

European Commission's Initiatives in Artificial Intelligence



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WHY SUPPORTING AI?

BUT: BARRIERS TO DEPLOYMENT

→ EUROPEAN COMMISSION INITIATIVES

Why supporting AI?



NEED FOR INTELLIGENCE IN ARTIFICIAL SYSTEMS

- **To achieve useful tasks, increase efficiency & flexibility**
- **To ensure intuitive interaction and cooperation**

BENEFIT FOR EUROPE'S ECONOMY

- **Essential for productivity and competitiveness**
Reindustrialisation, ageing workforce
- **Growth potential**
Service markets, double-digit growth

BENEFIT FOR EUROPEAN CITIZENS

- **Essential to address societal challenges**
Health, ageing population, environment, security, etc.
→ Improve quality of life at work and at home

Barriers to deployment

TECHNOLOGICAL PERFORMANCE ISSUES

- E.G. ROBUSTNESS, RELIABILITY, ACCURACY, SCALABILITY

ETHICAL, LEGAL AND SOCIETAL ISSUES

PUBLIC ACCEPTANCE



TECHNOLOGICAL PERFORMANCE ISSUES

H2020 FUNDING PROGRAMME [2014-2020]:

↳ **ROBOTICS**

- Largest civilian funding programme in the world:
€700M EU + €2.1BN from industry

↳ **AI ALSO IN**

- Future and Emerging Technologies
e.g. Human Brain Project – €120M
- Big data, data analytics – €250M
- IoT pilot on Autonomous Vehicle – €20M
- AI-on-Demand Platform – €20M (to be continued in 2020)



- **Safety**
 - especially smart, collaborative robots
- **Liability**
 - challenges posed by notably increased autonomy
- **Data protection & ownership**
 - sophisticated and capable sensors and powerful processing
- **Employment**
 - effects on the economy, impact on the workplace

ADDRESSING BARRIERS



- **Safety**

- ↪ Machinery Directive(MD), Medical Devices Directive; Framework Directive on Health and Safety at Work, Directive on the Use of Work Equipment
- ↪ Funding projects on Safety certification, support to standardisation

- **Liability**

- ↪ Products Liability Directive(PLD)

- **Data protection & ownership**

- ↪ General Data Protection Regulation
- ↪ Data ownership, free flow of data and data access and transfer
 - ➔ EC communication on Building a European Data Economy.

- **Employment**

- ↪ Digital Jobs and Skills Coalition

Digitising European Industry Strategy

↪ TECHNOLOGY

- AI: one of the 3 technology pillars

↪ SMART REGULATION FOR SMART INDUSTRY

- Adapting legislation when necessary
 - PLD/MD under evaluation: fit for purpose?
- Balance between innovation and protection

↪ Support to standard & testbeds

↪ SKILLS

- Preparing Europeans for the digital age

Ethical issues

- **Addressed in some funded projects**
- **Major topic in our "European Robotics Forum"**

Public Acceptance

↳ 2017 Eurobarometer survey

- 72% of respondents think robots steal people's jobs
- 84% of respondents agree that robots can do jobs that are too hard/dangerous for people
- 68% agree that robots are a good thing for society because they help people

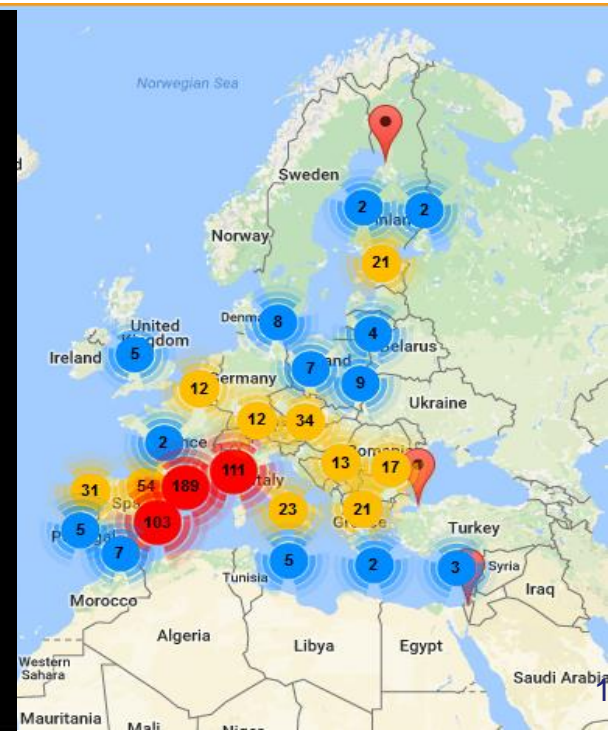
Public Acceptance



↻ **ESSENTIAL TO UNDERSTAND AND ADDRESS THE CONCERNS**

↻ **ESSENTIAL TO INFORM ACCURATELY**

- ~~SCIFI~~ → Reality check
- e.g.: European Robotics Week: public meets the robots



Suggestions:

Let's Collaborate



↪ Share information on common issues:

Understanding and proposing solutions to

- Address ethical issues
- Adapt to the evolution of work
 - Individual, organisational, societal level
- Ensure inclusive AI - Access for All

THANK YOU



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