

Market perspective on Health and Space

ESA COMMERCIALISATION GATEWAY

SPACE FOR BUSINESS
BUSINESS FOR SPACE

From Space to Earth: Innovations Enabling Accessibility on Earth

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The ESA Commercialisation Gateway

Market intelligence for ESA programmes,
Investors, industry and ESA
Commercialisation Network

Creating links between new
and emerging business sectors and ESA
capabilities



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

Help newcomers find the path to ESA
programmatic opportunities and
collaborations

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

ESA COMMERCIALISATION GATEWAY

Space for Business | Business for Space

Areas where ESA can help you



AVIATION



DATA PLATFORMS
AND IOT



EDUCATION AND
TRAINING



ENERGY



ENVIRONMENT,
WILDLIFE AND
NATURAL
RESOURCES



FINANCE,
INVESTMENT AND
INSURANCE



FOOD AND
AGRICULTURE



HEALTH



INFRASTRUCTURE
AND SMART CITIES



MARITIME AND
AQUATIC



MATERIALS,
MANUFACTURING
AND MINING



MEDIA, CULTURE
AND SPORT



SAFETY AND
SECURITY



SPACE
TECHNOLOGIES



TOURISM



TRANSPORT AND
LOGISTICS

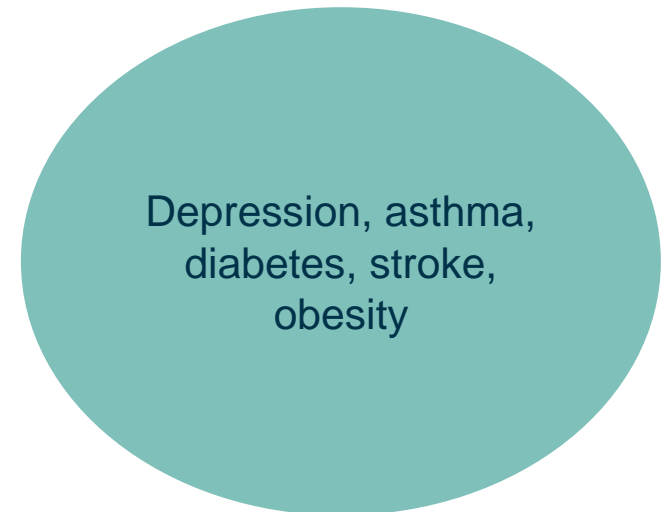
Non-Communicable Diseases (NCD)

- Majority of all deaths related to NCDs (74%)
- Increase in ageing population, chronic health diseases
- Lifestyle related (smoking, physical inactivity, alcohol and unhealthy diets)
- 25% of NCDs triggered by environmental factors



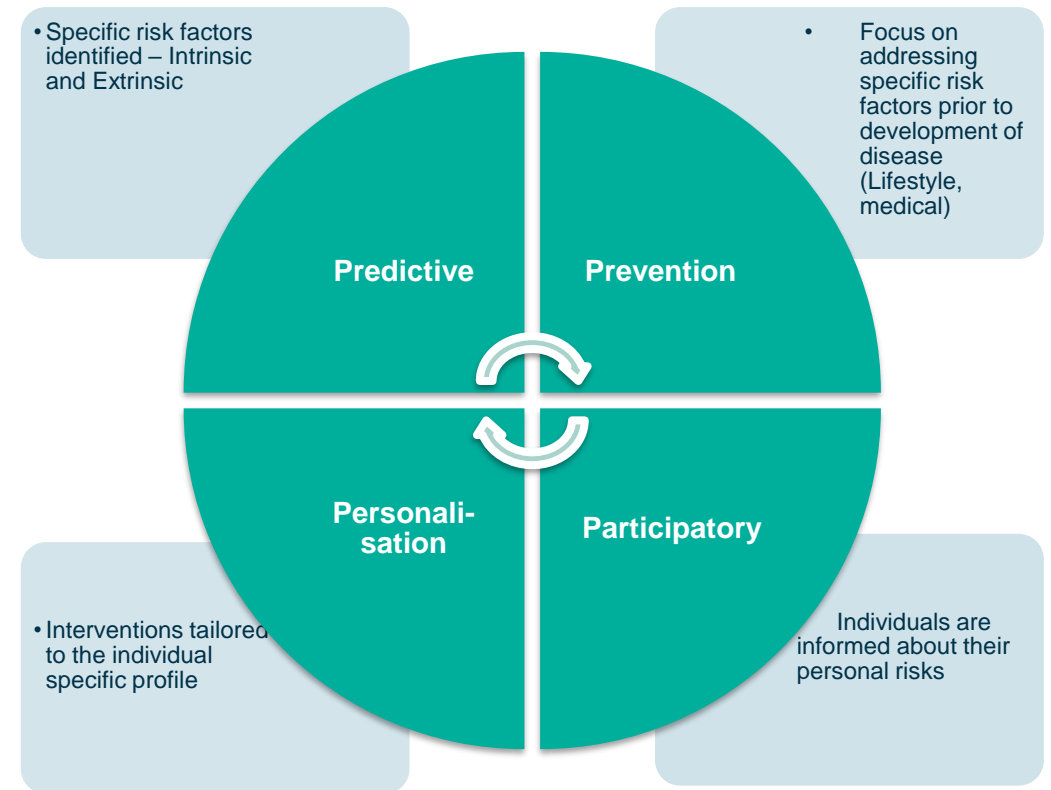
Disabilities

- 1.3 bn people globally experience significant disability (16%)
- Majority living in low and middle income - prevalence highest in high income
- Health inequality increasing due to restricted accessibility
- Driven by environmental factors such as socioeconomic and political conditions
- Double the risk of developing conditions and shorter life expectancy (20 years)



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, user experience and accessibility
- Enabling technologies on the other hand are sensors, applications, wearables, mobile devices, robotics, meta verse and 5G/6G
- Enabling healthcare providers to embrace telemedicine and move towards outpatient care
- COVID-19 major accelerator for delivering healthcare in new digital formats



Emerging Platforms And Players On All Levels



Big Data

AI

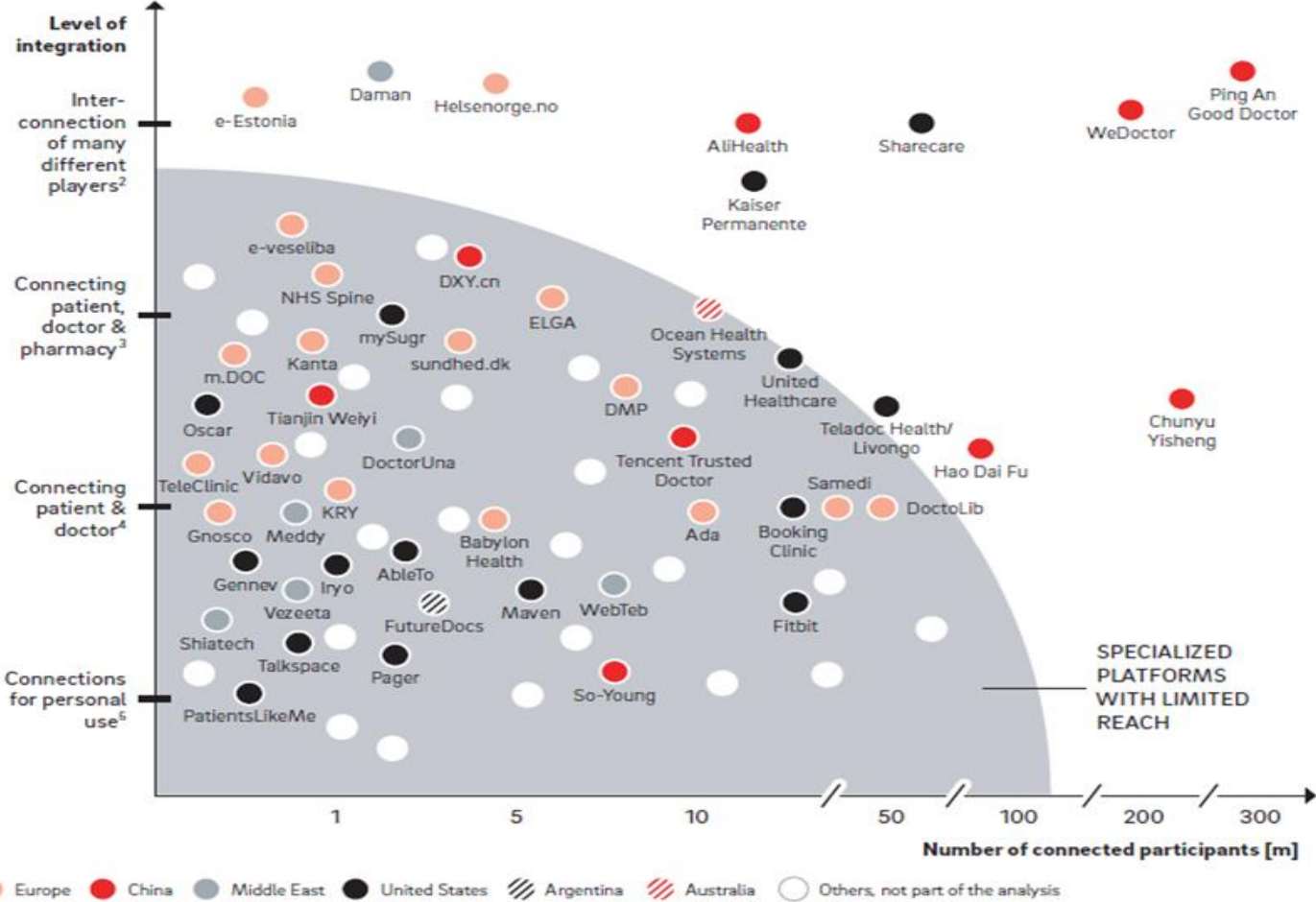
mHealth

Applications

Sensors

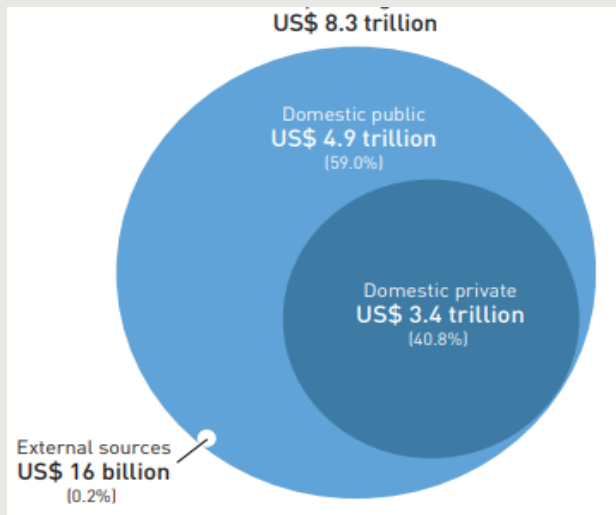


Accessibility of healthcare

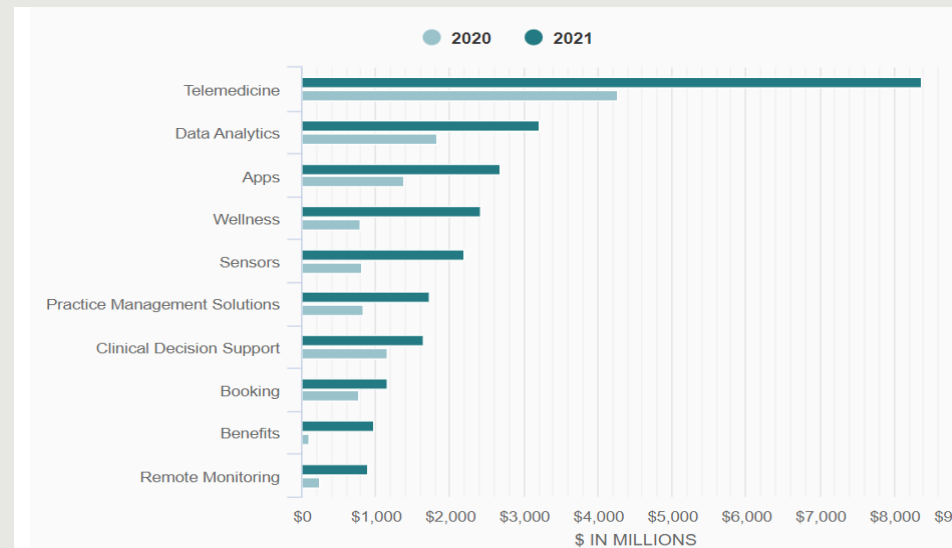


- Increase in global health care spending, USD 8.3 trillion between 2000 and 2020
- Health companies capture venture capitalist funding despite regulatory barriers regarding national reimbursements schemes – covid a major driver
- Telemedicine USD 9.5 bn followed by data analytics 3.2 bn and mHealth 2.6 bn
- High economic and social dividends for investing in disability inclusive prevention and care for NCDs - 10 USD return per 1 USD spent

Global Spending on Health



Top VC Funded Digital Health Categories in 2020 and 2021 in USD



Health Tech Unicorns



Health

Personalisation, treatment and precision medicine

Ageing population and chronic diseases

Emerging dedicated digital platforms

Early innovation artificial intelligence, especially for prevention and diagnosis, will further support and complement decision-making

Telemedicine & basic services and capacity development

Need for more resilient and accessible health care systems

Data centric approach to public health and individual patient care

Streamline, improve visibility and efficiency across supply chains



Space

Drug design and development

Disease modelling

Space medicine/life sciences (osteoporosis)

Real time condition monitoring and preventative care of patients (e.g. IoT, wearables)

Remote diagnosis/consultations enabling patients to engage with doctors

Monitor pollution levels for respiratory and broader health risks (air, water)

Early warning systems, epidemiology, disease surveillance, climate change

Navigation & connectivity services for supply chain efficiencies and real time tracking capabilities

Diversity, Equity & Inclusion Call

- Context: Increase in **ageing population** requires tailored services & products + **discrimination** leads to economic inefficiencies
- Scope: investigate technical feasibility & viability of space technologies to address challenges related to DE&I + promote **fairness & equal** opportunities for all
- Use-case:
 - Inclusive cities
 - Inclusive Corporate Cultures and Business Models
 - Inclusive Society for Elderly Citizens
- **6-months Kick-Start study**
- ESA will provide funding of 75% for a maximum of **€60k** to each winning team
- Opening date: 20th November 2023
- Closing date: 26th January 2024
- Condition: team must be based in one of ESA's member state supporting the Call

More information & registration to the webinar on November 8th: [Diversity, Equity and Inclusion | ESA Business Applications](#)



Health innovation trends and opportunities for space business: <https://commercialisation.esa.int/market-trends/>

ESA Commercialisation Days - Health and BioTech: <https://commercialisation.esa.int/2023/05/esa-commercialisation-days-health-and-biotech-summary/>

ESA Health and BioTech community LinkedIn group: <https://www.linkedin.com/groups/9352046/>

Our LinkedIn page: <https://www.linkedin.com/company/72161040/admin/feed/posts/>



THANK YOU
FOR YOUR ATTENTION

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