# Künstliche Intelligenz & Digitale Arbeit gestalten: Ein Fahrplan zur Arbeit der Zukunft

**Dr. Joschka Hüllmann, für AMCON GmbH, 2025**

# Über mich

**Dr. Joschka Hüllmann**

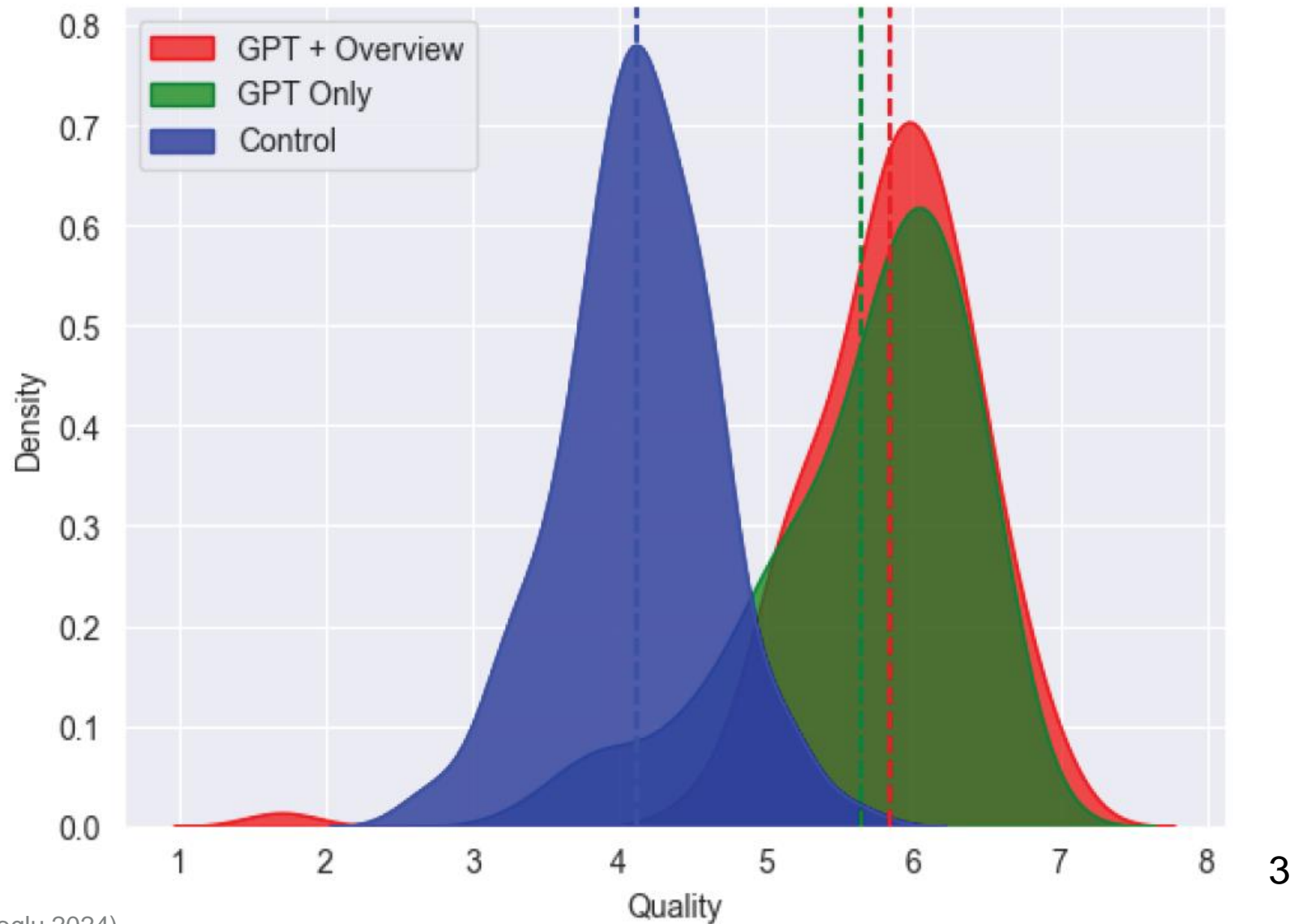Assistant Professor an der Universität Twente (NL)

**Forschungsschwerpunkte:**

– Change Management für innovative Technologien

– People Analytics und Algorithmisches Management

– Analyse Digitaler Fußspuren

– Social Process Mining

Kontakt: www.joschka-huellmann.de
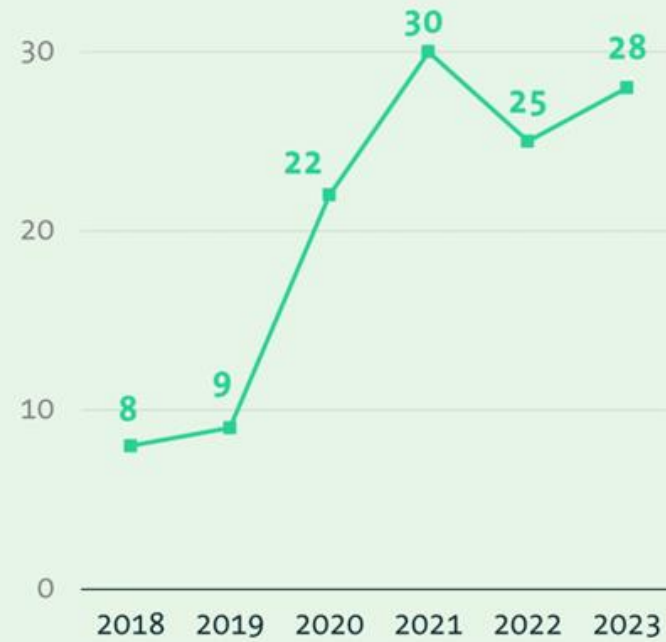
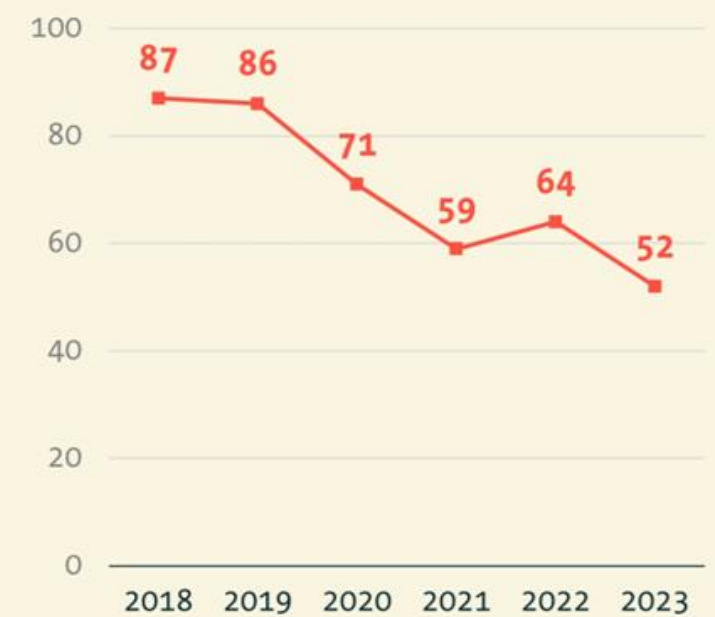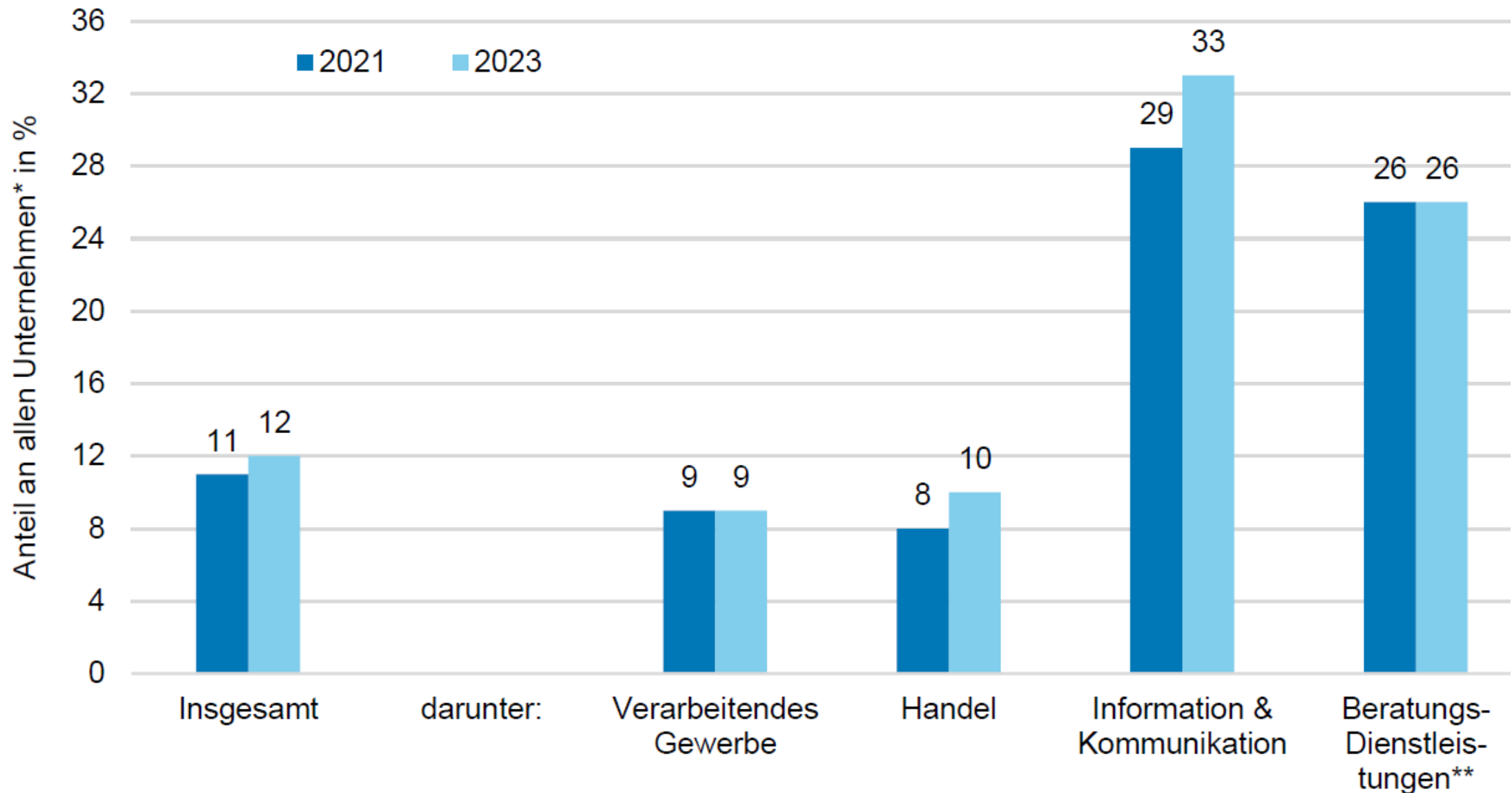# Produktivitätssteigerung in Wissensarbeit

(DellAcqua et al. 2023, p.28; Acemoglu 2024)

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# Steigender Bedarf

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# Viele Branchen sind von KI betroffen



(Hatzius et al. 2023, p. 10; BMWK, p. 9)

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# Mehr KI Jobs
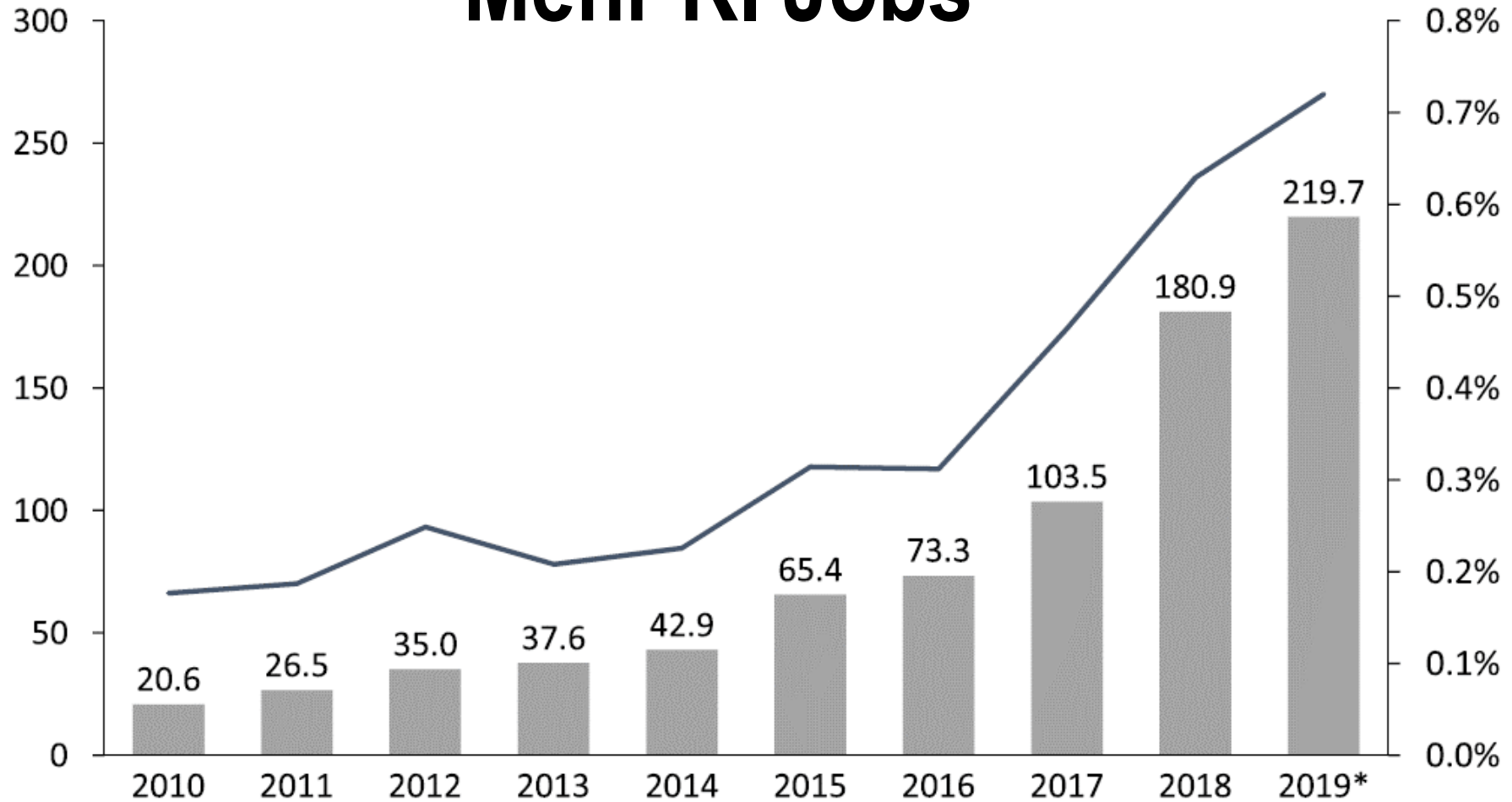


Legend:
— AI share of the Total number of vacancies
▮ Number of vacancies requiring AI skills (in thousands)

Bar values by year: 2010: 20.6, 2011: 26.5, 2012: 35.0, 2013: 37.6, 2014: 42.9, 2015: 65.4, 2016: 73.3, 2017: 103.5, 2018: 180.9, 2019*: 219.7

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UNIVERSITY OF TWENTE.

# Lohn Effekte

(Acemoglu et al. 2023, p. 23)
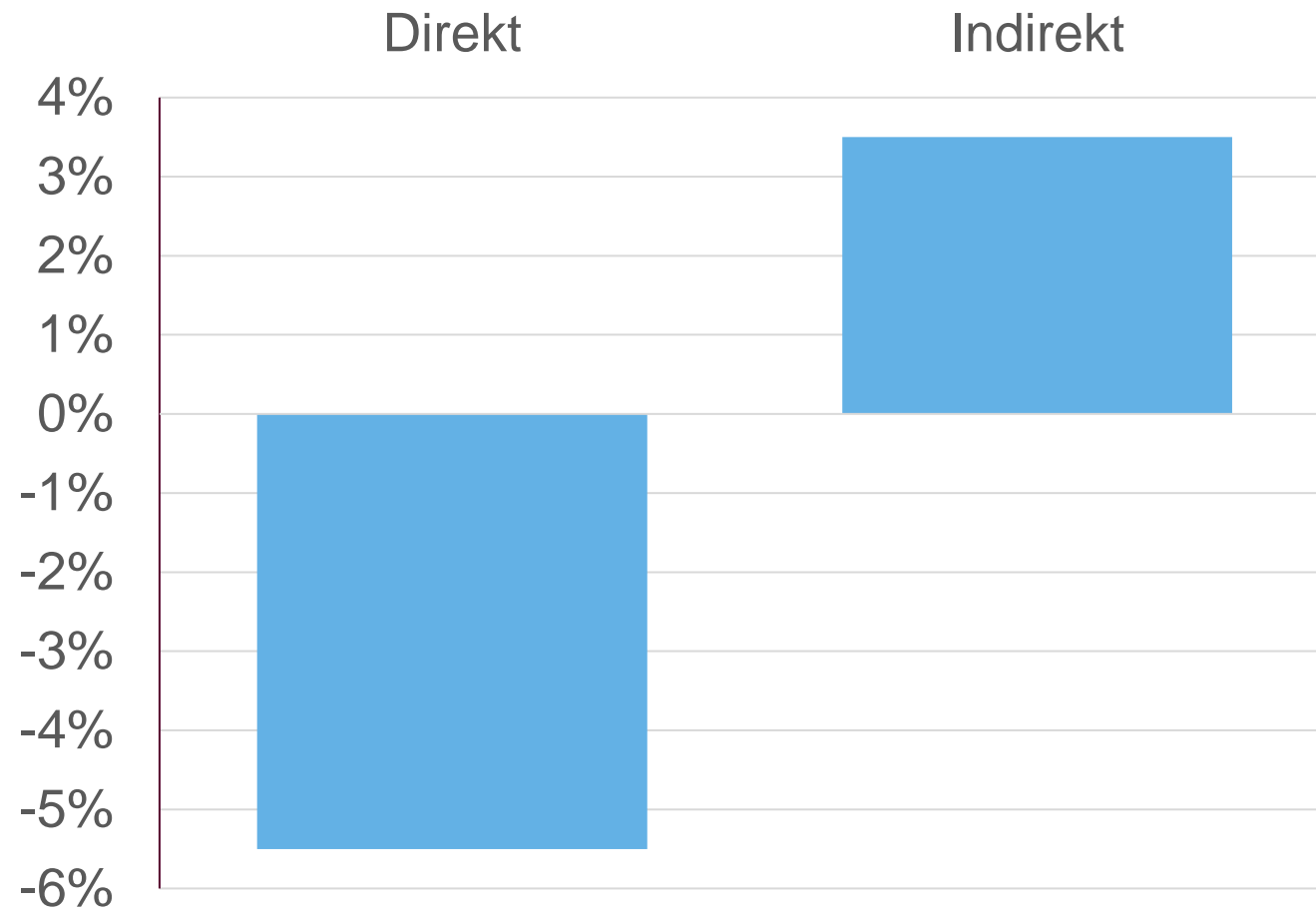
Dr. Joschka Hüllmann
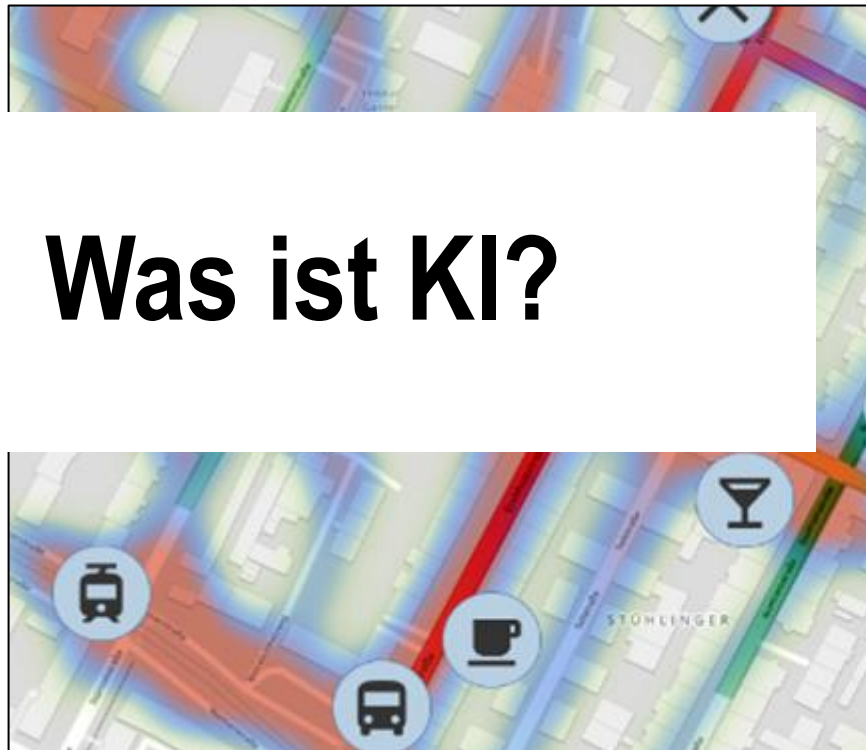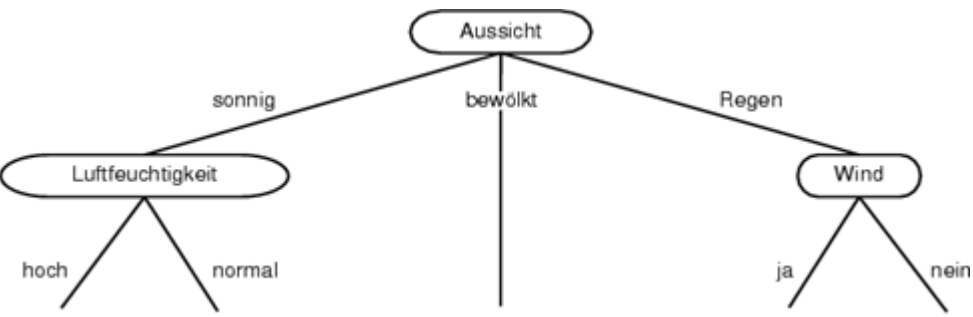
# Was ist KI?

# Kundenservice



**Chatbots:**
- Anfragen filtern
- Information ausgeben
- Service Delivery monitoren
- Historie zusammenfassen
- Aufgaben automatisieren
- Multitasking

(Vassilakopoulou et al, 2023; Gnewuch et al., 2024)

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# Verkehrsanalyse

(Fina et al., 2021; Abirami et al., 2024; Cao et al., 2024)

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# Personenanalyse

(Laufs et al., 2020; Ullah et al., 2023; Waardenburg et al., 2021)

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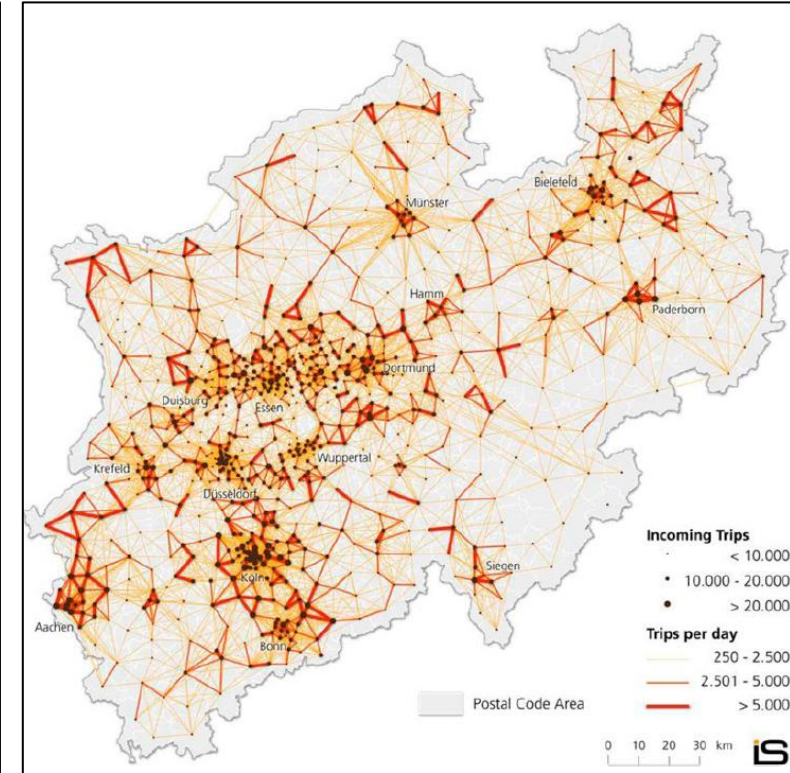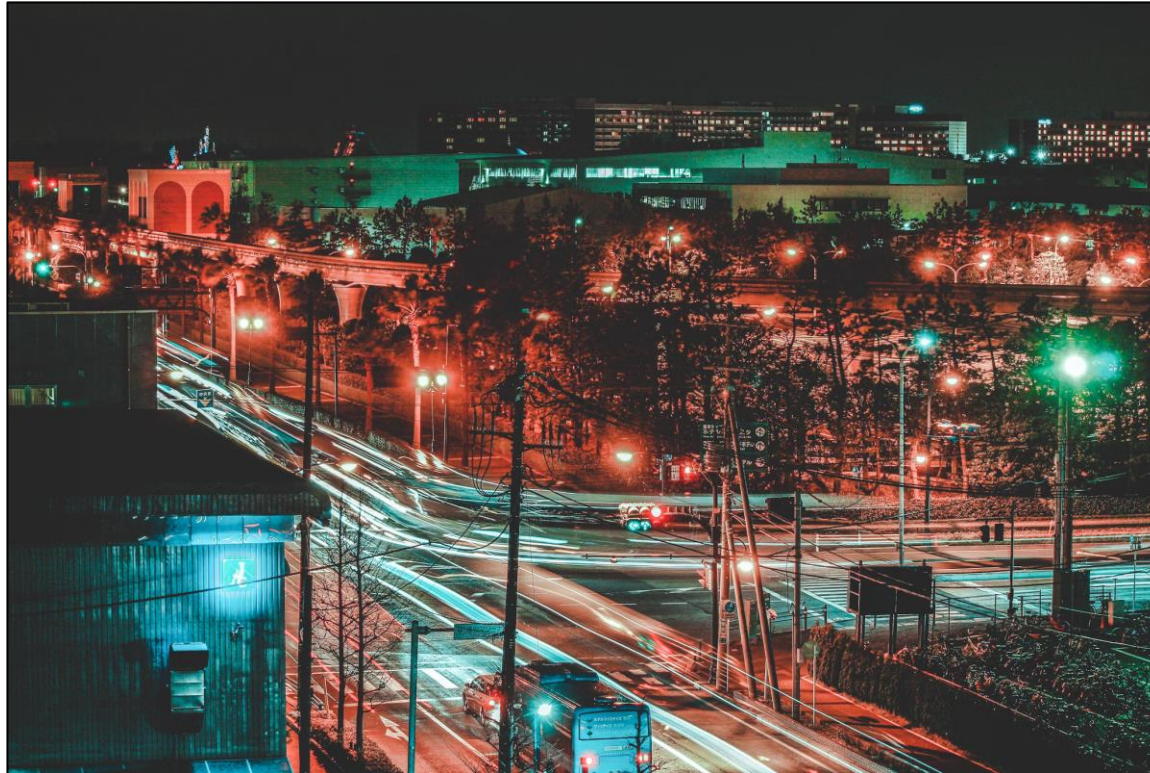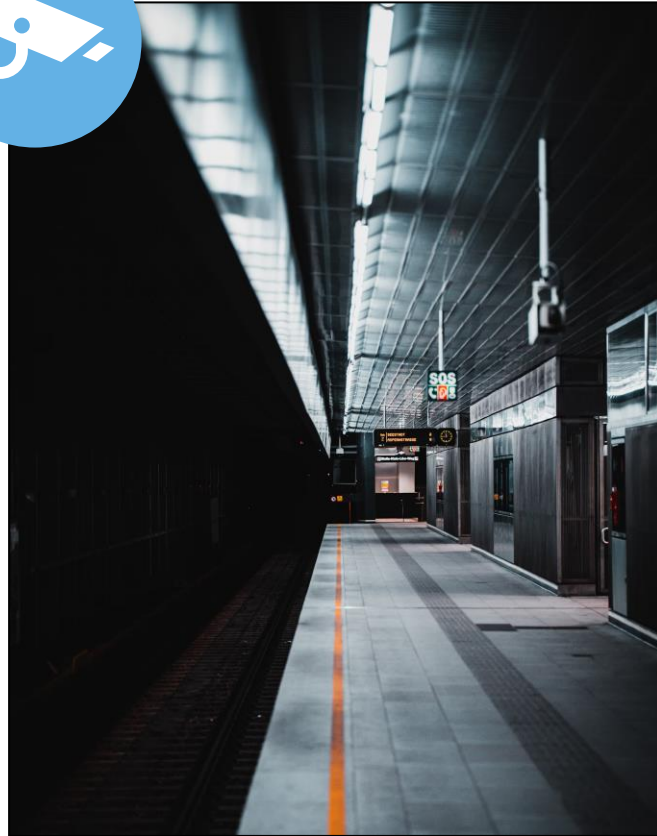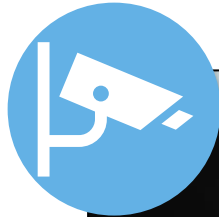
# Autonome Fahrzeuge



„Der Betrieb wurde mit dem erfolgreichen Projektende eingestellt."

https://www.vdv.de/liste-autonome-shuttle-bus-projekte.aspx

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# Planung & -steuerung

(Abdelwahed et al. 2020, 2021)

**Arbeit im Wandel.**

(Hüllmann et al. 2023; Benbya et al. 2021)

# Ist KI anders?

## KI Eigenschaften

1. KI-Modelle sind eine "Blackbox".
2. KI-Modelle haben Fehler und Unsicherheiten.
3. KI-Modelle bauen dauert lange.
4. KI-Modelle haben systematische Verzerrungen.

## Menschliche Eigenschaften

1. Vertrauen in Mensch vs. Künstliche Intelligenz.
2. Aversion gegen Künstliche Intelligenz.

(Venkatesh 2022)

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# Adoption von KI (Nutzersicht)

## Kenntnis und Vertrauen in KI versus Menschen
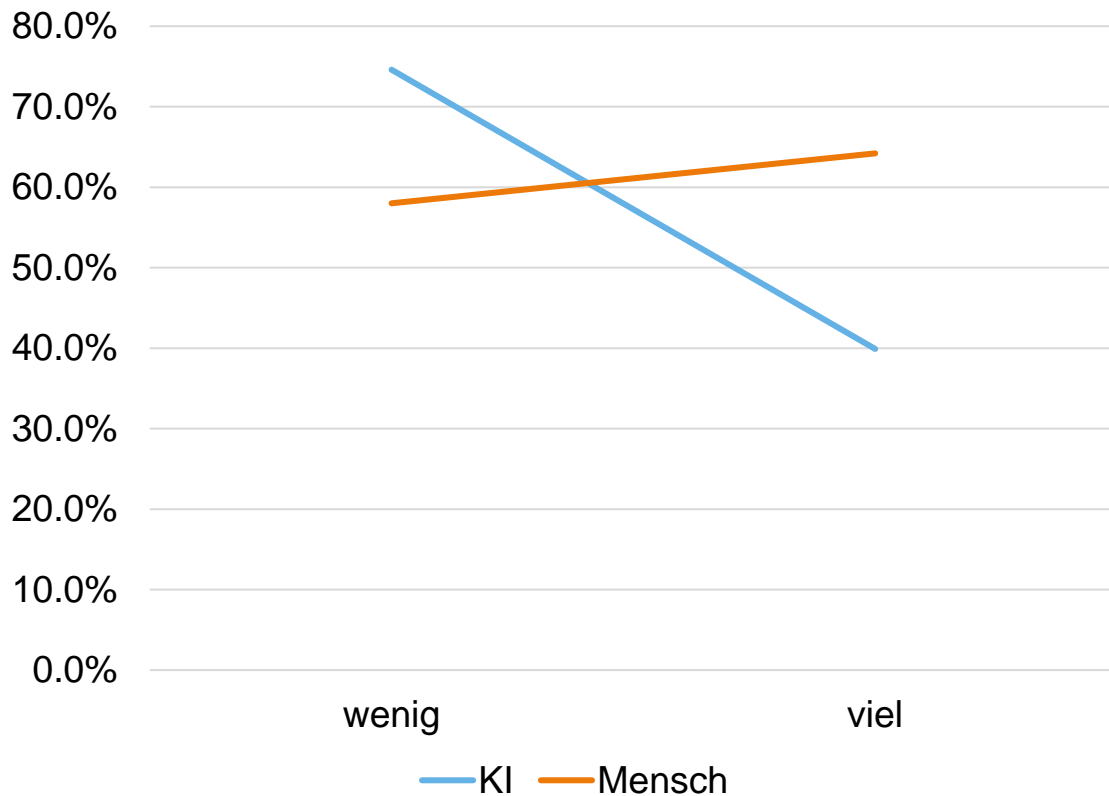


**Mehr Toleranz gegenüber Menschen**
Fehler durch KI bleiben hängen.
Fehler durch Menschen werden verziehen.

Je mehr man es <u>kennenlernt</u>,
→ desto kritischer werden Nutzer.

Je besser man es <u>versteht</u>,
→ desto einsichtiger werden Nutzer.

**Vertrauen & Wissen schaffen, Erwartungen managen!**

(Berger et al. 2021; Dietvorst et al. 2015; Kocielnik et al. 2019; Logg et al. 2019; Bitzer et al. 2021; Thiebes et al. 2021; Araujo et al. 2020; Hüllmann et al. 2023)

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# Adoption von KI (Unternehmenssicht)

## Umgebung

- Rechtliche Bedingungen
- Externe Expertise
- Öffentliche Gelder
- Wettbewerb

## Technologie

- Verfügbarkeit von KI Lösungen
- Verfügbarkeit von Daten
- Nützlichkeit
- Skalierbarkeit
- Produktivität des Produktionsprozess
- Qualität der Daten
- Nutzbarkeit
- Zuverlässigkeit

## Organisation

- Interne Expertise
- Management Support
- Verfügbare Ressourcen
- Innovationskraft

Schatten-IT

Fachkräftemangel

**KI Adoption**

(Demlehner and Laumer 2020; Tornatzky et al. 1990; Brynjolfsson and Mitchell 2017; Cowston and Bolici 2019)

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# Welches KI Tool ist das richtige?
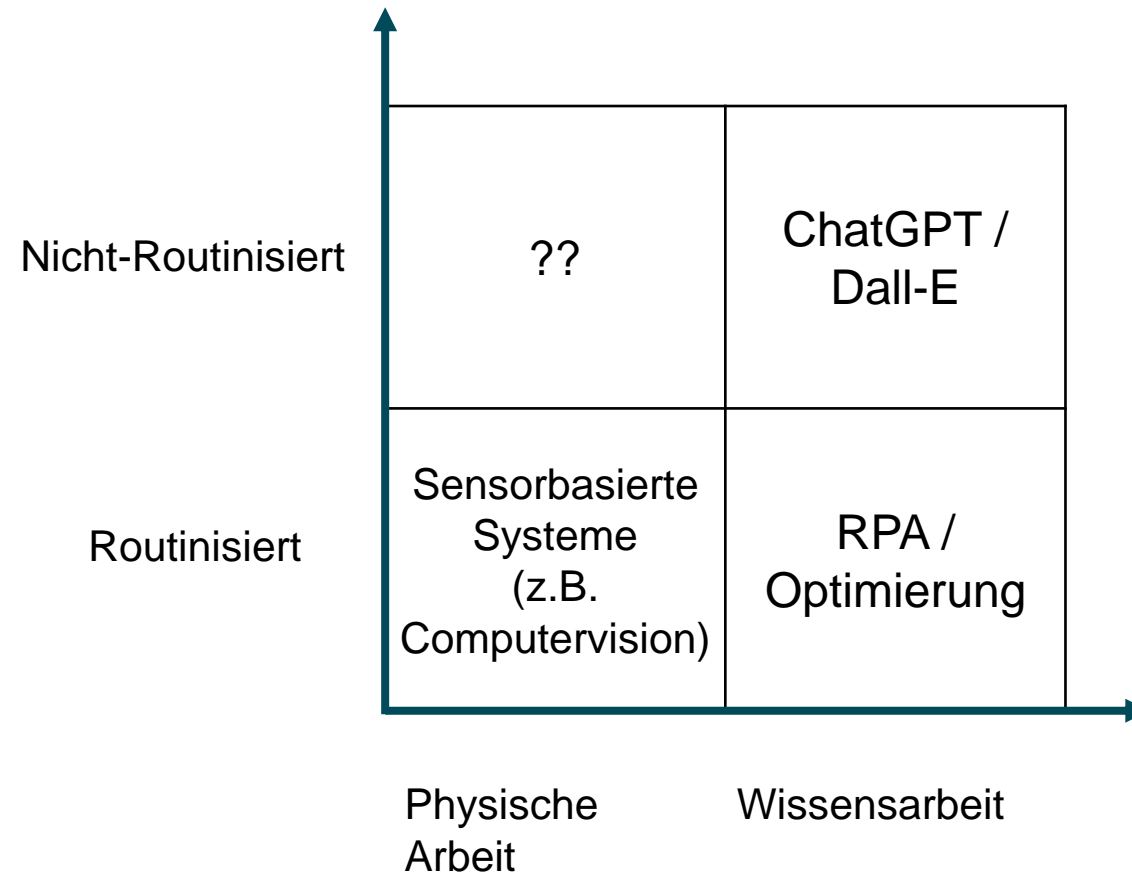
# Adoption von KI (Unternehmenssicht)

„Unsere Daten stecken in Silos und haben uneinheitliche Formate."

**„Wir haben nicht das Know-How."**

„Die Mitarbeiter bevorzugen bewährte Prozesse."

„Sorge vor Kontrollverlust und Relevanzverlust."

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# Mitarbeiterentwicklung für KI

(Assis Dornelles et al. 2023)

# KI „Literacy" schaffen

**Dimension der Befähigung**

**Themenbereich**

Etablierte Lernformate

| Wissen |
| Awareness |
| Skills |
| Kompetenzen |
| Erfahrung |

| KI Modelle |
| Daten für KI |
| KI Schnittstellen |
| KI Tools |
| Mensch & Organisation |
| Querschnitts-themen |

Auswirkungen auf KI Implementierung

(Pinski and Benlian 2024)
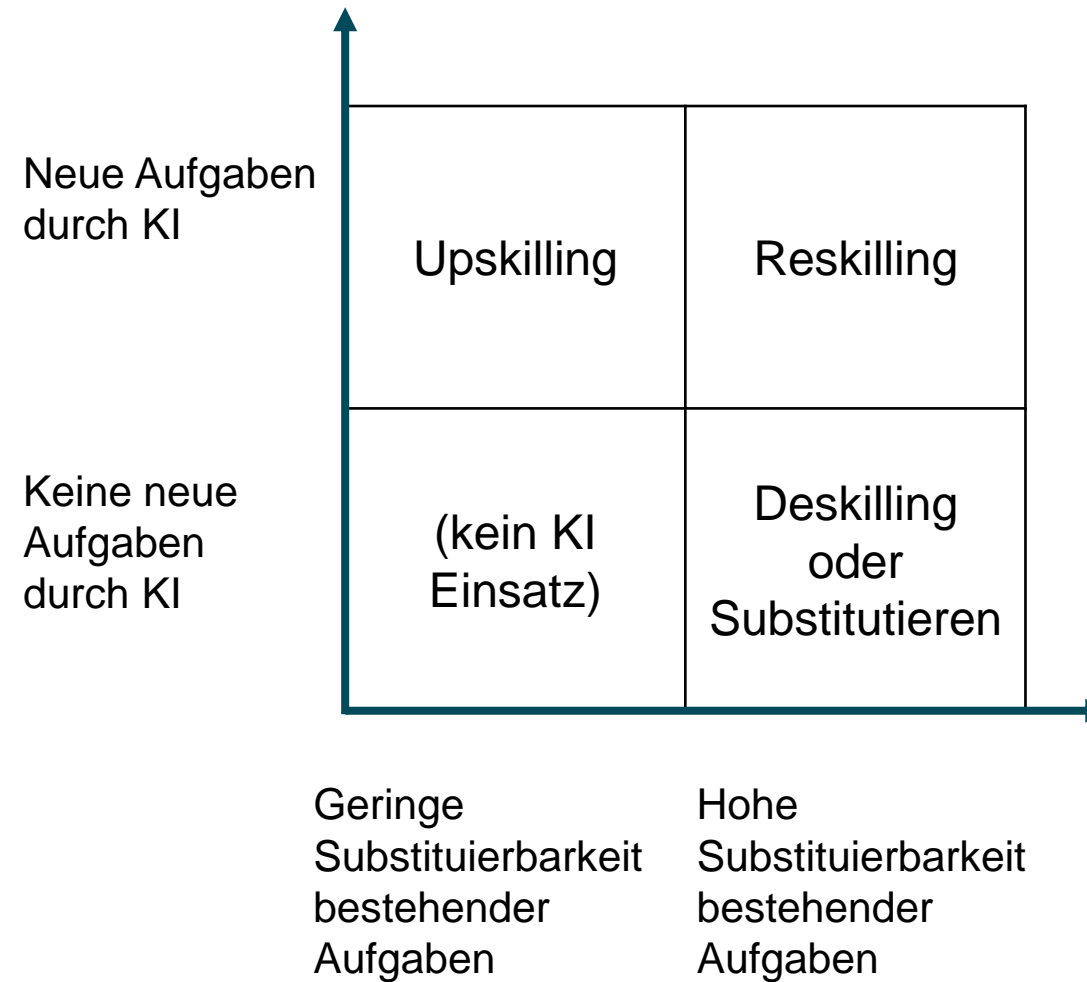
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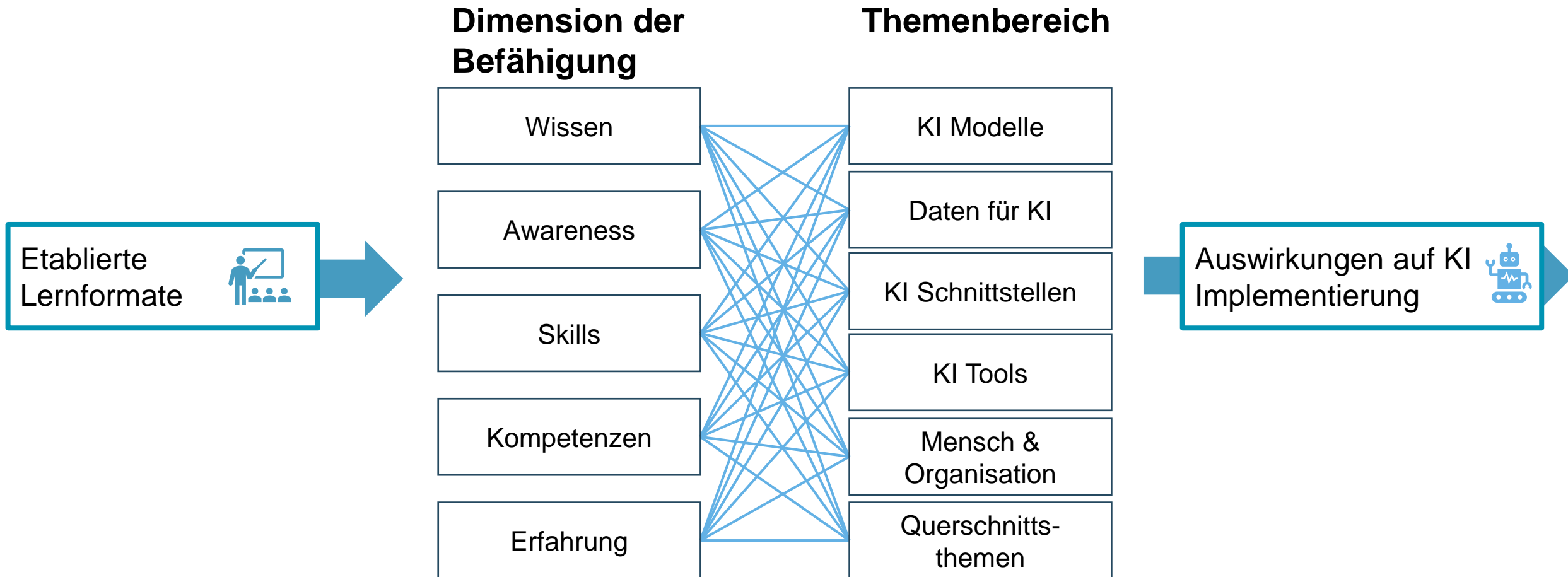
# Sinn der Arbeit bei KI

**KI Implementierung**

1. Substitution

2. Neue Aufgaben (spannend)

3. Neue Aufgaben (langweilig)

4. Verbessern existierender Aufgaben

**Bedeutungsvolle Arbeit**

1. Integrität der Aufgaben

2. Kompetenzentwicklung und –nutzung

3. Wichtigkeit der Aufgaben

4. Autonomie

5. Zugehörigkeit

(Bankins and Formosa 2023; Bailey et al. 2019; Lipschitz et al. 2023)

**Dr. Joschka Hüllmann**

Danke.

**Jetzt sind Sie dran!**

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