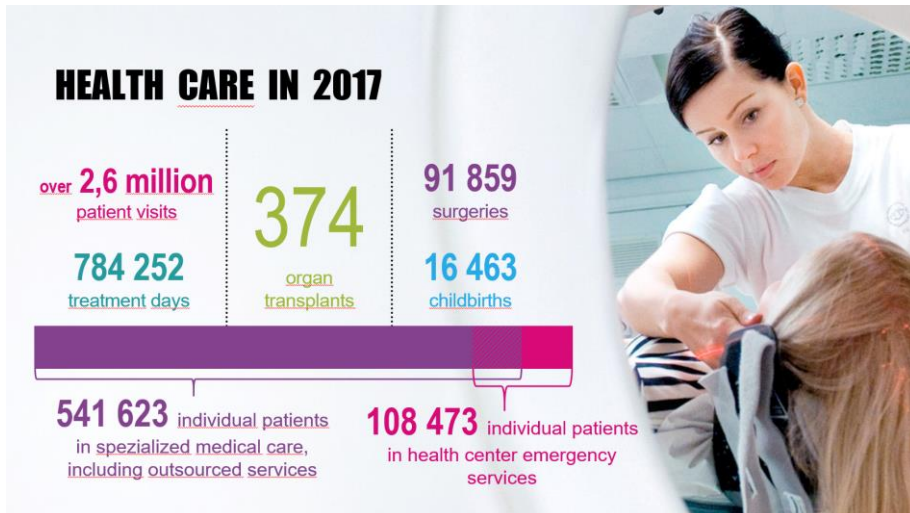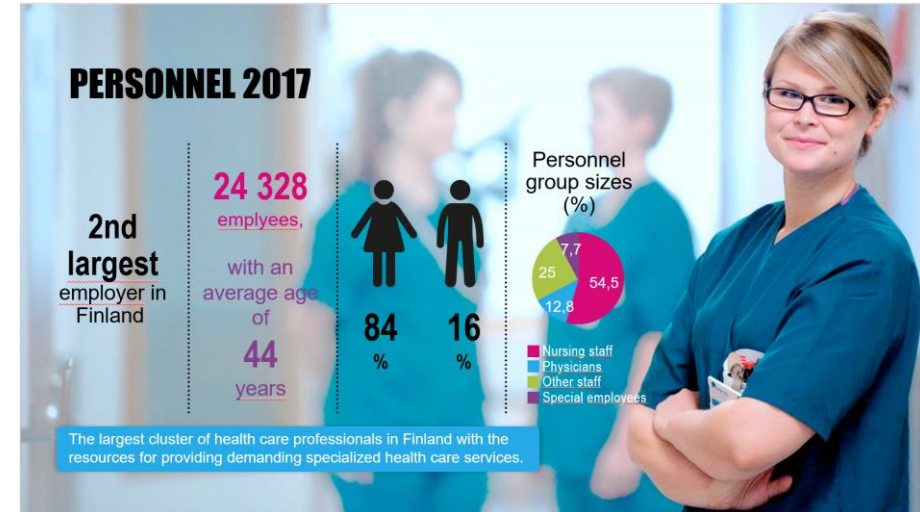# CleverHealth Network

Mirka Tammi, Project Director
HUS Helsinki University Hospital, Finland
5.2.2019

HUS Helsinki University Hospital

HUS

Joint authority formed by **24** municipalities

1 653 735 residents

Operates in **23** hospitals

2 831 hospital beds

Revenue **2** billion

PERSONNEL 2017

2nd largest employer in Finland

24 328 emplyees, with an average age of **44** years

84 % 16 %

Personnel group sizes (%)

7,7
25
54,5
12,8

Nursing staff
Physicians
Other staff
Special employees

The largest cluster of health care professionals in Finland with the resources for providing demanding specialized health care services.

HEALTH CARE IN 2017

over **2,6 million** patient visits

784 252 treatment days

374 organ transplants

91 859 surgeries

16 463 childbirths

541 623 individual patients in spezialized medical care, including outsourced services

108 473 individual patients in health center emergency services

HUS VISION

An internationally high-quality hospital organization that produces new information,

and offers timely, safe, high-quality and patient-oriented treatment to its patients and customers.

HUS produces competitive services and its hospitals and units are sought-after work places.

CleverHealth Network

- CleverHealth Network is a health technology ecosystem in which companies and leading healthcare experts utilise health data to develop better treatment solutions and successful export products in the field of health technology.

- The ecosystem brings together:
    - The leading clinical experts and researchers of the HUS Helsinki University Hospital
    - The health technology expertise of Finnish SMEs and large corporations, and
    - HUS' vast and internationally unique high-quality health data
        - Hadoop-based datalake solution in Azure

- CleverHealth Network was established in autumn 2017
    - Business Finland, the Finnish Funding Agency for Innovation, has granted funding for the development of CleverHealth Network
    - The rest of the funding comes from the participating companies and HUS

CleverHealth Network

Large cooperation network

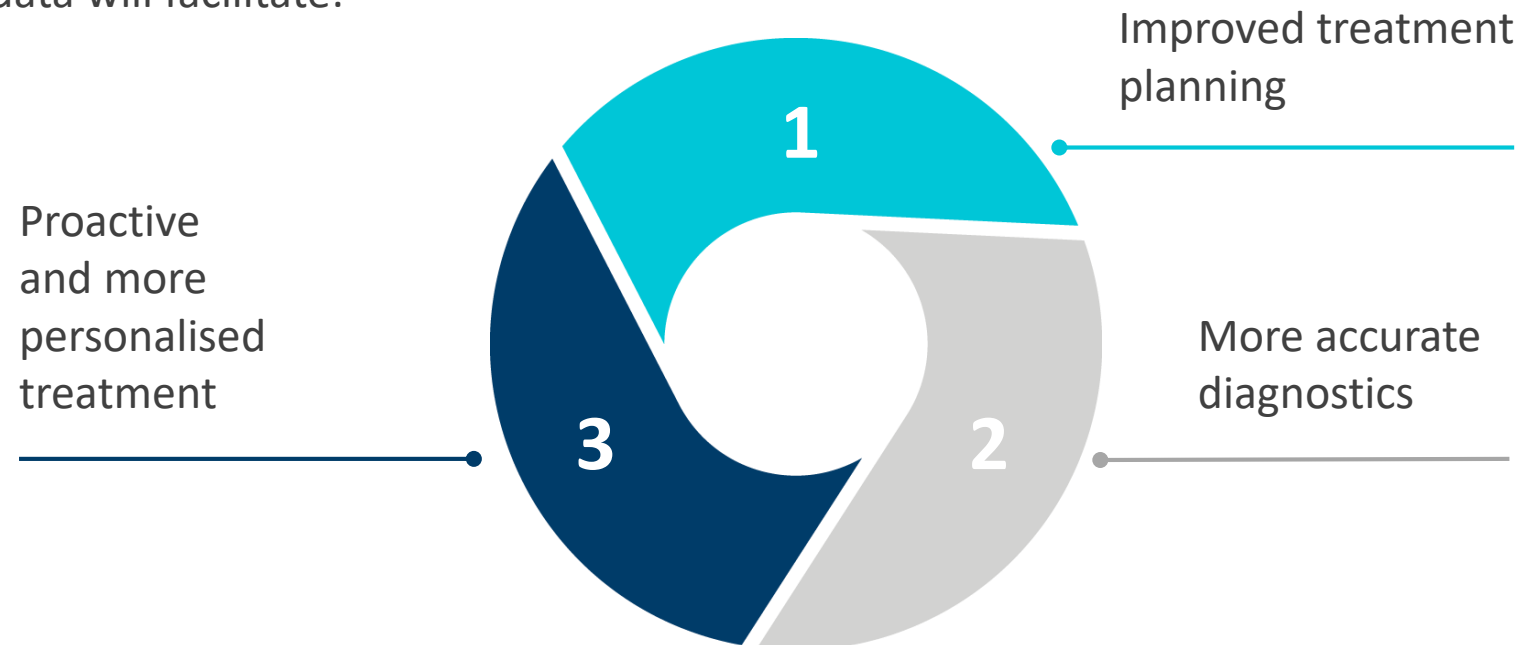HUS is responsible for the coordination of the ecosystem

CleverHealth Network

Ecosystem's objectives

- Create product and service innovations in the field of health and well-being technology
  - Increase technology exports and attract foreign investment to Finland
  - Create new jobs

- Improve health and patient care of Finns
  - Improve efficiency and patient care, as well as promote health and well-being
  - HUS is tasked with developing new treatment solutions and ensuring that Finns will continue to have access to the world's most cost-effective healthcare services

- The innovation function takes place in the development & innovation projects, that are established within the ecosystem
  - Start annually several projects that will create world-class solutions related to the cultivation of healthcare data
  - Projects are based on Co-Creation model with multiple partners in every project
  - First projects have started in the beginning of the year 2018
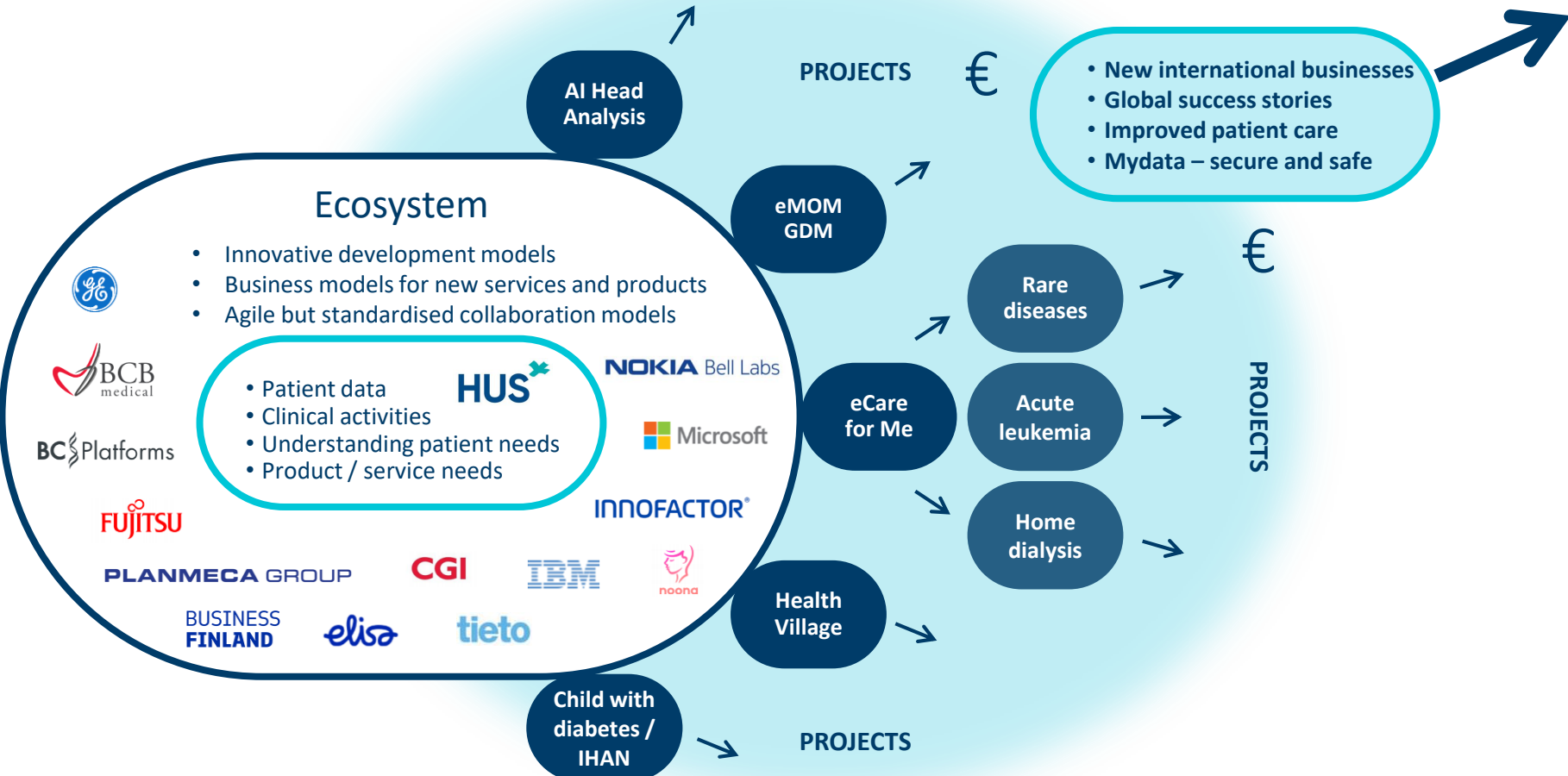
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Data-driven operating model

- Product and service innovations are based on extensive health data and the leading expertise of clinicians

- Cooperating with companies to test innovations in the ecosystems, scale them and develop them for market launch

- Leveraging data will facilitate:

1 — Improved treatment planning

2 — More accurate diagnostics

3 — Proactive and more personalised treatment

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Digital health and wellbeing ecosystem

"The world's fastest track for digital health and wellbeing innovations"

PROJECTS €

AI Head Analysis

- **New international businesses**
- **Global success stories**
- **Improved patient care**
- **Mydata – secure and safe**

eMOM GDM

€

Ecosystem

- Innovative development models
- Business models for new services and products
- Agile but standardised collaboration models

- Patient data
- Clinical activities
- Understanding patient needs
- Product / service needs

HUS

GE

BCB medical

NOKIA Bell Labs

BC Platforms

Microsoft

FUJITSU

INNOFACTOR

PLANMECA GROUP   CGI   IBM   noona

BUSINESS FINLAND   elisa   tieto

Rare diseases

eCare for Me

Acute leukemia

Home dialysis

Health Village

PROJECTS

Child with diabetes / IHAN

PROJECTS

Projects in progress

AI Head Analysis
CleverHealth Network

- Head area imaging analytics:
  - The aim is to develop a clinically significant AI-based image analysis method
  - The new method will improve the treatment of cerebral hemorrhage and could directly affect the life-expectancy and survival rate of patients

eMOM GDM
CleverHealth Network

- Remote monitoring of gestational diabetes:
  - An easy-to-use mobile application improves the treatment and monitoring of gestational diabetes without additional human resources
  - The project combines important factors concerning lifestyle and treatment of gestational diabetes

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We dare to dream the future

CleverHealth Network

www.cleverhealth.fi