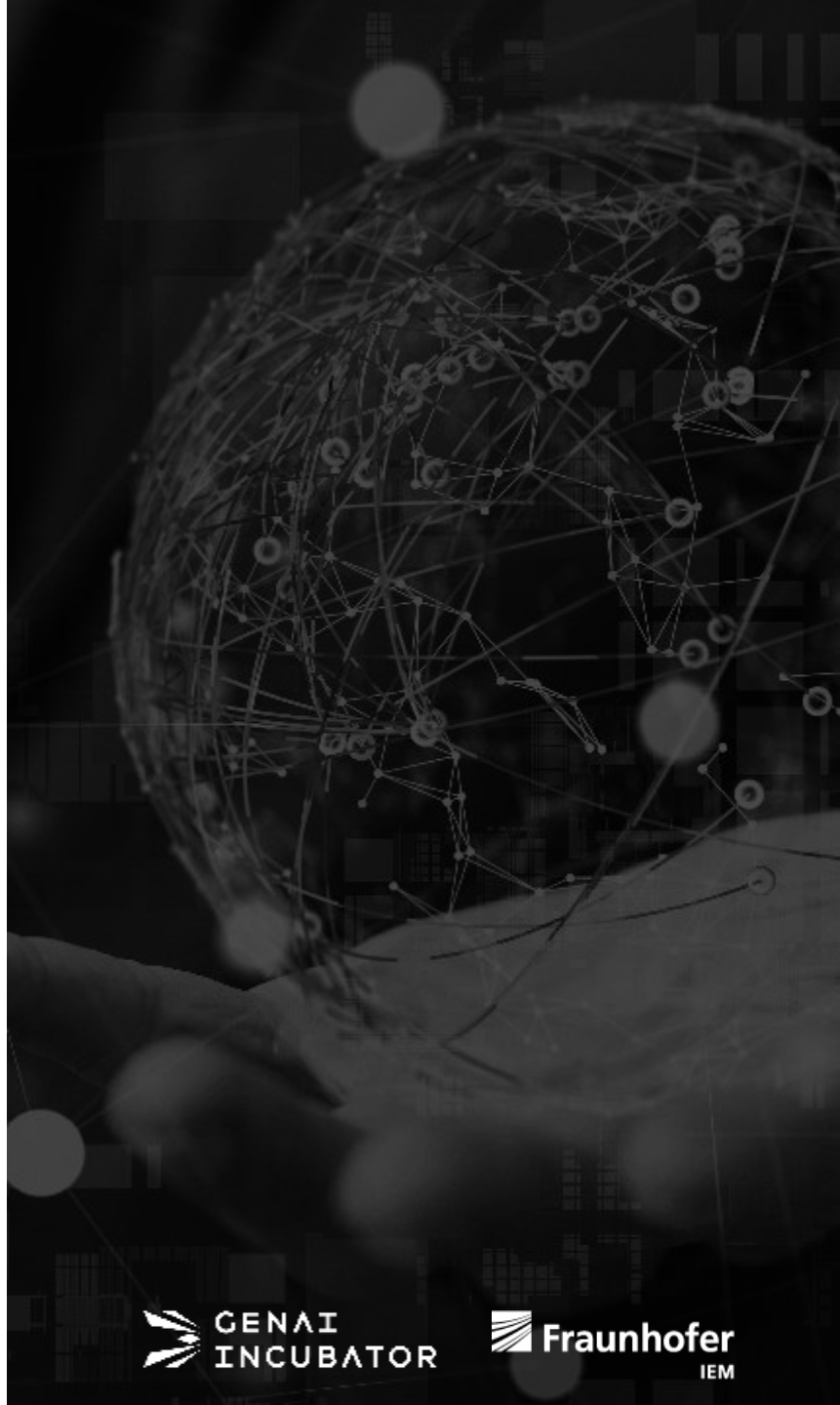
GENAI INCUBATOR

What's the idea behind it?

Prof. (adj.) Dr. -Ing. Laban Asmar



Fraunhofer IEM's GenAI Incubator turns real-world challenges into practical AI solutions — and sometimes also new startups.

#Tommy Falkowski, Head of GenAI Incubator

YOUR GENAI CHALLENGE WITH A FOCUSED TEAM

All of this for a fixed price of 80.000 €!

1 TEAM

6 MONTH

1 USE CASE

AND SOMETIMES ALSO NEW
STARTUPS

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1

TEAM

Experienced Fraunhofer IEM Coaches

Guidance from GenAI experts at Fraunhofer IEM – combining deep research knowledge with practical experience in applying generative AI in industry.

Three GenAI Talents

Carefully selected students in Computer Science, Business Informatics or Business – trained and supported by Fraunhofer IEM.

In Collaboration with Your Team

Regular reviews with your team to ensure user-centric solutions tailored to your specific needs and challenges.

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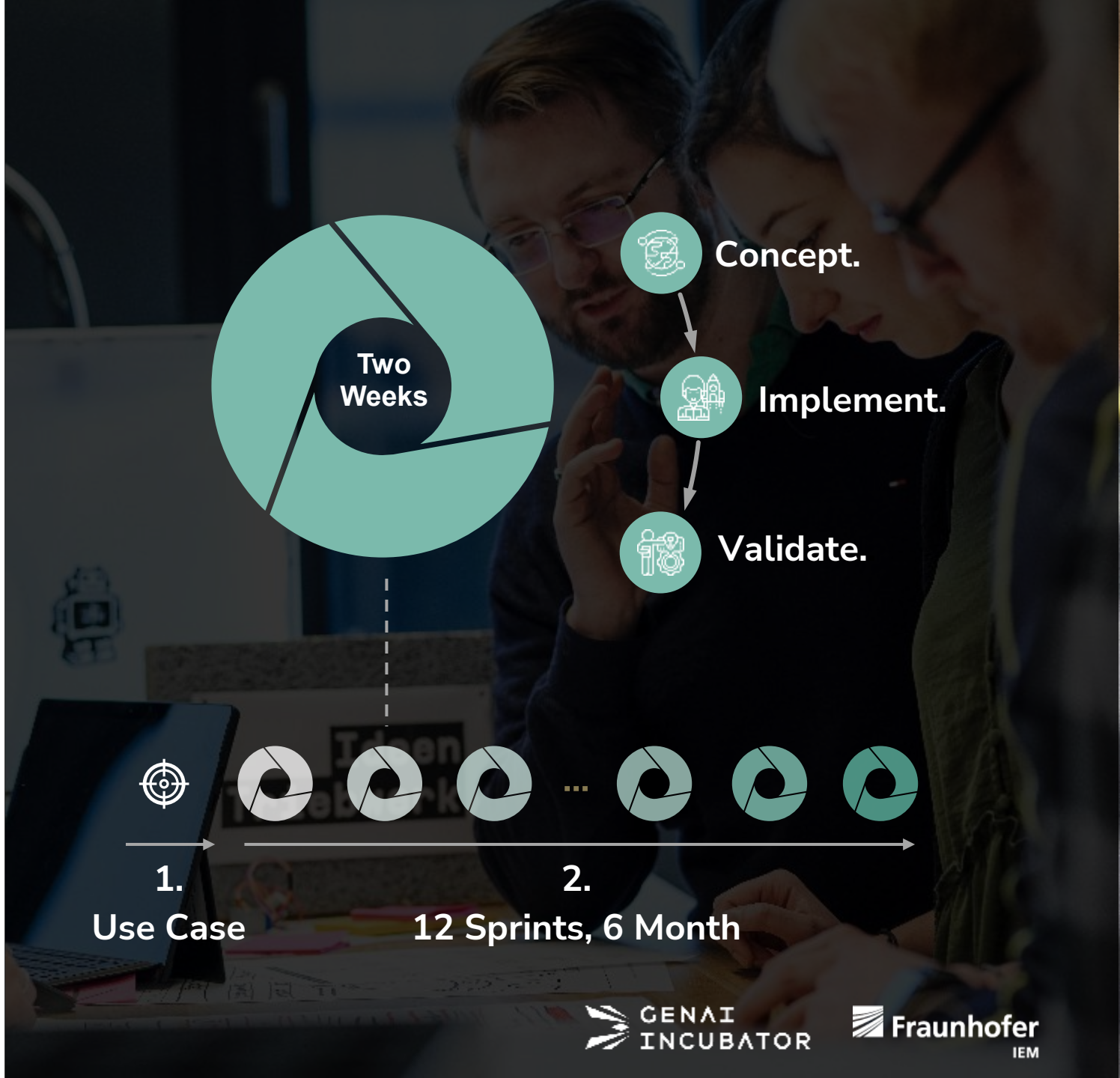
6 MONTH

THE TEAM WORKS IN 12 TWO-WEEK SPRINTS!



Potential Use Cases – just a few examples

Strategic & Innovation Management

Report Summaries, Whitespot Analysis, Market Crawling

...

Enterprise Support

Chat driven Workflows, interactive employee onboarding, AI-based ERP …

Customer Relations

Interactive User Manuals & Reports, Customer support bots, Guided Selling …

Product & Service Engineering

Code Generation & Analysis, Requirement Generation, AI Personas, Ideation …

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A glimpse into some of the current use cases

Completed & in progress use cases at a glance

#	Use-case (your wording)	Business Function (Value-Chain spine)	Lifecycle Phase (V-Model)	AI-Capability Tags	Technology Readiness
1	LLM + RAG product-support bot	Service & After-Sales	Operation & Maintenance	Knowledge & Retrieval, Conversational	7
2	Smart Assistant for Manufacturing Planners (drawing extraction, slide generator)	Production / Operations → Planning	System / Sub-system Design → Manufacturing Planning	Generative Design & Visual, Conversational	7
3	GenAI in Manufacturing Automation Engineering (code generation)	R&D / Engineering	Implementation	Generative Text & Code, Optimisation	6
4	Smart Document Automation (any docs + agentic decisions)	Support (HR/Finance/IT) **or** Quality & Compliance (depends on target users)	Operation & Maintenance	Knowledge & Retrieval, Agentic Workflow	6
5	Semantic info extraction from technical drawings (P&IDs)	R&D / Engineering **and** Quality	System / Sub-system Design	Generative Design & Visual, Knowledge	5
6	GenAI-driven data preparation for ML tasks	R&D / Engineering **or** IT /Data-Ops	Implementation	Generative Text & Code, Optimisation	7
7	Flexible & fast training of classification models for corporate apps	R&D / Engineering **and** Quality	Integration & Verification → Validation	Predictive / Classification, Optimisation	7

A glimpse into some of the current use cases

IEM Scout

How can we create a partial Automation of Technology-Scouting?

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Three core components of the IEM Scout

1 Create search strategy


Answer AI questions


Identify and split keywords


Generate search fields


Generate search terms


Save the search strategy

2 Enrich knowledge


Load saved search strategy


Query terms via API


Build a CSV of target URLs


Scrape each URL and save as CSV


Ingest new knowledge into the RAG system

3 Automated profile generation


Populate the technology list


Iteratively draft each profile section


Iteratively assemble all profiles


Save profiles as .txt files


Export profiles into Word templates

Data sources


LLM knowledge


FineWeb database


OpenAlex


Google Search


Documents


Other APIs

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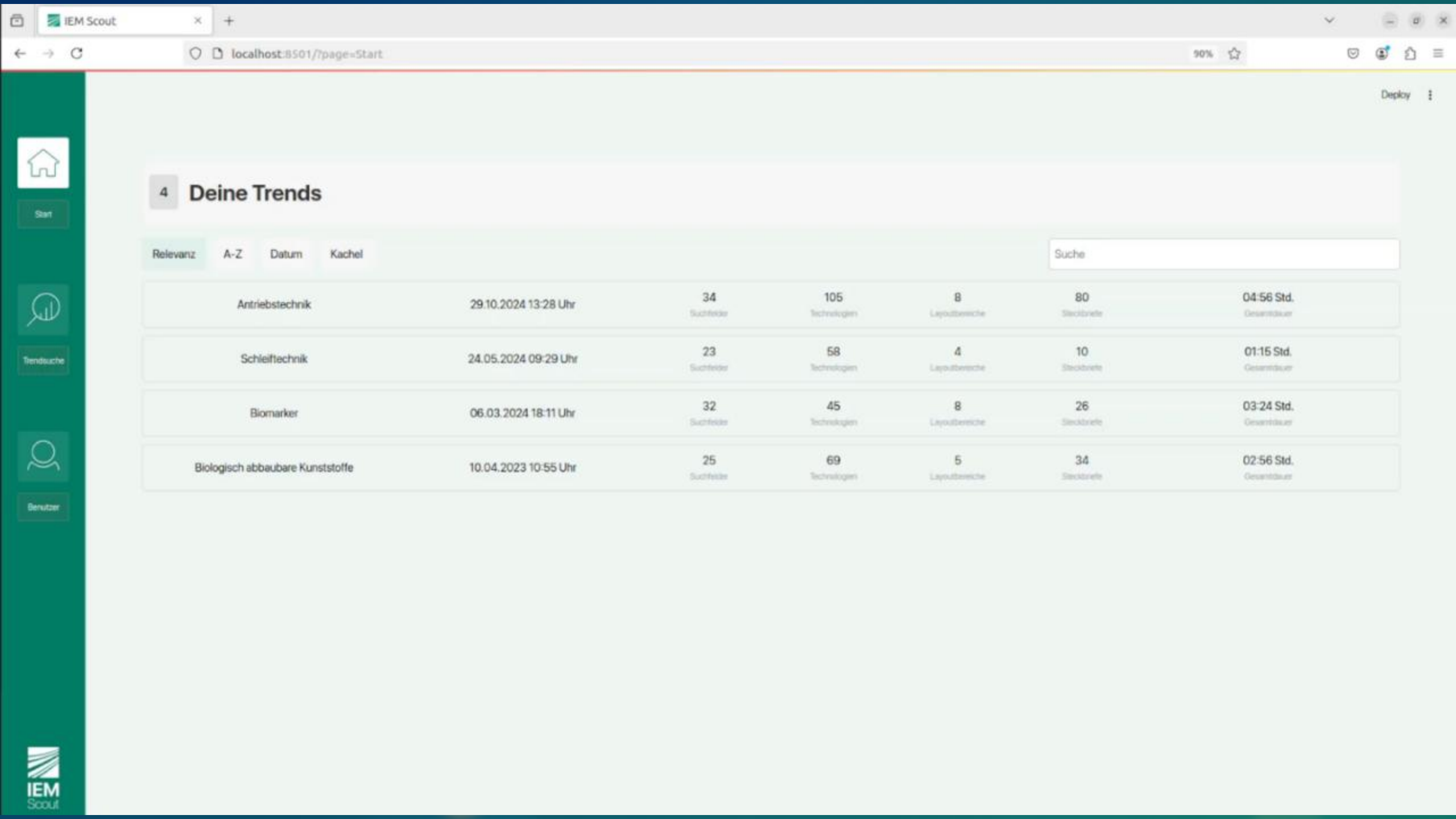
IEM Scout
localhost:8501/?page=Start
90%
Deploy
Start
Trendsuche
Benutzer
4
Deine Trends
Relevanz
A-Z
Datum
Kachel
Suche
Antriebstechnik
29.10.2024 13:28 Uhr
34
105
8
80
04:56 Std.
Schleiftechnik
24.05.2024 09:29 Uhr
23
58
4
10
01:15 Std.
Biomarker
06.03.2024 18:11 Uhr
32
45
8
26
03:24 Std.
Biologisch abbaubare Kunststoffe
10.04.2023 10:55 Uhr
25
69
5
34
02:56 Std.
IEM Scout

AND SOMETIMES ALSO NEW

STARTUPS

Veilix

https://www.veilix.ai/

OPTIMAITE

https://www.optimaite.eu/

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A glimpse into some of the current use cases

Veilix

How can we make use out of P&ID and other Engineering schematics?

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Vite + React + TS

localhost:5173/home

Home

Search

Data Pre-processing

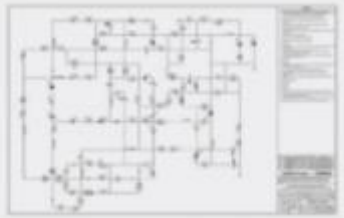
+ New

Start with fresh chat

+ Pre-process data

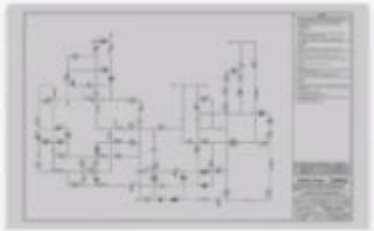
Pre-process data by uploading all the files

History



Water Distribution Schematics

2.10.2024



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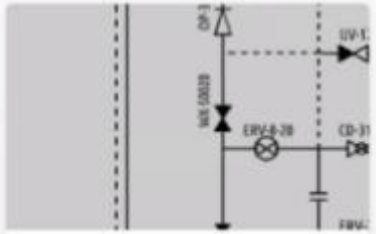
12.10.2024

Water Distribution Schematic

15.10.2024



example schematic

21.11.2024

Parvez Rumi

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A glimpse into some of the current use cases

How can businesses automate document chaos locally?

AI-Driven Document Management

One central inbox for all your documents

Automatically sorts documents into predefined categories

Extraction of relevant entities set by the user

Intelligent symantic embedding: A system that can answer any question about your documents

Built around cutting-edge Multi-AI-Agent architecture