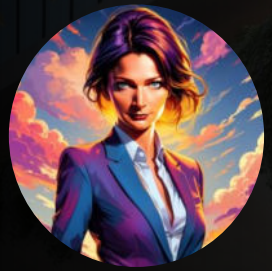
InnovEcoS



AI unleashed:
Transforming corporate growth and culture with Generative AI

5. Nov. 2024 @ Athens

CRIF
Together to the next level

INNOVECOS IS DRIVING OPEN INNOVATION & VENTURING AS GLOBAL INNOVATION HUB

InnovEcoS

INSIGHTS AND TRENDS

+18 Publications and Researches

INTRAPRENEURSHIP

+50 Ideas Received

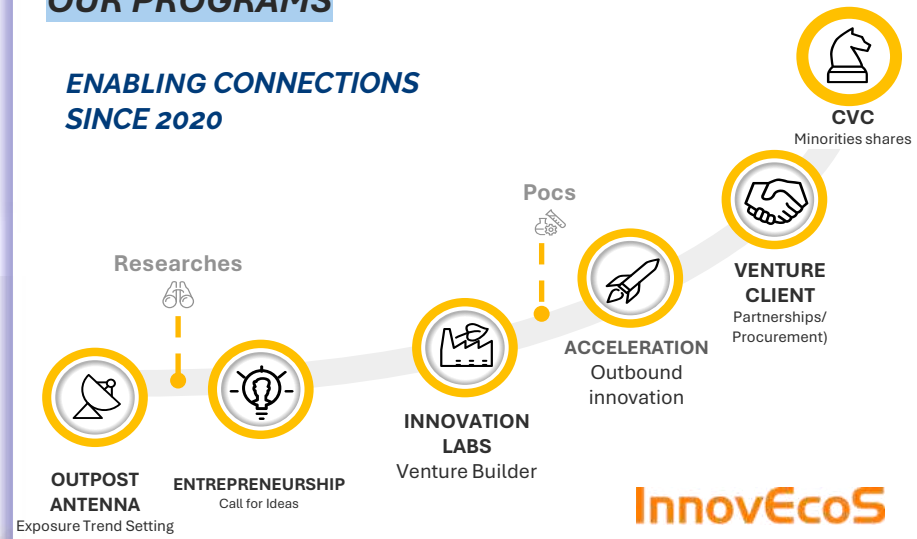
+7 Internal Ideas Accelerated

ACCELERATION

+10 Startup Accelerated

OUR PROGRAMS

ENABLING CONNECTIONS SINCE 2020



OUR PARTNERS

Copenhagen Fintech · STARTUP SG · Fondazione Golinelli · AGRIVAR · Aeroporto di Bologna · MLOG magazzini generativi · ALMACUBE · Areté

CVC

+20 CVC Portfolio Of Investments

VENTURE CLIENT

+630 Startup Scouted

+68 Intercepted

+27 Proofs Of Concept Delivered

+12 Pilots

VENTURE BUILDING STREAMS

+2 Gen AI Lab
Metaverse Lab

CRIF Together to the next level

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WHO WE ARE

InnovEcoS represents a dynamic network of **multidisciplinary experts**, united by a passion for innovation and boasting a **wealth of experience** ranging from 5 to over 25 years in the **Fintech industry**. Our professionals serve as pivotal local influencers and thought leaders worldwide, driving fintech acceleration and shaping market trends.

Backed by **CRIF's extensive global ecosystem**, we leverage over three decades of cumulative growth in customer relations, data analytics, product development, and service excellence to empower and transform the financial landscape.

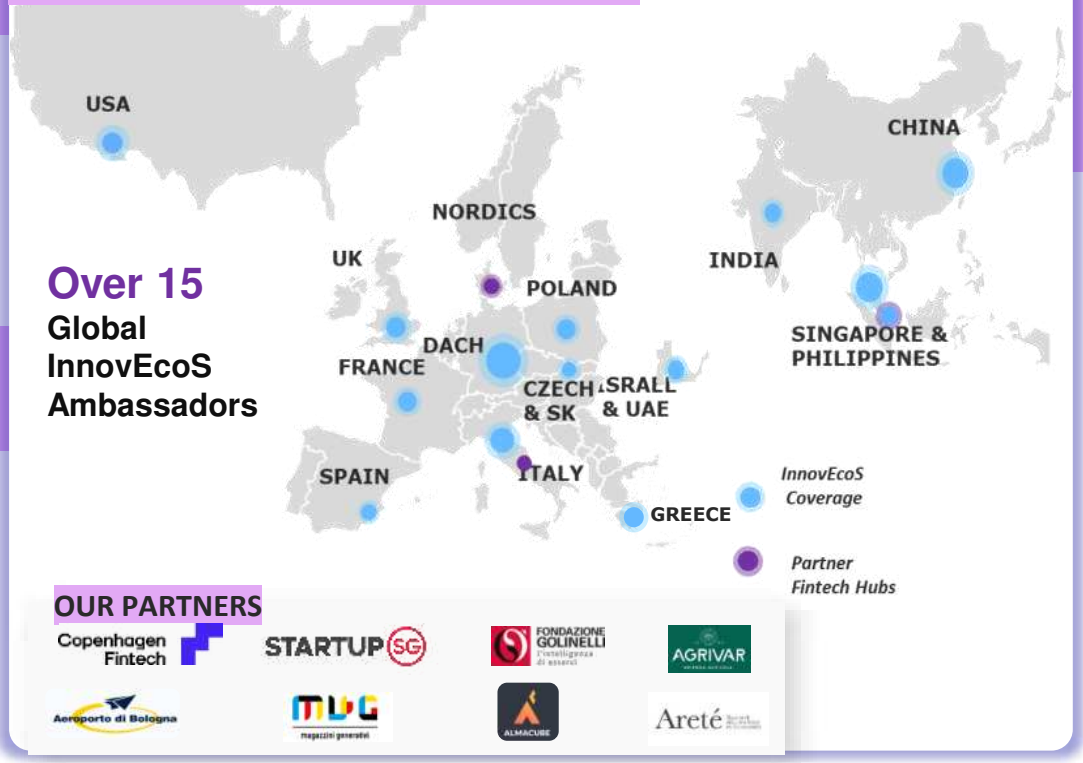
GLOBAL INSIGHTS

We provide **expert guidance on navigating disruptive challenges** and **identifying potential threats**, ensuring you remain at the cutting edge of global digital innovation trends.

STRATEGIC STARTUP ALLIANCE FRAMEWORK

We facilitate **strategic partnerships with startups**, guiding them from initial concept through to successful market deployment.

WORLDWIDE ECOSYSTEM OF ANTENNAS



OUR PARTNERS

Copenhagen Fintech · STARTUP SG · Fondazione Golinelli · AGRIVAR · Aeroporto di Bologna · MUG · ALMACUBE · Areté

VENTURE CLIENT ACCELERATION FOR STRATEGIC INNOVATION

We identify the essential needs of business units, scout and engage with suitable **external partners**, and **manage collaborations.**

Our expertise extends to validating innovative ideas and overseeing their rollout to ensure alignment with strategic goals.

InnovEcoS powered by CRIF

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InnovEcoS

WE FOSTER and ACCELERATE GLOBAL INNOVATION AT CRIF

InnovEcoS is CRIF's **Global Open Innovation Hub**, accelerating CRIF's leadership as both a **Fintech innovator and enabler**. We are dedicated to discovering promising **business models** and forging impactful **partnerships** to drive business growth. Through cutting-edge **research**, **experimentation**, and **strategic collaborations**, we champion **open innovation** and foster the **creation of dynamic ecosystems**.

WE CONNECT
FinTechs, Startups, CRIF

WE RESEARCH
Disruptive Business Models

WE DRIVE
INNOVATION & INTEGRATION

WE ACCELERATE

Our Team

Natalia Shchelovanova
Open Innovation and Start-ups Ecosystem Director

Maria Giustina Greco
Open Innovation Engagement & Research Specialist

Emilio Tropea
Open Innovation & Venture Manager

Olivier Mathurin
Senior Research & Innovation Specialist

Giacomo Baldisserri
Open Innovation & Venture Specialist

Massimo Gentilini
Corporate CTO

Daniel Skiba
Senior Manager

Michele Zaccherini
Open Innovation & Ecosystem Specialist

+ Over 15
Global InnovEcoS Ambassadors

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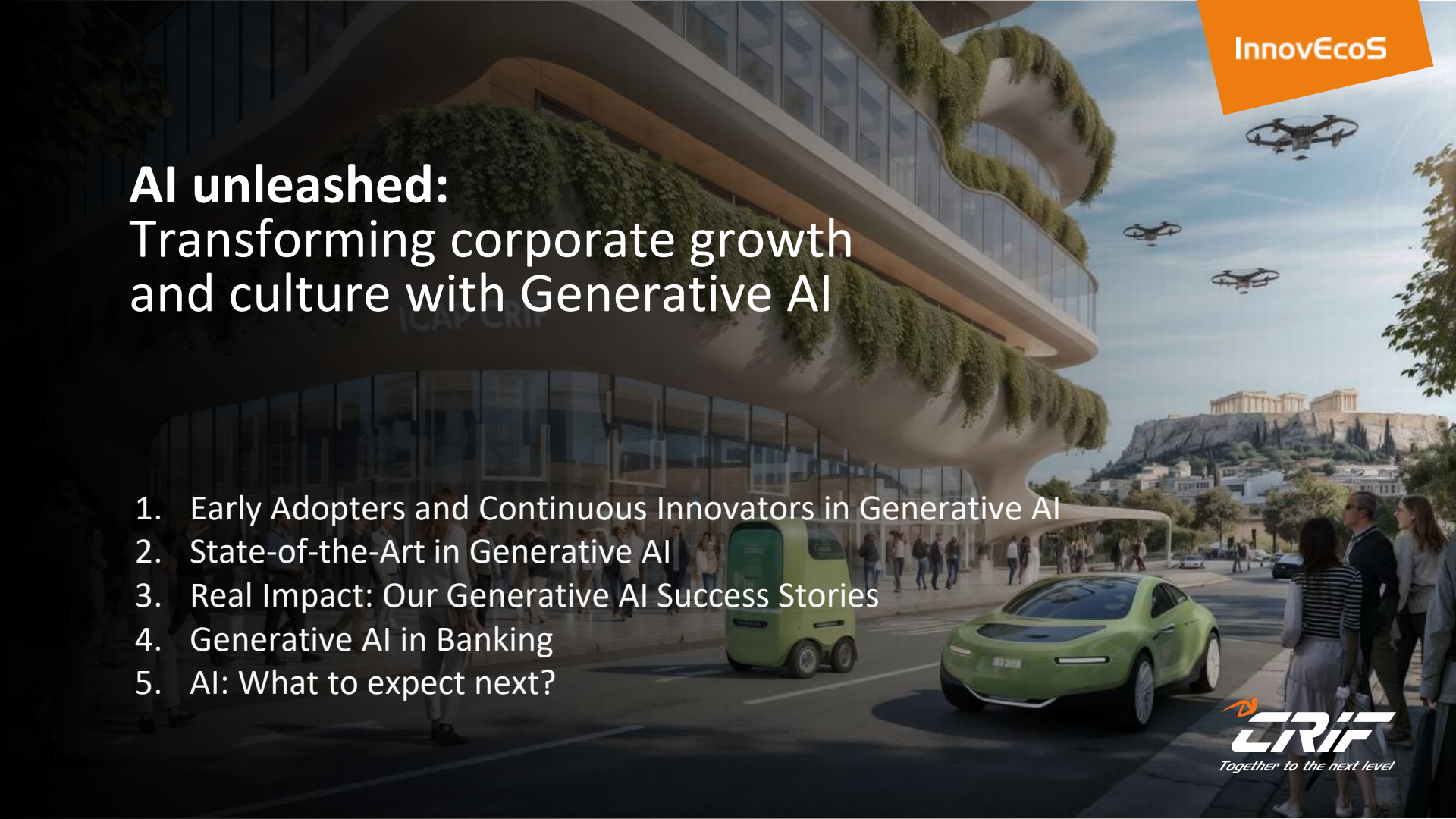

InnovEcoS

AI unleashed:
Transforming corporate growth and culture with Generative AI

1. Early Adopters and Continuous Innovators in Generative AI
2. State-of-the-Art in Generative AI
3. Real Impact: Our Generative AI Success Stories
4. Generative AI in Banking
5. AI: What to expect next?

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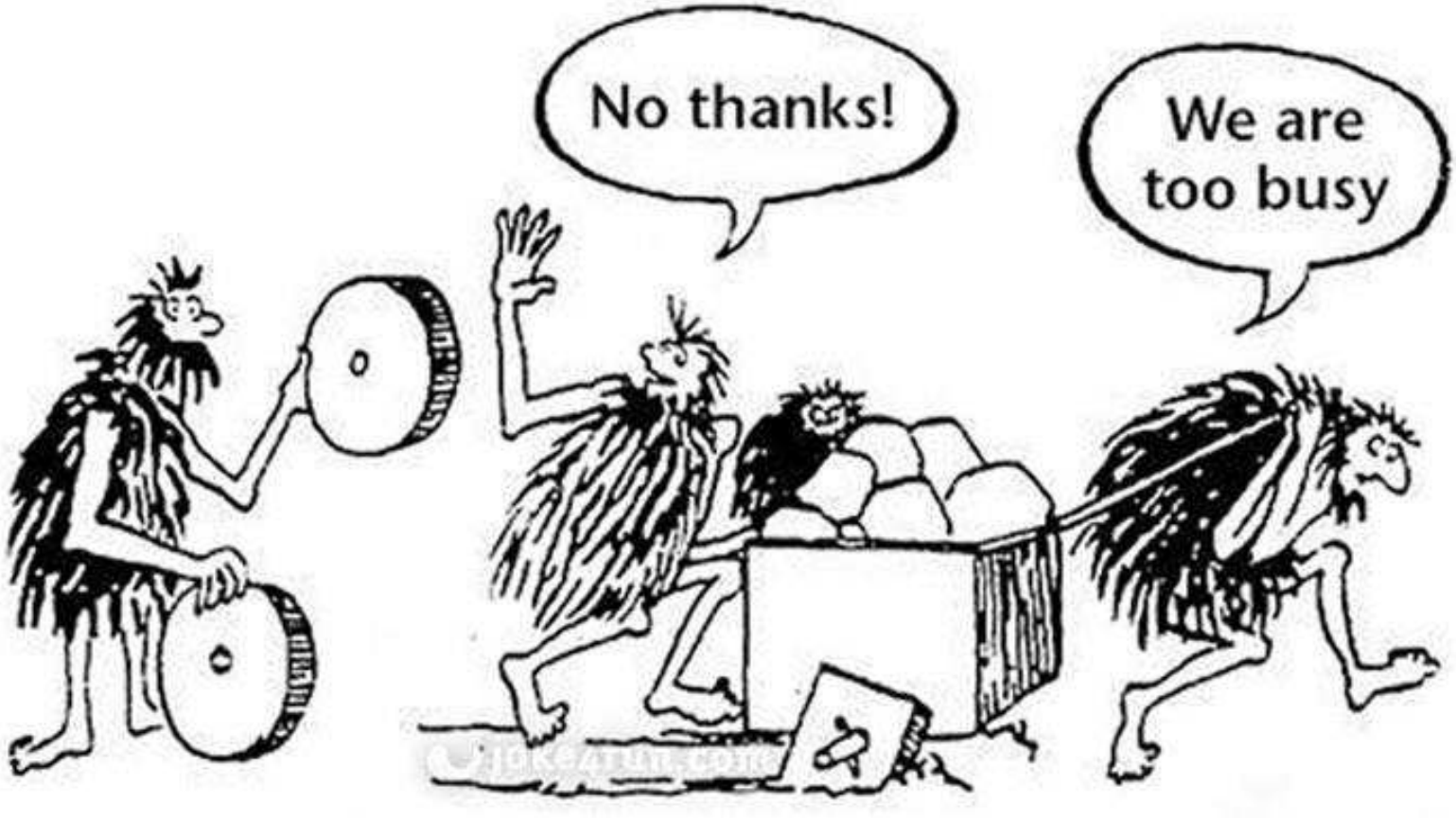
1. Early Adopters and Continuous Innovators in Generative AI

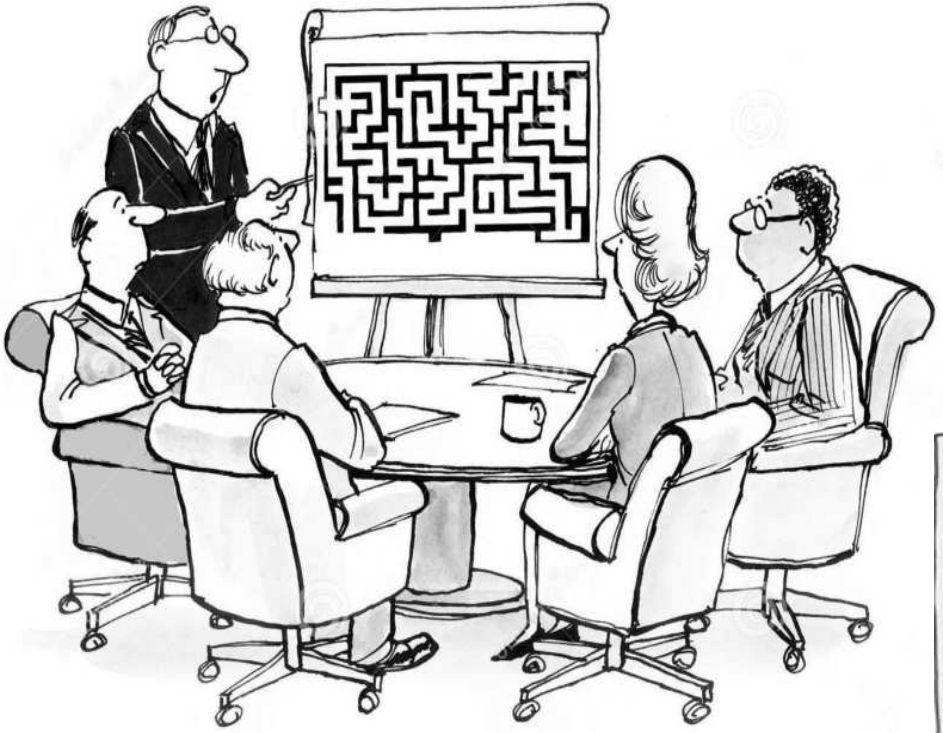
Pioneering Generative AI Since the Beginning

Core business vs innovation

... the risk of Failure


No thanks!
We are too busy

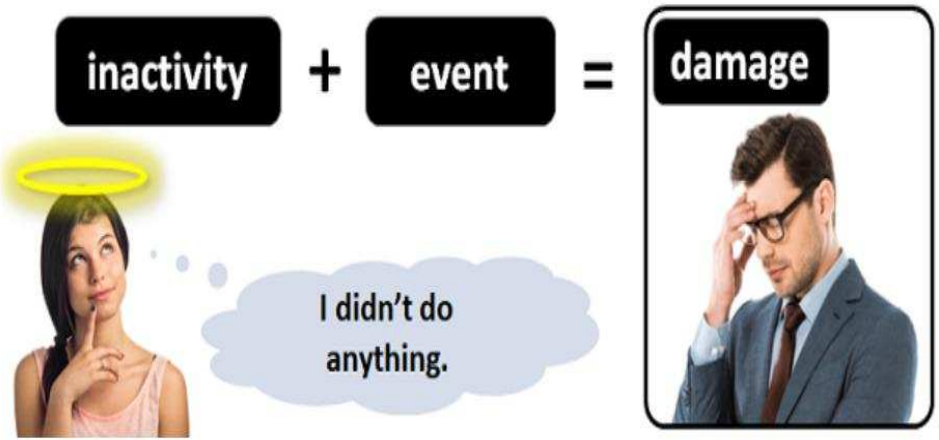
CRIF
Together to the next level



"What we've done is make it dramatically easier to navigate the corporate hierarchy."

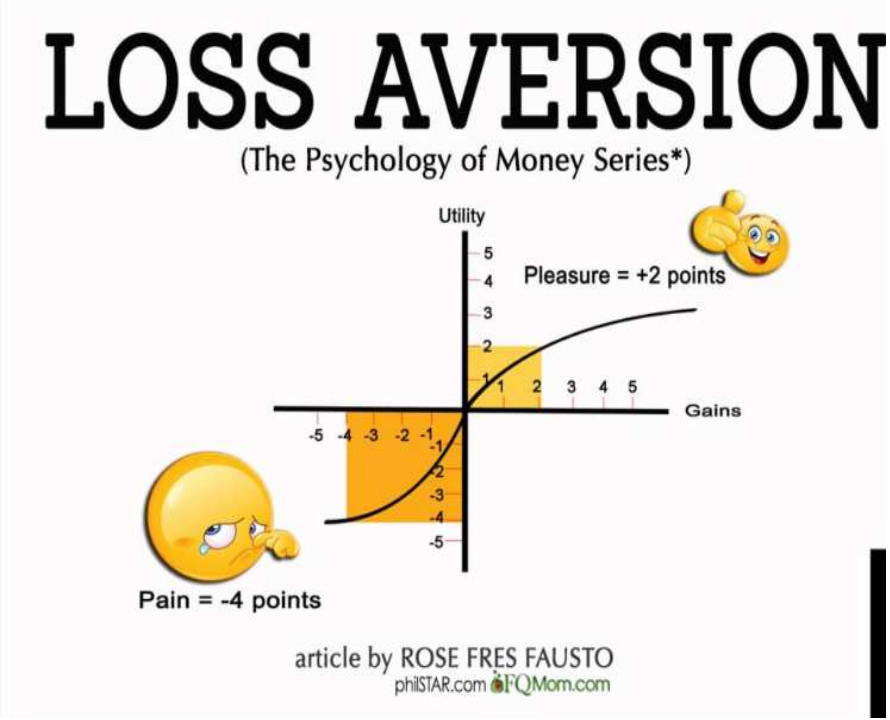
Omissions Bias

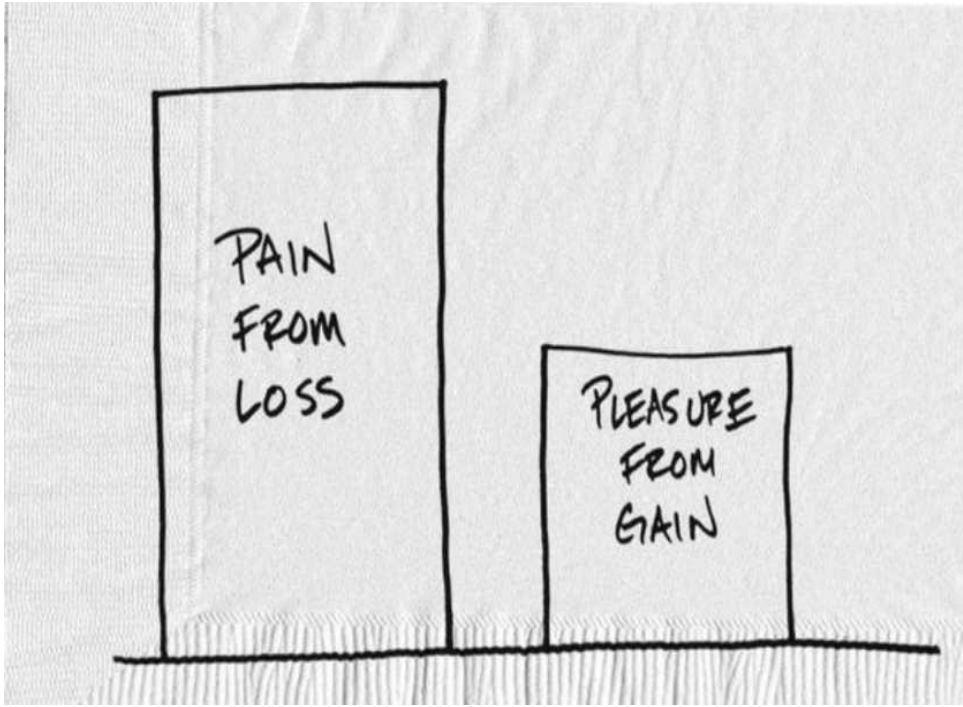
judging inactivity that causes damage to be acceptable



Omission bias

The tendency to judge harmful actions (commissions) as worse, or less moral, than equally harmful inactions (omissions).

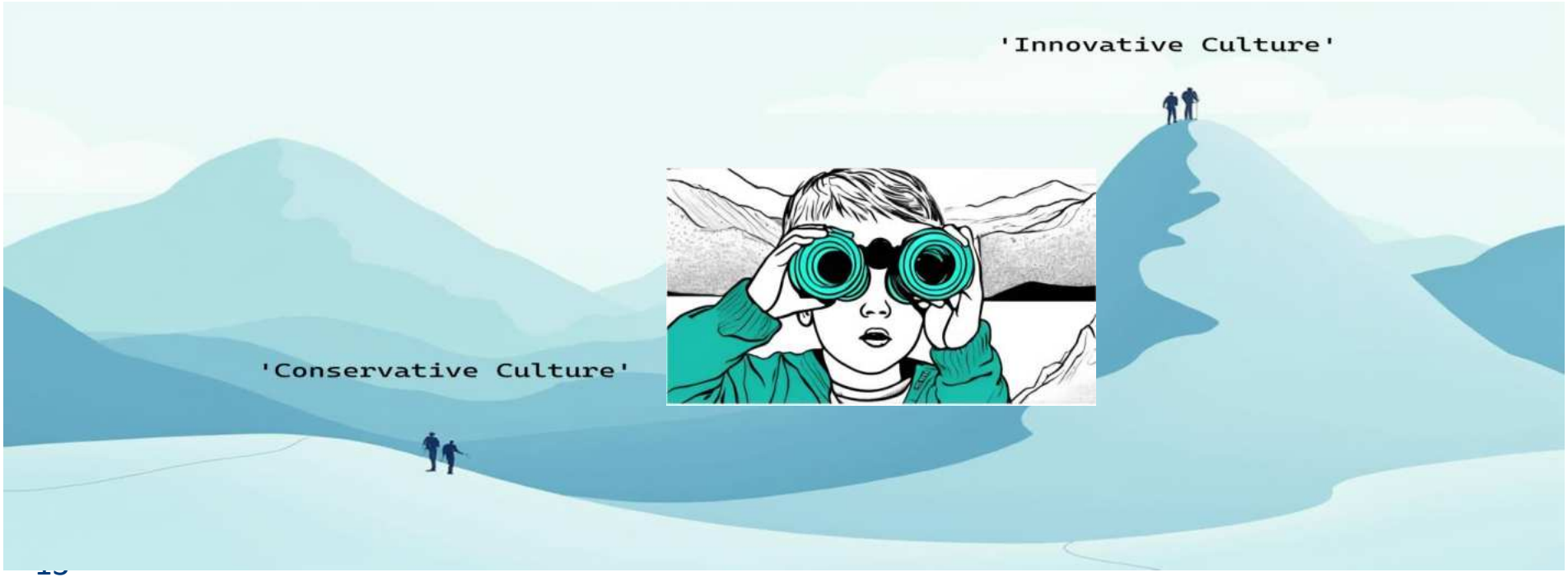




Loss aversion: We are driven more strongly to avoid losses than to achieve gains

The main barriers to Open innovation are internal with culture on Top.

Culture does not change over night, but culture does not change until you start innovate.



Open Innovation

1. **Innovation Leadership as a Necessity**:
    1. innovation leadership isn't just a trend but a necessity. The traditional financial models are continuously challenged **by rapid** technological advancements.
    2. Innovation leaders stay ahead **by anticipating and integrating emerging** technologies proactively into their **strategic planning**, rather than **merely reacting** to trends.
2. **Driving Cultural Change**:
    1. Leaders in this space shift the conservative, risk-averse mindset of the financial industry towards **a culture of creativity and open-mindedness**. They encourage experimentation and **embrace failure as part of the innovation process.**
3. **Collaboration**:
    1. Effective innovation leaders facilitate **collaboration** across departments and with externa entities like fintech startups or other industries. This cross-pollination of ideas leads to ne products
4. **Balancing Creativity and Compliance**:
    1. Innovation leaders are a**dept** at navigating complex regulations while still pushing forward with innovative ideas. They balance creativity with the strict compliance requirements.
5. **Nordic Design Principles**:
    1. Incorporating principles of Nordic design into innovation leadership offers a way to enhan the process. Characteristics like simplicity, functionality, human-centricity, sustainability collaboration, and inspiration foster a more resilient, motivated, and user-oriented team.
    2. This design approach helps build sustainable growth while aligning innovation with busine goals.
6. **Overall, innovation leaders are tasked with balancing visionary thinking with pragmatic execution, navigating challenges such as skepticism and risk, and ensuring alignment with business objectives.**

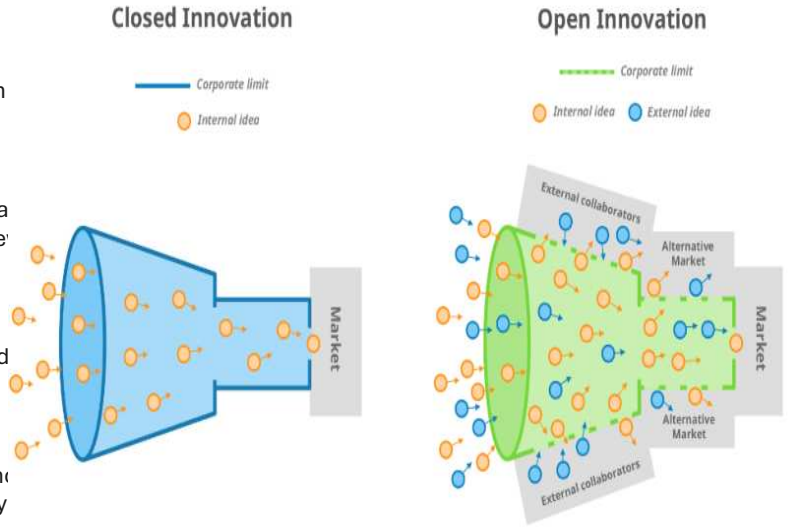


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Exhibit 6 - Organizations with a Strong Link Between Business Strategy and Innovation Strategy Are More Likely to Exhibit Six Best Practices

Sources: BCG Global Innovation Survey 2024; BCG analysis.

Notes: n = 124 for strong link; n = 525 for no link. Numbers may not sum due to rounding.

New level of speed and adaptiveness for Innovators

- Sharpening Business strategy for the race ahead to define the priority innovation domains.
- Align innovation strategy with business strategy to create value.
- Innovators to recommit to strategy> resource allocation, pipeline shape to win in the priority domains.
- Incorporating GenAI is crucial to avoid falling behind and accelerate

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Putting the base on data and AI in Generative AI

Artificial Intelligence
1956

Machine Learning (ML)
1998

ML involves **building algorithm that learn from experience** without being explicitly programmed to do so

Deep Learning (DL)
2017

A subset of ML where a neural network attempt to **simulate human language**

Generative AI
2022

A model (LLMs) that **generates new outputs** like images, text, audio based **on the data they have been trained on**

GPT-4o | **Claude** | **Gemini**

Applications / Interfaces
ChatGPT – Dall-E - Udio

ARTIFICIAL INTELLIGENCE IN CRIF DATES BACK TO 2010

From linear regressions to plugins based on Large Language Models

Regressions applied to traditional databases

Machine Learning

Tree-based models, credit data, customer data, CLV on cloud

Big Data & Advanced Analytics

Computer Vision, Text Mining and Time Series with neural networks

Deep Learning

Team dedicated to GenAI

GenAI

2010 2011 2012 2013 2014 2015 **2016** 2017 2018 2019 2020 **2021** 2022 **2023** → **2024**

Credit Marketing

Benchmarking and risk-weighted targeting solutions

GIS & Network Analysis

Supply chain analysis andgeospatial marketing

Insurance and other industries

Analytics scores for technical sophistication and anti-fraud

ESG

Sustainability indicators for business and consumers

MULTIDISCIPLINARY TEAM

Data Scientist, Data Engineer, Machine Learning Engineer, Cloud Architect, Business Specialist, …

COMPETITIVE

Business oversight, Compliance by design, data driven

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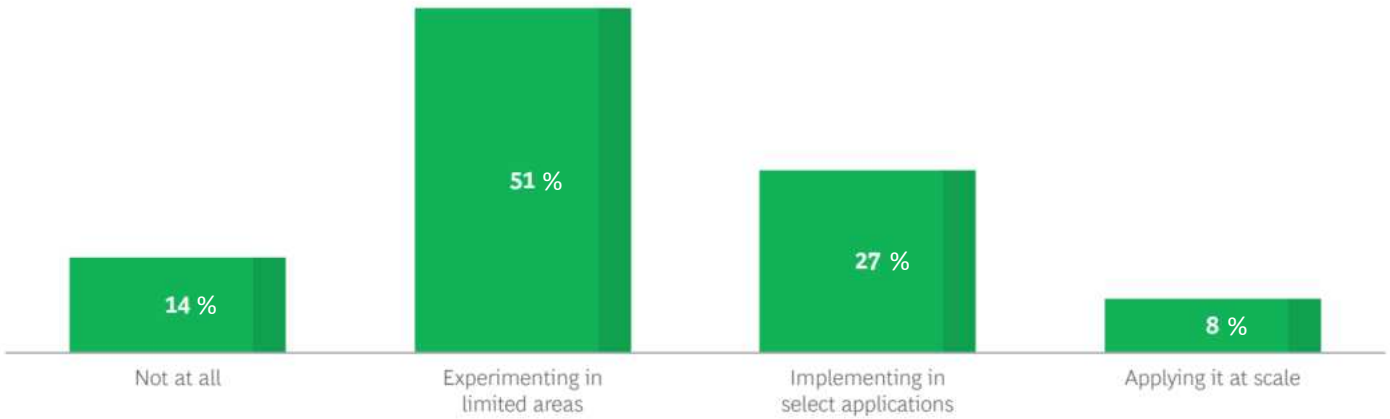
Exhibit 8 - Nearly All Companies Are Experimenting with GenAI for Innovation, but Most Are in the Early Stages of Their Journey

How extensively is GenAI being integrated into your company's innovation/R&D/product development function? (%)



Sources: BCG Global Innovation Survey 2024; BCG analysis.

Note: n = 1,003 for global respondents.

Gen-AI can unlock additional value on top of traditional AI

from new use cases and productivity improvement

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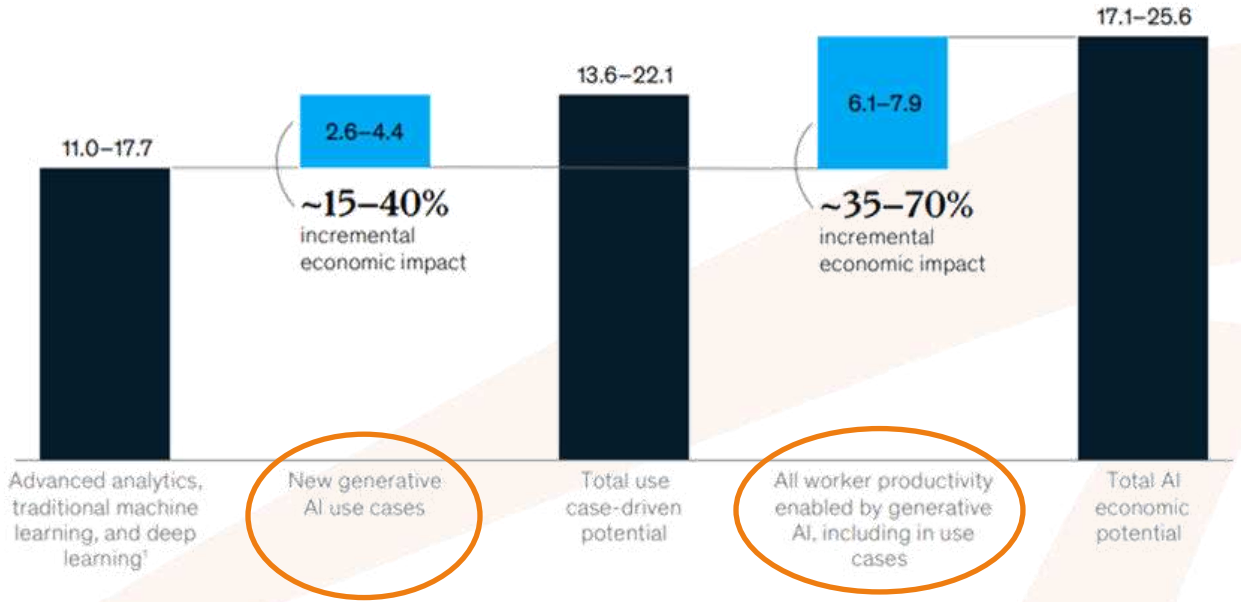
AI's potential impact on the global economy, $ trillion



[1]Updated use case estimates from "Notes from the AI frontier: Applications and value of deep learning," McKinsey Global Institute, April 17, 2018.

Source: McKinsey, 2023

75% of the value

that generative AI use cases could deliver falls into four areas: ,

- ***Marketing and sales,***
- ***Software engineering***
- ***Customer operation***
- ***Product R&D***

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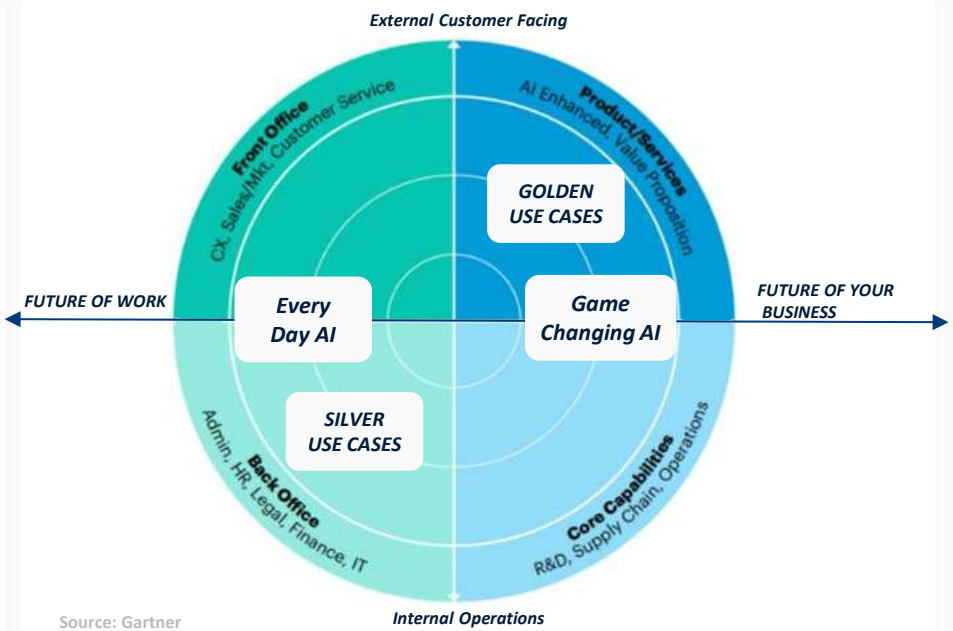
GenAI Reclassification & common Definition

CRIF approach follows Gartner's definition



Source: Gartner

PRODUCTIVITY

1 GEN AI FOR EVERYDAY USAGE

- Personal Productivity
- Upskilling
- Knowledge share

2 GEN AI APPLIED TO

- Internal Process efficiency
  «Silver Cases»
- Improvement of Existing Products or customer facing
  «Golden Cases»

3 GAME CHANGING AI

Projects that involve strategic decisions at company level
(common direction, shared consensus, communication,...)

Sample use cases:

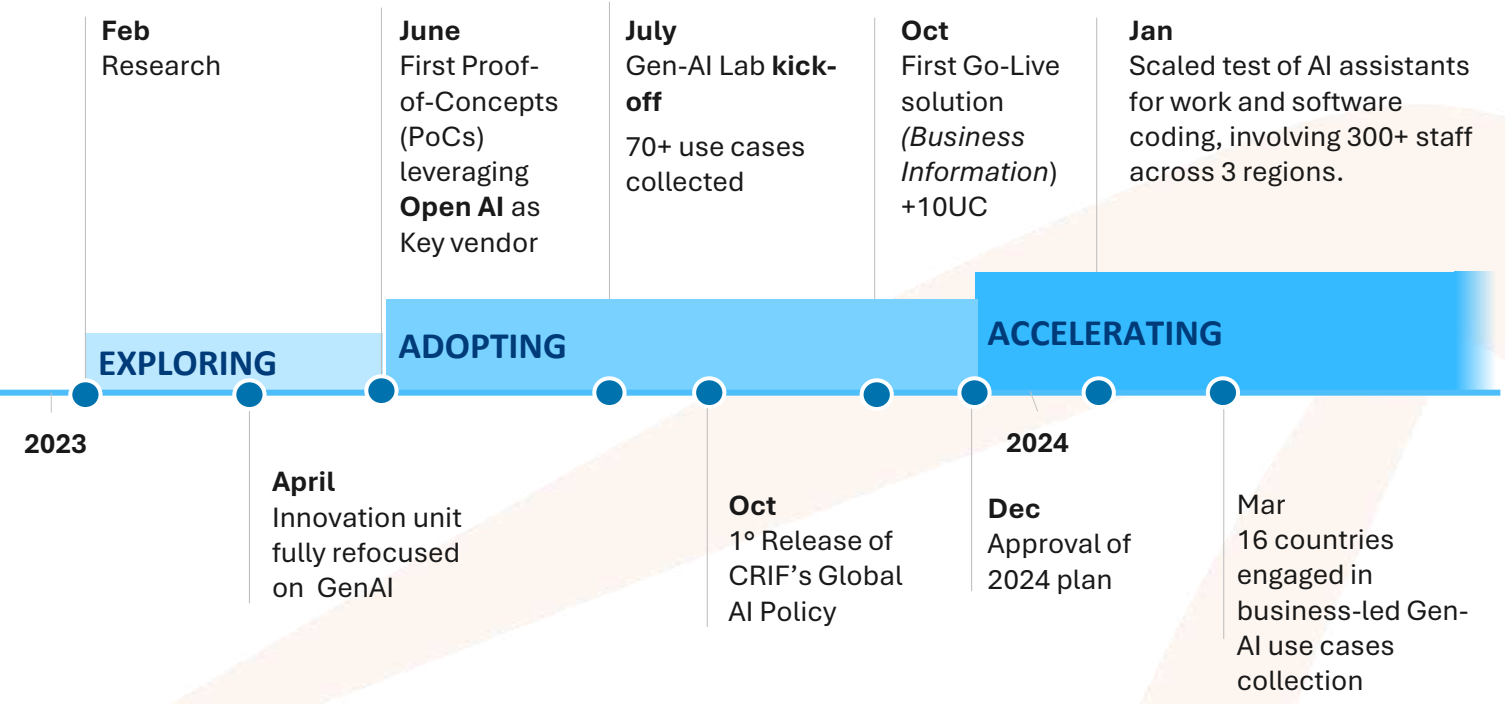
- New channel of offering (eg. selling data thought convesational tools)
- Building a CRIF proprietary Foundation Model (leveraging our data)

«Golden Cases»

COMPETITIVE ADVANTAGE

Since 2023, CRIF invested massively in Generative AI

InnovEcoS



COLLEAGUES

70+

engaged

KNOWLEDGE MATURED

120+

use cases selected for 2025

22

Completed

TECH ADOPTION

Pinecone

OpenAI

Azure

aws

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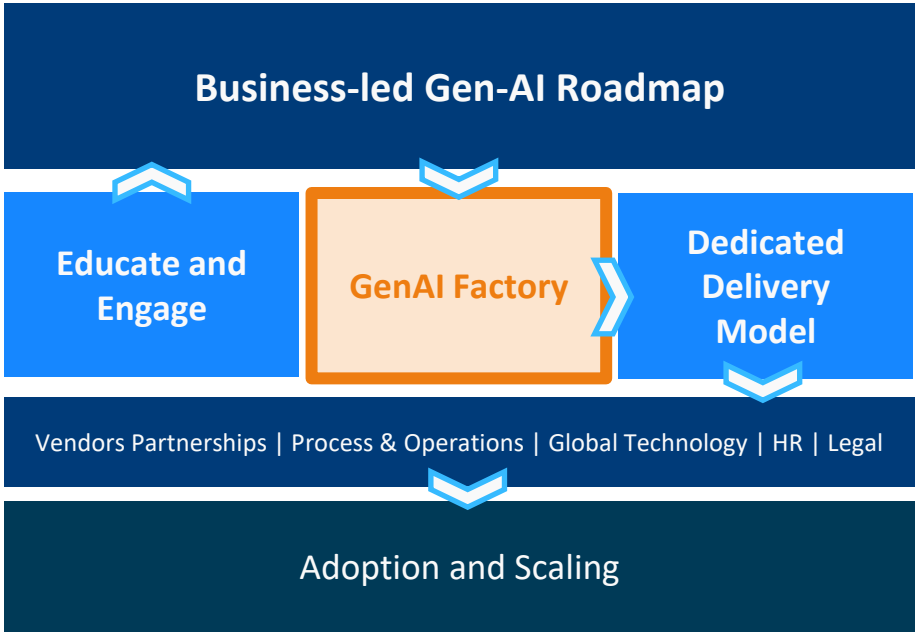
We built a multidisciplinary team of experts as first adopters

InnovEcoS



„GenAI Factory“

Creation of a group-wide, central, multi-disciplinary dedicated laboratory.

Focus on internal needs, and use cases.

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2. What we are pushing

with a quick tour of the Cutting-Edge in Generative AI

GENERATIVE AI TOOLS ARE EASIER TO USE EVERYDAY

MIDJOURNEY V5 →

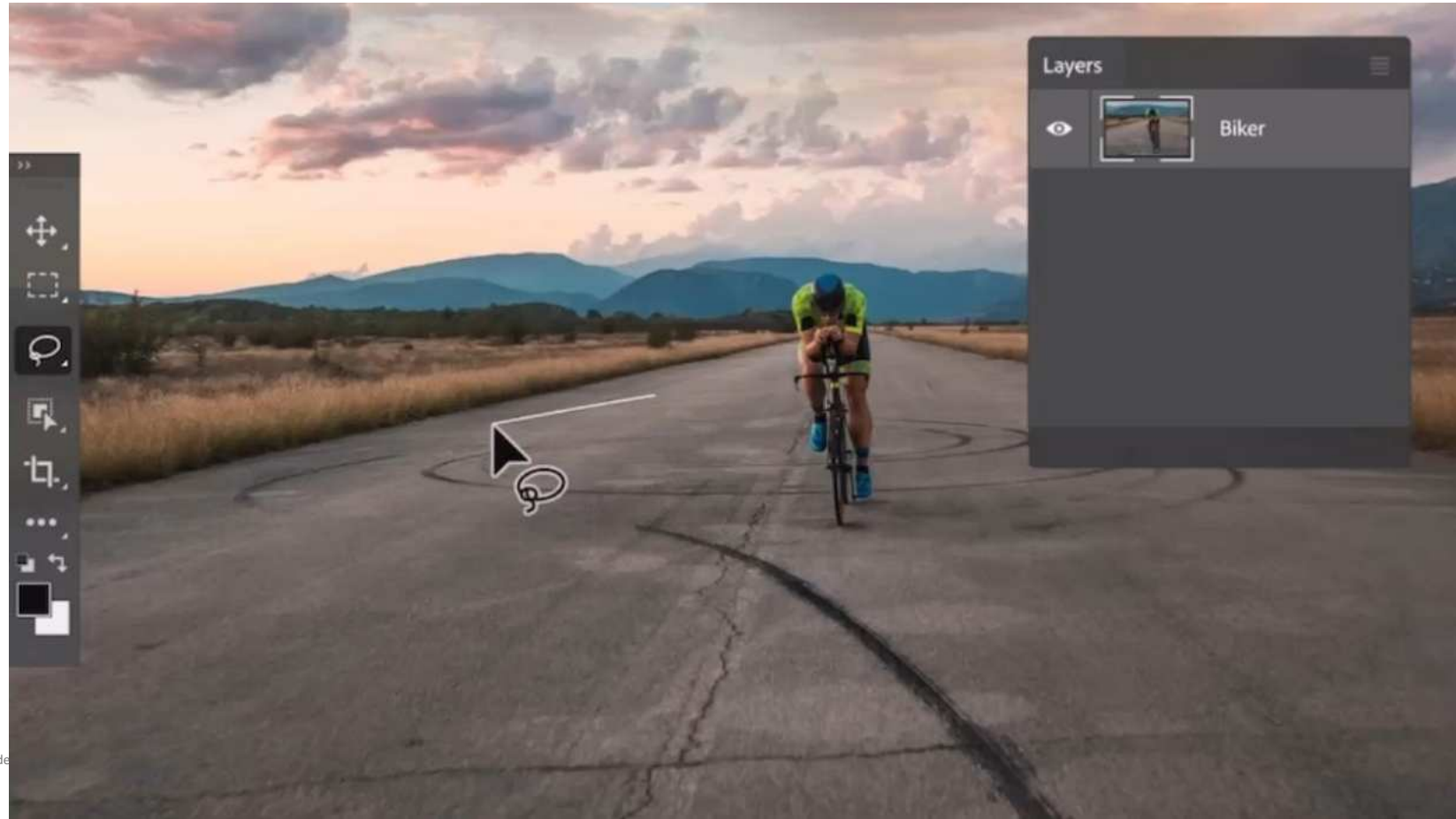
TEXT-TO-IMAGE

@CRIF2024 Confidential

GEN AI SLOWLY INTEGRATES INTO EVERYDAY TOOLS

ADOBE PHOTOSHOP

ADOBE FIREFLY



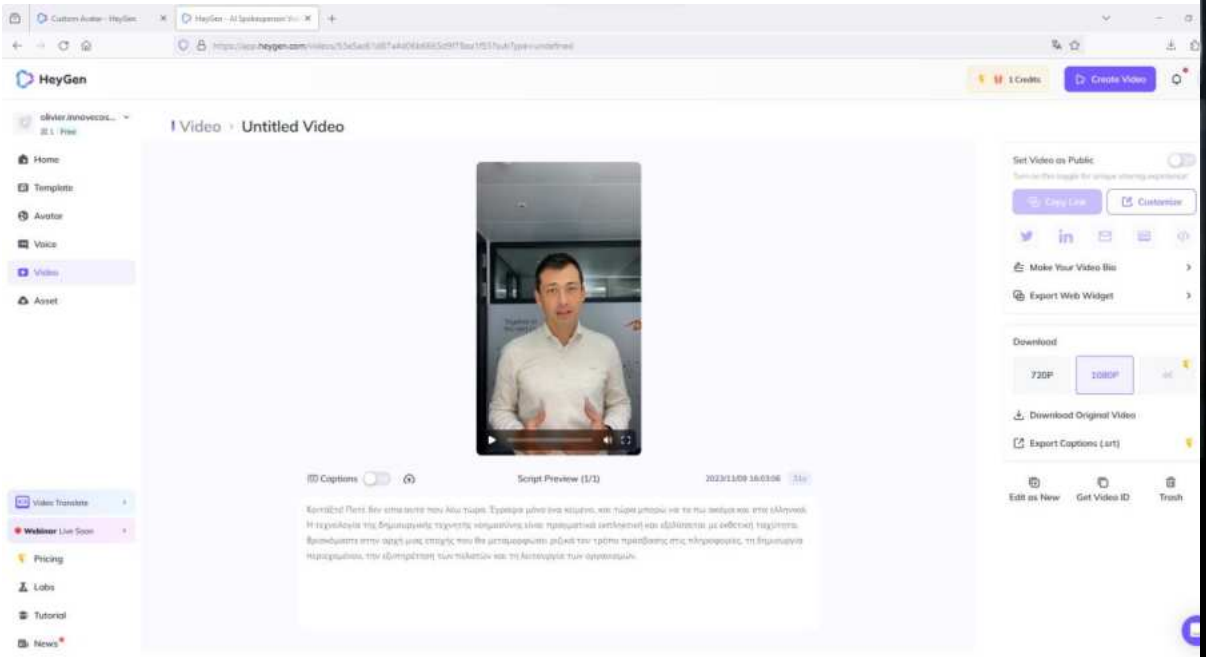
GEN AI MAKES IT EASIER TO SHARE CONTENT AND EDUCATE

Video Translation

GEN AI MAKES IT EASIER TO SHARE CONTENT AND EDUCATE

HeyGen

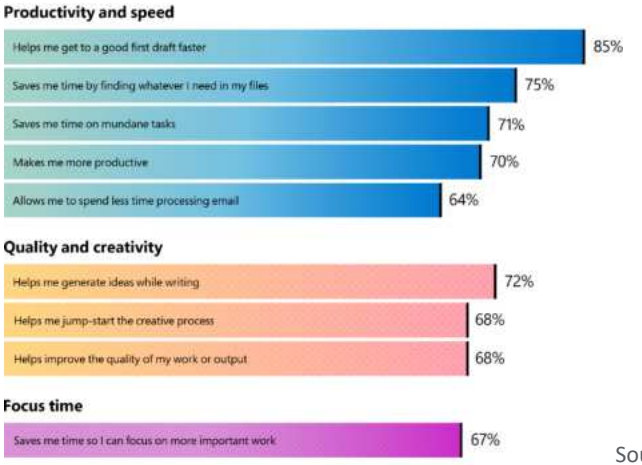
Train the model once (1min video). Give input text, and it generates this →



Market Trends

2024: GenAI in the workplace has become a commodity.

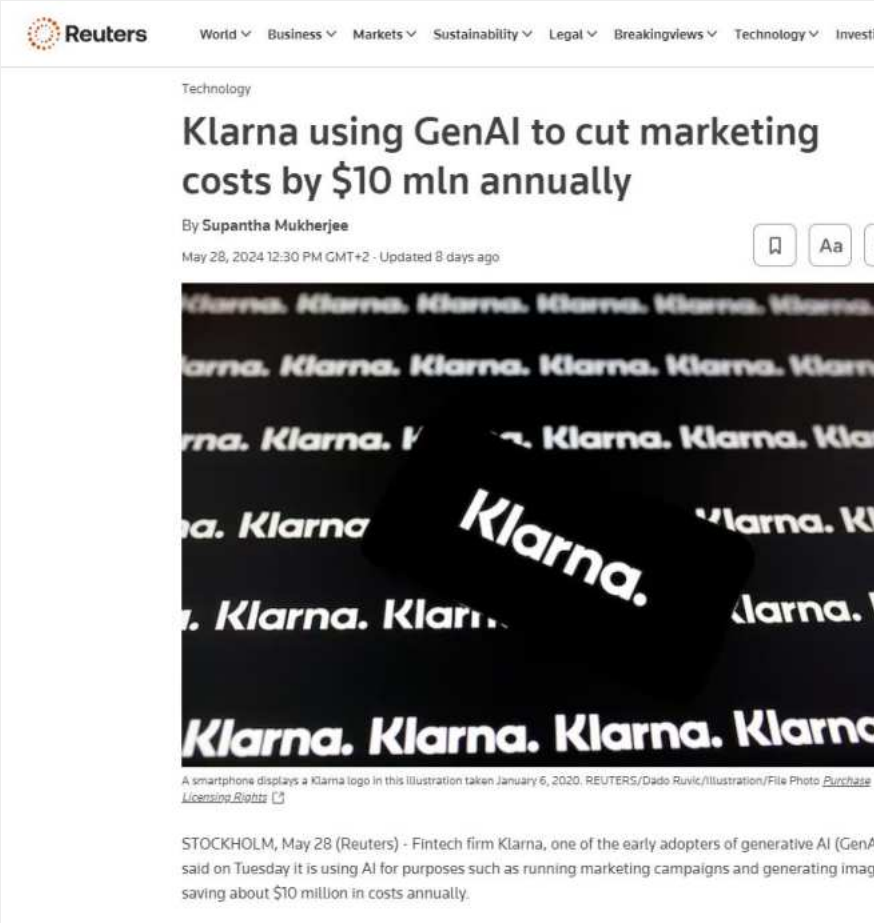
- Broader Availability from Vendors
- Workers expect it, concerned about job security, stress – and expect trainings from employers



70% of Copilot users said they were more productive

73% said they could complete tasks faster

Source: Microsoft, 2023


Reuters

World Business Markets Sustainability Legal Breakingviews Technology Invest

Technology

Klarna using GenAI to cut marketing costs by $10 mln annually

By **Supantha Mukherjee**

May 28, 2024 12:30 PM GMT+2 · Updated 8 days ago

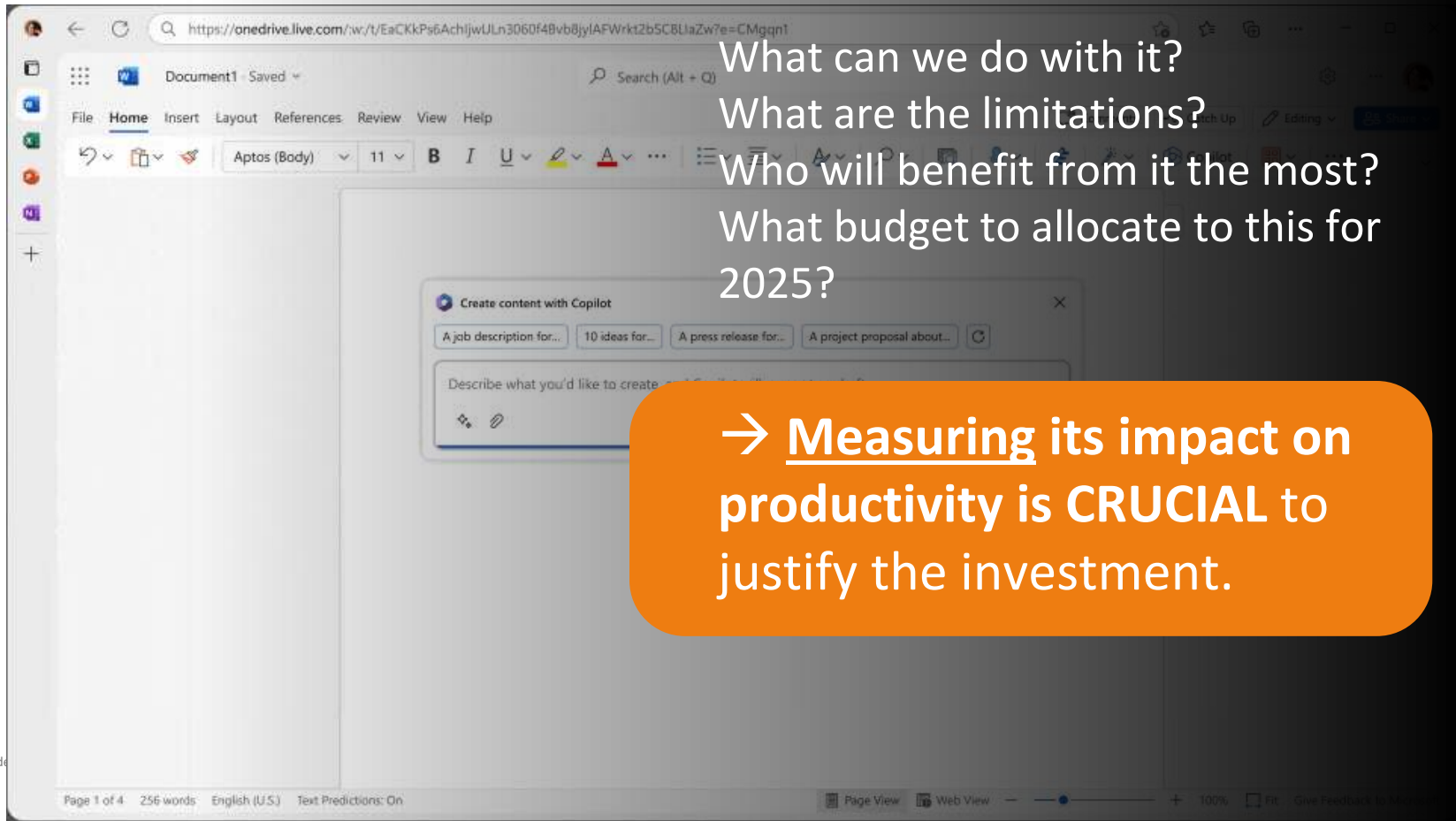
Aa

A smartphone displays a Klarna logo in this illustration taken January 6, 2020. REUTERS/Dado Ruvic/Illustration/File Photo Purchase Licensing Rights

STOCKHOLM, May 28 (Reuters) - Fintech firm Klarna, one of the early adopters of generative AI (GenA said on Tuesday it is using AI for purposes such as running marketing campaigns and generating imag saving about $10 million in costs annually.

GEN AI SLOWLY INTEGRATES INTO EVERYDAY TOOLS

COPILOT FOR MICROSOFT 365



What can we do with it?
What are the limitations?
Who will benefit from it the most?
What budget to allocate to this for 2025?

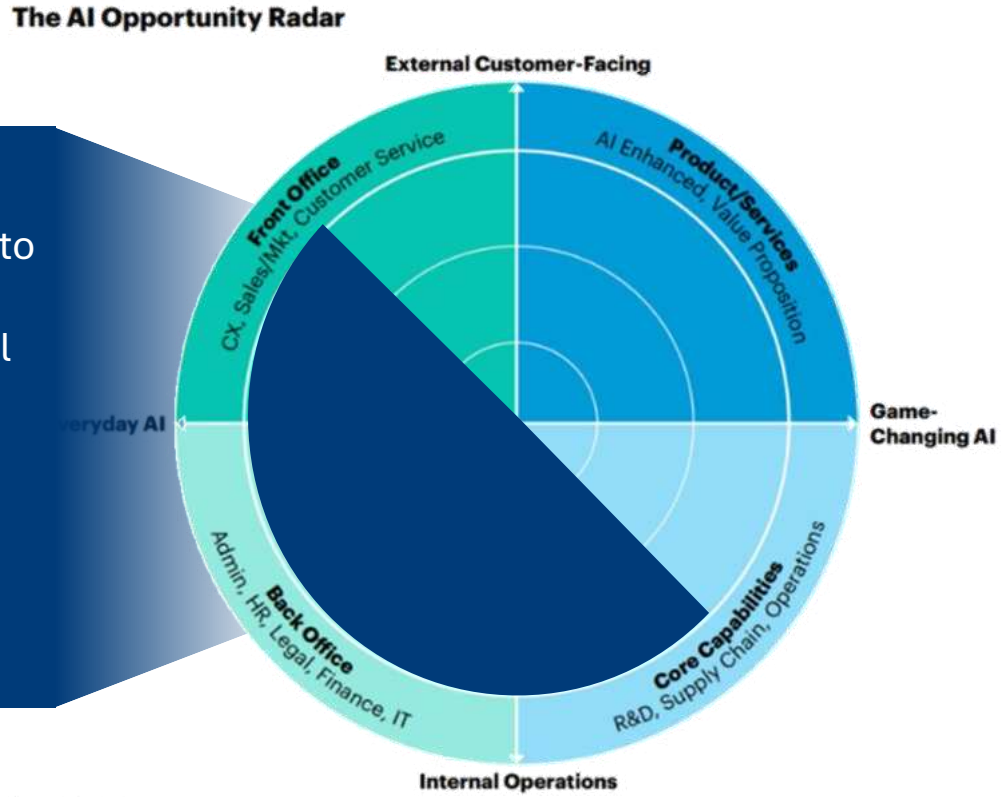
→ **<u>Measuring</u> its impact on productivity is CRUCIAL** to justify the investment.

What we are pushing

InnovEcoS

Productivity Focus

- AI used primarily to augment and automate internal and customer facing staff
- Cautiously use AI for targeted core capabilities



Source: Gartner
799922_C

FUTURE OF BUSINESS

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4. Real Impact: Our Generative AI Success Stories

VIDEO – ADOPTION OF GEN AI

CRIF
Together to the next level

InnovEcoS

Crif Ratings:
Step forward with Generative AI

June 2024

HeyGen

5. Current Applications of Generative AI in Banking

Generative AI: Transforming the Banking Landscape Today

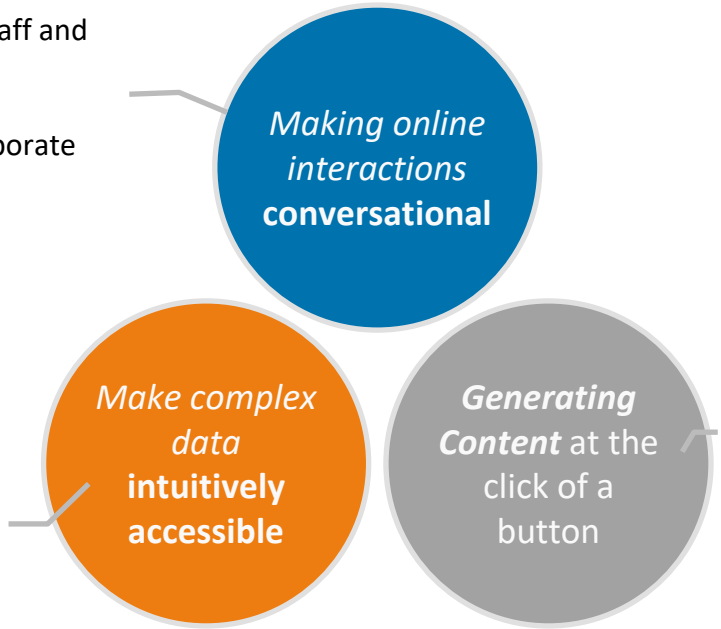
Financial Institutions are experimenting Gen AI to leverage the three main capabilities offered

- Chatbot to assist customer-care staff and financial advisors
- Customer service automation
- Chatbot to serve consumer or corporate and investment banking clients

Morgan Stanley, ABN·AMRO, Wells Fargo, helvetia, Deutsche Bank, ČESKÁ spořitelna

- Compliance Chatbot
- Business process automation
- Deriving Insights Out of Unstructured Data

AXA, Westpac, Deutsche Bank, Allianz, NatWest



- Software Coding efficiency
- Summarize unstructured data
- Synthetic data for ML

Intesa Sanpaolo, Goldman Sachs, citi, J.P.Morgan, Vontobel, Deutsche Bank, ING, OCBC, MIZUHO

Source: CRIF InnovEcoS, Google Cloud, – based on 50+ use cases from FS institutions announced publicly, as-of November 2023.

How Generative-AI applies to Banking processes

with selected examples

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EXTERNAL FACING

Improve customer experience

INTERNAL FACING

Improve Productivity

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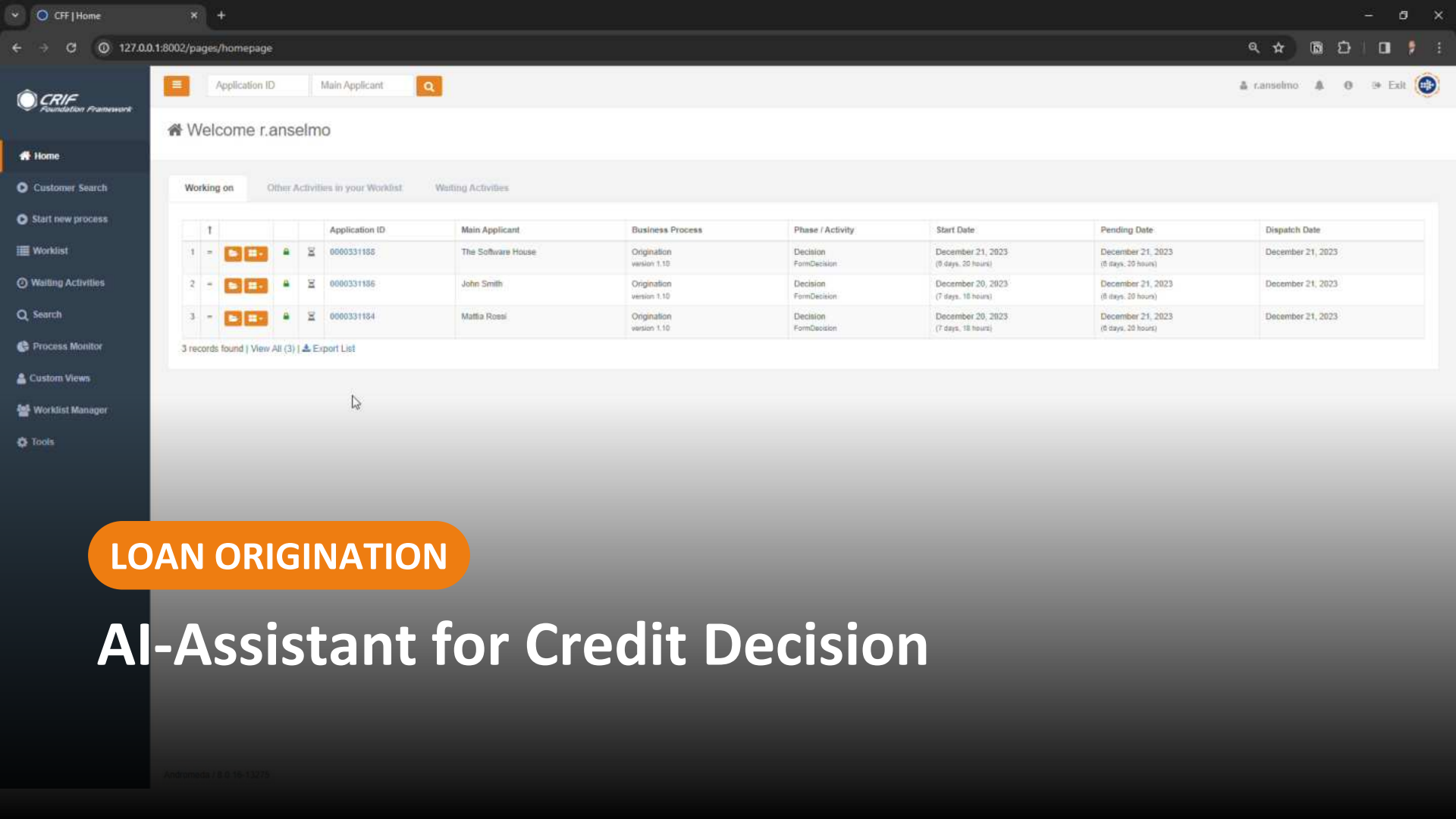
CFF | Home
127.0.0.1:8002/pages/homepage
CRIF Foundation Framework
Application ID
Main Applicant
r.anselmo
Exit
Welcome r.anselmo
Home
Customer Search
Start new process
Worklist
Waiting Activities
Search
Process Monitor
Custom Views
Worklist Manager
Tools
Working on
Other Activities in your Worklist
Waiting Activities
Application ID
Main Applicant
Business Process
Phase / Activity
Start Date
Pending Date
Dispatch Date
0000331188
The Software House
Origination
version 1.10
Decision
FormDecision
December 21, 2023
(6 days, 20 hours)
December 21, 2023
(6 days, 20 hours)
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John Smith
Origination
version 1.10
Decision
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(6 days, 20 hours)
December 21, 2023
3 records found | View All (3) | Export List
LOAN ORIGINATION
AI-Assistant for Credit Decision

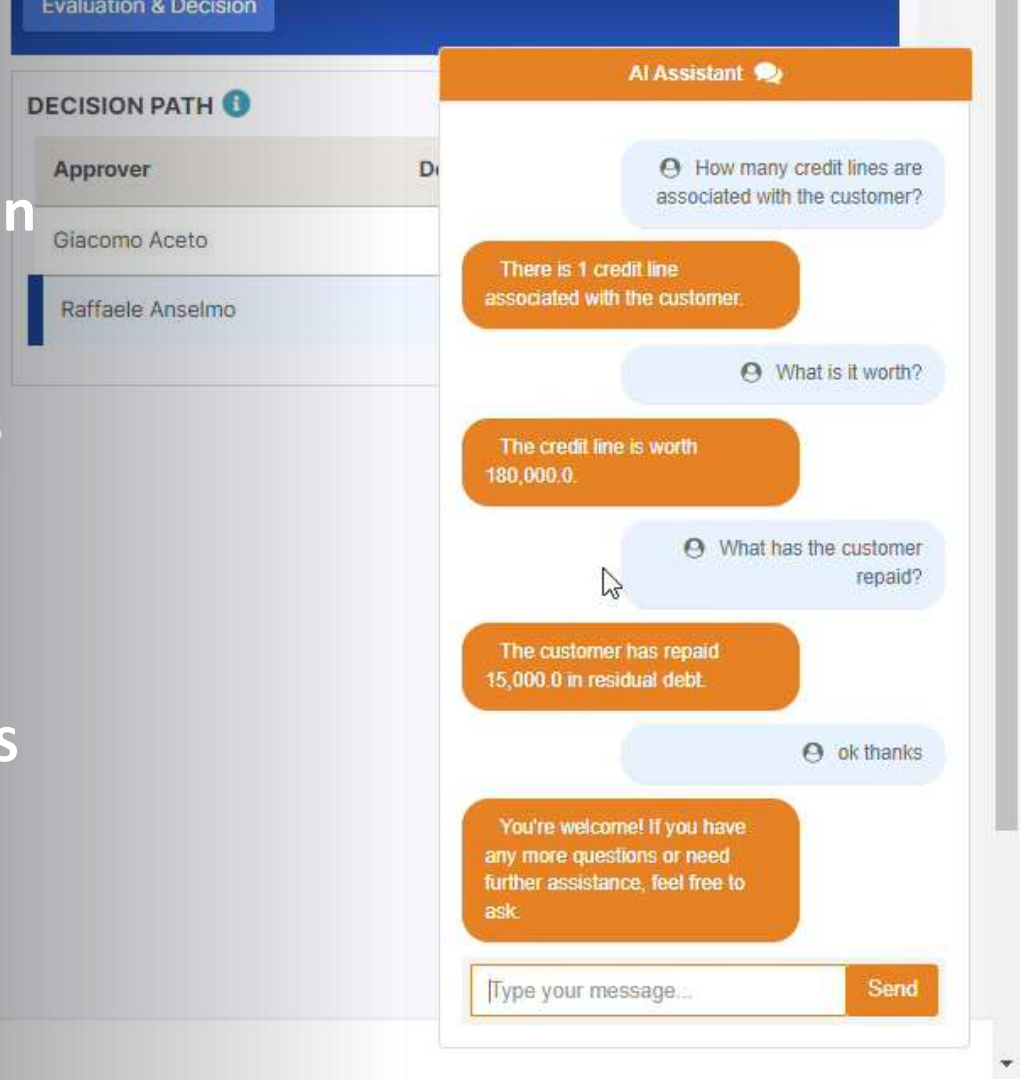
LOAN ORIGINATION

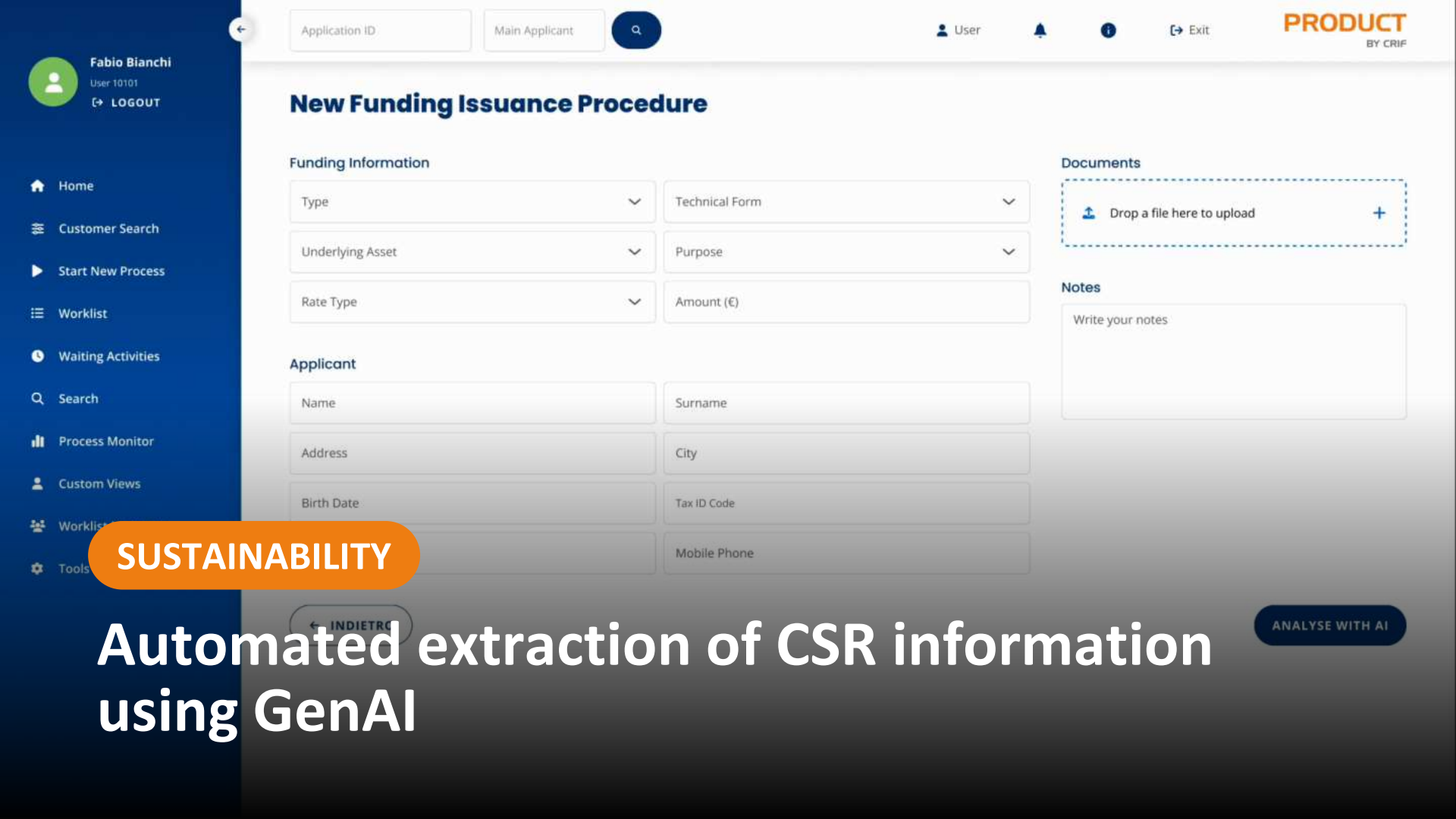
AI-Assistant for Credit Decision

> **SUPPORTS AND GUIDES** managers throughout the process

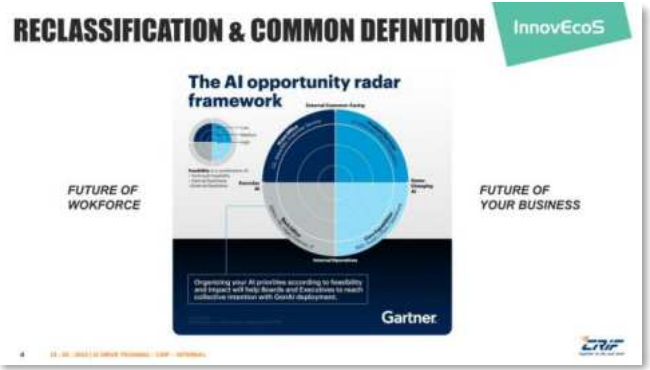
> **ANALYSES THE DOCUMENTS** necessary for the investigation

> **REPORT ANOMALIES AND OFFERS INSIGHTS** about the credit application




Fabio Bianchi
User 10101
LOGOUT
Home
Customer Search
Start New Process
Worklist
Waiting Activities
Search
Process Monitor
Custom Views
Tools
Application ID
Main Applicant
User
Exit
PRODUCT
BY CRIF
New Funding Issuance Procedure
Funding Information
Type
Technical Form
Underlying Asset
Purpose
Rate Type
Amount (€)
Applicant
Name
Surname
Address
City
Birth Date
Tax ID Code
Mobile Phone
Documents
Drop a file here to upload
Notes
Write your notes
ANALYSE WITH AI
SUSTAINABILITY
Automated extraction of CSR information using GenAI

We recommend our clients to start with a Feasibility Study (AI-Drive) to discover and identify the most relevant GenAI use cases and match against the skills and governance and delivery model in place to meet the internal needs for Gen AI adoption.



CRIF Together to the next level

6. AI: What to expect next?

Trends

More Real-time capabilities

Source: Aidan Cramer, AIApply (X), March 2024

TREND
Even more realism and liveliness

INPUT: 1x Picture, 1x audio

VASA-1 (Microsoft Research)

Source: Microsoft Research, April 2024

Can you spot the fake?

Here are six portraits, some of which were created using generative AI tools.

Five are fake.
Only one is real.

Which one?

r/SD
YOURMOM

r/ stablediffusion
UI I Like Lips
Are you mad at me, OF Models? >

Roast Me
u/Bizzyguy

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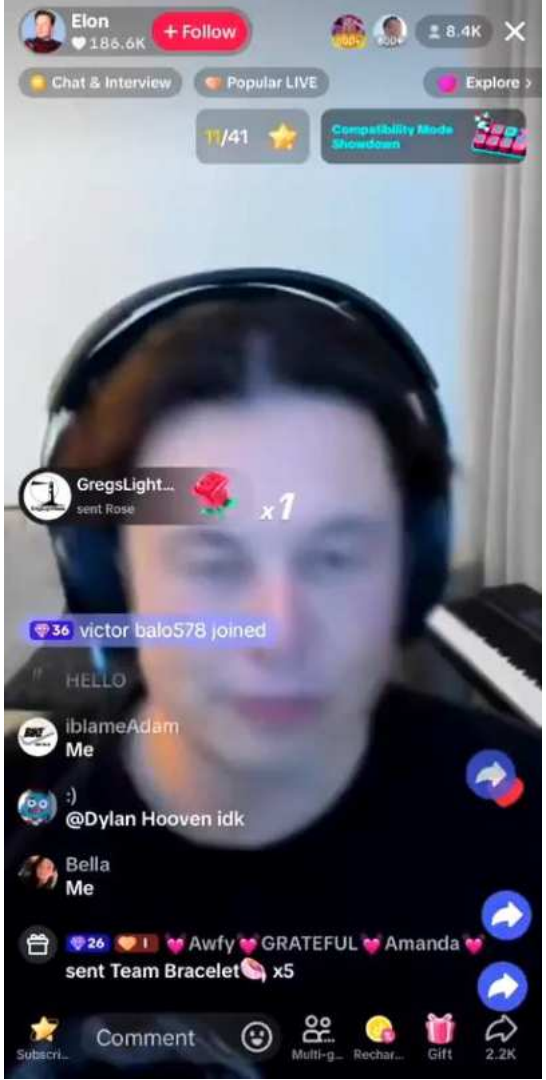
CRIF Together to the next level

1 picture

This is what *Deep Live Cam* requires in order to create a real-time deepfake of anyone.

3sec of audio

Three seconds of audio is all what is needed to clone a voice with 85% voice match from the original



It becomes too difficult for us humans to distinguish the true from the false

2 out of 3 people perceive an **AI-generated face as "more authentic"** than a genuine human face.

Not only are AI-generated faces no longer distinguishable from human faces, but they are even perceived as "more human" than real human faces.

We need AI to fight AI

The only human face →

Source: Macquarie University.

New Research (October 2024)

SCAN TO DOWNLOAD A FREE SAMPLE

Landscape of Deepfakes Detection Solutions

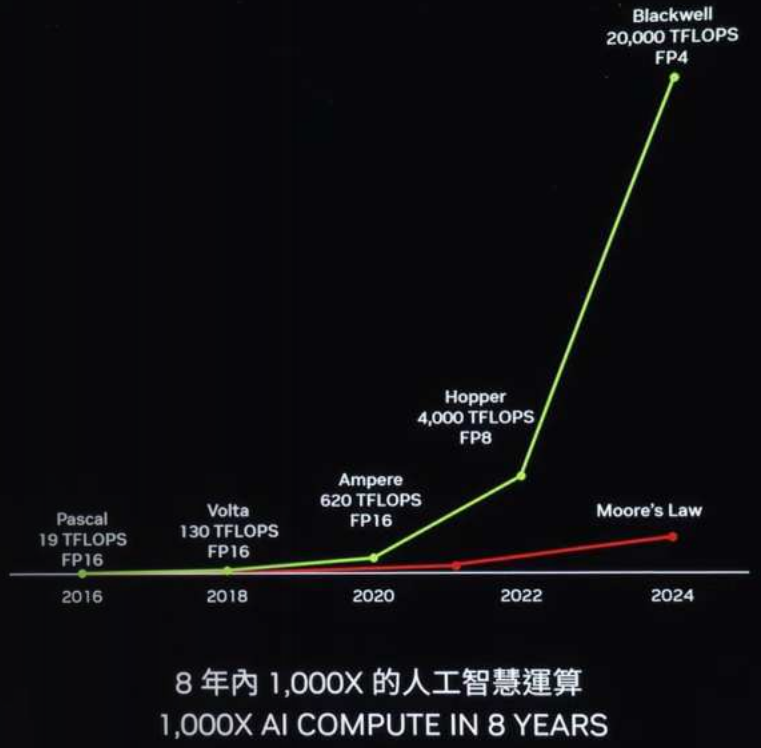
- Key startups and industry leaders
- Partnerships between banks, tech providers, and detection vendors
- Insights on emerging technologies
- Frameworks for evaluating solutions
- Case studies
- Regulatory requirements

TREND

This is just the beginning.

AI training compute **doubles every 6 months.**

→ More capable models
→ Lower cost of "intelligence"



Source: Nvidia, June 2024

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Key Findings and Take-aways

What We Have Learned In This Year And A Half

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WE **CAN CONSISTENTLY APPLY GENAI**

BEING ON CLOUD ACCELERATE OPTIONS

DATA IS THE KEY ELEMENT

NO NEED TO HAVE PROPRIETARY LLM

MAKE SURE YOU HAVE THE RIGHT SKILLS TO DRIVE GENAI INITIATIVES

IT IS NECESSARY TO **FIND THE RIGHT LEGAL FRAMEWORK**

1. Ensuring CRIF and our customers that data will not used by tech providers (google, aws, Microsoft,..)
2. Ensuring that we are respecting the policies of AI adoption
3. Addressing properly the responsibility of AI solutions

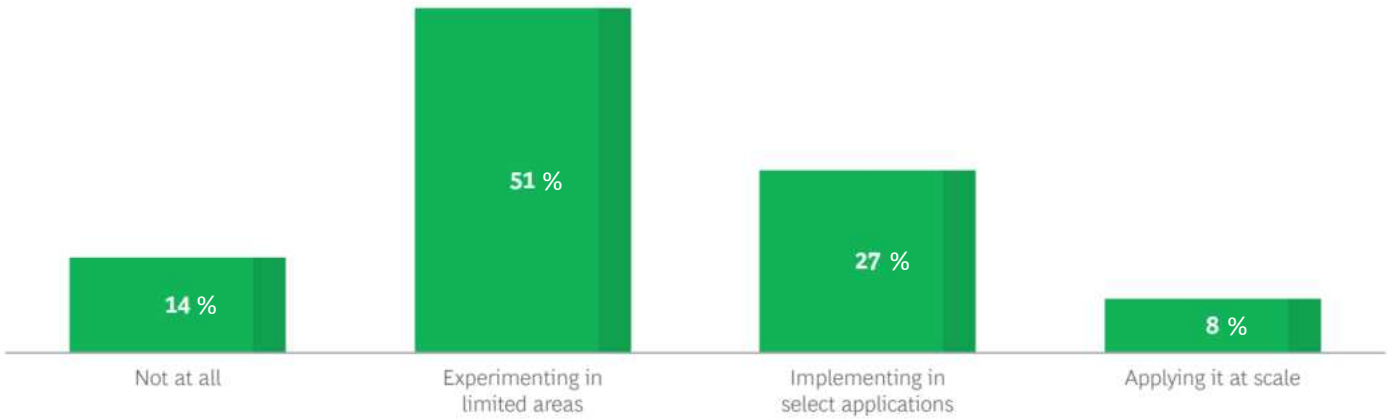
EXPERIMENT

BE OPEN, SCALE AND TAKE INSPIRATION FROM USE-CASES

Gen AI is a Booster for pivoting the Digital/ Process/ Business transformation

Exhibit 8 - Nearly All Companies Are Experimenting with GenAI for Innovation, but Most Are in the Early Stages of Their Journey

How extensively is GenAI being integrated into your company's innovation/R&D/product development function? (%)



Sources: BCG Global Innovation Survey 2024; BCG analysis.

Note: n = 1,003 for global respondents.

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