



## Building Health Sustainability with Secondary Prevention

# Doing the right things right!

There are no answers, only choices

To live is to possess a future which will become your present

Stanislaw Lem

"When spiders unite, they can tie up a lion"

Ethiopian proverb



**Knowledge &  
experience are  
about the past**

**Decisions are about  
the future**





# Changing norms and behaviours over time

RJ REYNOLDS TOBACCO COMPANY – AD IN A MEDICAL JOURNAL AROUND 1950



*According to a recent Nationwide survey:*

## MORE DOCTORS SMOKE CAMELS THAN ANY OTHER CIGARETTE

DOCTORS in every branch of medicine—113,597 in all—were queried in this nationwide study of cigarette preference. Three leading research organizations made the survey. The gist of the query was—What cigarette do you smoke, Doctor?

*The brand named most was Camel!*

The rich, full flavor and cool mildness of Camel's superb blend of costlier tobaccos seem to have the same appeal to the smoking tastes of doctors as to millions of other smokers. If you are a Camel smoker, this preference among doctors will hardly surprise you. If you're not—well, try Camels now.



Your "T-Zone" Will Tell You...

**T for Taste . . .**  
**T for Throat . . .**

that's your proving ground for any cigarette. See if Camels don't suit your "T-Zone" to a "T."



## **WHAT IF:**

**Health was the most important societal pillar for:**

- Equality, equity, fairness, sustainable growth, and prosperity
- Realizing economy of well-being
- Reducing avoidable disease burden

Innovation needs application to make impact

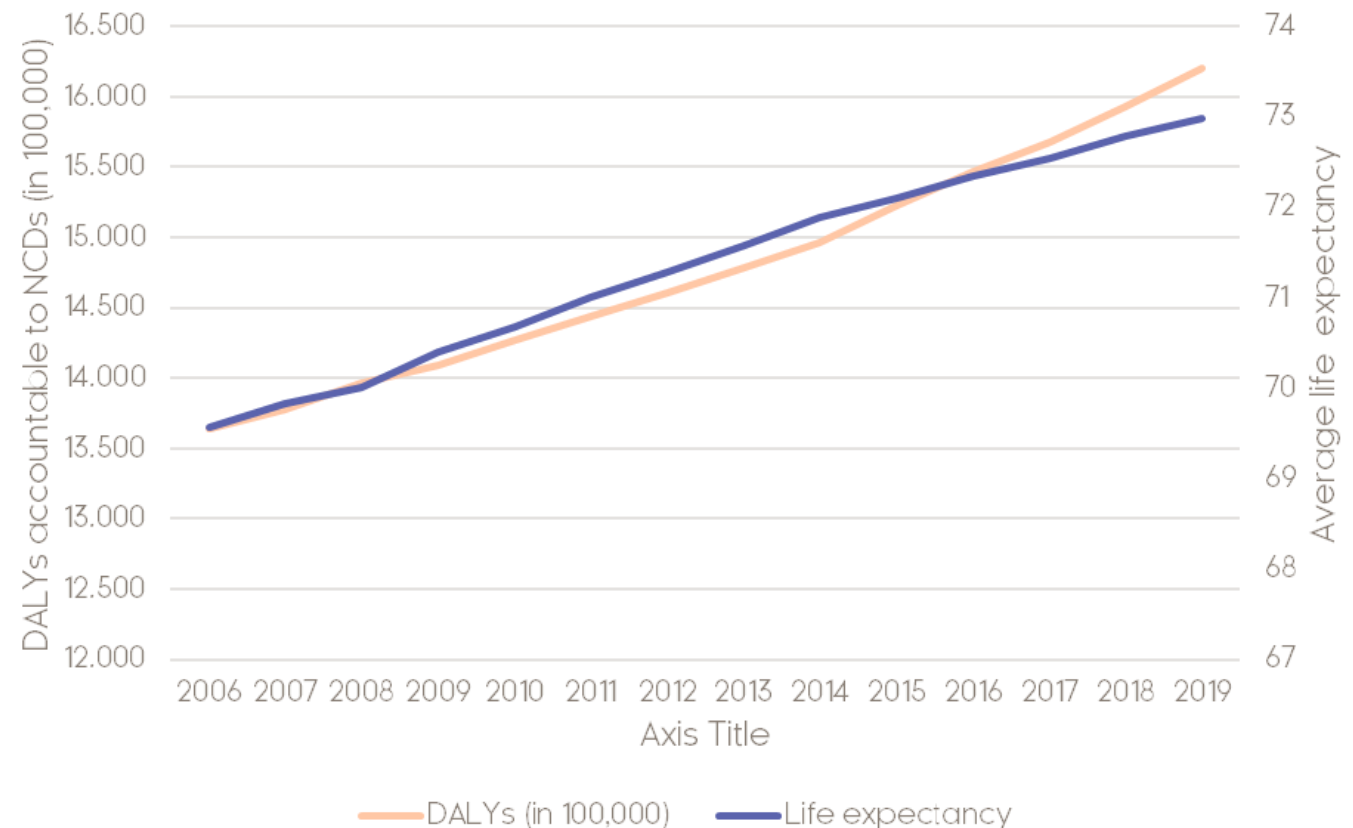


# Approaching avoidable disease burden as traffic

In 1913, **33.38** people died for every 10,000 vehicles on the road.  
In 2021, the death rate was **1.66** per 10,000 vehicles, a **95%** improvement.



**Global average life expectancy vs DALYs accountable to NCDs, 2006-2019**





# The burning platform:

**Increasing disease burden**

**End-of-life solutions**

**Focus on disease**

**Staff shortage & burn out**



88.6% of DALYs accountable  
to NCDs in the EU.



1 in 3 adults suffer from  
2 or more chronic conditions  
globally.



Prevention

Treatment



70%

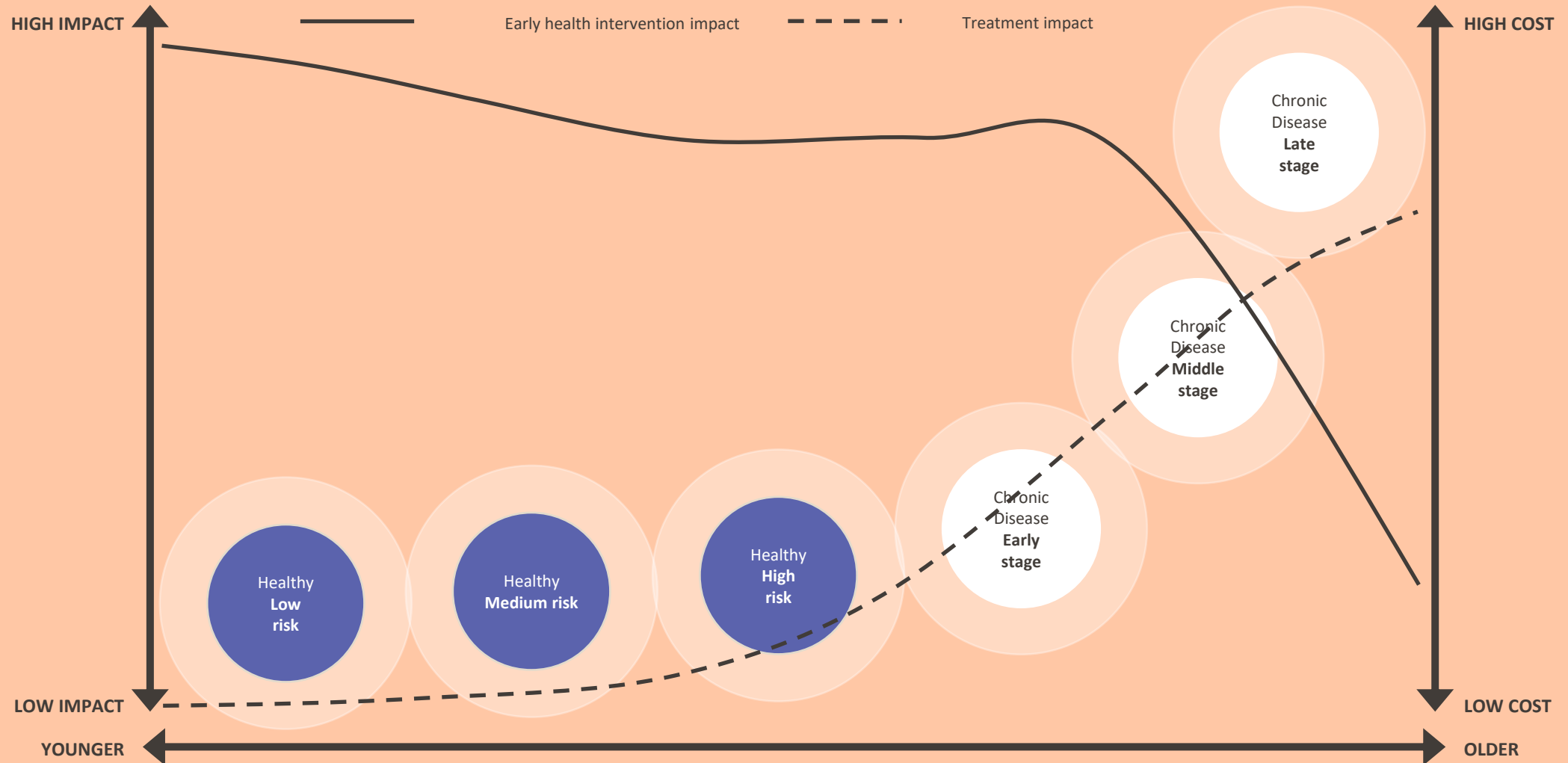
30%

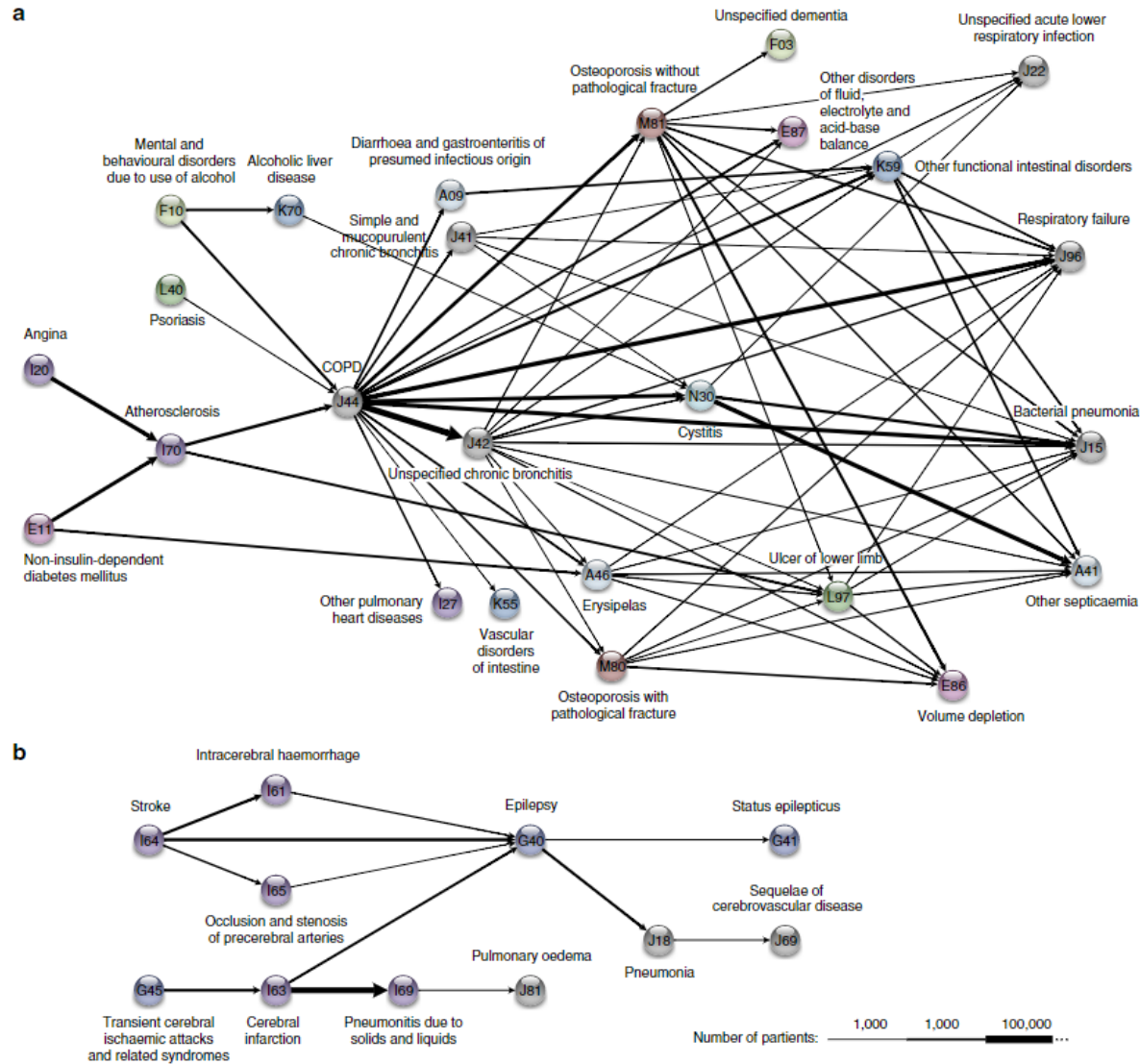
About 70 percent of health benefits come from reducing underlying environmental, social, and behavioral risks and increasing access to high-quality preventive care.



# Figure: From treatment to early health intervention.

Early health intervention impact vs. treatment impact during the chronic disease journey.





**Figure 3 | COPD and cerebrovascular disease trajectory clusters.** (a) The COPD cluster showing five preceding diagnoses leading to COPD and some of the possible outcomes. (b) Cerebrovascular cluster with epilepsy as key diagnosis.

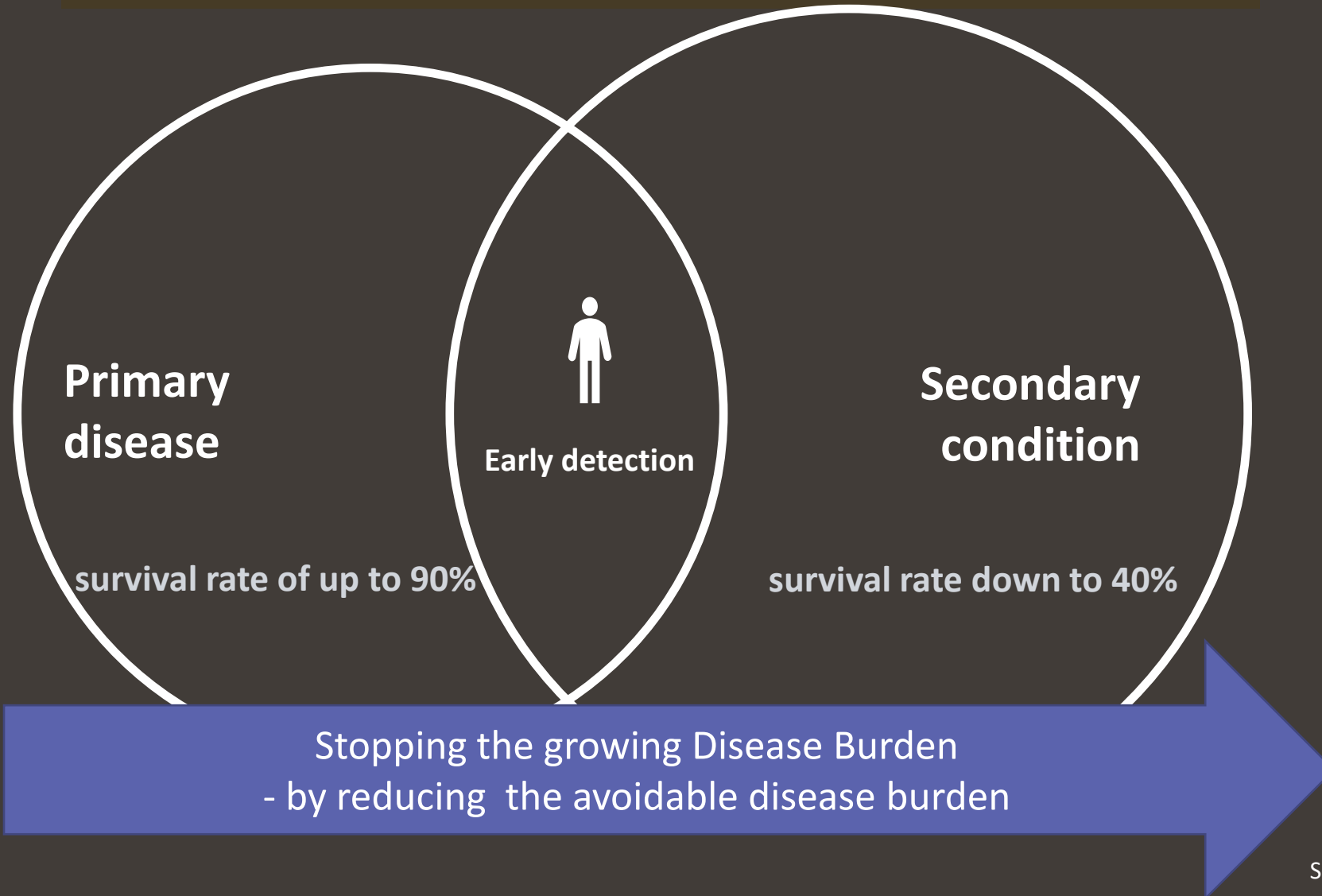
- Using electronic healthcare records and disease histories can inform screening protocols by identifying patient risk factors and stratifying them by disease risk.
- Denmark has longitudinal population-wide health data and a wealth of health registries that can be linked on an individual level through the unique Central Person Register (CPR) identifier, making it a leading country in this field.
- Disease trajectories are temporal sequences of diseases, represented by ICD-10 codes, symptom codes, text mined disease codes, or symptoms.
- The temporality of diseases can be very useful to stratify patients into different risk groups, understand comorbidities and multimorbidities or improve disease progression patterns
- The trajectories have also a predictive potential where preceding steps can be used as a basis for predicting the most probable next step in disease progression.

Jensen, A. B., P. L. Moseley, T. I. Oprea, S. G. Ellesøe, R. Eriksson, H. Schmock, P. B. Jensen, L. J. Jensen and S. Brunak (2014). "Temporal disease trajectories condensed from population-wide registry data covering 6.2 million patients." *Nature Communications* 5(1)

# Secondary Prevention



Chronic diseases are responsible for 70% of deaths worldwide



# The Fourth Industrial Revolution



Biology  
Data & Digital  
Imaging  
Material



Real World Data  
Real World Evidence  
Evidence based Care for One  
Precision Public Health

Doing the Right Things Right



Best possible quality of life and wellbeing during the lifespan



What do we want?

**Best health system  
or  
Healthiest Population  
?**





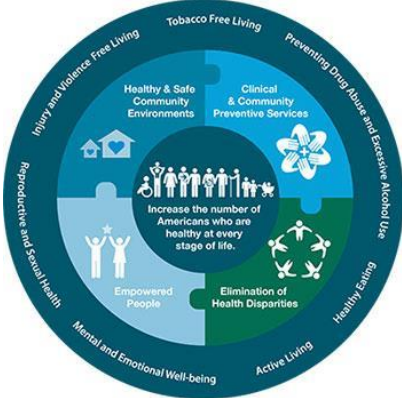
# Public health – concepts and approaches



Sustainable Development Goals



One Health



Health in All Policies (HiAP)



Social determinants of health (SDoH)



Economy of well-being



## Policy approaches

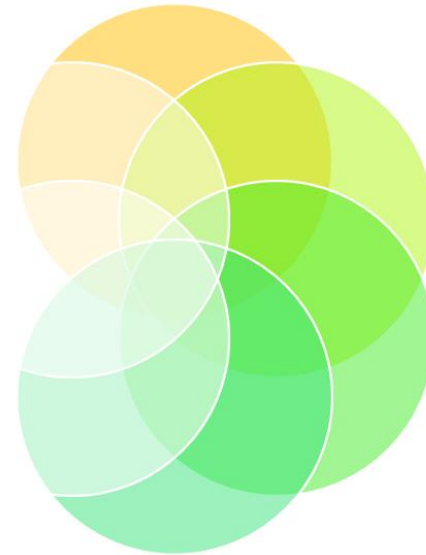
- SDGs
- Economy of Wellbeing
- Health in All Policies
- 5/5 model
- Sustainability

## New biology

- Genomics
- Omics
- Biomarkers

## Prevention

- Avoidable disease and de
- 80/20 model
- Behaviour



## Equitable perspectives

- Universal Health Coverage
- Leaving No One Behind
- 10/90 model

## Health determinants

- Social determinants
- One Health
- Other determinants

## Data, digital & tech

- Data for Better Lives
- FAIR Principles
- Tech, societal, human readiness
- Global Initiative in Digital Health (GIDH)



# THE \$100 TIPPING POINT.



# Fremtiden for det danske sundhedssystem (2030)



SCENARIERAPPORT  
2017

WHY WE NEED  
**Movement Health**  
To reach the UN's goal of reducing premature mortality by one third by 2030, we must act now



**NORDIC HEALTH 2030**  
To everyone who wants a healthier life, community, and world

The Movement

The Philosophy

The Magazine

People and Process

News

Join us

Pockets?

# Why the Index?

Beyond one-size-fits-all care

Beyond politics

From sick-care to healthcare

Bridging personalised and public health



# Four Cornerstones for the Personalised Health Index



Moving decisions from  
emotions to facts



Building a broad  
coalition for change



Making data and  
insights accessible



Enabling leadership  
for change



## Movement health 2030 focus areas

1. Improving access to quality care across the lifespan



3. Data science & digital solutions

2. Advancements in science and biotechnology

4. Sustainable health system partnership models

WHY WE NEED

# Movement Health

To reach the UN's goal of reducing premature mortality by one third by 2030, we must act now

## THE APPROACH

Our six-stage approach is based on our global, regional and local research into healthcare ecosystem challenges.



**1 THE REGIONAL SET UP**

We're addressing some of today's largest and most pressing health challenges, including health literacy and improving data sharing between systems. By developing new solutions and partnering with innovators we are improving health system resilience and delivering against the UN's 2030 healthcare goals.



**2 DEFINING THE PROBLEM AREA**

We hold roundtables and insight sharing forums with regional decision makers and experts to identify the area's greatest challenges. Using these learnings, we devise programmes that directly address the most pressing issues facing patients and systems in the region and deliver lasting change.



**3 BUILDING LOCAL NETWORKS**

We engage with local partners and leverage existing best practice to implement tailored, specific solutions to improve patient outcomes.



**4 POLICY SHIFT**

We work with our local partners throughout this process to create networks designed to achieve improved healthcare policies - because innovative solutions can only have a long-term impact for people if their outcomes are translated into policy changes, and vice versa.



**5 OPEN INNOVATION**

We identify and build on existing innovations to launch pilots that tackle the challenge identified in order to help patients.



**6 SCALABILITY**

We identify synergies and scale local learnings to regional and global levels to help drive forward equal access to quality healthcare as rapidly as possible.


+

Movement Health starts with a simple yet crucial finding: countries share around


# 80%

of the same healthcare challenges.


People are facing immense challenges within global healthcare systems




Access to medical and health services remains massively unequal




At least one in three people still die from preventable causes



The number of people with multiple chronic diseases is on the rise

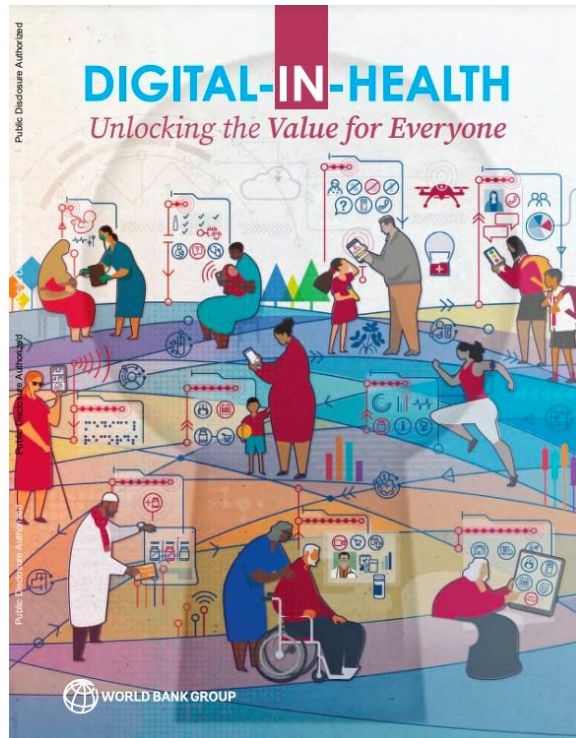


Many populations are ageing, creating more complex needs for patients and health systems



Only a small proportion of healthcare budgets are allocated to the kinds of innovation that will make them fit for the future

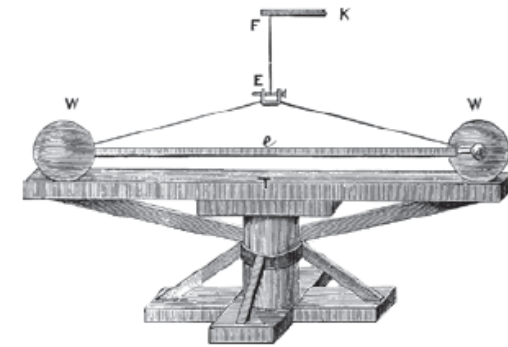






# THE 5/5 ASPIRATION

*A sustainable approach to healthcare requires a fundamental shift from sick care to preventive health. By 2030 the Nordic countries should allocate 5% of the GDP to treatment and 5% of the GDP to prevention.*





# 10/90 PRINCIPLE

*Invest in and develop solutions that can improve health outcomes and wellbeing also for the other **90%** of the population rather than just the **top 10%**.*

# 80/20 PRINCIPLE

*Keep the **80%** healthy while providing the best care for the **20%** that need it.*

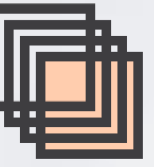




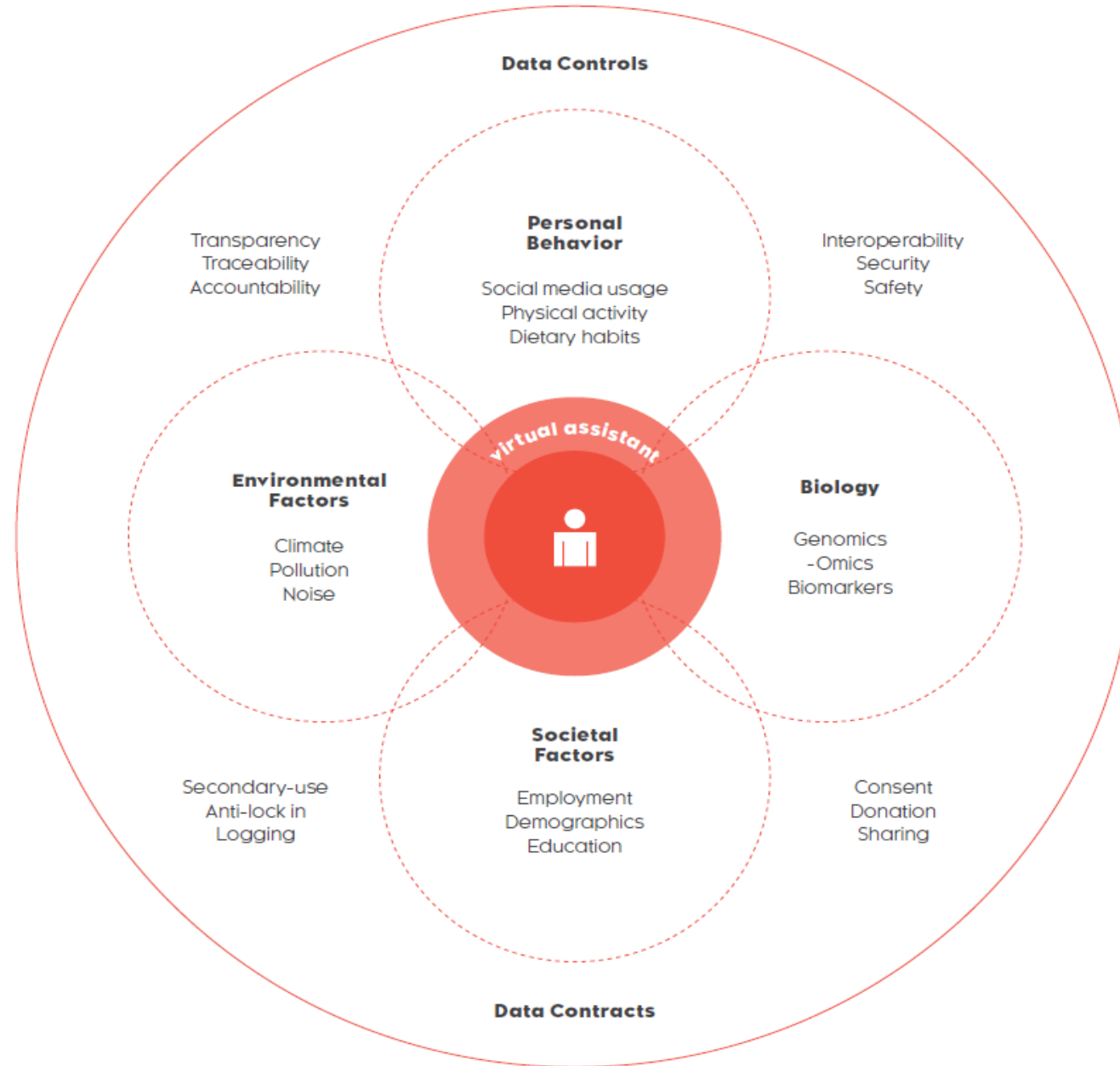
How do we create societal value while helping individual citizens as well?

**Health as an investment!**

# New players

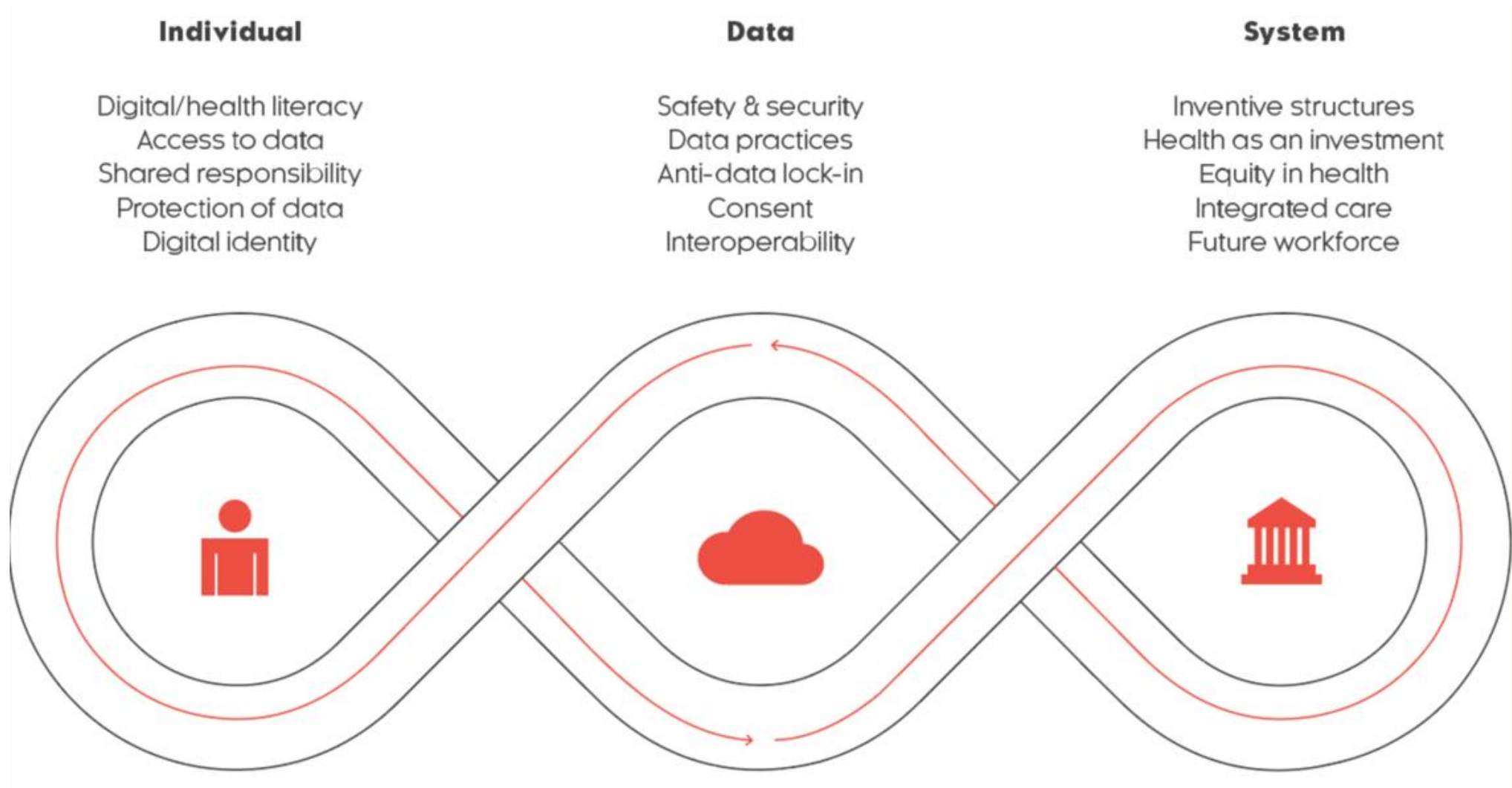


# Humanome

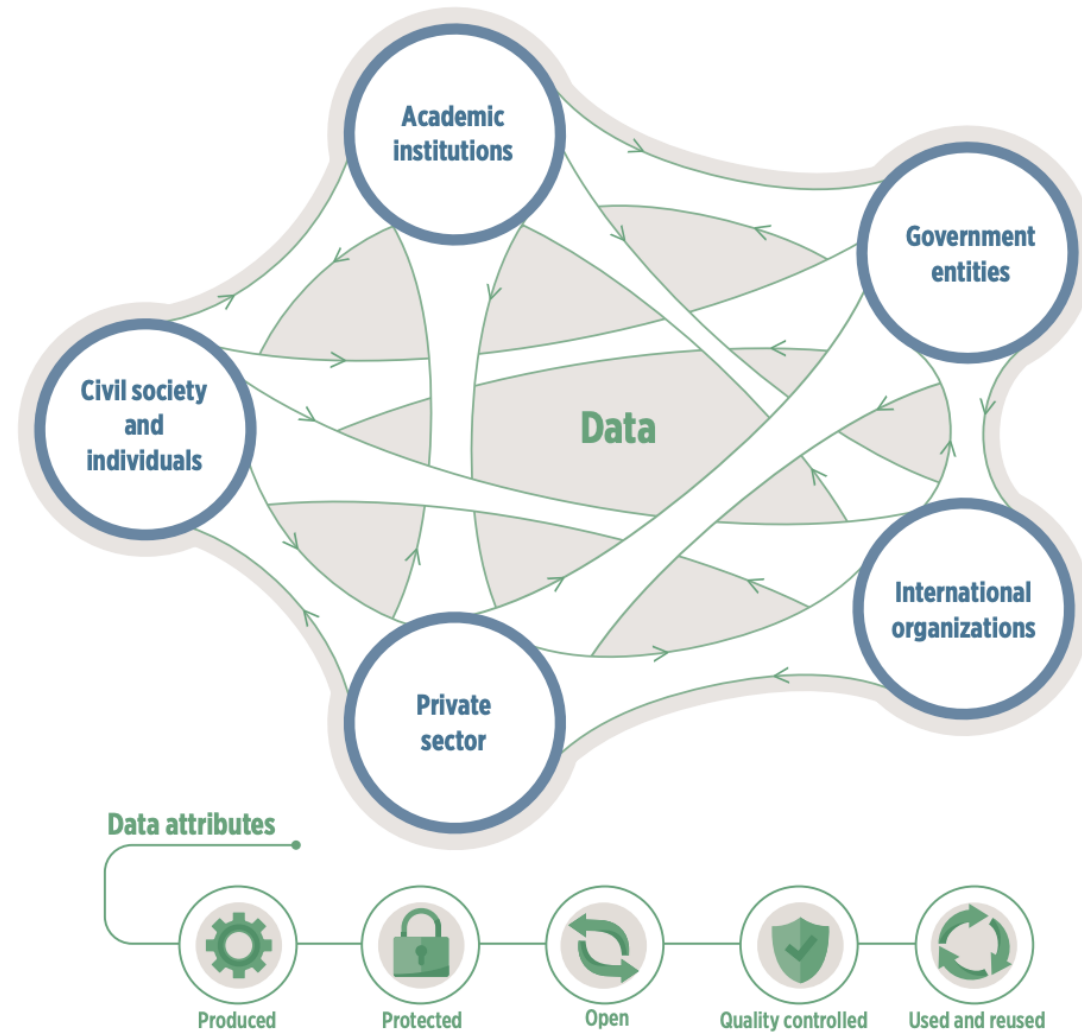




# THE SUSTAINABLE HEALTH MODEL



# DATA INTENT – MOVING FROM GADGET(S) TO APPLICATION





# Data Governance



Taking on consent of future generations  
with transparency, traceability & accountability





# NORDIC HEALTH 2030

A SHARED AGENDA ON SUSTAINABLE HEALTH INSPIRED BY  
LEADING DECISION MAKERS ACROSS THE NORDIC REGION



# 5 Key Nordic Values

**Creativity and innovation**



**Trust**

**Openness**



**Cultivation**



**Individual responsibility  
& solidarity**



# SUSTAINABILITY

C<sub>3</sub> O<sub>1</sub> N<sub>1</sub> S<sub>1</sub> U<sub>1</sub> M<sub>3</sub> E<sub>1</sub>

L<sub>1</sub> E<sub>1</sub> S<sub>1</sub> S<sub>1</sub>

S<sub>1</sub> H<sub>4</sub> A<sub>1</sub> R<sub>1</sub> E<sub>1</sub>

B<sub>3</sub> E<sub>1</sub> T<sub>1</sub> T<sub>1</sub> E<sub>1</sub> R<sub>1</sub>

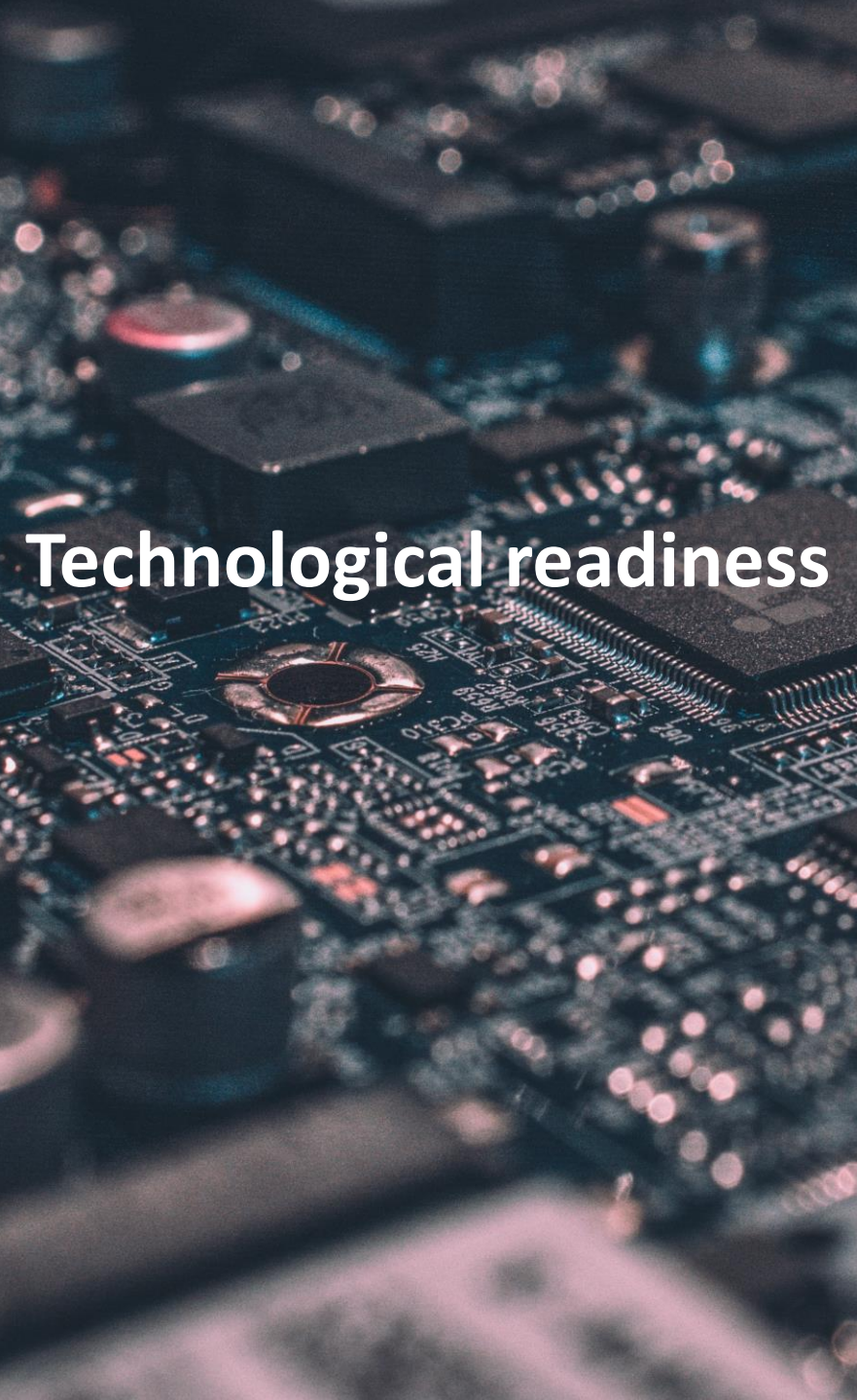
- Carbon Footprint
- Waste
- Better use of resources
- Creating value
- Decreasing disease burden with health span
- Decrease the avoidable disease burden
- Health as an investment



“Vision without action is a daydream. Action without vision is a nightmare.”

Soichiro Honda

FOUNDER, HONDA MOTOR COMPANY



**Technological readiness**



**Societal  
readiness**

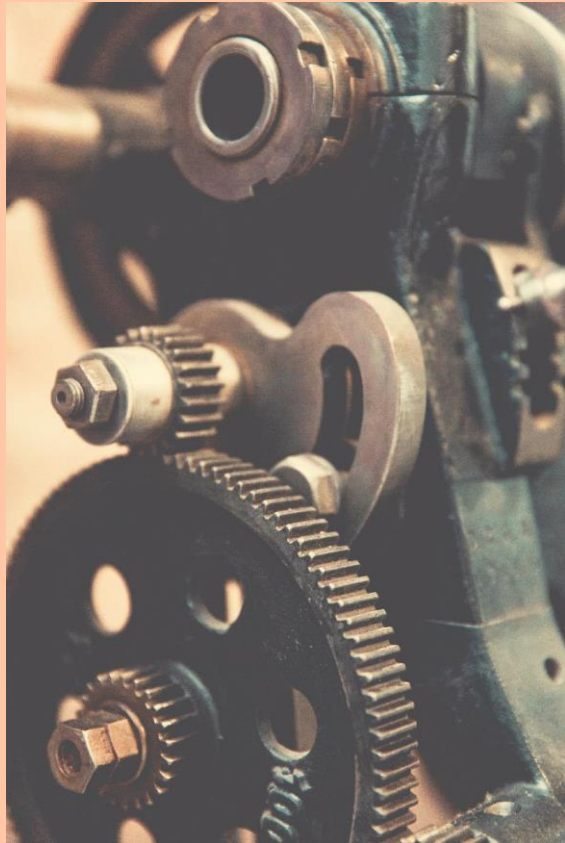


**Behavioral readiness**

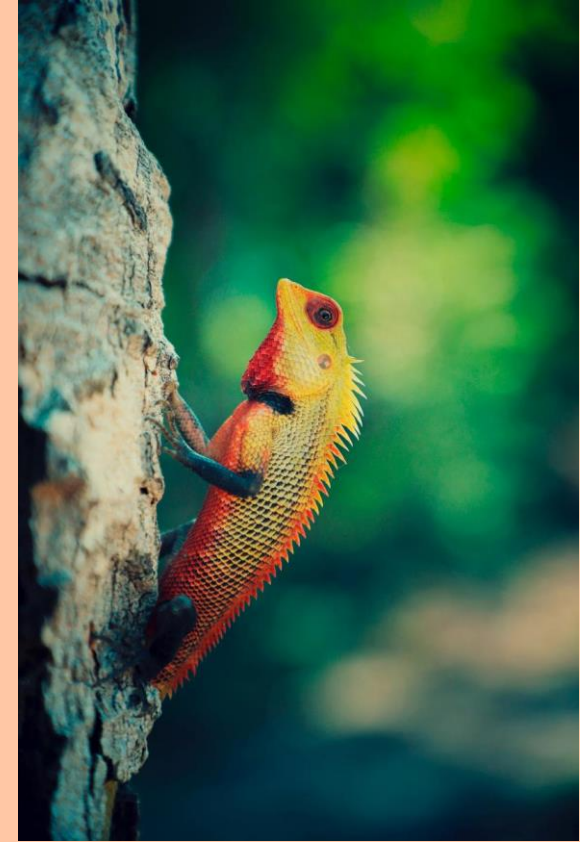




# TECHNICAL CHANGE



and



**ADAPTIVE CHANGE**

**WORK AVOIDANCE**



## Health from cost to investment

The real question is not if we can afford future costs of healthcare services, but if we can afford not to invest in keeping people healthy for as long as possible

**THE COST of INACTION**





# The Nordic Way – Realizing 5/5

## What:

- Solving part of the health system break down with secondary prevention
- Timely use of knowledge and technology (Go Left)
- Reducing avoidable disease burden, building more health
- Moving from Life Span to Health Span
- Develop behaviour for health as prevention and combined with treatment

## How:

- Building secondary prevention as pillar of sustainable health
- Activating and cooperating with relevant initiatives with same direction
- Establishing a coalition for secondary prevention
- Build on and with Nordic Health 2030
- Focus technology where impact is highest – high tech primary care
- Building the economic case for cost of inaction



# WHAT IF...

Health becomes a permanent part of everybody's life – not just when disease comes knocking

Care will be person-centric

Prevention – or health management – will gain a much more significant role

How can you:

- Facilitate that change?
- Meet those needs?
- Develop a business model to serve that purpose?