

Unlocking value through GenAI

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GenAI amplifies (and doesn't substitute) human capabilities

Non exhaustive



Generative AI (GenAI) enables the **creation of new unstructured content**, such as text, images, etc.

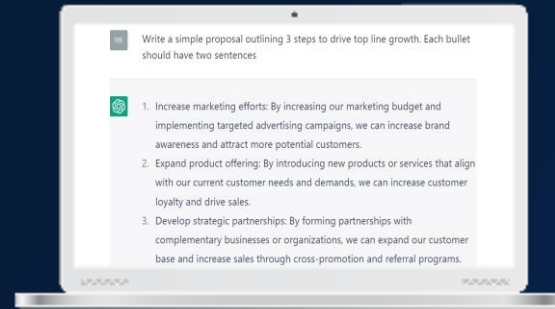


GenAI is powered by Foundation Models (artificial intelligence models) trained on a **broad set of data** that can be adapted to a wide range of tasks

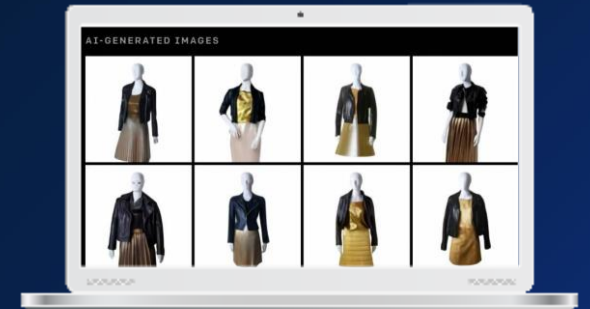


These models are typically also **better at interpreting / labelling unstructured data than traditional AI**

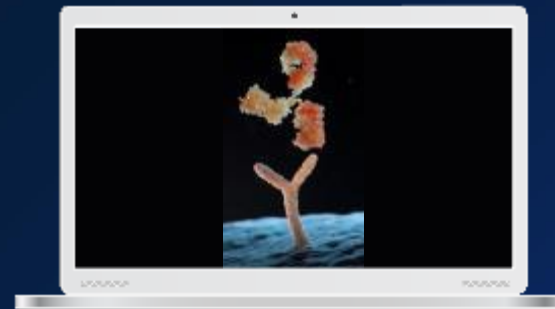
Example of applications



Generate marketing or social media copy in "house style" using ChatGPT, Copy.A, etc.



Create new product design concepts using DALL-E 2, Stable Diffusion, etc.



Accelerate the drug discovery process, reducing time in laboratories with ABSCI, etc.



Automate code generation in programming languages like Python with Codex / GitHub Copilot, etc.

What does Gen AI unlock?

1. Insight extraction

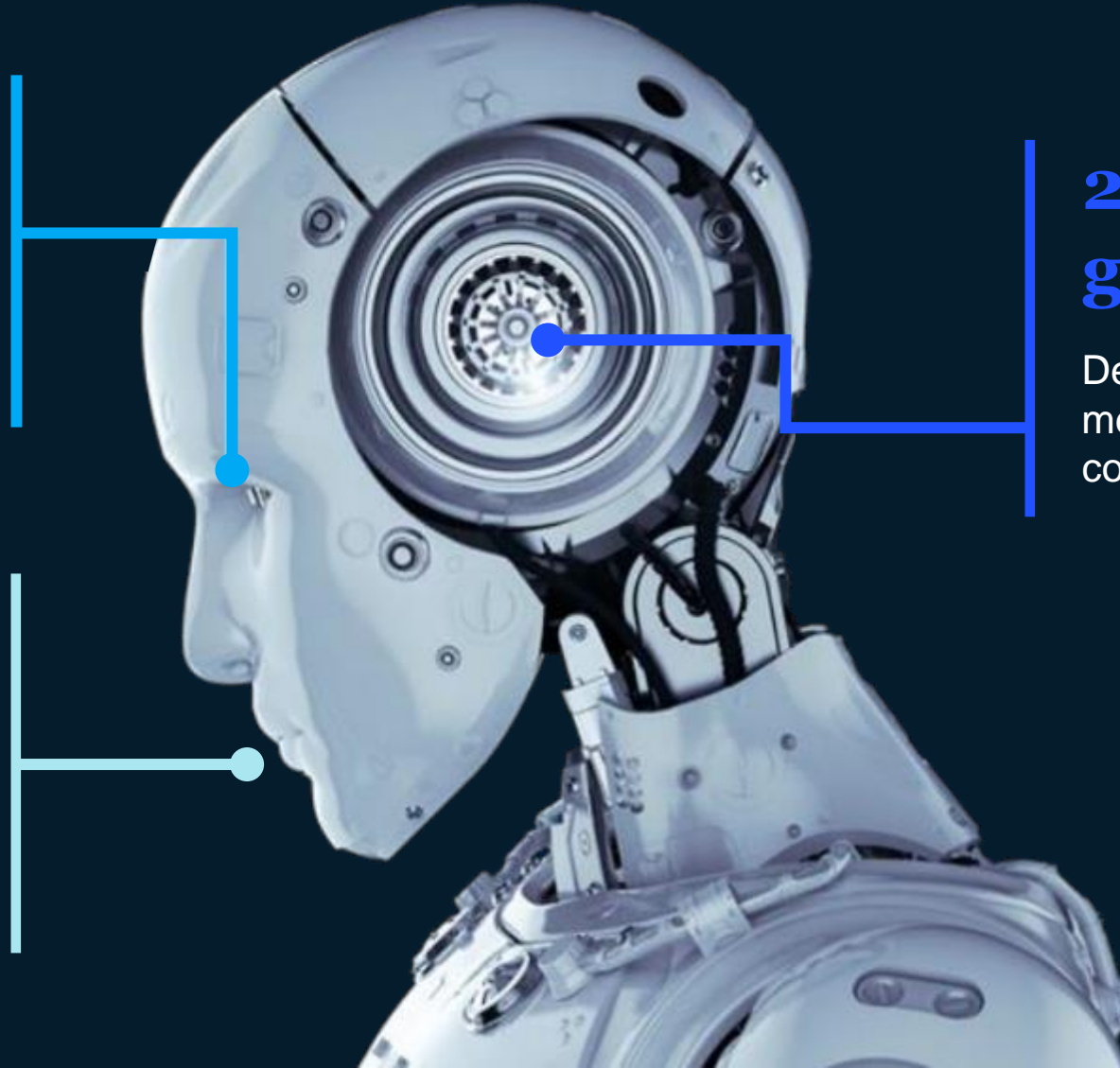
Rapidly search large corpuses of data and identify relevant answers

3. User interaction

Out-of-the-box' human-like conversational ability incl. context memory

2. Content generation

Develop complex documents and messages tailored to specific contexts



AA (and standard AI) are a different story...

Not exhaustive

Purpose

Leveraging software to manage and organize existing data (e.g., to get better insights on clients, improve processes, predict most likely scenarios)

Examples of applications



SoW sizing leveraging “similarity” across clients (e.g., archetypes)



“Next-deal” suggestions for clients



AA-driven optimal coverage set-up (capacity, capabilities & workflow analytics)



Tailored insights on client ESG scores and key gaps



... as an evolution of GenAI

Learning from existing unstructured data to generate new and unique outputs automatically (or with minimal human guidance)



Coverage

Generate tailored marketing contents and offerings, by leveraging client interactions data



Product Specialists

Generate product pitches, create internal documents (e.g., credit memos)



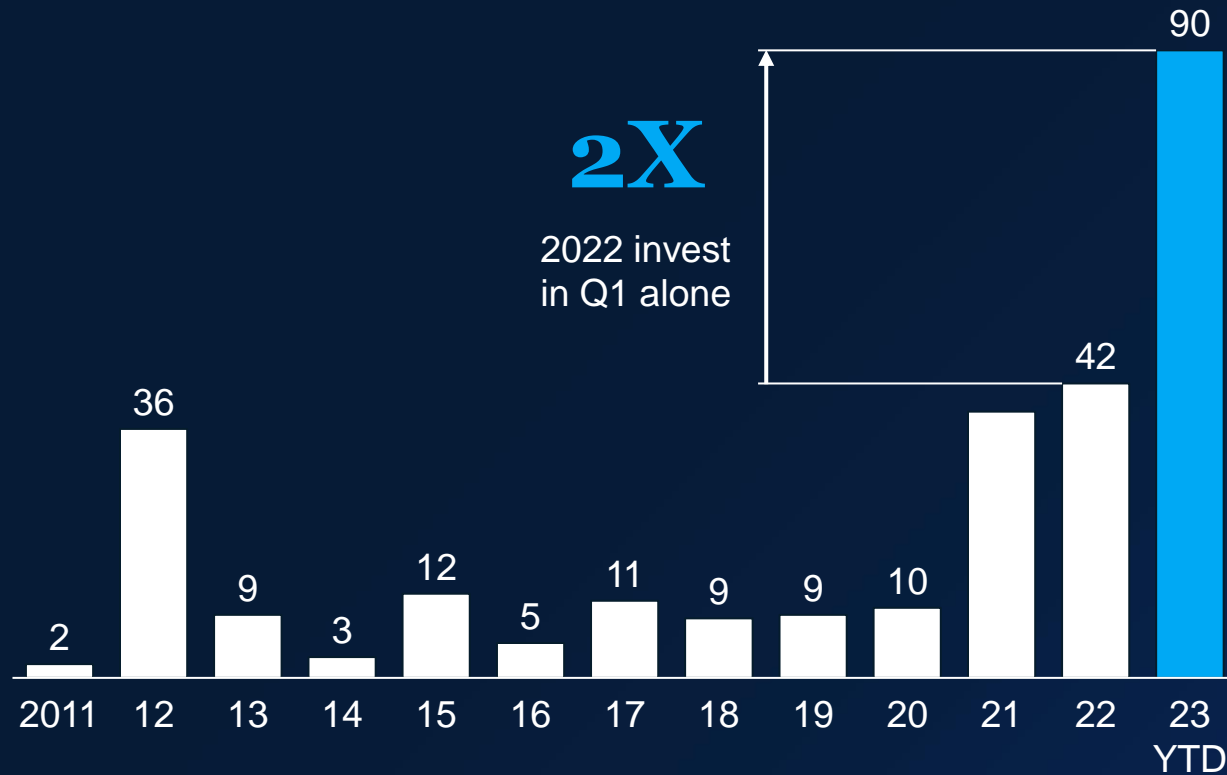
Operations, Legal, Risk & Compliance

Improve credit risk estimates, KYC reviews, financial crime detection, contract drafting

GenAI: hype or reality?

Investors pouring into GenAI

GenAI median VC pre-money valuation, USD mln



Fastest-growing adoption ever

Time to reach 1 million users



1. Between Jan & peak Dec 2022

Global excitement around Generative AI, with leading corporates already engaging at scale

>\$10B investment in one of the top players¹

425%² increase in VC investment in Generative AI since 2020

8X growth in search for “Generative AI”¹ in 2022³



Stability AI has reached 30k+ stars on GitHub

8 times faster

than any previous package

~80% of current AI research is focused on Generative AI today⁴

Examples

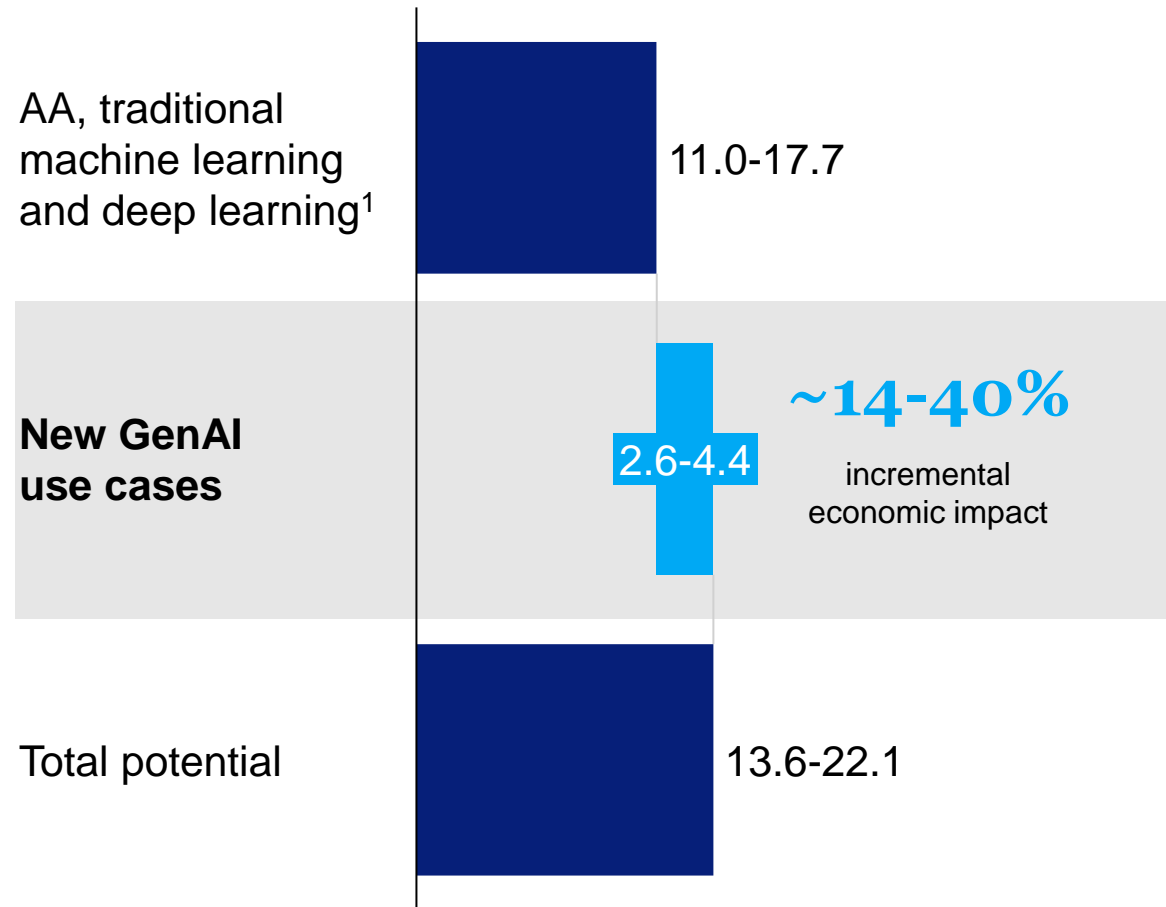
Morgan Stanley	OpenAI
Andreessen Horowitz	mem
SambaNova systems	otpbank
JPMorgan Chase	HSBC

1. Microsoft investing in OpenAI
2. <https://www.ft.com/content/9c5f7154-5222-4be3-a6a9-f23879fd0d6a>

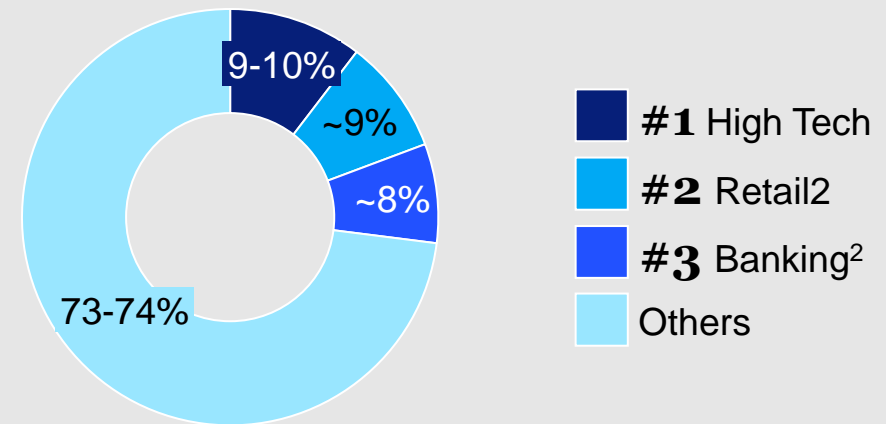
3. Between Jan & peak Dec 2022 (pre holiday) based on Google Trends results
4. <https://www.economist.com/interactive/briefing/2022/06/11/huge-foundation-models-are-turbo-charging-ai-progress>

GenAI is expected to create significant value in Banking

Potential impact on the global economy, USD trillion, %



Examples of industries will benefit more from GeAI



USD 200-340 bln of GenAI productivity impact in Banking, especially through:

- Software engineering
- Customer operations
- Marketing and sales
- Risk and legal

1. Updated use case estimates from "Notes from the AI frontier: Applications and value of deep learning," McKinsey Global Institute, April 17, 2018 | 2. Including auto retail

Banking is one of the top industries in which GenAI could unlock higher value

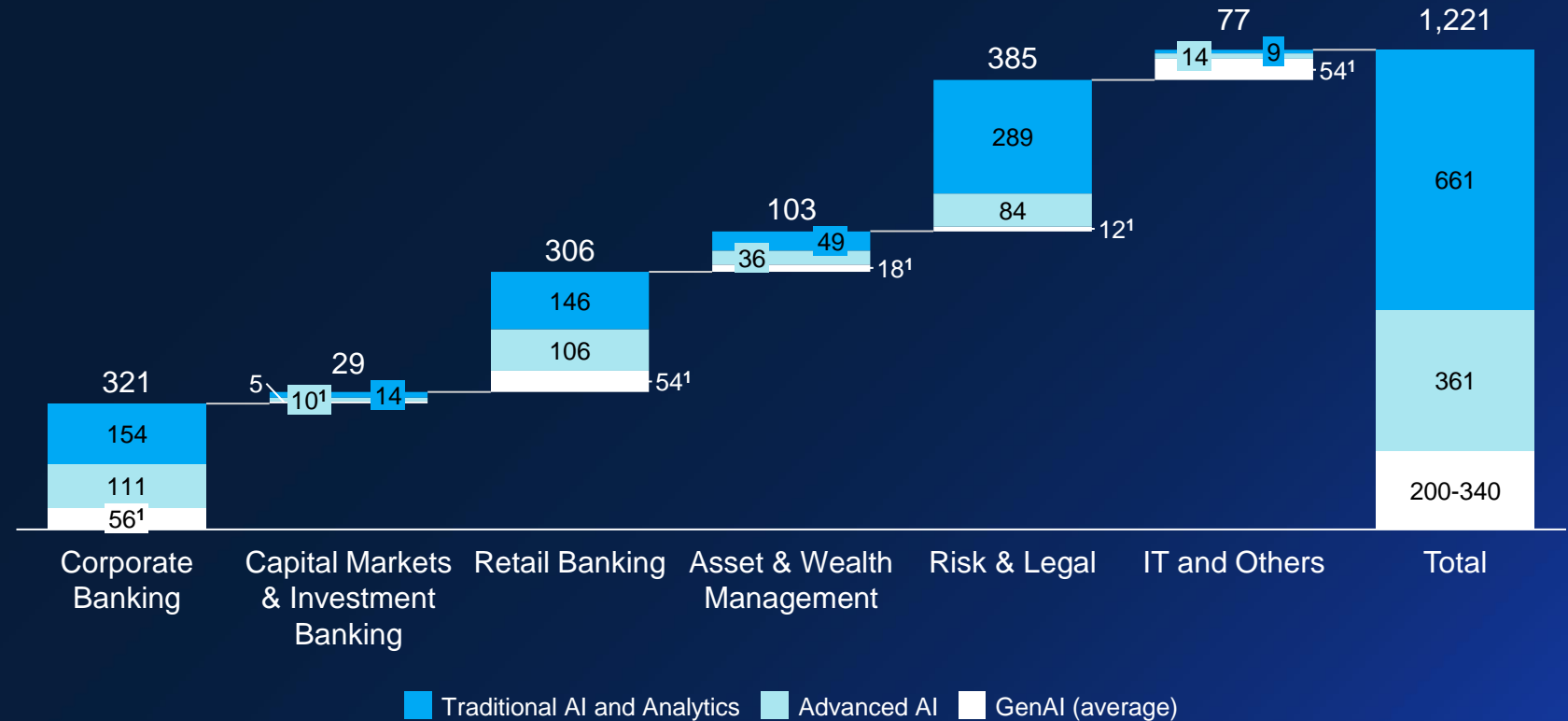
3-5%

Margin improvements due to productivity lifts in Banking

GenAI could deliver significant value when deployed across functions within the Banking industry

Expected impact in Banking by segment and function¹, \$bn

Illustrative



1. Assumes 0% overlap of traditional AI and Gen AI (GenAI assumes the lower end of value at stake), top-down estimation based on projected growth and value pools

So far, we've seen financial players moving across 3 dimensions



“Maker” Core business transformation

Developments that reshape the core business and/or are customer-facing, e.g., collateral appraisal, direct customer interaction

Example: Bloomberg

“Shaper” Behind the scene integration

Applications that change the internal operating model, e.g. virtual expert, frontline coaching

Example: Deutsche Bank, Stripe, JP Morgan

“Taker” Targeted productivity enhancement

SaaS solutions that improve efficiency or accuracy on existing tasks, e.g. coding assistance, copywriting, customer assistance

Example: South State Correspondent Division, Morningstar

About 75 percent of the value that Generative AI use cases could deliver falls across “4 C’s”

Information retrieval Classification Generation Summarization

Example use cases

Example impact

Customer engagement

Further simplifying tedious manual processes

Provide a consumer lending virtual assistant to guide customers through the loan application process and automatically extract details from the chat, fill applications, and explain terms through conversational AI

Virtual customer service copilot to shape (draft) responses based on product offering and documentation, similar Q&A, current policies, client financials & interaction history

>60%

Automation potential of customer interaction volumes over 5-10 years

Coding & software

Decreasing tech debt and delivering SW faster

Accelerate software delivery using code assistants, leveraging natural-language-to-code translation, debugging, development of tests

Translate code from legacy systems at scale, including automated assessment of legacy landscape, prioritizing interventions and re-factoring

>55%

Productivity gains for developers utilizing coding co-pilots (e.g., Github Copilot)

Concision (virtual expert)

Augmenting performance of employees

Provide a virtual risk expert to query the latest public regulations across markets as well as internal process and compliance documents

Provide a support bot that monitors industries and clients and provides alerts on semantic queries from public sources

~80%

Productivity gains in verifying statements in news and social media

Content generation

Generating tailored content at scale

Generate personalized M&S content tailored to client profile and history (e.g., personalized nudges), and generate alternatives for A/B testing

















Generate draft monthly management reports summarizing business KPIs, trends, and insights and extract corresponding figures from internal data sources

~80%

User adoption of the AI legal assistant Harvey, with usage of at least once per month

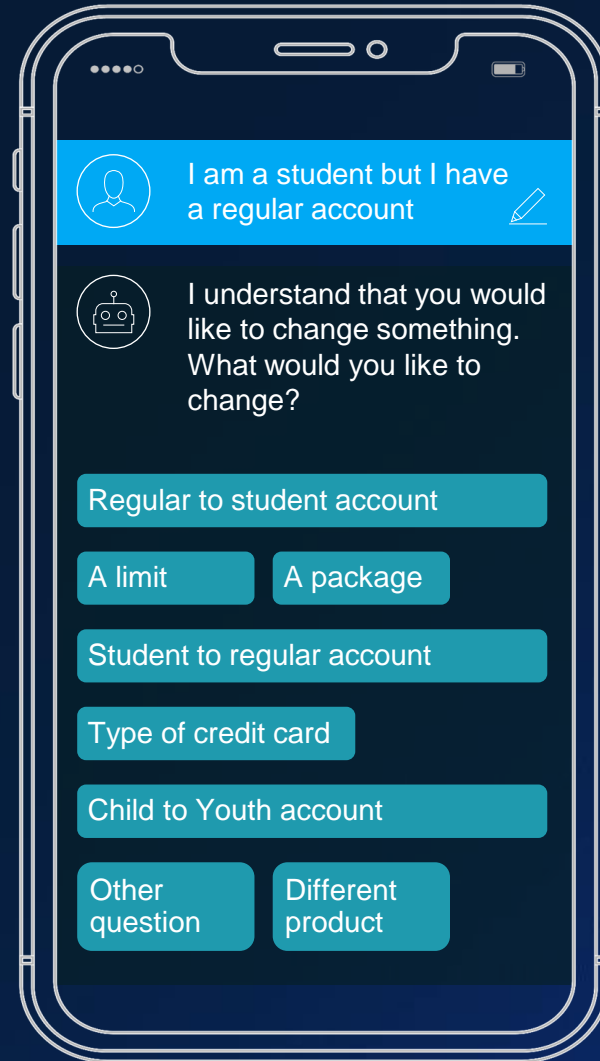
EXAMPLE 1 - Combining GenAI and ML enables entire message content to be tailored on individual customer attributes

Example showing differentiation in content generation for customers with similar data attributes but differing needs

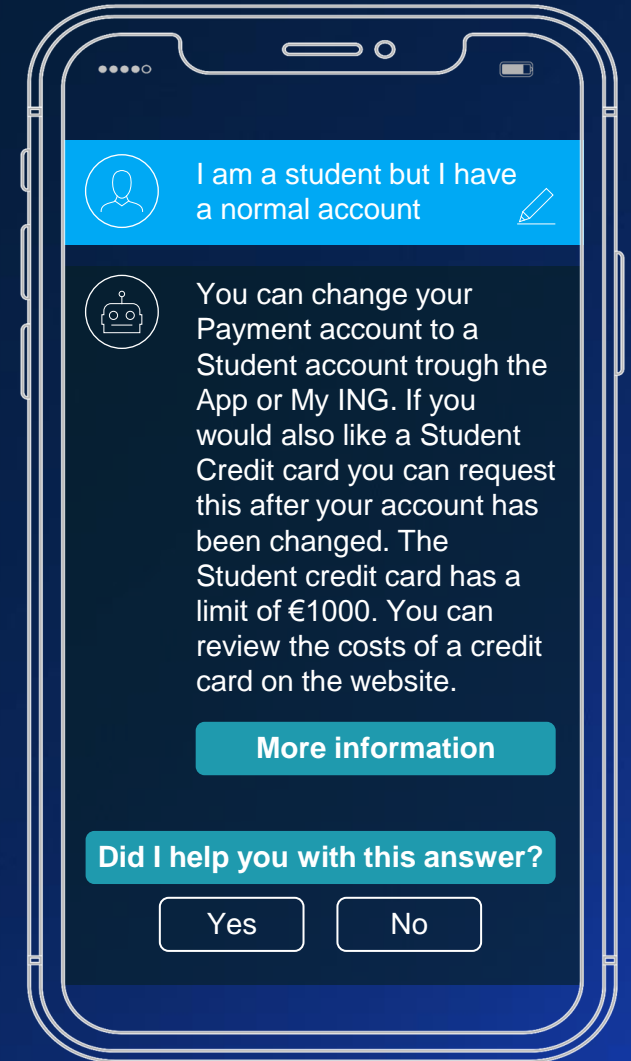
<p>Tailored heading and subject line</p>	<p>Customer ID: 24151556</p>	<p>Bank X</p> <p>Discover new experiences with our Black Credit Card</p>	<p>Customer ID: 19029412</p>	<p>Bank X</p> <p>Your exclusive invitation: The BankX Black Credit Card</p>
<p>Bespoke brand-aligned image generated based on customer attributes (e.g., age, interests)</p>	<p> Beatriz Silveira</p> <p> Age 52</p> <p> Customer for 13.4 years</p> <p> Salary \$74K</p>		<p> Jason Smith-Dutton</p> <p> Age 35</p> <p> Customer for 12 years</p> <p> Salary \$44K</p>	
<p>Email content and tone tailored to engage individual customer</p>	<p> Holds a credit card</p> <p> Recommended next action: Black credit card</p>	<p>Dear Beatriz,</p> <p>We wanted to share some information about our Black credit card, a premium offering from Bank X designed for those who appreciate life's finer moments and experiences.</p> <p>The Black Credit Card allows cardholders to earn reward points on every purchase, whether it's for gourmet delights or the latest movies. For some people who value rewards, these points can be used as cash-back or even doubled as airline miles with our partner airlines, potentially making future travels even more rewarding.</p> <p>To explore the benefits of the Black Credit Card and how it could potentially elevate your lifestyle, please visit your BankX Black credit card. Our 24/7 customer service team is always available to assist you with any ques. you may have.</p>	<p> Holds a credit card</p> <p> Recommended next action: Black credit card</p>	<p>Hi Jason,</p> <p>Great news – you're one of a select few members who've been chosen to apply for the exclusive Bank X Black Credit Card. designed for those who appreciate life's finer moments.</p> <p>As a Black Credit Card member you get:</p> <ul style="list-style-type: none"> • Exclusive access to premium experiences including airport and members lounges • Early access to exclusive gourmet restaurant and movie experiences • Earn reward points on every purchase, for cash-back and airline miles with our partner airlines, potentially making future travels even more rewarding.
<p>Email length, format and CTAs tailored to customer</p>	<p> Recommended tone: Educate</p>	<p>Warm regards, John Doe</p>	<p> Recommended tone: Excite</p>	<p>Start your exclusive journey</p> <p>Bank X membership team</p>

EXAMPLE 2 - In addition to performance, the GenAI chatbot also provides a more natural and superior customer experience than traditional AI

Existing chatbot flow, based on pre-defined customer journeys



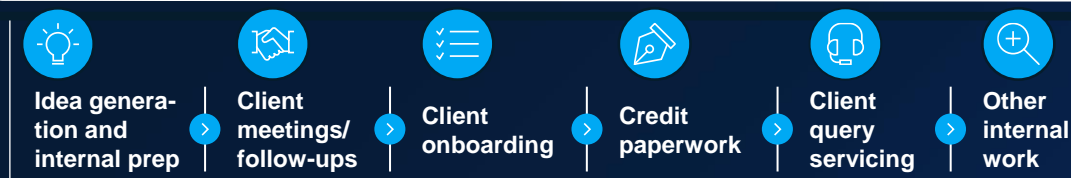
GenAI chatbot flow, immediate answer based on the intent



EXAMPLE 3 - The "day of the Corporate banker" could be revolutionized by GenAI, freeing up time for higher value-added activities



"GenAI-powered" Corporate banker



1



Semi-auto pitch preparation

Prepare **account plans and proposals semi-automatically**, by leveraging latest client data and public info

2



Tailored commercial insights

Suggest **client-specific actions** (e.g., next-to-buy) to Corporate Bankers by mining latest corporate initiatives with a corporate action monitor

3



In-call "live" co-piloting

Shape **preliminary responses to steer live client calls** based on product offering, previous Q&A, policies and past client log

4



Post-call insights

Automate **client call assessment and summarization** into actionable commercial next steps

5



Virtual on-call expertise

Provide a **24/7 "virtual SME" bot to answer spot questions (of bankers and potentially to clients)** – trained on prop know-how, client data, "live" news feeds and/or latest public information

6

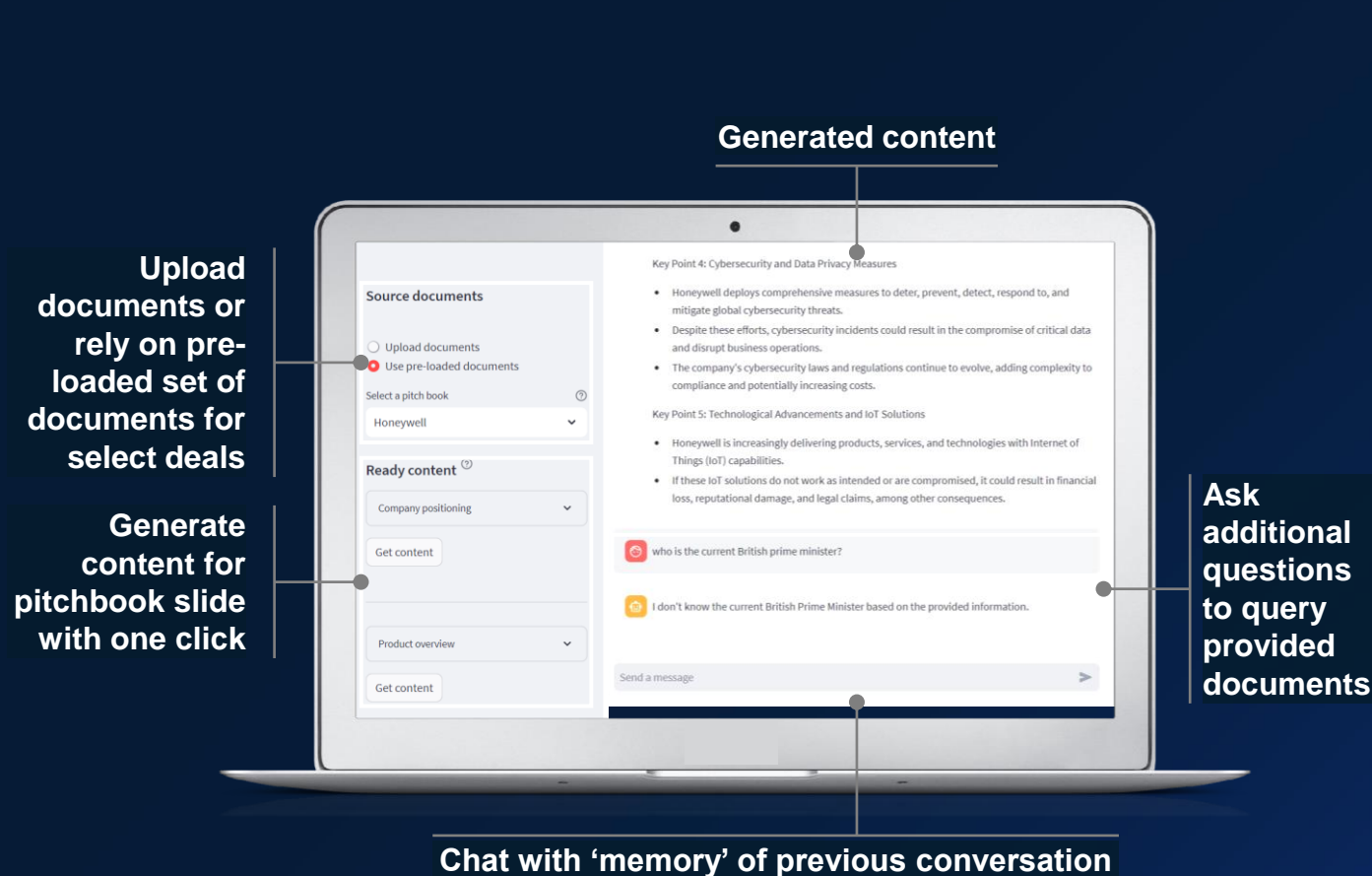


Drafting of "internal docs"

Automatically **write, fill or interpret technical docs** (e.g., KYC, credit memo, ESG memos) based on deal info/ term sheets

Use cases examples

EXAMPLE 3 - Potential pitchbook sections generated by GenAI

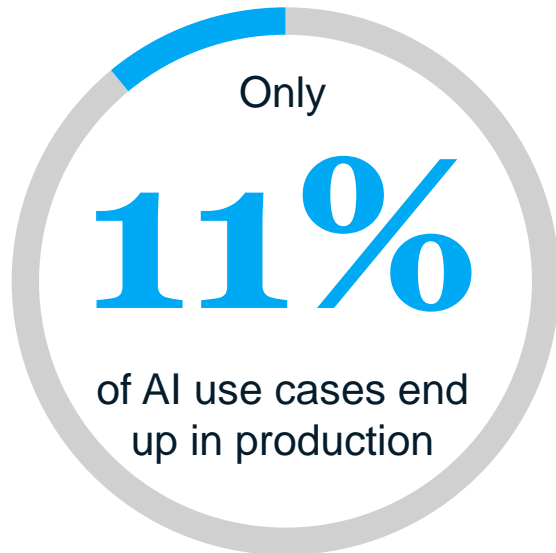


User feedback

“I would 100% use it for this specific application and it saved me days (as the alternative was reading 20+ research reports, taking notes and then consolidating repeated trends)”

“Once we implement the features you are talking about, it will not just be about productivity, but also **quality and speed**”

Why only 11% of AI use cases are successful?



1



Strategy & Roadmap

Is the senior team aligned on the roadmap, and does the resourcing match the aspiration?
How will you create competitive advantage to re-invent your industry and business models?

4



Talent

Do you have a skills roadmap that is as detailed as your technology roadmap?

2



Data management and platform

Are data streams you need available and reliable?
Do you have the correct data architecture and platform infrastructure?

5



Agile delivery

Are you setting the right tone for pace of product / service release and risk appetite for the organization to keep up or get ahead?

3



Technology & tooling

Does your IT architecture allow you to achieve what you need?

6



Adoption and operating-model change

Are you investing at least as much in conviction and ability to act as you are in technology?
Which business leaders are accountable for adoption?



Conclusions

GenAI is an evolution, not an opposition to AI

GenAI amplifies (and doesn't substitute) human capabilities

75% of use cases falls across "4 C's"

USD 200-340bln of GenAI productivity impact in Banking

Manage proper risk for an effective and fair GenAi usage

Thank you

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