









## European Partnership on Health Innovation











## Important Disclaimer: The purpose of this document is to present the status of discussions between 5 health industry associations. The content should not be considered as final or pre-emptive of final legislative decision about future public private partnerships under Horizon Europe.



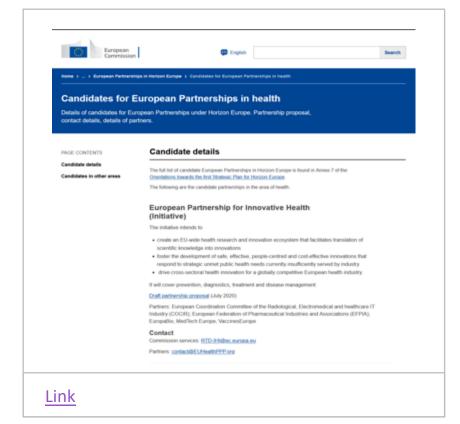








## **EC** website on Partnerships





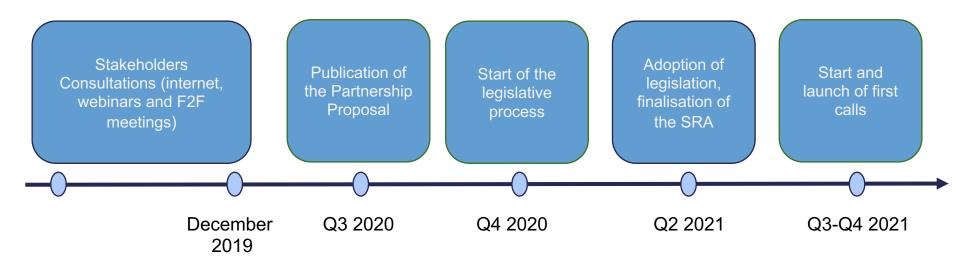








## Timelines (tentative)













## The COVID crisis calls for more and deeper partnering

- Proven relationship between sectors
  - pharma, diagnostic, vaccines, medical devices, digital health...
- Inter-relationship between national healthcare systems and EU initiatives
- Capacity to quickly mobilise all stakeholders at large scale

## Biology promise and technology innovation has yet to gain more traction

# New scientific & technological advancements have transformative potential

- Digital therapies appearing
- · Precision therapies emerging
- Big data as a critical enabler to transforming healthcare

### Multiple barriers for adoption

- Siloed approaches
- Different sets of standards
- Limited translation of science into products and services
- Reimbursement focusing on disease management
- Locked value of data analytics
- Interdisciplinary barriers in medical science

### In response to this, we propose the cross-sector European Health Innovation PPP

### A unique initiative

- Push boundaries of the pre-competitive space: mobilise and combine expertise across pharma, biologic, med tech and health IT
- Pioneer paradigm changes and cross-sector innovation
- Strengthen translational research ecosystem in Europe

## Achieving goal through purposeful integration of

- technologies and know-how
- products and services
- clinical, community, social and informal care workflows
- business models and convergence of frameworks



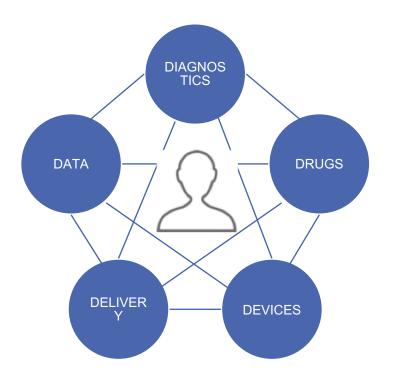








## Health Innovation PPP - Towards people-centred health innovation



- Improve patient journey and outcomes for healthcare systems
- Create resilient European translational R&D&I ecosystem
- Accelerate of translation of ideas into products and services











## Specific objectives

- 1. Better **understand determinants** of health and priority disease areas
- 2. Integrate fragmented health R&I efforts across sectors and technologies, academia and industry/public and private stakeholders, focussing on unmet public health needs
- 3. **Deliver tools**, data, platforms, technologies and processes **for improved prediction**, **prevention**, **interception**, **treatment and management of diseases**, meeting the needs of end users
- 4. Demonstrate **feasibility of people-centred**, **integrated health care** solutions along the health care pathway
- 5. Exploit the full potential of digitalisation and data exchange in health care
- 6. Deliver new and improved **methodologies and models for comprehensive assessment of the added value** of innovative and integrated health care solutions.











## Draft Strategic Research Agenda (24 October 2019)

- Improved patient journey and outcomes for healthcare systems
- Resilient translational R&D ecosystem
- Acceleration of translation of ideas into products and services

- 1 Harness advances in and synergies in genetics, biology and technology innovations for less invasive, more precise and effective prevention, diagnosis, treatment and care
- Develop patient-centric integrated care solutions along the healthcare continuum
- 3 Combine Big Data with advanced analytics/Al to enable R&D and products and services to support integrated healthcare approach
- 4 Engaging citizens and patients to manage and improve their health
- 5 Reinforce value initiatives to guide investment and rewarding of innovation in health and social care











## How could it work?

Public private reflection on **challenges** that hold progress.

Multiple companies join forces,

combine (often) proprietary knowledge, data and assets and open them up for challenge by and collaboration with public partners

Partners validate proposed solutions during project lifetime in R&D practice











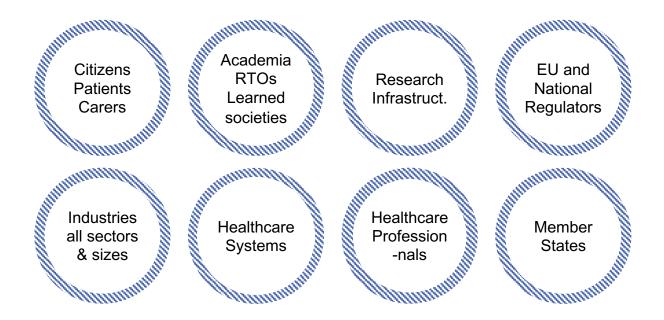








## **Stakeholders**



## What if we could help kids and adults with resistant asthma (50% of affected patients) to live normal lives?



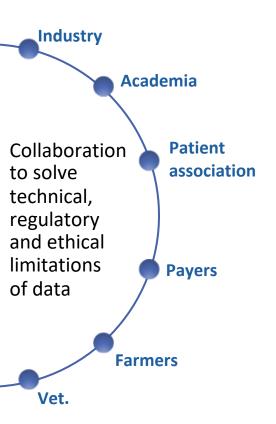
### The challenge

- 30 million people in Europe suffer from Asthma and are subject to a lifetime treatment.
- 60% do not or do poorly responds to standard steroid treatments.
- About 4% with severe asthma do not respond at all

# Prospectively combining technologies, data, products and services to:

- Understand and address resistance
- Offer the most effective combinations of tools that helps effectively (self-) manage asthma by kids and adults

## Big Data and advanced analytics/AI to enable effective AMR prevention, intervention and prediction



#### STANDARDISED AND INTEROPERABLE DATA ALLOWING FOR

A real-time dashboard consultation tool tracking pathogens' geographical prevalence, facilitating infection prevention and treatment tailoring

Information from "digital" biomarkers generated by patients/sick animals and the "healthy" population to accelerate development of new products

Reliable predictive models of resistance emergence to plan appropriate prevention and treatment interventions

Al and machine learning to generate dashboard and real-time decision tools for physicians in relationship with Health Electronic Records

## Self-management of prostate cancer

To reduce overdiagnosis and overtreatment of indolent, in-time diagnostic of aggressive disease

An individualised decision support system tool

Web-based dashboard for personalised risk assessment

To equip patient with comprehensive information to make choice and do self management

Supports in therapy selection and monitoring of indolent disease

Combined with balanced information on the disease and lifestyle

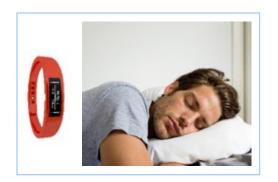
Connected apps/devices to share data with physician

Similar project can be applied to psychiatry: for unaffected individuals to avoid becoming patients and for patients who may accelerate their recovery or improve disease control

## Patient-centric, integrated solutions along the care continuum for obesity

### **Health living/prevention**

Solutions to manage health status and comorbidities of preobese, combining devices, health IT, etc



## Ambulatory care/ In patient care

Solutions to optimise care pathway, combining pharma, surgery and service



### Home long term care

Solutions to manage adherence and obesity comorbidities, combining health IT, service, device and pharma



#### European Partnership on Health Innovation

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> Understanding asthma and caring for patients with the disease

#### ASTRIMA OVERVIEW .

The World Health Organisation estimates that 235 million people suffer from asthma globally

- Authma is under-diagnosed and under-treated, creating a substantial burden to individuals, families and healthcare systems.
- Authma is the most common chronic disease among children.

IN FLIROFF, B.2% OF ADULTS AND 9.4% OF CHILDREN HAVE ASTRIMA, WITH SUBSTANTIAL DIRECT AND INDIRECT COSTS TO PATIENTS, FAMILIES AND SOCIETY

To address the unmet medical needs of authma patients, it is necessary to:

- Strengthen understanding of different asthma types.
- Research genetic and environmental risk factors.
- Develop knowledge about steroid resistant asthma
- Innovate using digital research solutions to confront air polution

#### PUBLIC-PRIVATE PARTNERSHIP ON HEALTH INNOVATION

European healthcare is at a crossroods. It faces increasing challenges on a rambbe of tradit; at the same time, technological and scientific advances ofter new opportunities to solve these challenges. Only a cross-sectional partnership bringing together stakeholders along the pallent's journey can make significant progress towards serred health needs like Authma.

Five industry associations representing pharmaconitical, biotech and medical technologies industries operating in Europe (COCR), ETPA, Medifich Europe, Europelia and Vaccines Europe) base compliagether to work on a Strategic Agenda for Innovation in Healthcare. This Agenda falls within the transversi of the proposed European Health Innovation Public Phatmaconity (PTP) under Nortonia Europe. The countries of earlies and college of the Europe. The condition of the Europe Agenda but do not express a commitment to failure projects, nor exclude other potential activities to address mains challenges in the disease area.

#### European Partnership on Health Innovation

A multi-sectoral public-private partnership to maintain Europe at the forefront of medical innovation for the benefit of European citizens and healthcare restrons

> Going the extra mile: an integrative approach towards breast cancer prevention, diagnosis and care

#### BREAST CANCER OVERVIEW .

Much has been achieved in breast cancer therapy in recent years:

- Increased survival rates thanks to early detection and more targeted therapies.
- 2 High awareness across Europe, with prevention forming an integral part of many national policies.

In Europe, breast cancer remains a frequent cause of death, claiming the lives of more women on the continent than any other cancer.

#### 98,735 WOMEN IN THE EU LOST THE BATTLE WITH BREAST CANCER IN 2018

Across the EU and in member states, better access to breast cancer care needs to be prioritised, including a focus on:

- · Timely screening, diagnosis and care
- · High-quality and innovative treatments.
- · Digital solutions for disease prevention and management
- Real-world research data

#### PUBLIC-PRIVATE PARTNERSHIP ON HEALTH INNOVATION

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An integrated initiative to optimize future obesity treatment

#### BESITY OVERVIEW

Weight problems and obesity are increasing at a rapid rate in most EU Member States.

- Obesity significantly increases the risk of chronic diseases such as type 2 diabetes, hypertension, coronary heart diseases and certain cancers
- 2 Obesity and its complications have substantial direct and indirect costs that put a considerable strain on healthcare and social resources.

ESTIMATES SHOW THAT 51.6% OF THE EU'S POPULATION (18 & OVER) IS OVERWEIGHT

Prevention and treatment of obesity and its complications can be optimized with:

- Integrated approaches for diagnosis, treatment and care
- Embracing patient-certric care solutions.
- . "Six data" and digital solutions to research obesity development
- Empowering citizens and patients to improve their health

#### \* PUBLIC-PRIVATE PARTNERSHIP ON HEALTH INNOVATION

Healthcare in Europe is at a crossroods. It flaces increasing dealerings on a number of fronts; at the same time, technological and scientific advances ofter new opportunities to solve times challenges. Only a cross-sectoral partnership bringing logether stakeholders along the pasient's journey can make significant progress towards addressing unnet health reads like obseity.

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## Industry web site on Health Partnership

- www.euhealthppp.org
- Strategic Research & Innovation Agenda
- Case studies as examples
  - Asthma
  - Breast Cancer
  - Obesity
  - More to come in coming weeks













## Is the Health PPP the right tool to foster health innovation in EU?

- Attractive innovation ecosystem (scientific excellence, easy access to stakeholders along the value chain, recognised clinical excellence, derisking industrial investments at early stage of R&D)
- Proximity and access to end-users (patients, healthcare systems)
- Financial investment capacity at scale to address unmet medical needs
- Continuity and sustainability of support to R&D&I over mid-term (>5 years)