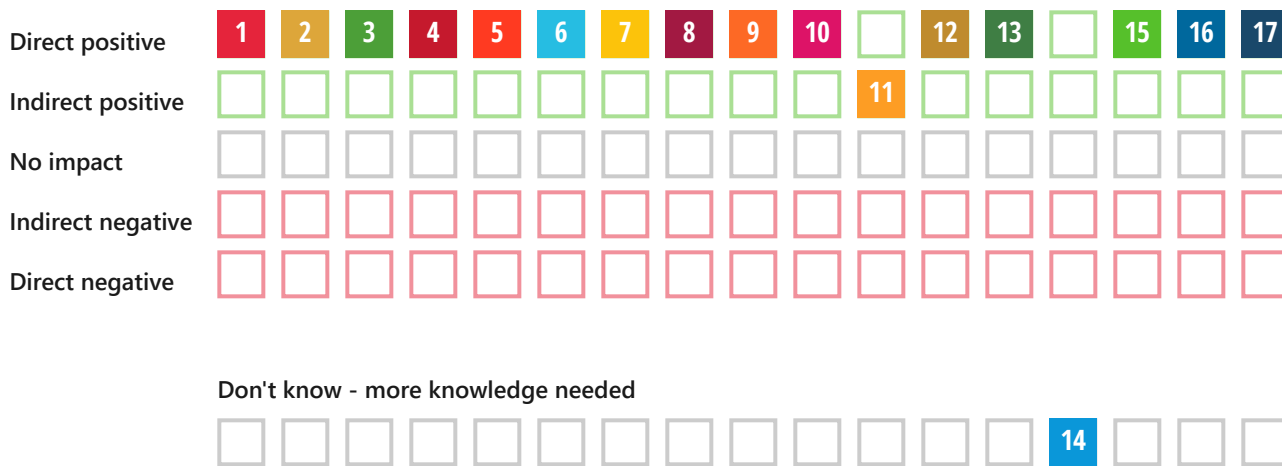


# DISTRIBUTED LEDGER TECHNOLOGY APPLIED TO THE MAINTENANCE OF SEMANTIC WEB CONTENT



## Description

Digital Reference is a Semantic Web ontology covering the semiconductor industry. This ontology has been created and developed by different companies in the sector. Due to the complexity of decision making, DR Maintenance System was created as a web application based on Blockchain technology which is used to allow different experts and companies in the industry to propose new updates to the Digital Reference and vote for or against them. The application is still under development and it is necessary to implement new functionalities and test the correct functioning of the system. Therefore, the project's objectives will be to implement new functionality to incentivize users, improve conflict management, and test and improve the scalability of the system.

## Strategic choices

These are our prioritised SDGs that we will take action on.

- ☐ Positive impacts we can strengthen even further

- ☐ Negative impacts we can eliminate or minimise
- ☐ How we will fill our knowledge gaps



## NO POVERTY

End poverty in all its forms everywhere

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG has defined four areas of activity in the field of corporate citizenship: Local Social Needs, Environmental Sustainability, Education for Future Generations and Natural and Humanitarian Disaster Response. Every year, Infineon Technologies AG donates money to improve the quality of life of the inhabitants of cities and neighbouring communities.



## ZERO HUNGER

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG has defined four areas of activity in the field of corporate citizenship: Local Social Needs, Environmental Sustainability, Education for Future Generations and Natural and Humanitarian Disaster Response. Every year, Infineon Technologies AG donates money to improve the quality of life of the inhabitants of cities and neighbouring communities.



## GOOD HEALTH AND WELL-BEING

Ensure healthy lives and promote well-being for all at all ages

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG helps its employees to stay healthy: company doctor, counselling, sports offers and on-site health checks. For this, all our German locations have received the Corporate Health Award. In addition, the company's Singapore location has received the Singapore HEALTH Award. Every location in Germany has a company doctor. Infineon prevents illnesses from becoming a problem by means of fundamental precautionary measures. For example, health checks, vision tests, early detection of skin and colon cancers and vaccinations. Ergonomics is taken into account in the workplace, and with the help of the Back School, employees can actively strengthen their core muscles. In Munich, there is a fitness studio with a wide range of courses and outdoor sports facilities. In Singapore, there is a "HAPPY" programme. This programme is a point system where participants earn points for each sporting event they participate in, which they can then exchange for things like classes or sports equipment. In addition to this, they take mental health into account and do stress management training and have social counselling to help with difficult times such as addiction prevention, caring for family members or childcare worries.



## QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG offers various training courses to improve your education. For example, in the department where the project was carried out, there were weekly lectures on various topics and training courses such as eLearnings. In addition to this, Infineon Technologies AG is committed to the education of disadvantaged children and young people. In 2020, Infineon Technologies Austria AG and Caritas Carinthia set up an education fund to help children and young people living in poverty in Carinthia. They also created "Lerncafe Infineon" which aims to help these children and young people with their homework and exam preparation.



## GENDER EQUALITY

Achieve gender equality and empower all women and girls

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG state that a balanced mix of women and men, also in management positions, is the basis of their future success and a key aspect of their Diversity & Inclusion activities. Therefore, they are working to increase the proportion of women in the company by supporting recruitment, development and retention.



## CLEAN WATER AND SANITATION

Ensure availability and sustainable management of water and sanitation for all

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG is aware that water is a vital resource and that it needs to be used in a sustainable way. It strives for efficient water management at all stages of its operations. The starting point of their successful water management is the published water balance. Although the semiconductor industry needs water for production, Infineon Technologies AG consumes only a small part of the water withdrawn and the rest is used for cooling.



## AFFORDABLE AND CLEAN ENERGY

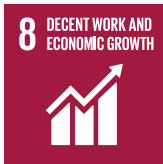
Ensure access to affordable, reliable, sustainable and modern energy for all

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG is aware that energy consumption is increasing every year. In order to improve the world's climate balance and the quality of life in the future, they are trying to ensure that the energy used in every part of the energy chain is used intelligently and efficiently. This chain consists of energy generation, transmission, storage and consumption, all of which use semiconductors. Infineon Technologies AG, as one of the leaders in the semiconductor industry, invests in product innovation. Its products help minimise losses, enable higher performance and use energy responsibly.



## DECENT WORK AND ECONOMIC GROWTH

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG offers good working conditions and this makes for a perfect working environment. For example, at Infineon Technologies AG the employee decides the working hours together with his supervisor and has the option to work at different locations or from home. The working environments are safe because safety experts supervise the implementation of protective measures. The creation of safe and ergonomic workplaces is commonplace in the company. In addition, they are constantly working on analysing the work facilities to assess how they could be improved. Moreover, they often train employees in various subjects such as fire safety and occupational health. During this project, they have had the opportunity to work very flexible working hours and with the option to work from home making it more comfortable for the employee. All this makes the company a very attractive place to work.



## INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG supplies durable, low-power, industrial-grade components for industrial applications. Infineon offers high quality industrial grade semiconductors together with a range of proven reference systems. As a result, automation designs are simple, efficient and reliable. In addition, Infineon is taking part in Industry 4.0. This aims at a future with smart factories driven by smart semiconductor solutions. This will also lead to better interaction with customers and business partners by connecting the entire chain. Industry 4.0 promises huge gains in resource efficiency, product individualisation and greater adaptability, it also presents new challenges. Still, it will face big challenges, but it will be worth it for all the innovation. Finally, it is worth mentioning that Infineon Technologies AG is a member of Acatech and part of the Industrial Internet Consortium.



## REDUCED INEQUALITIES

Reduce inequality within and among countries

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG is a very diverse company with employees from more than 100 countries and from many different generations and backgrounds. An inclusive culture is fostered in the company to facilitate the integration of all employees so that they can be free of complexes, prejudices and equal opportunities. This fosters creativity and innovation as well as personal satisfaction. They do this with various activities such as Diversity and Inclusion (D&I).



## SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient and sustainable

### Impact

**INDIRECT POSITIVE**

### Motivation

Infineon Technologies AG aligns its corporate social responsibility (CSR) strategy with the principles of the United Nations Global Compact. Infineon Technologies AG has been part of it since 2004 and the CSR strategy covers environmental sustainability and business ethics, which indirectly supports sustainable cities and communities. sustainable cities and communities.



## RESPONSIBLE PRODUCTION AND CONSUMPTION

Ensure sustainable consumption and production patterns

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG has adopted the Ten Principles of the United Nations Global Compact and combines business success with responsible action. They attach importance to the conservation of natural resources and seek to address the important challenges facing society: energy efficiency, environmentally friendly mobility and security in an interconnected world. In all areas of the company, they systematically observe the strict requirements of the integrated environmental, energy, safety and health management programme according to ISO 14001, ISO 50001 and OHSAS 18001. In addition, Infineon Technologies AG is an active member of Umweltallianz Sachsen, the environmental alliance of Saxony. The production of semiconductors requires a lot of energy, which is why energy-efficient production is of prime importance. Thanks to energy recovery and consumption reduction measures, Infineon Dresden reduced the external purchase of electricity by 10% and heating by 60%. An example of energy recovery in its plant is the use of waste heat from exhaust air or water recirculation systems. With two highly efficient combined heat and power plants, they cope with rising electricity prices and ensure an economical and environmentally friendly supply.





## CLIMATE ACTION

Take urgent action to combat climate change and its impacts

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG is always striving to act in a sustainable and climate-friendly way to achieve an energy transition with a viable future at all stages of energy. Microelectronics is crucial to this. It helps to supply the world's growing population with energy in an efficient and environmentally friendly way. Fossil fuels are no longer a possible solution for current and future electricity demand. That is why green energies are becoming more and more important.



## LIFE BELOW WATER

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

### Impact

**DON'T KNOW - MORE KNOWLEDGE  
NEEDED**

### Motivation

Seeing that Infineon Technologies AG is a very committed company in all other areas, it follows that in Life Below Water they will also be committed. However, nothing specific has been found, so more research is needed to clarify whether it contributes directly or indirectly.



## LIFE ON LAND

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG collaborates with Rainforest Connection (RFCx). RFCx is a non-profit organisation that uses acoustic technology, Big Data and Artificial Intelligence / Machine Learning to save rainforests and monitor biodiversity. Together they seek to use technology to monitor and protect vulnerable rainforest ecosystems. This includes protecting wildlife such as primates, birds and insects from threats such as illegal logging and forest fires.



## PEACE, JUSTICE AND STRONG INSTITUTIONS

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG is against any kind of violence or aggressive behaviour. A clear current example is that Infineon Technologies AG stands in solidarity with the people of Ukraine. "We show our unity with the Ukrainians who fearlessly defend their freedom and hope that the violence and suffering will soon come to an end," said Constanze Hufenbecher, Head of Digital Transformation at Infineon. Infineon has facilities of more than 200 people in Ukraine and has been involved in humanitarian aid for Ukraine with donations. They have also stopped all shipments to Russia and Belarus as well as technical support. In March it was decided to terminate its Russian entity.



## PARTNERSHIPS FOR THE GOALS

Strengthen the means of implementation and revitalize the global partnership for sustainable development

### Impact

**DIRECT POSITIVE**

### Motivation

Infineon Technologies AG has partnerships with national and international universities as well as large industrial companies in the development of new technologies that aim to improve life. This cooperation is essential to create links between industries and universities. It also attracts new skills to the region and creates the conditions for new jobs. Infineon Technologies AG is an active member of the Strategische Partnerschaft Sensorik e. V. and helps to promote Bavaria's technological leadership in the sensor market worldwide.