

An aerial photograph of a wooden boardwalk or path stretching across a wetland landscape. The path is made of weathered wooden planks and runs vertically through the center of the image. On either side of the path, there are patches of water, green grass, and small trees. The background shows a dense forest of trees under a cloudy sky. The overall scene is serene and natural.

Digital Public Health and Cross-sectoral Collaboration

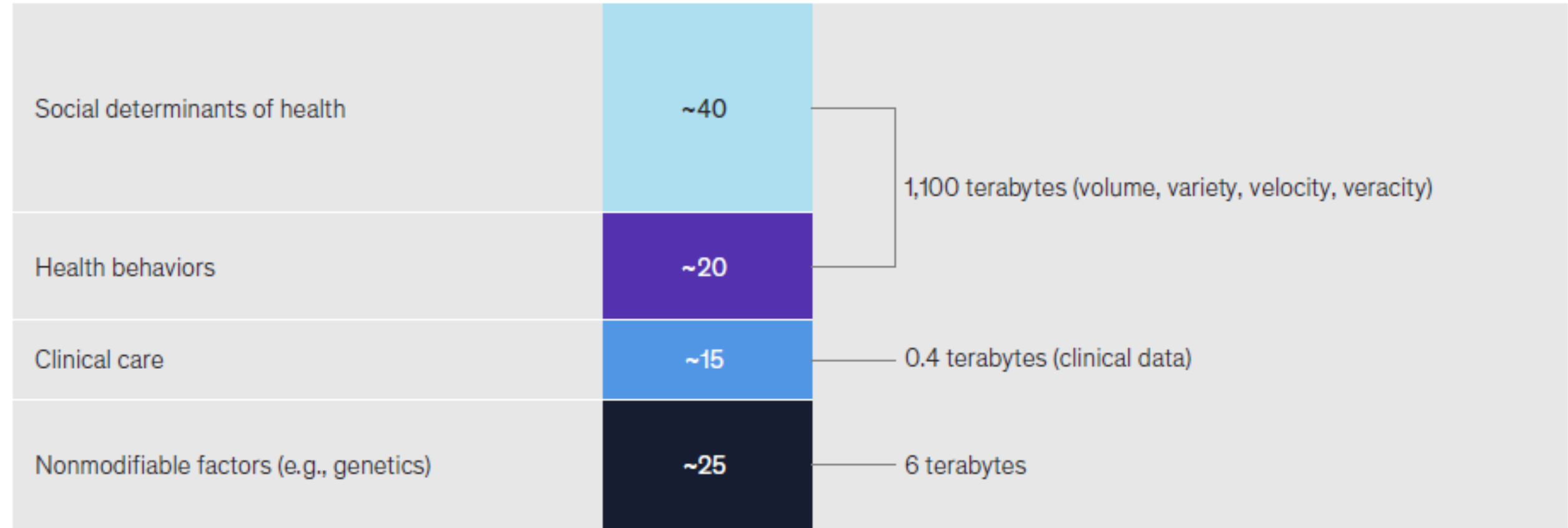
Kalle Killar
Ministry of Social Affairs
Deputy Secretary General
E-services Development and Innovation

What determines health, really?

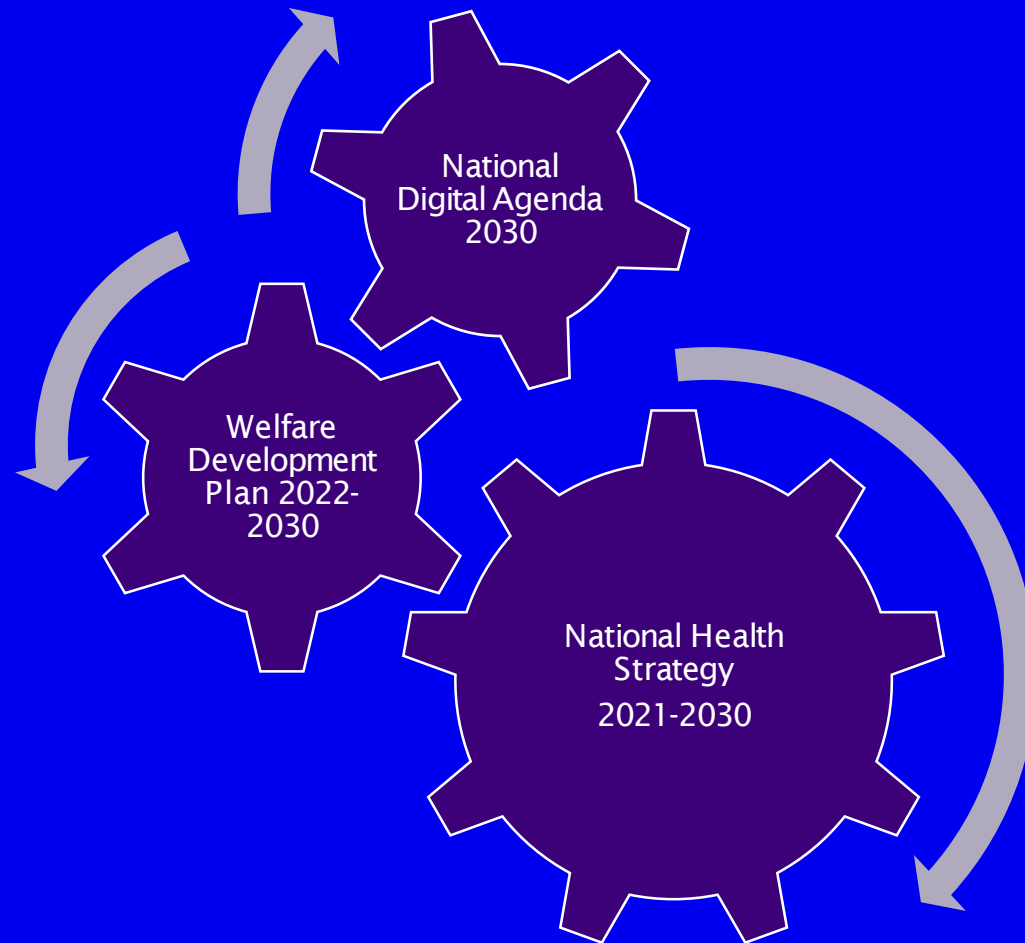
Societal issues have a major impact on consumer health

Factors that contribute to health outcomes, %

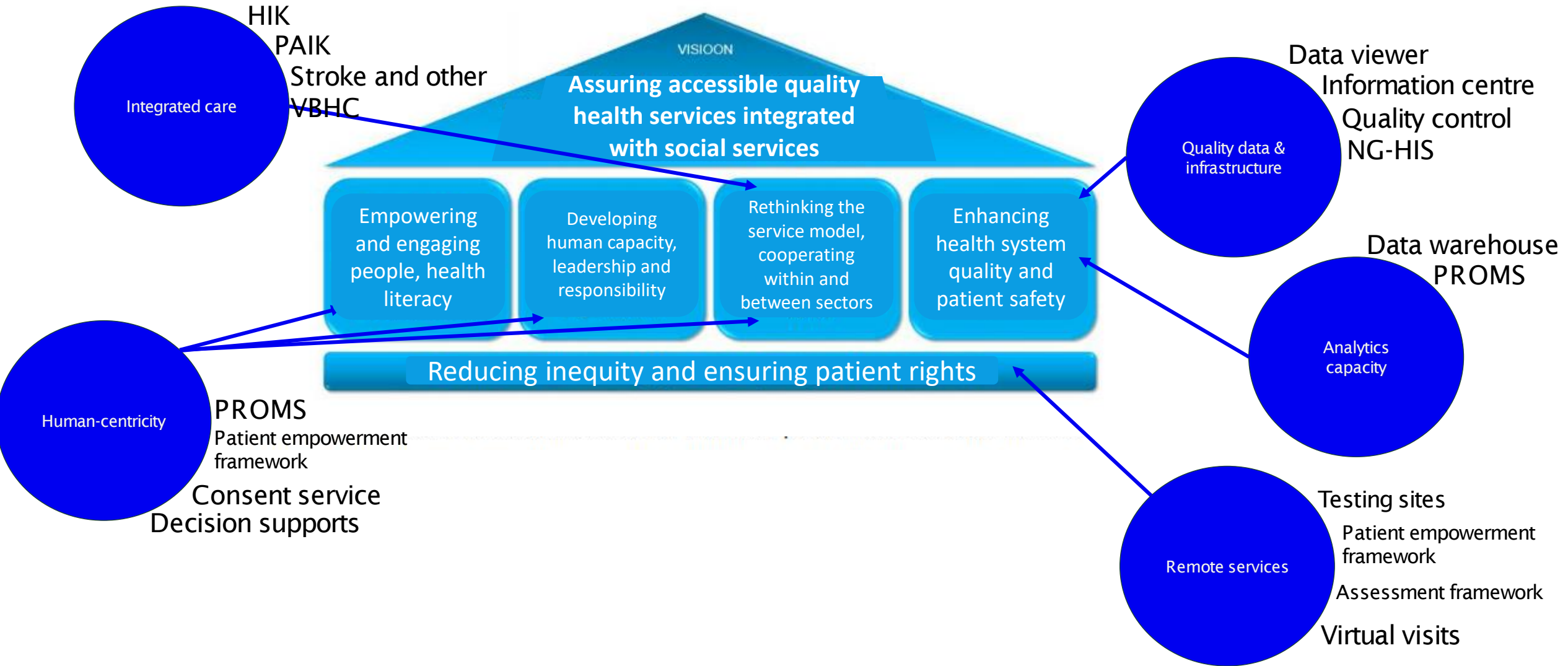
Average amount of data generated over a person's lifetime



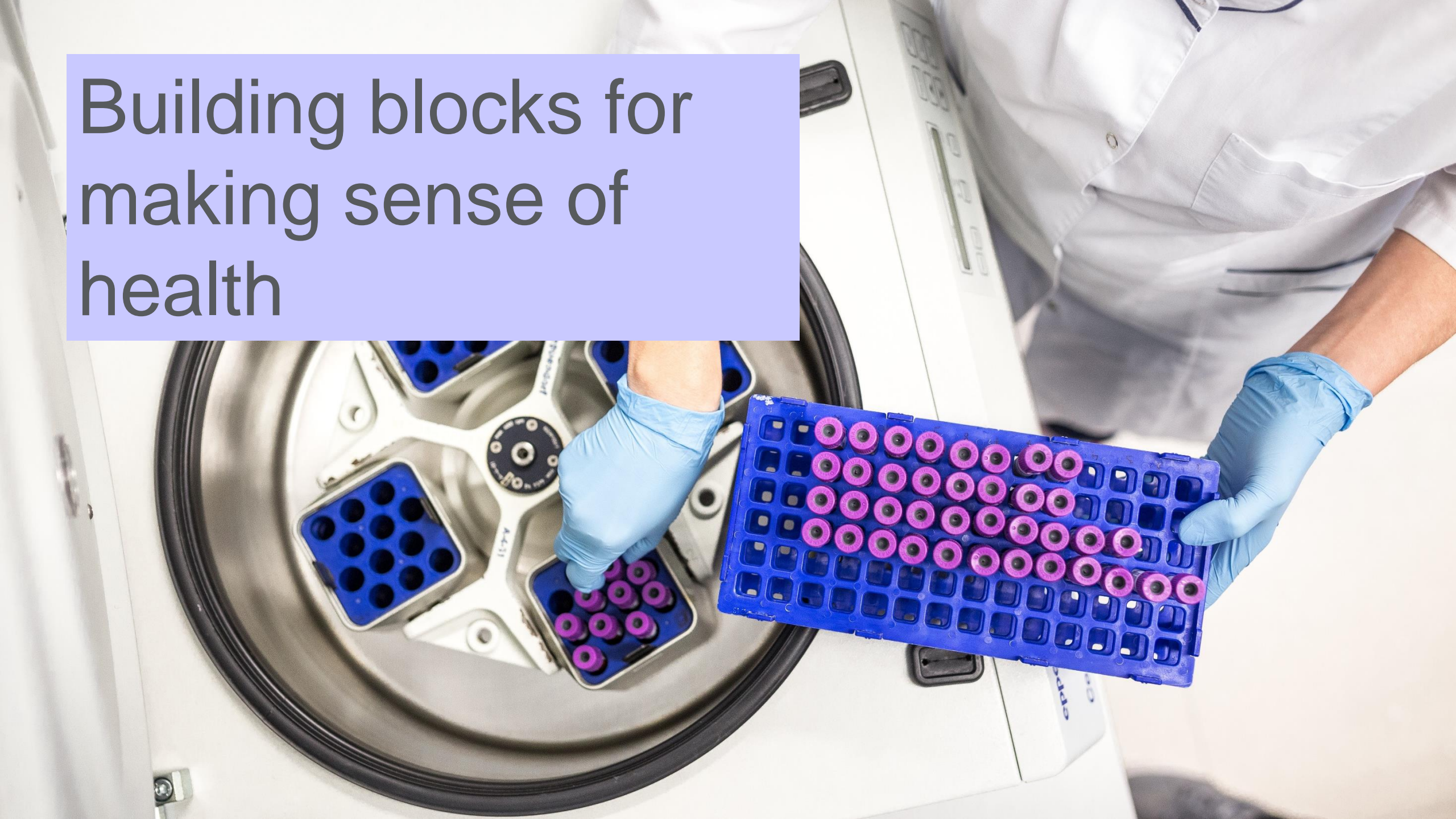
Strategic framework



National Health Strategy 2021-2030



Building blocks for making sense of health



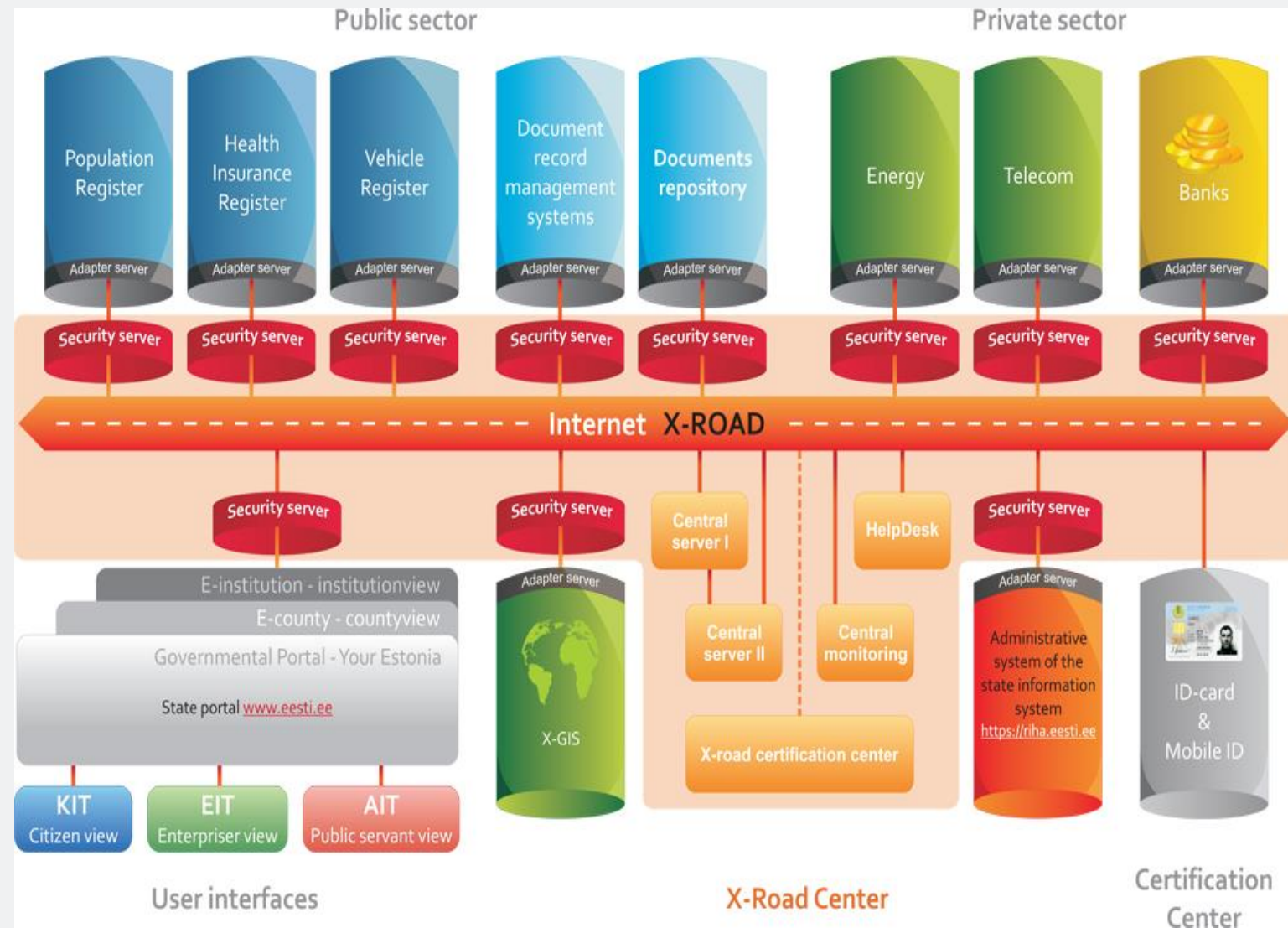
electronic ID

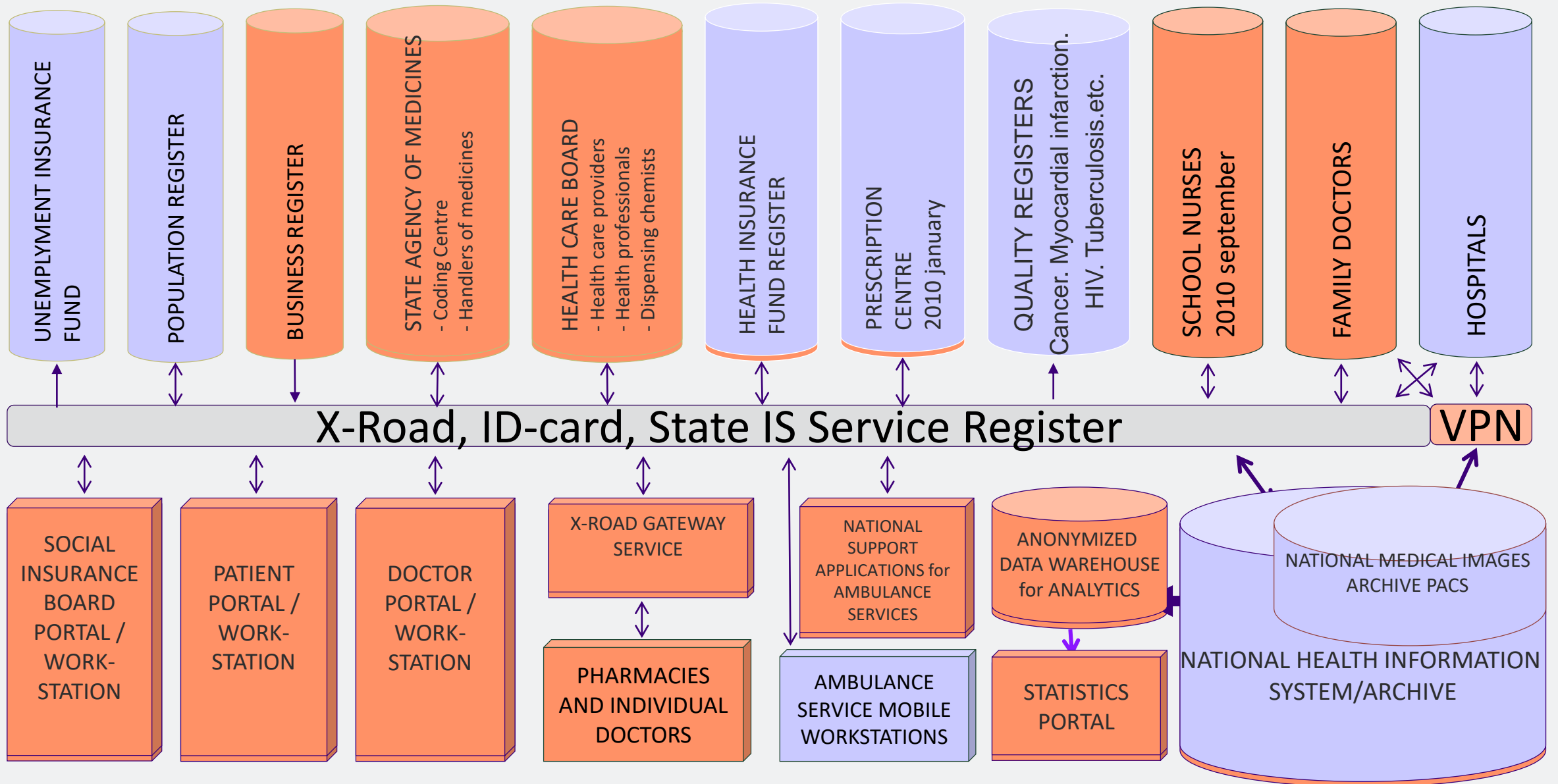
The strongest identity.

- + every Estonian has an eID
- + 17% of mobile-ID
- + 34% of smart-ID
- + e-Residency

One road to bind them all

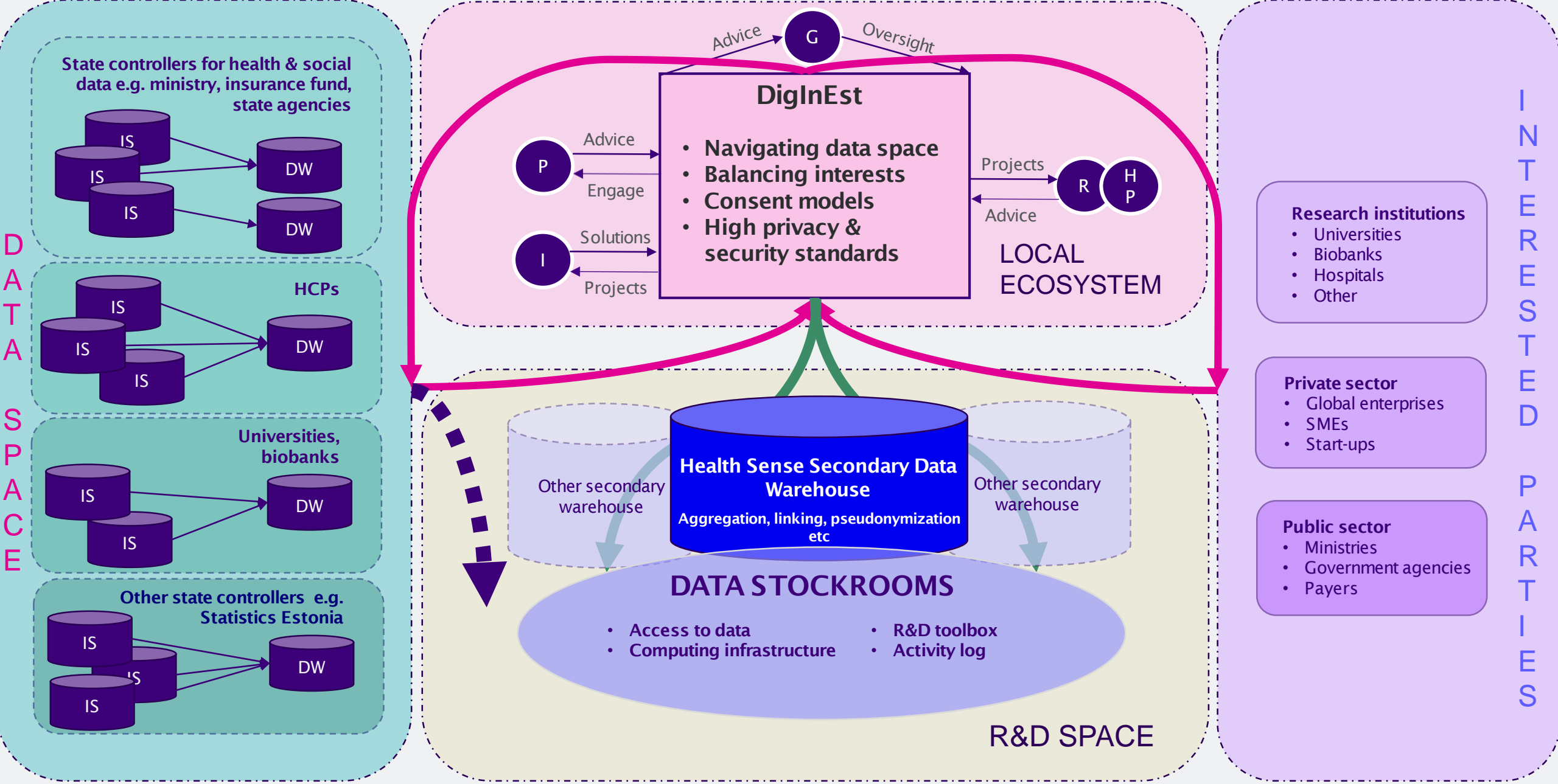
Connecting...
...488 institutions
...155 public sector entities
...1223 interfaced information systems





International standards

- ICD-10
- SNOMED CT
 - HL7 CDA and v3 (FHIR soon to be here)
 - DICOM
 - LOINC
 - ATC
 - NCS P



P – patients; R – researchers; HP – health professionals; I – industry; G – government

Benefits:

- *new innovative products and services for patients
- *new research and partnership opportunities for professionals and local industry

- *data-driven insight for policy
- *advancement of medicine

An aerial photograph of a city skyline at dusk or dawn. The sky is a mix of orange, pink, and blue. In the foreground, there are several multi-story buildings, some with red roofs. A prominent building in the center has a curved facade and a sign that says "STOCKMANN". To the right, there's a large, modern building with a glass facade and a unique, angular design. The city extends into the distance with many more buildings and a few cranes visible. The overall atmosphere is hazy and urban.

Where do we go from here?

The future is deeply personal – couple of
example projects

Estonian Personalized Medicine Project

- Who: The National Institute for Health Development, Tartu University, Ministry, and others
- What: Developing risk scores and decision support software for family doctors
 - How: Using primarily genotyped data in combination with EHRs to train algorithms that predict risk
 - Why: Predict diseases for primary prevention, provide pharmacogenetic services



My data

Kalle Killar
37512060236

INSURED

Family doctor:
Maret Miil

Update



**CORONAVIRUS ANALYSIS
LAB RESULTS**

Recent documents

Health data

Time critical data

Dental care documents

[Dental care charts](#)

[Dental status chart](#)

Passport of Immunization

Ambulancecharts

Prescriptions

Referrals

[Invalid referrals](#)

[Valid referrals](#)

[Referrals related to an appointment](#)

Health declarations

Health certificates

Case summaries

[Out-patient case summaries](#)

[Day-care case summaries](#)

[In-patient case summaries](#)

[Birth case summaries](#)

Notifications

[Development assessment notifications](#)

[Immunisation notifications](#)

[Growth notifications](#)

[Examination notifications](#)

[Counselling notifications](#)

Examination results

[Image references](#)

[Referral responses](#)

National eBooking system



COVID-19 VACCINATION

Invoices submitted
to the Estonian

The screenshot shows the Terviseportaal website interface. At the top, there is a search bar with the text "Otsing" and a magnifying glass icon. To the right, there are links for "Keel" (Language) set to "EST" and "LOGI SISSE" (Log In). The main header features the "Terviseportaal" logo and a large banner image of a person walking in a forest. The banner text reads "Värv tervise e-teenusteni" (Color your e-health services) and includes a "LOGI SISSE" button. Below the banner, there is a "Uudised" (News) section with four articles:

- COVID-19 haigestumus Eestis kasvavas alustas** (COVID-19 incidence in Estonia starts to grow). The article mentions that the Estonian Medical Association (Eesti Arstide Koostööliit) has issued a recommendation for a personal protective equipment (PPE) strategy for the use of the TARA system. It also notes that electronic health records (EHR) are available for use in the system.
- Perearstide kliiniliste otsuste tugisüsteemi alustas** (Primary care clinical decision support system starts). The article mentions that the system is a personal protective equipment (PPE) strategy for the use of the TARA system.
- Terviseportaal saab nüüd sisse logida ka Smart-ID vahendusel** (E-Health portal can now be accessed via Smart-ID). The article mentions that the system is a personal protective equipment (PPE) strategy for the use of the TARA system.
- Tartu Ülikool viib läbi koroonauuringut** (Tartu University conducts COVID-19 research). The article mentions that the system is a personal protective equipment (PPE) strategy for the use of the TARA system.