



# The Age of Artificial Intelligence

## Towards a European Strategy for Human-Centric Machines

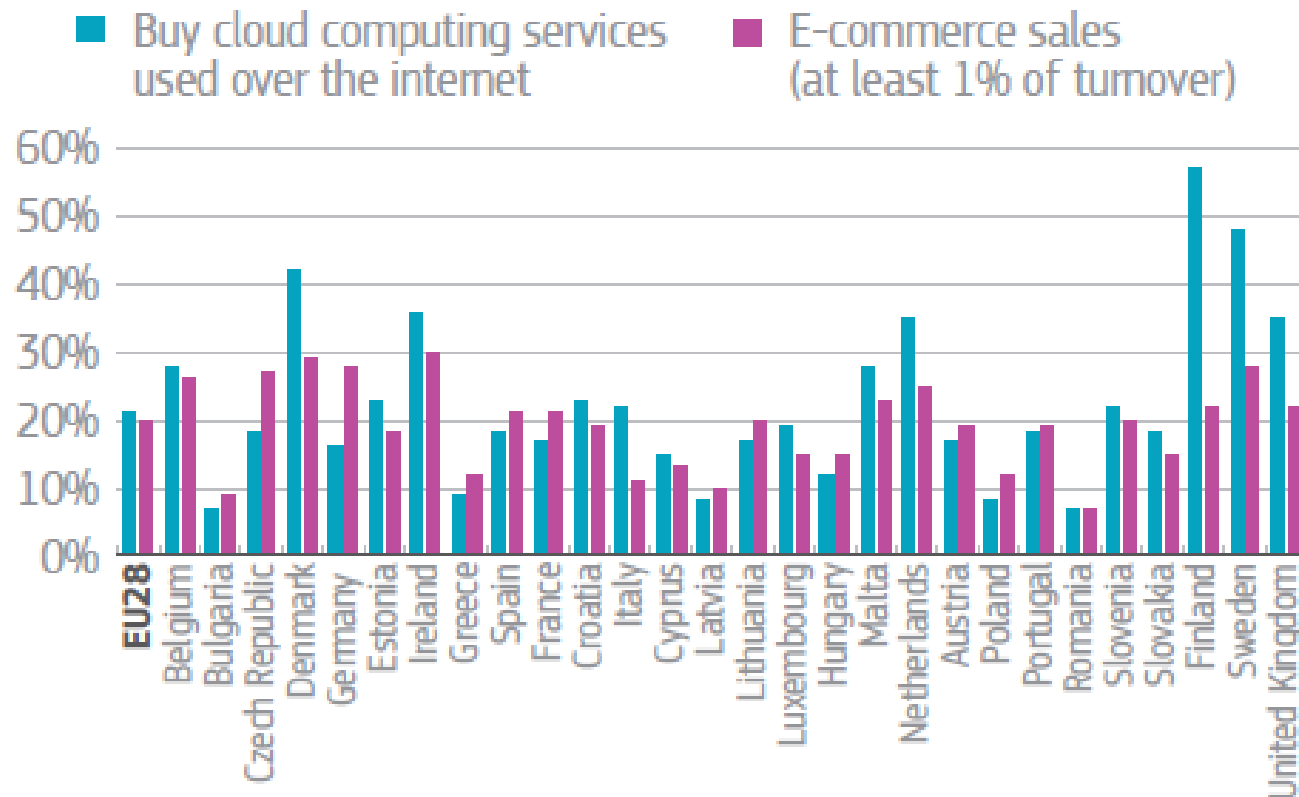
**Mario Mariniello**, Digital Adviser

European Political Strategy Centre, European Commission

(views are personal, not EC's)

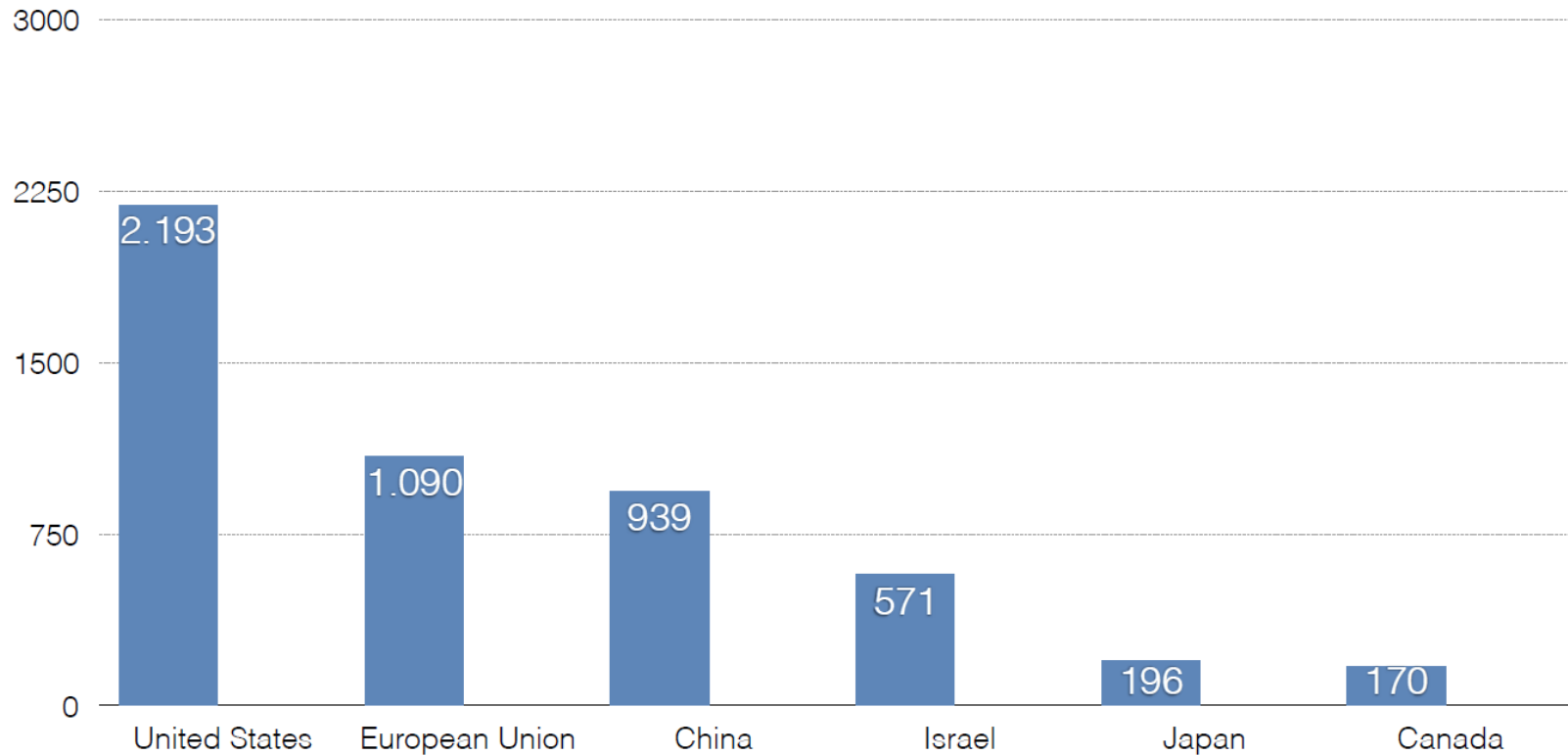
# Europe's n.1 challenge is with adoption

Percentage of all enterprises, without financial sector

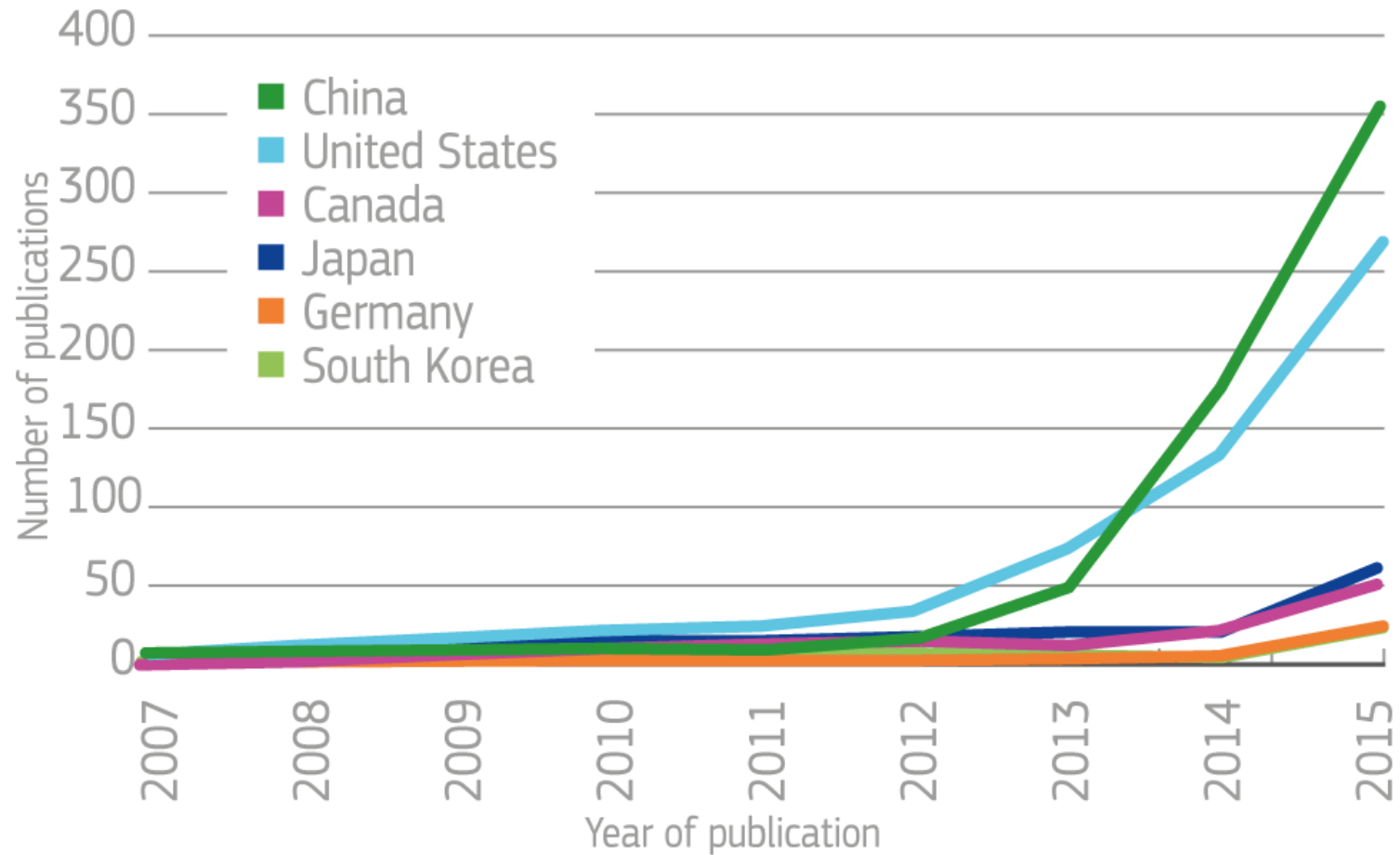


Source: Eurostat, 2016

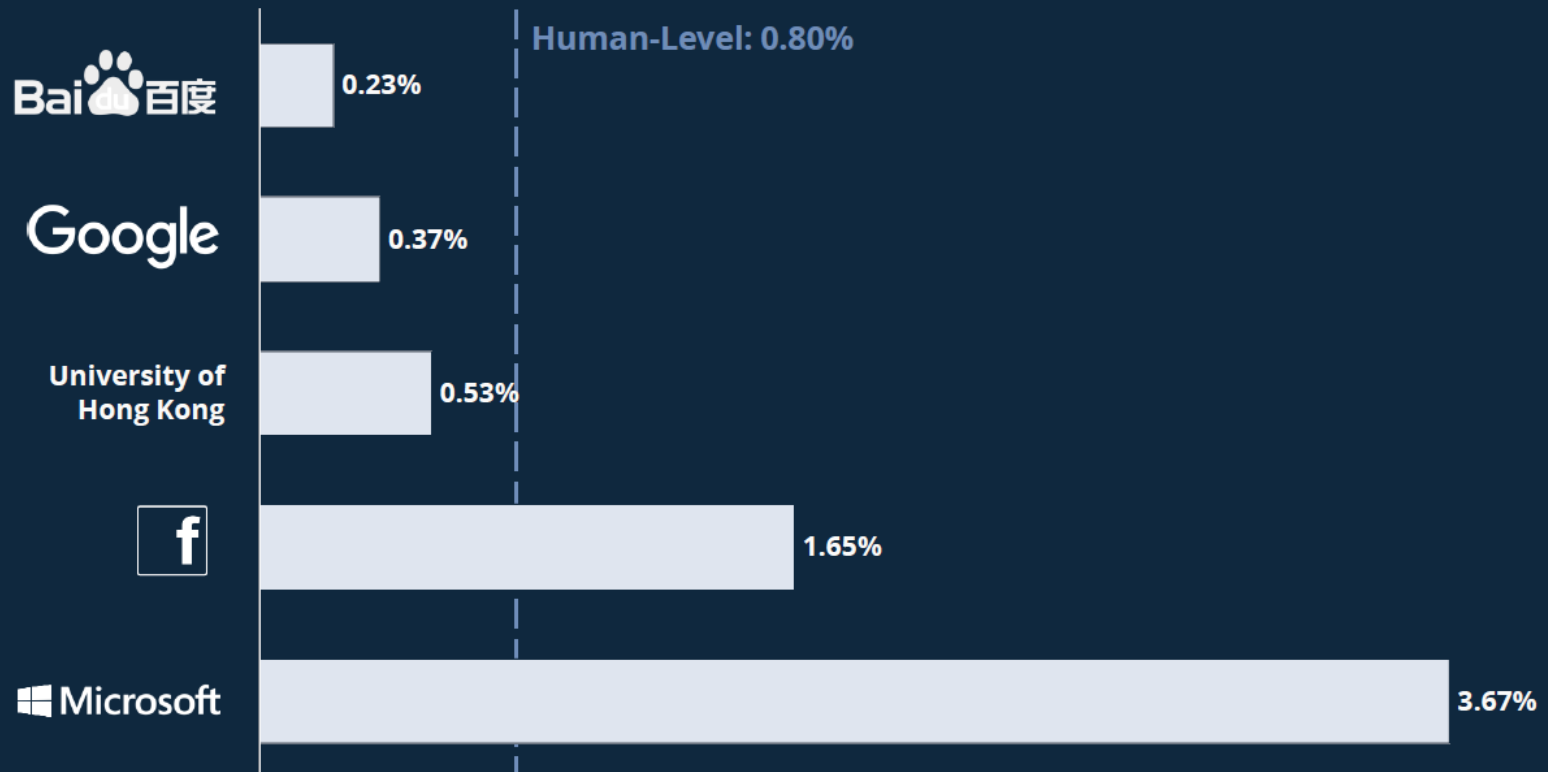
# Number of AI companies



# Published papers in Deep Learning



## Face recognition software comparison as %-error in face recognition



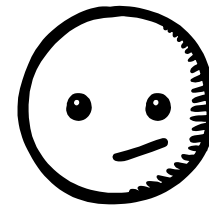
Source: Massachusetts Institute of Technology  
Note: Figures as of 2015, based on the Labeled Faces in the Wild (LFW) dataset

# What do the others have?

## ***Usual suspects:***

- Seamless big markets
- Infrastructure
- Capital flows (private and public)
- Research linked to markets
- ...

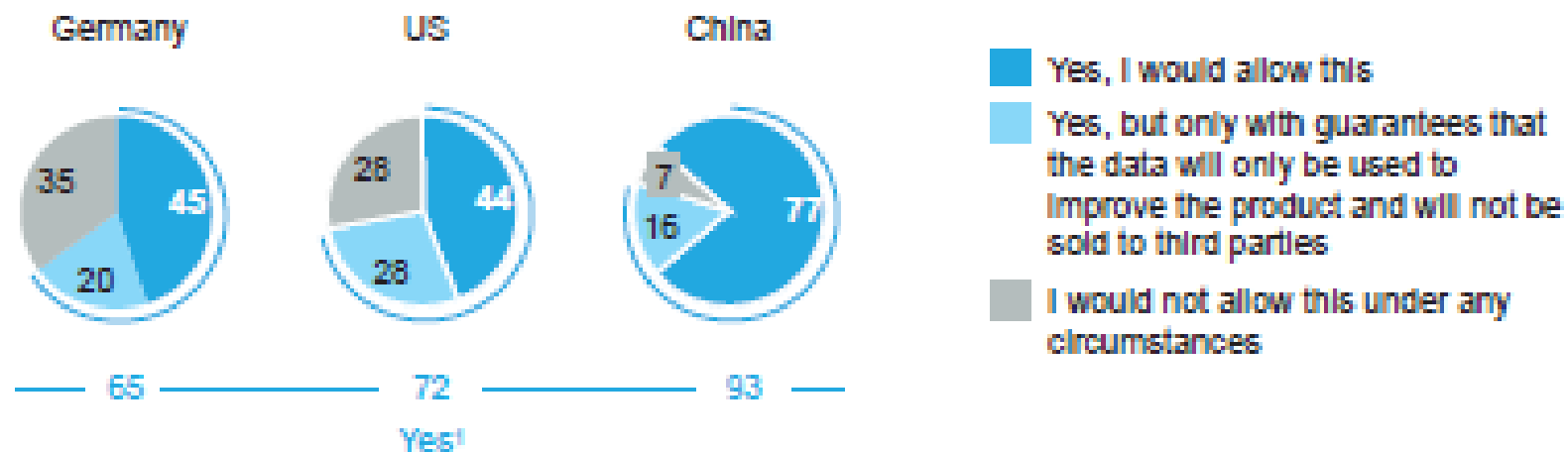
## ***Cultural advantage***



**93% of Chinese customers are willing to share their location data with the manufacturer of their car, compared to 65% of Germans and 72% of Americans**

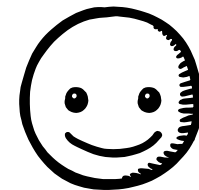
Would you allow your car to track your location and report it anonymously, e.g., to enable your carmaker to improve the next generation of your car?

Percent

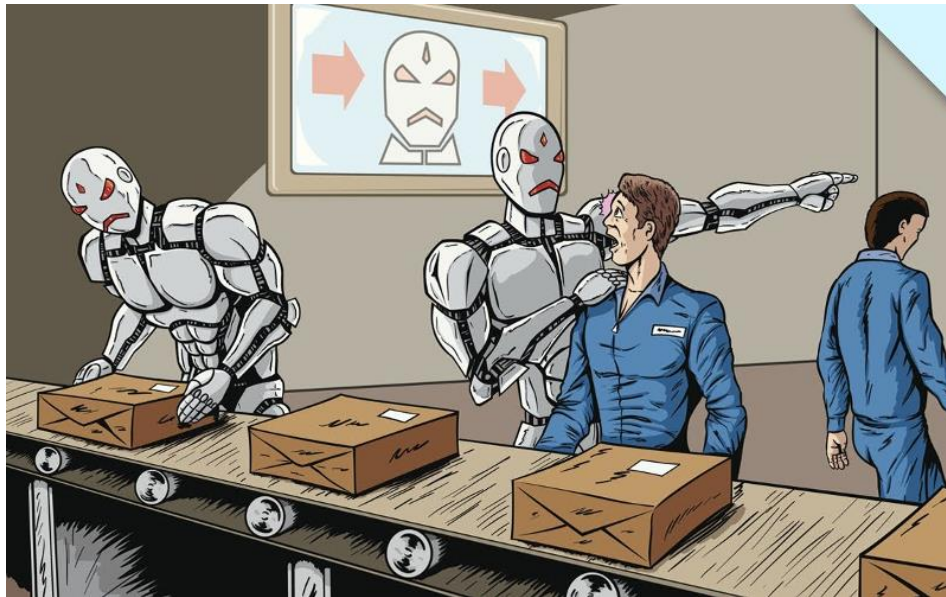


## Optimal response strategy

- (1) Create a framework that **supports AI**
- (2) **Identify** and **address social risks** setting global quality standards
  - *Europe still the richest market*
  - *Long-term demand stability*





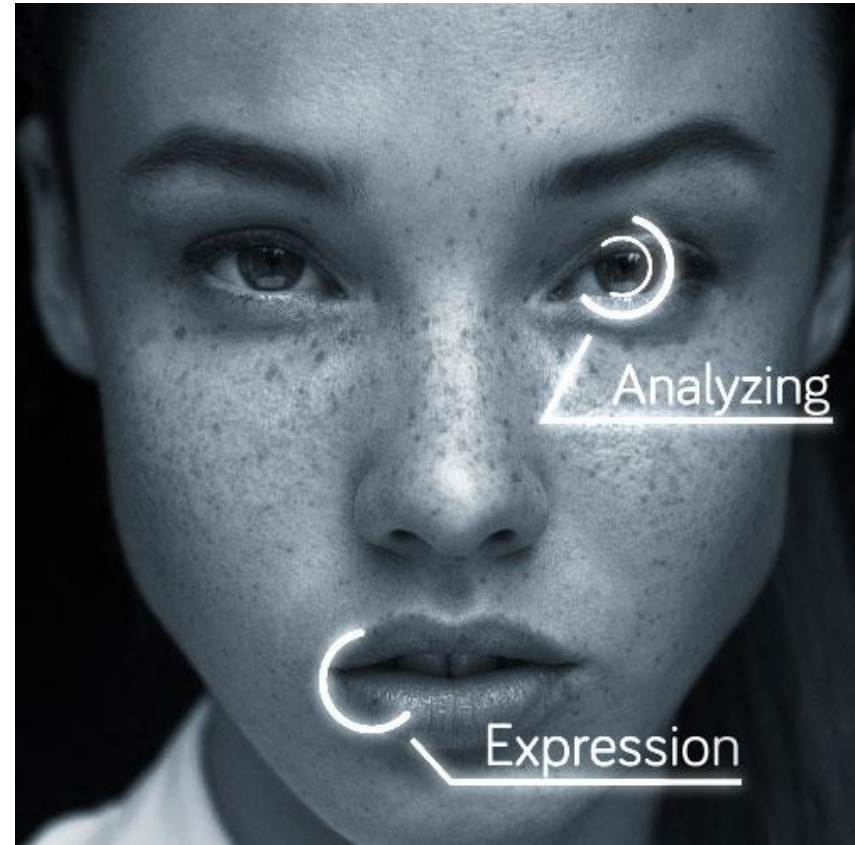


**Substitution**

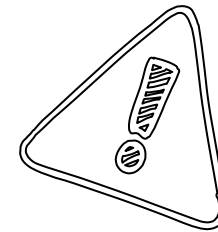
**Vs**

**Augmentation**

# employer – employee 4.0

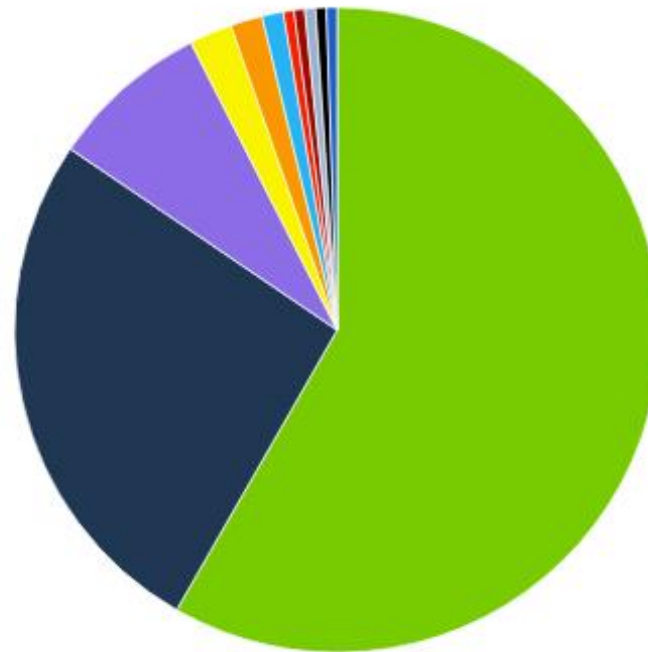


# AI Big Question



*What is the **optimal level of discrimination** in our society?*

Facebook's WhatsApp + Messenger = 80% of the market



WhatsApp Messenger Viber Line WeChat Telegram  
KakaoTalk imo Zalo BBM ChatOn

SUPPORT

EDUCATE

**EU Artificial  
Intelligence Strategy**

ENFORCE

HUMAN-CENTRIC

- (1) Foster **DSM** (connectivity, computing facilities, data flow and access)
- (2) Stimulate AI **adoption** / data multiplier effect
- (3) Support **research**
- (4) **Skills** and **education** actions
- (5) **Competition policy 4.0** for functioning markets
- (6) Action Plan for **Human-Centric AI**

## A European Action Plan for Human-Centric AI

Social system  
analysis

Monitoring

AI quality  
standards

Enforcement

Global  
multilateral  
engagement on AI

EPSC Strategic Note #29

## **The Age of Artificial Intelligence**

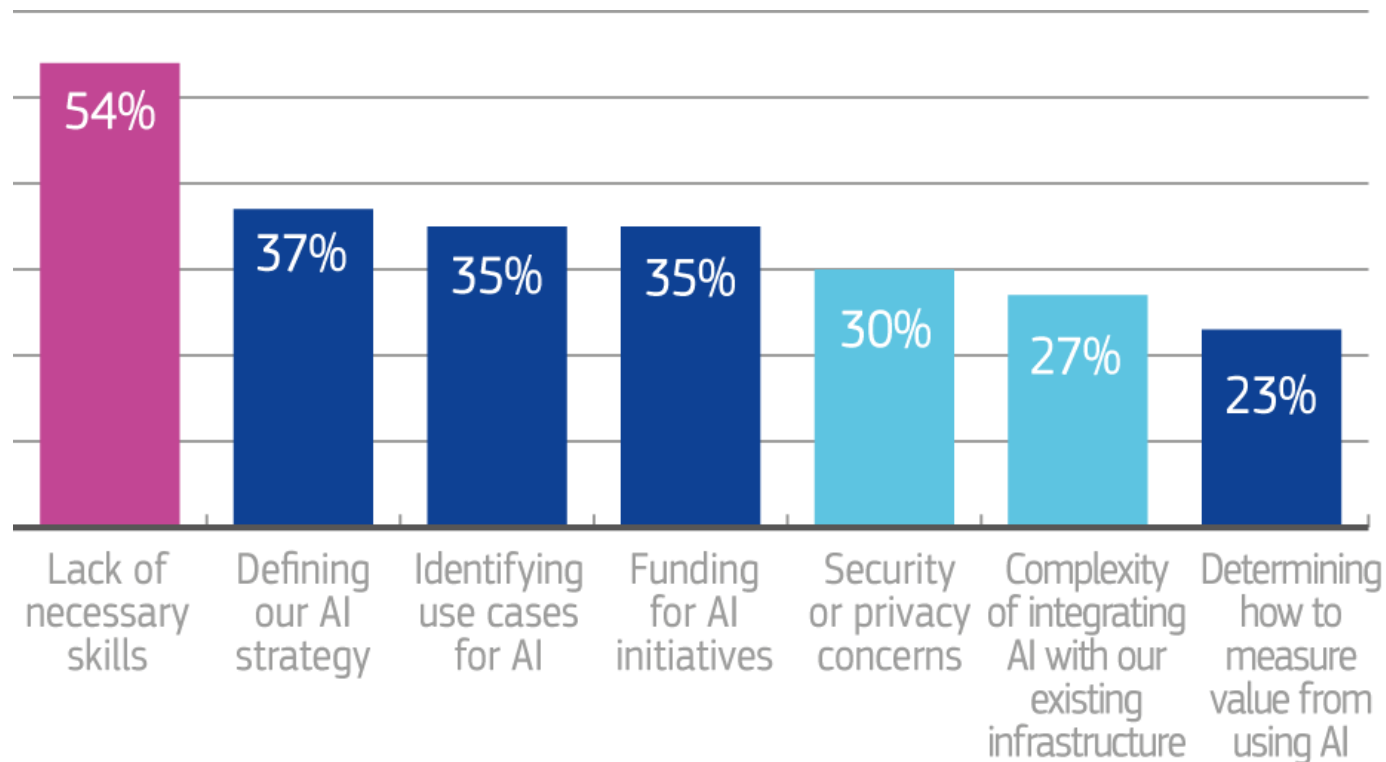
Towards a European Strategy for Human-Centric Machines

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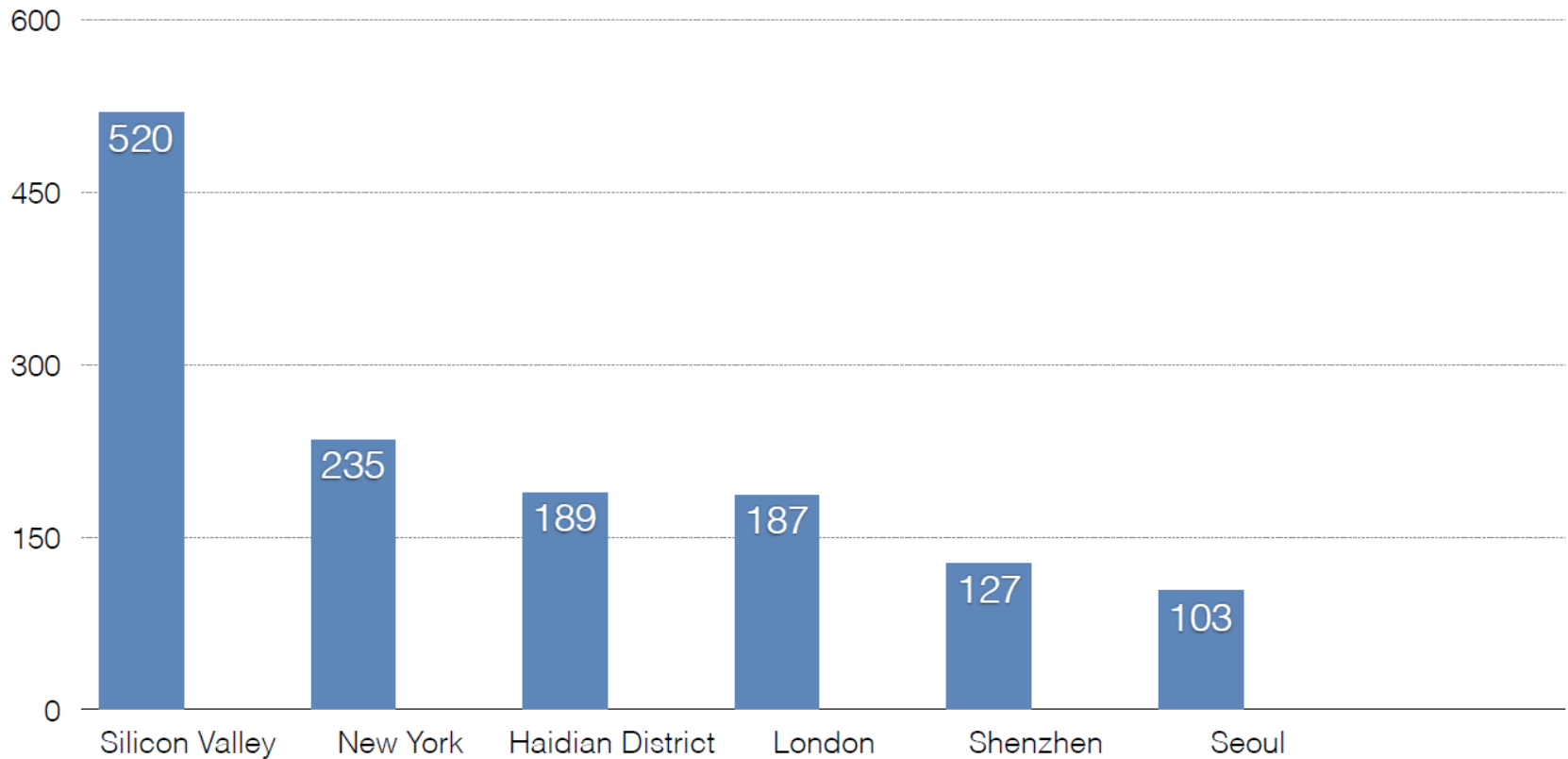


**Back-Up Slides**

Answers to the question: 'What is the biggest roadblock to AI adoption?' (Share of respondents, %)

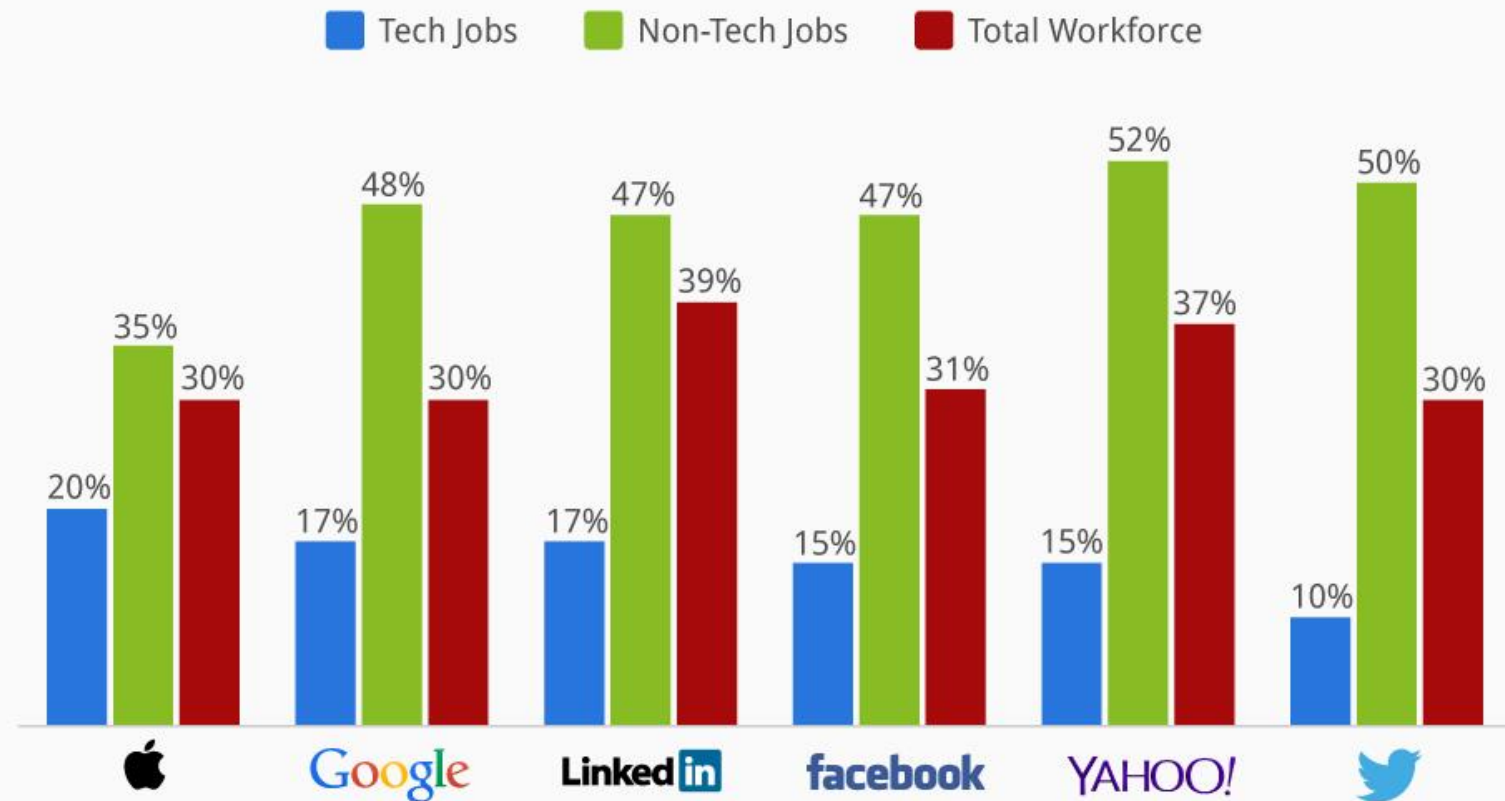


# AI Hubs



## Women Vastly Underrepresented In Silicon Valley Tech Jobs

% of female employees in the workforce of tech companies



@StatistaCharts

Source: Company reports

# Bots learn from humans



# Google's AI has some seriously messed up opinions about homosexuality



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