

Mit KI zur raffinierten Bioraffinerie



— — Train cancelled
due to maintenance



**predictive
maintenance**



predict



**predictive
maintenance**

**predictive
quality &
automatic QA**

market forecast





WIKIPEDIA
The Free Encyclopedia

Artificial Intelligence

Artificial intelligence (AI) is **intelligence** – perceiving, synthesizing, and inferring information – demonstrated by **machines**, as opposed to intelligence displayed by **animals** and **humans**.

Example tasks in which this is done include [...]

machine learning

AI

**domain
knowledge**

statistics

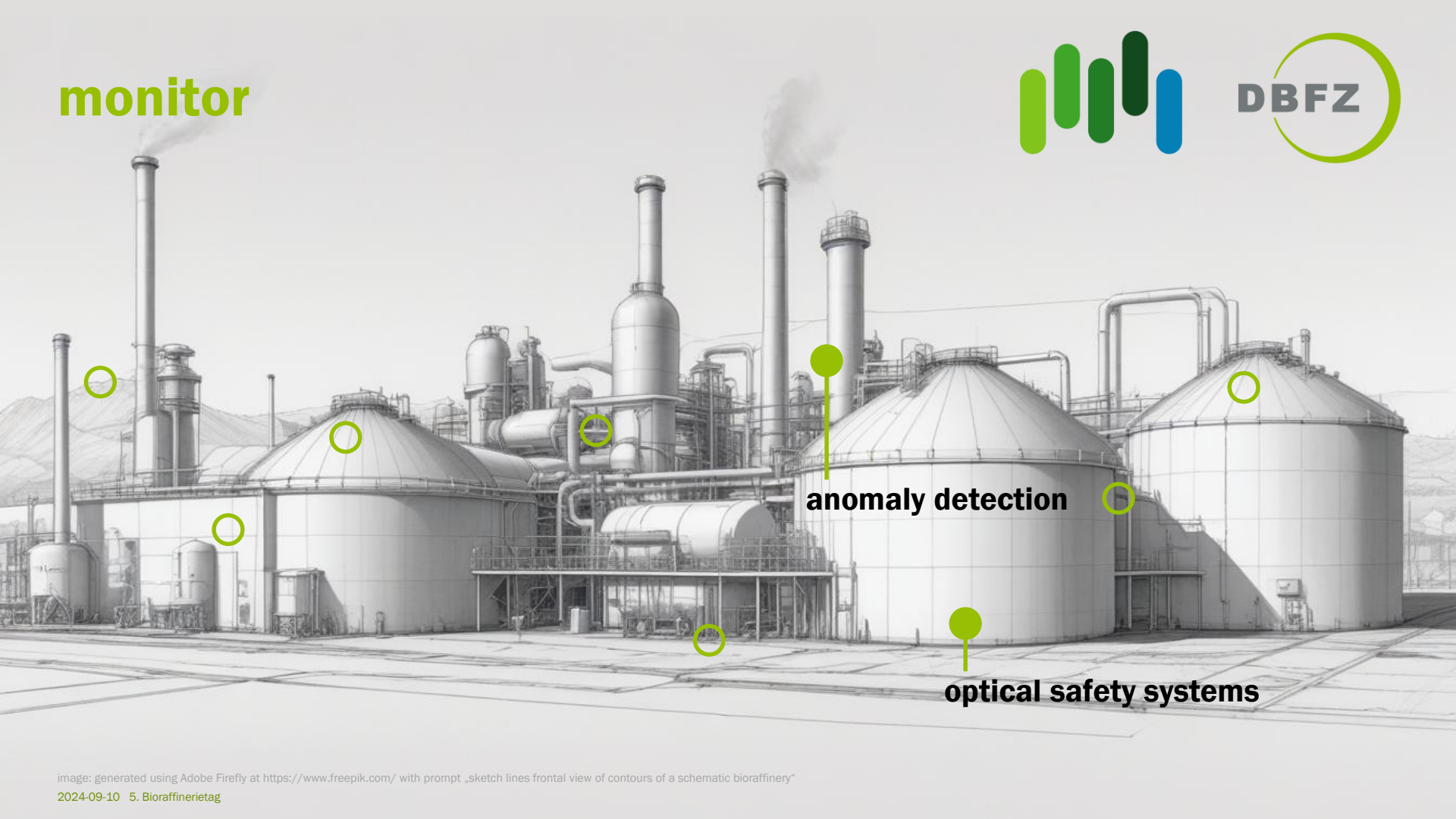
machine learning

AI

**domain
knowledge**

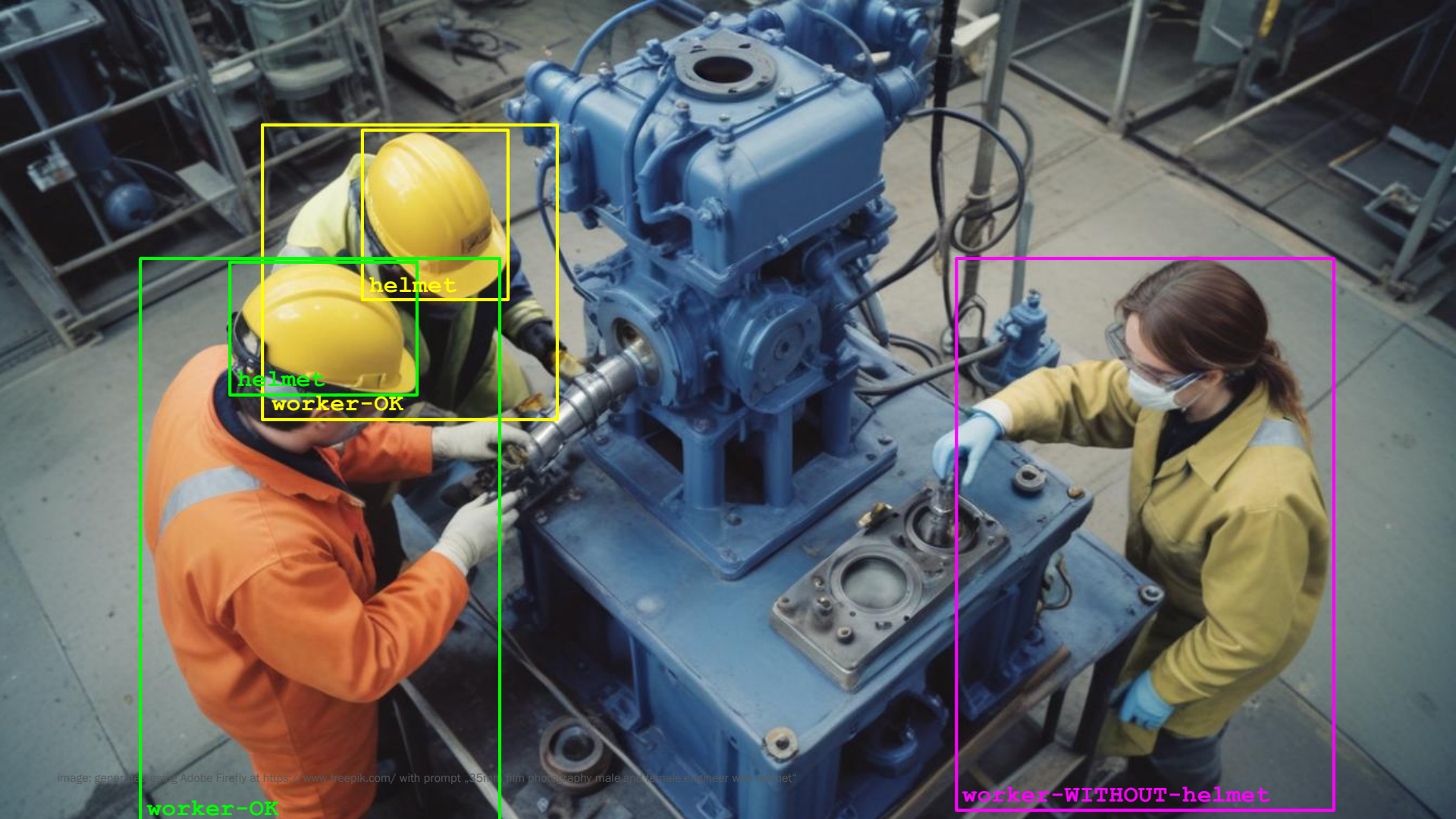
statistics

monitor



anomaly detection

optical safety systems



helmet

helmet

worker-OK

worker-WITHOUT-helmet

worker-OK

„data-driven“

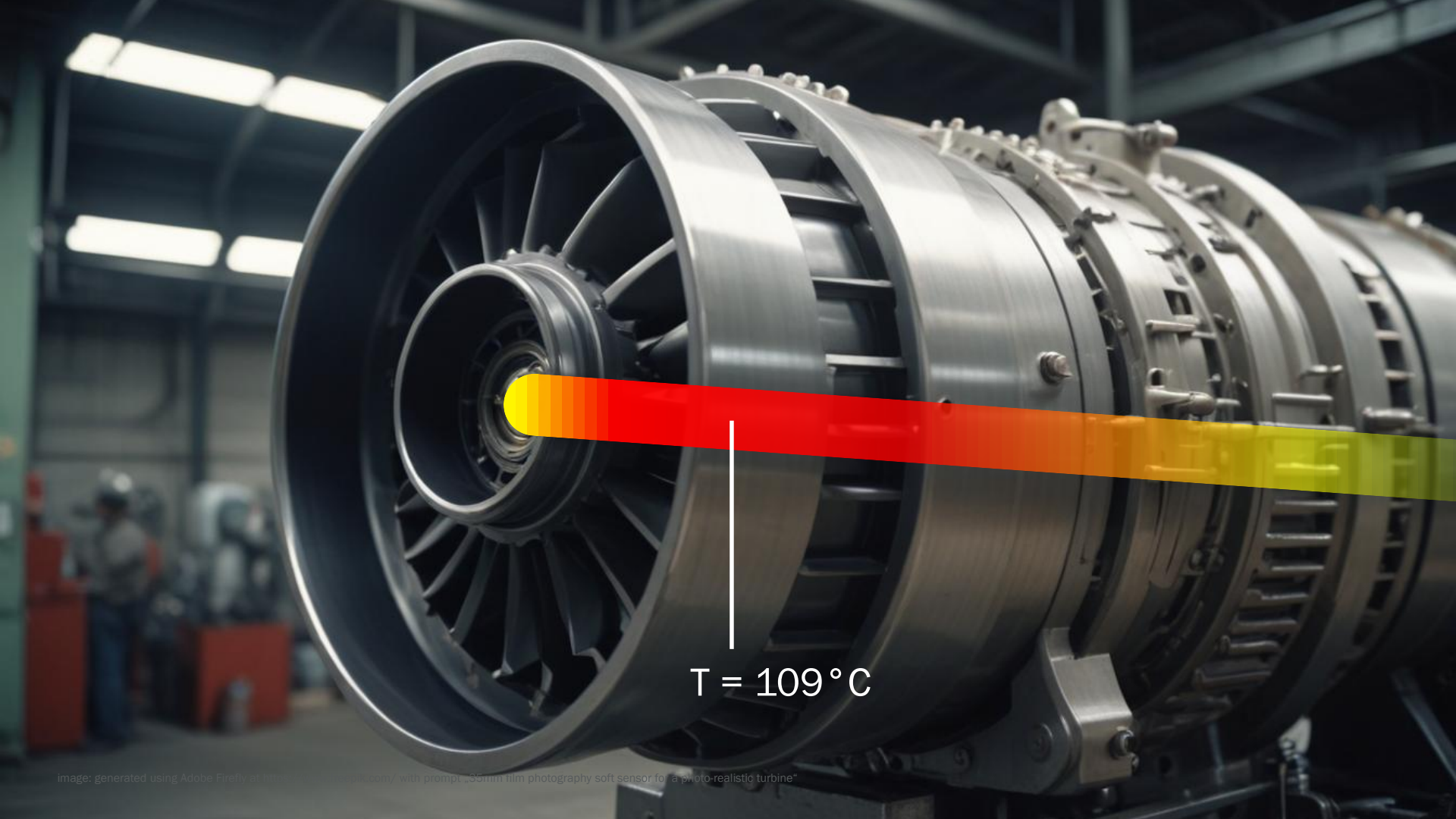


soft sensors



„digital twin“





$T = 109^{\circ}\text{C}$



control



process optimisation

production control



AI recipe



1 think of a **specific** and **feasible** AI application task

monitor • predict • control

2 assess **available data** and suitable AI models



AI recipe



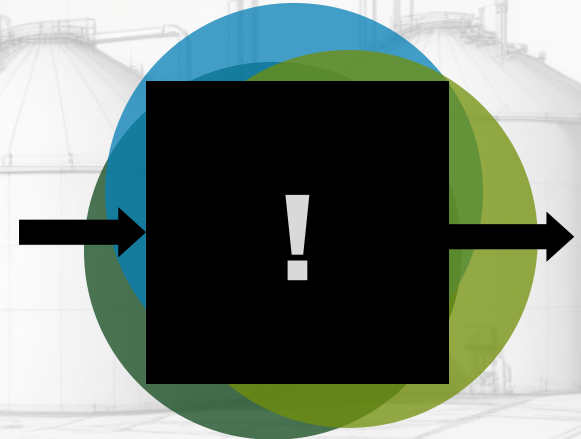
1 think of a **specific** and **feasible** AI application task

monitor • predict • control

2 assess **available data** and suitable AI models

3 train models and apply to new data

4 continuously improve models in application environment





Heute ist nicht alle Tage ...

image: generated using Adobe Firefly at <https://www.adobe.com>

prompt: colorful flat illustration classical anime futuristic bio-refinery

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scikit-learn algorithm cheat-sheet

