

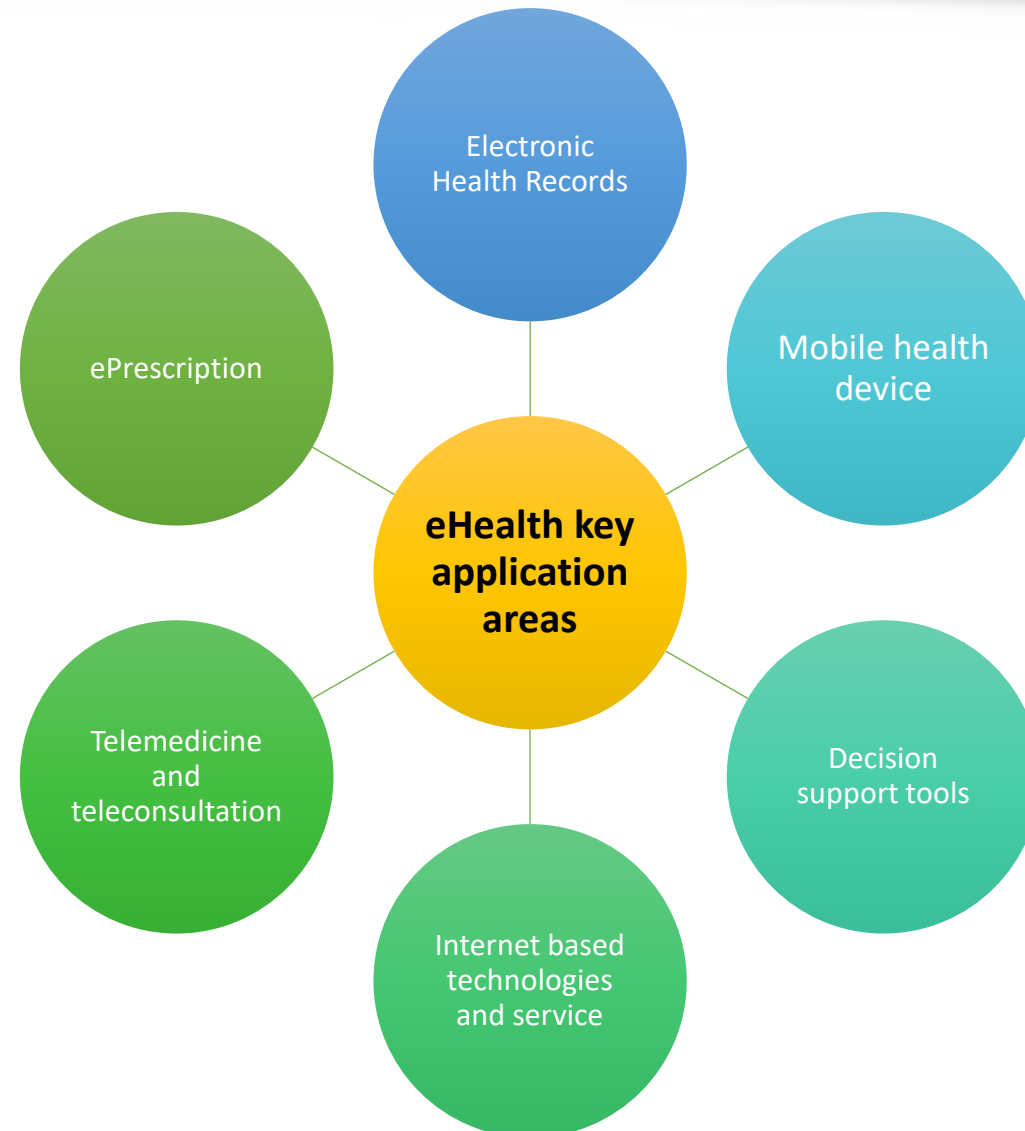
THE FUTURE OF E-HEALTH IN THE AI ERA

State of art and scenarios in the EU

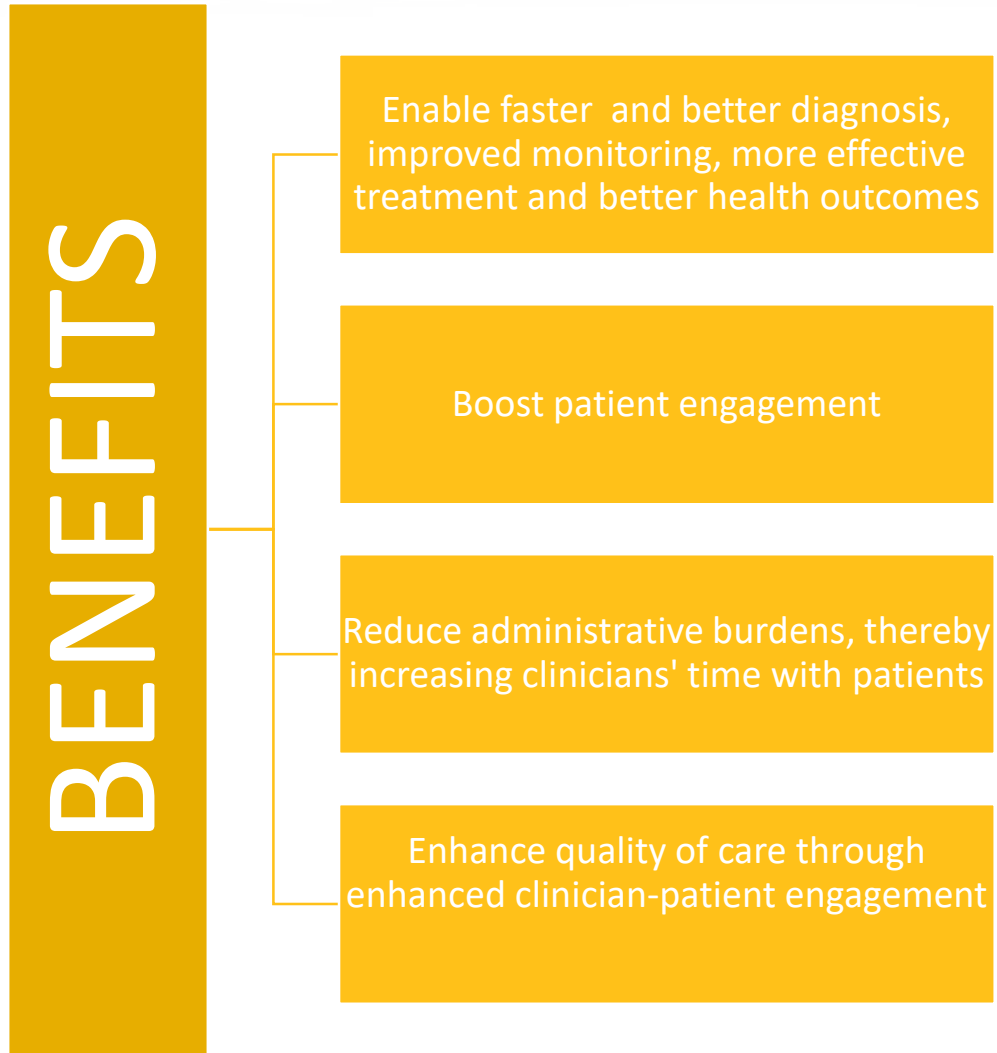


Why is eHealth important?

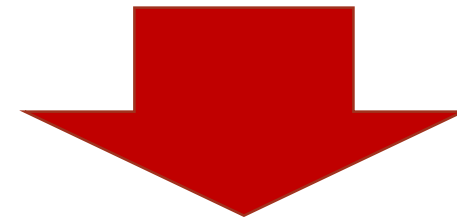
Digital innovation in the healthcare sector has the potential to improve the management of chronic disease and the efficiency of healthcare systems.



eHealth: a lot of benefits but security is the most worrying issue



Trust and confidence are key elements for ensuring the swift uptake of digital health applications by end-users.

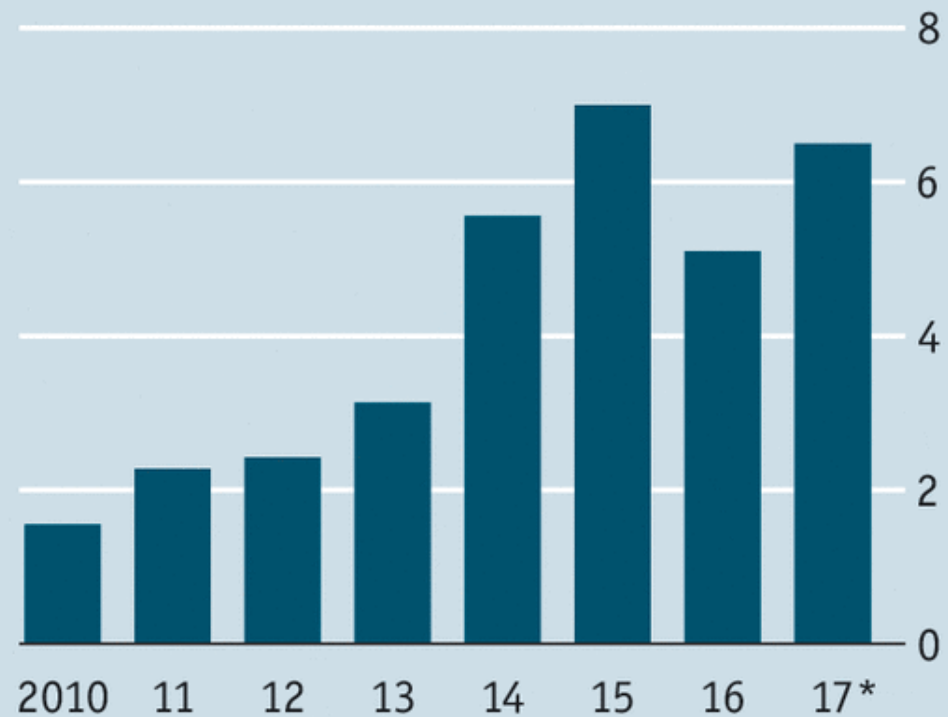


80% of EU citizens agree to share their health data if privacy and security are ensured!



Adrenaline rush

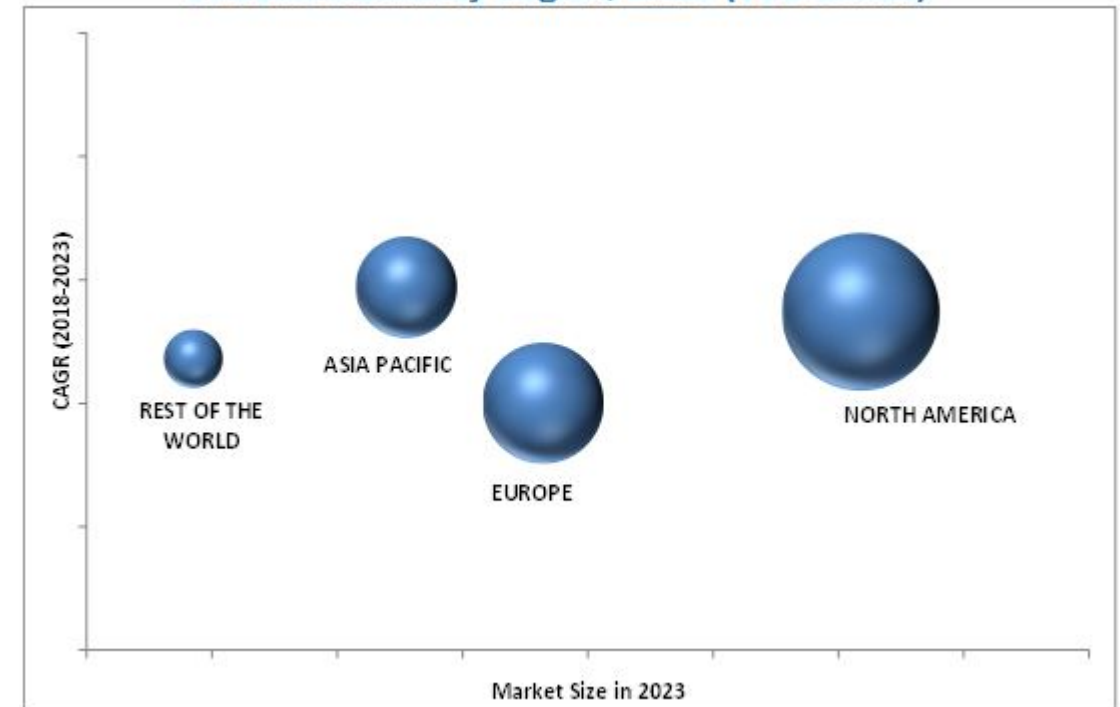
United States, digital health startup funding, \$bn



Source: Accenture

*Forecast

eHealth Market by Region, 2023 (USD Billion)



2004

first eHealth
Action Plan

2011

Directive on the Application
of Patients' Rights in Cross-
Border Healthcare

7 December 2012

eHealth Action Plan 2012-
2020 - Innovative healthcare
for the 21st century

25 April 2018

Communication on Digital Transformation of
Health and Care in the Digital Single Market,
empowering citizens and building a healthier
society

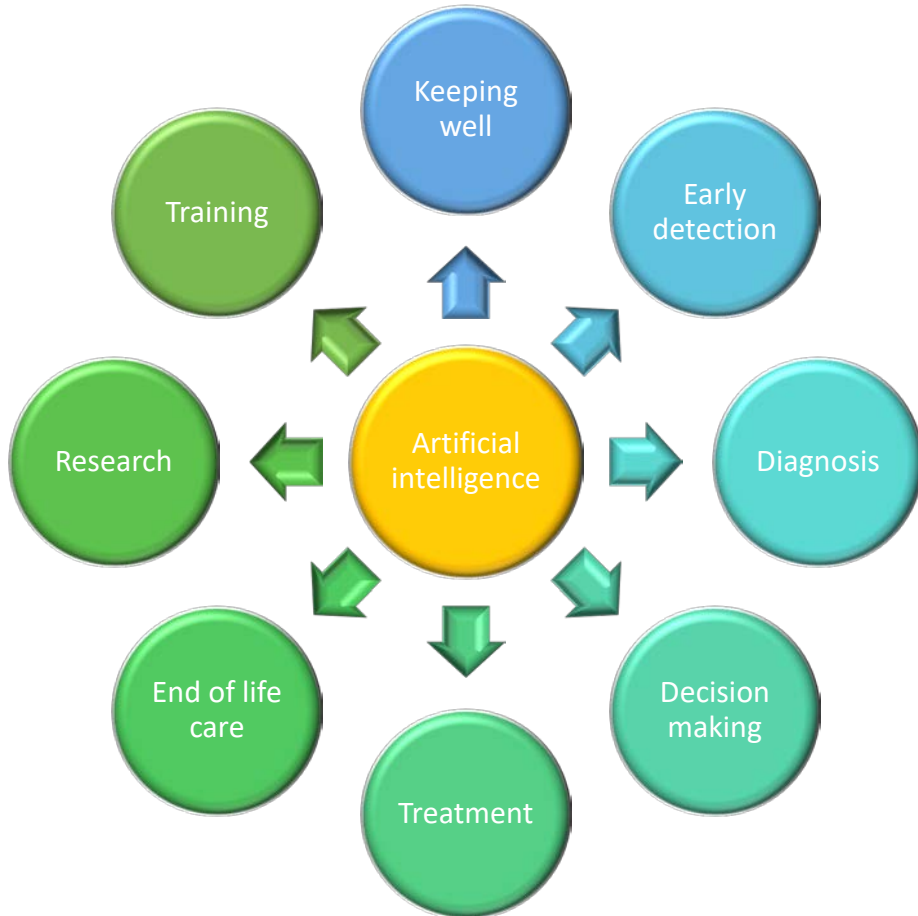


- wider interoperability in eHealth services, addressing the technical and semantic levels, the organizational layer and legal issues;
- support research, innovation and competitiveness in eHealth;
- facilitate deployment and adoption of eHealth;
- promote international cooperation on eHealth at a global level.

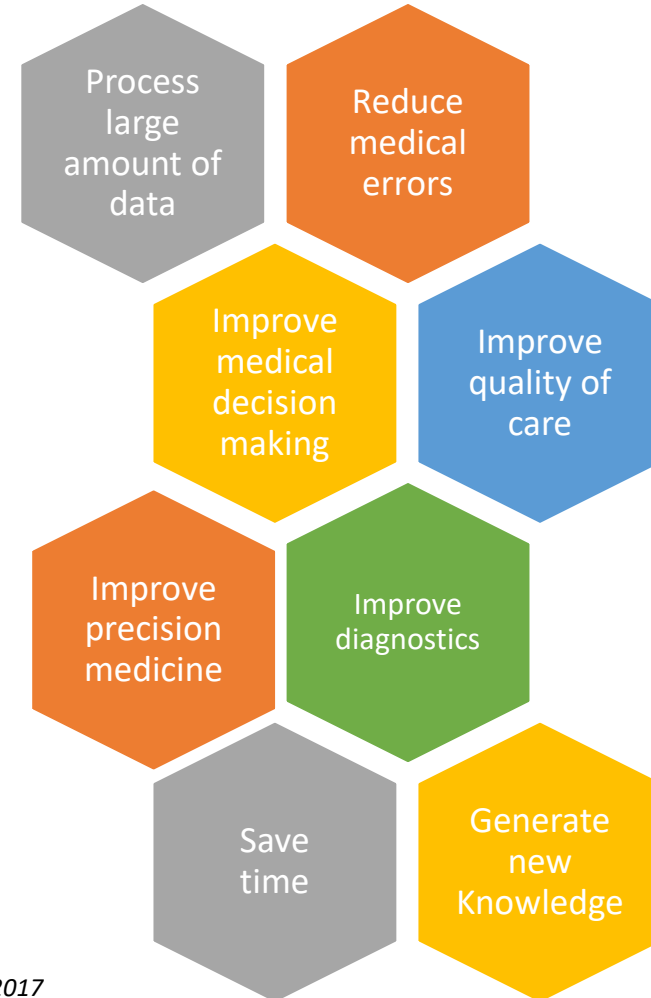


- citizens' secure access to their health data, also across borders;
- personalized medicine through shared European data infrastructures across the EU;
- citizen empowerment with digital tools for user feedback and person-centered care.

AI applications in healthcare



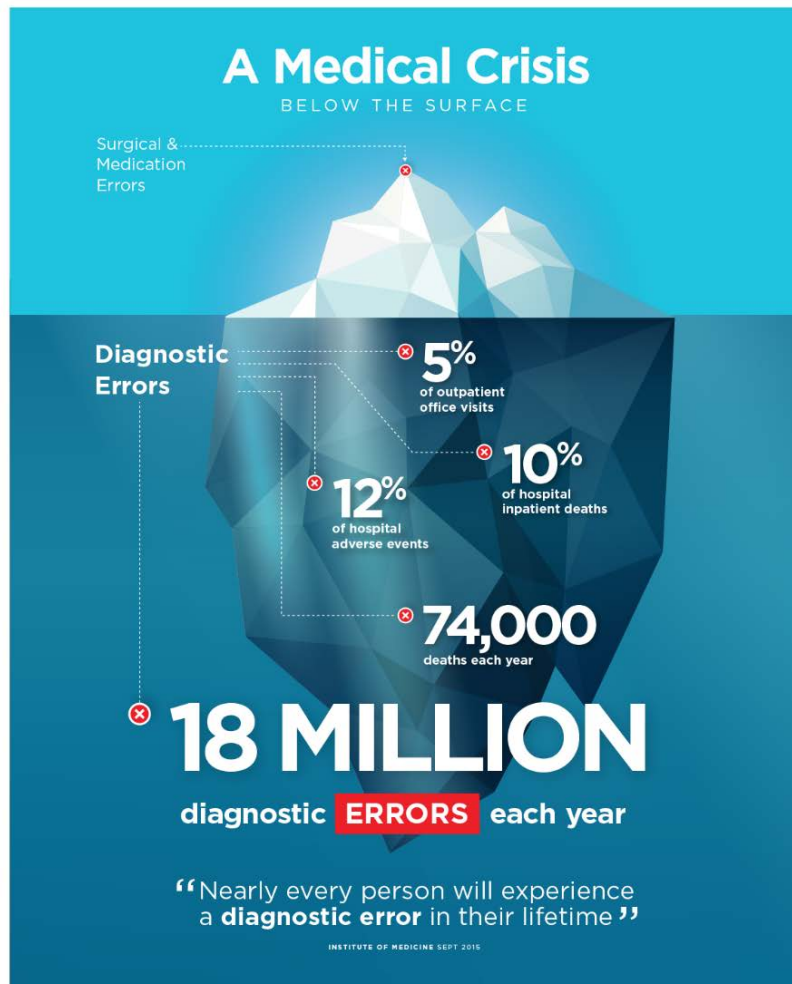
The main benefits of AI in healthcare



“Failure to diagnose or delay in diagnosis are the most important reasons for malpractice litigation in the United States, which in 2017 accounted for 31% of lawsuits”

Eric Topol, *Deep Medicine*, 2019

Defensive medicine is a strong driving force



DOCTOR SURVEY	
Action	% ordered for defensive reasons
Hospital admissions	13.0%
Lab tests	17.9%
X-rays	21.9%
Ultrasound studies	24.0%
MRI studies	27.4%
CT scans	27.6%
Specialty referrals	28.4%

Concerns about malpractice litigation

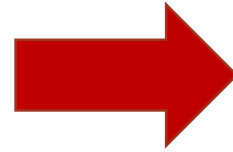
“...Physicians may respond to the perceived threat of litigation by ordering more referrals and more tests, some of which may be recommended by clinical guidelines and beneficial, but others might be wasteful and harmful”



Regional Workshop on Imaging Referral Guidelines
13-16 December 2015, Cairo, EGYPT

AI use in the European healthcare

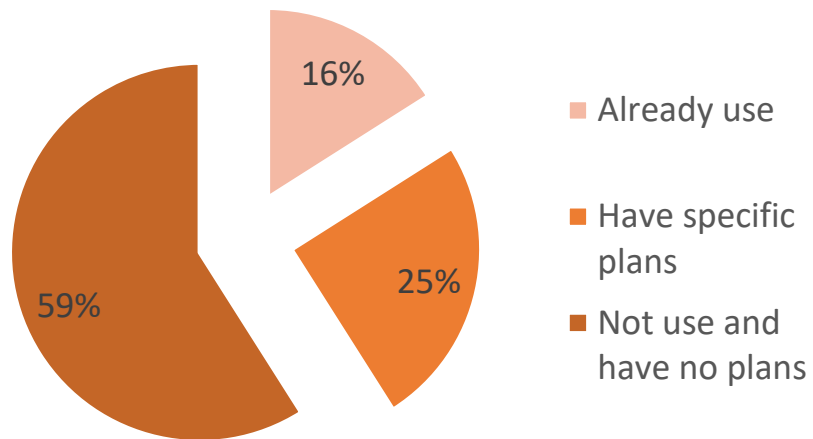
Only 16% of healthcare facilities in Europe already use AI, 25% have a specific plan and 59% of respondents do not use AI tools and have no plan to do so.



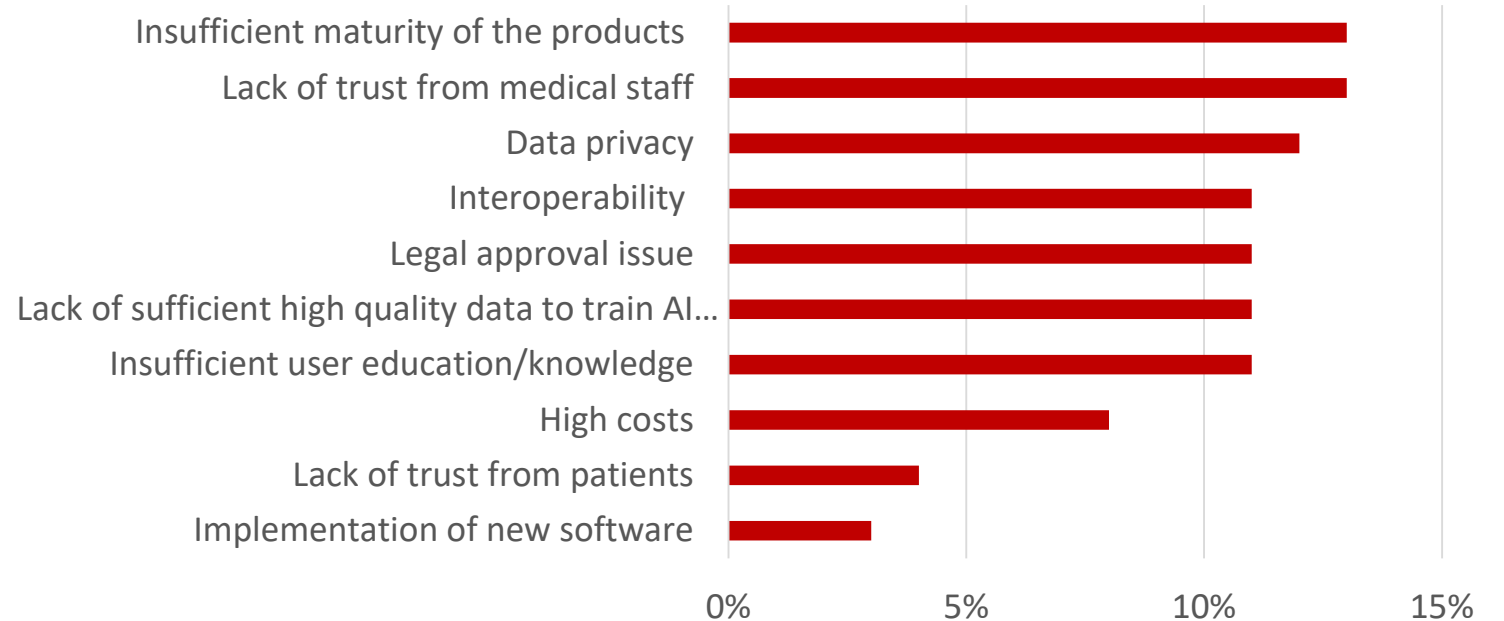
WHY?

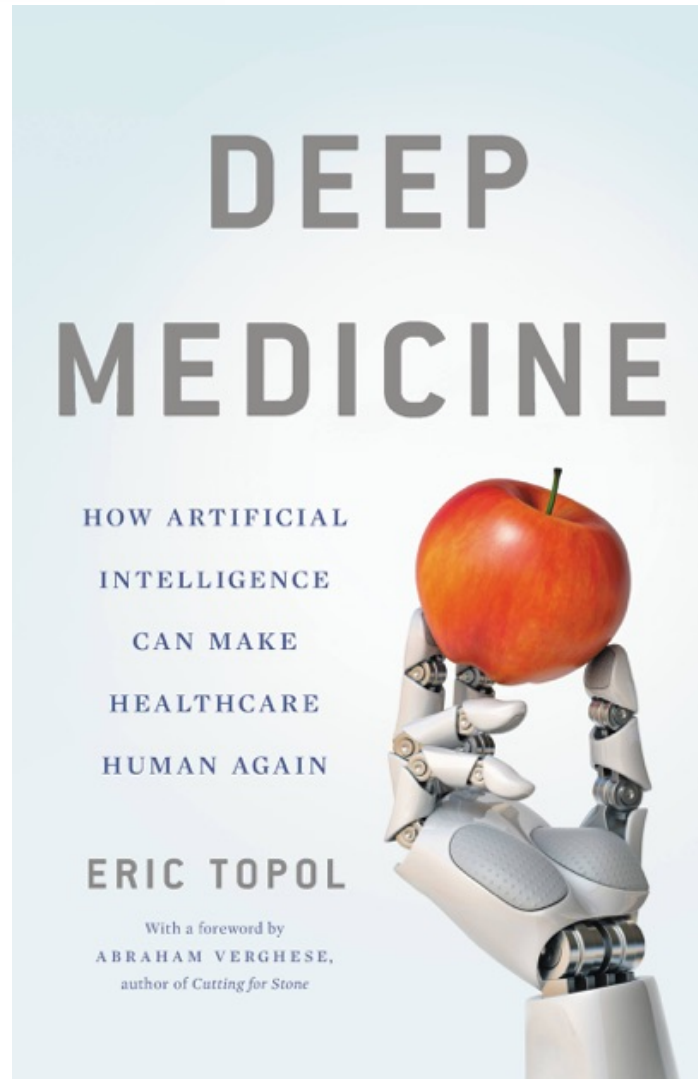
Different challenges and risks may significantly impinge on the adoption of AI technologies

% of European health facilities using AI tools



The biggest challenges for AI in healthcare according to healthcare organizations in Europe





“Imagine if a doctor can get all the information she needs about a patient in 2 minutes and then spend the next 13 minutes of a 15-minute office visit talking with the patient, instead of spending 13 minutes looking for information and 2 minutes talking with the patient”

Lynda Chin, Professor of Genomic Medicine, University of Texas MD Anderson Cancer Center