

Welcome to

Addressing Challenges In Healthcare



Martijn Nap

General Manager, IQVIA Netherlands



Ian Wachters

Chief Commercial Officer,
Roseman Labs



Wouter Kok

Director, bGrid



Addressing challenges in healthcare: generating, connecting and interpreting innovative data

IQVIA, Roseman Labs & bGrid

November 2023



Session

- + Introduction to the session Mark
- + Challenges in the healthcare landscape Martijn
- + Data, Tech & AI Martijn
- + Smart Building Wouter
- + Connecting data using Multi-party Computation Ian
- + Plenary debate, Q&A Mark



Session

- + **Introduction to the session** **Mark**
- + Challenges in the healthcare landscape **Martijn**
- + Data, Tech & AI **Martijn**
- + Smart Building **Wouter**
- + Connecting data using Multi-party Computation **Ian**
- + Plenary debate, Q&A **Mark**

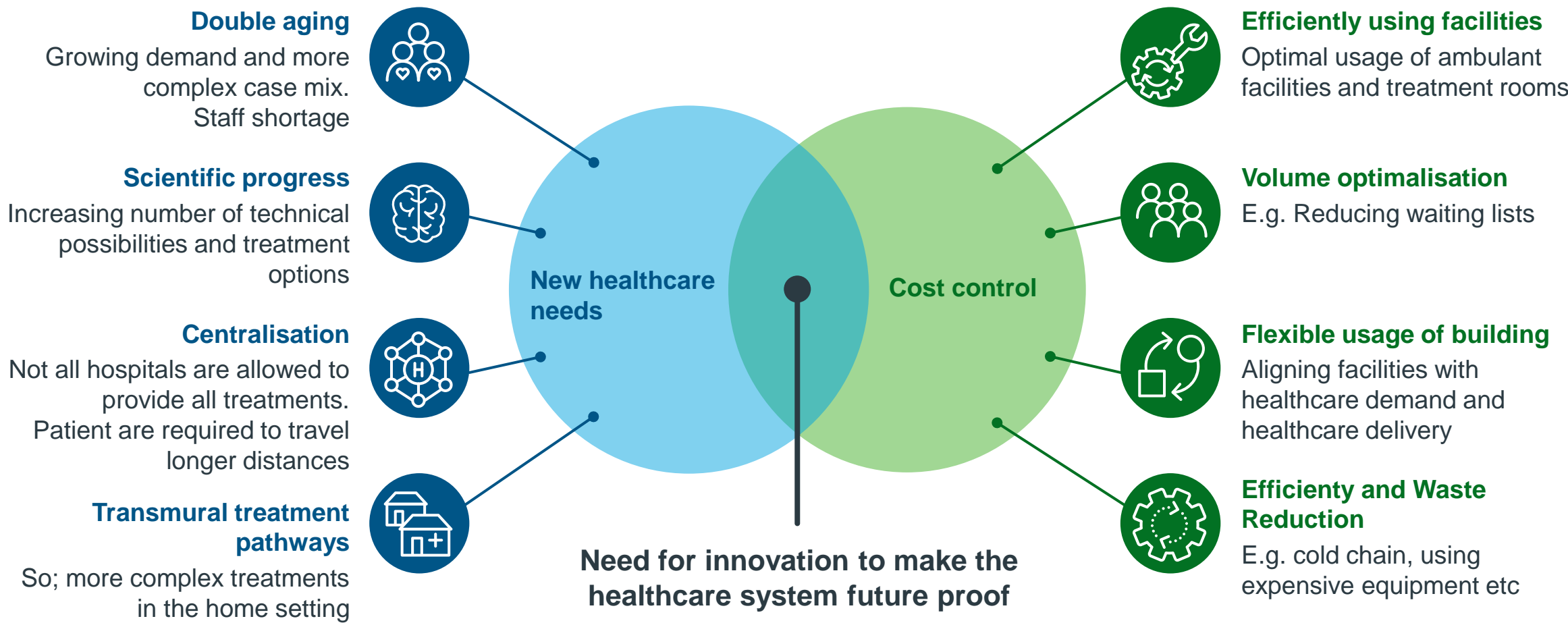


Session

- + Introduction to the session Mark
- + **Challenges in the healthcare landscape** **Martijn**
- + Data, Tech & AI Martijn
- + Smart Building Wouter
- + Connecting data using Multi-party Computation Ian
- + Plenary debate, Q&A Mark

A combination of trends puts pressure on mature healthcare systems, requiring new healthcare needs and cost control

Trends in the healthcare landscape





Session

- + Introduction to the session Mark
- + Challenges in the healthcare landscape Martijn
- + **Data, Tech & AI** **Martijn**
- + Smart Building Wouter
- + Connecting data using Multi-party Computation Ian
- + Plenary debate, Q&A Mark

The background of the slide is a dark blue space filled with a complex, glowing network of light blue and purple lines and dots, resembling a data network or a molecular structure. The lines are thin and connect various points, some of which are larger and more brightly colored. The overall effect is one of dynamic energy and connectivity.

Accelerating

innovation for a healthier world

IQVIA CORE™



Domain expertise

Deep knowledge and expertise across the healthcare ecosystem, geographies, technologies, and scientific approaches



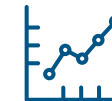
Transformative technology

Innovative technologies providing greater connectivity, enhanced performance, and real-time information



Unparalleled data

From foundational datasets to healthcare-grade data – with innovative privacy protections



Advanced analytics

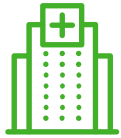
Analytic capabilities enabling faster, more precise insights for better decision-making

Differentiating through Connected Intelligence



...in close collaboration with multiple stakeholders in healthcare...

“Together driving healthcare forward”



Hospitals

Hospitals, HCPs
and physician
associations



PAGs

Patient advocacy
groups



Government and Payers

VWS, ZIN, EMA,
Healthcare
insurance
companies



Emerging Biopharma

Bio-tech start-ups



MedTech

Medical technology
companies



Consumer Health

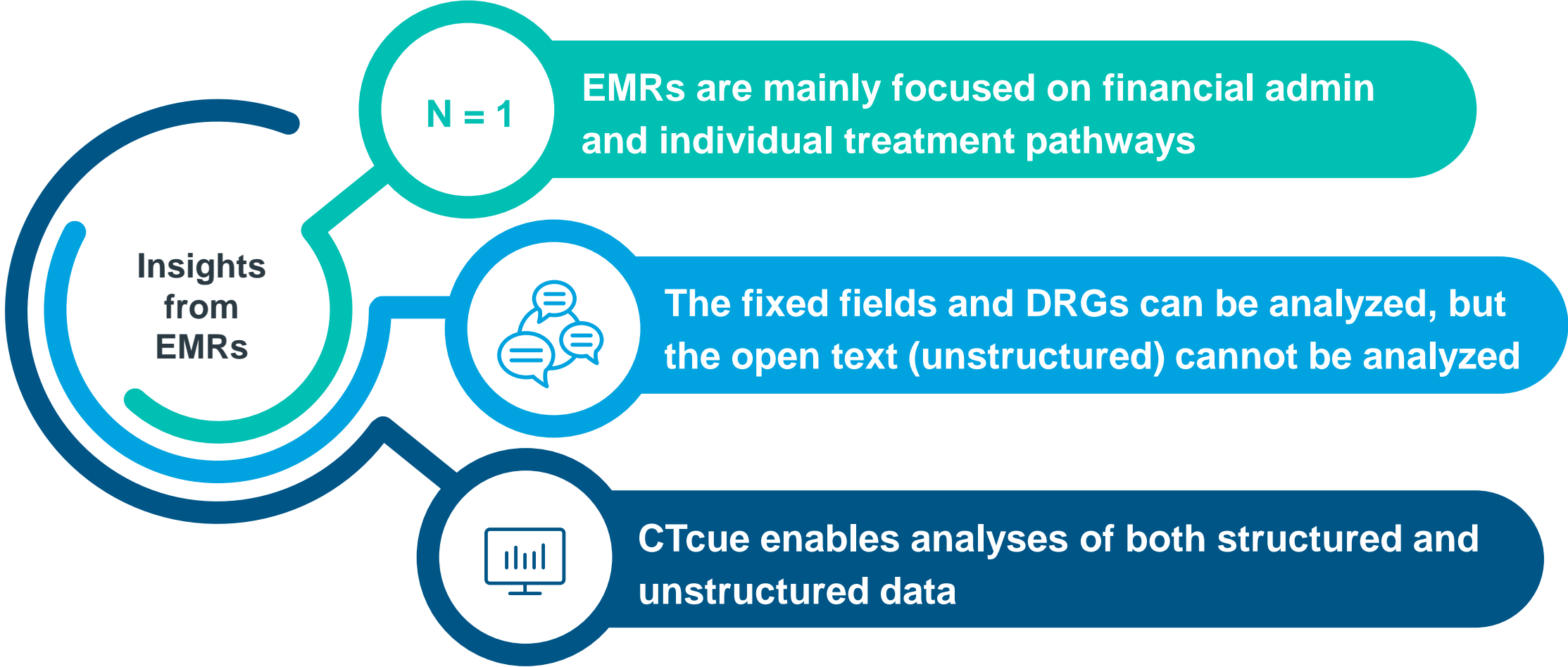
‘Over the counter’
medicine, medical
supplement
companies



Pharma

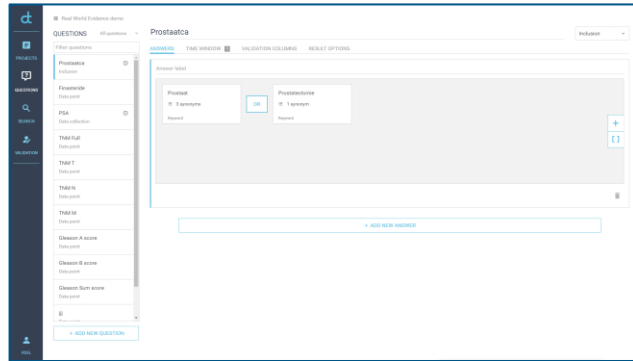
Innovative drug
manufacturers

Relevant insights can be derived from structured and unstructured data in the Electronic Medical Records



CTcue technology can be used to build a query to identify patients in the electronic patient dossiers

The CTcue tool is developed for healthcare professionals that have access to the electronic health record (EHR)



NLP Software



Structuring data of electronic patient dossiers

The latest innovations in natural language processing and machine learning technologies enables especially text data to be structured



Design search query to identify patients

Search in open text field and structured data



Updated list of identified patients

The tool can be used on daily, weekly and monthly basis
The tool can be used to find patients and also to conduct a patient journey

Unlock the full value of clinical data – all in one

Easily identify patient cohorts and builds clinical datasets to produce real-world evidence for improved patient outcomes



Clinical trials

Improve your clinical research opportunities throughout an automated process searching across your entire health record and generating eligible patient lists quickly and easily



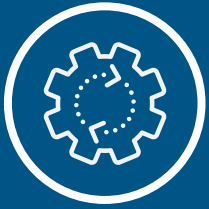
Real world studies

Build datasets from clinical patients records to generate evidence-based insights



Evidence-based healthcare

Use real-world evidence to inform your medical-decision making. Improve treatments and diagnoses and achieve better outcomes



What is it?

Clinical data query application

- Installed on site
- Queries all clinical patient data pseudonymized

The screenshot displays the 'Criteria' section of the 'Vifor CARE HF Data Capture' application. The left sidebar contains navigation options: 'FIND PATIENTS', 'Criteria' (selected), 'Patient cohorts', 'COLLECT DATA', 'Questions', 'Data validation', 'Export', and 'Project settings'. The main area shows a criteria builder with the following structure:

- Criteria** (8 Estimated potential patients)
- Inclusion**: Patients in my population **must have** **all** of the following terms
- 1. Age**: Age \geq 18, Living on...
- AND**
- 2. HF**: must have any 1 out of 2 terms
 - OR**
 - Concepts**: Star..., Para..., Des..., Pres..., Spe...
 - Diagnoses**: Des...
 - Buttons: Add term, Import term, Add group (9 / 250 terms)
- AND**
- 3. Outpatient visit cardiology**: Start dat..., Specialis..., Status A...
- AND**
- Care activities**: Descripti...
- Buttons: Add term, Import term, Add group (9 / 250 terms)

Case Study: Patients screened for a cardiovascular trial following hospital admission 3 large medical centres in the Netherlands

Screening large number of patients to assess study eligibility in high-incidence indications like cardiovascular disease (CAD) is often a long and time-consuming process. Automatic EHR text mining with IQVIA Patient Finder constitutes a tremendous efficiency gain, providing high quality results



were screened automatically in three medical centers with different EHR systems installed



or 20%, were identified as eligible for inclusion in a study on the effects of colchicine in patients with stable CAD



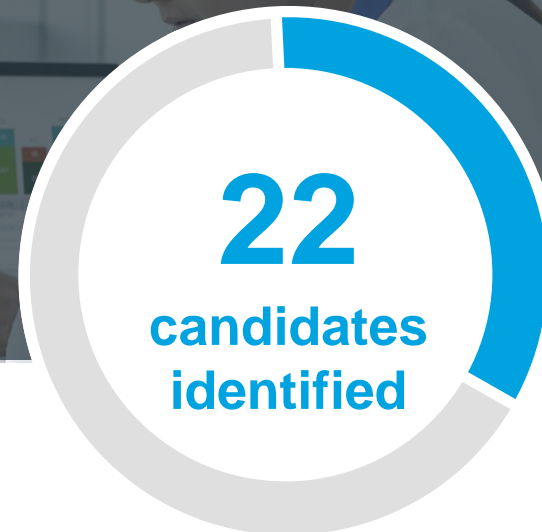
for site staff through effective targeting of eligible patients, assuming 5 minutes per patient

Case Study: Identification of patients at risk for ultra-rare disease in the Netherlands

Rare disease patients are typically geographically dispersed, making them hard to identify, resulting in a cascading range of challenges for both patients and physicians. IQVIA Patient Finder enhances patient identification for rare disease studies.



Estimated incidence of transthyretin cardiac amyloidosis (ATTR-CA) in the general population, with patients severely underdiagnosed or misdiagnosed



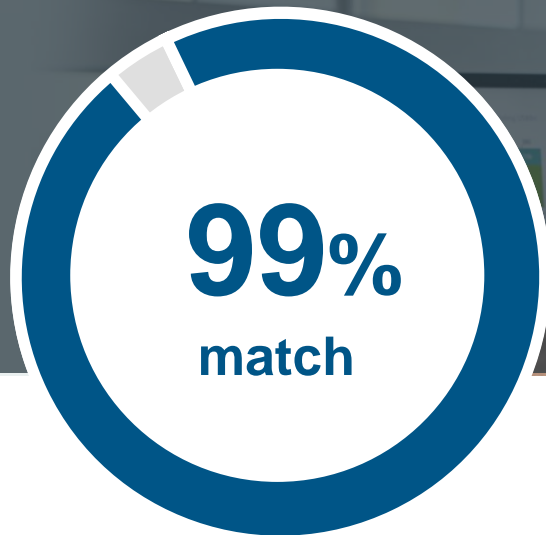
Patients likely to be at risk of the disease identified by IQVIA algorithm-assisted EHR data mining from a pool of more than 100,000 patients



Following assessment by a Cardiologist, 1 patient was diagnosed with this rare disease, enabling their care pathway to be optimized

Case Study: Automated collection of relevant data points in renal cell carcinoma at Leiden University Medical Center, The Netherlands

IQVIA Patient Finder supported the collection of real-world data for outcome research in metastatic renal cell carcinoma, including both progression-free and overall survival



of manual and automated data collection, identifying **100 patients** i.e. no drop in data quality when comparing each approach



The mean time per patient for manual chart review was **86 minutes vs. 12 minutes** for automated review and collection

Case Studies: CTcue for disclosing and collecting data in Dutch registries

Registries are important platforms to collect real world data to be analyzed for research questions and patient outcomes. Collecting and structuring data is time consuming



Within the Dutch prostate cancer registry CTcue technology is used for smart data collection

<https://stichtingcapri.nl/our-research#IT>



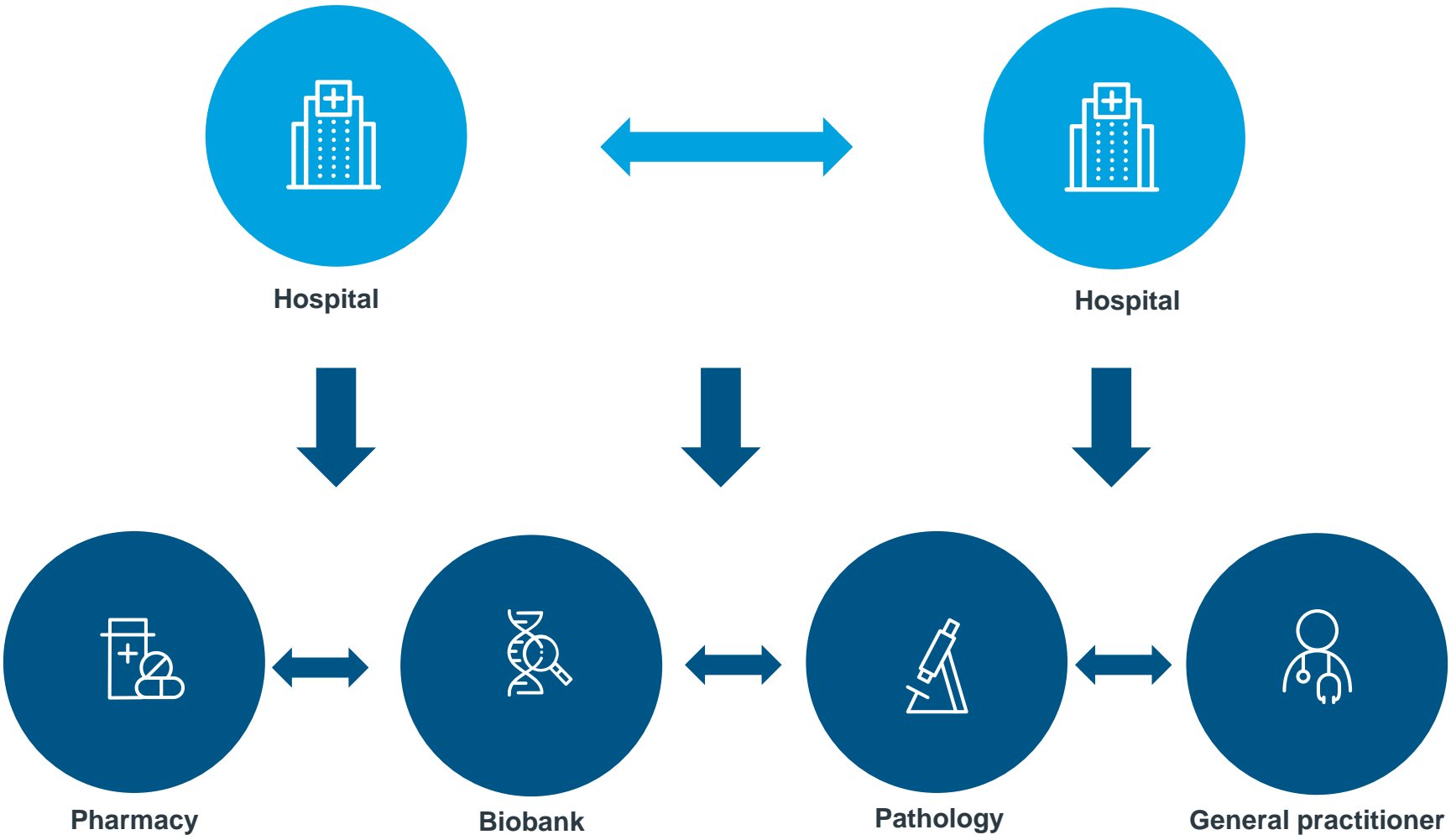
Pilot research with NHR to investigate how much time could be saved when data collection is done automatically with CTcue



Pilot research with DICA to investigate how CTcue software could complement the DICA registries

IQVIA is partnering with Roseman Labs to generate insights across multiple entities in the healthcare landscape

Horizontally and Vertically





Martijn Nap
General Manager at IQVIA



The background of the slide is a dark blue space filled with a complex, glowing network of light blue and purple lines and dots, resembling a data network or a molecular structure. The lines are thin and connect various points, creating a sense of movement and connectivity. The overall effect is futuristic and high-tech.

Accelerating

innovation for a healthier world



Session

- + Introduction to the session Mark
- + Challenges in the healthcare landscape Martijn
- + Data, Tech & AI Martijn
- + **Smart Building** **Wouter**
- + Connecting data using Multi-party Computation Ian
- + Plenary debate, Q&A Mark



**Realising
the world's
smartest hospitals**

What we need smart hospitals to provide

Healthcare Specialists



... minimize health risks for patients

... help with care provision

... positioning of people and resources

... efficient emergency aid

... provide sufficient aftercare

Patient



... reduce waiting times

... minimize health risks for staff

... reduce infection hazard

... wayfinding for visits

... know where you stand

Organization



... automate processes

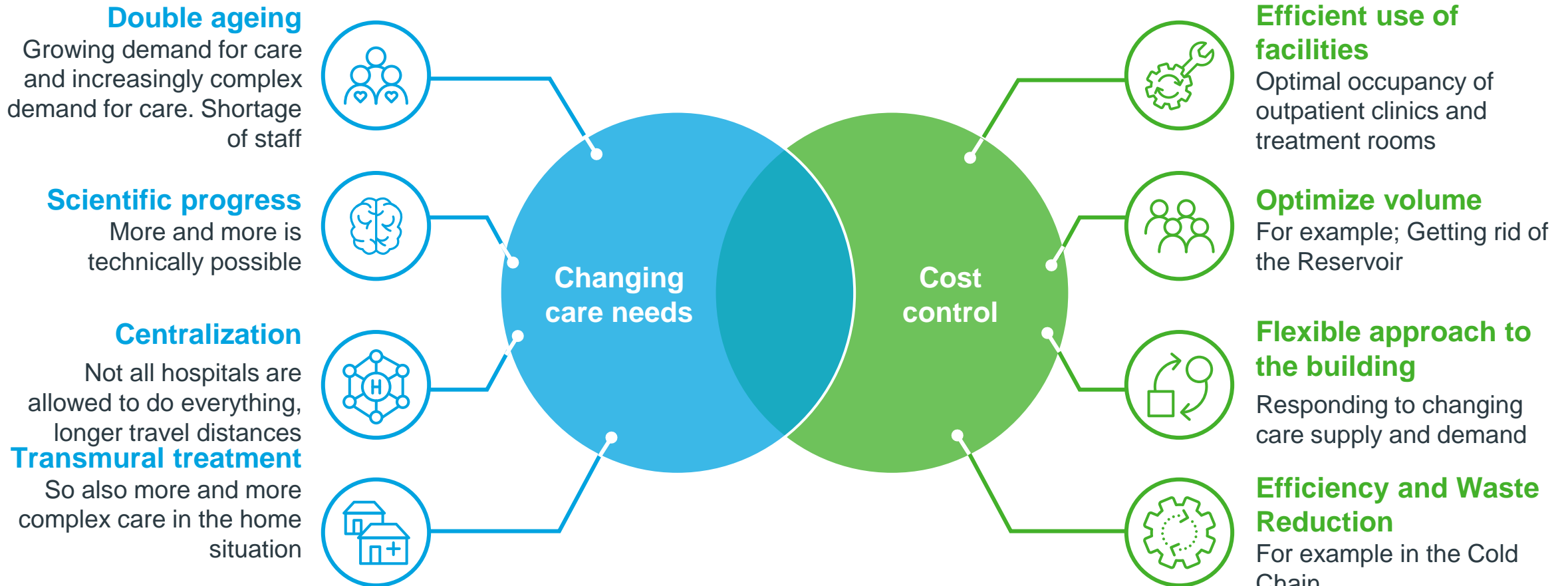
... optimal and safe use of space

... cost control

... stimulate self-management of patient

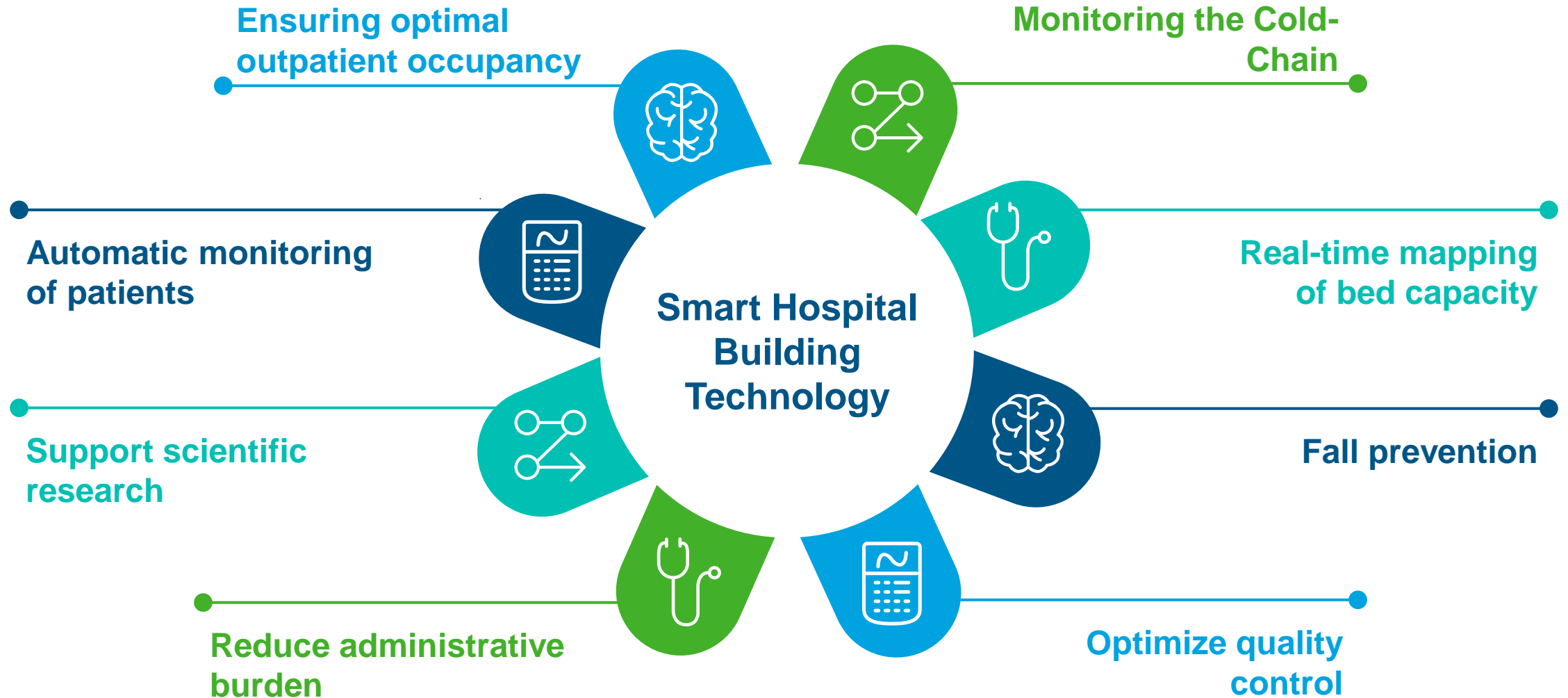
... plan staff based on data

Trends in medical specialist care lead to changing care needs and need for cost control



* IQVIA and bGrid are partners for the Smart Hospital domain.

Tried and tested in other sectors ...

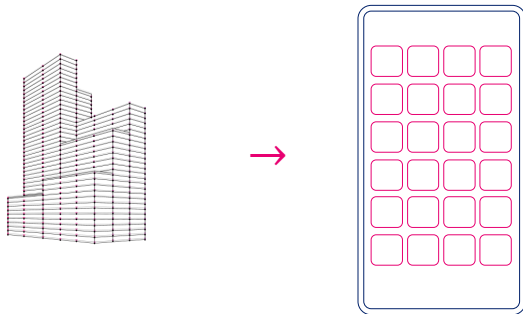


... now ready for added value in hospitals

THE PROBLEM

From static assets to evolving tools

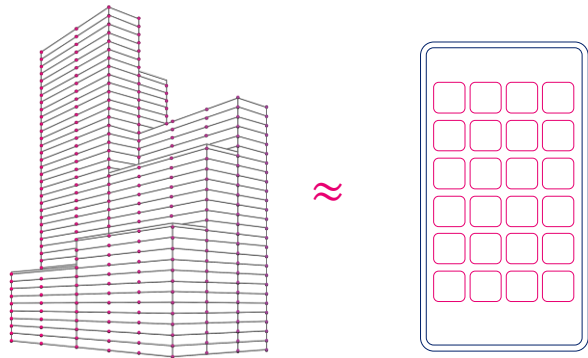
- Siloed and closed technology that **blocks adaptation and innovation**
- IT revolution is **largely absent** in real estate
- Conventional real estate is a **static asset**, that is already **outdated at delivery**



- A building like a smart phone is an **evolving tool**

THE OPPORTUNITY

What if a building can be like a smart phone?



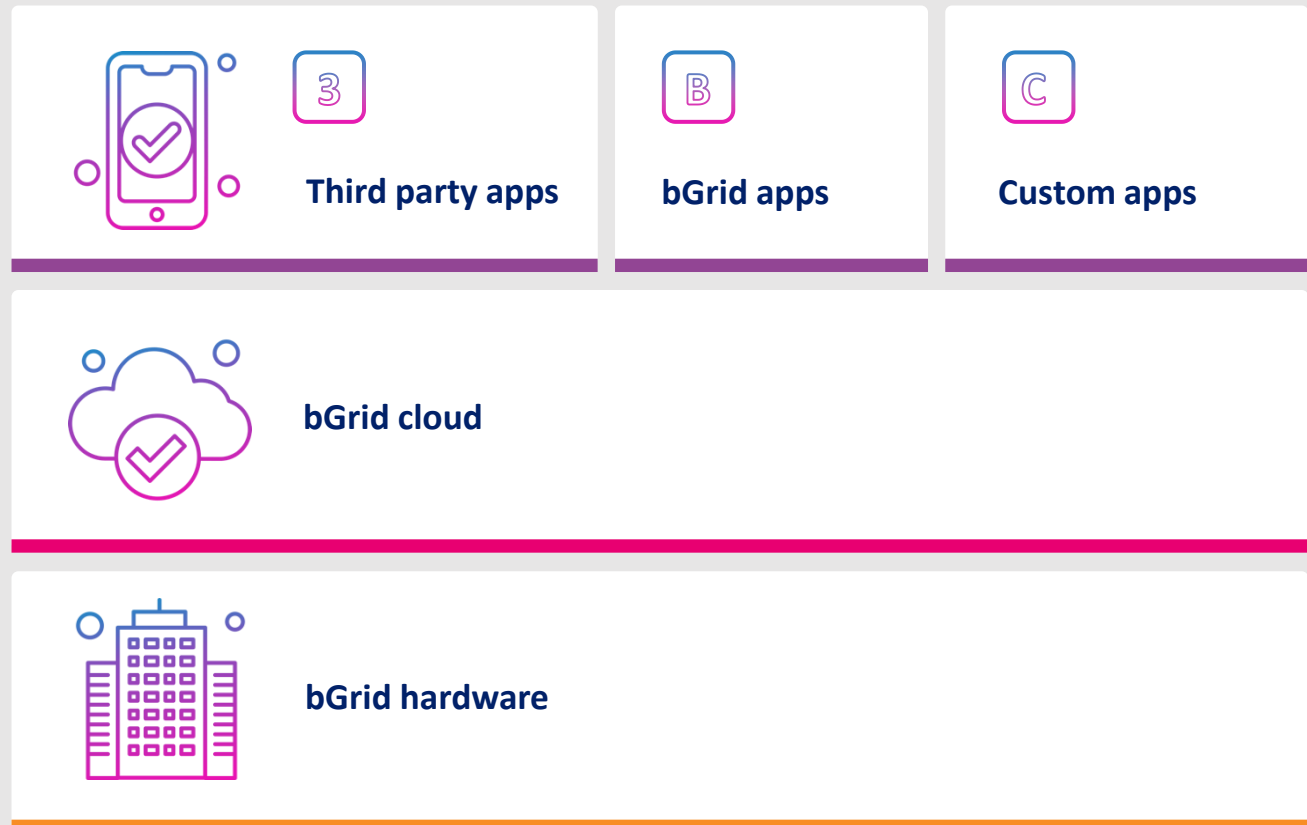
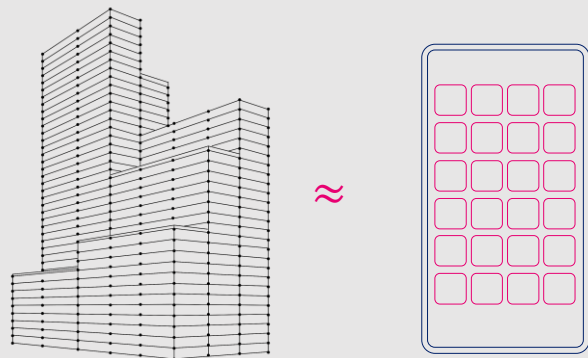
- **Standardized** high quality hardware
- **Open** operating system, **auto-updating**, **identical** for all buildings
- **Full flexibility** in what applications to use for specific purposes

⚡ Stop designing to user requirements
Start continuously adapting to them

OUR SOLUTION – THE BUILDING LIKE A SMART PHONE

How it works

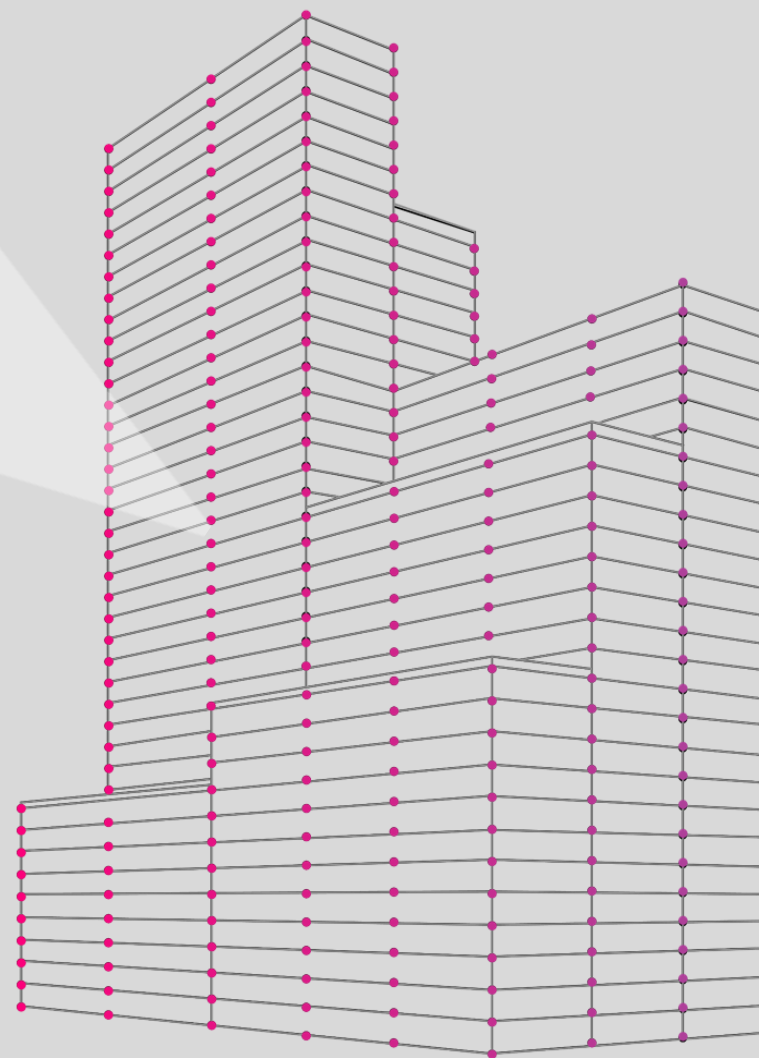
We combine easy to integrate and high-quality hardware with an open operating system and an API with 50+ smart building application integrations.



OUR SOLUTION – THE BUILDING LIKE A SMART PHONE

How it works

Easy to connect,
integrate and adapt
omni sensor nodes



Senses everything

- Movement (& occupancy)
- People count estimation (AI)
- Temperature (IR and air)
- Humidity
- Light intensity
- Sound intensity (5 values)
- eCO2 (AI, estimation)
- CO2 & TVOC (optional)

Controls everything

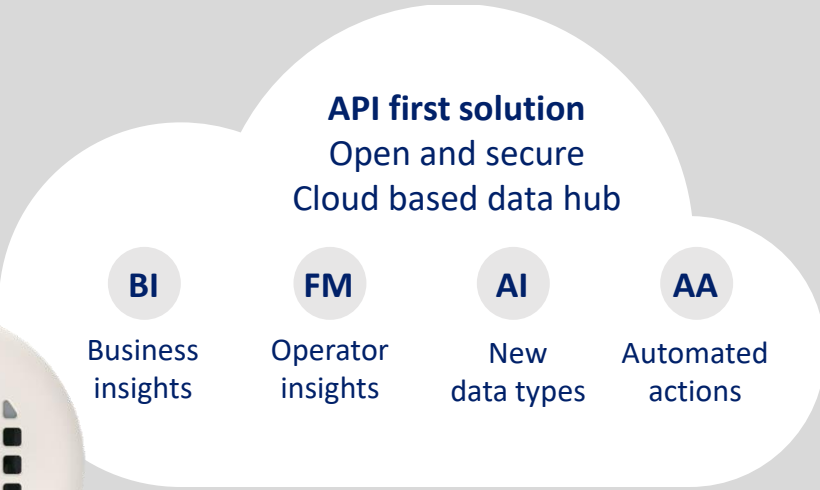
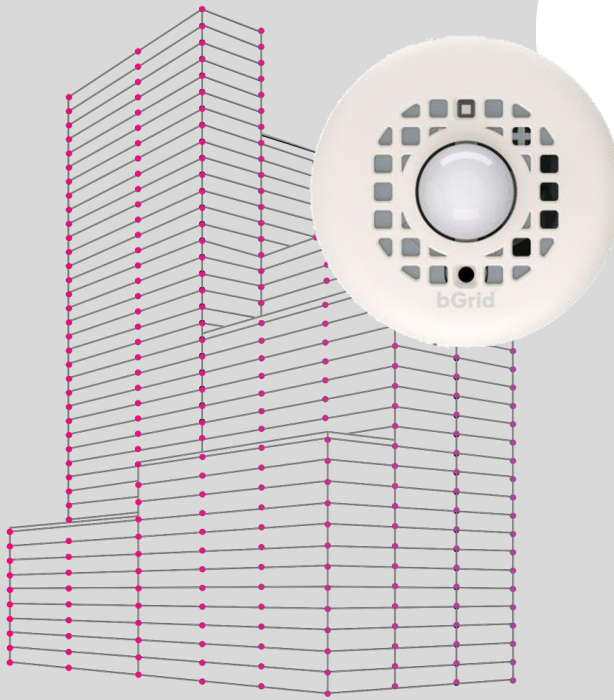
- Full light management
- Smart comfort controller
- Personal comfort control
- Blinds control
- Connects with everything

Positions everything

- Smart devices (iBeacons)
- Asset tracking

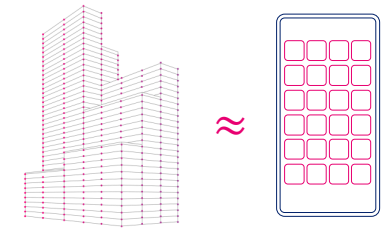
OUR SOLUTION – THE BUILDING LIKE A SMART PHONE

How it works



50+ app integrations
of 3rd parties for patients, medical staff,
facility managers and management

- | | | | |
|--------------------|------------------------|----------------------------|--------------------------|
|
Room booking |
Indoor positioning |
Workplace finder |
Ticketing |
|
Patient finder |
Personal comfort |
Predictive maintenance |
Order services |
|
Asset tracking |
Building health |
Building analytics |
Patient satisfaction |
|
Smart cleaning |
Workplace concepts |
Property value |
Energy efficiency |



OUR SOLUTION – THE BUILDING LIKE A SMART PHONE

How it works




bGrid partner apps:
50+ app integrations of 3rd parties for tenants, users, owners and facility managers

Patient & Medical Staff				Facility Manager			Management		
									
Room booking	Indoor positioning	Workplace finder	Asset tracking	Ticketing	Smart cleaning	Building health	Workplace concepts	Patient satisfaction	Building analytics
			...			...			+ much more
Patient finder	Personal comfort	Employee satisfaction		Order services	Predictive maintenance		Property value	Energy efficiency	
















bGrid cloud:
API first solution
Open and secure
Cloud based data hub

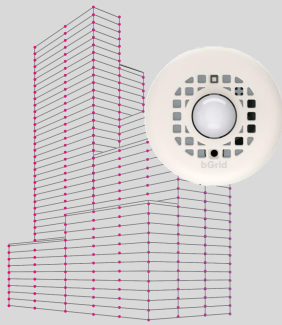
			
Business insights	Operator insights	New data types	Automated actions



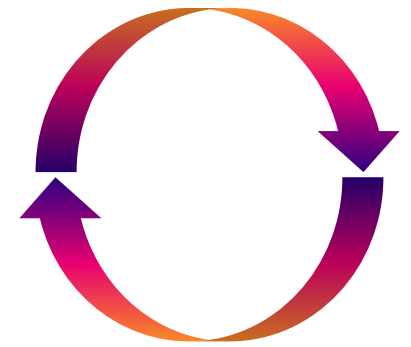
bGrid hardware: easy to connect, integrate and adapt bGrid omni sensors

Control, position and sense everything with open hardware

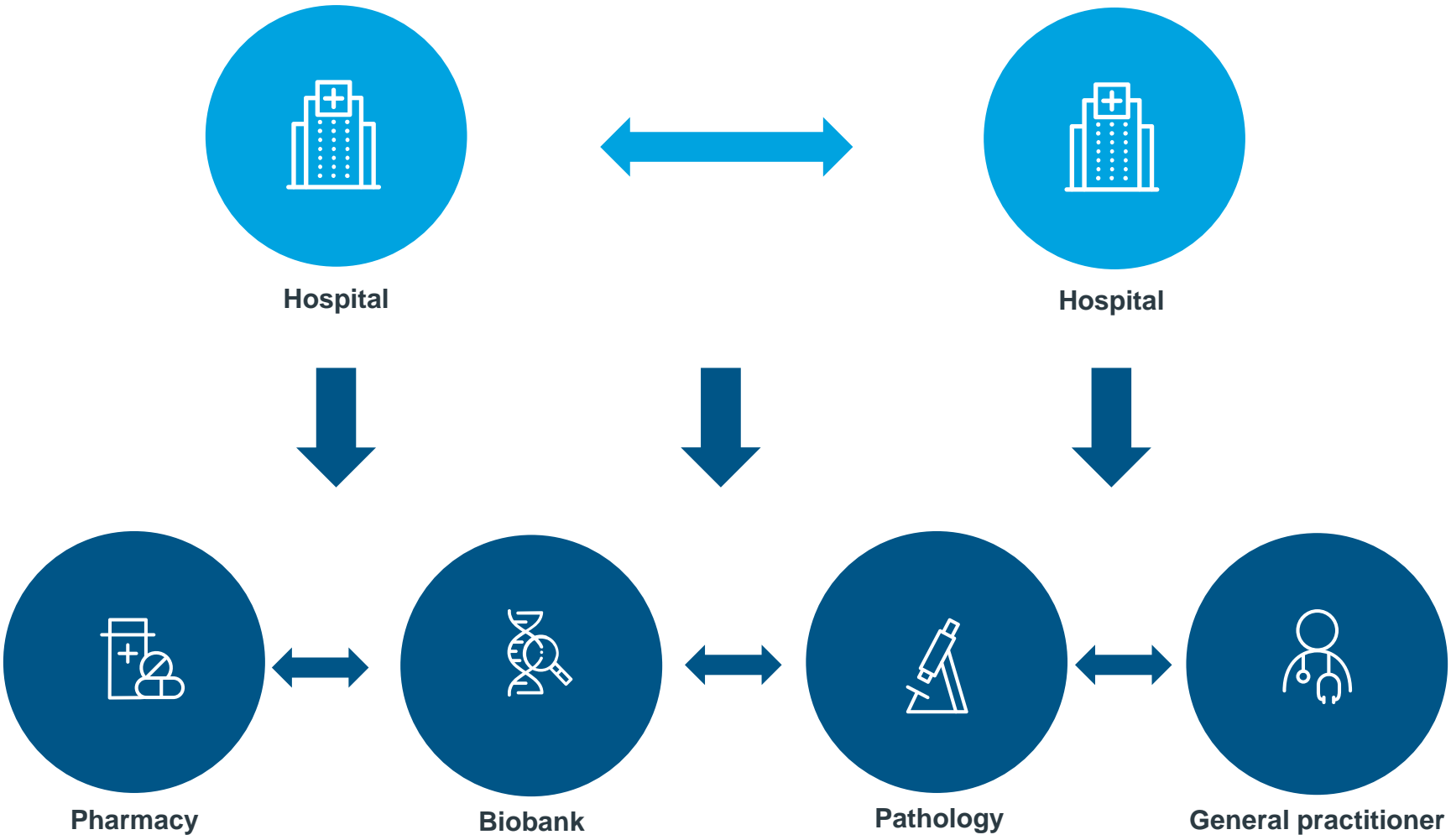
Control	Position	Sense
 Full light management  Smart comfort controller  Personal comfort control  Blinds control  Connects with everything	 Smart devices  Asset tracking	 Movement & occupancy  People counting  Temperature & Humidity  CO2 & TVOC  Sound intensity  Light intensity

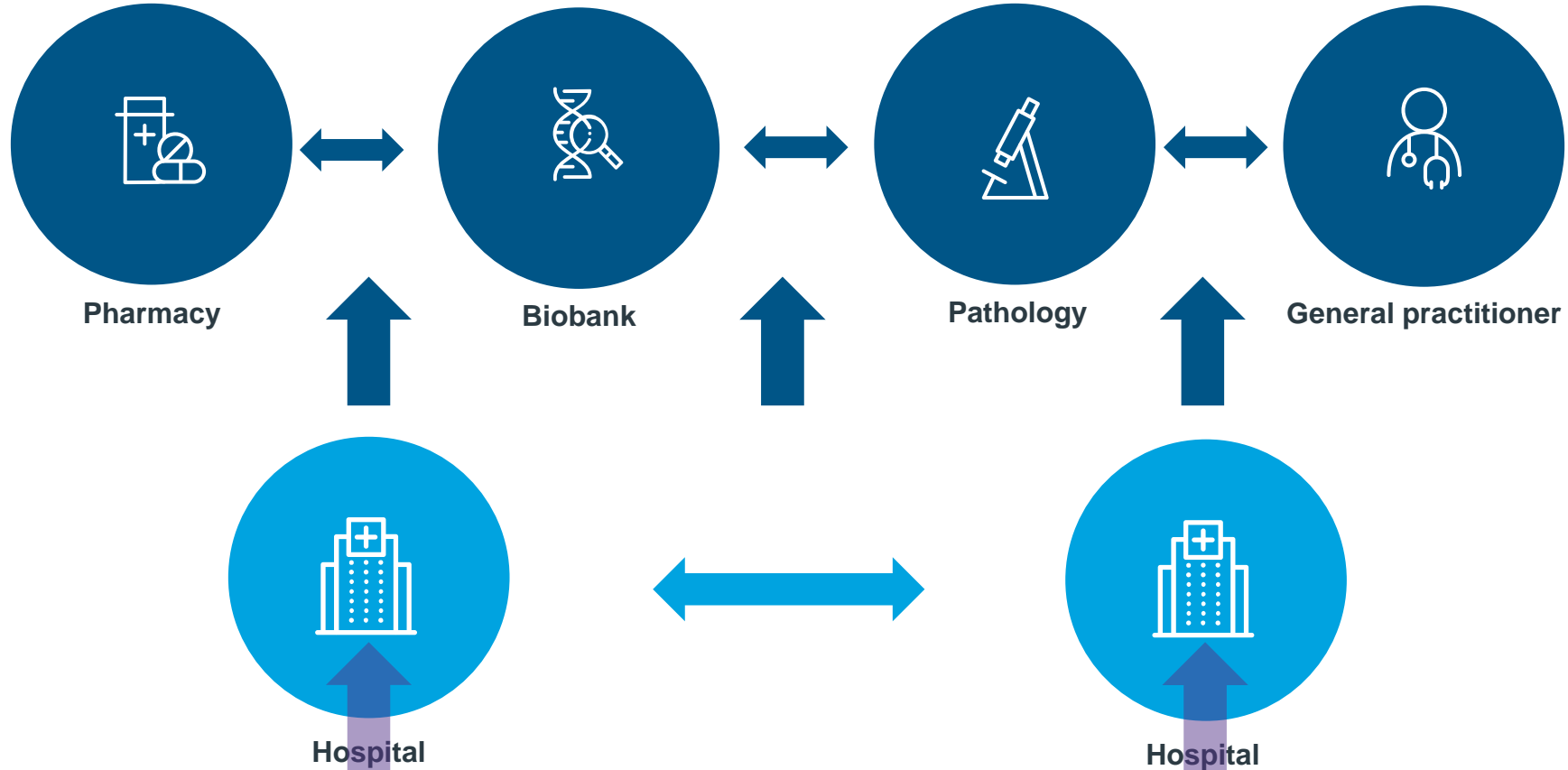


Updating All Sites



New Features





<p>bGrid partner apps: 50+ app integrations of 3rd parties for tenants, users, owners and facility managers</p>	Patient & Medical Staff Room booking, Indoor positioning, Workplace finder, Asset tracking, Ticketing, Smart cleaning, Building health, Patient satisfaction, Building analytics, Personal comfort, Employee satisfaction, Order services, Predictive maintenance, Property value, Energy efficiency, + much more	Facility Manager Smart cleaning, Building health, Predictive maintenance, Order services, Property value, Energy efficiency, + much more	Management Workplace concepts, Patient satisfaction, Building analytics, Property value, Energy efficiency, + much more
	bGrid cloud: API first solution Open and secure Cloud based data hub		
	bGrid hardware: easy to connect, integrate and adapt bGrid omni sensors Control, position and sense everything with open hardware	Control Full light management, Smart comfort controller, Personal comfort control, Blinds control, Connects with everything	Position Smart devices, Asset tracking

<p>bGrid partner apps: 50+ app integrations of 3rd parties for tenants, users, owners and facility managers</p>	Patient & Medical Staff Room booking, Indoor positioning, Workplace finder, Asset tracking, Ticketing, Smart cleaning, Building health, Patient satisfaction, Building analytics, Personal comfort, Employee satisfaction, Order services, Predictive maintenance, Property value, Energy efficiency, + much more	Facility Manager Smart cleaning, Building health, Predictive maintenance, Order services, Property value, Energy efficiency, + much more	Management Workplace concepts, Patient satisfaction, Building analytics, Property value, Energy efficiency, + much more
	bGrid cloud: API first solution Open and secure Cloud based data hub		
	bGrid hardware: easy to connect, integrate and adapt bGrid omni sensors Control, position and sense everything with open hardware	Control Full light management, Smart comfort controller, Personal comfort control, Blinds control, Connects with everything	Position Smart devices, Asset tracking

Reinier de Graaf 

START WORKING WITH US TODAY

Open up
new windows
of opportunity

info@bgrid.com

WWW.BGRID.COM



Session

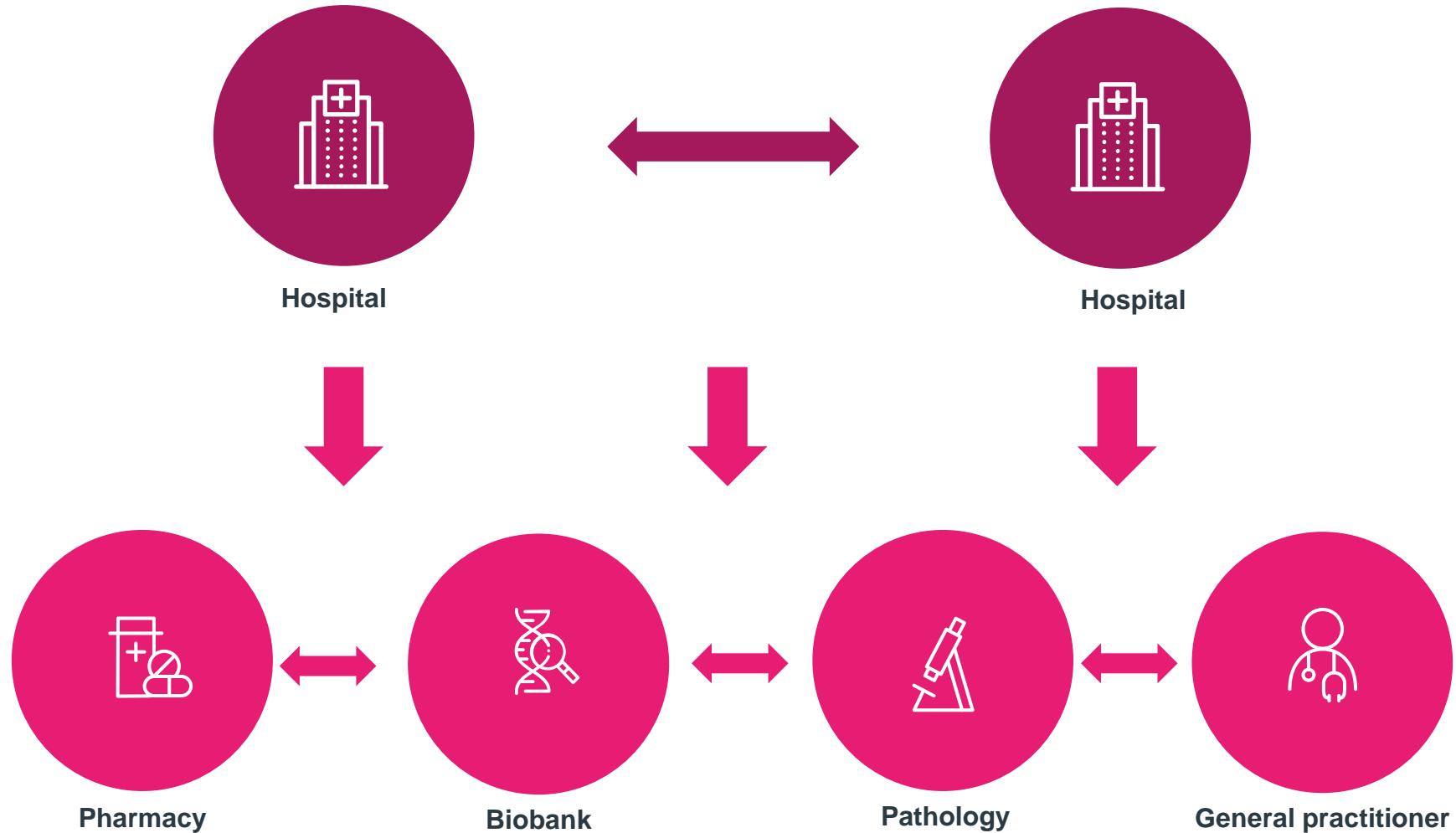
- + Introduction to the session Mark
- + Challenges in the healthcare landscape Martijn
- + Data, Tech & AI Martijn
- + Smart Building Wouter
- + **Connecting data using Multi-party Computation** Ian
- + Plenary debate, Q&A Mark

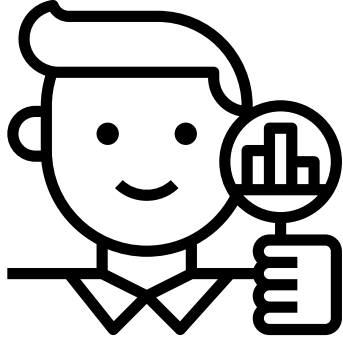


Empowering data collaboration in Healthcare

Kadans Summit 2023 – 7 November

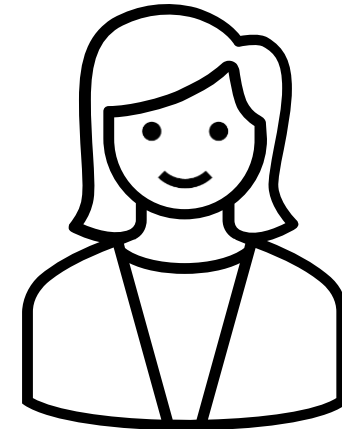
Roseman Labs – IQVIA : Empowering collaboration in healthcare





I want to access data
that I do not have

I want to keep control over
how my data is used



We help organizations to unleash the power of sensitive data

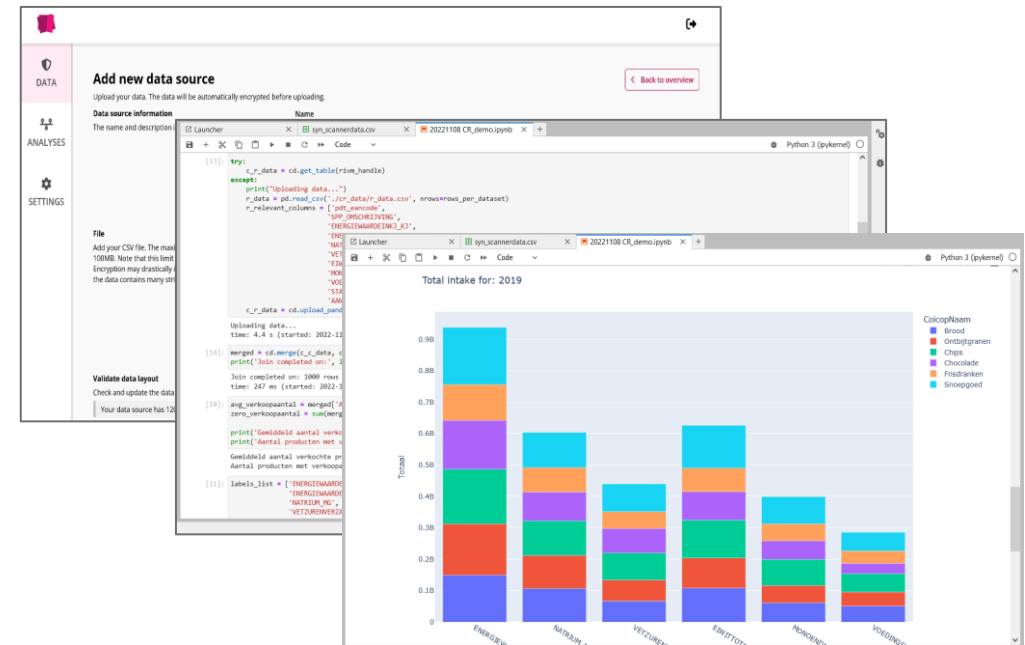
Join and analyze data, without sharing

Strong security and legal compliance

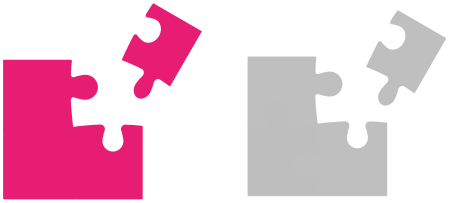
Guaranteed by state-of-the-art encryption

Easy to use software: Virtual Data Lake

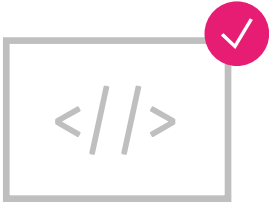
Trusted by Dutch National Cyber Security Center



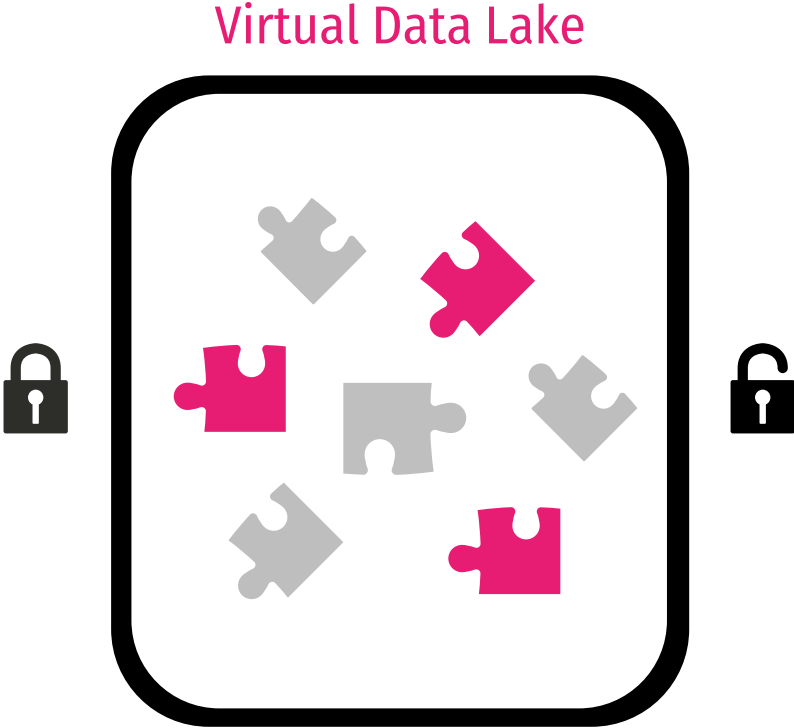
Virtual Data Lake: Insights from data you cannot see



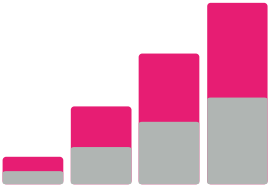
Make data available



Approve analysis



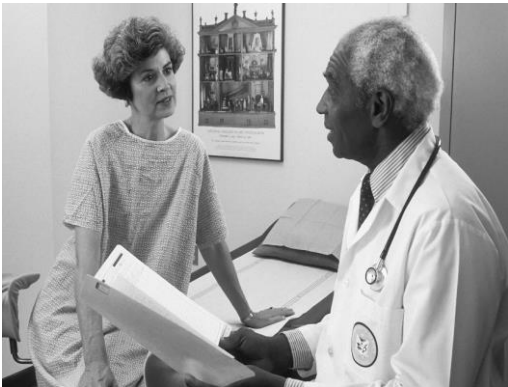
Execute analysis



Insights

Tremendous opportunity to improve healthcare by data collaboration

Care providers



Electronic patient records across care providers, quality registers

Public organizations



Population statistics, social data, vaccination data, genomics data, etc.

Payers



Treatment data, claim profiles, costs

Pharma and medtech



Clinical study data, prescription data, equipment data

← Connect sources, generate new insights, improve care →

National Podiatry association



voetencentrum
wender

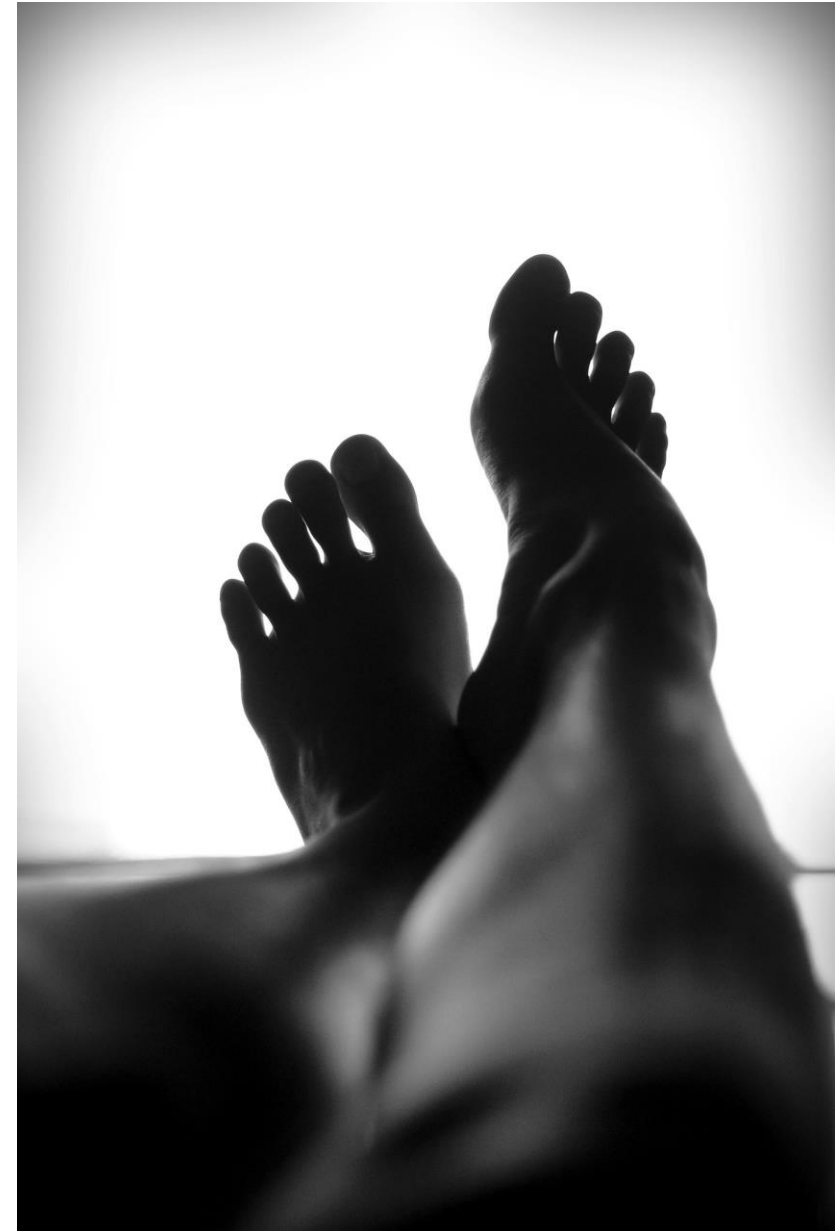
Goal:

- Setup a decentralized podiatry registry
- Monitor and improve the effectiveness of preventative treatment of diabetic foot ulcers



Approach:

- Combine electronic patient record data of all podiatrists for benchmarking
- Next: include data, from hospitals and GPs to understand best treatment pathways
- Future: individual patient interventions





Goal:

- Enrich quality registration with long-term view on patient pathways around bariatric surgery.



Approach:

- Join data on patient level across hospitals, so that treatment follow-up can be measured more accurately.
- Join with data from insurer to add additional insights on treatment effectiveness





Goal:

- Assess usage and impact of pre-schools child services to determine where usage and impact needs to be improved



Approach:

- Combine data from municipality and day-care facilities to assess the development of young children



What's in it for you?



More data: Use data sources that normally cannot be shared



Safe: Only share insights. Data remains encrypted at all times.



Faster: Simplified governance with technical safeguards for purpose binding and control

Contact us to discuss your data collaboration challenges

Contact details

Ian Wachters – Chief Commercial Officer

+31-620436247

ian.wachters@rosemanlabs.com

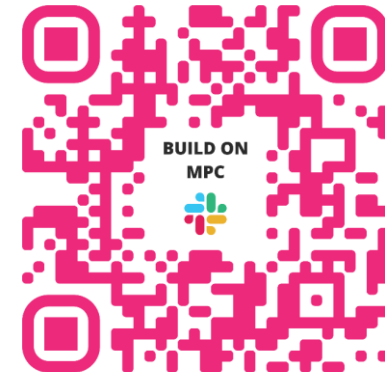
Visit our website



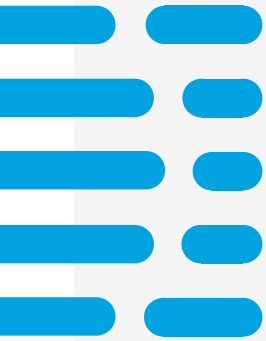
Follow us on LinkedIn



MPC Community



Thank You!



Session

- + Introduction to the session Mark
- + Challenges in the healthcare landscape Martijn
- + Data, Tech & AI Martijn
- + Smart Building Wouter
- + Connecting data using Multi-party Computation Ian
- + **Plenary debate, Q&A** **Mark**

Thanks
for joining!

