AESIS

NETWORK FOR
ADVANCING & EVALUATING THE SOCIETAL IMPACT OF SCIENCE

Leiden University – 22-24 June 2022

Welcome to **Day 3** *of the international* **AESIS** *conference on*

Impact of Science

TOPSECTOR HORTICULTURE & STARTING MATERIALS

ELSEVIER

ZonMw

NWO

LEIDEN CONVENTION BUREAU

Leiden Kennisstad

researchfish by interfolio

impact services

Words of Welcome

David Sweeney

Executive Chair of Research England,
United Kingdom

C.131 (9.40-10.00)

Recommendations from the parallel sessions (part 1)

C.131 (9.40-10.00)

Clusters with Industry & Business Development for Impact

"We need to create an eco-system that also has planned aspects allowing for serendipity, and we need to allow for import from multiple directions (top-down & bottom-up) and fields."

C.131 (9.40-10.00)

Evidence-informed Policymaking

"There is a need to evolve the rigor and credibility of pre-print publications and to return some space for mono-disciplinary research."

C.131 (9.40-10.00)

Regional Collaboration

"Connecting the actors (better involve local actors), go for wider participation, bridging the gap between fieldlabs and sciencelabs"

C.131 (9.40-10.00)

Tackling the Fundamentals of Science Structures

"Science structures need to ensure that research impact is assessed both prospectively and retrospectively"

C.131 (9.40-10.00)

Community Engagement & Citizen Science

"We need to move beyond citizen science as a methodology towards a collaborative mindset with tangible mutual benefits. Diverysity, equity and inclusion in early stages of the process can value and integrate multiple community knowledge cultures to achieve a sutainable impact aligned with societal needs."

C.131 (9.40-10.00)

Responsible & Alternative Metrics for Impact

"In the quest for better indicators & metrics of impact, we shouldn't allow the perfect to become the enemy of the good. There's lots we can do with existing measures and methods—quantitative and qualitative—to better understand and support societal impacts."

C.131 (9.40-10.00)

Developing an Institutional Impact Profile

"Universities need to avoid an academic echo chamber by listening to external stakeholders"

C.131 (9.40-10.00)

Societal Impact & Funding

"Efforts need to be made to bridge the communication gap between different actors involved in applying for funding & assessing it."

C.131 (9.40-10.00)

National & Regional Evaluation Systems

"Lets compare international practice in impact assessment across different cultures to learn about how impact arises and how best it can be evaluated"

C.131 (9.40-10.00)

Methods & Tools for Societal Impact

"Develop a fit purpose toolbox for researchers and practitioners to assess and measure the progress to societal impact over time."

Nico L. U. van Meeteren

Executive Director and Secretary General of Topsector Life Sciences & Health & Professor, Dept. Anesthesiology, Erasmus Medical Center, Rotterdam, the Netherlands

Mission driven innovation policy, the Netherlands

Impact of Science: +5, -30 and 1 out of 6

Prof. Dr. Nico van Meeteren
Top Sector LSH
Societal Theme Health & Care

Political context

Agreement Rutte III; 1+1+1+1=1

Energie transitie en duurzaamheid

Landbouw, voedsel en water

science in transition

Gezondheid en zorg

Veligheid

Health~Holland
SHARED CHALLENGES, SMART SOLUTIONS

Motives

Success and technology

Ministry of Health missions

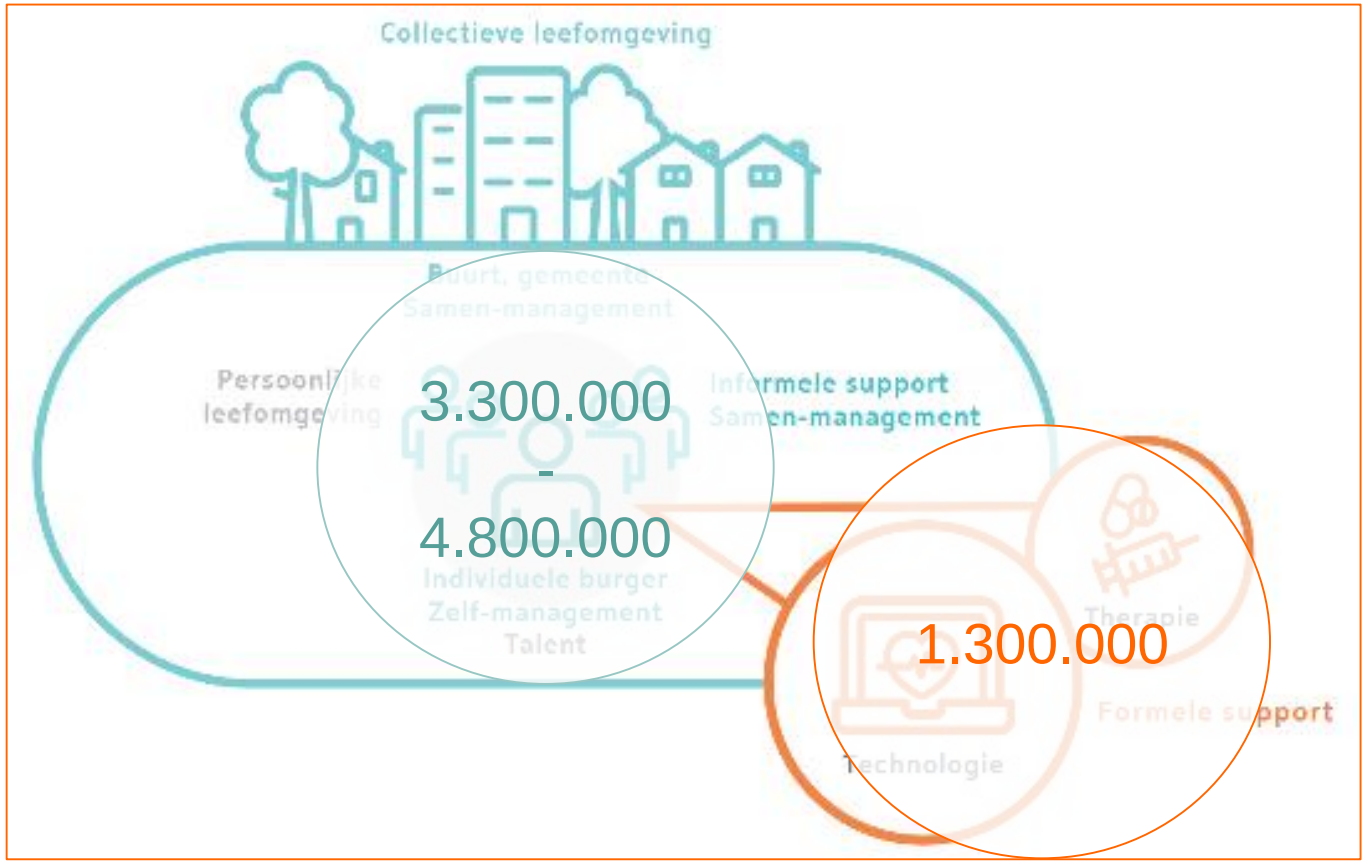
Central mission: In 2040 all citizens in the Netherlands life at least 5 years longer in good health, and the health inequalities between high and low socio-economic populations have been reduced with 30%

In 2040, still, ‘only’ 1 of 6 citizens is employed in the health and care sector

Health~Holland
SHARED CHALLENGES, SMART SOLUTIONS

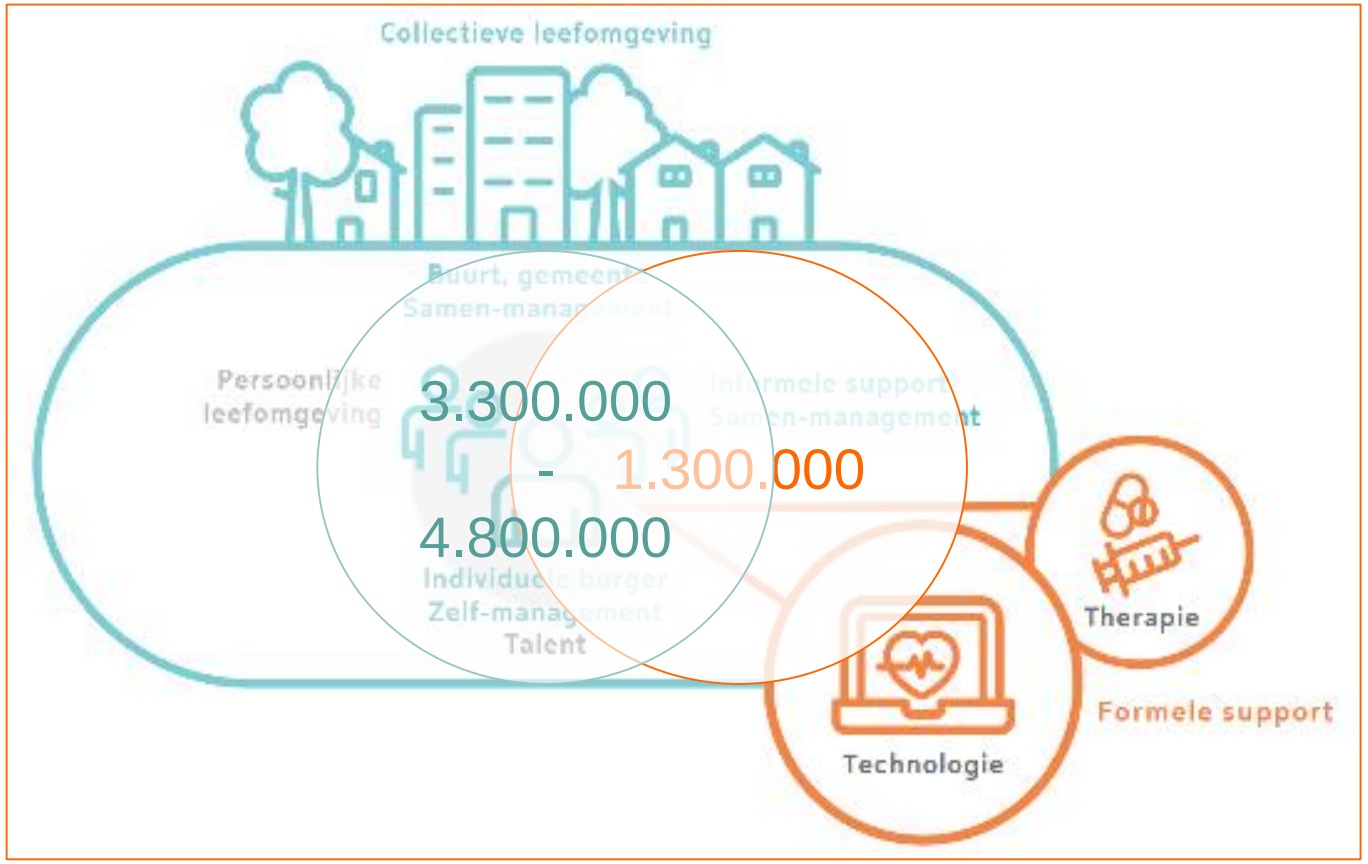
Conceptual model

Invest … 1 + 1 = 2



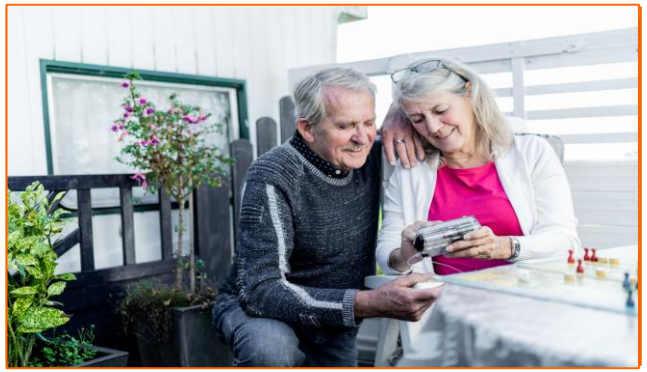
Conceptual model

Invest 1 + 1 = 1 … “In the box”



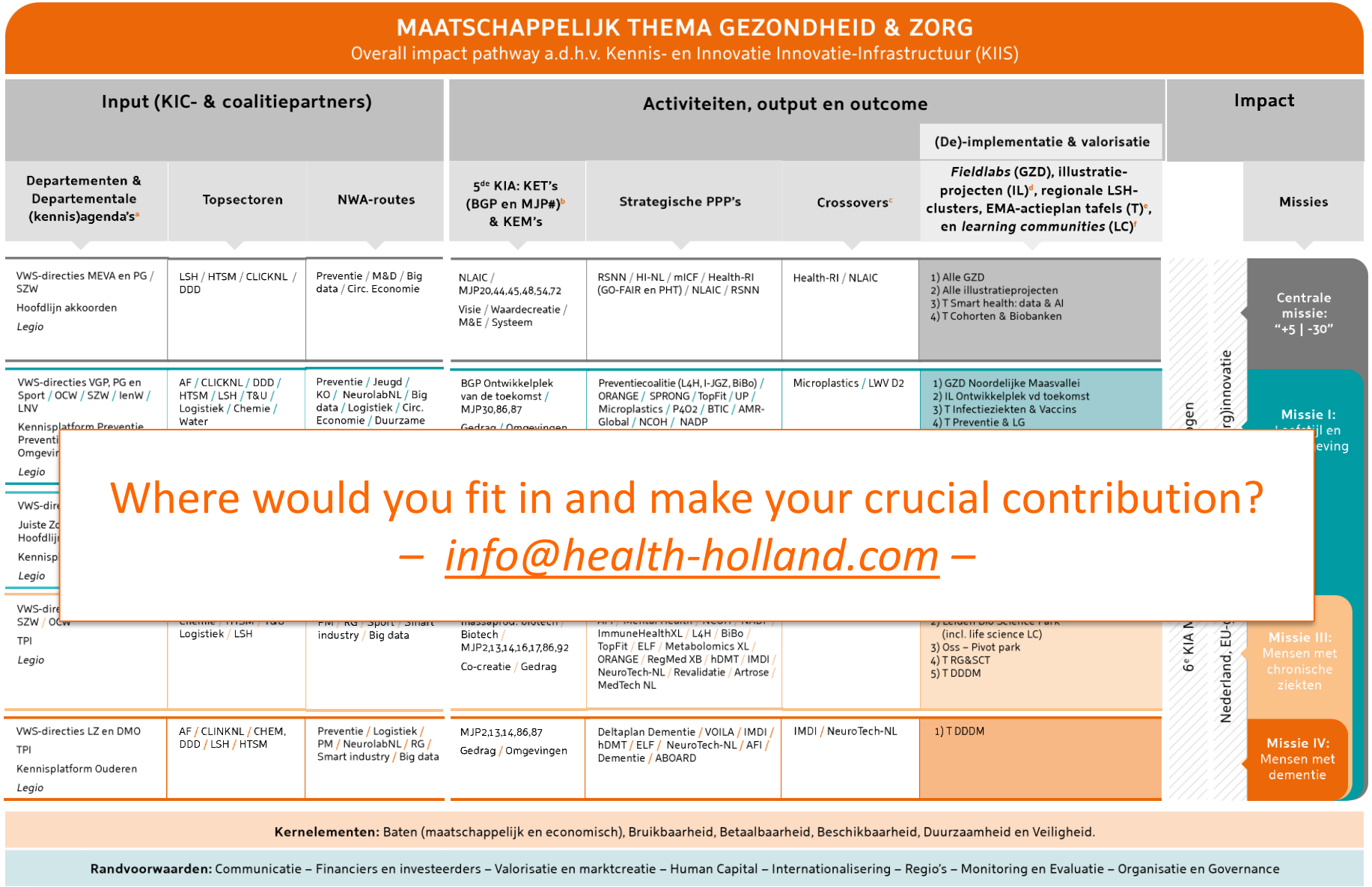
Societal and economic impact example

Talent – Technology – Therapy … health … in order to participate




http://www.medtechpartners.nl/portfolio/healthholland-value-centre-van-start-naar-groei

Mission based national alignment



Where would you fit in and make your crucial contribution?

– *info@health-holland.com* –

Health~Holland
SHARED CHALLENGES, SMART SOLUTIONS

Integrated systems internationally recognized

Be good, tell and sell it

LSH, 2022

Nature Biotechnology, 2022

OECD, 2021

MOIN, LSH, 2022

Collaborative national K&I-ecosystem

Mission driven, visionary K&I-leadership

Gateway to the world

Health~Holland
SHARED CHALLENGES, SMART SOLUTIONS

Mission impossible

Invest in health

I've never done it,
so I'll manage
- Pippi Longstockings -

When 'I' is replaced by 'we' even illness turns into wellness

David Phipps

Assistant Vice President Research Strategy and Impact, Division of Vice-President Research & Innovation, Office of Research Services, York University, Canada

Yuko Harayama

Former Executive Director of International Affairs at RIKEN, Japan

Stimulating Collaboration and Effectiveness
for Impact within the Science Eco-system

Re-imaging the Science Eco-system?

Yuko Harayama
Professor Emeritus, Tohoku University
Former Executive Member, Council for Science, Technology & Innovation (CSTI)

Seeking the root

- Eco-system
  - Living organisms & Environment
    → Interactions
  - Dynamics
    - Self-sustained system?
    - Resilience to exogenous shocks?
    - Evolutionary path?

- Innovation eco-system
  (as a metaphor)
  - ←Linear Model of Innovation
  - ←Innovation System
  - Actors & Institutions
    → Collaborating & Competing
  - Policy framework
  - Dynamics
    → Value creation & co-evolution

- Science eco-system
  (by analogy)

Why the "science eco-system" matters?

- From Science as an individual enterprise
  → To more organized & complex enterprise
- Change in terms of scale, scope & purpose
  - Large research infrastructures
  - Addressing global challenges
  - Political & socio-economic pressures
- Paradigm of "Science in Society & Science for Society" (1999)
- New way of doing Science
  - Open Science
  - Data-driven Science
  - Science using AI
    - e.g. Nobel Turing Challenge!
- Advancement of Science impacting our selves

Expanding roles of Science & Scientists!

A snapshot of science eco-system

- Actors & Institutions
  - With diverse, sometimes conflicting, objectives
  - Capacity to act proactively? Question of alignment?
- Relationship
  - Classical view of collaboration & competition
  - And more diffuse interdependency ← Since networked & connected
  - Additional (conflicting?) factors
    - Sovereignty, Security
    - Global commons, Collective intelligence
- Policy framework
  - Given (exogenous)?
  - Directing (autocratic) ?
  - Co-evolving (endogenous)?

How to overcome these opposing forces?
Possibility to gain in coherence?

Can we do better?

- Science eco-system
  - Self-organized and self-evolving system
    - →**Power of each constituency**
    - →Better to **work together**, not by creating an exclusive club, but in an **inclusive way**
      - Sharing experiences
      - Mutually learning
      - Extracting value from diversity
- If the "invisible hand" does not work well …
  - Policy challenge!
    - Putting whole-of-government approach, policy coordination & policy coherence into **practice**!
    - Beyond the classical policy tools → To **experiment innovative tools**!
    - Government to **re-imagine the relationship with its stakeholders**!

C.131 (10.00-11.15)

Plenary Opening: Stimulating Collaboration & Effectiveness for Impact within the Science Eco-System

Nico L.U. van Meeteren
David Phipps
Yuko Harayama

C.131 (10.00-11.15)

Panel Discussion

Chaired by David Sweeney

Nico L.U. van Meeteren

David Phipps

Yuko Harayama