



REPAIR

FIX SMARTER WITH AI

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Product presentation

24th of April 2025



E-WASTE IS A GROWING PROBLEM

Consumer-driven waste reduction offers the greatest potential



In Germany, each person generates around 20 kg of electronic waste per year



Households are the main source of electronic waste



Repair knowledge among private individuals is limited

Source: Bundesumweltamt



OUR BUSINESS GOAL

Empowering repair – reducing waste

- Enable users with AI assistance to fix their technical devices independently
- Create an intuitive and accessible experience that encourages usage
- Significantly reduce electronic waste by extending device lifecycles

OUR TARGET GROUP

Curious and conscious repair beginners

- People without prior repair experience who need help fixing their smartphone, tablet, or other devices
- Users looking for clear, DIY repair guidance, focussing on accessibility
- Sustainability-minded individuals who prefer repairing over replacing



API
connection

Python
friendly

DATA SOURCE

iFixit ensures a large and
well accessible source for
repair guides

Repair
guides for
~65.000
devices





Solid Framework
Utilizing LangChain



Smart Knowledge Database
Via FAISS VectorDB



Intuitive Interface
Powered by Gradio



Stable Deployment
On HuggingFace Spaces

TECH-STACK

What powers our product?

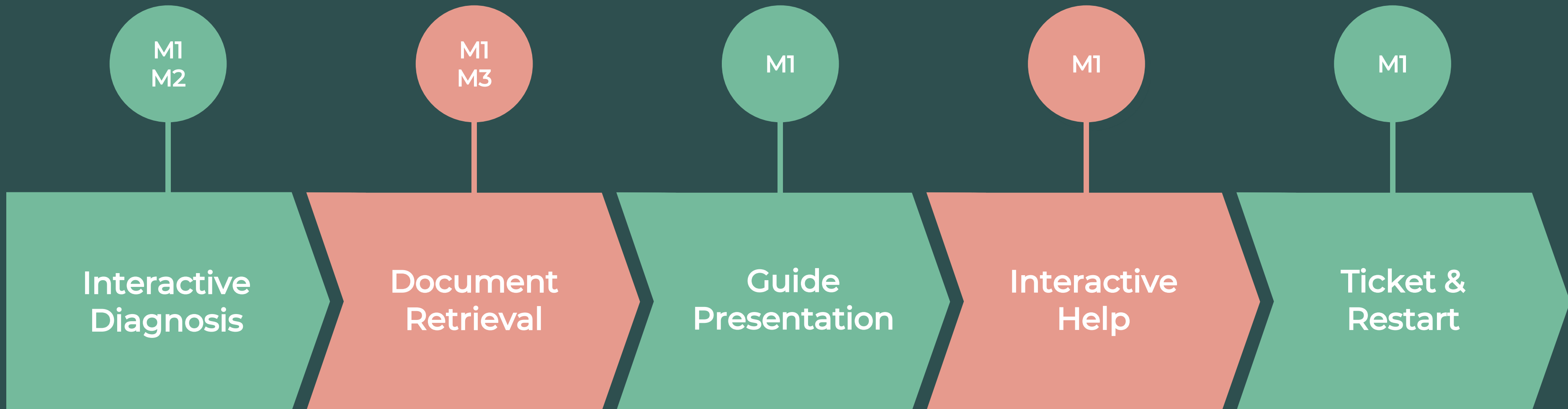
APPLICATION DEMO



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CHAT PHASES AND MODELS



Used Large Language Models:

- M1: General LLM (llama3-8b-8192, meta)
- M2: Instructor LLM (llama-3.1-8b-instant, meta)
- M3: Embedding LLM (sentence-transformers/all-MiniLM-L6-v2, huggingface)


CHATBOT PERFORMANCE

Holistic evaluation

Methods	Metric	Benchmark
1) End-to-End Testing	Success Rate of correct steps	80% problem-solving rate
2) Component Testing	Accuracy in understanding	90% intent detection accuracy
3) User Feedback Loop	NPS (Net Promoter Score)	NPS of > 40

WHAT'S NEXT?

Outlook on Future Features

-  Solution for business applications
-  Photo-Based Device & Problem Recognition
-  Visual Guide Retrieval



Thank you!



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*Now it's
your turn!*



Maria Berger | Annette Manntsche | Tim Weiland | Simon Cornevin