

PATH FORWARD SOLUTION



croonwolver&dros | TBI

Visionary Consulting



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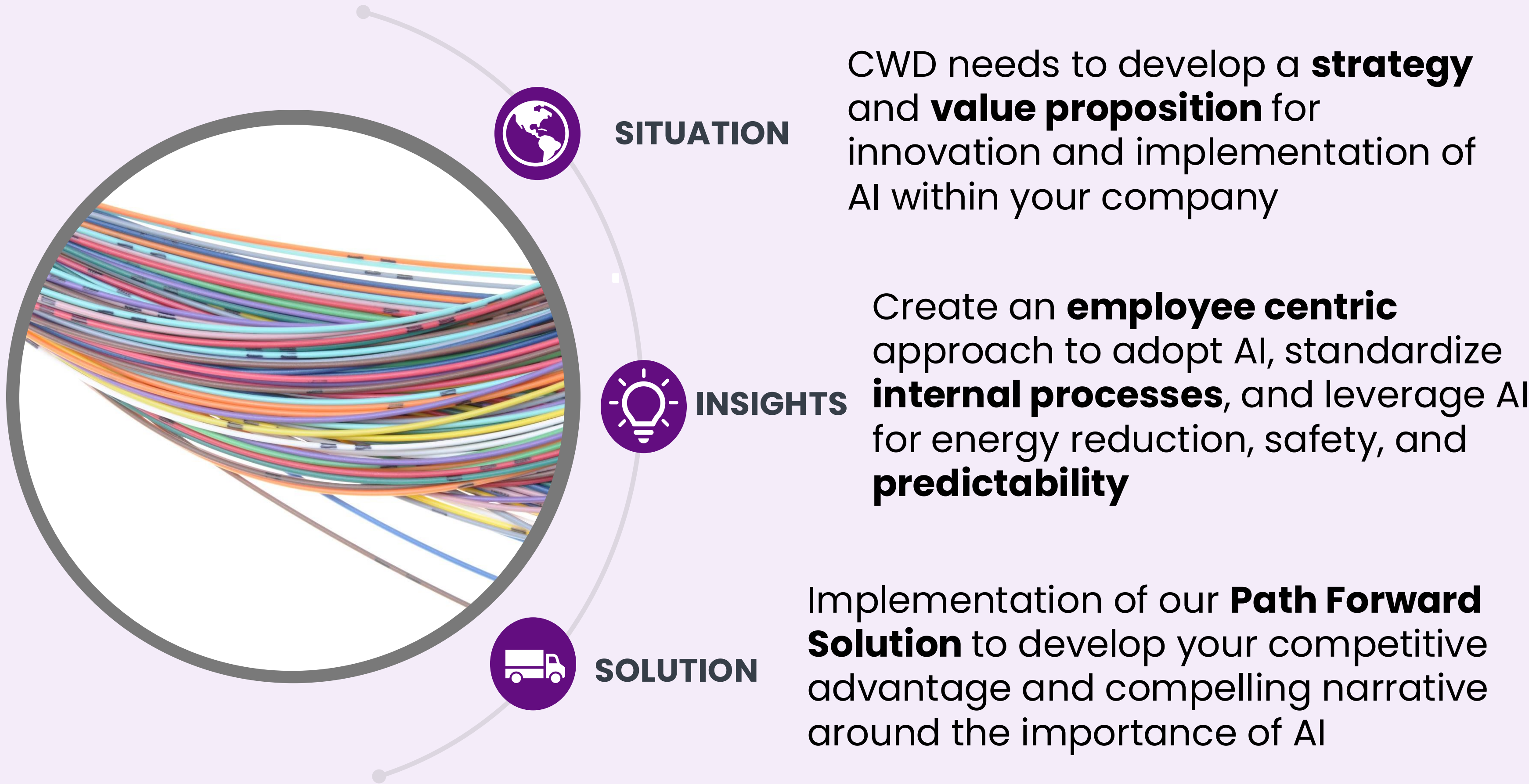
Grace Berry



Lizzie McCrystal

AT A GLANCE

Where CWD Is and Where You Hope To Go



10-15
Years

59.2%
Competitors
use AI

49%
Emission
reduction target

AT A GLANCE

Where CWD Is and Where You Hope To Go



SITUATION

CWD needs to develop a **strategy** and **value proposition** for

Guiding Question: "How can Croonwolter & Dros effectively implement artificial intelligence to optimize operations and ensure employee empowerment while strengthening your competitive position in the market?"



SOLUTION

Implementation of our **Path Forward Solution** to develop your competitive advantage and compelling narrative around the importance of AI

10-15
Years

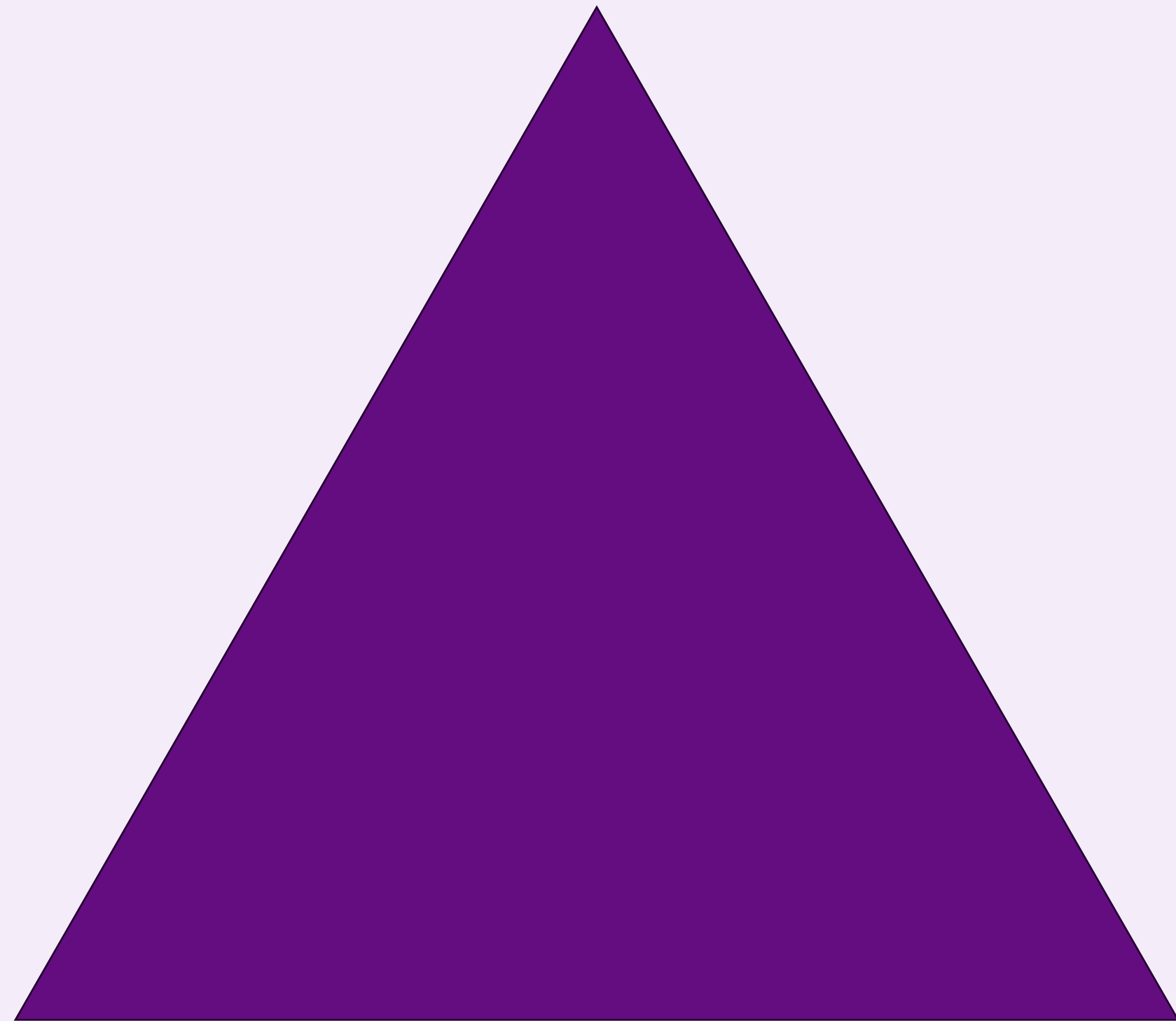
59.2%
competitors
use AI

49%
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reduction target

FUTURES TRIANGLE ANALYSIS

Evaluating the Power of the Past, Present, and Future for CWD

Past



Present

Future

Past:

- Innovations are made in specific teams and not frequently shared
- **Communication is a challenge**
- Innovation has not been factored into decision making

Present:

- CWD's workforce is aging
- **Lack of consistency** across company
- Data quality and availability is lacking
- There hasn't been a focus on adopting digital technology

Future:

- The market is **demanding innovation**
- Employees need to develop new skills
- Employee turnover is high among the younger generation that you are trying to attract

PATH FORWARD SOLUTION DECISION MATRIX

Analysis Behind Our Path Forward Solution

	Update Operations	Deploy AI	Adapt Governance	Expand Client Base	Invest in Marketing	Update TBI Governance
Cost						
Innovation						
Communication						
Adaptability						

PATH FORWARD SOLUTION OVERVIEW

An Explanation of Our Path Forward Solution

1 Operations Update

- Purchase both generative and predictive AI software
- Attract new employees
 - AI training
- Quarterly consortium

This is necessary to deploy the AI software and to **improve employee satisfaction** and retention.

2 AI Deployment

- Roll-out AI directory and communication database
- Roll-out predictive AI solutions for customers

This will **improve customer experience** and reduce energy consumption by almost **20%**.

3 Governance

- Adhere to EU and ND regulations
- Develop internal regulations

This will ensure you are up to date with and following all regulations regarding AI. It will also ensure you are **staying true to your mission**.

OPTIMIZING OPERATIONS

Using Operation Optimization To Step Into The Next Path of Technology

Purchase New AI Models

Purchase Artificial Intelligence software and systems to step into the next path of technology

1

2

Attract New Talent

Appeal to young employees via career fairs, marketing CWD's room to grow and develop specialist knowledge

Ultimate Goal

Create an employee-centric focus that attracts new talent and retains them at the company

4

3

Retain Existing Talent

Decrease employee turnover by providing AI training sessions, quarterly consortium, and department-based feedback sessions



ARTIFICIAL INTELLIGENCE DEPLOYMENT

Leveraging Technological Advancements to Improve Communications

Currently

- Expert sourcing & communication is difficult
- Document location is manual and disjointed
- Information reporting and archiving is time consuming



Communication

AI Directory

- CWD directory uploaded into AI directory
- AI to easily identify subject matter experts within a company individuals to consult on a topic
- Communicate across departments easily via chat features

Documentation

AI Database

- CWD database allowing departments to store documents and data into "cloud"
- Facilitates document sharing across departments
- Expedites data sourcing, next step summarization, and task delegation

ARTIFICIAL INTELLIGENCE DEPLOYMENT

Leveraging Technological Advancements to Improve Predictive Analytics

1 Cost Savings

Use Predictive AI Models to:

- Predict maintenance safety
- Detect leaks and infrastructure accidents
- Create digital twin models to simulate and test solutions without affecting physical assets

ABB Group detected faults in industrial electrical systems, cutting maintenance costs by 25%

Cleveland Clinic reduced equipment downtime by 25% & lowered maintenance costs by 20%

2 Sustainability

Use Predictive AI Models to:

- Generate renewable energy savings
- Identify and mitigate environmental risks before they happen
- Reduce resource waste through predictive supply and demand modeling

UK National Grid reduced renewable energy waste by 20-30% via smarter demand forecasting

Veolia reduced chemical consumption by 17% while improving water reuse efficiency

GOVERNANCE

How AI Integration Will Impact Business Efforts In The Netherlands

Legal Compliance

EU AI Act (2024)

- Establishes a risk-based framework for AI deployment across EU
- Prohibits AI systems from posing unacceptable risks

Legal Compliance

- Ensure AI systems are classified on their risk level to ensure compliance requirements are met

Workplace & Ethical Considerations

Employee Impact

- Ensuring AI systems are transparent and auditable is crucial to maintain trust and accountability

Policy Implementation

- Classify AI systems based on risk levels
- Establish AI policies and rules to clarify appropriate use of AI in the workplace
- Implement oversight and accountability measures to build AI trust

Environmental Impact

AI's Environmental Impact

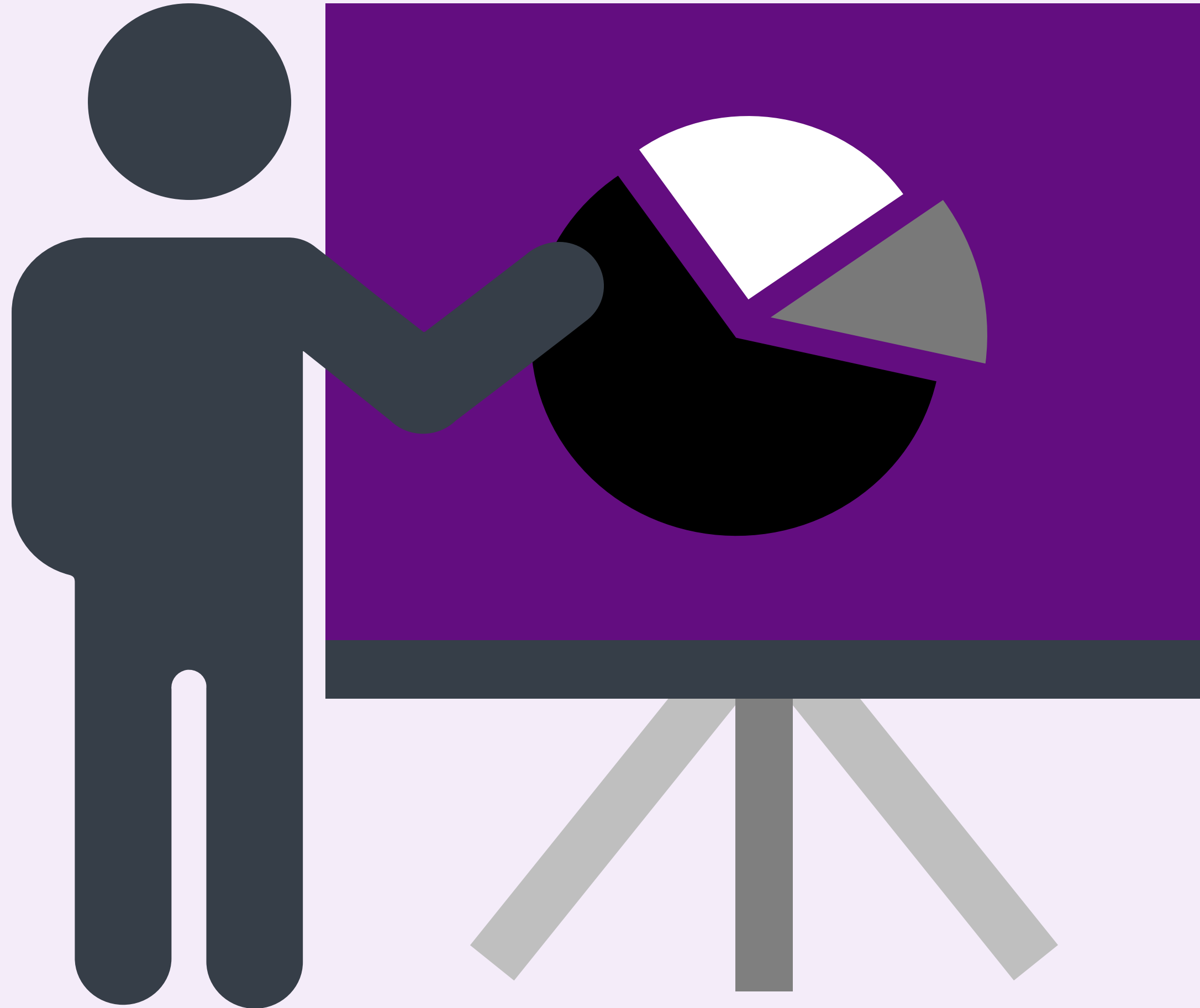
- Training AI models can consume significant energy
- Data centers require substantial water for cooling

AI for Environmental Benefits

- Leverage AI for predictive maintenance and supply chain optimization to reduce waste and emissions
- AI can aid in environmental reporting and monitoring, enhancing sustainability efforts

HOW IS SUCCESS DEFINED?

Metrics We Propose Tracking to Measure The Success of The Path Forward Solution



01

Operational Improvements

Turnover Rate
of Employees Hired
of Ideas Generated by Employees

02

AI Deployment

% Increase in Efficiency
Decrease in Failure Costs
ROI

03

Governance

Number of Compliant AI Systems Integrated
Success Rate of Policy Implementation
% of Environmental Waste Reduction

TIMELINE

Improve Efficiency, Increase Profits, and Emphasize Culture

Purchase AI software in order to develop the week long training

Train employees on the proper use of the AI software purchased

Develop consortium program

Start attending college career fairs

Operations

Release generative AI software to begin improving internal efficiency and communication

Generative AI

Release the predictive AI software to employees

Use the renderings and predictions to schedule maintenance and revisions

Predictive AI

Prepare the Risk and contract management team for their new responsibility

Continuously revisit regulations

Develop company regulations on AI

Governance

IMPLEMENTATION PLAN

Making changes NOW to facilitate long-term savings and productivity

JAN 26' AI

- Purchase AI solutions
- Develop and execute AI training for employees
- Begin monthly team meetings



JUL 26'

- ### Trial
- Begin holding quarterly consortiums on AI
 - Implement generative and predictive Ai within a few departments



JAN 27'

- ### Develop
- Once tested, deploy generative AI software across CWD.
 - Once predictive AI has been tested, release into every site



JUL 27'

JAN 28'

- ### Check-in
- Ensure continued compliance with governance
 - Continue with monthly check ins in each department

JUL 28'



FINANCIAL ANALYSIS

Generative AI Cost
€1.512M

Predictive AI Cost
€2.053M

Consortium & Training Costs
€62,400

Recruitment Costs
€20,000

Budgetary Slack
€40,000

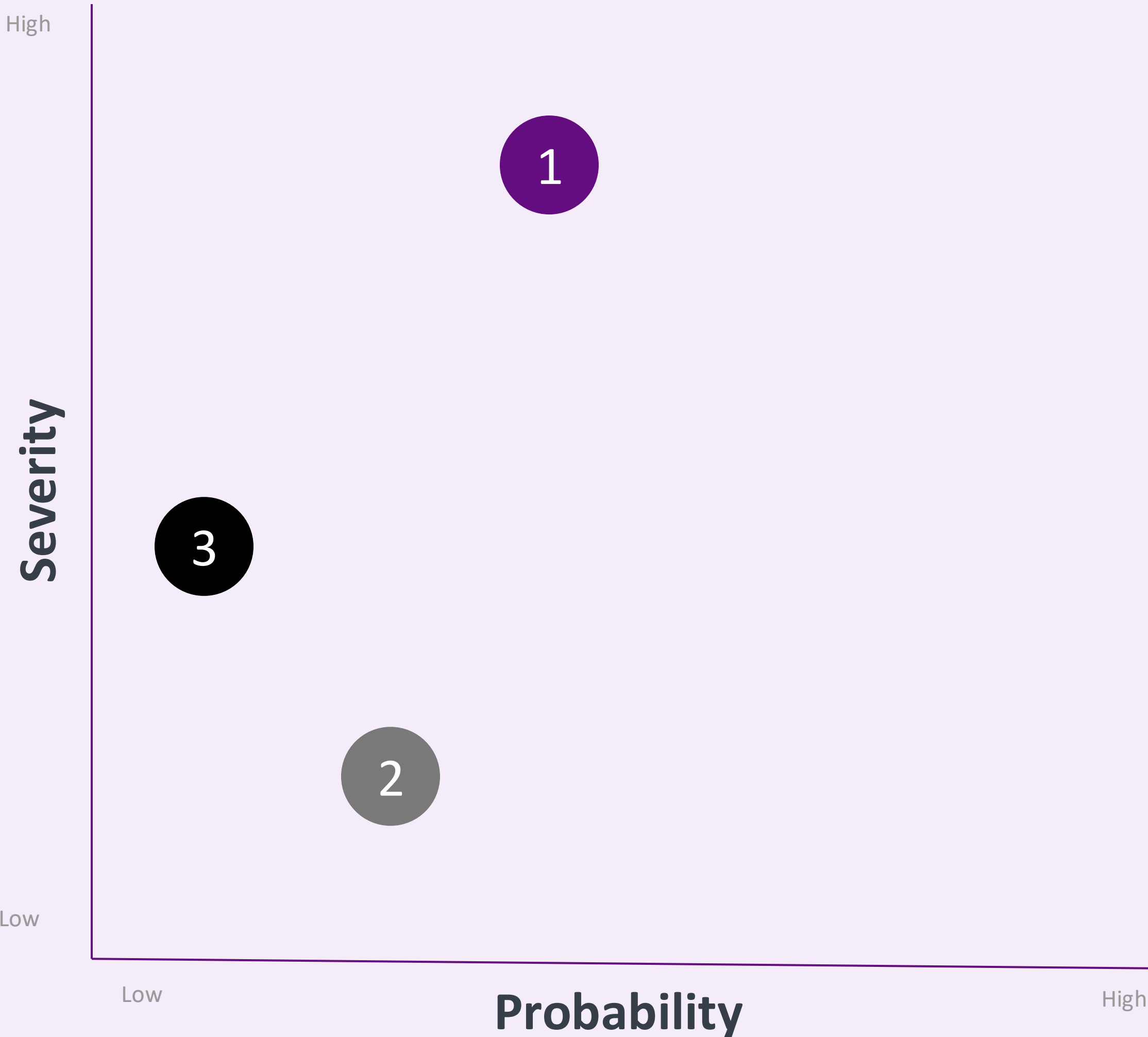
Enterprise AI/price per month	€ 60.00
12 Months	12
Annual Generative AI Plus Membership per Employee	€ 720.00
CWD's 3000 Employees	3000
Annual Company Wide Generative AI Access	€ 2,160,000.00
Discount based on Contract Size and Length of Contract	30.00%
(Price Discount based on Contract Size) ~30%	€ 648,000.00
Annual Cost of Enterprise Generative Chat GPT	€ 1,512,000.00

Projected ROI from:
29.7%

Predictive Analytics Software	Software Solution	Price per User / Month	Annually	For 100 Employees
Predictive Maintenance	eMaint CMMS	€ 73.23	€ 878.76	€ 87,876.00
Renewable Energy Management Software	Homer Pro	€ 487.90	€ 5,854.80	€ 585,480.00
Digital Twins Rendering	Microsoft Azure Digital Twins	Usage Dependent (Assuming 50 Renderings/Year)	€ 250,000.00	€ 250,000.00
Composite Predictive AI Costs				€ 923,356.00

RISKS & CONTINGENCIES

Understand The Risks of Our Proposal and Identify Mitigation & Contingency Strategies



Risk	Impact	Mitigation
1. Employees feel threatened by AI implementation		Train employees on proper use and build a marketplace of ideas
2. Consumers are wary of technology adoption		Create a positive narrative and provide support
3. Regulation shifts surrounding AI and sustainability		Build governance system to adapt to legal, ethical, and sustainability regulations

SUMMARY

Path Forward Solution: Develop a competitive advantage for CWD and create a compelling narrative around the importance of AI

Challenges

- Staffing shortages
- Regulation barriers
- Distrust of AI
- "Internal spaghetti"

Update operations and adapt governance

- Attract new talent
- Reduce employee distrust of AI
- Prepare for regulatory changes
 - Ensure data safety

AI Deployment

- Utilize Generative AI to enhance communication and efficiency
- Adopt predictive AI to optimize operations, safety, and sustainability

Goals

- Redefine how CWD competes, ensure employee empowerment, and optimize operations

Appendix A: ALTERNATIVE EXPLANATION

Expand Client Base

- While expanding your client base would improve profits for your company, you already have relationships with 60-65% of the companies within the sectors you serve. You have also said that you aren't interested in expanding that base.

Invest in Marketing

- Investment in marketing would have up-front costs. Again, you have said that you aren't interested in expanding your client base, so relationship management is more important.

Update TBI Governance

- While updating TBI's governance would make it easier for you to implement AI and communication systems throughout the company, this would be costly and take a long time. This could however be a long-term goal.

Appendix C: Sustainability Cost Benefit Analysis

- Buildings contribute to roughly 40% of global greenhouse gas emissions
- A multi-case analysis of 18 projects across various sectors showed more than 5% improvement in energy efficiency in about half of cases
- Emissions reductions in 15/18 projects, and in 7 of them reductions exceeded 5%
- In China, AI development was found to have a statistically significant correlations with reductions in energy consumption and carbon emissions.
- AI-driven energy management systems can reduce global energy consumption by up to 20%
- AI-based grid/renewable optimization systems improved renewable integration by 15%
- In smart-buildings ai systems have achieved reductions in energy use and carbon emissions of ~8%, one company saved ~37 metric tons of CO2 after implementing AI for HVAC.
- In industrial/process settings: AI-driven optimization in supply chains or manufacturing showed ~20% reductions in energy consumption, ~25% reduction in carbon footprint, and ~18% in water use.

Generative AI for 3000 employees will produce 0.036 metric tonnes of CO2 a year

With predictive AI, 37 metric tonnes of CO2 can be saved for one building alone. This does not include curtailment or other energy savings predictive AI can provide

Appendix D: Employee Profiles



Current Employees

- Retiring in the next 15-20 years, with risk of knowledge leakage
- Average age of 45
- Large amount retiring in the next 15-20 years
- Not well versed in AI and new technology



New Employees

- Young
- Just graduated from college
- Intrigued by and attracted to companies who are using AI
- Understand technology
- High turnover rates

Appendix E: Idea Matrix

Idea	How?	Why?
Update Operations	Provide more training and support to employees. Target new talent through attending career fairs.	This will help improve employee attraction, retention, and satisfaction.
Deployment of AI	Purchase and deploy both generative and predictive AI solutions. Generative to increase internal efficiency. Predictive to reduce failure costs.	This will improve the customer experience and increase the internal efficiency of employees. It will also reduce costs which will increase revenues.
Adapt Governance	Using the Risk and contract management team, ensure an adherence to all ND and EU regulations. Also, developing internal regulations for the use of AI.	This will ensure that your company is prepared for any changes that will arise with AI.

Appendix F: Cost Projections of Software

Predictive Analytics Software	Software Solution	Price per User / Month	Annually	For 100 Employees
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Appendix G: AI Marketing Results

Marketing Automation

- 19.65% of marketers plan to use AI agents to automate marketing in 2025. (19.65%) ([HubSpot State of Marketing Report, 2025](#)).
- 47.18% of marketers say they strongly or somewhat agree that they understand how to incorporate AI into their marketing strategy. ([HubSpot State of Marketing Report, 2025](#)).
- 47.63% of marketers say they strongly or somewhat agree that they know how to measure the impact of AI in their marketing strategy. ([HubSpot State of Marketing Report, 2025](#)).
- The top three AI use cases among marketers are content creation (43.04%), research (34.18%), and brainstorming (26.96%). ([HubSpot State of Marketing Report, 2025](#)).

Turn it on. See real results with HubSpot's AI prospecting agent.

Up to 2x

higher response rates vs.
traditional sequences

Up to 95%

decrease in time spent by reps
researching accounts and
personalizing emails

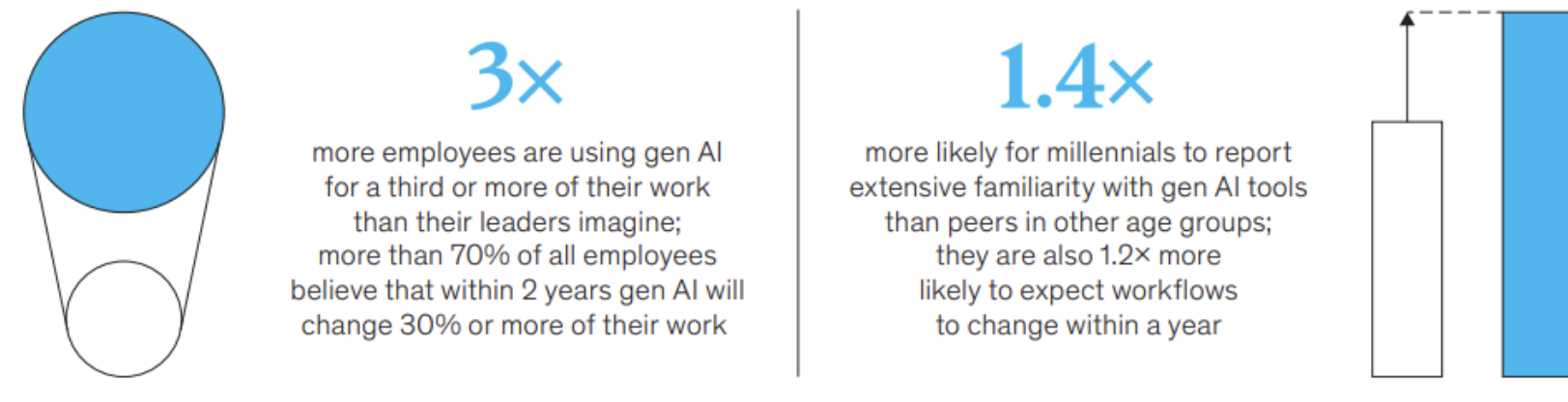
Up to 3.5x

more leads engaged per team

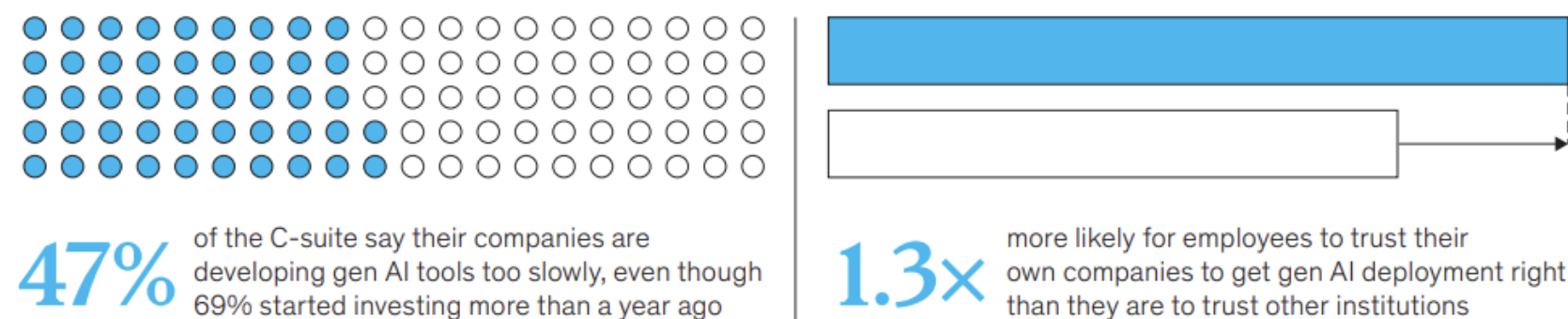
Appendix H: AI Adoption

Superagency: By the numbers

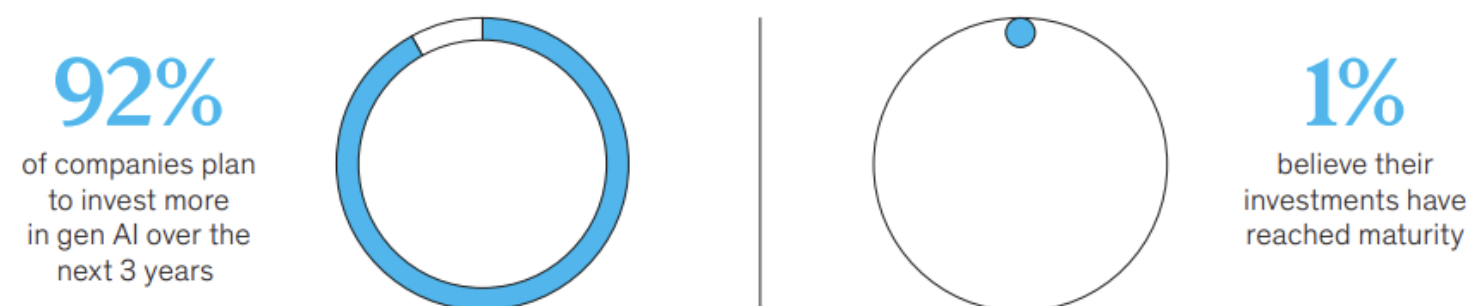
Employees are more ready for the change than their leaders imagine



Companies need to move fast—employees trust their leaders to balance speed and safety



Companies are investing in gen AI but have not yet achieved maturity



Leaders need to recognize their responsibility in driving gen AI transformation

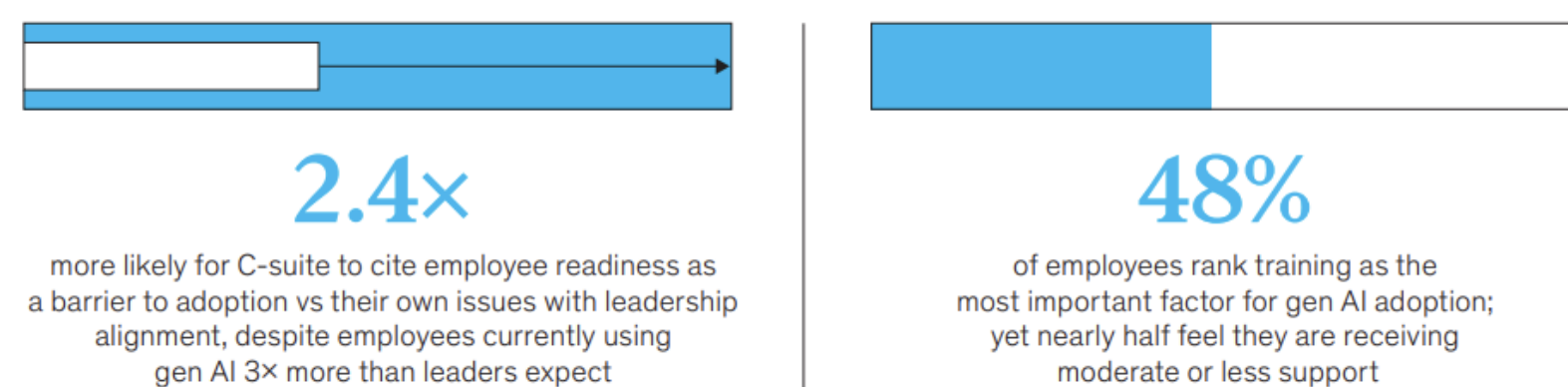
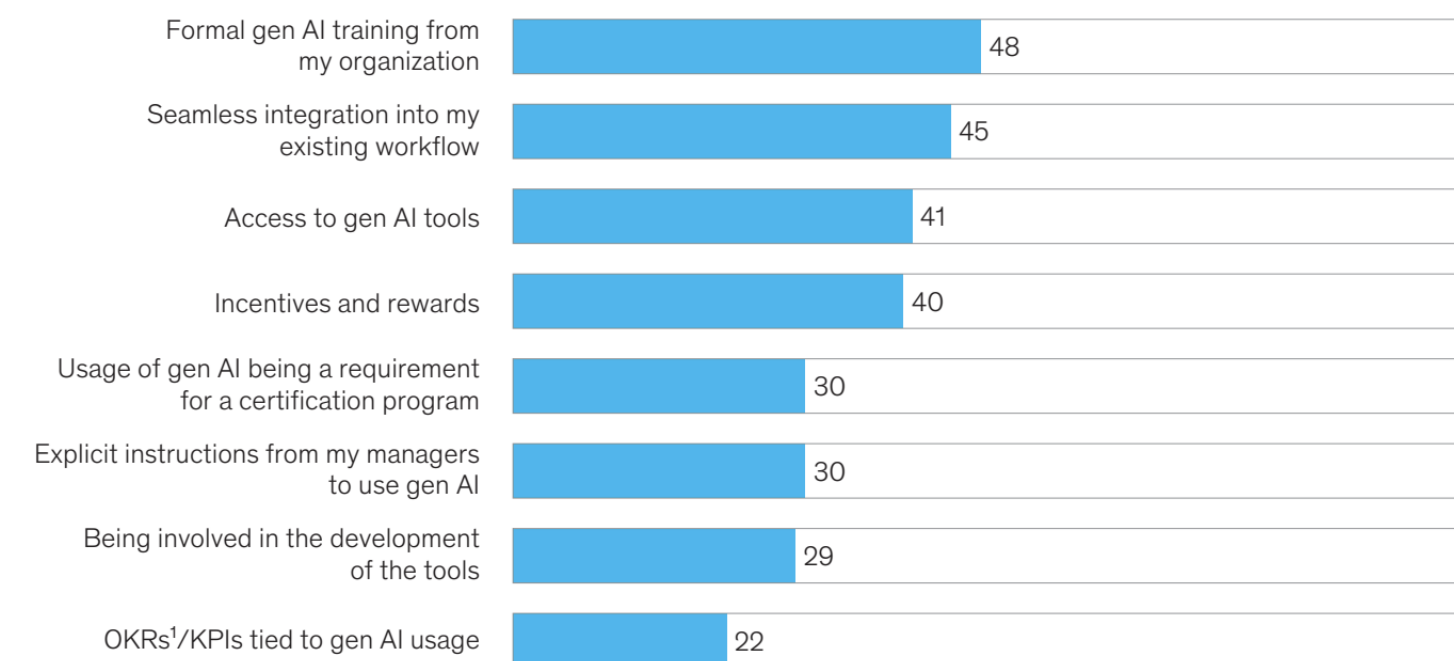


Exhibit 3

Employees long for more support and training on gen AI.

Share of US employees agreeing that a company initiative would make them more likely to increase day-to-day usage of gen AI tools, %



US employees' perceived level of support for gen AI capability building at their organizations, % of respondents

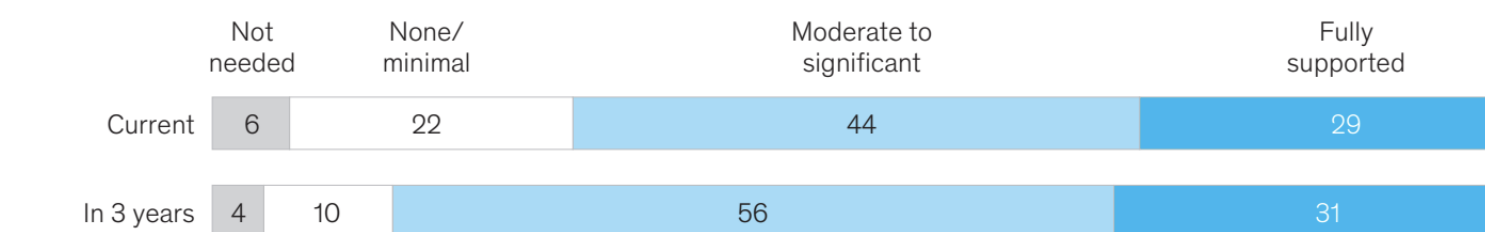
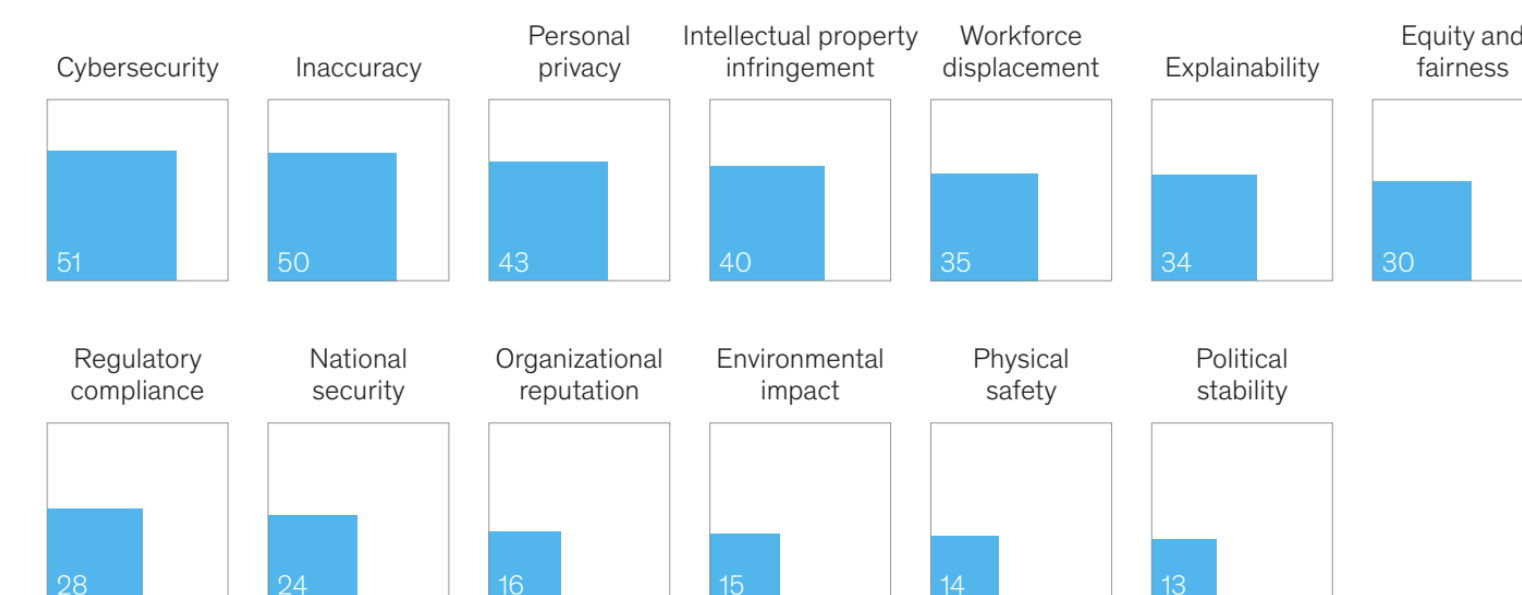


Exhibit 8

Employees have concerns about gen AI—namely cybersecurity risks, inaccuracies, and data leaks.

Share of US employees citing risk as a concern associated with gen AI, %



Source: McKinsey US employee survey, Oct–Nov 2024 (n = 3,002)

Risks to AI:

Environmental Impact/Balancing against Sustainable Reputation

- Data Centers
- High Energy
- Hardware/chip Costs

Organizational Risk

- Overreliance or employee dependence on its services
- Job Displacement and Talent Gaps
- AI can displace workers faster than companies can retrain them.
- A new divide emerges: organizations with AI-literate talent vs. those without.

Data Breaches /Insecure Information

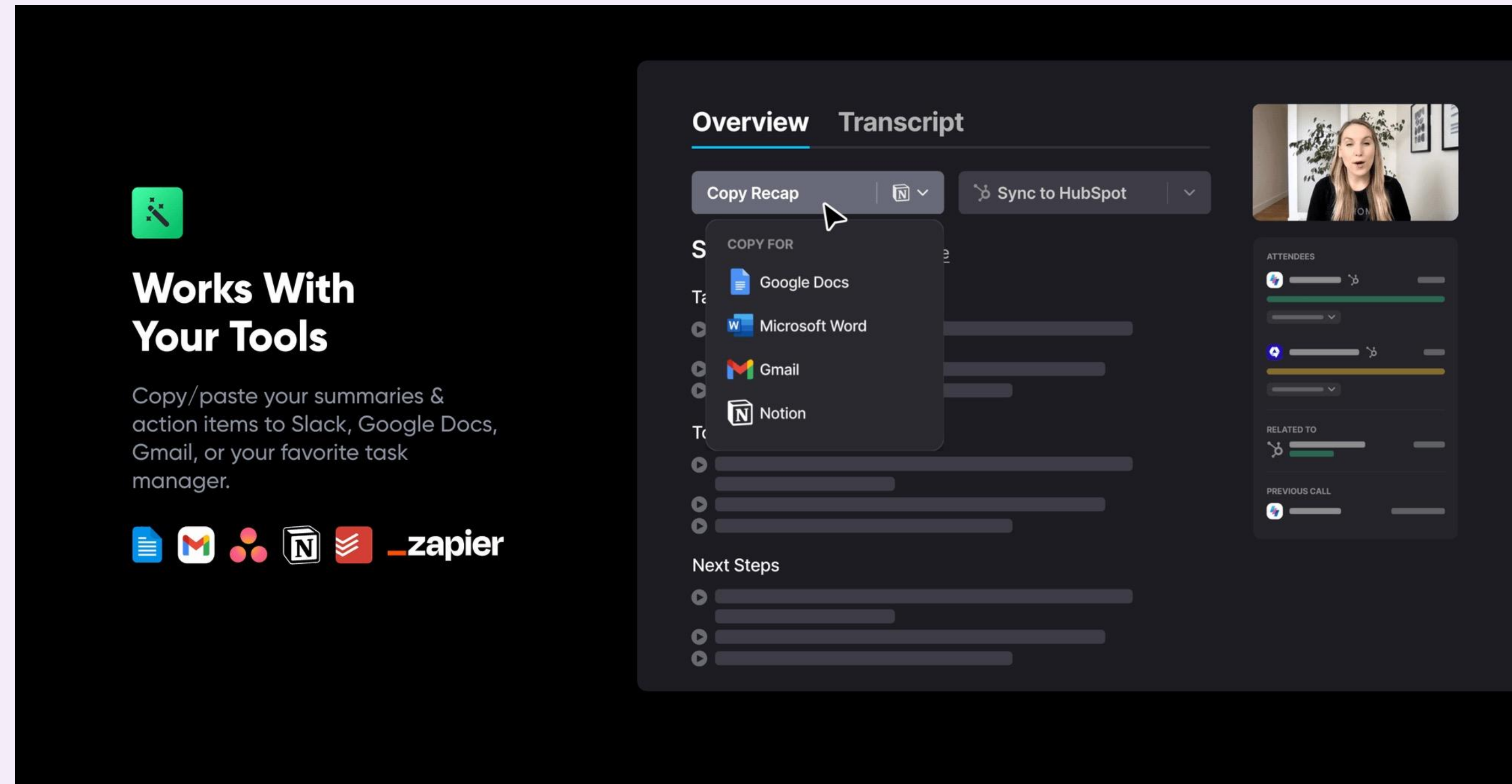
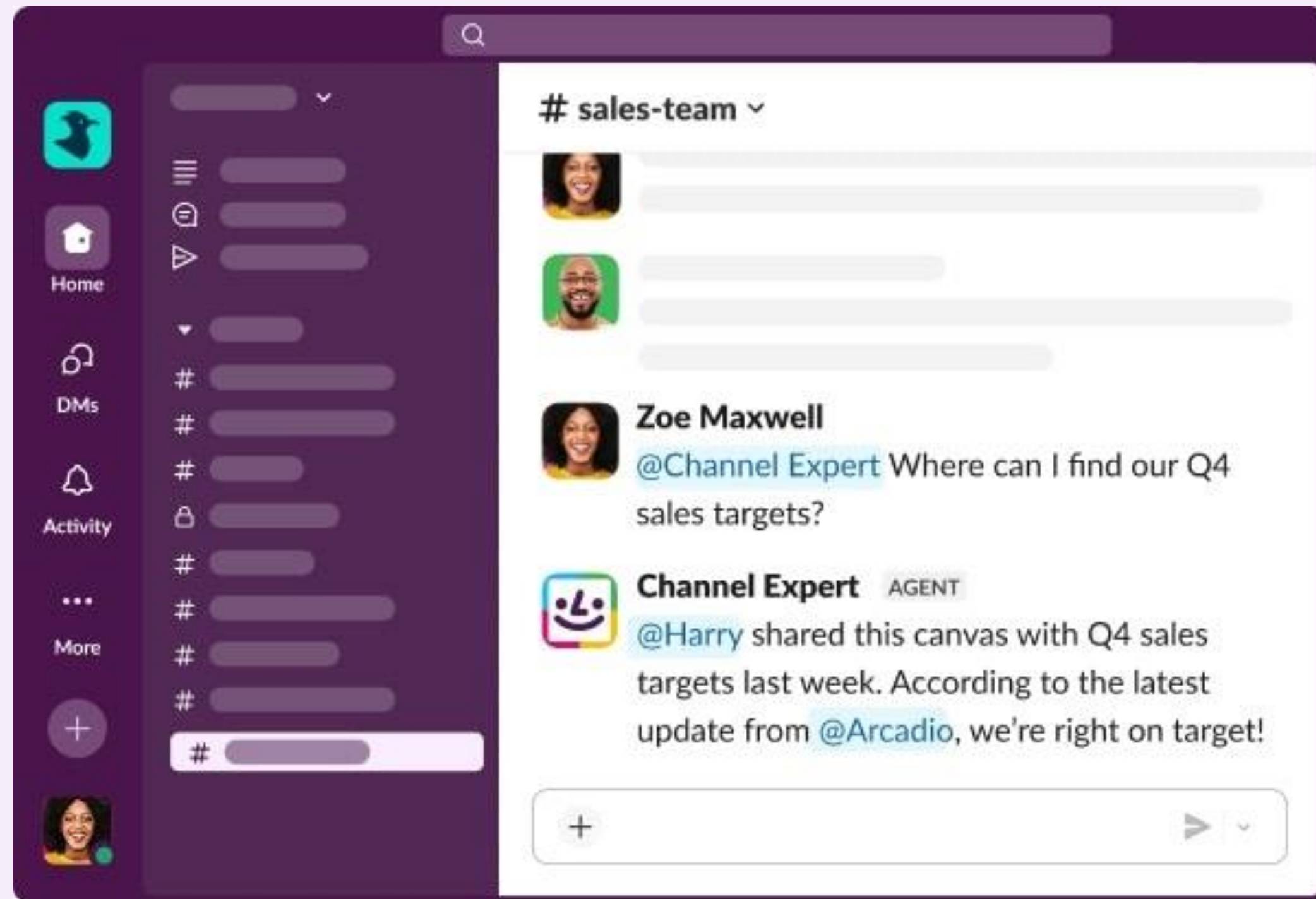
- Cyber insecurity
- LLM /Model Manipulation

- Ethical/Societal
- Bias, Misinformation/Hallucination, Loss of human agency, unclear liabilities

- AI Talent is in short supply for technical roles, fragmented talent pool,

Appendix I: Examples of Generative AI For Companies

Real-World Integration Between Companies and AI for Maximum Efficiency



Appendix J: Dutch Promotion and Compliance Around AI

Dutch National AI Strategy

- **Initiative:** The Dutch government has developed a national AI strategy to promote responsible AI development and use.
- **Objectives:**
 - Foster innovation in AI technologies
 - Ensure AI applications align with public values and human rights
 - Enhance transparency and accountability in AI systems
- **Implementation:** The strategy outlines specific actions and policies to achieve these objectives

Appendix K: Predictive AI Case Studies & Success Stories

ABB Group

What They Do:
A global leader in electrical engineering and automation solutions.

Case Study:
Implemented predictive AI models to monitor and detect faults in industrial electrical systems.

How It Was Successful:
AI identified potential equipment failures before they happened, cutting maintenance costs by 25% and improving operational reliability across facilities.



Cleveland Clinic

What They Do:
One of the largest nonprofit medical centers in the U.S., focused on advanced healthcare and medical research.

Case Study:
Adopted predictive maintenance analytics to monitor medical equipment performance and service needs.

How It Was Successful:
Reduced equipment downtime by 25% and overall maintenance costs by 20%, ensuring critical devices stayed operational and patient care wasn't disrupted.



UK National Grid

What They Do:
Operates the electricity and gas transmission networks across the United Kingdom.

Case Study:
Deployed AI-based forecasting tools to predict renewable energy supply and demand more accurately.

How It Was Successful:
Cut renewable energy waste by 20–30% through smarter load balancing, enabling cleaner, more efficient grid operations and supporting the UK's sustainability targets.



Veolia

What They Do:
A global environmental services company specializing in water, waste, and energy management.

Case Study:
Used predictive AI to optimize chemical dosing and water treatment processes across multiple facilities.

How It Was Successful:
Reduced chemical consumption by 17% while improving water reuse efficiency, leading to lower costs and a measurable environmental impact.

