



Finansforbundet What is AI and what is in it for you?

27 May, 2024

Bent Dalager Partner, KPMG NewTech



Image by OpenAI ChatGPT

Meet me... or my replicant



Bent Dalager

Partner, Nordic Head of KPMG NewTech

- Global Head of KPMG Quantum hub
- Head of Innovation at KPMG Denmark
- MSc Computer Science and AI
- BSc Mathematical Economics
- CD Business Administration
- + Harvard and MIT studies

AI work for Nordea, Lego, TDC, Danske Bank, Carlsberg, Nets, Erhvervsstyrelsen, Nordea etc etc

Podcast host: TechTalk KPMG (about AI)

Fintech/AI Committee member @Finanstilsynet

External lecturer in AI at CBS Board Education and at INSEAD Exec MBA

Head of IT-Branchen NewTech Policy Board

Digital Wiseperson at Academy of Science (ATV)

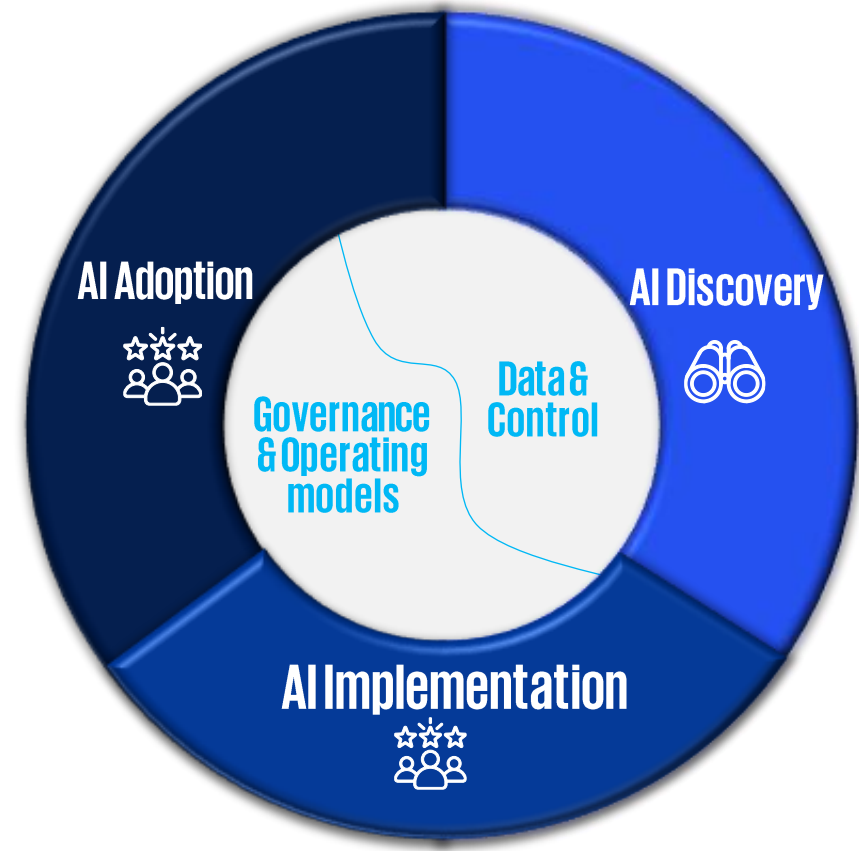
Co-founder of the professional data-ethical council

Co-Founder og Board for Danish Quantum Community



KPMG NewTech

We change the way organizations work through AI and data



Today I will answer four essential questions about developments within AI and the future of the labour market



What does the new AI-landscape consist of?



How will AI fundamentally change work in banks?



What new competencies is needed?



How do you set yourself up for the future change?

Any questions?

slido.com
#336 1499



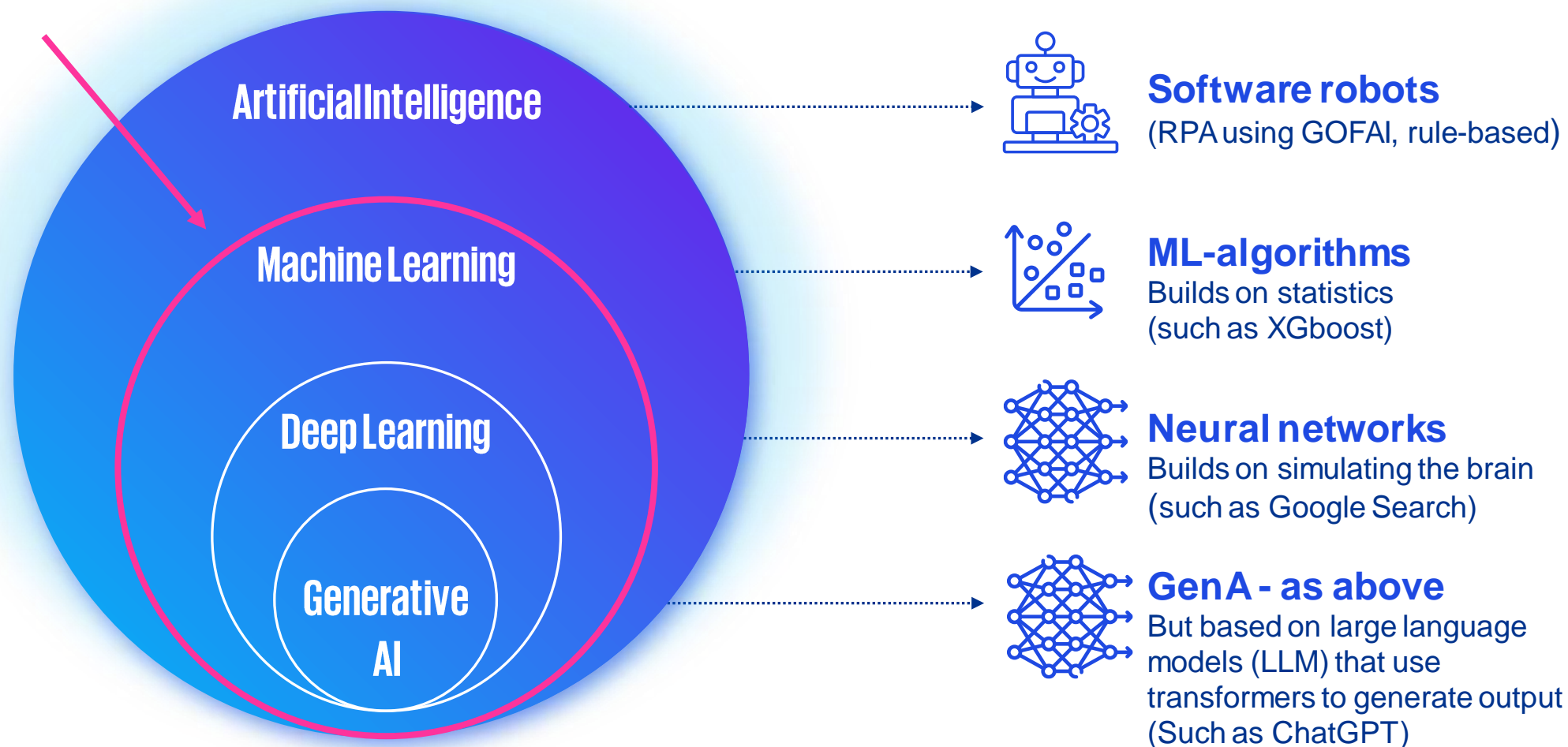
01 What does the new AI- landscape consist of?

KPMG



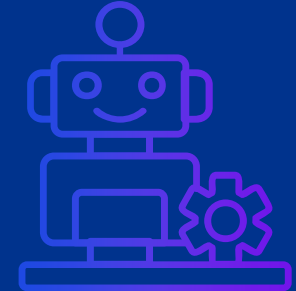
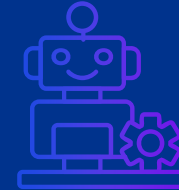
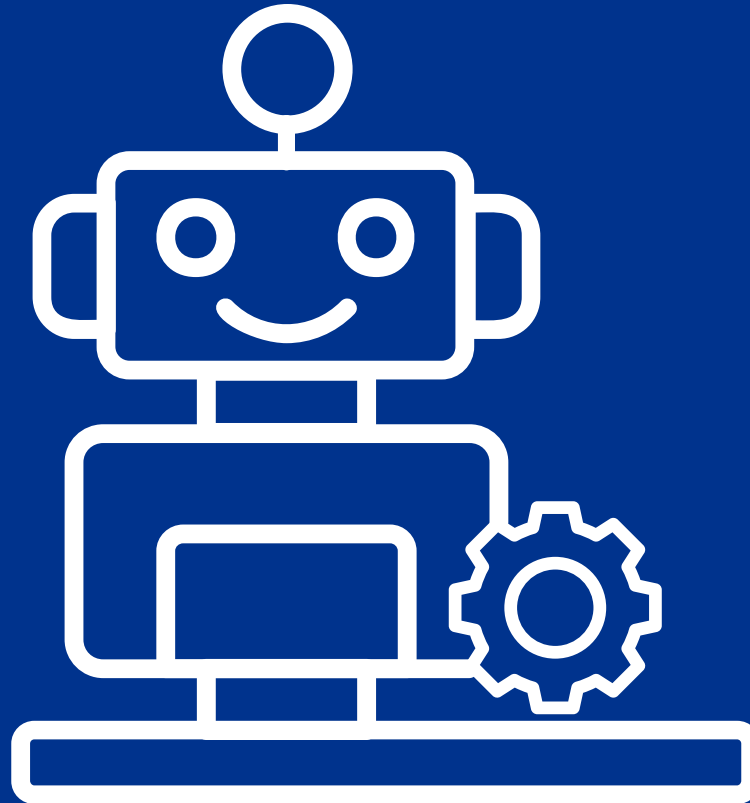
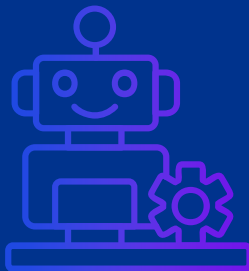
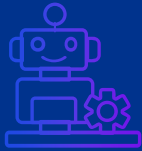
According to EU, AI is "a machine-based system designed to operate with varying degrees of autonomy..."

EU, AIA 2024

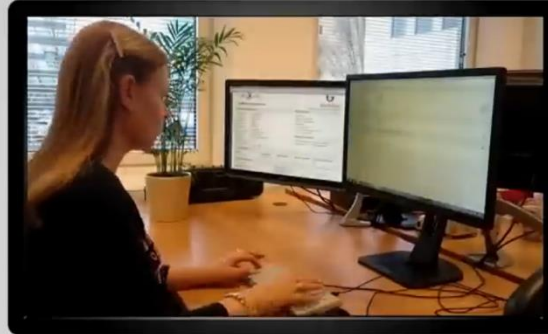


"AI-system": "A machine-based system designed to operate with varying degrees of autonomy, which, after being put into use, can exhibit adaptability, and based on explicit or implicit goals of the input it receives, deduces how it can generate output such as predictions, content, recommendations, or decisions, which can affect physical or virtual environments."

Office robots – or RPA (robotic process automation)



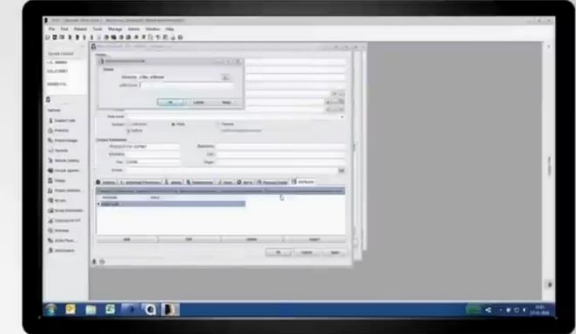
RPA is ideal for all repetitive tasks: gathering data from different sources and performing rule-based actions: finance, HR, lending/borrowing, onboarding, KYC, etc..



Human Input



04 :08 min



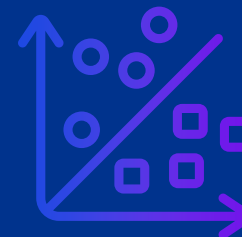
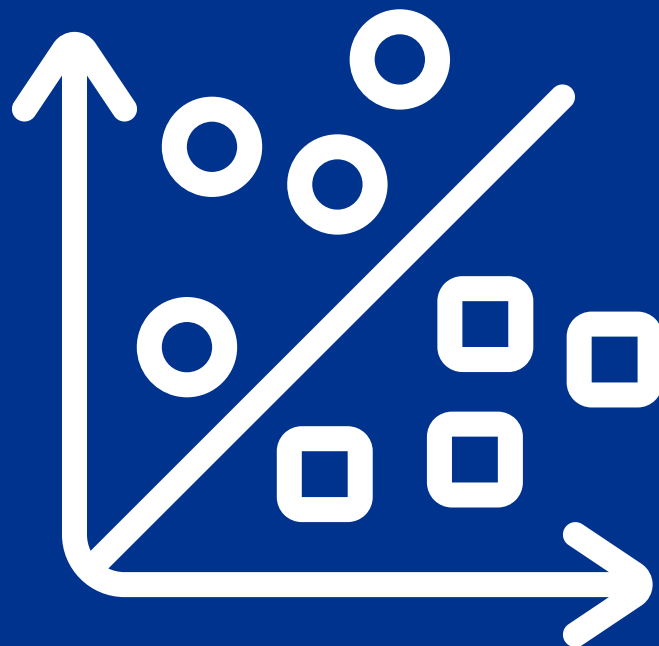
blueprism



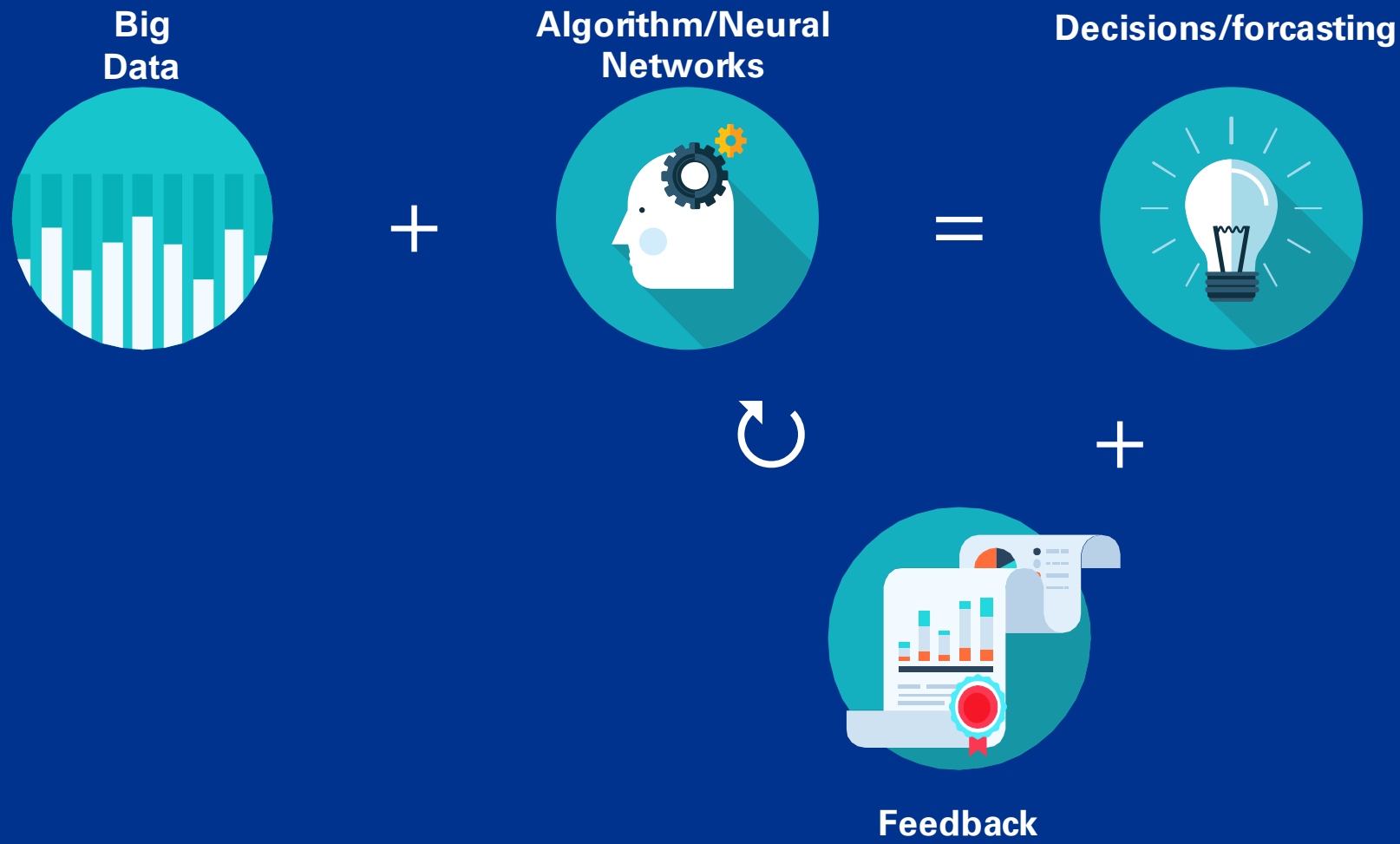
00 :30 min

ENOVATION

Machine Learning



Machine Learning is based on Big Data and feedback loops



No programming of the driver – just goal-setting and instructions

IRST RUN



 No training

No programming of the driver – just goal-setting and instructions



 No training

No programming required – just goal-setting and instructions




 2 hours

00:03:13

No programming of the driver – just goal-setting and instructions

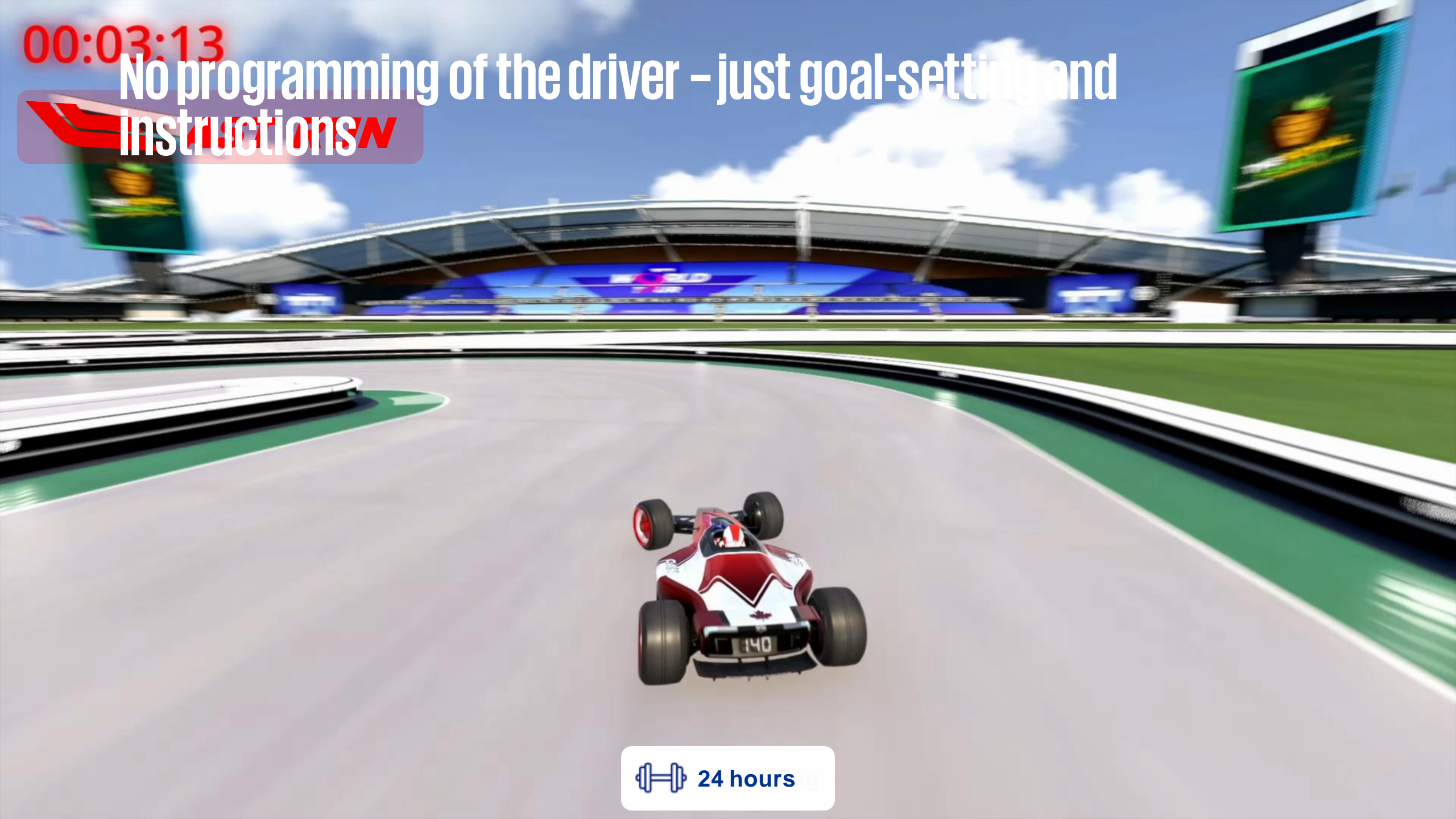
IRST RUN




 24 hours

00:03:13

No programming of the driver – just goal-setting and instructions



 24 hours

Machine Learning is best for experience-based tasks

HR chatbot hjalp med at sikre fokus i dansk TelCo ved at automatisere redundante medarbejder henvendelser...

En dansk TelCo lancerede intern HR chatbot til at svare på ofte stillede spørgsmål. Chatbotten blev sat i produktion for virksomhedens 8.000 ansatte og fik en høj customer satisfaction rate fra start.

Kontekst

HR afdelingen brugte store dele af deres tid på at svare på de samme typer henvendelser, der var spredt ud på mange forskellige ansattes mailindbakker.

4,5

ud af 5 mulige i customer satisfaction rate



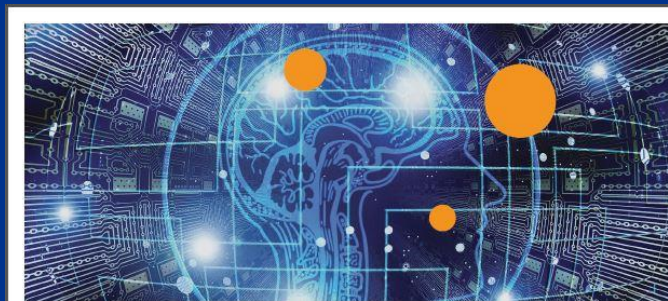
Tilgang

Vi indsatte 170 emner i chatbotten baseret på input fra ansatte og HR. Barsel var et af de emner som drev chatbottens succesrate, hvilket var en overraskelse for HR afdelingen.



Optimér kundeservice med automatiseret håndtering af e-mails

CRM | 30. juli 2019 kl. 05:34 | 1



Fighting Fraud with a Model of Models

Whitepaper

Utilising Artificial Intelligence to Prevent Payment Card Fraud



“Customer Churn. AI predicts who & why”

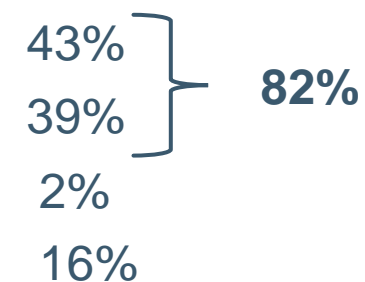
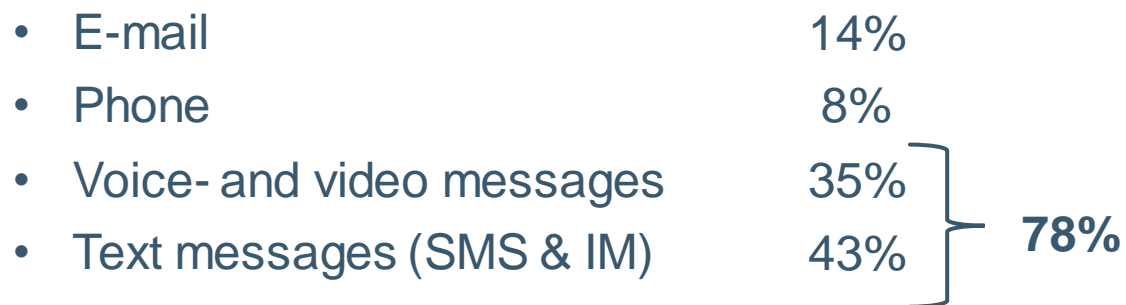
Chat/Text is preferred by the younger segment and an increasing number of older adults



Generation Z

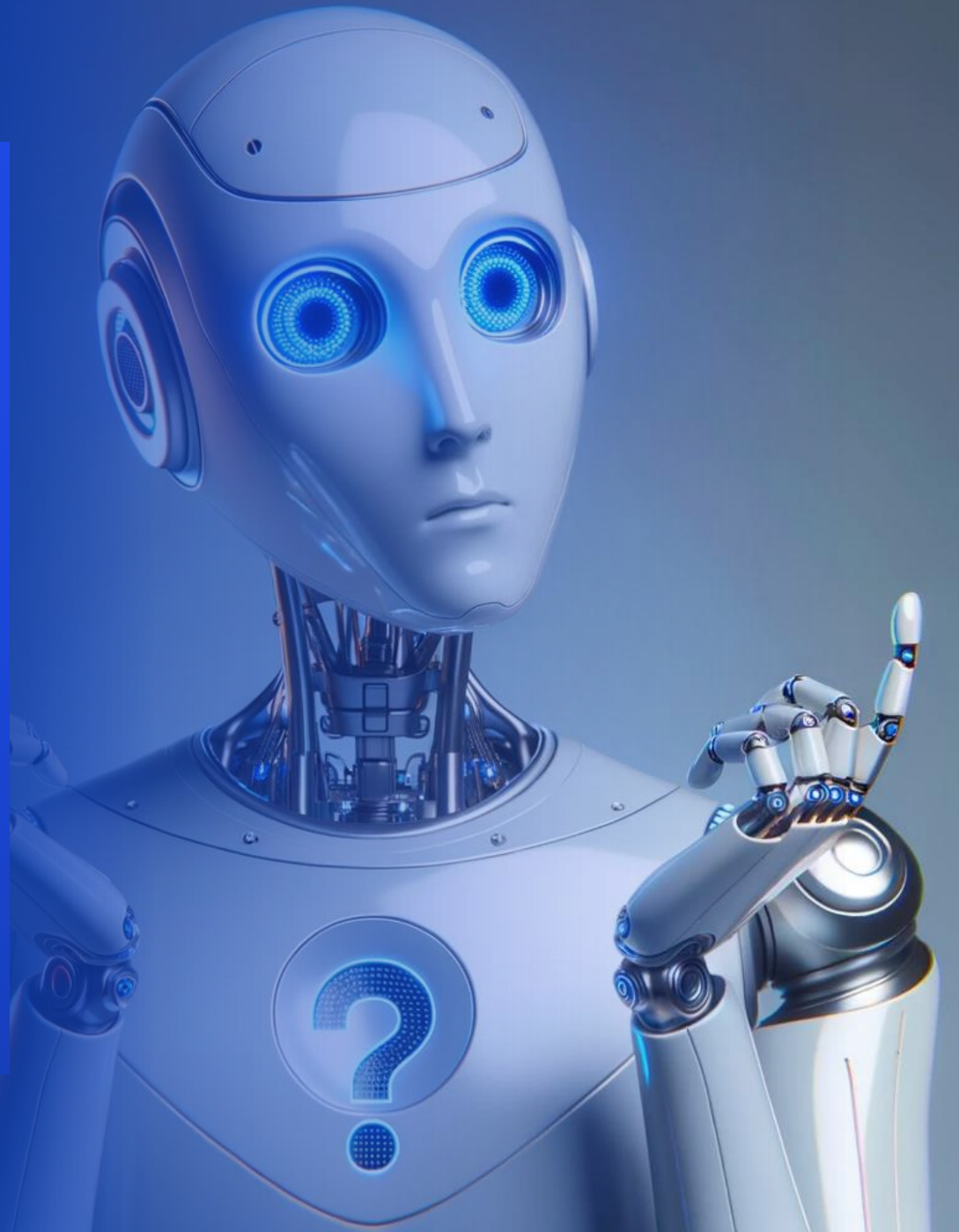


Generation X+



02
**How will AI change
work in banks?**

KPMG



KPMG's AI report shows a potential productivity increase of 10-50% for 80% of all employees

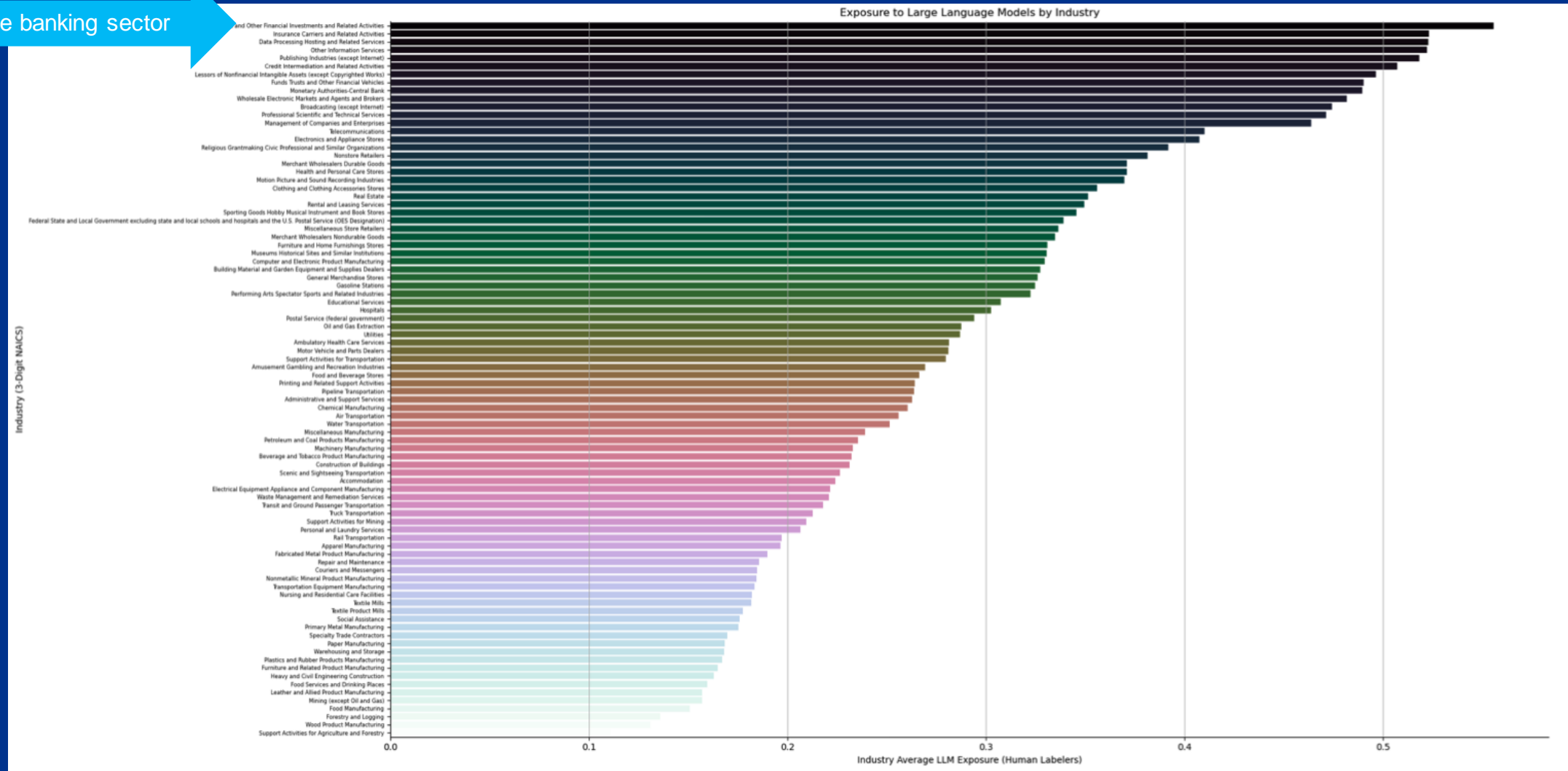


Excerpt from **KPMG** report for the Confederation of Danish Industry (DI), June 2023



The banking sector is the sector with the greatest GenAI potential

The banking sector



The higher your education, the more affected you are by GenAI. Salary increases may fall relatively compared to those with less education.



Jobs most affected by LLM:

- Authors, interpreters
- Survey researchers
- Web and digital designers
- Tax and auditors
- (IT developers)

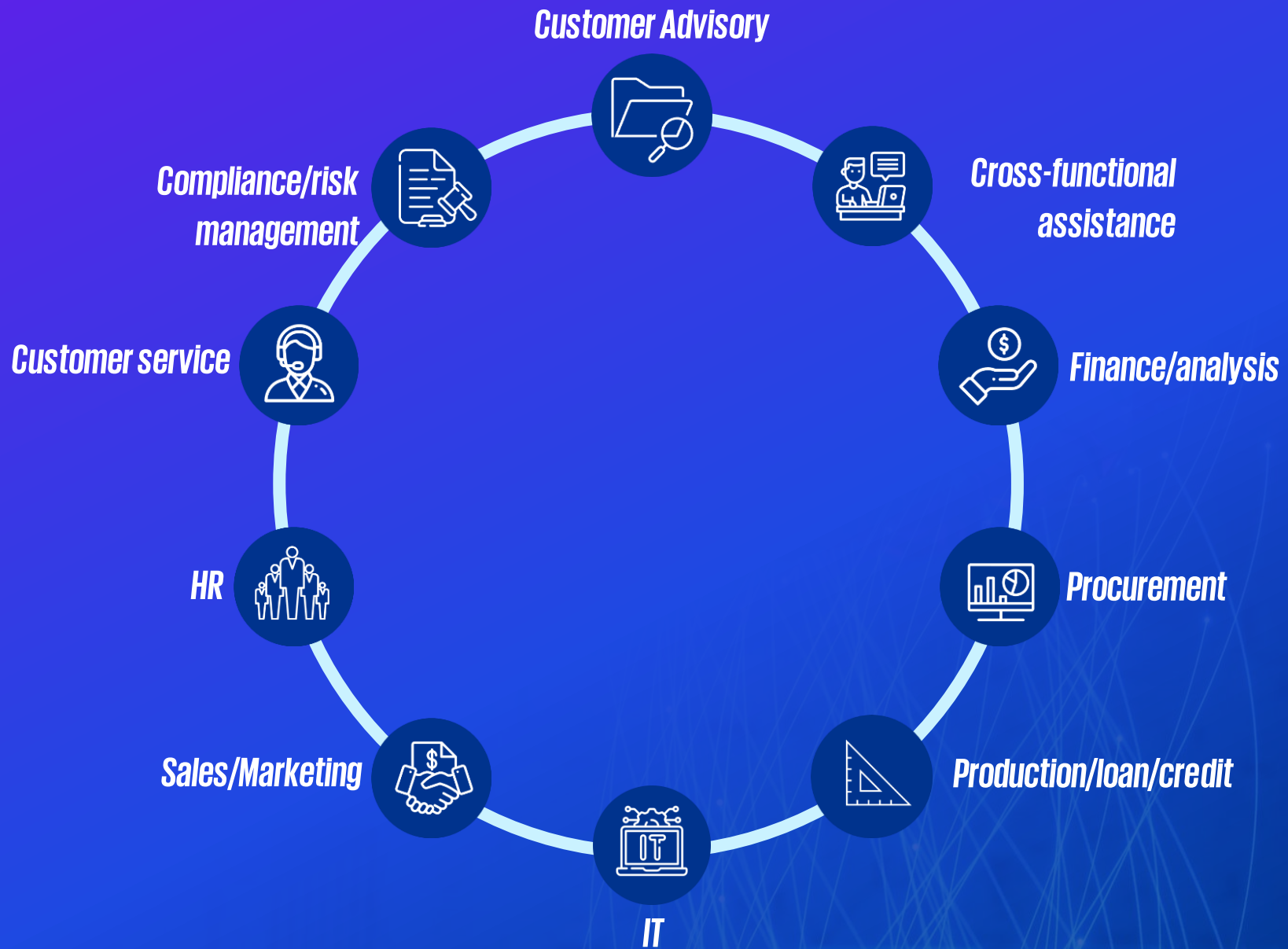


Jobs least affected by LLM:

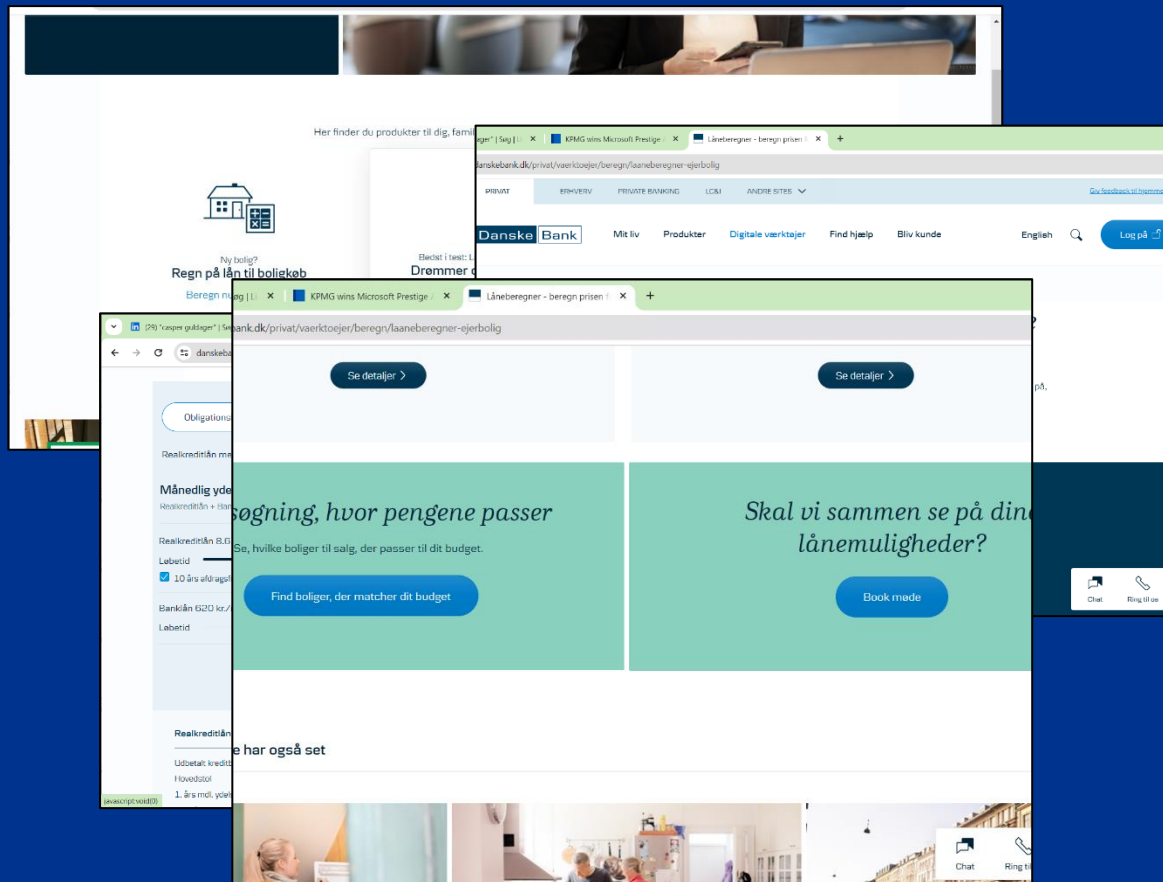
- Warehouse/factory workers
- Craftsmen, drivers
- Hospitality service
- Farmers
- (Store assistants)



GenAI can
be used in every
department



The advisor meets fewer customers who need a lot of help. They have done it themselves. The online bank transforms into a chat



BankBot: Hej Simon!

Simon Larsen: Hej, jeg har brug for hjælp til at ansøge om et realkreditlån. Kan du hjælpe mig?

BankBot: Selvfølgelig, jeg hjælper dig gerne med at få et overblik over processen. Har du allerede fundet en bolig, du ønsker at købe, eller er du stadig på udkig?

Simon Larsen: Jeg har fundet et hus, jeg er interesseret i.

BankBot: Perfekt! For at vi kan fortsætte, skal jeg bruge nogle oplysninger. Hvad er købsprisen på huset, og hvor meget ønsker du at låne?

Simon Larsen: Huset koster 2,5 millioner kroner, og jeg tænker på at låne omkring 2 millioner.

BankBot: Tak for informationen. Vi skal også se på din økonomiske situation. Kan du fortælle mig om din årlige indkomst før skat og om du har andre større gældsposter?


Simon Larsen: Min årlige indkomst er 600.000 kroner før skat, og jeg har et bil lån på 100.000 kroner.


BankBot: Tak, Simon. Med en indkomst som din, og med hensyn til din eksisterende gæld, vil vi beregne din betalingsevne. Dette hjælper os med at sikre, at du ikke bliver økonomisk overbelastet af lånet. En del af denne proces er også en kreditvurdering. Har du mulighed for at fremsende de seneste tre måneders lønsedler og et overblik over dine månedlige udgifter?


Simon Larsen: Ja, det kan jeg godt. Skal jeg sende dem over e-mail?

The business advisor is assisted by GenAI for in-depth preparation for the meeting with the company. Here is a business loan GPT:

Financial Loan Advisor ▾



Financial Loan Advisor
By Mathias Boisen 
Professional financial loan advisor for corporate clients



ChatGPT can make mistakes. Consider checking important information.

- *Quickly understand long and detailed reports*
- *Ignore spelling mistakes*
- *Execute analysis from short and simple language*
- *Visualizes insights*

Open model 



The customer service representative receives assistance from GenAI and reduces documentation time simultaneously

AI transcribes, summarizes, and supports the employee in connection with customer inquiries.



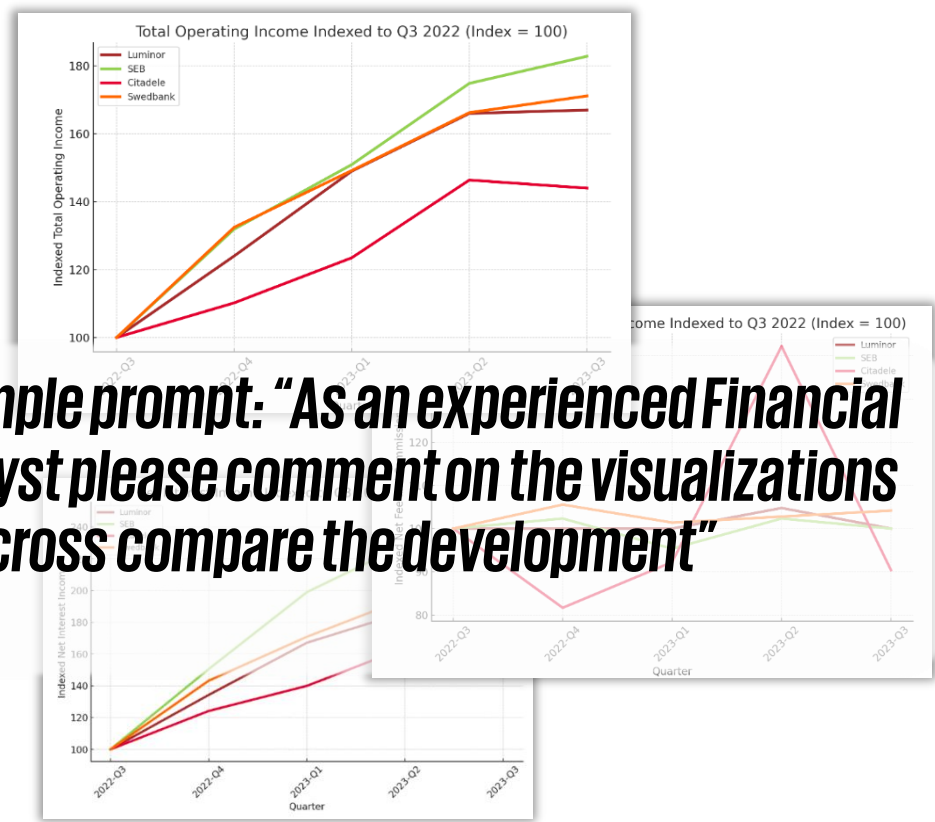


The financial analyst receives a powerful tool. Here is a competitor analysis performed by a GenAI GPT:

Visualizations and comments by ChatGPT ADA

Report (manual insertion in Word) based on GPT analysis and visualizations

Example prompt: "As an experienced Financial Analyst please comment on the visualizations and cross compare the development"



Peer Analysis Q3 2023

Comments made by ChatGPT 4

Total Operating Income

The visualization of Net Interest Income, indexed to Q3 2022, provides a clear depiction of the financial performance trend for each of the four banks: Luminor, SEB, Citadele, and Swedbank. Notably, all banks exhibit an upward trajectory, indicating an overall growth in interest-related earnings over the year. SEB shows the most pronounced increase, indicating a robust growth in its interest-earning activities. Luminor and Swedbank also demonstrate significant growth, though at a more moderate pace. Citadele, while showing growth, appears to have the least steep curve, suggesting a more conservative increase in net interest income compared to its counterparts.



Net Fee and Commission Income

The line chart for Net Fee and Commission Income, again indexed to Q3 2022, reveals diverse trends among the banks. Luminor and SEB show a relatively stable pattern with minimal fluctuations, indicating consistency in their fee and commission-based revenue streams. Citadele exhibits a slight upward trend, suggesting a modest increase in such income over the year. Swedbank, now included in this visualization, shows a more variable pattern, suggesting fluctuations in its fee and commission income, possibly indicative of varying business strategies or market conditions affecting its fee-generating services.



Total Operating Income

The Total Operating income chart encapsulates the overall revenue performance of the banks, combining various income streams. All banks show an upward trend, indicating overall revenue growth. Notably, SEB and Swedbank demonstrate a steeper growth curve, suggesting more aggressive revenue generation strategies or more substantial market gains in the period. Luminor and Citadele, while also growing, do so at a more measured pace.



Combined Analysis

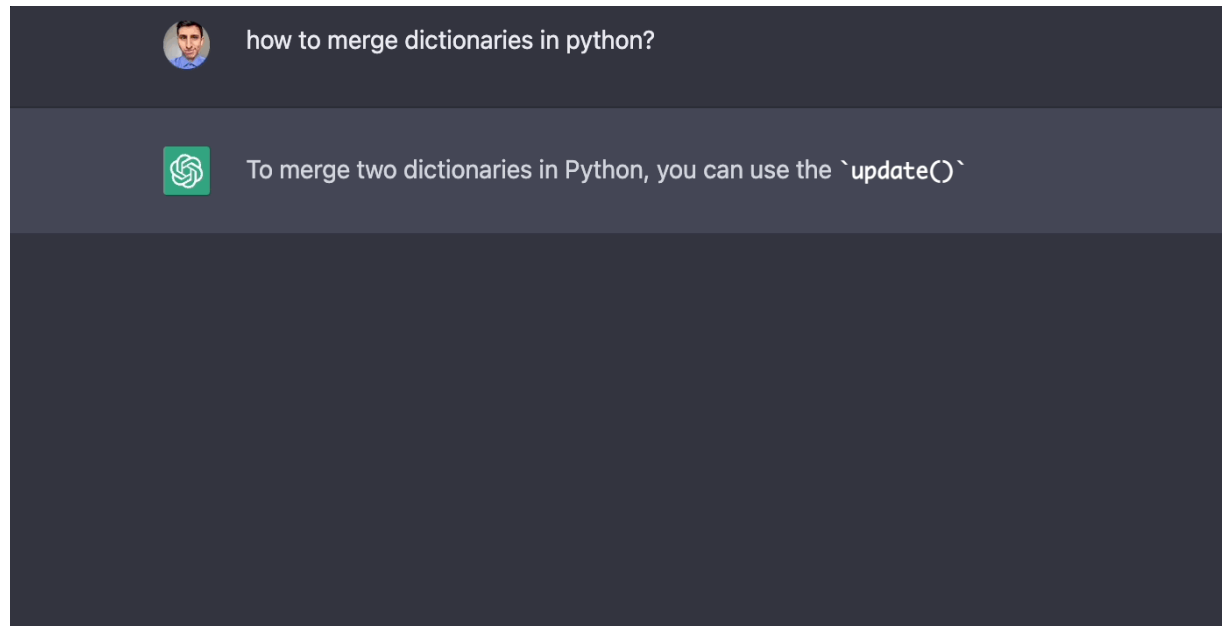
Growth Consistency: SEB stands out with consistent growth across all income categories, suggesting robust overall financial performance and effective revenue generation strategies.

Diverse Revenue Streams: The variance in the growth patterns of Net Fee and Commission Income, as compared to Net Interest Income, across banks, highlights the diversity in their revenue streams and potentially different strategic focuses. For instance, a bank with steadier fee income but rapidly growing interest income might be expanding its lending activities more aggressively.

Market Positioning: The differences in growth trajectories might also reflect the banks' market positioning and customer base. For example, banks with more stable fee income might have a strong foothold in stable, fee-generating services like asset management or transactional banking.

Economic and Regulatory Influences: External factors such as economic conditions, interest rate changes, and regulatory environment can significantly influence these income streams. Banks showing higher sensitivity to these factors might have more exposure to market-based or interest-sensitive products.

IT employees experience a 50% productivity improvement...



“ *In 5 years, 80% of all code will be written by large language models.*

“ *This happens much sooner, and the productivity boost will be higher*
– *Bent Dalager*



Case: Compliance-GPT integrated into MS Word for QA automation

Designing Physical Assets for Medtech Companies

File Home Insert Layout References Review View Help Sciwheel

Open in the taskpane

Search for tools, help, and more (Alt + Q)

Comments Catch up Editing Share

Header

Designing Physical Assets for Medtech Companies

The design of physical assets for medtech companies is a crucial aspect of the development process. These assets can include medical devices, diagnostic equipment, and other healthcare-related products. The design process involves a combination of engineering, materials science, and user-centered design principles.

Defining the Problem

The first step in the design process is to clearly define the problem that the product is intended to solve. This involves understanding the needs of the end user and identifying any technical requirements or constraints. The design team should work closely with stakeholders, including clinicians, patients, and regulatory bodies, to ensure that the product meets all relevant standards and regulations.

Generating Ideas

Once the problem has been defined, the design team can begin to generate ideas for potential solutions. During the ideation phase, the team will typically create sketches, models, and prototypes to test their ideas. This allows them to evaluate the feasibility of different designs and make any necessary adjustments before moving on to the next phase of the process.

Creating Detailed Drawings and Specifications

Once a design has been selected, the team will begin to create detailed drawings and specifications for the product. This includes selecting materials, determining manufacturing processes, and creating detailed assembly instructions. The design team must ensure that the product can be manufactured at scale while maintaining consistency and quality.

Testing and Validation

The final step in the design process is to test and validate the product. This involves conducting rigorous testing to ensure that the product meets all specifications and requirements. This may include testing for durability, functionality, and safety. The design team should also conduct user testing to ensure that the product meets the needs of its intended users.

Conclusion

Overall, the design of physical assets for medtech companies is a complex and iterative process that

is under development. This is a test release with limited functionality.

RADChat

Welcome to RADChat - Your assistant for document reviews.

Start by selecting some text.

Review Selection

Following the problem definition phase, the design team initiates the ideation phase for conceptualizing solutions. They develop initial sketches, models and prototypes to test and assess the feasibility of the concept before proceeding to the subsequent phase of the process.

Accept Suggestion Start Conversation

Page 1 of 1 59 of 350 words English (U.K.) Text Predictions: On Editor Suggestions: Showing Confidential

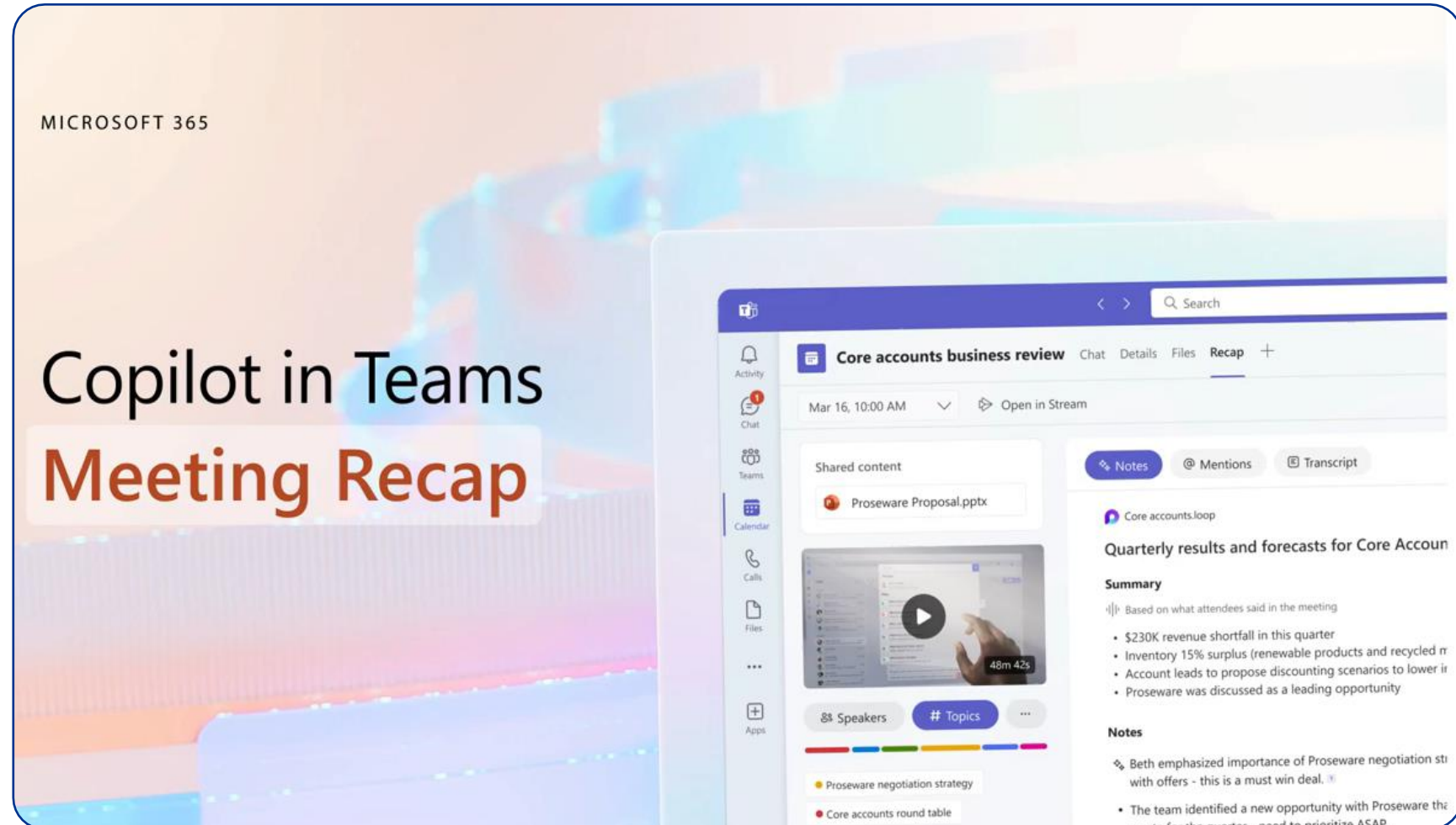
100% Fit Give Feedback to Microsoft



Across the organization: Copilot in Teams creates summaries and reports on decisions and opinions.

Example prompts you can ask Copilot:

- Summarize the conclusion of the meeting
- What does person X think about the project?
- What are the next steps for the project?





Analyze and inquire about data (here: Co-pilot in Excel)

Example prompts you can ask Copilot:

- Provide a breakdown of sales by channel
- Visualize sales in charts
- Model how the growth rate influences the gross margin

	A	B	C	D	E	F	G	H	I	J	K
1	Country	Customer	Product	Discount Band	Units Sold	Manufacturing Price	Sale Price	Gross Sales	Discounts	Sales	COGS
2	France	VanArsdel	Biodegradable Cleaning Products	Low	4345	\$10	\$352	\$1,529,440	\$15,294	\$1,514,146	
3	USA	VanArsdel	Biodegradable Cleaning Products	Low	4245	\$10	\$352	\$1,494,240	\$14,942	\$1,479,298	
4	Australia	VanArsdel	Biodegradable Cleaning Products	None	4124	\$10	\$352	\$1,451,648	\$0	\$1,451,648	
5	Mexico	VanArsdel	Biodegradable Cleaning Products	Medium	3954	\$10	\$352	\$1,391,808	\$83,508	\$1,308,300	
6	France	Contoso Pharmaceuticals	Biodegradable Cleaning Products	Low	4952	\$10	\$127	\$628,904	\$6,289	\$622,615	
7	France	Contoso Pharmaceuticals	Recycled Can	Low	4903	\$5	\$127	\$622,681	\$6,227	\$616,454	
8	Canada	Proseware	Natural Personal Care Products	Low	1954	\$270	\$302	\$590,108	\$5,901	\$584,207	
9	Canada	Proseware	Biodegradable Cleaning Products	High	1990	\$220	\$302	\$600,980	\$84,137	\$516,843	
10	USA	VanArsdel	Compostable Food Packaging	Low	1254	\$3	\$380	\$476,520	\$4,765	\$471,755	
11	USA	Proseware	Natural Personal Care Products	Medium	1465	\$224	\$302	\$442,430	\$26,546	\$415,884	
12	USA	Proseware	Sustainable Snack Packaging	Medium	1410	\$120	\$302	\$425,820	\$25,549	\$400,271	
13	Australia	Proseware	Natural Personal Care Products	Medium	1369	\$224	\$302	\$413,438	\$24,806	\$388,632	
14	USA	VanArsdel	Compostable Food Packaging	Medium	1052	\$3	\$380	\$399,760	\$23,986	\$375,774	
15	Canada	VanArsdel	Compostable Food Packaging	Low	980	\$312	\$380	\$372,400	\$3,724	\$368,676	
16	Australia	Proseware	Sustainable Snack Packaging	Medium	1298	\$120	\$302	\$391,996	\$23,520	\$368,476	
17	Australia	VanArsdel	Compostable Food Packaging	None	954	\$3	\$380	\$362,520	\$0	\$362,520	
18	Canada	Contoso Pharmaceuticals	Biodegradable Cleaning Products	Low	2785	\$110	\$127	\$353,695	\$3,537	\$350,158	



Example: Quickly locate documents within the organization

February 13, 2024 at 02:18 PM

I need to facilitate a workshop about physical work environment. Do we have any presentation I can use?

Yes, there is a PowerPoint presentation titled "Work environment workshop - Current state approach" that you can use. It was authored by you and was last modified just now. The presentation discusses the importance of a productive work environment and how it affects employee well-being and engagement. It includes a current state analysis of the office space layout, lighting, temperature, noise levels, and furniture and equipment for ergonomic design. There is also a brainstorming session where employees are invited to share their ideas and concerns. ¹

 Copy

1 reference ^

● 1/30 AI-generated content may be incorrect



¹  Work environment workshop - Current state approach

Copilot quickly finds and summarizes the most important organizational documents on any topic for you!



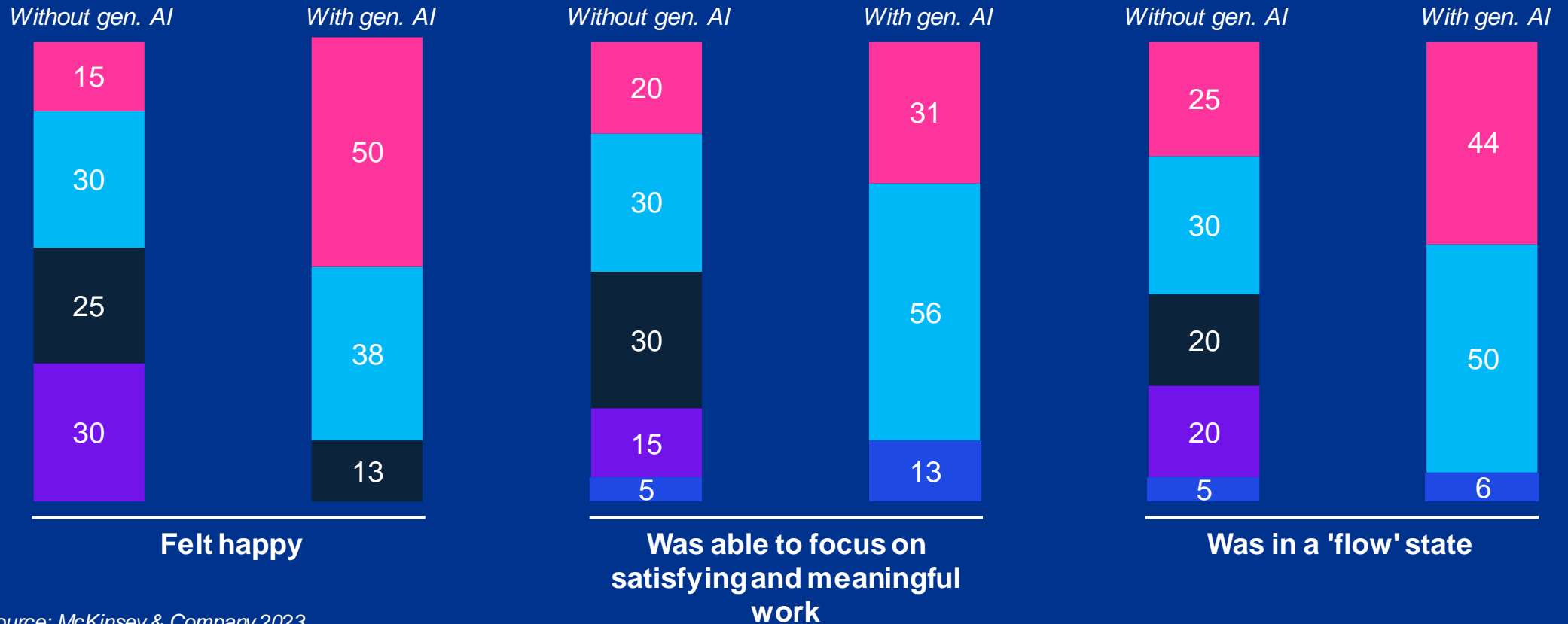
Using generative AI enhances well-being and meaningful work

Developer sentiments,
% of respondents

Strongly disagree
Somewhat agree

Somewhat disagree
Strongly agree

Neither agree or disagree



Source: McKinsey & Company 2023

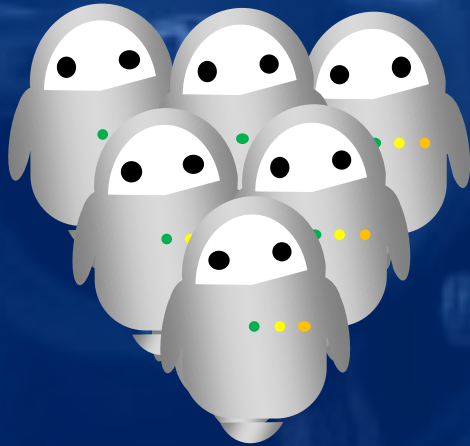


03

What (new) skills will be needed?



Bank employees will spend less time doing the work themselves and more time validating work performed by AI.



Technical skills will remain necessary despite programming being one of the most impacted skills by GenAI*



*Based on KPMG Research for the Confederation of Danish Industry. Picture by ChatGPT4



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Banking skills will also remain necessary, and there will be an increased need for employees with strong language and interpersonal understanding.



*Based on KPMG Research for the Confederation of Danish Industry. Picture by ChatGPT4

Asking questions is the new key competency

Answering skills become less important (coding, statistics, legal knowledge...)

The ability to understand the problem and ask questions becomes key.

Problem-finding is the new premium skill

The most essential human skill is going to shift from problem-solving to problem-finding.

This contrasts with how workplaces have functioned since the Industrial Revolution. For decades, the emphasis has been on taking an obvious problem and finding an unobvious solution. But AI — when combined with human ingenuity — has unprecedented problem-solving power, so much so that it may free humans to spend more time in creative pursuits. The real challenge of applying AI productively is going to be “use case” discovery: identifying cross-disciplinary urgent problems that are best suited to AI technology.

One good illustration of a surprising application of AI is boosting the productivity of salmon farming — a crucial step towards promoting sustainable aquaculture. Fish farmers are now using AI and machine perception tools (that can take in and process sensory information) to automate feeding time in accordance with the hunger levels of the fish. This reduces wasted feed, trimming a significant carbon emissions source, while improving salmon growth metrics.

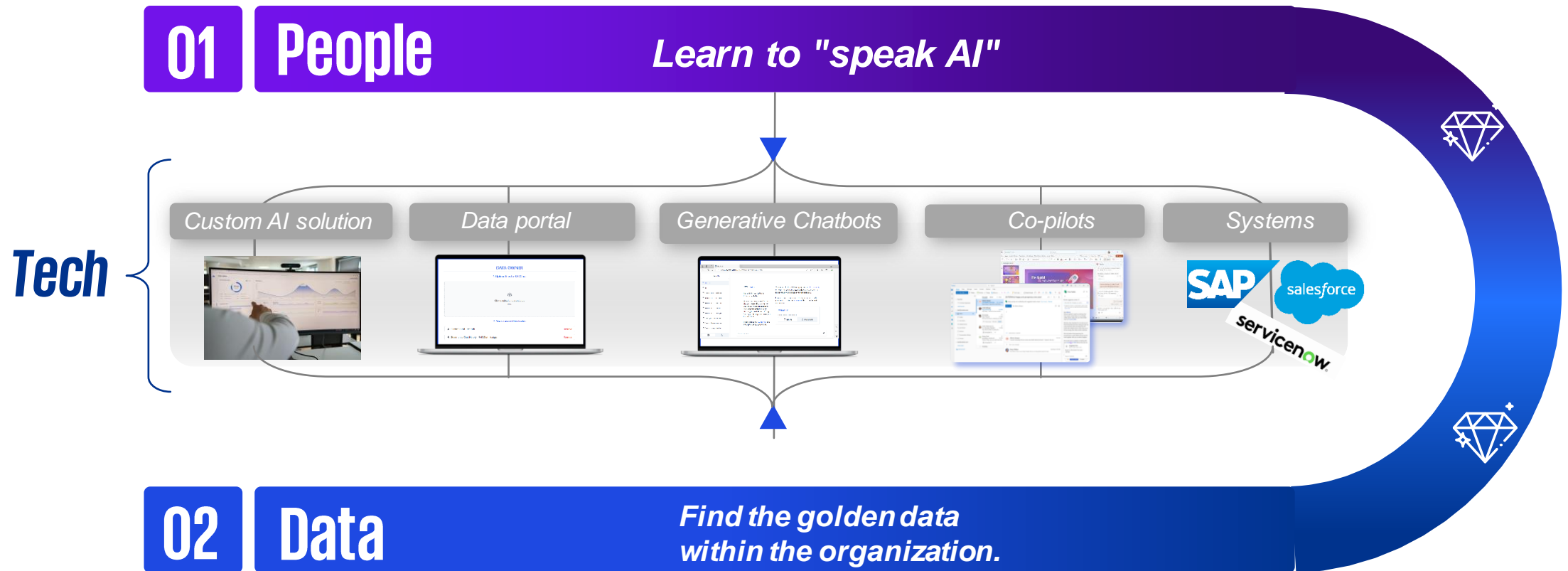
A recent collaboration between Tidal AI (a project inside X, Alphabet’s Moonshot Factory) and Cognizant will build on the initial success and expand to other sectors of what’s known as the Blue Economy, including shipping and

04

How to be better prepared for the AI age?

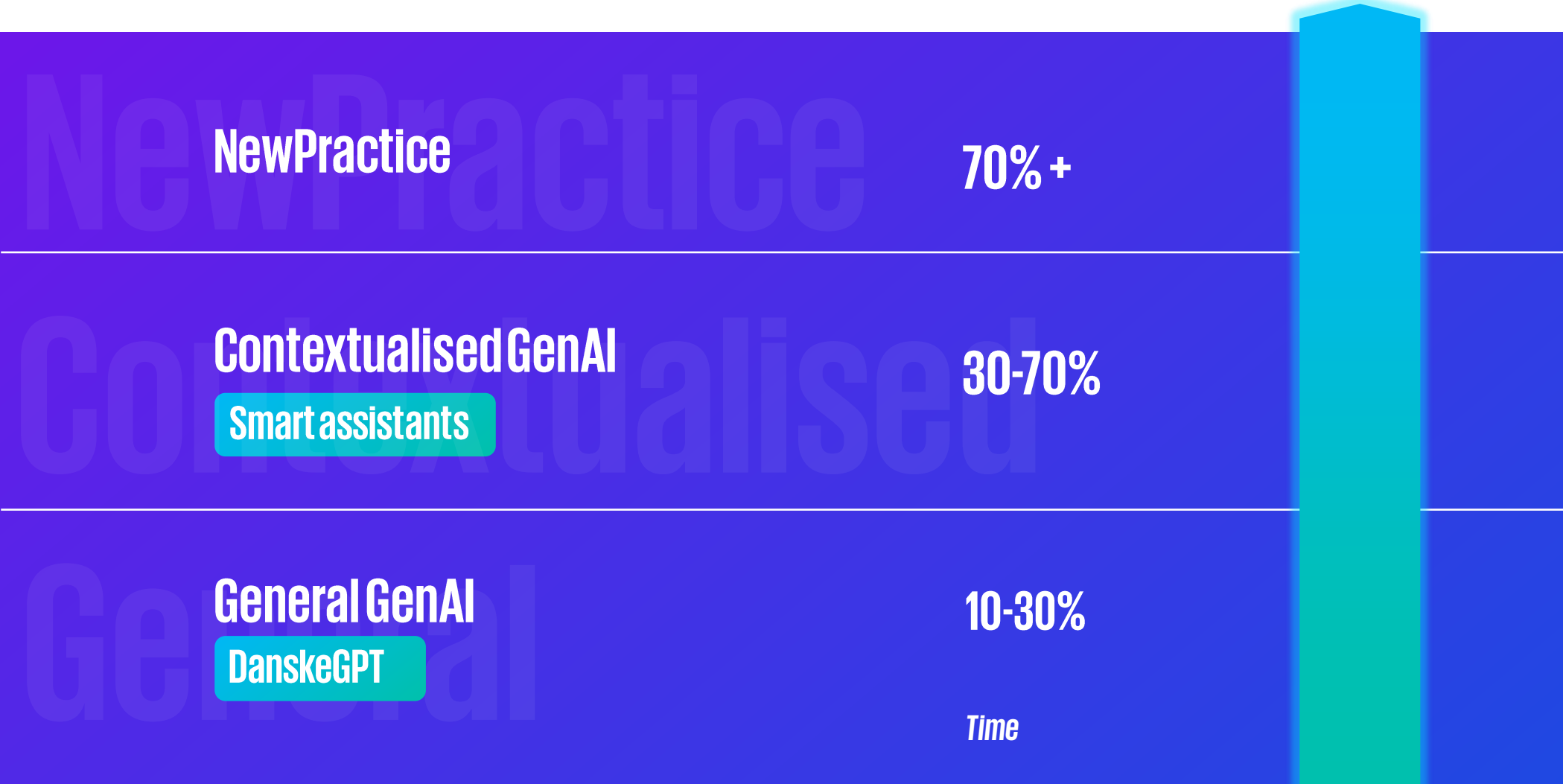


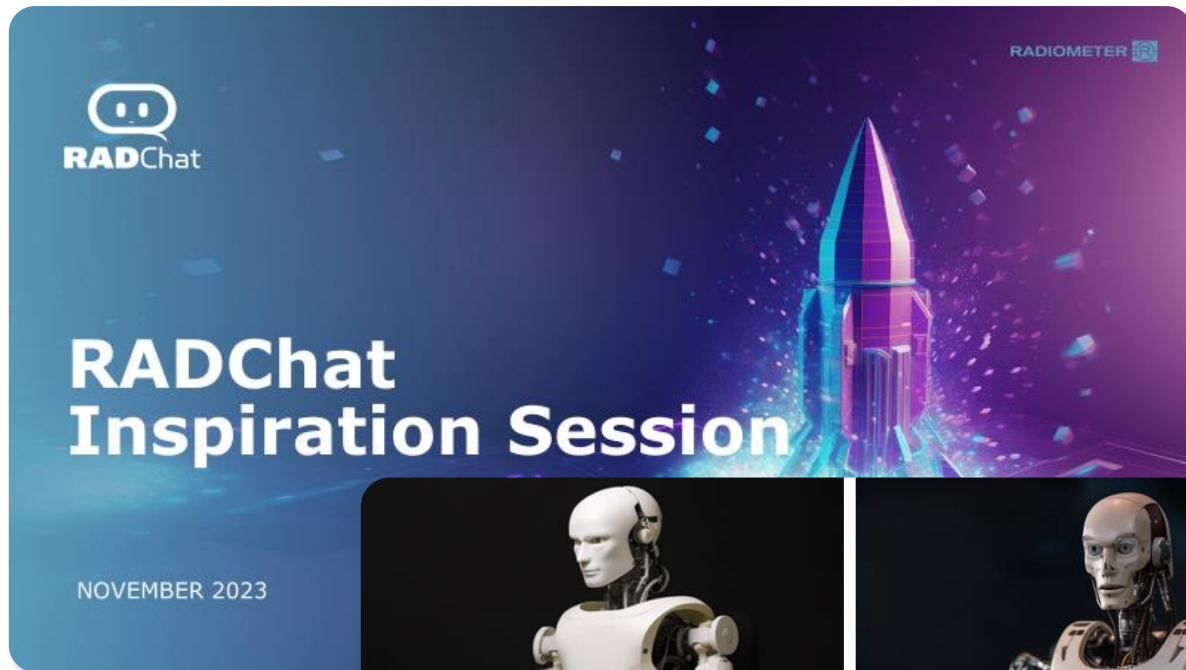
Regardless of the technical solution, the ability to "speak AI" is crucial and requires practice and repeated use.



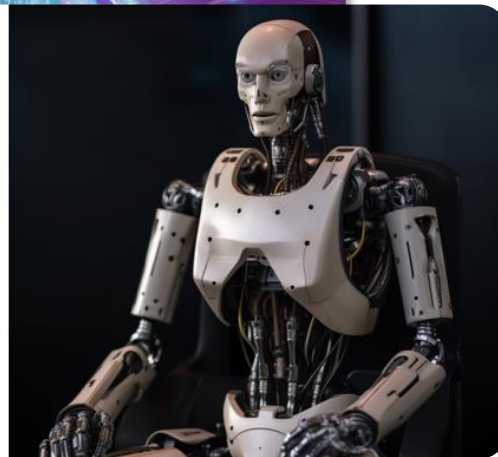
Significant productivity gains can already be achieved by using DanskeGPT out of the box.

X Output | Quality





Human prompt:
Humanoid robot sitting on a chair



ChatGPT prompt:
Photo of a sleek silver and white humanoid robot with blue white eyes, sitting straight up on a modern chair in a well-lit room with dark background. The robot's posture is straight, and its hands are resting on its lap.

Attend GenAI training

Learn to "speak GenAI."

Learn to identify opportunities for GenAI and its applications within the bank, starting with your own daily work.

- Priming
- Opportunity recognition
- How to apply GenAI
- Use cases
- Prompt Engineering

**Progress and value creation:
Document how it's going. How much faster and how much better quality.
And ask the experts!**

GenAI - Value Case Calculator Guide

The goal of this GenAI Business Case calculator is to measure selected processes over a three-week period to give an impression on the organization as a whole.

To provide a clear picture of employee experiences, you will submit a sparring session. Once the session is completed, you can view the results and statistics.

Step 3: Sparring Session

Use for sparring session with client [Refresh all data](#)

Before During After

Step 4: Business Case

Presentation and Statistics on Business Case [Refresh all data](#)

Weekly hours before GenAI	Weekly hours after GenAI	Change
667 h.	240 h.	427 h.

Change	Focus group	Change pr. rep.
427 h.	33	13

Org. Early Adopters*	Org. Early Majority*	Total %
16%	34%	50%

Early Adopters est.	Early Majority est.	Total employee group
400	850	1250

Use-case description	Hours	Category	Count	Description
1 Construction of Power Automate workflows.	10	Other AI Ideas using vision models etc.	2	Specific use interacting with data
2 Construction of Power Apps including script commands.	20	Other AI Ideas using vision models etc.	4	Other AI Ideas using vision models etc.
3 Construction of formula expressions in the Power platform.	10	Specific use interacting with data	2	Specific use interacting with data
4 Construction of Powershell scripts.	10	Other AI Ideas using vision models etc.	2	Other AI Ideas using vision models etc.

Developers: Remember EU's AIA and your responsibility. Use Trusted AI: Ten core principles to guide your approach for responsible AI across the AI-lifecycle. Dispose [Aipledge.dk](https://aipledge.dk).



Fairness

Ensure models are free from bias and equitable.



Transparency

Ensure transparent, responsible reporting for stakeholder clarity across their lifecycle.



Explainability

Ensure AI can be understood, documented, and open for review.



Accountability

Ensure mechanisms are in place to drive responsibility across the lifecycle.



Data Integrity

Ensure data quality, governance, and enrichment steps embed trust.



Reliability

Ensure AI systems perform at the desired level of precision and consistency.



Security

Safeguard against unauthorized access, corruption, or attacks.



Safety

Ensure AI does not negatively impact humans, property, and environment.



Privacy

Ensure compliance with data privacy regulations and consumer data usage.



Sustainability

Ensure solutions are energy-efficient and support a cleaner environment.

USE GenAI

e.g. to spare about your tasks



Last advice:
Listen to
Tech Talk
and follow AI
closely

Questions?



Podcast about future technologies

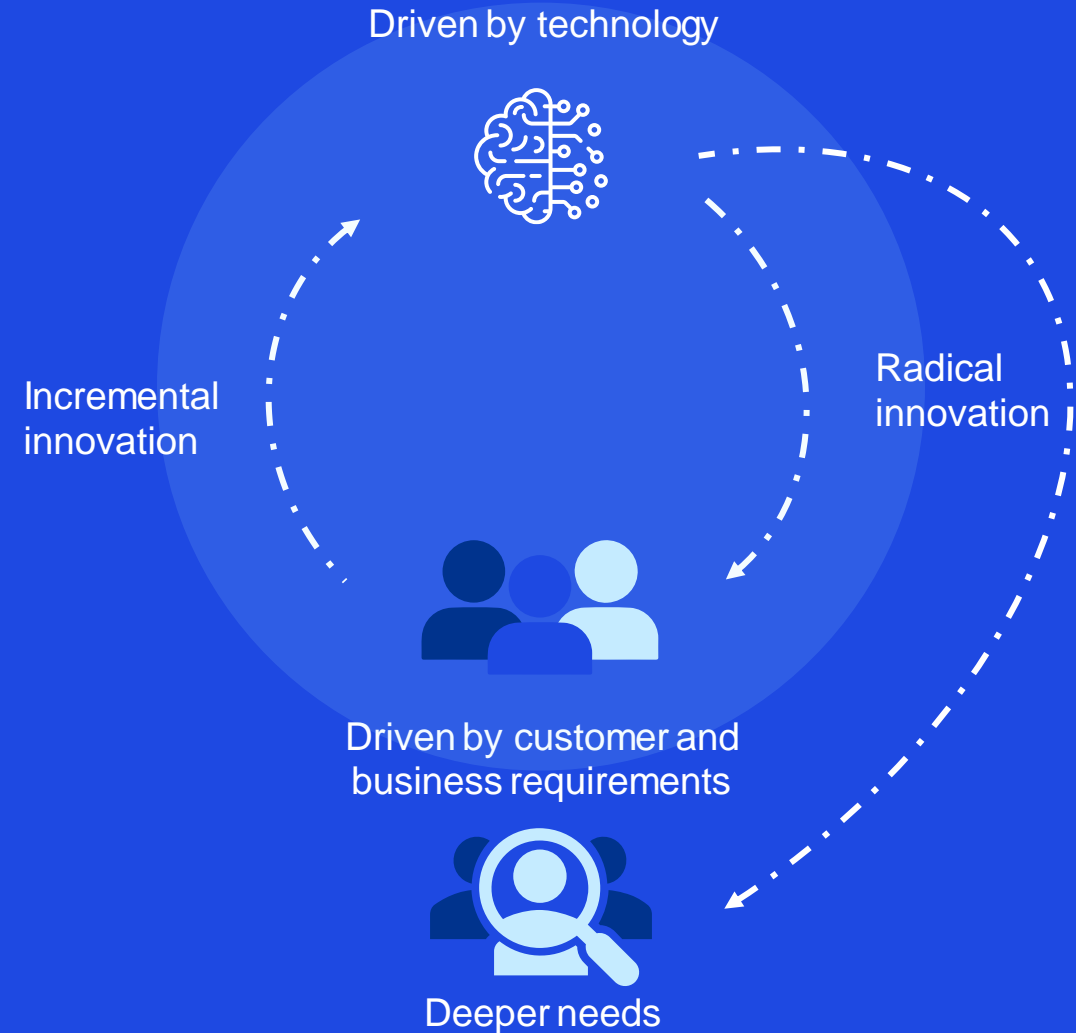
KPMG

NewPractice drives radical innovation by thinking from AI-technology outward, creating new ways to generate value

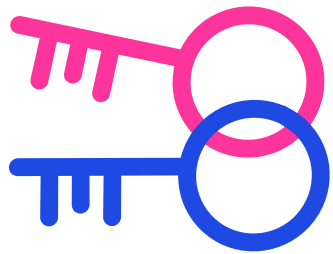


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New ways of delivering value

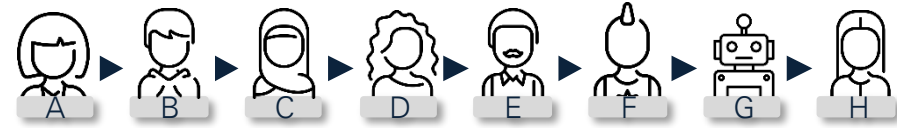


NewPractice is the key to being able to work in a new way: AI-driven processes.

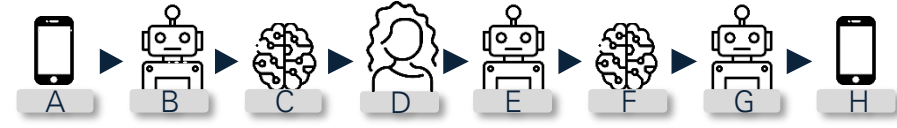


NewPractice

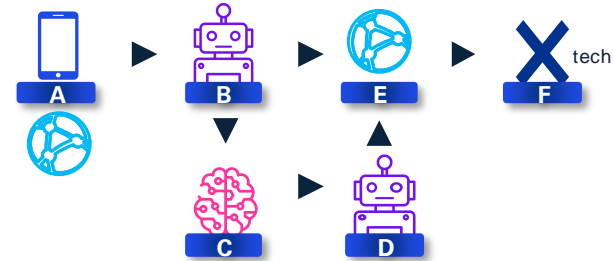
As-is



Best Practice



5-15% Automation



30-100% Automation

