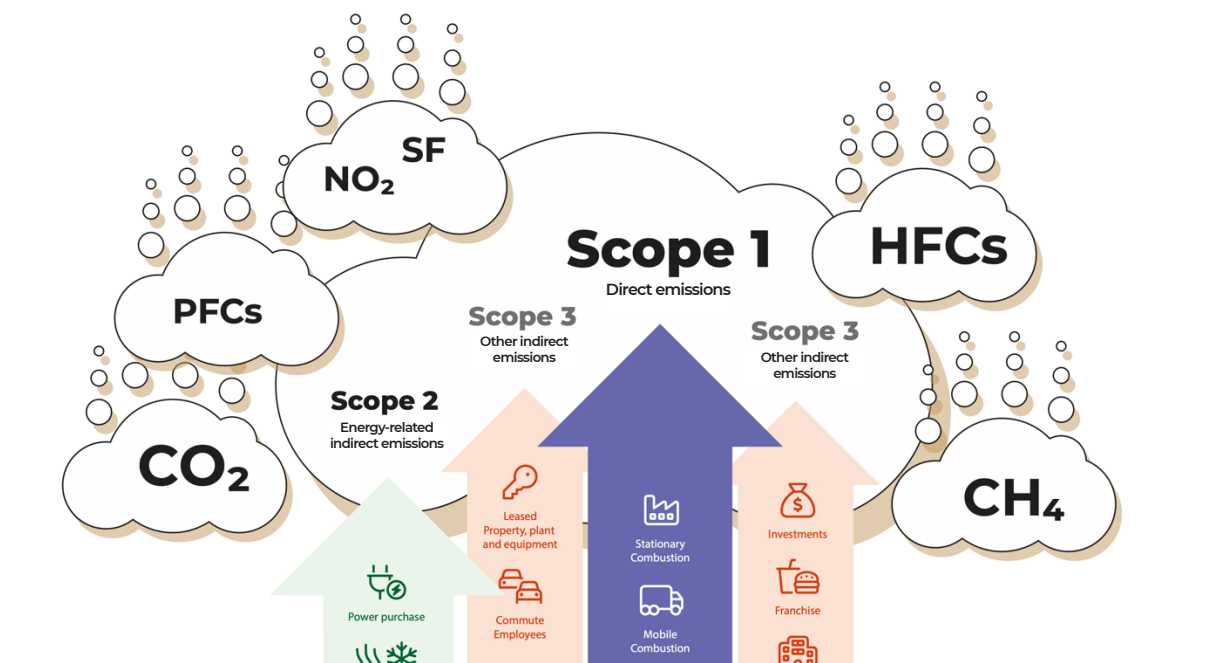
Moreover, **sustainability becomes part of risk management.** The European Parliament has declared a climate emergency, establishing new legal and regulatory requirements to promote ESG risks for the financial sector. The objective of sustainability risk management is to align the growth of the company with environmental policies. The challenge to achieve sustainability in a company is present at several levels:

- **Business model:** A sustainable business model is a model capable of guaranteeing income in a recurring way. The best-known models are X-as-a-service (Mobility-as-a-Service, Product-as-a-Service, Software-as-a-Service, etc.). Offering services while respecting the environment is a very sustainable business model that can enable solid and sustainable growth.
- **Product:** A 100% sustainable product is a goal for many companies. Being able to recycle a product to extract value or to use recycled materials and create a product from them is a real game-changer for the environment and society.
- **Processes:** A process includes everything that needs to be done to create and distribute the final product. An originally polluting process must become increasingly sustainable. That is why we advise choosing corporate carbon footprint as the most credible indicator that should be measured, tracked, and communicated consistently and transparently.

# Corporate carbon footprint: what is the secret behind it?

CCF is the abbreviation for the English term “Corporate Carbon Footprint” that provides information on a company’s climate balance sheet. In the underlying calculation, all relevant greenhouse gas emissions are considered and divided into scopes. Scope 1 describes all direct

emissions, Scope 2 all indirect emissions, and Scope 3 all other upstream and downstream emissions. This is a global standard and is recorded in both the Greenhouse Gas Protocol and the ISO 14064 standard.



## What you can measure, you can manage.

The calculation of the CCF is the foundation of any sustainability management with the associated strategies and goals. One goal is the fulfillment of the Green Deal across companies. The core of this climate ambition lies in the economic transformation: Europe wants to become the first “climate-neutral” continent by 2050, and CCF will be the indicator for the next two years. This indicator needs to be measured, communicated transparently, and tracked over the long term. Companies already start reflecting: “How high is the CCF for my products, my services, for the entire company?” Measuring the performance of any kind means being able to control it and make the most out of it.



## Why does a company need to calculate its carbon footprint?

First, to identify the weakest links and optimize the cost. Deciding to optimize the cost related to the CCF helps the company stay competitive. On another level, the carbon footprint calculation will meet the legislative requirement, help the companies fulfill their sustainability reporting obligation, and even receive a sustainability bonus. Moreover, when the companies calculate and provide the sustainability report, it makes them more transparent in the face of their customers and employees, which increases the satisfaction and attraction of the company.



### Digital technology is very efficient in collecting and centralizing information.

Besides, digitalization can help companies improve their footprint. For example, when calculating the CCF, it can be very intuitive from a user's point of view to employ a digital solution that automatically collects and dynamically computes the footprint. Let us see how it works through the use cases done by ILI.DIGITAL.



**In the near future, a positive ROI can only be achieved with a healthy CCF**

Dr. Serhan ILI



# Use cases

## Case Study 1 — Digitalization of the Battery Recycling Process in the Automotive Industry

### Problem Space:

With digital transformation running at full speed, players in every industry are looking for opportunities to create value by employing new technologies and business models. In this case, ILI.DIGITAL was approached by a company in the chemistry sector, looking for a digitalization strategy to improve its process of recycling EV batteries. The battery recycling process is considered a strategic priority in the automotive industry, as it allows the players involved in the battery manufacturing process to drastically reduce their production CO<sub>2</sub> footprints. Such initiatives ensure sustainable and cost-competitive solutions for metal extraction, which, in turn, deliver superior returns over the materials and assets used.

Although our client had extensive recycling know-how and innovative techniques, the legacy processes included paper-based forms and manual work throughout the entire battery recycling chain. In addition, the process involved multiple stakeholders and a complex interaction scheme between them to ensure that recycling operations ran effectively.

### Our Approach:

Understanding and analyzing business models that drive change is part of our core expertise. On a mission to enable a purpose-driven digital business, we started with a deep dive into processes, stakeholders, and relationships within this chain.

The analysis identified the following ecosystem:

### Stakeholders:



Chemistry Company



Automotive Manufacturer (OEM, original equipment manufacturer)



Car dealerships network



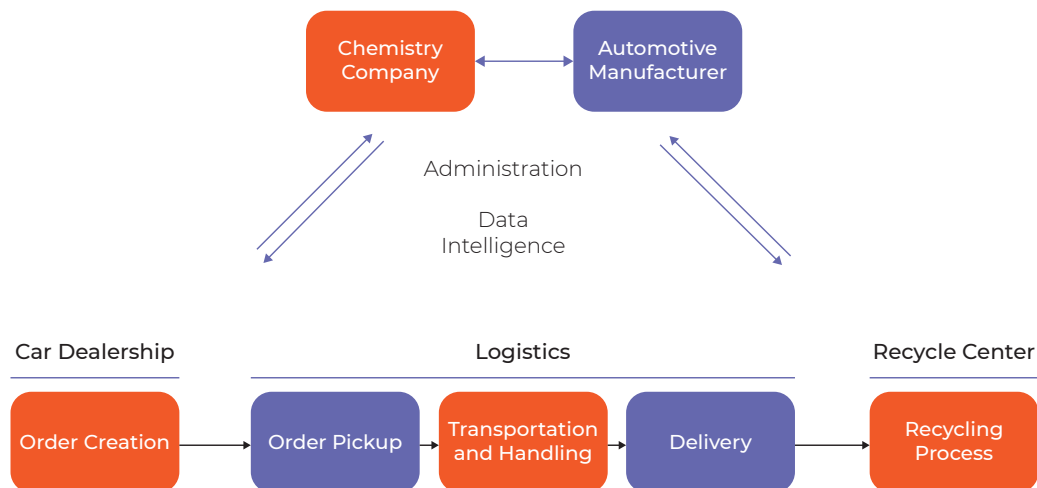
Logistics Company



Recycling center

The process starts with an order placement, which includes many aspects such as quantity, size, dimensions, specifications, and even packaging information. The order is then received by the logistics company, which handles the pickup and transportation of the goods to the recycling center. When the batteries are recycled, both chemistry and automotive companies want to track the steps in this process and analyze success KPIs when it comes to recycling old batteries.

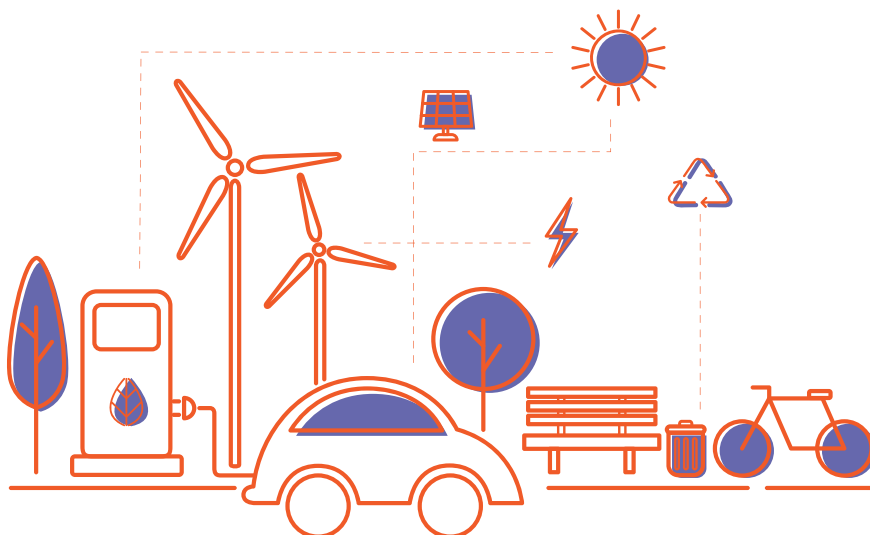
Our process mapping identified the following scheme.



This strategic assessment enabled us to craft a dedicated digital solution to solve the pain points within this process while collecting valuable data.

### Solution:

The strategic assessment performed by ILI.DIGITAL outlined a clear direction into building a two-sided digital platform, in which one side is accessible by the process-based players and is used to create, track, and update orders, while the other side provides administrative features and data intelligence to the process owners, i.e., Chemistry Company and Automotive Manufacturer. We have developed a customized KPIs system that offers meaningful insights and enables informed decision making, while having full ownership and control of the overall battery recycling process.



## Case Study 2 — Calculate your ecological footprint based on your economical footprint

**Problem Space:** Sustainability has an increasing importance in the corporate agenda, and it will increase further. Companies are turning environmental and social topics into strategic priorities, which enables a two-fold return: (1) enabling a better future, and (2) driving ROI in terms of higher efficiency and new sustainable business models.

Given the context, ILI.DIGITAL AG, a thought leader in streams, sustainability, and digital business models, has partnered with a respectful banking and financial institution, connected by a higher purpose: **to empower worldwide businesses to track and take action over their carbon footprint.**

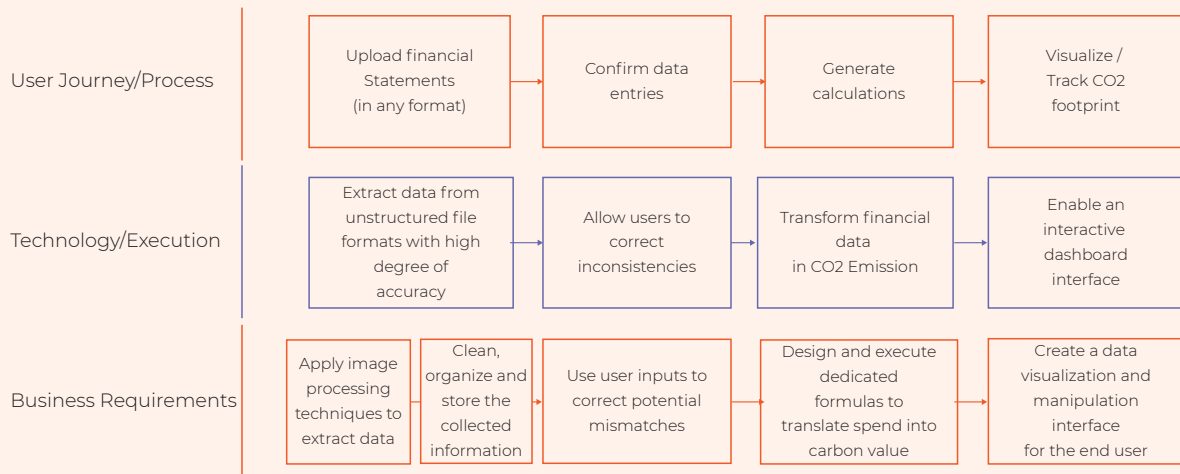
### Our Approach:

To enable this value proposition, our expert teams dove into the topic by applying our authorial framework for new business building:

- **3 Days, Attitude** — Intensive brainstorming and preliminary research sessions to generate a holistic view of trends, technologies, and opportunities. The outcome of this exercise is a clear direction for strategic value creation
- **6 Weeks, Strategy** — Defined the business model, operational strategy, and market strategy. With a strategic concept at hand, we can transition to visualizing and prototyping the generated ideas
- **12 Weeks, Prototype** — Validated our core value proposition and business assumptions through iterative prototyping, following the build-test-learn framework.
- **24 Weeks, Minimum Lovable Product** — Transition from concept to technology. The idea generated in the previous steps is broken down and transformed into an action plan using agile methodologies. Our dedicated software team comes into the stage to build and ship an early version of our product, with which we can proceed to validation and testing exercises.
- **48 Weeks, Execution** — With a validated product at hand, we are ready to scale up. In this stage, we plan for large-scale deployment and focus our efforts on user acquisition and growth.

### Bringing the right technologies in:

A business model can't take off without an operating model that enables strategy execution. ILI.DIGITAL AG's experience in multiple industries, countries, and markets brings strong expertise in cutting-edge technological deployment. For making this visioning process, the following technological framework has been identified and designed, enabling the end-to-end user flow:



The application of our authorial business building framework allowed for this holistic assessment of how to match business and operating models within a digital product scope.

### Solution:

After transitioning through the outlined steps, the result is a standalone B2B platform that offers all functionalities to calculate and keep track of carbon emissions. Companies upload their financial documents (BWA) which are seamlessly processed and understood by the system. The financial indicators are then transformed with the state-of-the-art carbon calculation methodologies. With a few clicks, the carbon emissions for the respective periods can be displayed and analyzed, statically or over time. With this information at hand businesses are empowered to track the outcomes of their sustainability strategies and act on their carbon footprint.



# References

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3. Fanny Hermundsdottir and Arild Aspelund (2021), Sustainability innovation and firm competitiveness: A Review, Journal of Cleaner Production



# Team



## **Serhan Ili (CEO & Founder)**

Serhan has a keen sense of opportunities, strong execution skills, and a passion for business. He has the right mindset, which empowers and dynamically pushes the team and projects. He makes success independent of coincidence. By turning physical assets into virtual miracles in the Metaverse, he enables the next generation of business models.



## **Vera Schott (CMO)**

Vera creates strategic concepts for projects and designs virtual business models for a sustainable future. To further exploit the opportunities for the customer's journey in the Metaverse she brings in powerful marketing perspectives. "By combining these two skills, we elevate customer experiences by unleashing the magic power of extended reality."



## **Omar Abdelkafi (Project manager & Data Scientist)**

Omar has a doctorate in artificial intelligence since 2016. With a solid technical background and a very fine knowledge of innovation, he is able to have a deep understanding of digitalization projects. Researcher in the soul and entrepreneur in the spirit, he will take your project to the next level.



## **Daniel Füger (Head of Digital Business & UX Design)**

Daniel is responsible for concept transfer. He maintains everything in the IT systems and is on the technical side of things. Starting with a lot of UX design experience, he is now part of project management. He can transform ideas and concepts into virtual success stories.

# About ILI.DIGITAL

Founded in 2010, ILI.DIGITAL is a company focused on digital business model transformation with expertise in multiple different fields. With 82 employees, ILI.DIGITAL has two offices across two countries (Germany and Pakistan). ILI.DIGITAL's mission is to "make corporates entrepreneurs again", empowering people from the upper management level to rediscover their inner entrepreneur and take the next steps for their company's future.

ILI.DIGITAL focuses on collaborating with customers from the automotive, pharma-, chemistry, and construction sectors as well as the industrial sector. The portfolio of the company's project-based services includes:

- Digital Business Building
- Strategy Consulting
- Project Management
- Marketing

- User/Design Research
- Development
- 3D Development
- Machine Learning
- Data Engineering
- Artificial Intelligence
- E-Learning
- Gamification
- Psychology
- Behavioral Economy
- Customer Experience

The company's multidisciplinary team combines entrepreneurs, business consultants, strategists, project managers, marketers, user researchers, designers, engineers, developers, 3D developers, gamification experts, and psychologists across a diverse spectrum of specializations.





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