Digital Health Trends and Opportunities for EO Commercialisation

Living Planet Symposium 2022

COMMERCIALISATION GATEWAY

Space for Business | Business for Space

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The ESA Commercialisation Gateway

Access to the market intelligence for ESA programmes, Investors and ESA Commercialisation Network

Raise awareness and enable the use of space infrastructure and data for applications and services in Space and on Earth

ESA Commercialisation Gateway

A 'one-stop shop' service for all commercial opportunities, creating links between new and emerging business sectors and ESA capabilities
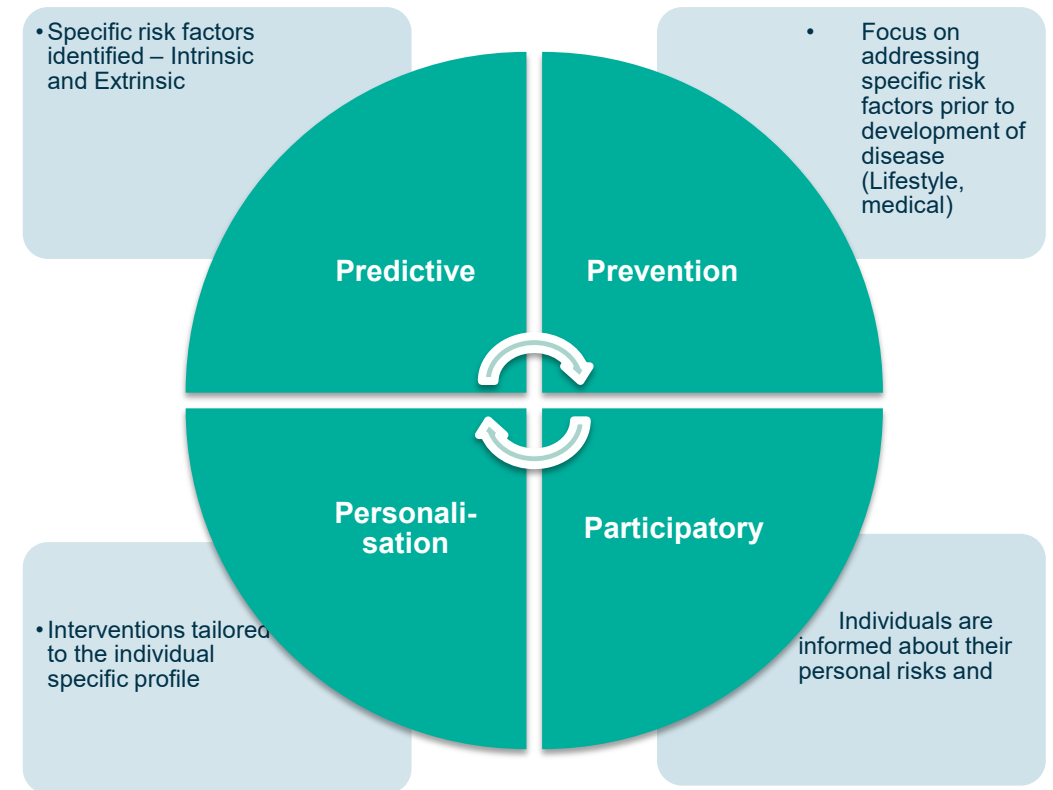
Help newcomers find the path to ESA programmatic opportunities

Provide an easy access to *ESA Commercialisation network* of resources:
ESA BICs, Φ_LabNET, Accelerators, Investors, Patents, Transfer of technology, SME initiatives, Business and technical expertise, End-users

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Global Health Trends

Non-Communicable Diseases

- Majority of all deaths related to NCDs (71%)
- Lifestyle related (smoking, physical inactivity, alcohol and unhealthy diets)
- 25% of NCDs triggered by environmental factors

Cancers, cardiovascular, chronic, respiratory, diseases and diabetes

Communicable Diseases

- Mainly in low-and mid-income countries
- Globalisation and mobility risk factor for increase in CDs
- 75% of new emerging human infections from zoonotic agents

HIV/AIDS, tuberculosis, Malaria, **Covid-19**

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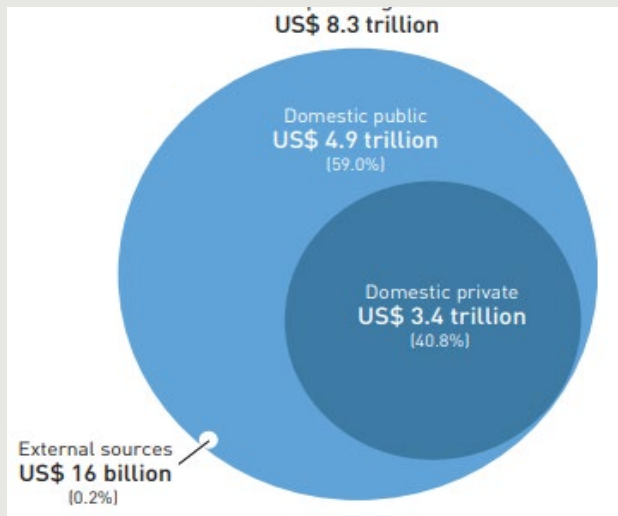
Digital Health and The "P4" Revolution

- Personalisation - Tailor made therapies

- Prevention - digital twins of patients, groups or populations

- Success factors of technologies rely on connectivity, data platforms and user experience

- Enabling technologies on the other hand are sensors, applications, weareables, mobile devices, robotics, AR/VR, and 5G

- Largest sector in terms of medical technology market is in **vitro diagnostics, cardiology and diagnostic imaging**

- COVID-19 accelerating the digitalization of the sector

- Specific risk factors identified – Intrinsic and Extrinsic

- Focus on addressing specific risk factors prior to development of disease (Lifestyle, medical)

Predictive

Prevention

Personali-sation

Participatory

- Interventions tailored to the individual specific profile

Individuals are informed about their personal risks and
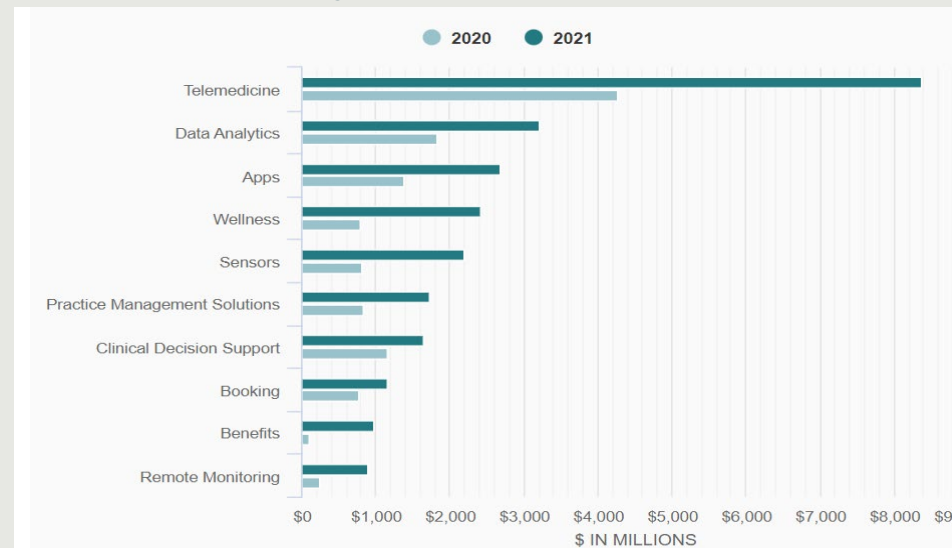
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Health and Digital Spending Increasing

- Upward trend in global health care spending, USD 8.3 trillion between 2000 and 2020

- Digital Health companies continue to captivate venture capitalist funding despite regulatory barriers regarding national reimbursements schemes

- Since 2010 USD 89 bn VC funding went into health of which 30.7 bn invested in 2021

- Telemedicine USD 9.5 bn followed by data analytics 3.2 bn and mHealth 2.6 bn

Global Spending on Health

US$ 8.3 trillion

Domestic public
US$ 4.9 trillion
(59.0%)

Domestic private
US$ 3.4 trillion
(40.8%)

External sources
US$ 16 billion
(0.2%)

Top VC Funded Digital Health Categories in 2020 - 2021 in USDm
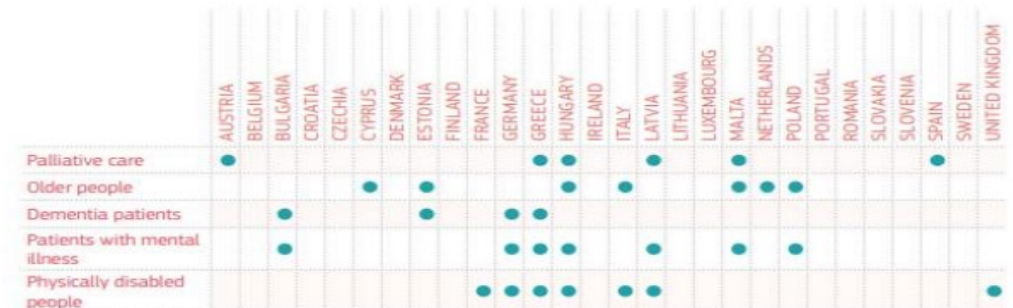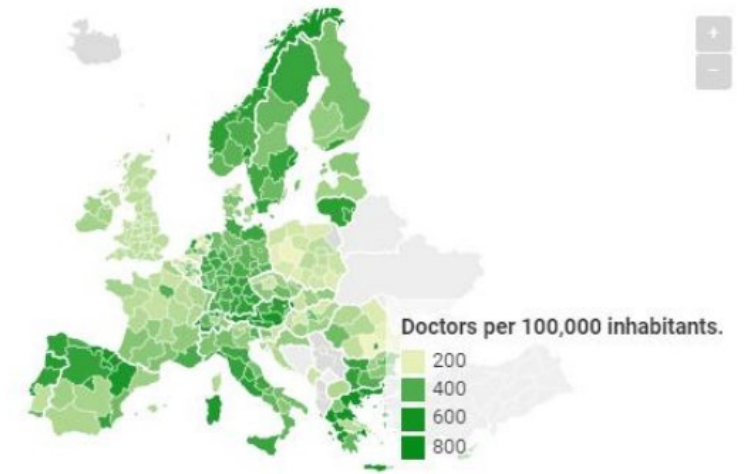

European Unicorns
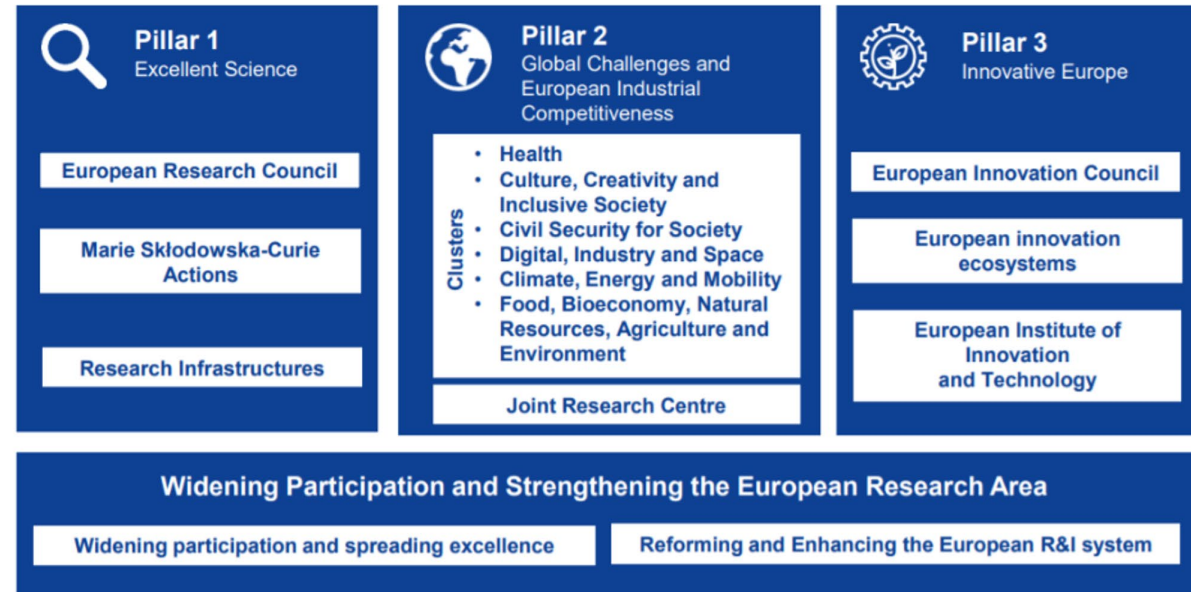
Zoom on European Market

- Ageing population and rising prevalence of chronic diseases

- These developments and COVID-19 are putting a rising demand on healthcare systems across Europe

- Shift to preventative, primary and integrated care is needed for future effective and resilient health systems

- Falling high skilled medical practitioners causing 'medical deserts'

- Problems with timely access medical services exist

- Air quality across Europe still exceeding WHO guidelines and causing between 168,000 and 346,000 premature deaths

- More frequent extreme weather events due to climate change

- More frequent heatwaves and the risk of vector, waterborne diseases

Doctors per 100,000 inhabitants.
200
400
600
800

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Call for A Strengthened European Policy Lead

New initiatives on European level through

- European Pharmaceutical Strategy
- New EU4Health programme (2021 – 2027) receiving significant increase in funding (Chafea)
- Call for a European Health Data Space
- Strengthening of European agencies such as EMA & ECDC
- EC making EUR 7.7bn for health and EUR 15bn for digital technologies available

Pillar 1 — Excellent Science
- European Research Council
- Marie Skłodowska-Curie Actions
- Research Infrastructures

Pillar 2 — Global Challenges and European Industrial Competitiveness

Clusters
- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre

Pillar 3 — Innovative Europe
- European Innovation Council
- European innovation ecosystems
- European Institute of Innovation and Technology

Widening Participation and Strengthening the European Research Area
- Widening participation and spreading excellence
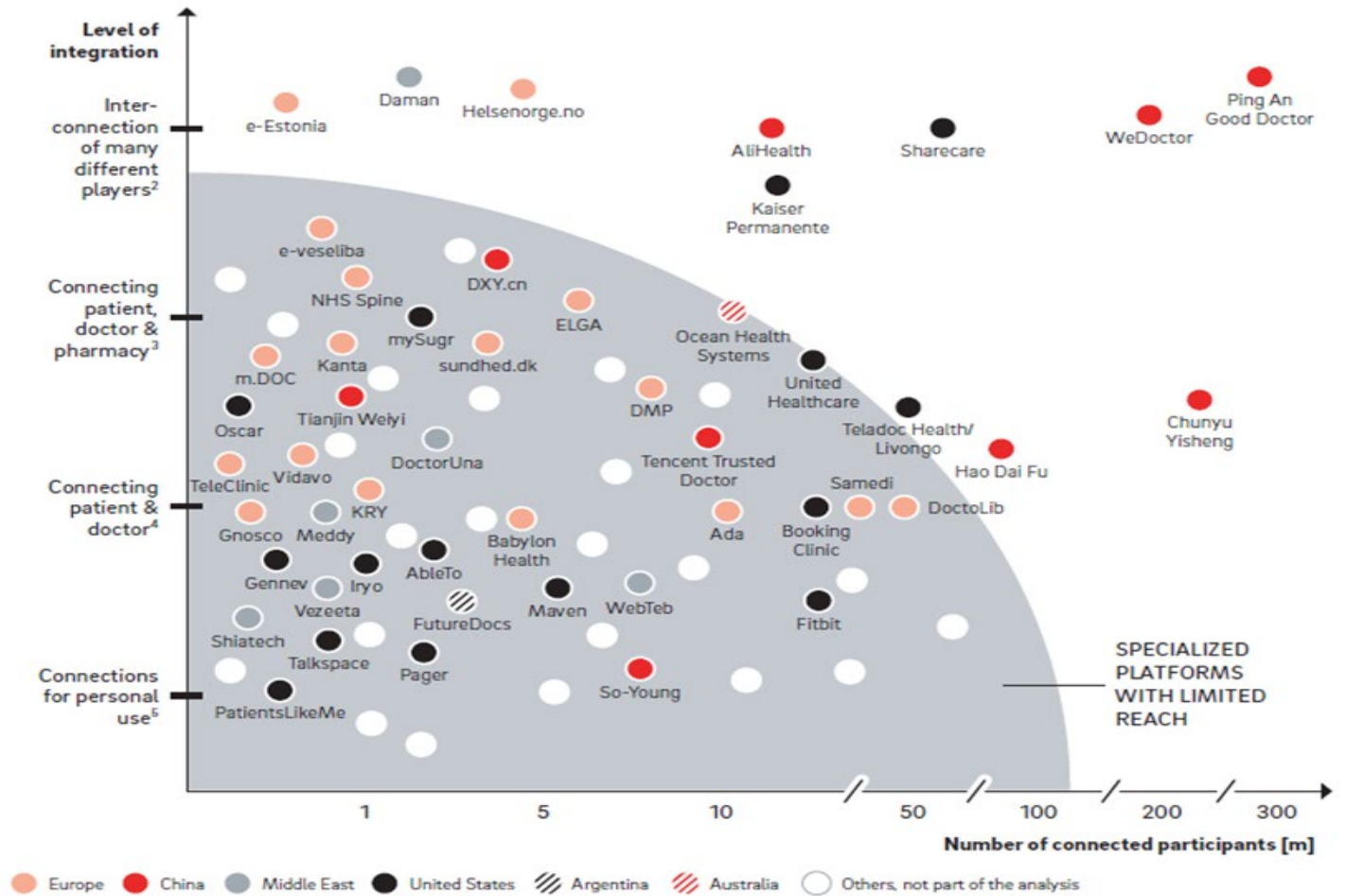- Reforming and Enhancing the European R&I system

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To Sum Up

- Increase in lifestyle related diseases, partially triggered by environmental factors

- Globalisation and mobility risk factors for CDs and increase in diseases from zoonotic agents

- Personalisation and preventative care driving digital health provision

- Increase in health expenditures and VC's investing in Digital Health

- Ageing population, chronic diseases and Covid-19 straining European healthcare systems

- European initiatives encouraging a more coordinated approach to health

- Emergence of digital platforms driving uptake of innovative solutions

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THANK YOU
FOR YOUR ATTENTION

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