

GENERATING AND VALORISING HEALTH INFORMATION TO SUPPORT PUBLIC HEALTH POLICY

Statistiek Vlaanderen Seminarie • 21/06/2022

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Department of Epidemiology and Public Health
Service Lifestyle and Chronic Diseases

Welcome



Health and disease
monitoring



Animal health



Health and
environment



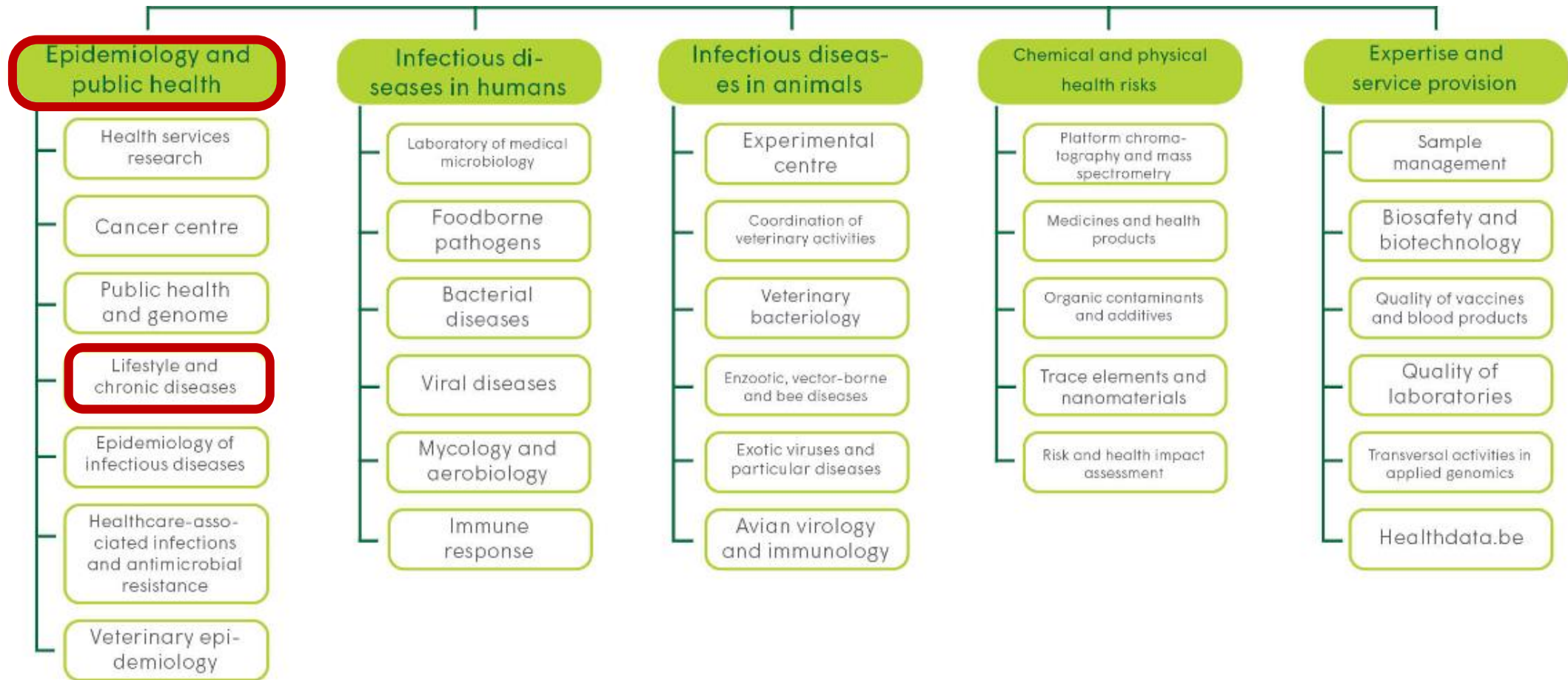
Food consumption and
food safety



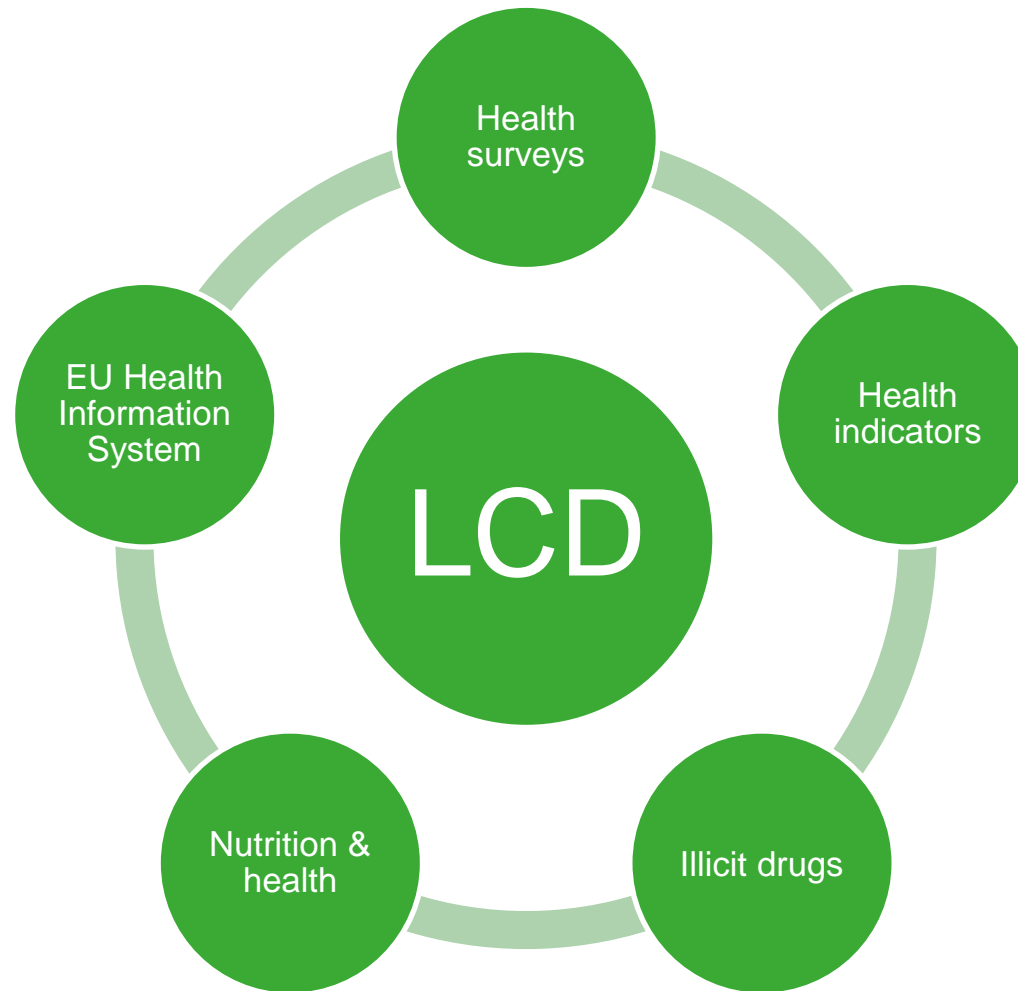
Effectiveness and safety of vaccines,
medicines and health products
Quality of
medical labs
Quality of healthcare



Service Lifestyle and chronic diseases

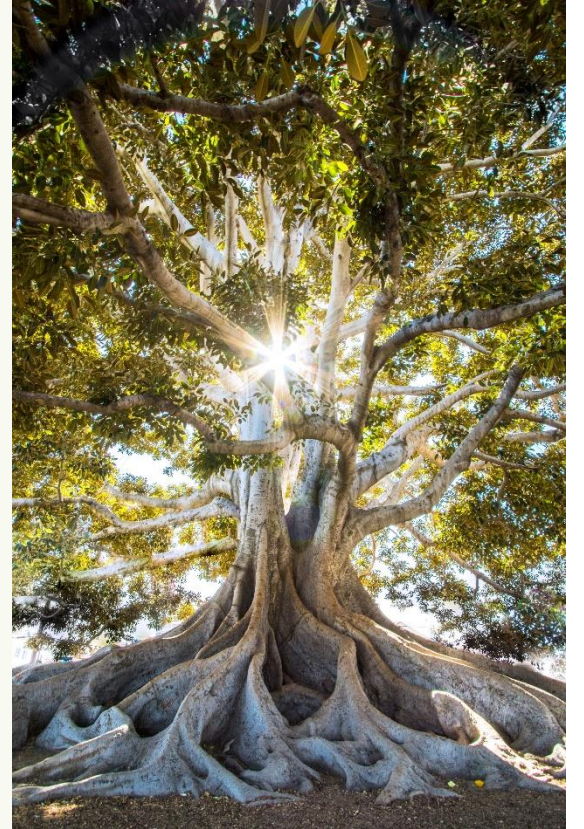


Service Lifestyle and chronic diseases

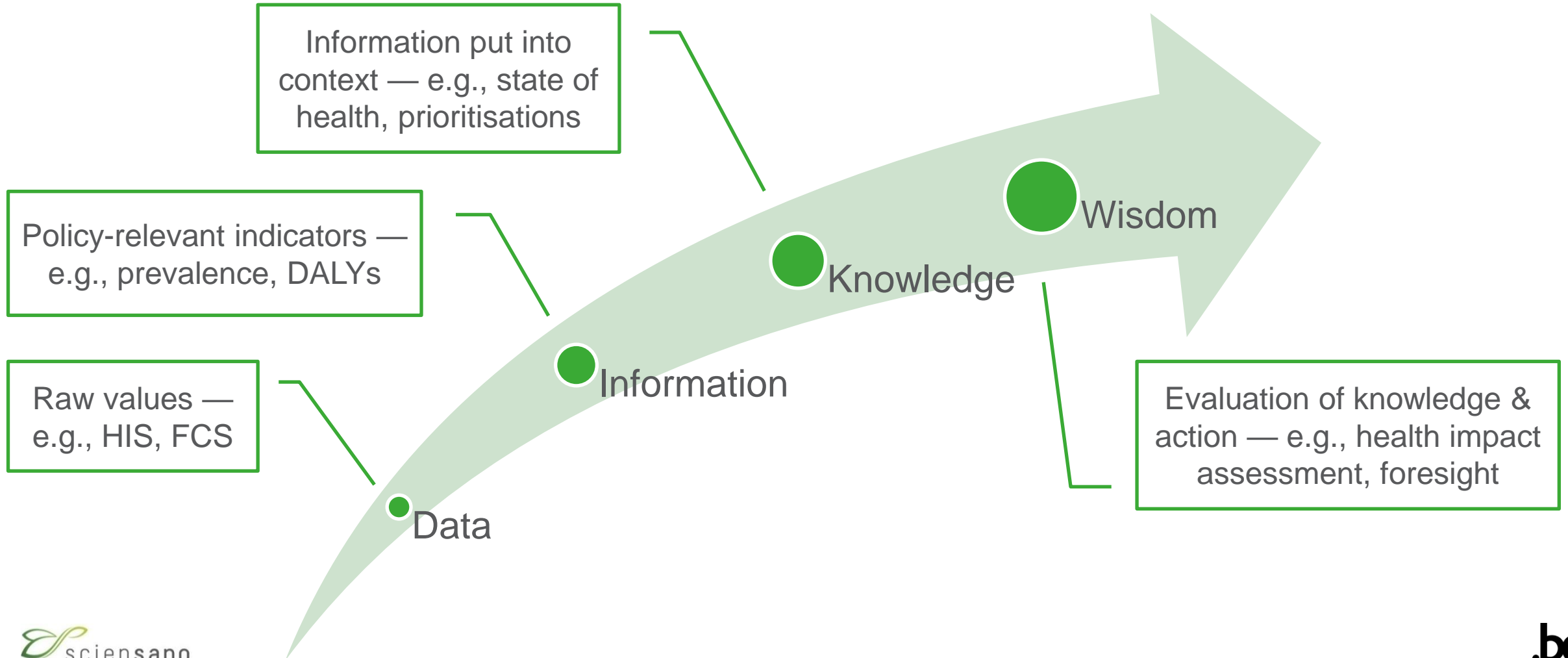


LCD mission

1. We contribute to, valorize, and strengthen the Belgian and European **health information** system
2. We take a **broad view on public health**, focusing on the overall state of health and on chronic diseases and their determinants
3. We provide **pro-active policy support**, by putting current evidence into context and by evaluating health policy



Climbing the DIKW pyramid




From data to dashboards




Primary data collection

Belgian Health Interview Survey (BHIS)

- First edition organised in 1997


NATIONAAL INSTITUUT
VOOR DE STATISTIEK


INSTITUUT VOOR HYGIËNE EN
EPIDEMIOLOGIE

Gezondheidsenquête 1997
Schriftelijke vragenlijst

BETROKKEN PERSOON

N° van de persoon

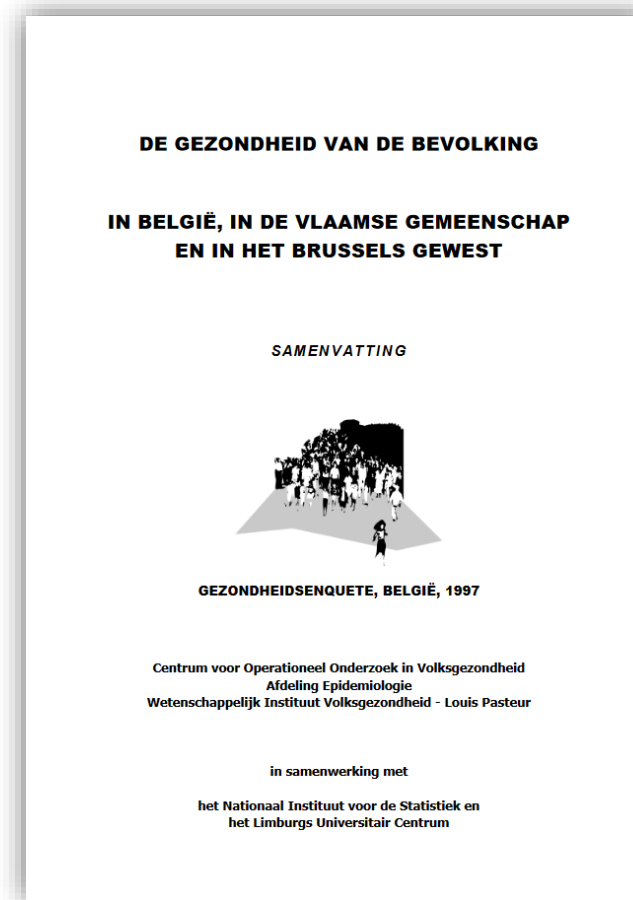
Voornaam:

INTERVIEWER

Naam van de interviewer:

Code van de interviewer:

Datum enquête: / / 19



Primary data collection

Belgian Health Interview Survey (BHIS)

- First edition organised in 1997
- Subsequent editions in 2001, 2004, 2008, 2013, 2018
- Next edition planned 2023
- “Spin-offs”: Health Examination Survey, LocalHIS, Prevention barometer, COVID-HIS, PSYCOV, ...
- HISIA: Interactive Analysis of the Health Interview Survey
 - <https://www.sciensano.be/en/projects/health-interview-survey/hisia>

Belgian Health Interview Survey

Module: Subjective health - Update 2018

First select an indicator

SH01_1: Good subjective health ▾

Select year

All years ▾

Select geographical level

Belgium ▾

Select no/one/two parameter(s)

No additional parameter ▾

Submit Query

Percentage of the population aged 15 years and over with a good (to very good) subjective health
Belgium , 1997-2001-2004-2008-2013-2018

	Crude %	95% CI	N(*)
year			
1997	78.3 (76.9-79.7)	7949	
2001	76.2 (75.0-77.5)	9366	
2004	76.9 (75.7-78.2)	9423	
2008	76.8 (75.4-78.1)	7656	
2013	77.9 (76.6-79.3)	6555	
2018	77.0 (75.6-78.3)	7997	
Total	77.2 (76.6-77.7)	48946	

Population aged 15 years and over
Weighted percentage

(*) Total number of respondents (unweighted)

Take care with the interpretation, especially if N < 100!



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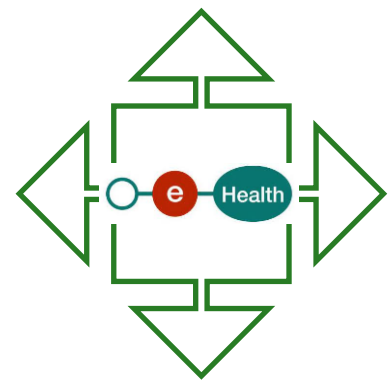
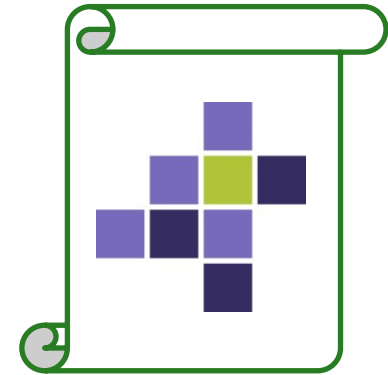
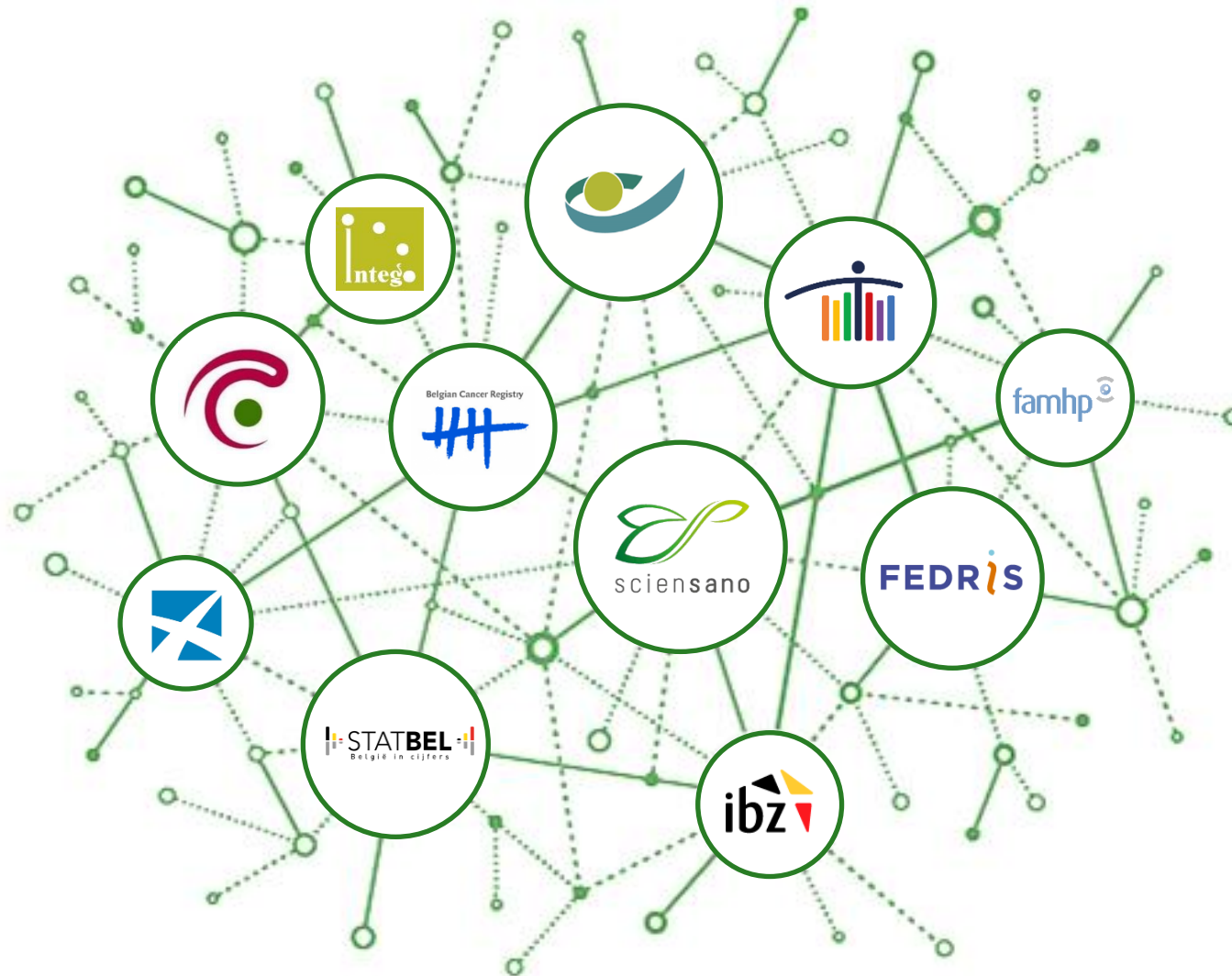
Nutrition & Health

- Food Consumption Survey (FCS) – 2004, 2014, 2022
- Food Composition Monitor “NutriTrack”

Illicit drugs

- Treatment Demand Indicators (TDI) registration
- Belgian Early Warning System Drugs (BEWSD)
- Web survey on drugs (COVID-19 drugs survey → “Drug Vibes”)


Belgian Health Information Landscape



Belgian Health Status Report

From Data to Information

NL FR EN

Other official information and services: www.belgium.be 

For a healthy Belgium

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Health status of the Belgian population

[Read more ...](#)



Health System Performance Assessment

[Read more ...](#)



Patterns of variations in medical practices

[Read more ...](#)



Key data in healthcare

[Read more ...](#)



Description of the Belgian health system

[Read more ...](#)



COVID-19 Crisis



Burden of Disease



Life Expectancy and Quality of Life



Mortality and Causes of Death



Non-Communicable Diseases



Mental Health



Communicable Diseases

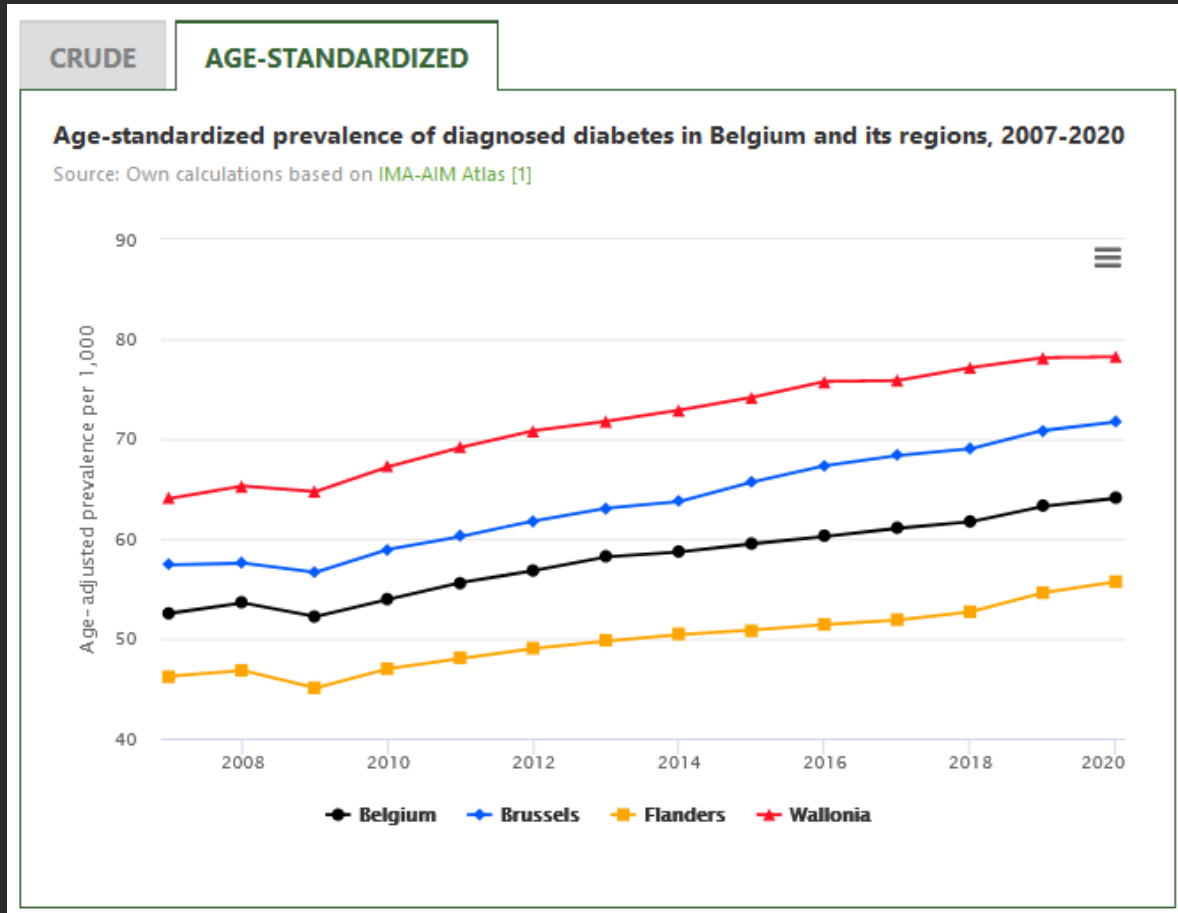


Determinants of Health

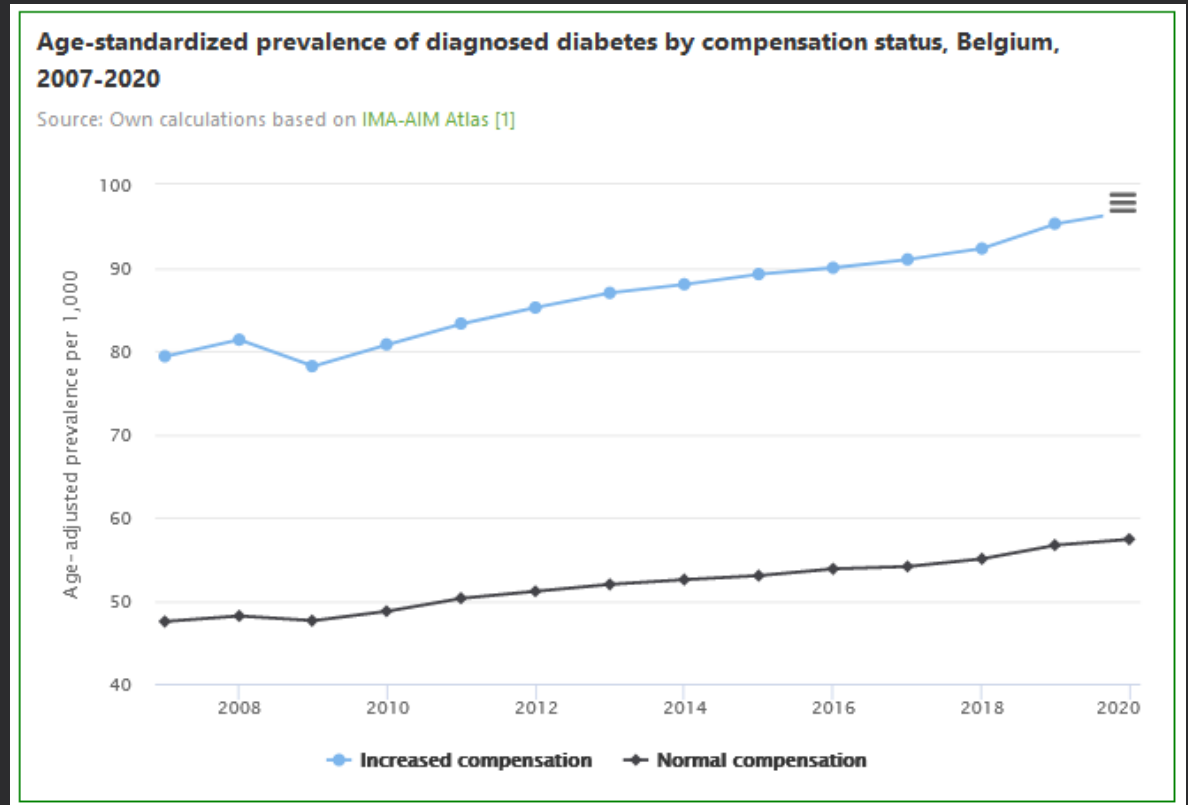


Health Inequalities

The prevalence of diabetes is increasing over time



Belgians with a lower education have an increased risk of diabetes





COVID-19 Crisis



Burden of Disease



Life Expectancy and Quality of Life



Mortality and Causes of Death



Non-Communicable Diseases



Mental Health



Communicable Diseases



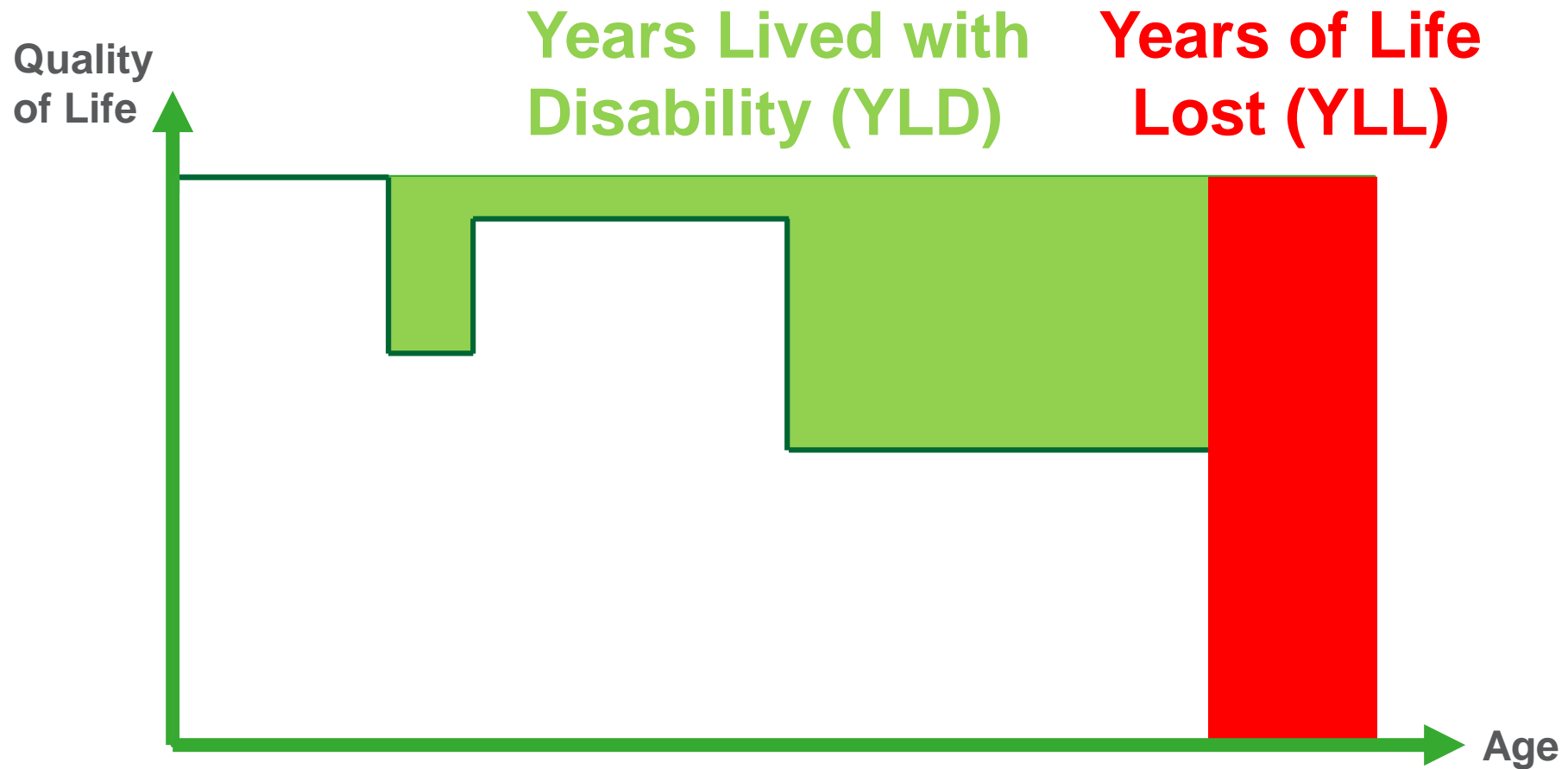
Determinants of Health



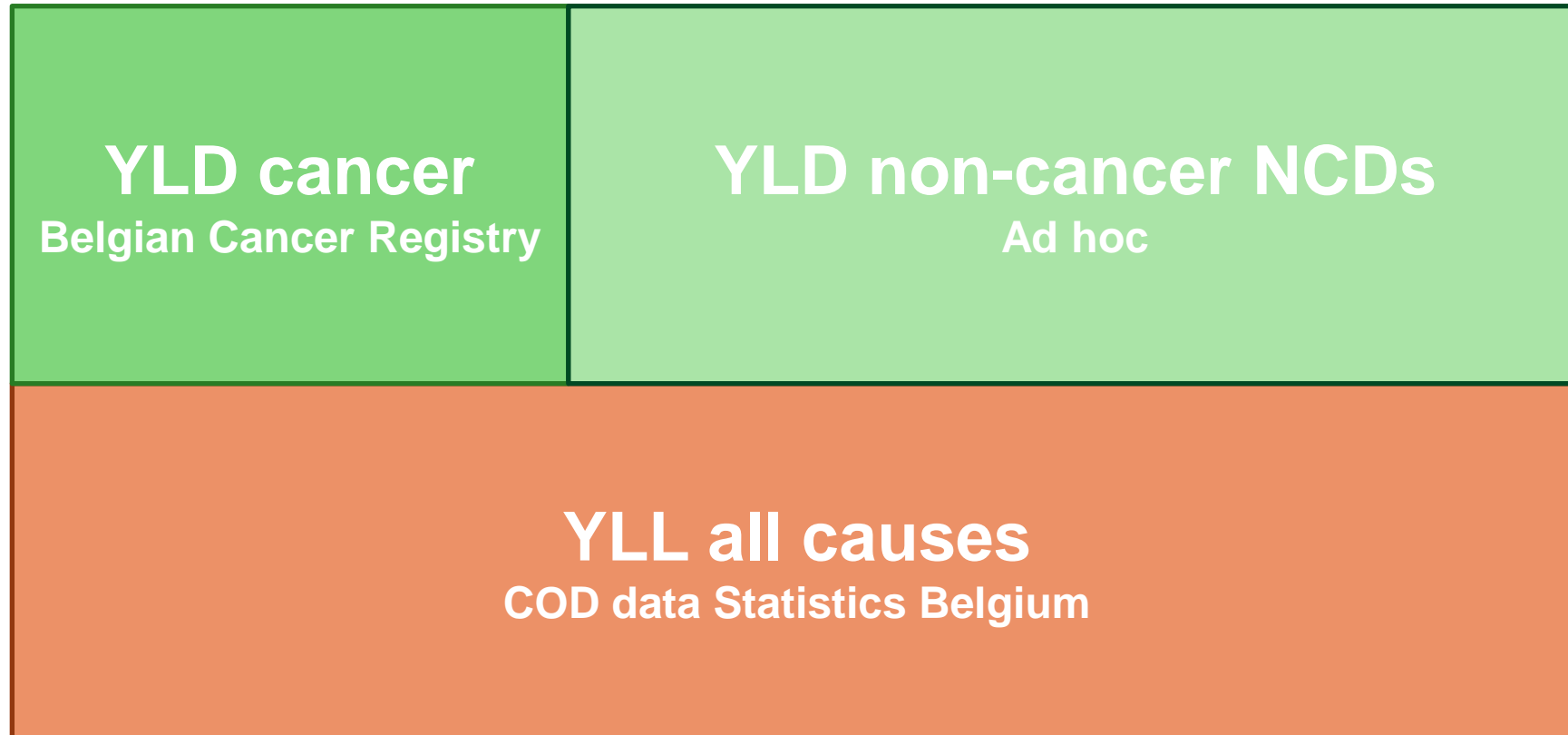
Health Inequalities

Belgian National Burden of Disease Study (BeBOD)

From Information to Knowledge



BeBOD framework



YLL rates, age-standardised, main diseases

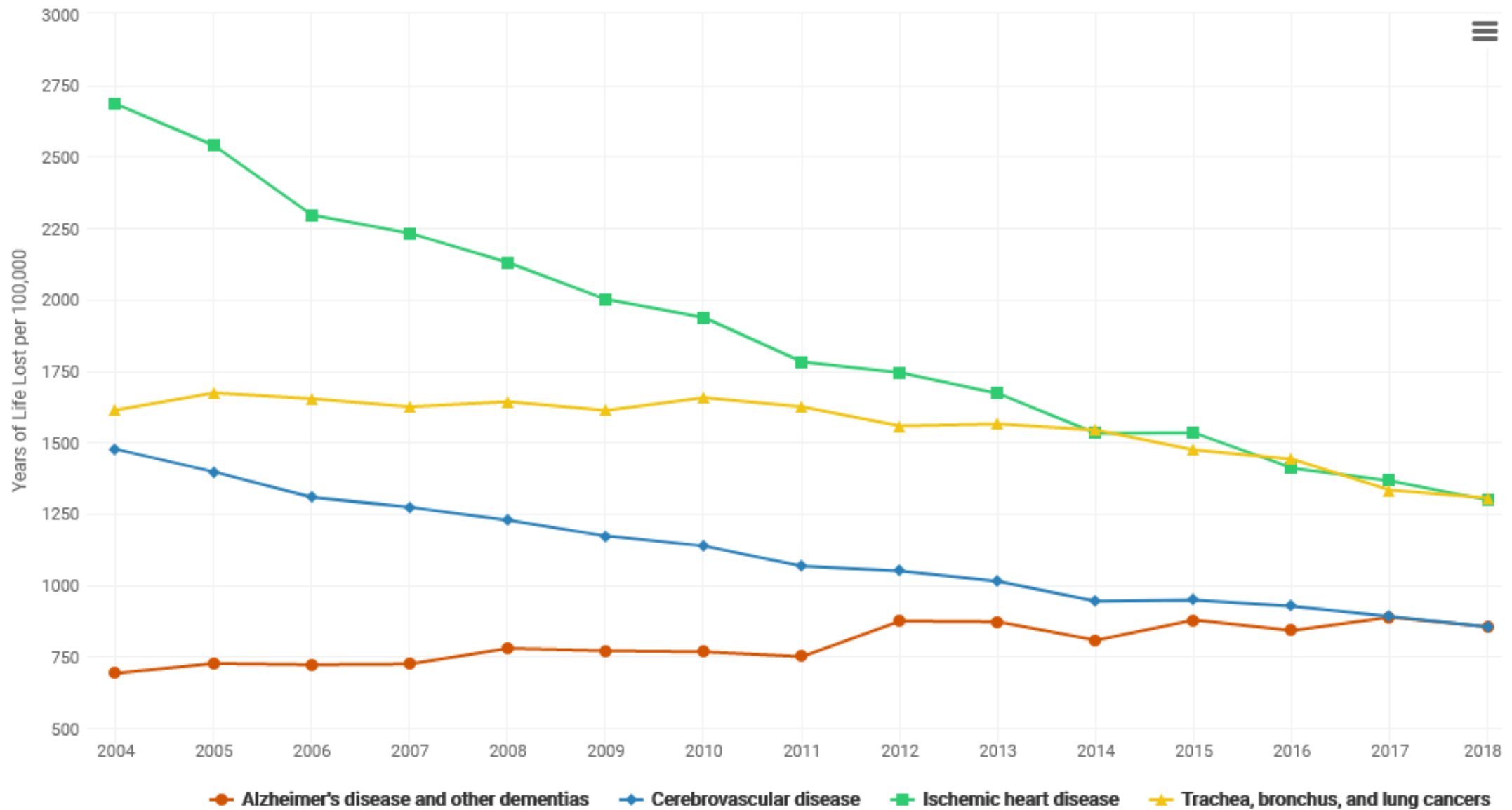


Chart settings

Cancer

ALL CANCERS

Perspective

Incidence Prevalence

Measure

Cases YLD

Metric

Number Rate

Comparison

Region Sex Age Cancer

Age

Age-standardized (BSP)

Sex

Both sexes Men Women

Start Y axis at zero

Incident Years Lived with Disability per 100,000 by region, bsp, both sexes, 2004-2019

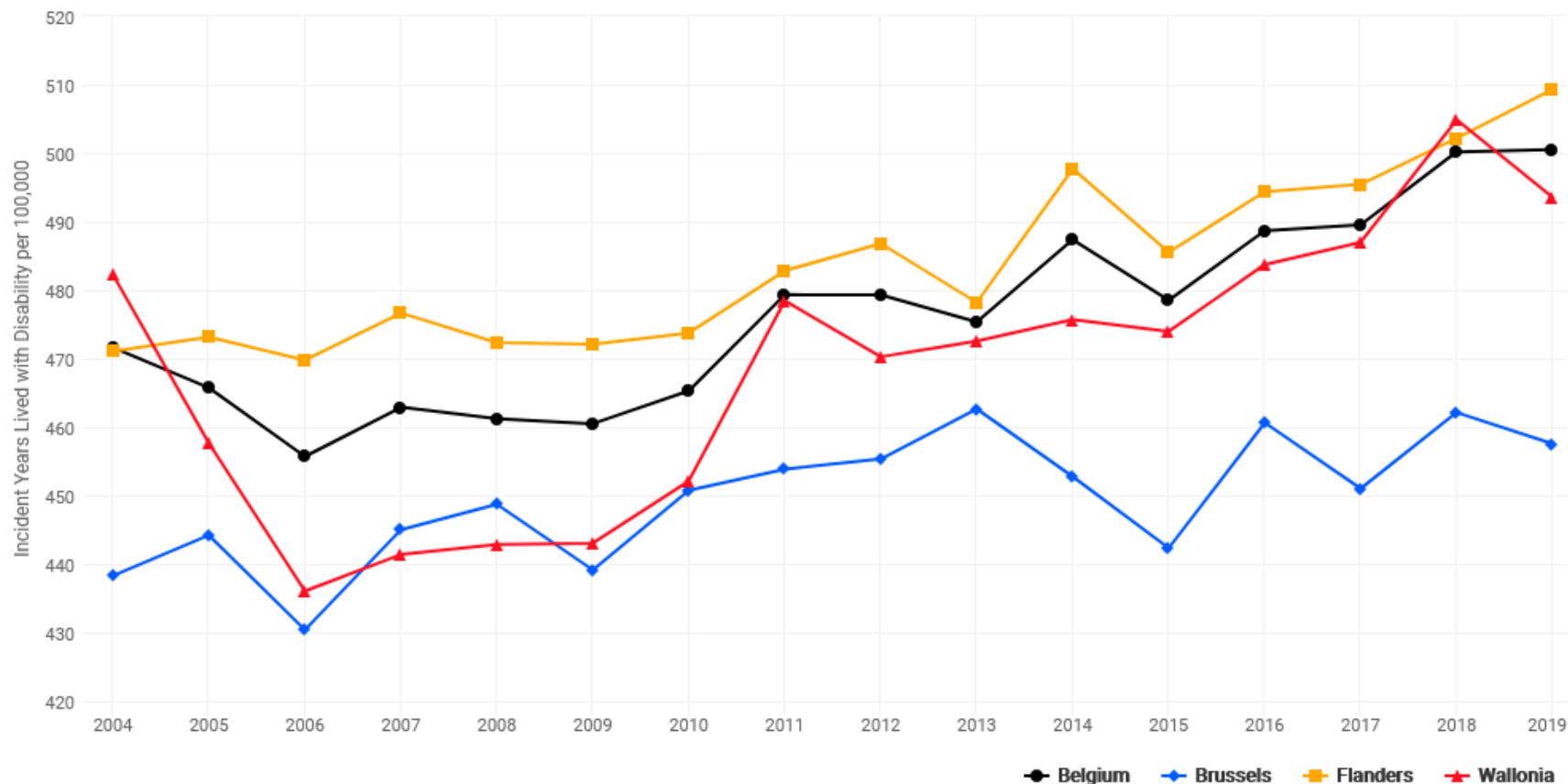


Chart settings

Measure

Disability-Adjusted Life Years (DALYs)

Age

All ages

Sex

Both sexes Men Women

Region

Belgium Brussels Flanders Wallonia

Display mode

Level 1 Level 2 Level 3

Download all data (4.7 MB)

Left-click on any disease group to drill down. Right-click to return to the higher level.

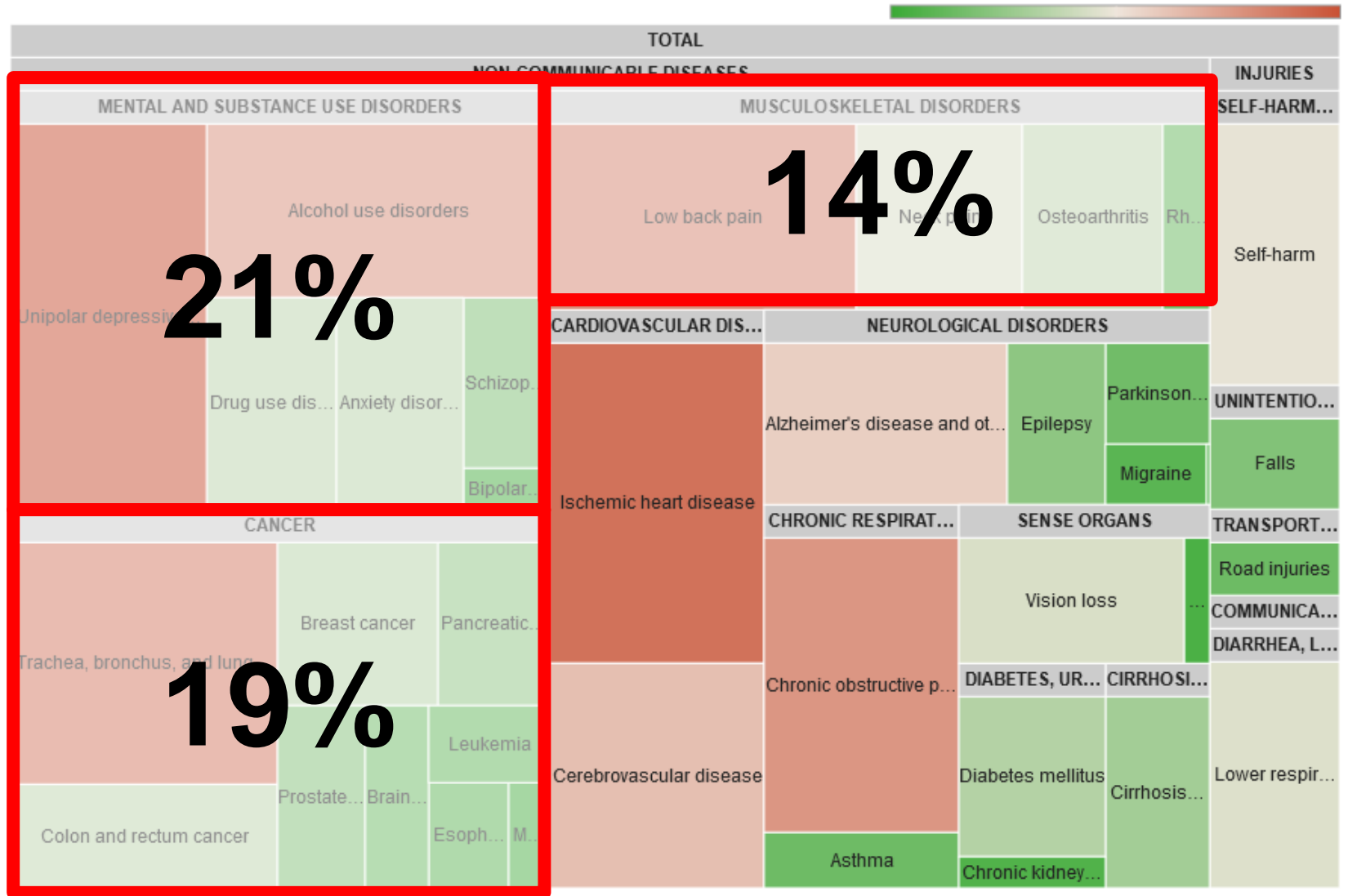


Chart settings

Measure

Disability-Adjusted Life Years (DALYs)

Age

All ages

Sex

Both sexes

Men

Women

Region

Belgium

Brussels

Flanders

Wallonia

Display mode

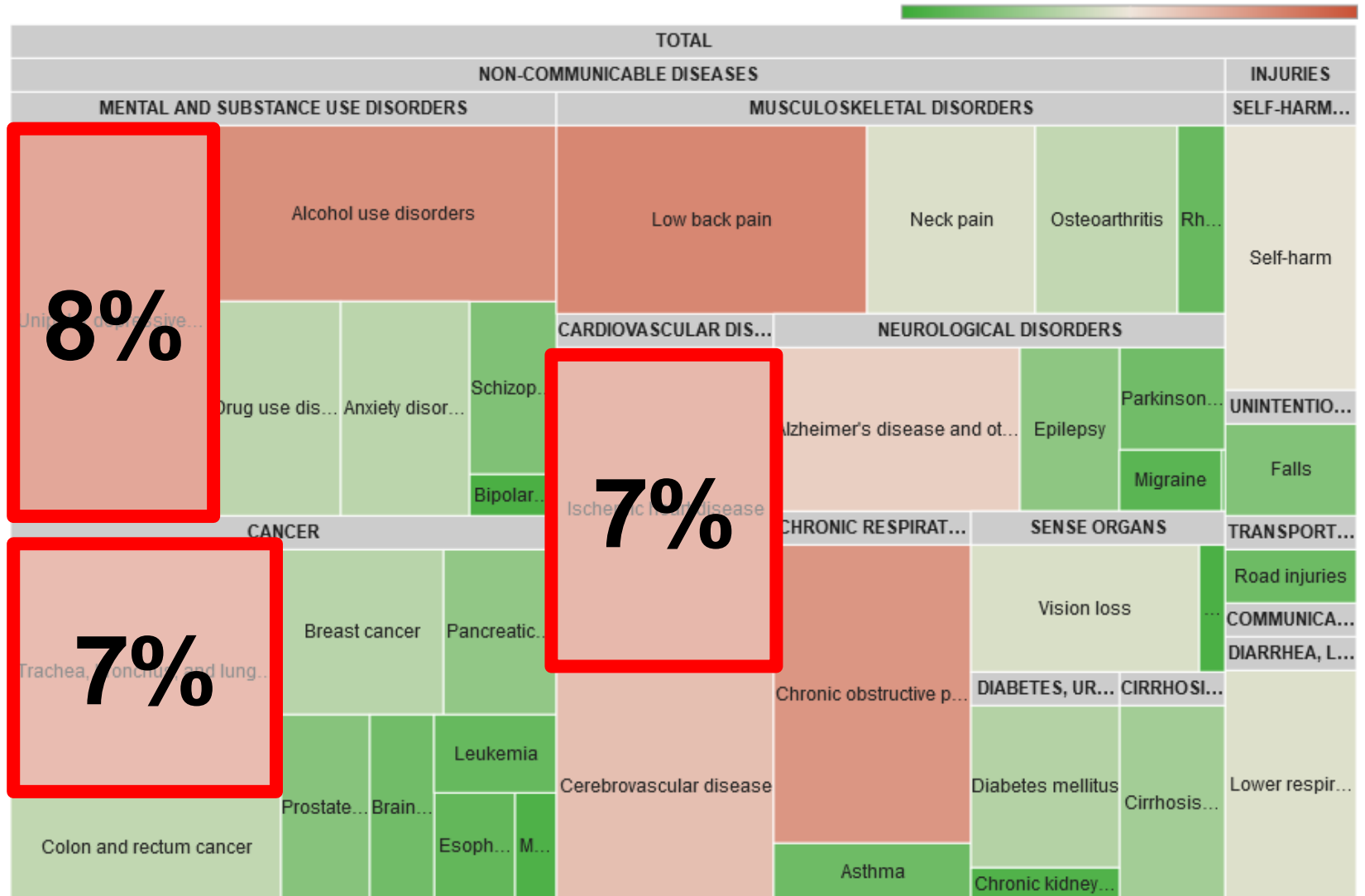
Level 1

Level 2

Level 3

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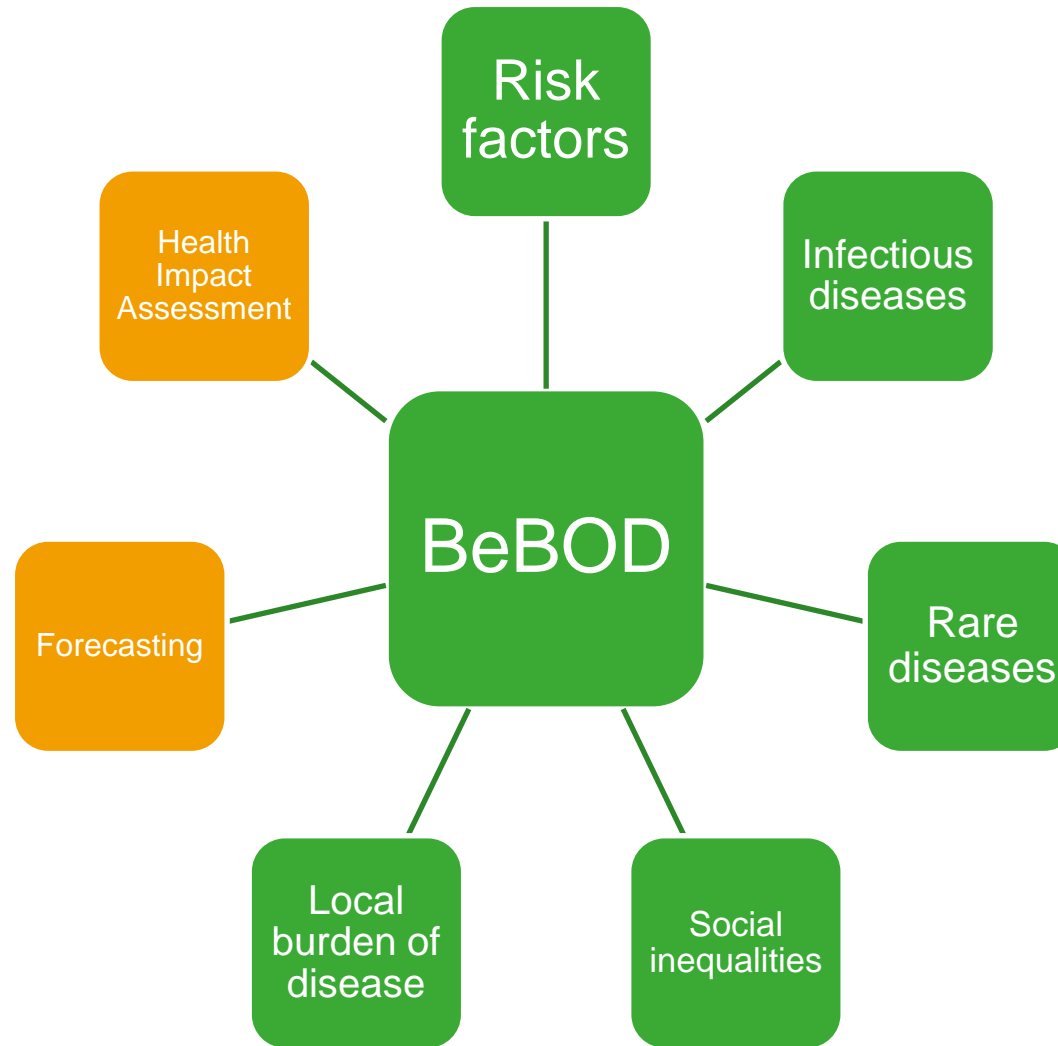


Belgian National Burden of Disease Study (BeBOD)

- Exploration of complete estimates via R/Shiny apps
 - DALY: <https://burden.sciensano.be/shiny/daly>
 - YLD cancer: <https://burden.sciensano.be/shiny/cancer>
 - YLL: <https://burden.sciensano.be/shiny/mortality>
- Technical report
 - <https://www.sciensano.be/nl/biblio/belgian-national-burden-disease-study-guidelines-calculation-dalys-belgium-1>
- Integration in HSR
 - Key results, eg, treemap, age/sex, trends
 - <https://www.healthybelgium.be/en/health-status/burden-of-disease/bod-daly-en>
- Press release and infographic
- Scientific publications

BeBOD platform

From Knowledge to Wisdom



GENERATING AND VALORISING HEALTH INFORMATION TO SUPPORT PUBLIC HEALTH POLICY

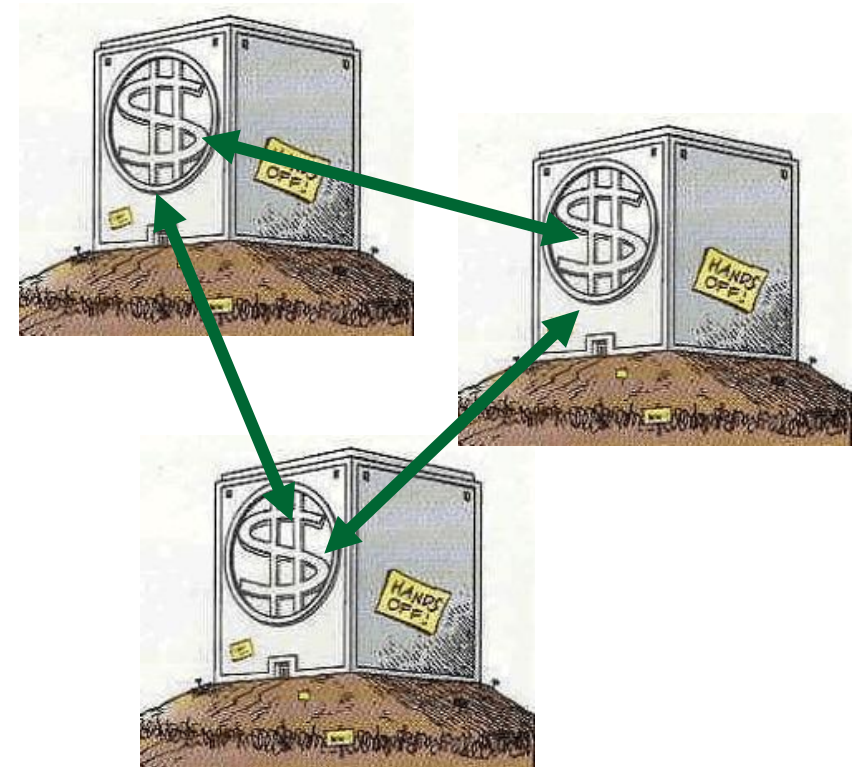
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OPPORTUNITIES AND CONSTRAINTS

Generating and valorising health information to support public health policy

Opportunities!



Increased willingness and interest to share and connect — e.g., HIS + IMA, COD, envir, ...

European Health Data Space

A European health data space

The **collection, access, storage, use and re-use** of health(care) data present specific challenges that require a **regulatory framework** that best serves individuals' interests and rights.

→ The creation of a **European Health Data Space**

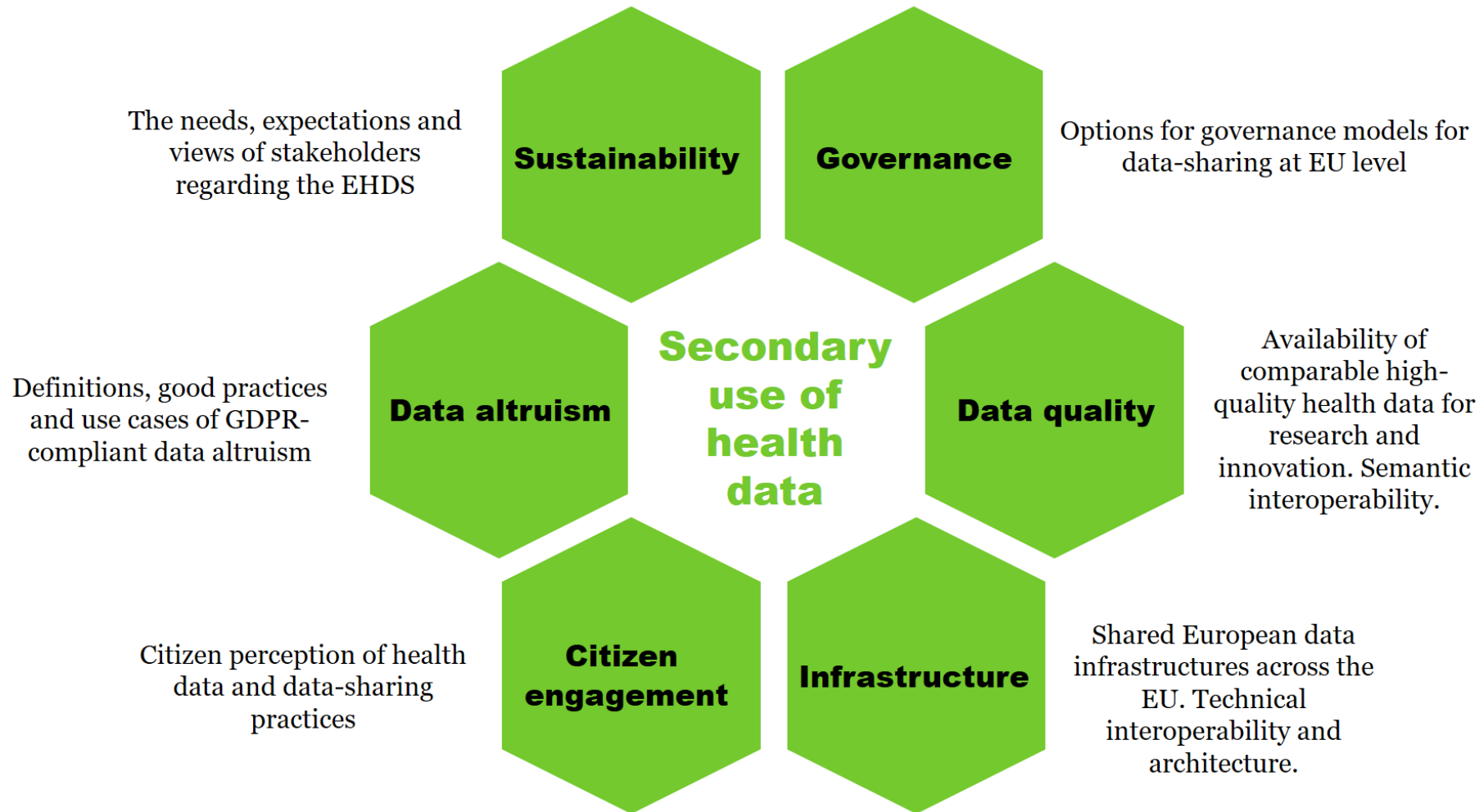
OBJECTIVES

Timely and simplified exchange of and access to health data

SCOPE & EXPECTED IMPACT



JA “TEHDaS” — Towards a European Health Data Space



EHDS2 pilot – Set up test version of EHDS



Press Release

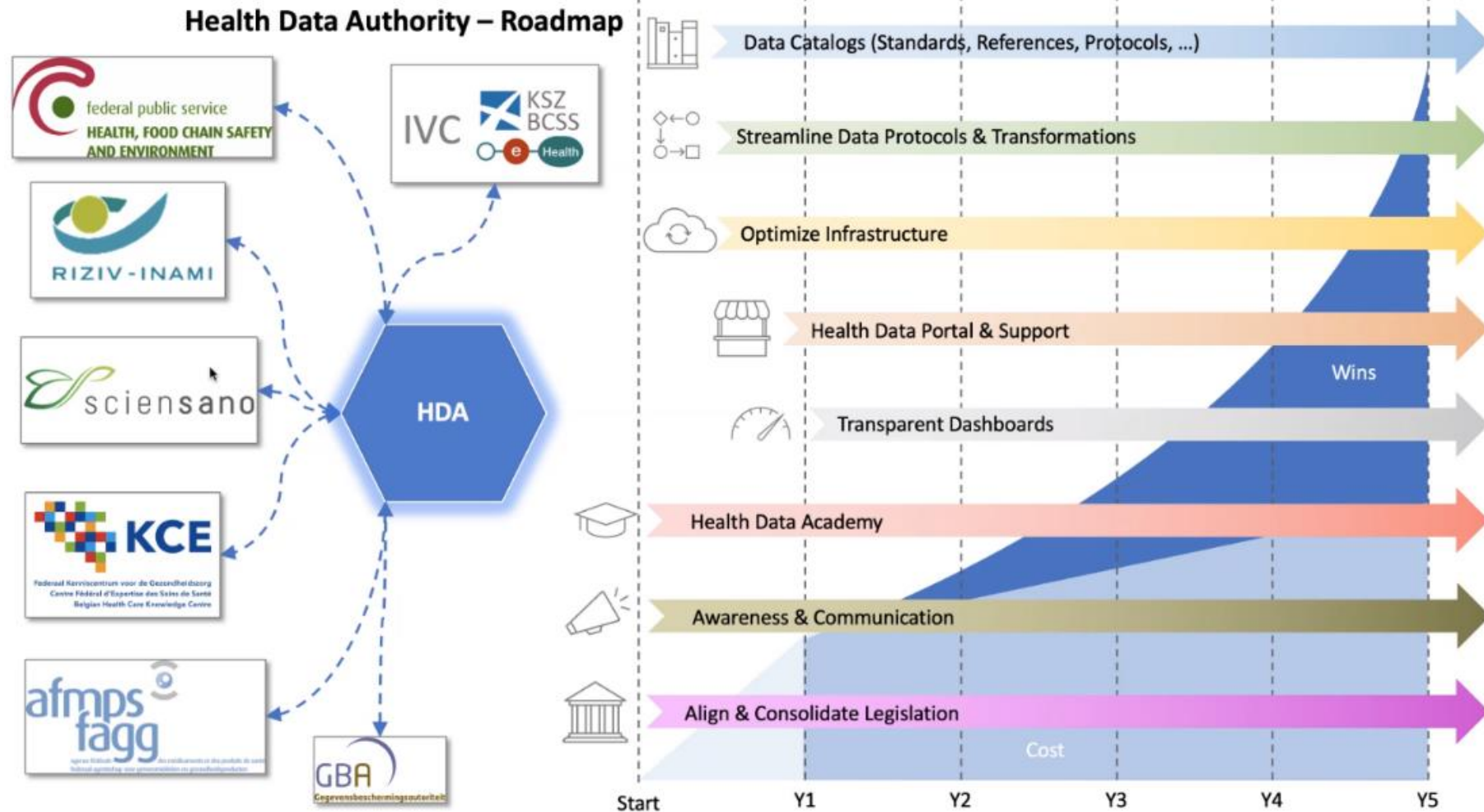
Paris, 03/07/22

EHDS2 Pilot - A European Consortium Pilot project, candidate for the future European Health Data Space

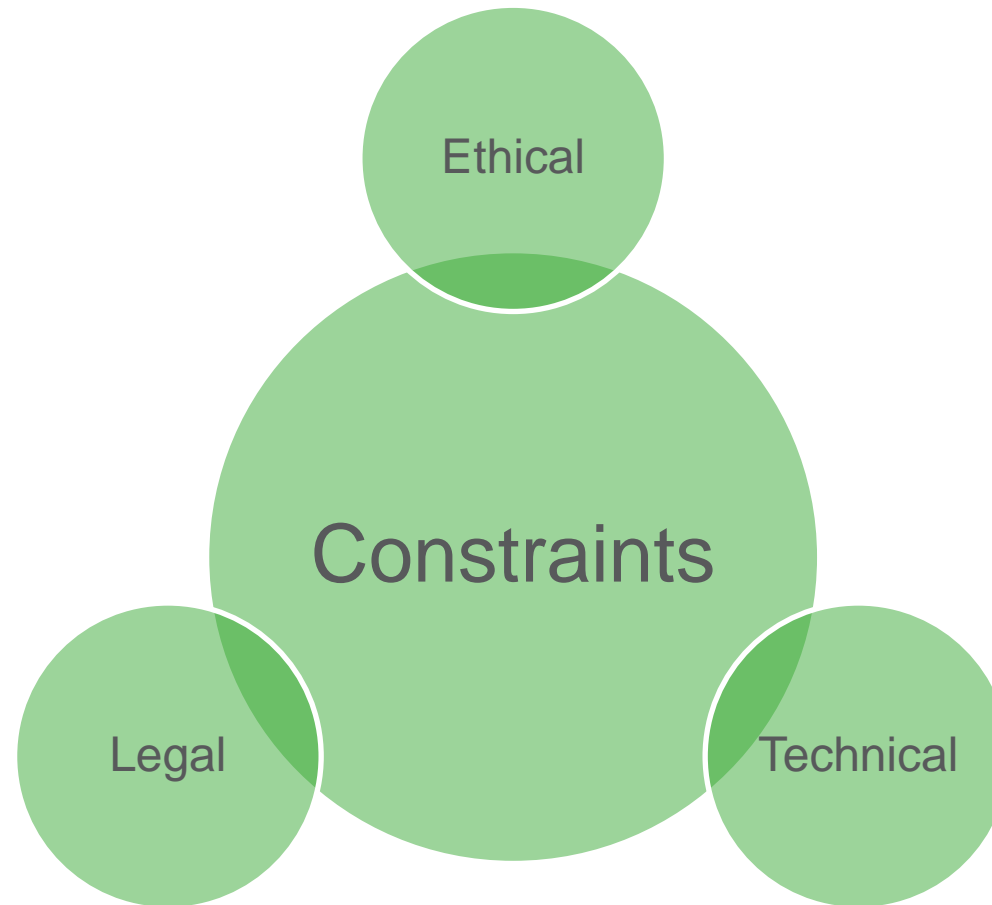
A large European consortium bringing together 8 national health data infrastructures, 2 EU agencies, 1 ERIC, 4 research infrastructures, and one association is applying for a European Commission's call for projects to set up a test version of European Health Data Space (EHDS), leading to major breakthroughs on European policies on the secondary use of health data for research, innovation and healthcare system improvement purpose.



Belgian Health Data Authority

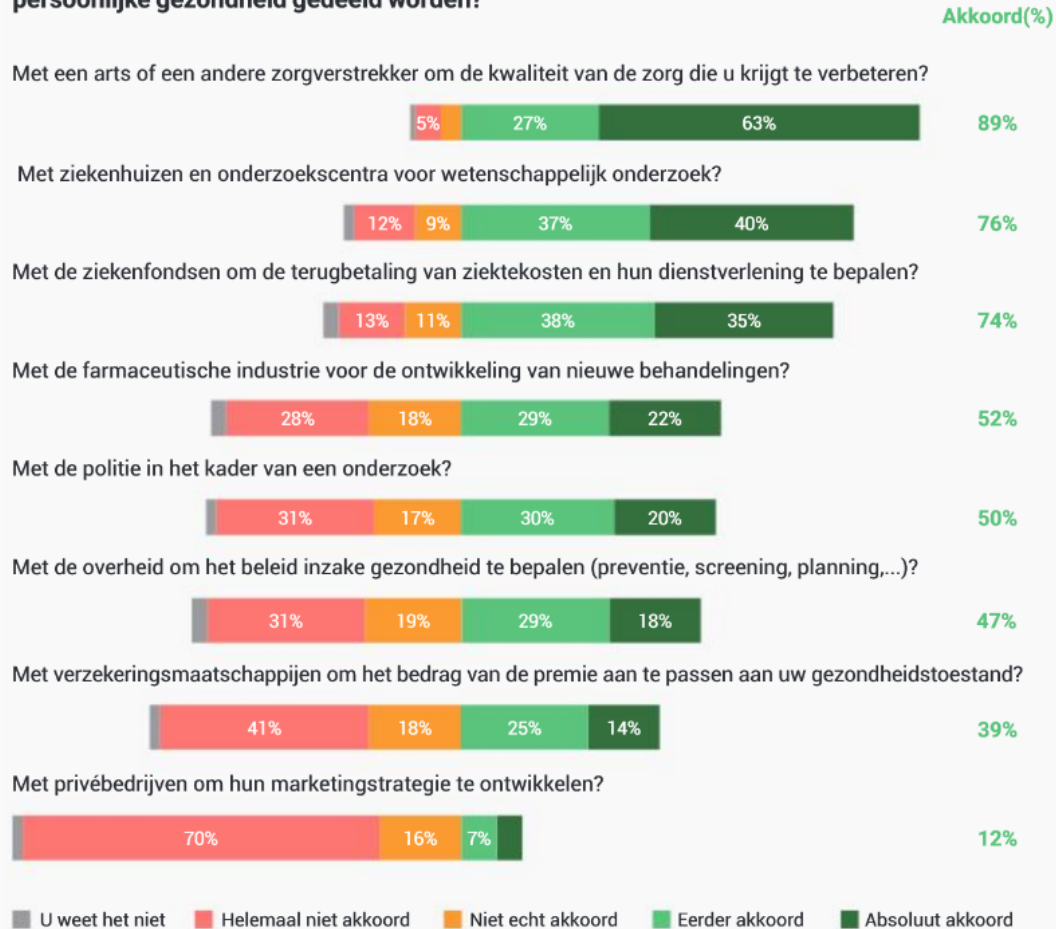


Constraints!



KBF - <https://www.kbs-frb.be/en/medical-data>

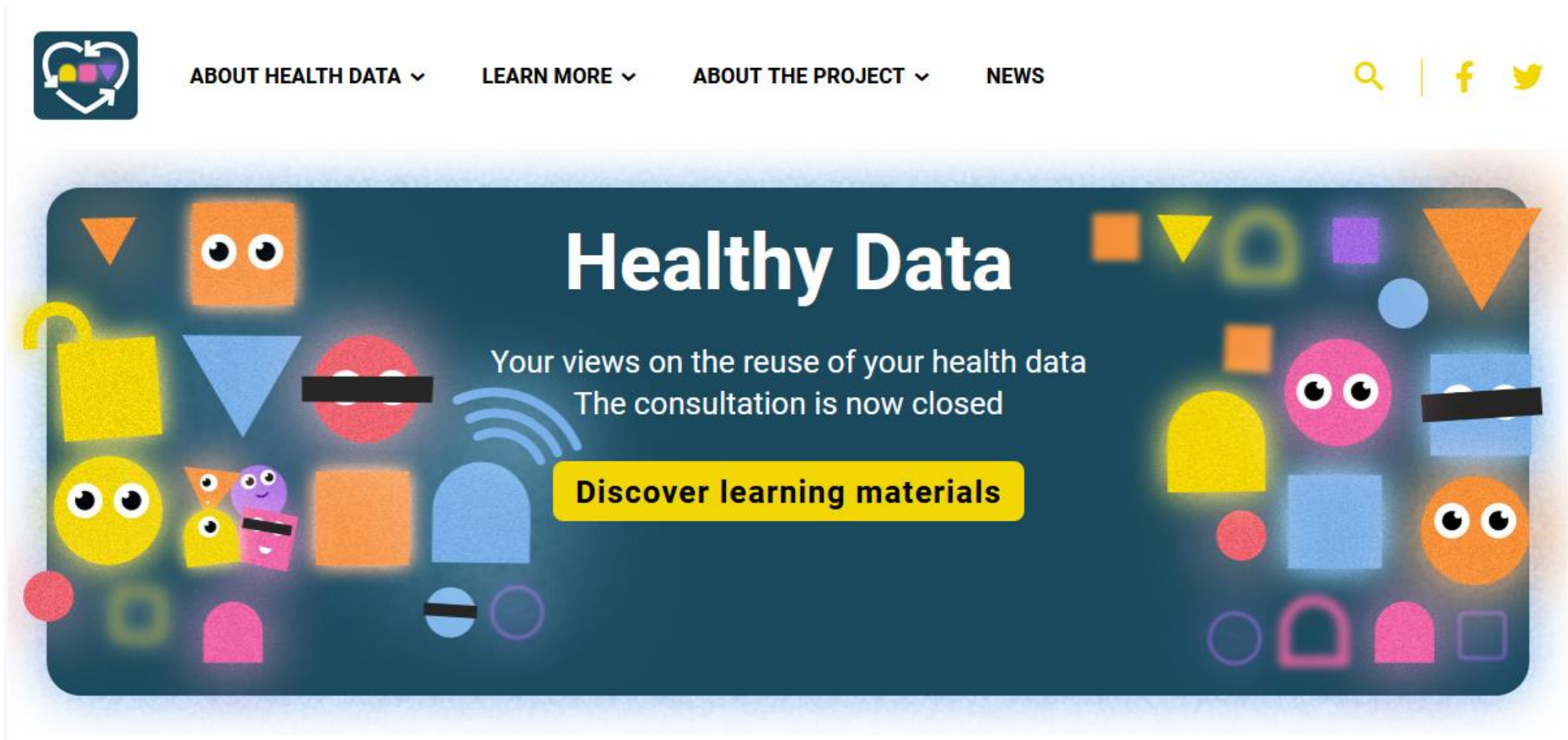
In hoeverre gaat u ermee akkoord dat gegevens over uw persoonlijke gezondheid gedeeld worden?



More than 3 in 4 Belgians want to share their personal health data with actors within the **medical sector**

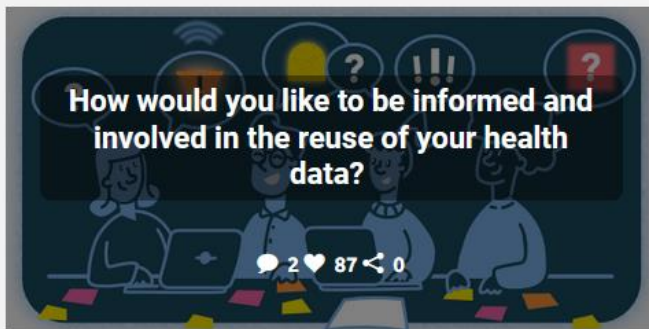
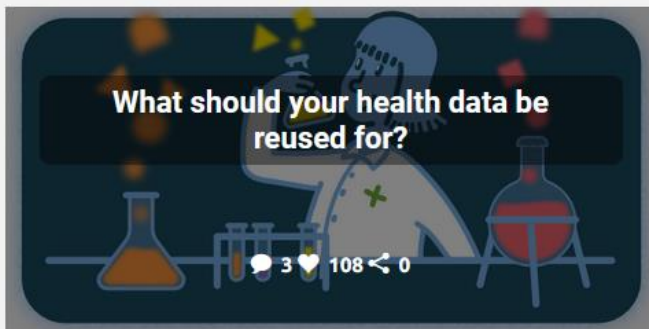
Only 1 in 2 Belgians want to share their personal health data for the purpose of **research or health policy planning**

TEHDaS/AHEAD — Citizen e-consultation



TEHDaS/AHEAD — Citizen e-consultation

Entries	Comments	Votes/shares
4 256	7	239



*“I want to be able to select how and when my data is used, on a **case-by-case basis**. I do realize collecting consents was a big and expensive process in the past, but in the era of apps that's no longer the case. Just tell me the purpose and the involved parties and **ask for my permission**.”*

*“I think it should be **freely (anonymously) available**, but not given selectively to certain companies whose intentions are unknown.”*

REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 27 April 2016

**on the protection of natural persons with regard to the processing of personal data and on the free movement of such data,
and repealing Directive 95/46/EC (General Data Protection Regulation)**

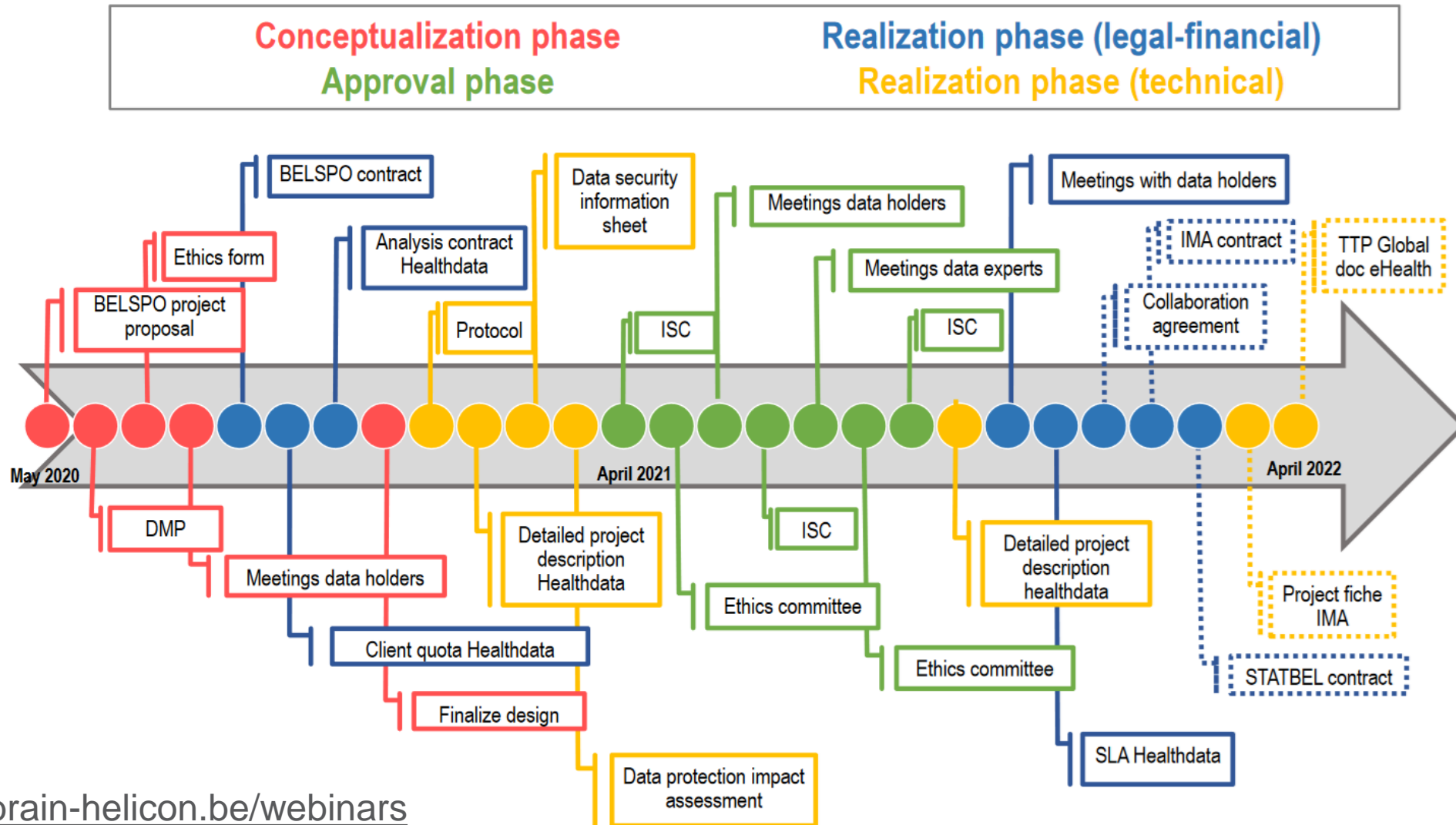
Art 9 §1. Processing of ... data concerning health ... shall be prohibited.

Art 9 §2. Paragraph 1 shall not apply if one of the following applies
... the data subject has given explicit consent to the processing of those personal data
... processing is necessary for reasons of public interest in the area of public health

Art 5. Principles relating to processing of personal data
Purposiveness – Proportionality – Transparency – Security

⇔ Subjective interpretations, data holders more strict than required

Technical/operational



Take home messages

- The Sciensano Service Lifestyle and chronic diseases generates and valorises health information to support policy making
- There is a shift from paper-based reporting to online (visualisation) tools
- There are increasing opportunities for the secondary use of health data in Belgium — but challenges remain



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