

Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT

Fraunhofer UMSICHT Institute Branch Sulzbach-Rosenberg

# Overview

Dr.-Ing. Peter Degener 14<sup>th</sup> of September 2022



## Fraunhofer-Gesellschaft

### At a Glance

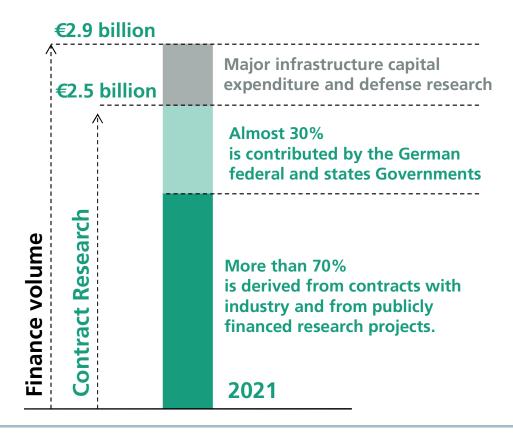
Applied research organization prioritizing key future-relevant technologies and commercializing its findings in business and industry. A trailblazer and trendsetter in innovative developments and research excellence.





76 institutes and research units







## Fraunhofer UMSICHT

# Headquarter and institute branch

Directors

Prof. Dr.-Ing. Manfred Renner | Prof. Dr.-Ing. Christian Doetsch

Fraunhofer UMSICHT OBERHAUSEN

Staff 440

Turnover 39,8 Mio EUR

Technical infrastructure 4500 m<sup>2</sup>





Director Institute branch Prof. Dr.-Ing. Matthias Franke

# Institute Branch SULZBACH-ROSENBERG

Staff 104

Turnover 10,2 Mio EUR

Technical infrastructure 2100 m<sup>2</sup>



08.2022



# Fraunhofer UMSICHT Institute Branch Sulzbach-Rosenberg

Contributions to the energy and raw materials transformation

#### **Circular Economy**

Chemical recycling
Recycling of composites

Waste and resource strategies, LCA

Powder metallurgy + additive manufacturing

#### **Services**

Process development and

pilot plant construction

Analytics and laboratory

Feasibility studies

Technology assessment

### **Energy technology**

Sustainable synthetic fuels
Sustainable process heat and storage

Negative emission technologies

**100** Scientists and engineers

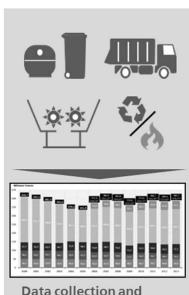
2100 m<sup>2</sup>
Technical center
and laboratory





# Fraunhofer UMSICHT – Circular Economy

Reference: Surveying, Geodatabase and Waste Management (eMISK<sub>Waste</sub>), EPA, State of Kuwait



#### Data collection and Survey

- Waste Types and Amounts, Sources
- Collection and Transport
- Treatment and Landfills
- Legislation
- Finance



#### $e \textbf{MISK}_{\text{Waste}}$

- Geodatabase and Systems for Data Storage, Processing, Analysis and Presentation
- Basis for Decision Making
- Monitoring
- Web-Applications
- Beatona.net













# National Waste Management Strategy

- Forecasts
- Goals, Indicators, Target Values
- Action Plans
- Treatment and Recycling Technologies
- Landfill Concepts
- Capacity Planning
- Finance Plans
- Legal Framework

#### Partners:





















Project Duration:

January 2017 - December 2021

Budget: approx. 17 Mio. €



# Fraunhofer UMSICHT – Circular Economy

Reference: Sustainable Waste Management for Tunisia funded by Free State of Bavaria









#### Partner:















- Model regions: Siliana, Tabarka and Douar Hicher/Tunis
- Analysis Status Quo, Development of Solutions for Tunisian Waste Management
- Green points for Waste Segregation for Recycling
- Composting
- Dismantling of CRT
- Knowledge Transfer and Creation of new employment opportunities

# Project Duration:

August 2018 - May 2022

## Budget:

> 1 Mio. €



# Fraunhofer UMSICHT – Circular Economy

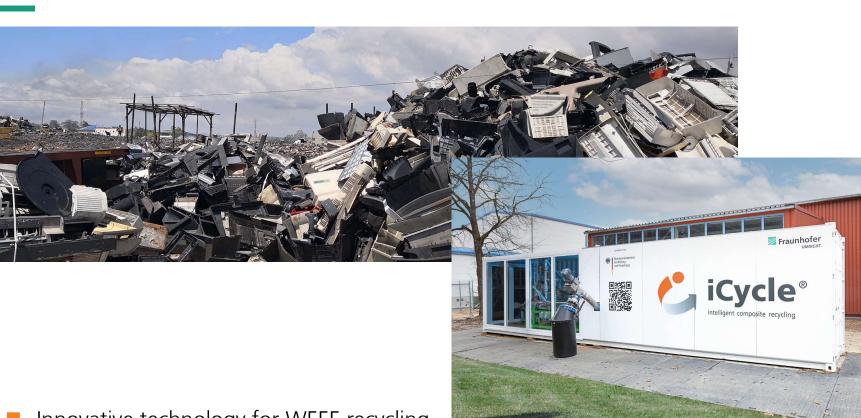
Reference: Recycling of waste electrical and electronic equipment (WEEE) in Ghana

Supported by:



Federal Ministry for the Environment, Nature Conservation, **Nuclear Safety and Consumer Protection** 

based on a decision of the German Bundestag



- Innovative technology for WEEE recycling
- Aim of the project is to examine how the existing treatment can be supplemented by thermochemical methods and optimized distribution channel

#### Partner:





## Project Duration:

January 2022 – December 2023

## Budget:

approx. 350.000 €



# Many thanks for your attention



Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT

# Contact

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