

# KI im Innovationsprozess



DIH Süd

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FACHHOCHSCHULE DER WIRTSCHAFT

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- Leitung Stabsstelle Digital Innovation Management, Dept. Innovationsmanagement FH CAMPUS 02



LinkedIn

## Grundlagen KI im Innovationsmanagement

## Einsatzmöglichkeiten von KI im Innovationsmanagement

Erfahrung mit KI im  
Innovationsprozess /  
Innovationsmanagement?

# — Status Quo zu KI im Innovations-Prozess

It ~~will~~ is already  
changing how  
we do **innovation**



**Autonomous imagination.** Brand collaboration between Ikea x Patagonia imagined by AI



**Autonomous personalization.** AI is enabling products to become personalized to individuals over time – adjusting their feature set, tone of voice, pricing and overall experience



**Autonomous product launches.** Shein autonomously launches ~1,000 products per day using automated production and relies on market feedback to scale up successful products



**Autonomous development.** 50% of code on Github is written by the AI Co-pilot



**Autonomous ideation.** AI is enabling the discovery of new drugs by autonomously ideating and testing potential new molecules for existing conditions



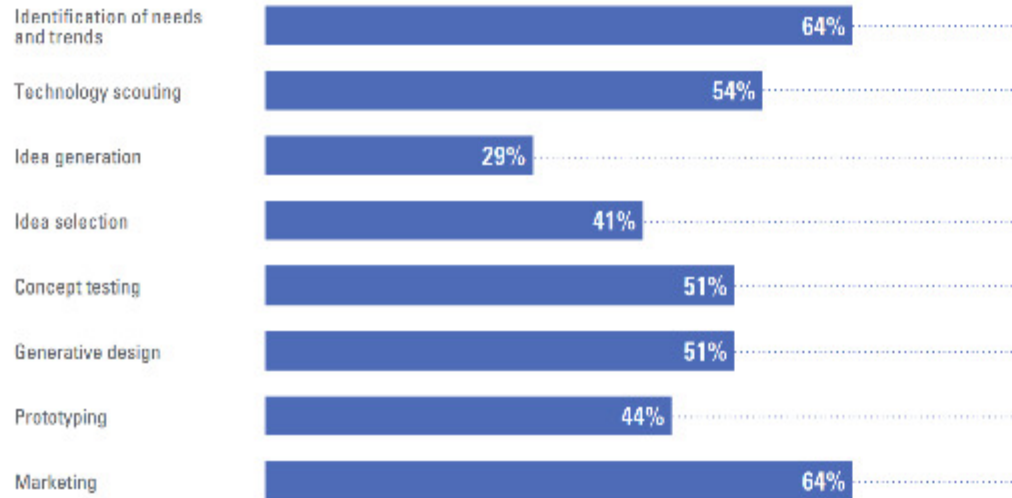
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Quelle:



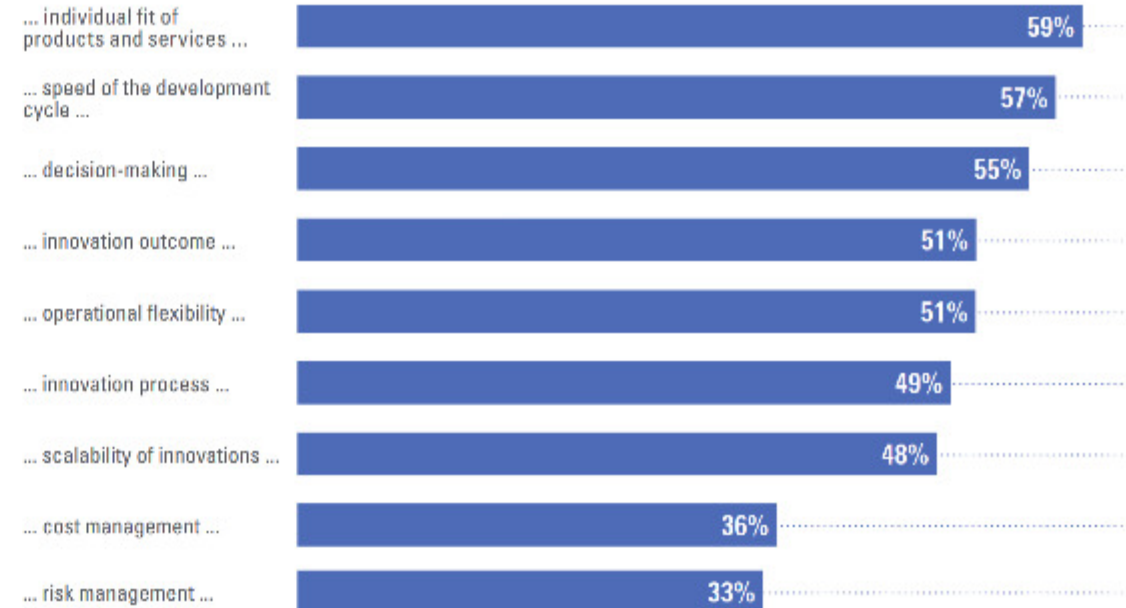
# — Status Quo zu KI im Innovations-Prozess

Please evaluate the importance of AI within the following innovation tasks for the next 5-10 years.  
(important or very important - value 4 or 5 on 5-point Likert scale)



More than two-thirds of the participants see a high or very high potential for AI in the innovation process, but the current usage and especially the necessary expertise lags behind

I expect that AI will improve the ... by ... % within the next 5-10 years.



Quelle:

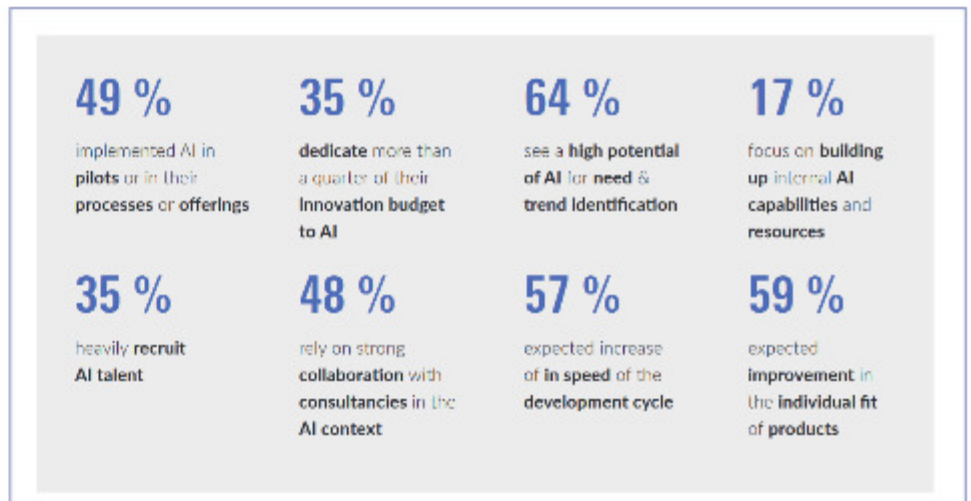


# — Status Quo zu KI im Innovations-Prozess

1. Der Einsatz von KI wird vor allem für **analytische und marktbezogene Innovationsaufgaben** als hilfreich erachtet, doch mangelnde Erfahrung und mangelndes Verständnis hindern Unternehmen daran, KI umfassend einzusetzen.
  2. Es wird erwartet, dass der Einsatz von KI für das Innovationsmanagement die **Innovationsleistung um mehr als 50% verbessert**, aber die Unternehmen haben Schwierigkeiten, geeignete Ansätze zu finden, um das wahrgenommene Potenzial zu realisieren.
  3. Die größten Herausforderungen, mit denen Unternehmen bei der Implementierung von KI konfrontiert sind, sind der Zugang zu **ausreichend großen Datensätzen** auf der Datenebene und der Mangel an technischem Fachwissen auf der Organisationsebene.
  4. Unternehmen verfolgen unterschiedliche Ziele und Ansätze bei der Implementierung von KI für das Innovationsmanagement.
  5. Es lassen sich drei verschiedene Typen von KI-Implementierenden ausmachen:
    - 1) KI-Leader
    - 2) KI-Pragmatiker
    - 3) KI-Aspiranten
- Die identifizierten Gruppen unterscheiden sich signifikant in Bezug auf die gewählte Strategie, den organisatorischen Aufbau und den Ansatz zum Aufbau von Fähigkeiten.

6. Unternehmenscharakteristika wie Größe, Fachwissen und wahrgenommenes Potenzial stehen im Zusammenhang mit bestimmten KI-Implementierungspraktiken.

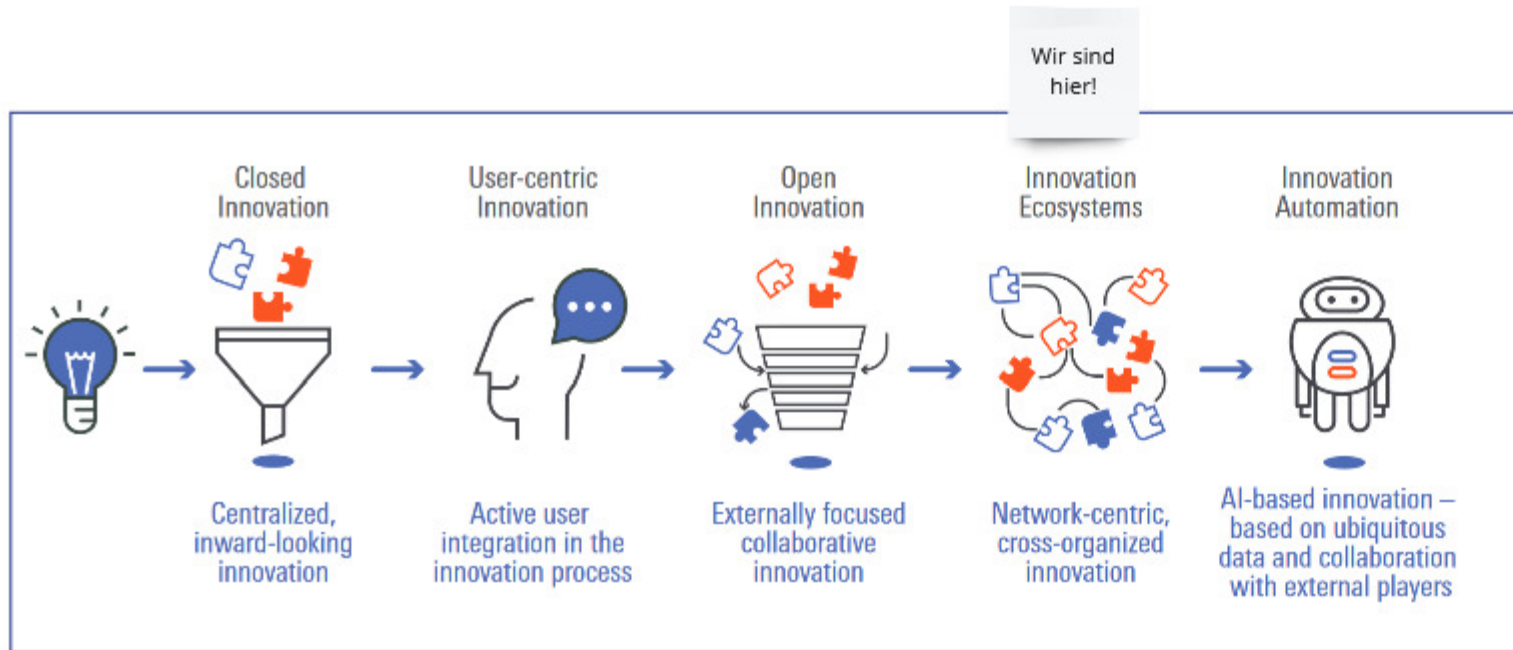
7. Abhängig von den jeweiligen Voraussetzungen und Ambitionen verfolgen KI-Aspiranten, KI-Pragmatiker und KI-Leader gezielte Strategien, um im Spiel um autonome Innovationen weiter voranzukommen.



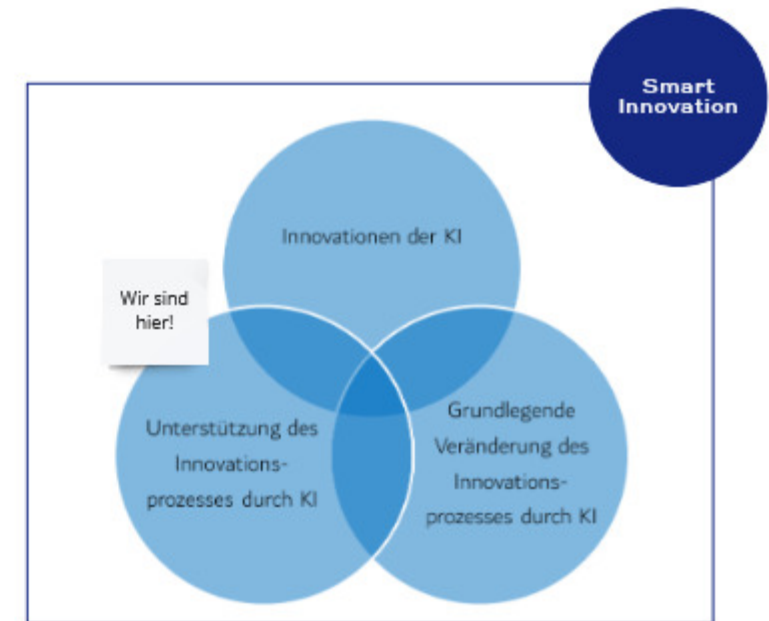
Quelle:



# Evolution im Innovations-Prozess



Quelle:



Quelle:



## Creative AI will change the entire innovation process **from strategy to go-to-market**

| Strategy                                                                                                       | Insights                                                                                                                  | Ideation                                                                                                               | Design                                                                                  | Go to market                                                                                  |
|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Make faster and more data-driven strategic decisions                                                           | Generate and synthesize more data to gain deeper insights                                                                 | Push the envelope and generate more ideas faster using Creative AI tools                                               | Turn early concepts into realistic prototypes you can put in front of consumers         | Run the go-to-market and activation with AI co-pilots                                         |
| <b>Use cases</b><br>Synthesize research<br>Strategic foresight<br>Competitive analysis<br>SWOT/PESTEL analysis | <b>Use cases</b><br>Synthetic personas<br>Synthetic user journeys<br>Scrape and analyse data<br>Social listening insights | <b>Use cases</b><br>Idea generation<br>Concept prioritization<br>Value proposition design<br>Business model innovation | <b>Use cases</b><br>Prototyping<br>Video generation/editing<br>Digital design<br>Coding | <b>Use cases</b><br>Go-to-market plan<br>Messaging strategy<br>Campaign design<br>Copywriting |
| ChatGPT, Bing AI, Claude                                                                                       |                                                                                                                           |                                                                                                                        |                                                                                         |                                                                                               |
| <b>Tools</b><br>Future scenario writer<br>Rationale<br>StrateGPT                                               | <b>Tools</b><br>Synthetic Users<br>Kraftful<br>Akkio                                                                      | <b>Tools</b><br>Fermat<br>Seenapse<br>Stormz AI                                                                        | <b>Tools</b><br>Midjourney<br>Diagram<br>Github co-pilot                                | <b>Tools</b><br>DigitalFirst<br>AdCreative<br>Jasper                                          |

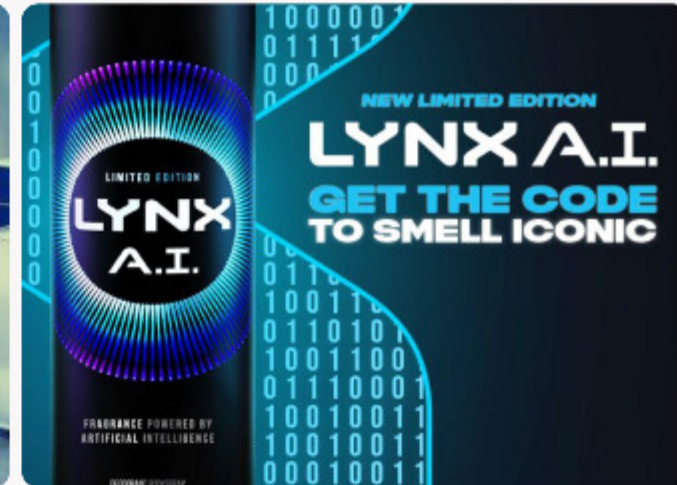
# The world's most ambitious companies are already leveraging Creative AI to create new products and services



AB InBev has created the world's first beer and full marketing campaign made with AI, naming it [Beck's Autonomous](#).



IKEA's research and design lab shares a portfolio of [AI-generated furniture](#) inspired by designs from the 1970s and 1980s IKEA catalogs.



To create this product for Gen Z, [Unilever worked with specially designed AI](#) to analyze 6,000 perfume ingredients with 3.5 million potential combinations.

# — KI und Produktentwicklung



KI-Innovationen,  
Produkte,  
Services, ...  
im eigenen Unternehmen?

5 min ChatGPT

# Prompting-Basics

## Persona

Act as a senior innovation consultant. You are preparing a webinar about a promptathon, which is a hackathon-like format that explains to participants how to use the right prompts to get useful results from GenAI tools. In the webinar presentation, you want to tell the audience of managers why prompting is an important skill they should teach their organization. Provide 5 bullet points for a PowerPoint slide that summarizes why good prompting skills are important and lead to better results. Each bullet point shouldn't exceed 8 words. Write them in a way that people who are not familiar with AI tools understand them.

## Kontext

Act as a senior innovation consultant. You are preparing a webinar about a promptathon, which is a hackathon-like format that explains to participants how to use the right prompts to get useful results from GenAI tools. In the webinar presentation, you want to tell the audience of managers why prompting is an important skill they should teach their organization. Provide 5 bullet points for a PowerPoint slide that summarizes why good prompting skills are important and lead to better results. Each bullet point shouldn't exceed 8 words. Write them in a way that people who are not familiar with AI tools understand them.

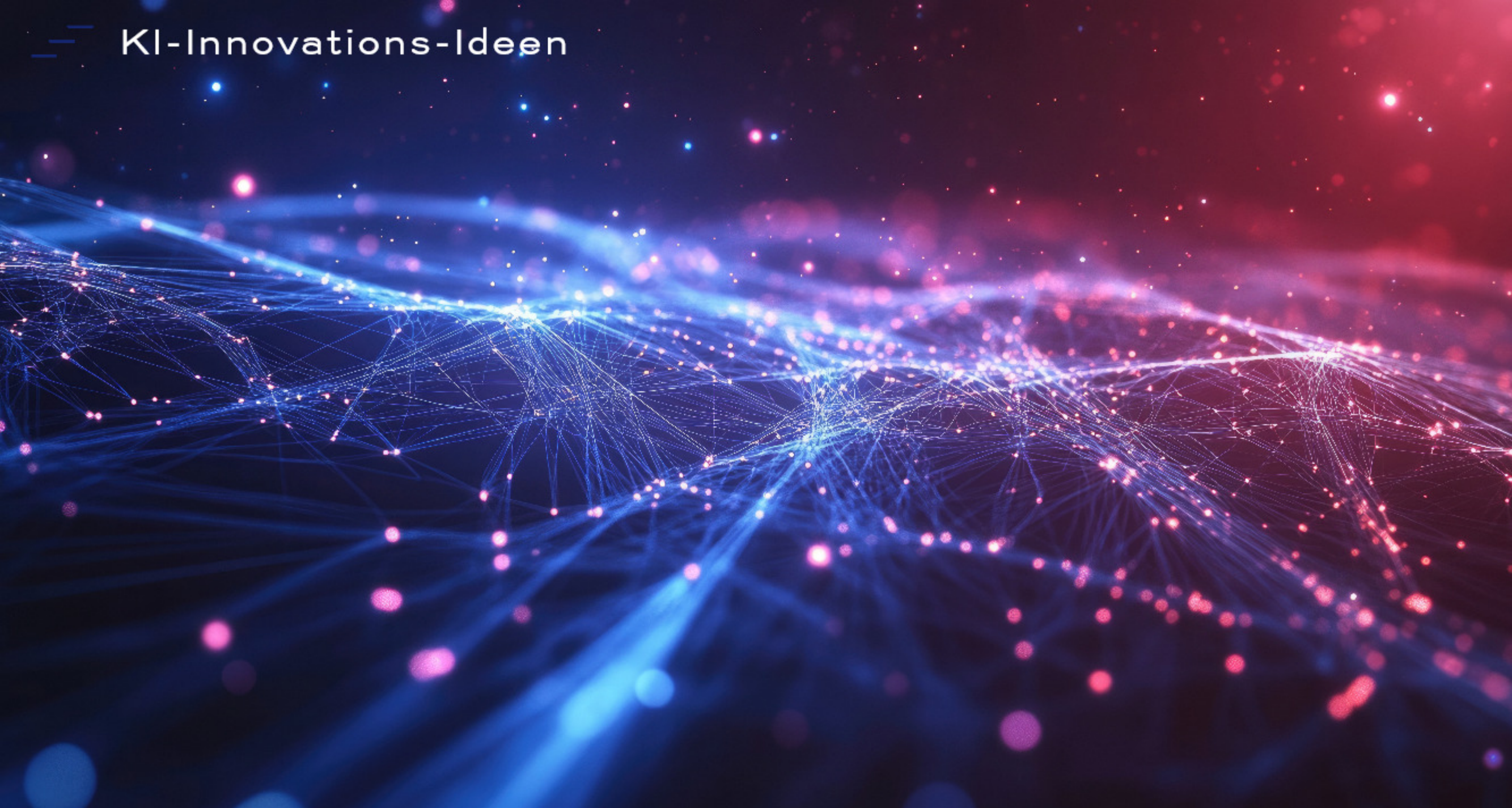
## Aufgabe

Act as a senior innovation consultant. You are preparing a webinar about a promptathon, which is a hackathon-like format that explains to participants how to use the right prompts to get useful results from GenAI tools. In the webinar presentation, you want to tell the audience of managers why prompting is an important skill they should teach their organization. Provide 5 bullet points for a PowerPoint slide that summarizes why good prompting skills are important and lead to better results. Each bullet point shouldn't exceed 8 words. Write them in a way that people who are not familiar with AI tools understand them.

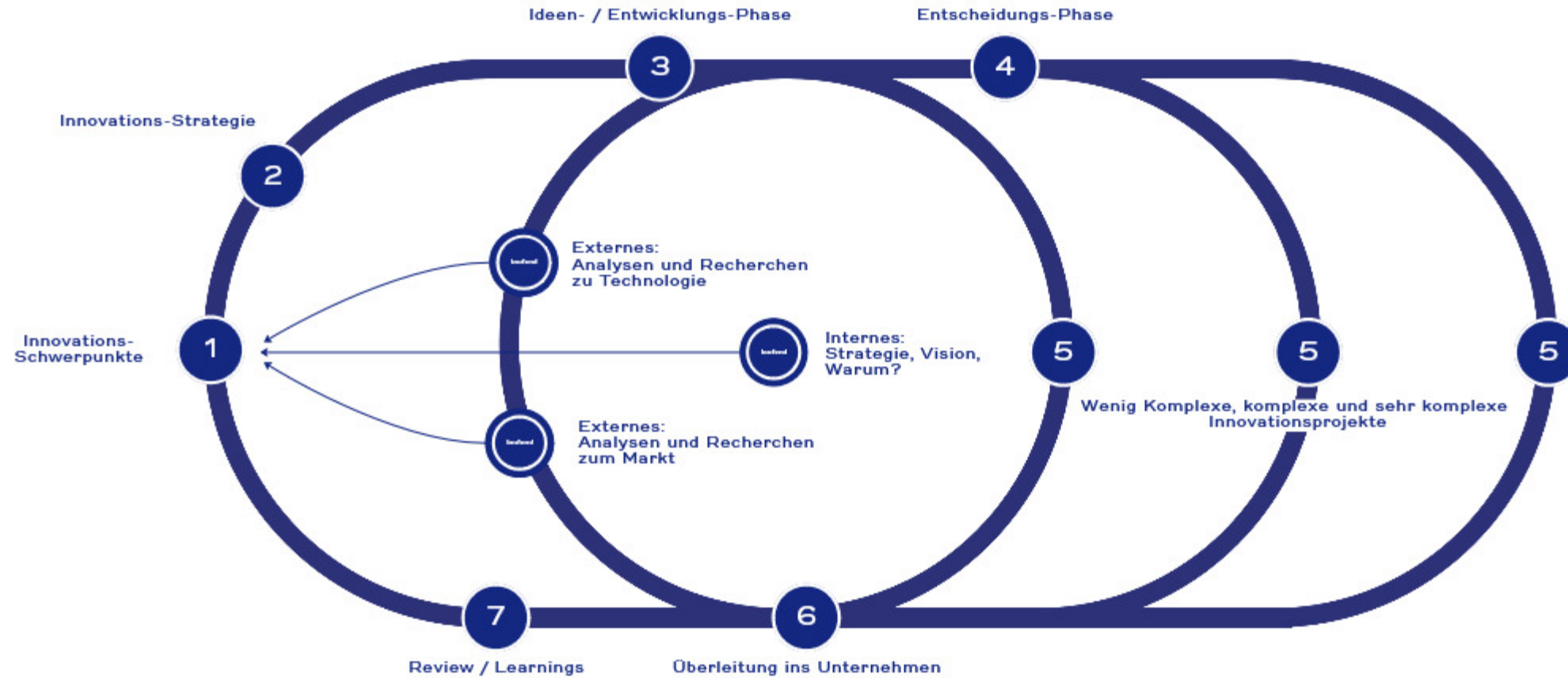
## Tonalität

Act as a senior innovation consultant. You are preparing a webinar about a promptathon, which is a hackathon-like format that explains to participants how to use the right prompts to get useful results from GenAI tools. In the webinar presentation, you want to tell the audience of managers why prompting is an important skill they should teach their organization. Provide 5 bullet points for a PowerPoint slide that summarizes why good prompting skills are important and lead to better results. Each bullet point shouldn't exceed 8 words. Write them in a way that people who are not familiar with AI tools understand them.

## Iterationen



# — KI im Innovationsprozess



In Anlehnung an:



KI ist in jeder Phase einsetzbar -> Kompetenz und Konzept: Was, Wo, Wann, Wie, Wer, Warum?

# Was ist alles KI?



Kennen und Können

Das volle Spektrum von KI im Innovationsprozess anwenden



Potential von KI richtig einschätzen können:

Kompetenz-Dimesion: Deep Fakes

Prompting-Dimension: Qualität

Gesellschafts-Dimension: Ethik

Rechtliche Dimension: AI-Act

Nachhaltige Dimension: Ressourcenverbrauch



Unternehmens-Dimension: Kund\*innenerwartung

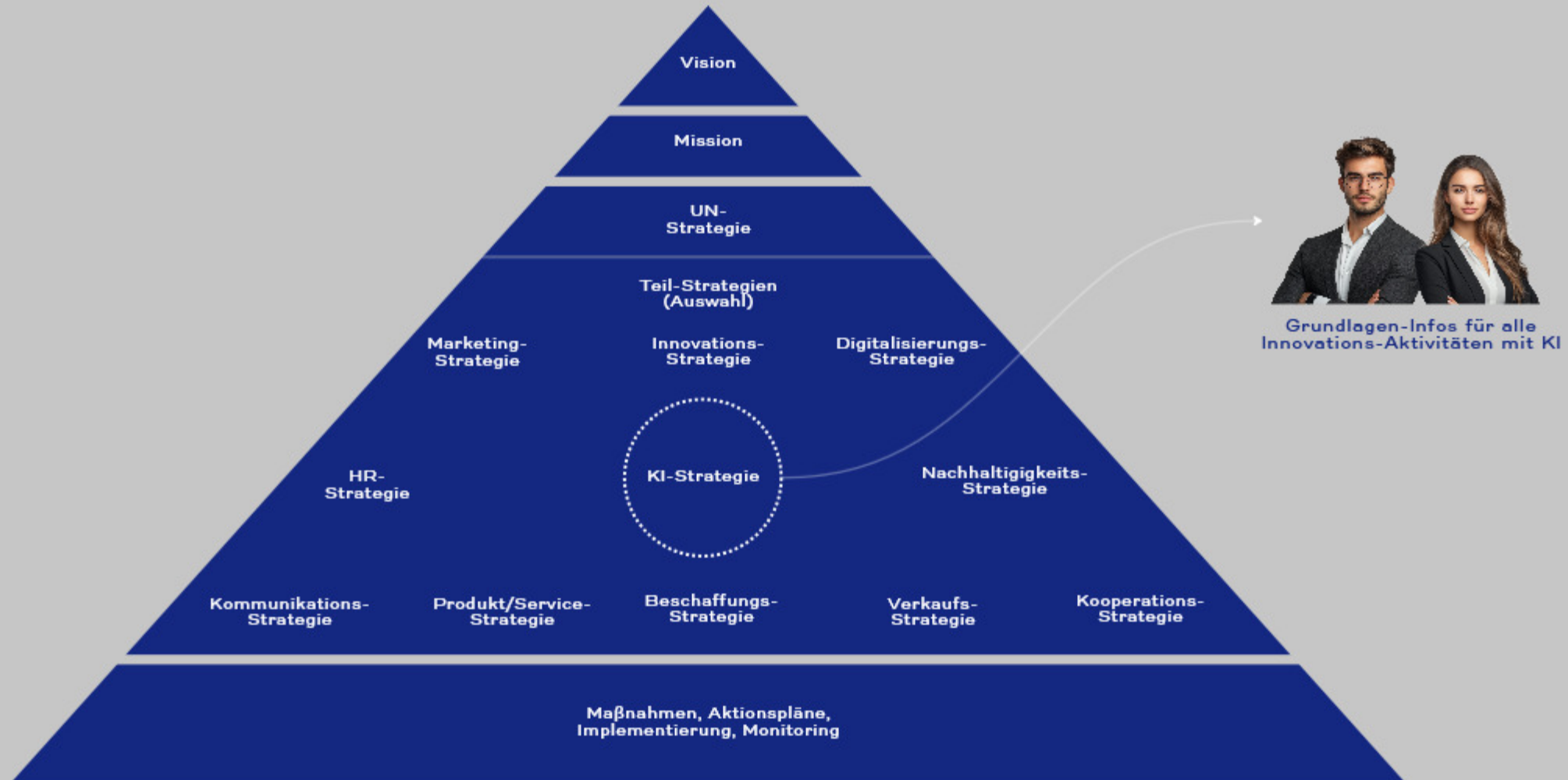
# — KI im Innovationsprozess



In Anlehnung an:

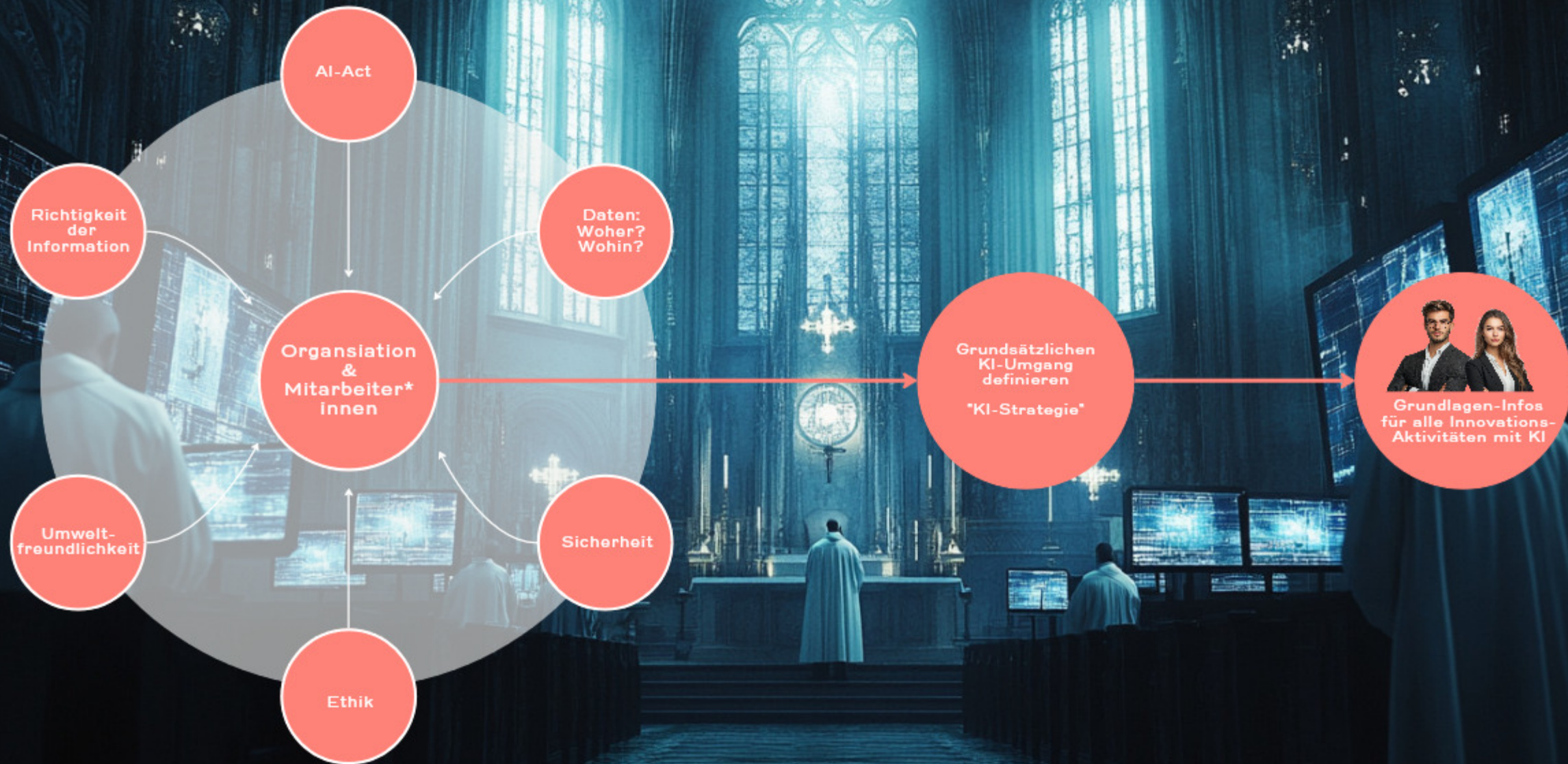


# Einbettung und Verortung der KI-Strategie



KI als Teilstrategie im Unternehmen verankern -  
Wichtigkeit und Dringlichkeit richtig einschätzen

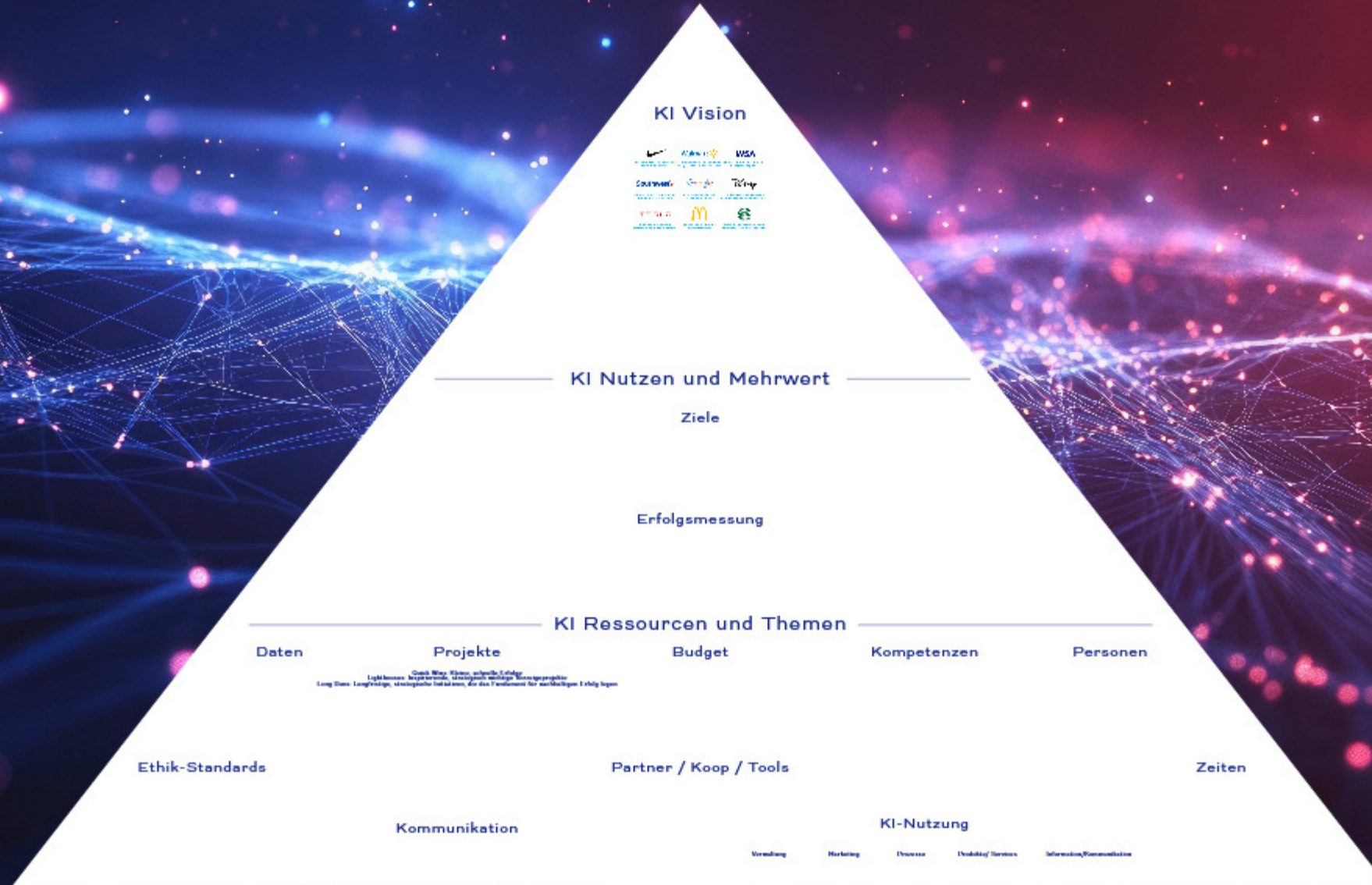
# Standpunkt zu KI definieren!





# KI-Strategie-Canvas

Grundlagen und Information für alle weiteren KI-Tätigkeiten und Projekte



Quelle: eigene Darstellung

# Praxis-Workshop: KI-Strategie-Canvas

Fokus 1: KI Vision und KI-Nutzen

Tool: Chat GPT

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Fokus 2: KI-Bild zu KI-Vision

Tool: Dalle, leonardo.ai, [openart.ai](https://openart.ai)

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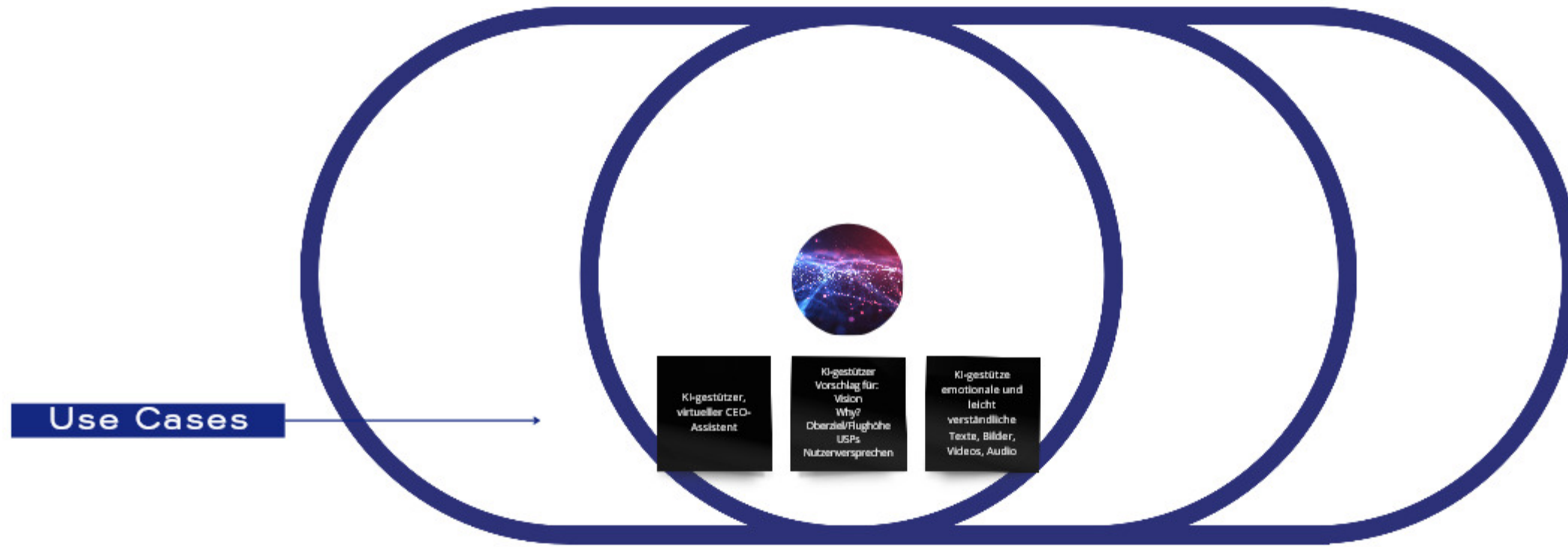
20 min

2 min Präsentation

miro-Board:

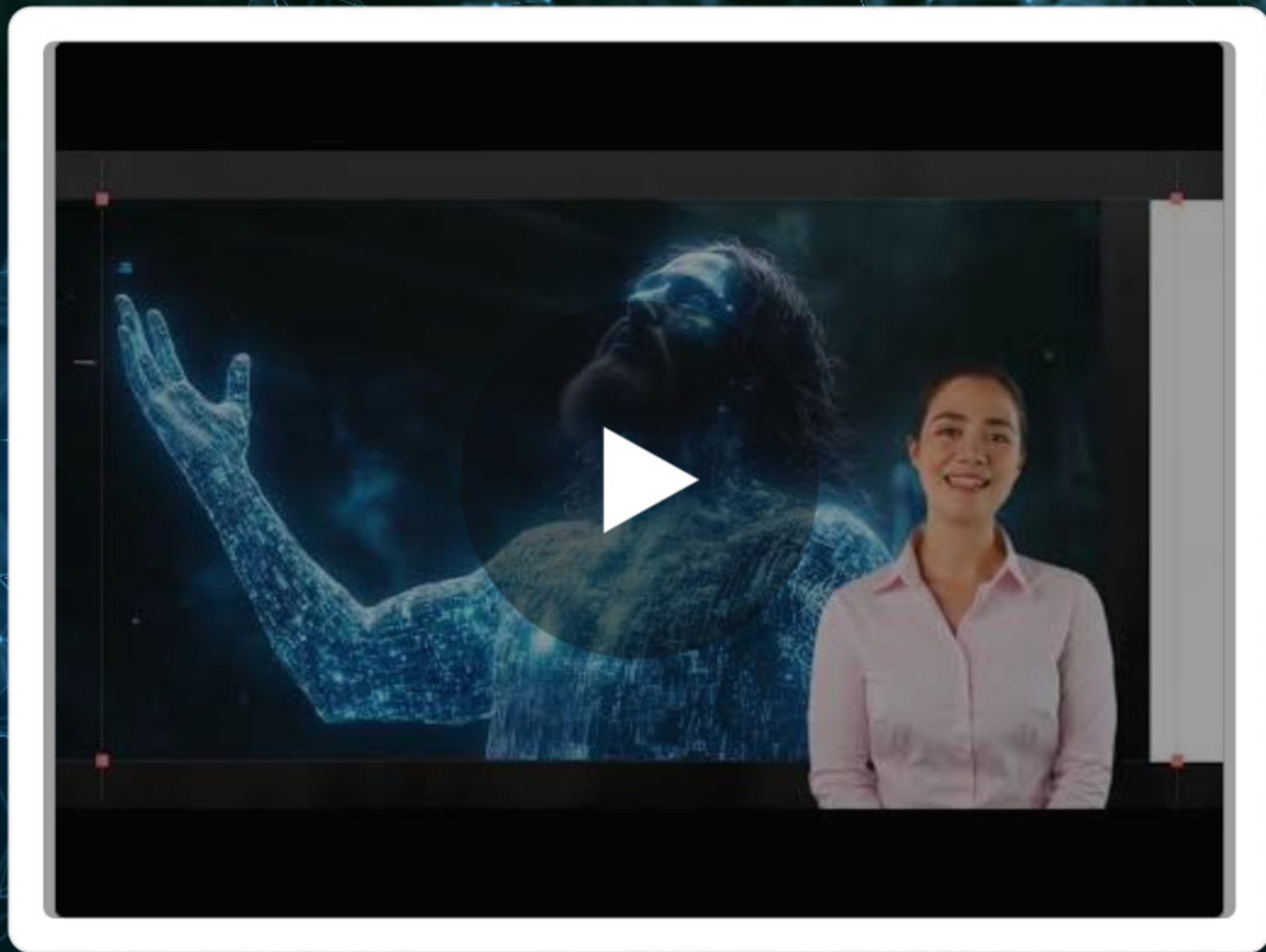
[https://miro.com/app/board/uXjVL36CBgo=/?share\\_link\\_id=735704374506](https://miro.com/app/board/uXjVL36CBgo=/?share_link_id=735704374506)

# — KI im Innovationsprozess: Strategie und Vision

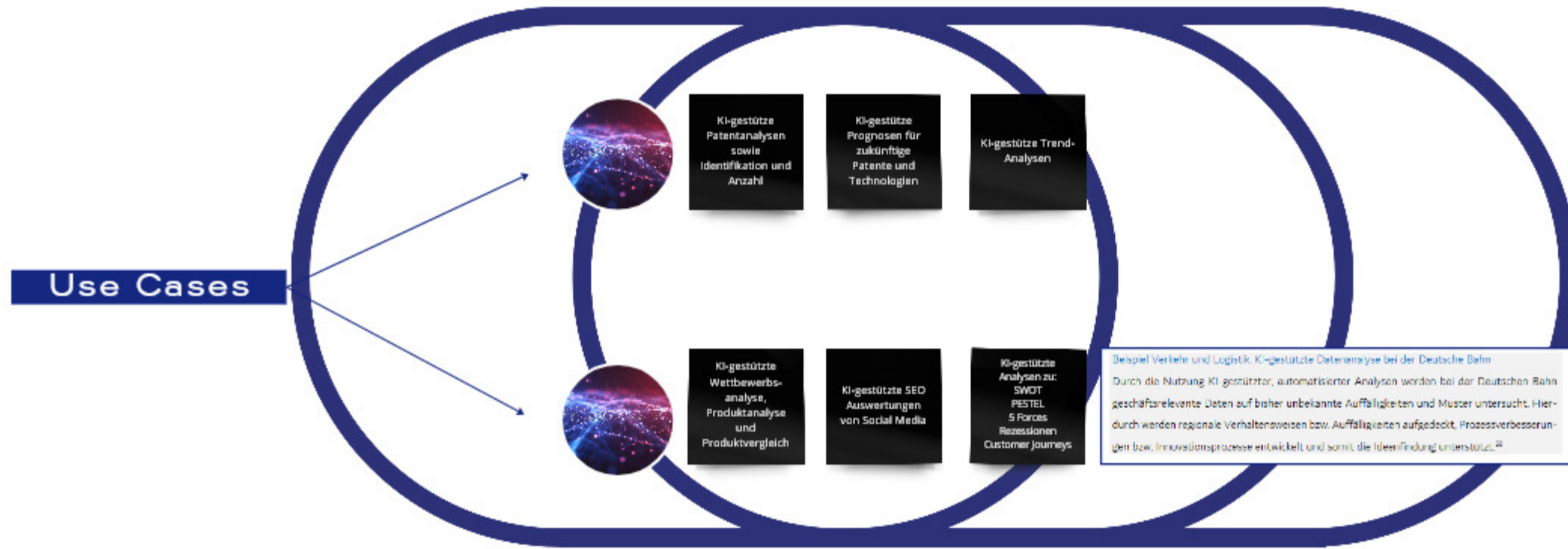


In Anlehnung an:





# — KI im Innovationsprozess: Analyse und Trends

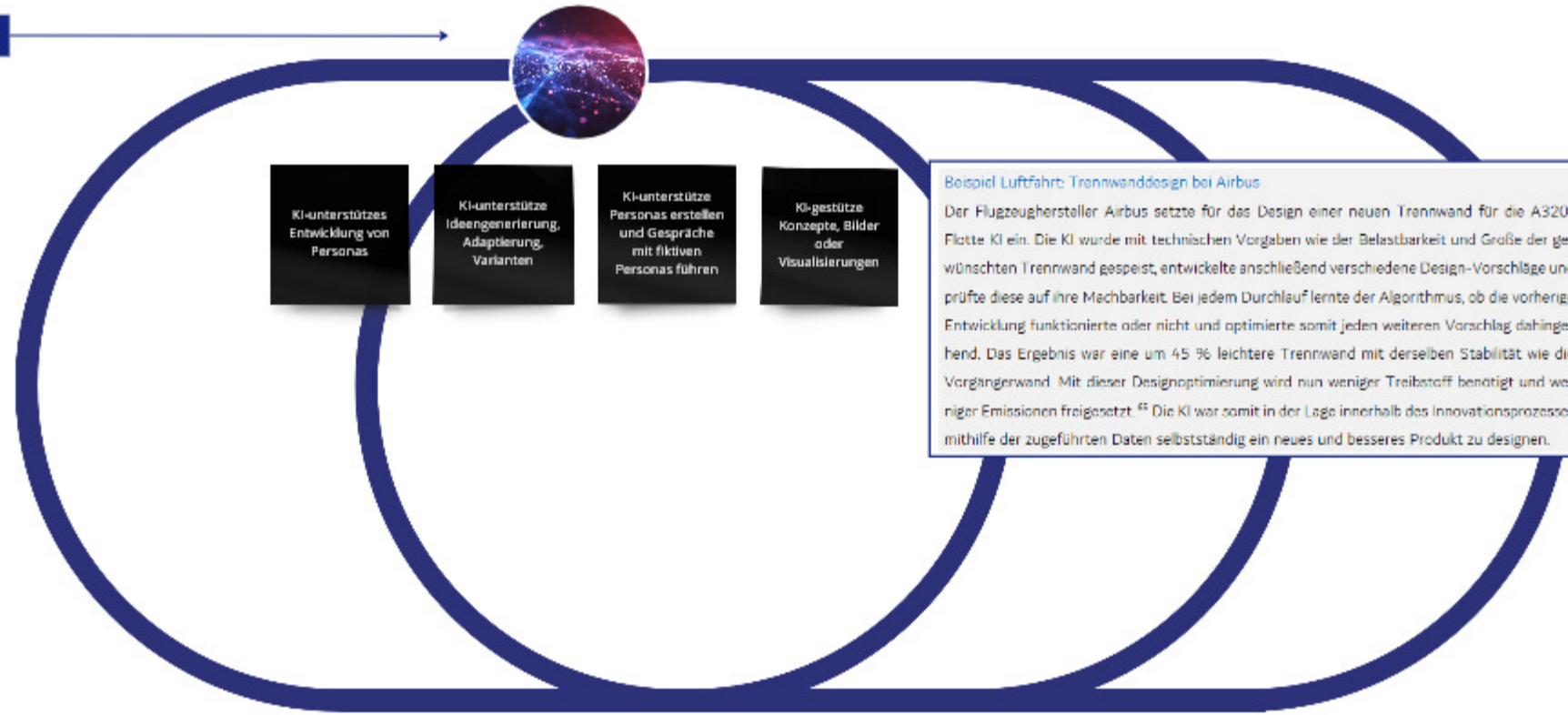


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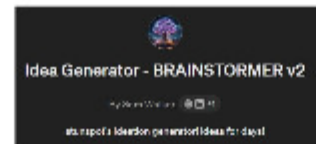


# — KI im Innovationsprozess: Ideenfindung, Entscheidung

## Use Cases



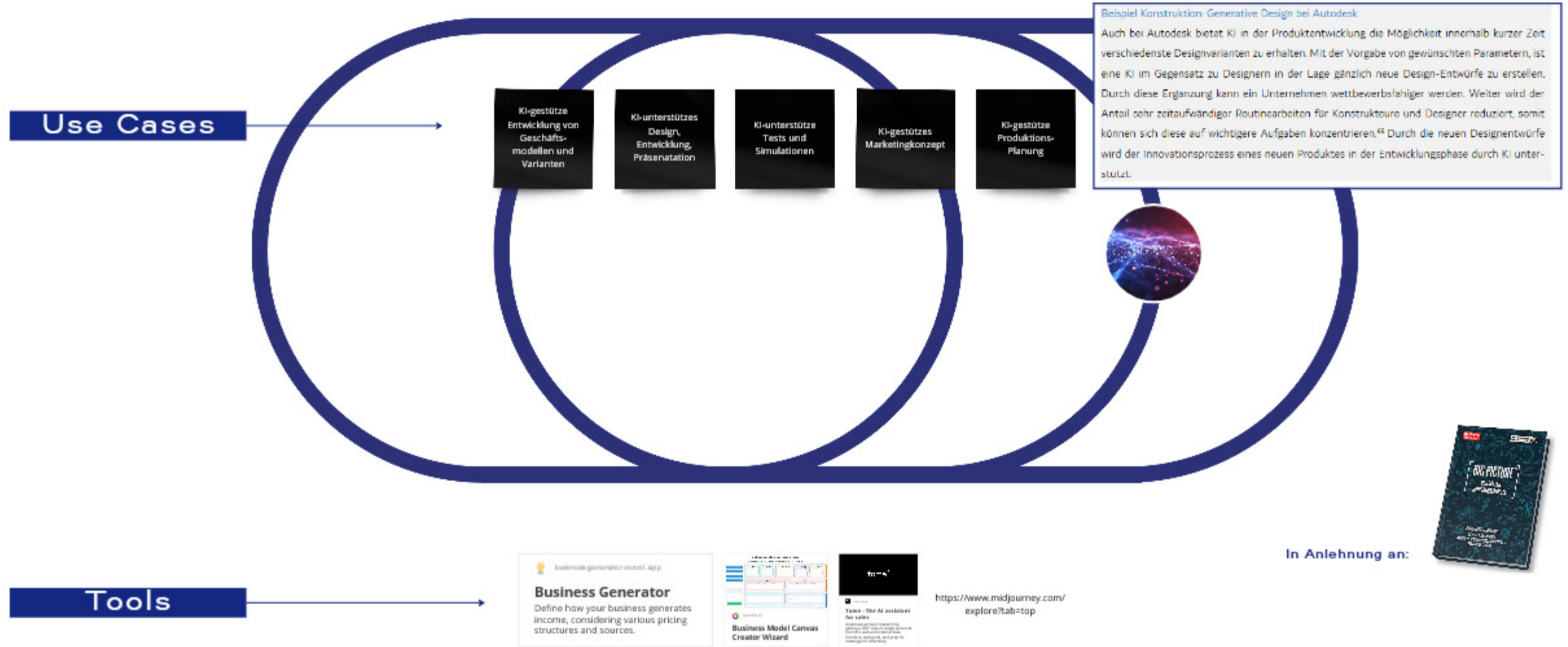
## Tools



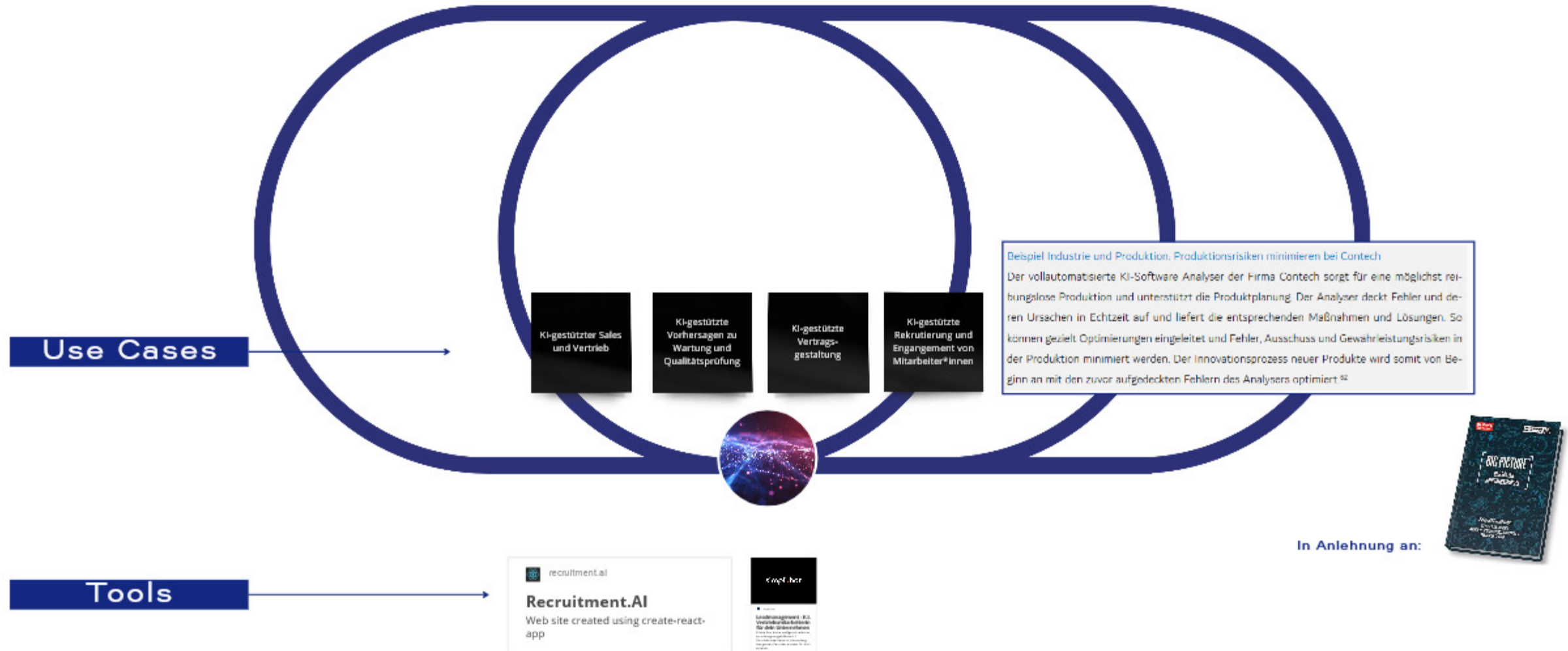
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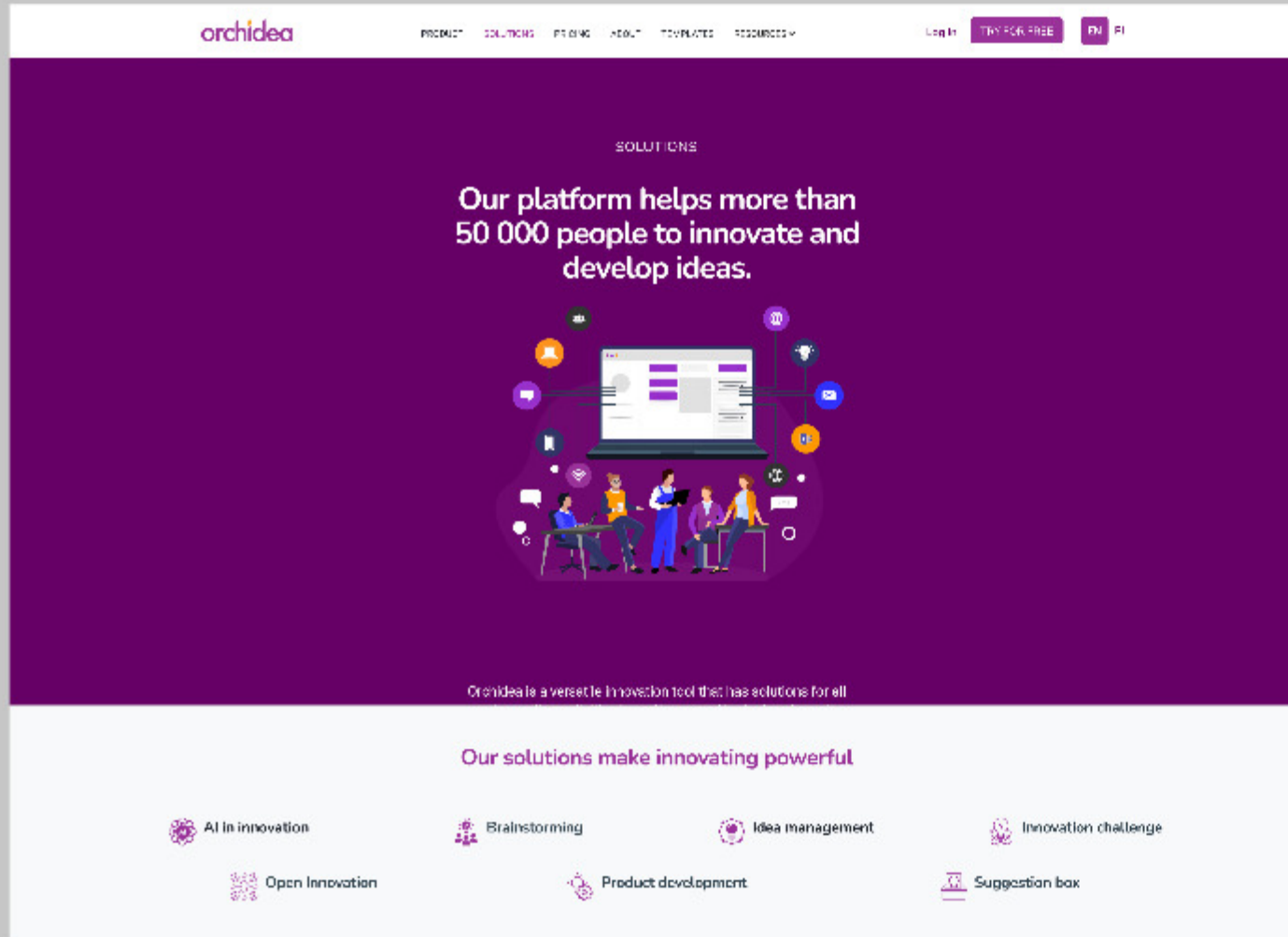
# — KI im Innovationsprozess: Entwicklung, Ausarbeitung



# — KI im Innovationsprozess: Markteinführung und Controlling



# — Voll-digiales Innovationsmanagement



The image shows the Orchidea website. The header is white with the Orchidea logo on the left and navigation links (PRODUCT, SOLUTIONS, PRICING, ABOUT, TEMPLATES, RESOURCES) in the center. On the right, there are links for 'Log In', 'TRY FOR FREE', and 'EN | FI'. The main content area has a dark blue background. It features the text 'Our platform helps more than 50 000 people to innovate and develop ideas.' above an illustration of a group of people sitting around a table with a laptop, surrounded by various icons representing innovation. Below this, it says 'Orchidea is a versatile innovation tool that has solutions for all'. At the bottom, there is a section titled 'Our solutions make innovating powerful' with six icons and labels: AI in innovation, Brainstorming, Idea management, Innovation challenge, Open Innovation, and Product development. A 'Suggestion box' icon is also present.

orchidea

PRODUCT SOLUTIONS PRICING ABOUT TEMPLATES RESOURCES

Log In TRY FOR FREE EN FI

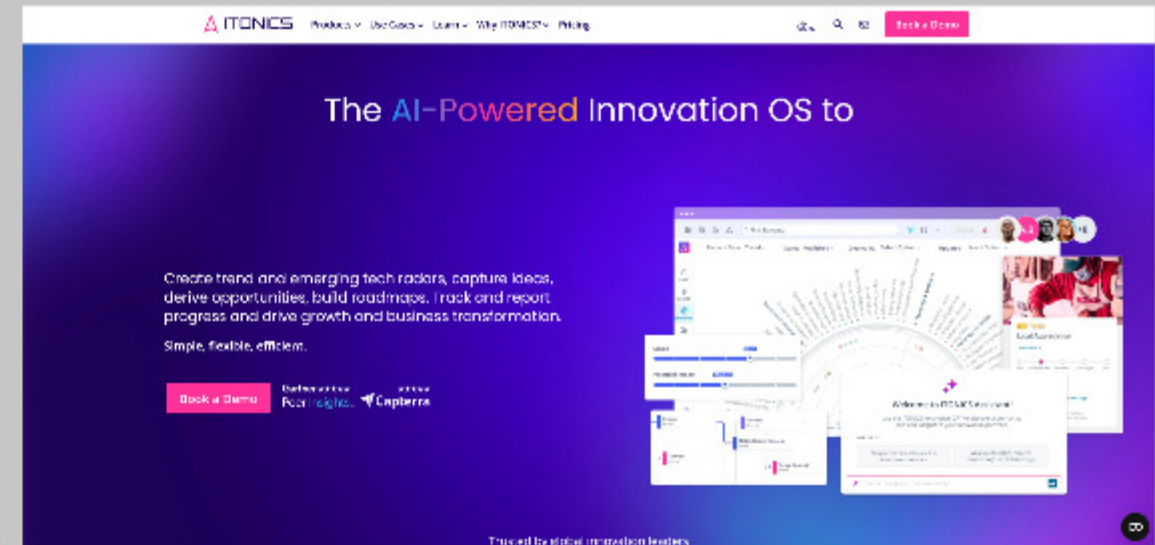
SOLUTIONS

Our platform helps more than 50 000 people to innovate and develop ideas.

Orchidea is a versatile innovation tool that has solutions for all

Our solutions make innovating powerful

- AI in innovation
- Brainstorming
- Idea management
- Innovation challenge
- Open Innovation
- Product development
- Suggestion box



The image shows the ITONICS website. The header is white with the ITONICS logo on the left and navigation links (Products, Use Cases, Learn, Why ITONICS?, Pricing) in the center. On the right, there are links for 'Log In', 'Search', and 'Book a Demo'. The main content area has a blue background. It features the text 'The AI-Powered Innovation OS to' above an illustration of a person sitting at a desk with a laptop, surrounded by various icons representing innovation. Below this, it says 'Create trend and emerging tech radars, capture ideas, derive opportunities, build roadmaps, track and report progress and drive growth and business transformation. Simple, flexible, efficient.' and 'Book a Demo'. At the bottom, it says 'Trusted by global innovation leaders'.

ITONICS

Products Use Cases Learn Why ITONICS? Pricing

Log In Search Book a Demo

The AI-Powered Innovation OS to

Create trend and emerging tech radars, capture ideas, derive opportunities, build roadmaps, track and report progress and drive growth and business transformation. Simple, flexible, efficient.

Book a Demo

Trusted by global innovation leaders

# Tipp: AI-Tool-Stack

ai.boardofinnovation.com

### AI Toolbox for innovators

Generate, test, and pivot ideas like a pro with our AI-powered innovation toolbox. Our free tools, including future scenario creators and interview script generators, will elevate your innovation process so you can focus on bringing your ideas to life.

ai.boardofinnovation.com

### AI Tools for Innovators | Notion

At Board of Innovation, we imagine tomorrow's products, services, and businesses, and create them today. We work as a global innovation agency, we consistently adapt the latest tech and AI tools, and we're happy to open source our stack. Follow us here.

Talk to me

## THERE'S AN AI FOR THAT

14,756 results for 15,000 tasks with 1,000 jobs

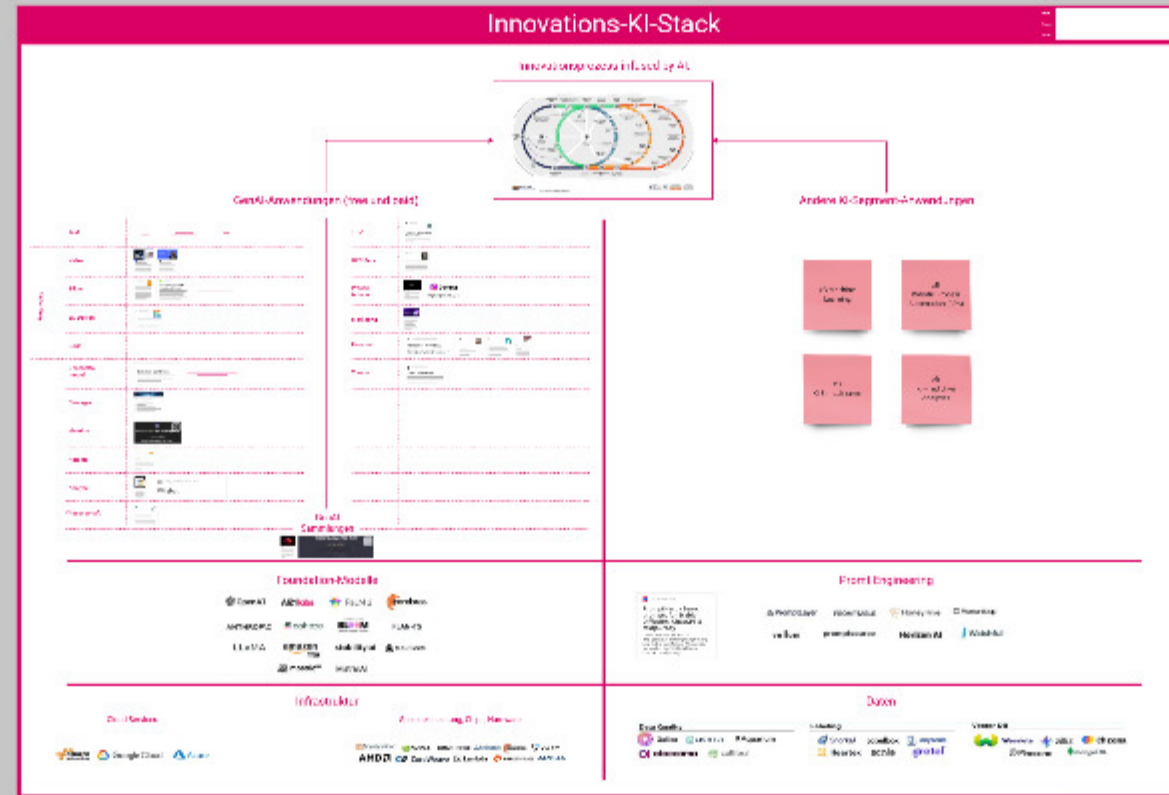
Sponsor: [ClerkAI \(Search engine\)](#)

UNITS REQUESTED: 1

Play AI using AI

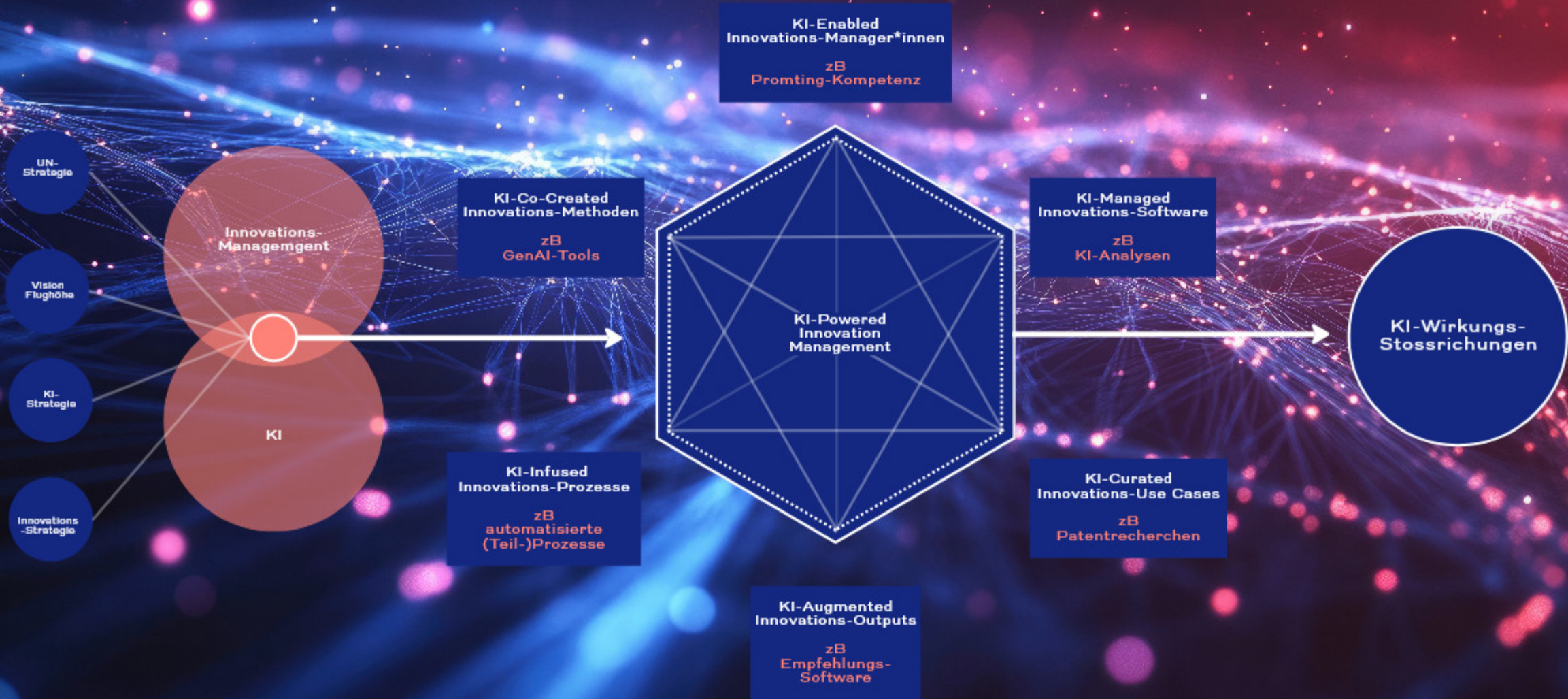
AI AI application, updated daily, used by 70M+ humans

Member Beta



# Integration von KI im Innovationsmanagement

Evolutions-Elemente für KI-Powered Innovation Management



Wo ist euer Schwerpunkt bei KI-Innovationen?

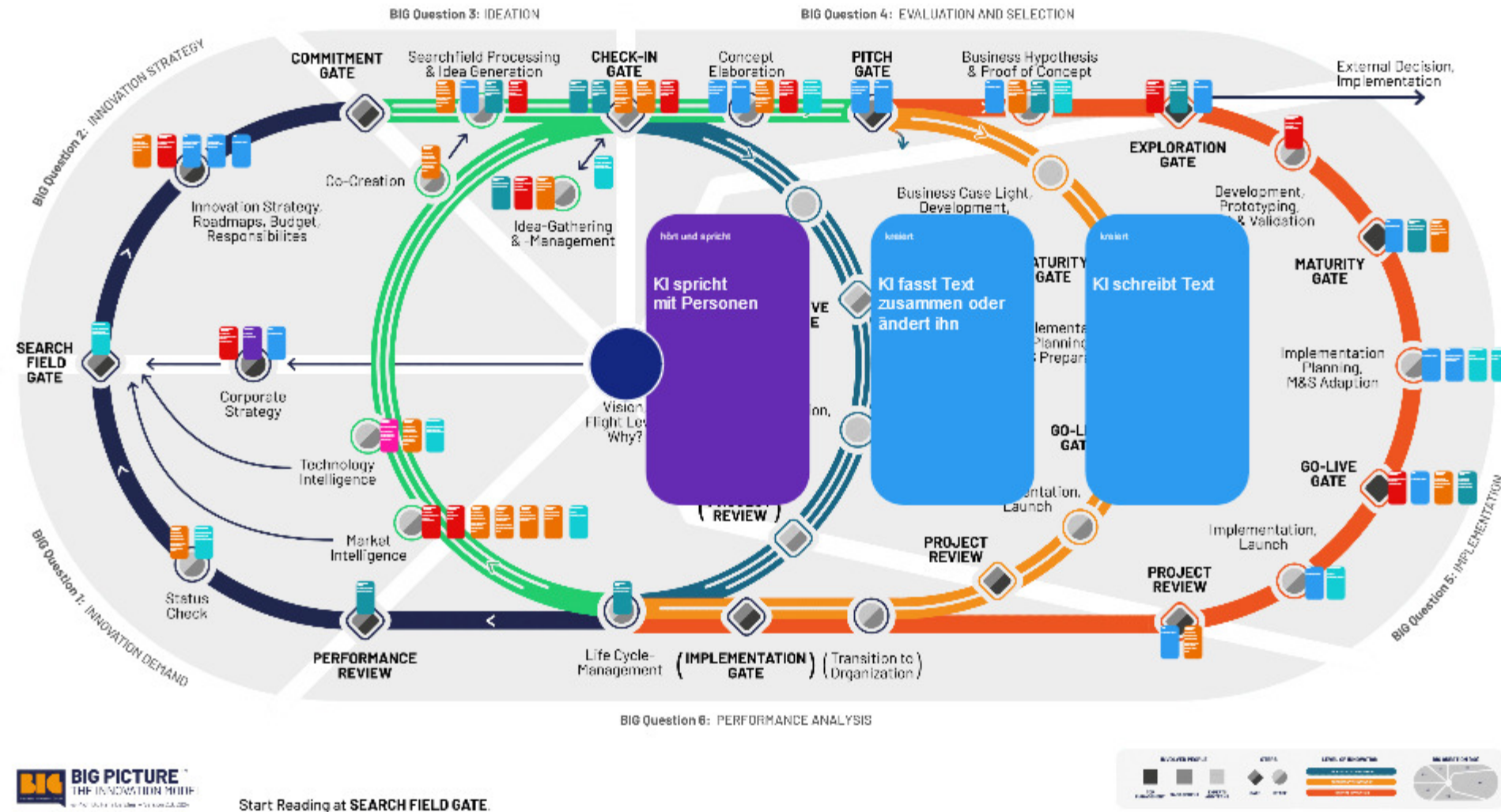
# KI-Fähigkeiten und KI Use Case-Entwicklung



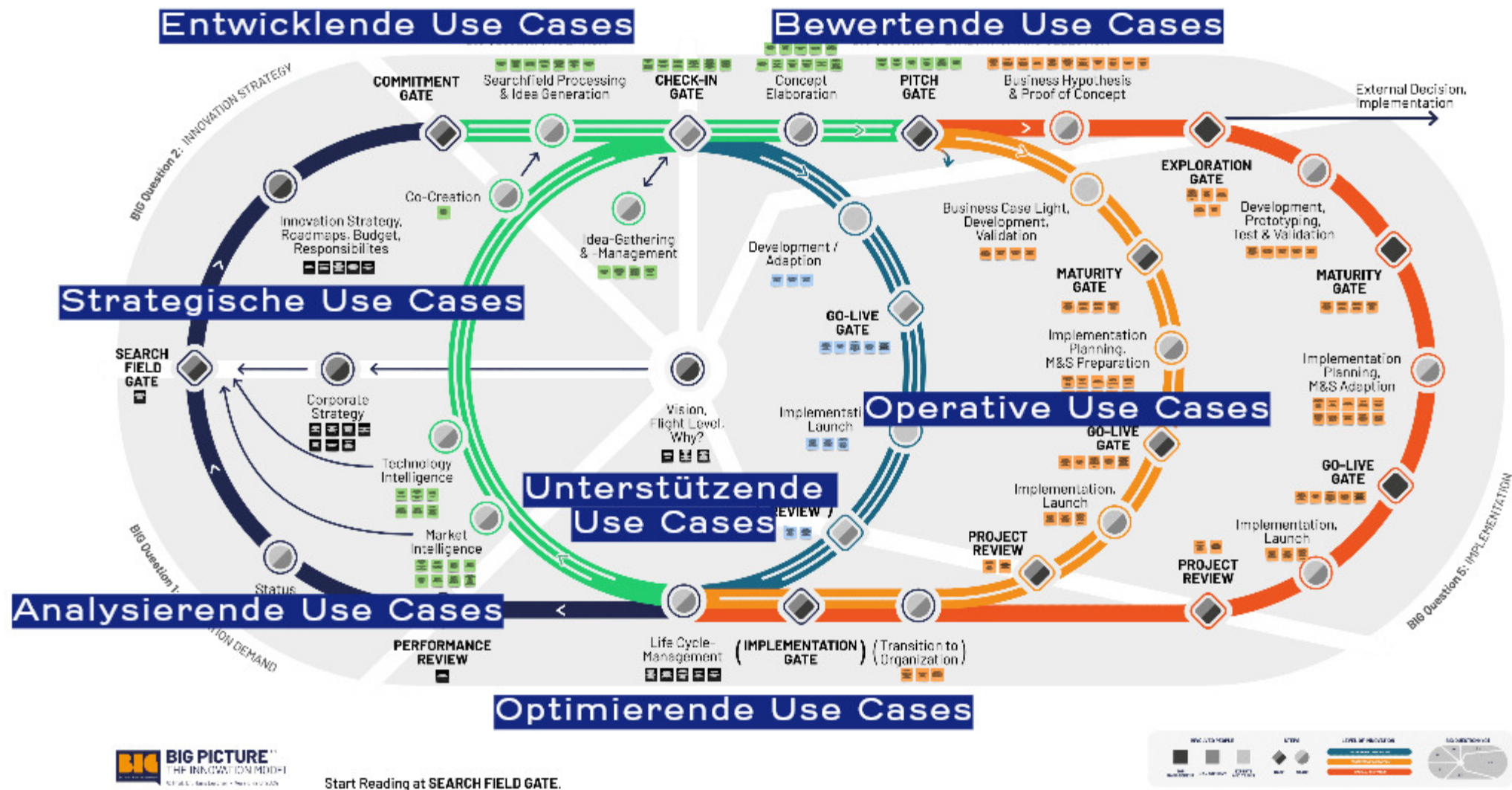
Unternehmens-Prozess-Analyse und Zuordnung der KI-Fähigkeiten

[illegible][illegible]

# — KI-Fähigkeiten mit Prozessen kombinieren



- KI-Fähigkeiten mit Prozessen kombinieren



**Quellen:**

- Trend One / KI Wheel
- Know Center Graz
- 100 Use Cases für den Mittelstand - Julian Funke
- Generative KI in der Praxis - Michael Frank
- Department Innovationsmanagement FH CAMPUS OZ
- ChatGPT

# KI Use Case-Entwicklung

## KI-Fähigkeiten

Auswahl;  
Quelle und weitere Infos: <https://www.33a.ai/>

KI  
FINDET  
UND SORTIERT  
INFORMA-  
TIONEN

KI  
FÜHRT  
EINFACHE  
AUFGABEN  
AUS

KI  
SIEHT

KI  
HÖRT  
UND  
SPRUCHT

KI  
KREIERT

KI  
OPTIMIERT  
KOMPLEXE  
PROZESSE

KI  
SAGT  
DIE  
ZUKUNFT  
VORAUSS

KI  
STEUERT  
MASCHINEN  
ROBOTER UND  
FAHRZEUGE

KI  
VERSTEHT  
VERGANGEN-  
HEIT UND  
GEGENWART

### 1. Prozessbeschreibung

Beschreiben Sie einen Prozess im Unternehmen (zB Innovationsprozess, HR-Prozess, Produktionsprozess,...) anhand der relevantesten Schritte.

### 2. KI-Fähigkeiten

Ordnen Sie passende KI-Fähigkeiten jedem Prozessschritt zu.

### 3. KI-Use Cases

Entwicklen Sie erste KI-Use Case-Ideen, basierend auf dem Prozessschritt und der jeweiligen KI-Fähigkeit(en).

Innovations-/Entwicklungs-Prozess

# KI Use Case-Entwicklung

## KI-Fähigkeiten

Auswahl;  
Quelle und weitere Infos: <https://www.33a.at/>



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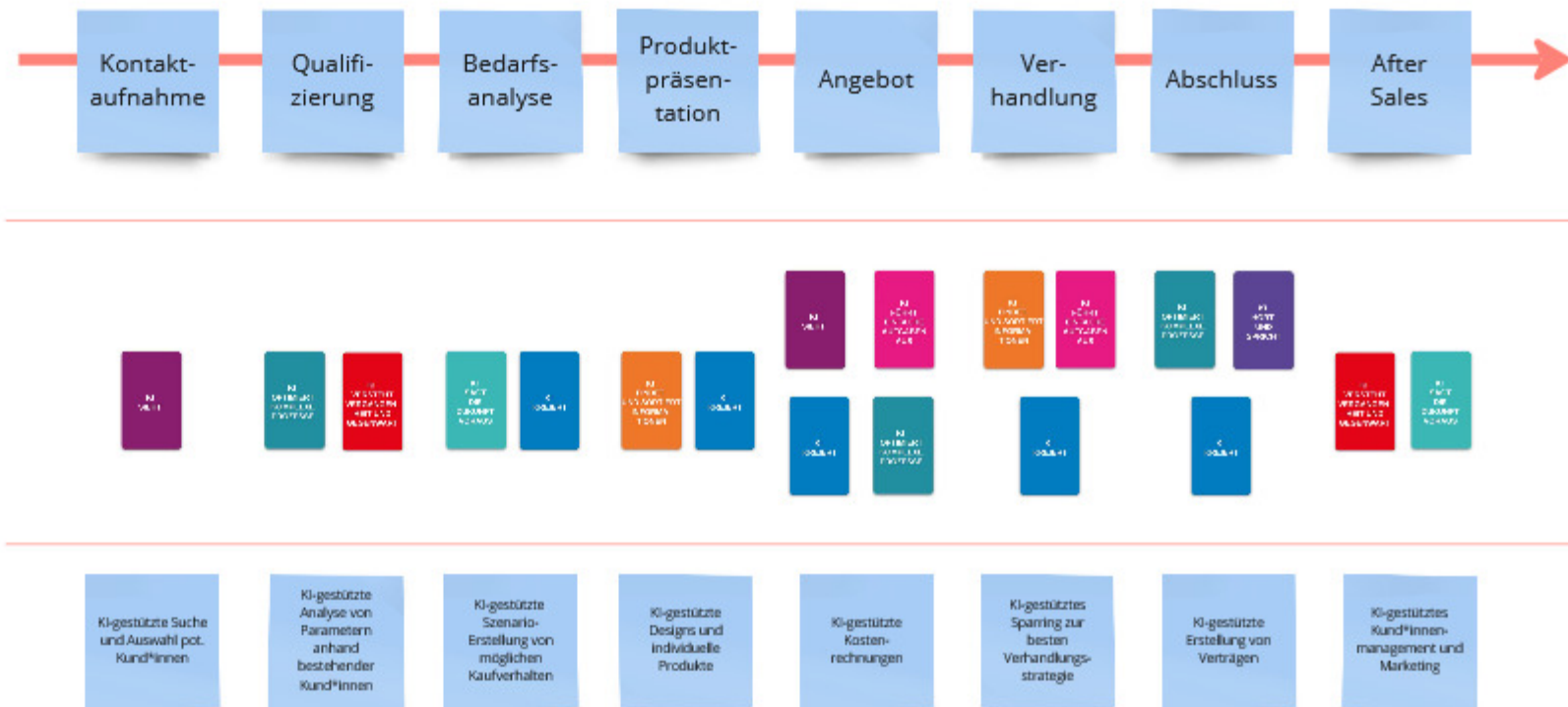
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Entwickeln Sie erste KI-Use Case-Ideen, basierend auf dem Prozessschritt und der jeweiligen KI-Fähigkeit(en).

## Beispiel: Sales-Prozess



# Workshop: KI Use Case-Entwicklung

individuell  
30 min  
2 min Kurzpräsentation

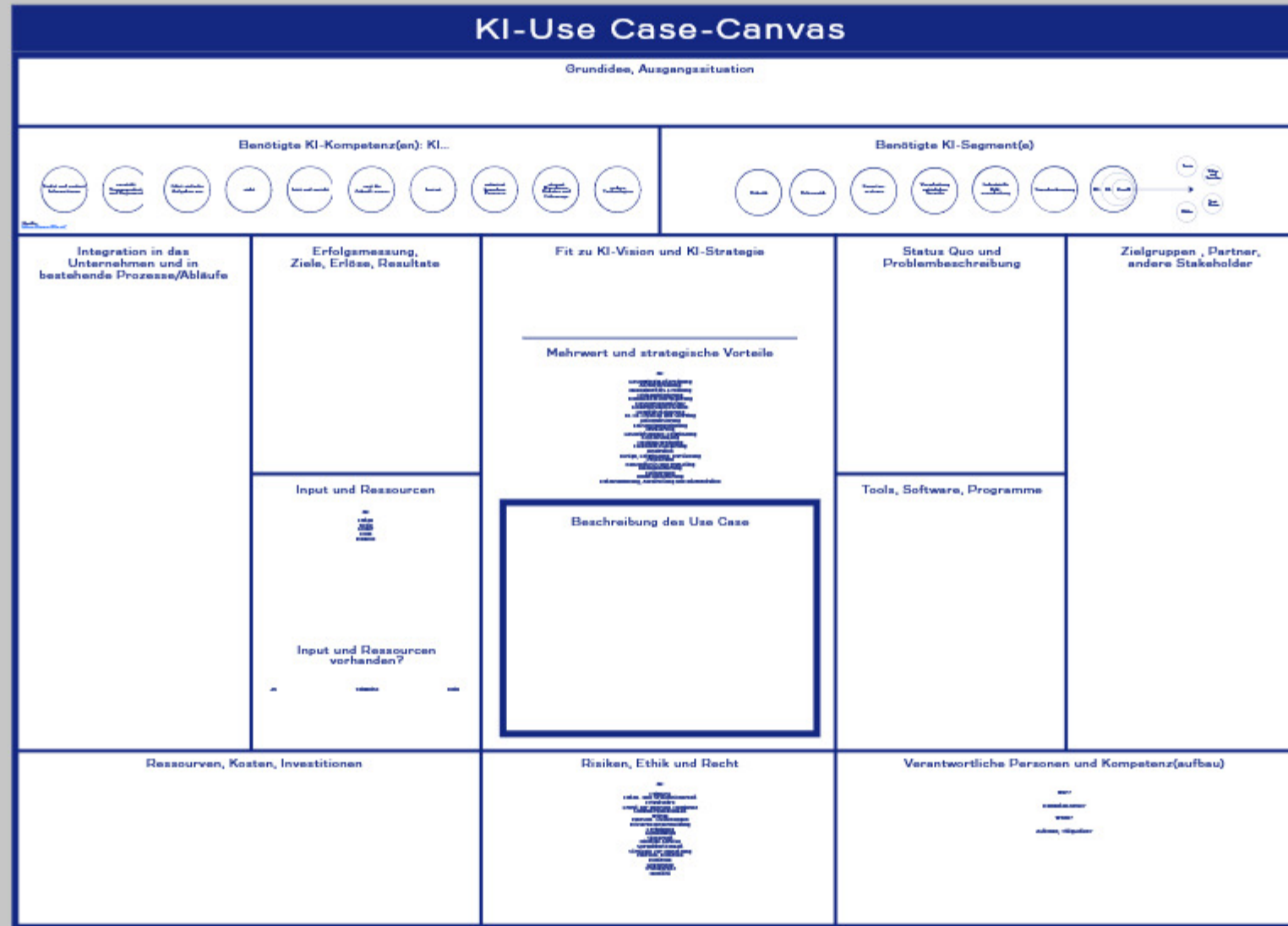
miro-Board:

[https://miro.com/app/board/uXjVL36CBgo=/?  
share\\_link\\_id=735704374506](https://miro.com/app/board/uXjVL36CBgo=/?share_link_id=735704374506)



# KI-Use Case-Detail-Entwicklung

KI-Projektideen und deren Nutzen im Detail ausarbeiten



(c) Christian Gumpold





Dr. Peter Christian von Quasthoff, M.A.  
 Intern. Linguist. und Kommunikationswiss.

