

## AI IN ACTION

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#### **LEVERAGING**

### 22 YEARS

of successful delivery worldwide

#### UNITING

### **2 000 EXPERTS**

IT professionals in 14 countries

95%

**Customer Satisfaction Score** 

**70** 

NPS in 2023









#### **WORKING WITH ML SINCE**

## 2013

COMPLETED

100+

AI / ML PoCs



Automotive



Healthcare & Pharma



Gaming



Finance & Insurance



Logistics & Transportation



Aviation



## **TYPICAL USE CASES**

### **CHATBOTS**



- From 25 to 40% of Al projects
- Customer experience 24/7
- Highest adoption rates in ecommerce, insurance, finance, customer service and sales.

### **COPILOTS AND ASSITANTS**



- Automating specific tasks beyond chatbots
- Depend on clean, highquality data to perform accurately
- Integrated with other systems and can execute actions

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### PREDICTIVE ANALYTICS



- Forecasting trends, customer behaviour, and operational needs
- Requires high-quality, representative data
- Predictive maintenance, demand forecasting, customer behaviour prediction, credit scoring.

### **COMPUTER VISION**



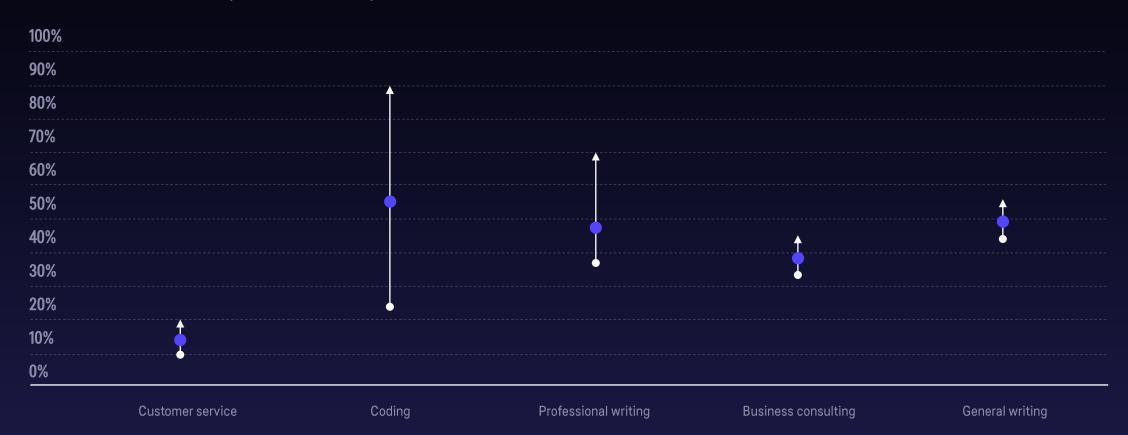
- Allows processing of Image and Video
- Real-time monitoring and analysis in sectors like defence, healthcare, retail, and security
- Recognizes patterns, objects, and even emotions



## IMPACT OF AI

## **GENERATIVE AI**

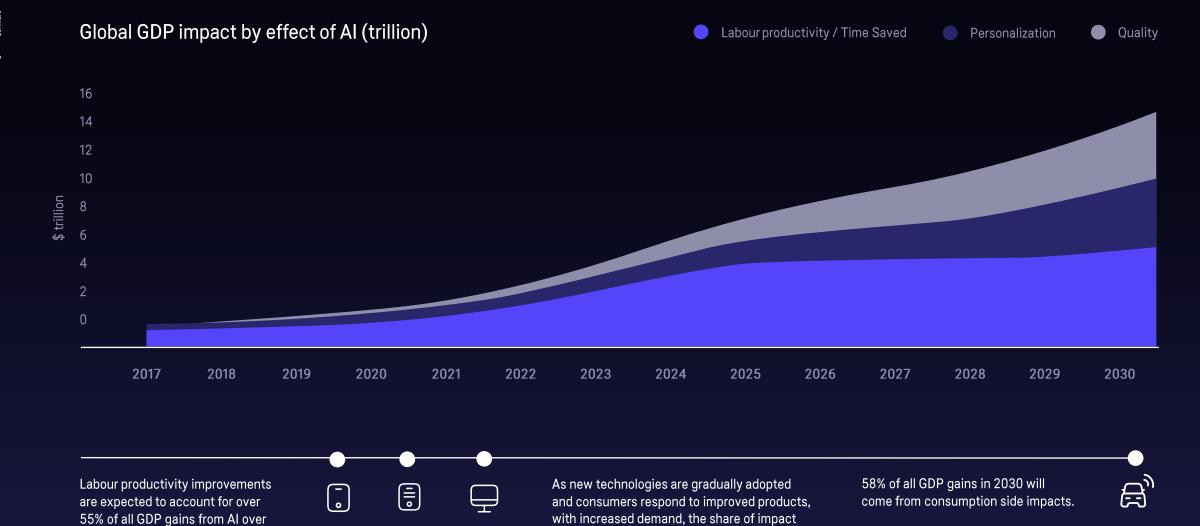
Worker-level studies on performance in specific tasks



### GENERATIVE AI IMPACT ON ORGANIZATION AND SKILLS





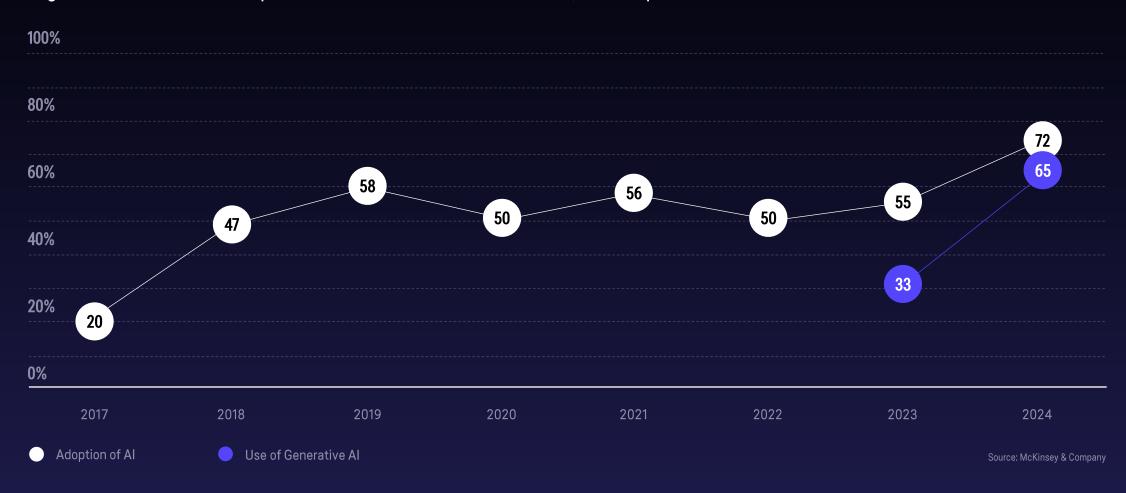


from product innovation increases over time.

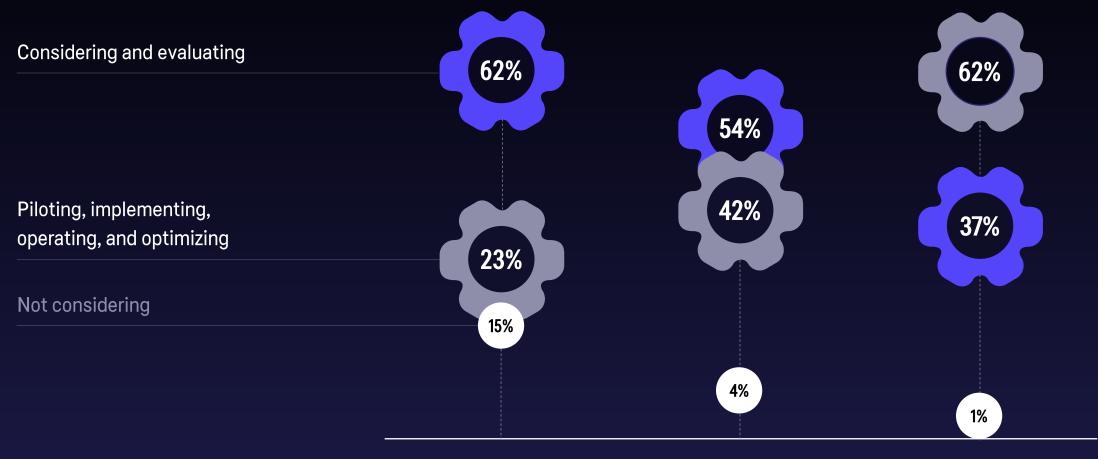
the period 2017-2030.

## **GENERATIVE AI ADOPTION**

Organizations that have adopted AI in at least 1 business function, % of respondents



## **GENERATIVE AI ADOPTION**





## LIMITATIONS

#### ChatGPT 4o ~

How many "r" -s in the word "strawberry"?



There are two "r"s in the word "strawberry".



Breakdown the word "strawberry" into individual letters and calculate how many of each letter there are in the word. Give me the number of "r"s



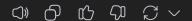
The word "strawberry" can be broken down into individual letters as follows:

- S
- t
- r
- a
- W
- b
- e
- r
- r
- y

Now, let's count the number of each letter:

- s: 1
- t:1
- r: 3
- a: 1
- w: 1
- b: 1
- e: 1
- y: 1

There are 3 "r "s in the word "strawberry."



### **HALUCINATIONS**

S What is the world record for crossing the english channel entirely on foot



The world record for crossing the English Channel entirely on foot is held by Christof Wandratsch of Germany, who completed the crossing in 14 hours and 51 minutes on August 14, 2020. The English Channel, also known as La Manche, is a body of water that separates the southern coast of England from northern coast of France, and the distance between the two shores is approximately 21 miles (34 km).

Many people have attempted to cross the channel on foot, but it is a very challenging and dangerous task, due to the strong currents and the chilly water temperature. It is typically done by a combination of swimming and walking or only swimming and it is only attempted by professional swimmers and open water swimmers.

Regenerate response



as sa

## DATA QUALITY AND GOVERNANCE

**DATA GOVERNANCE FRAMEWORK** 

**STRATEGY** 

POLICIES
AND STANDARDS

PROCESSES AND ASSET MANAGEMENT

DATA QUALITY AND STEWARTSHIP

SECURITY AND PRIVACY

80 %

AI/ML projects don't achieve goals due to poor data quality

According to Sigma Software

82 %

Data analytics work has be reworked after it is being completed due to poor data quality

Grouce: https://www.snaplogic.com/

### **QUALITY AND SECURITY**

### OWASP TOP 10 FOR LARGE LANGUAGE MODEL APPLICATIONS

- LLM01: Prompt Injection
- LLM02: Insecure Output Handling
- LLM03: Training Data Poisoning
- LLM04: Model Denial of Service
- LLM05: Supply Chain Vulnerabilities
- LLM06: Sensitive Information Disclosure
- LLM07: Insecure Plugin Design
- LLM08: Excessive Agency
- LLM09: Overreliance
- LLM10: Model Theft

#### **HOW TO ADDRESS THIS?**

- Implementation of guardrails
- Perform Risk Assessment
- Quality Management System
- Security testing of LLMs

### **AVOID COMPLIANCE TROUBLE**

- Classify your AI system to identify regulatory requirements
- Don't use AI for profiling or processing sensitive data (biometrics, health records) without consent
- Perform risk assessment
- For high-risk AI systems, ensure explainability and bias prevention
- For high-risk AI systems, implement QMS
- Obtain permission to use proprietary or third-party data for your Al system

- × Anonymize and pseudonymize data
- Ensure the cybersecurity of your system, considering new attack vectors



EU AI ACT COMPLIANCE CHECKER



# PRACTICAL STEPS TO USING AI

1

### FIND USE CASE

- Data volume
- Decisions that depend on data
- Routine operations

4

### **SCALE CASE**

- Expand this particular use case
- Replicate the use case in other areas

2

### **REVIEW DATA**

- Sample Dataset
- Data quality
- Governance

5

### **ASSESS RISKS**

- Define accuracy, quality, and security risks
- Decide acceptable level of risk

3

### **PILOT**

- Don't expect high accuracy at the beginning
- Fail quickly and pivot

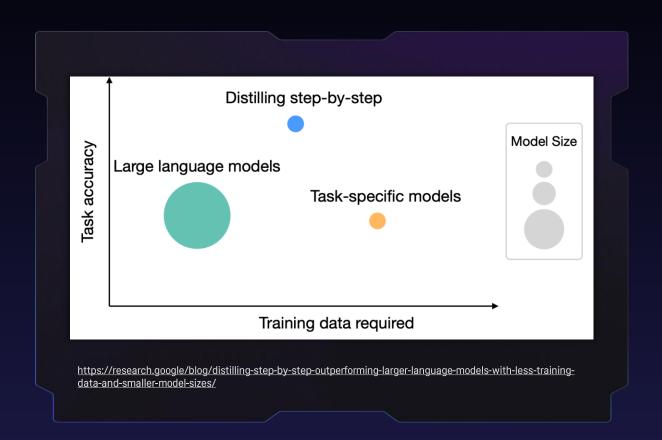
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### **ESTABLISH QUALITY & SECURITY**

- Determine an acceptable quality level
- Based on risk assessment, implement security measures
- Add guardrails

## LLM DISTILLATION

- Using LLM to train smaller task-specific model
- Up to 700X HW performance improvement with similar accuracy
- Reduced test data set size required for "fine-tunning"





## **THANK YOU!**

### **LET'S STAY IN TOUCH**

