CONGRESS '19

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INNOVATIVE HEALTHCARE STRATEGIES

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SIEMENS Healthineers

VIFOR PHARMA

Worldline

xperthis digital solutions for smarter patient care

BIG DATA & DIGITAL HEALTH

Prof. Dr. Ir. Pascal Verdonck

MedTech Ghent University

Welcome by the theme chair

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Mr. Bart Vannieuwenhuyse
Data Sciences Lead Benelux campus

Big Data and its added value in clinical research

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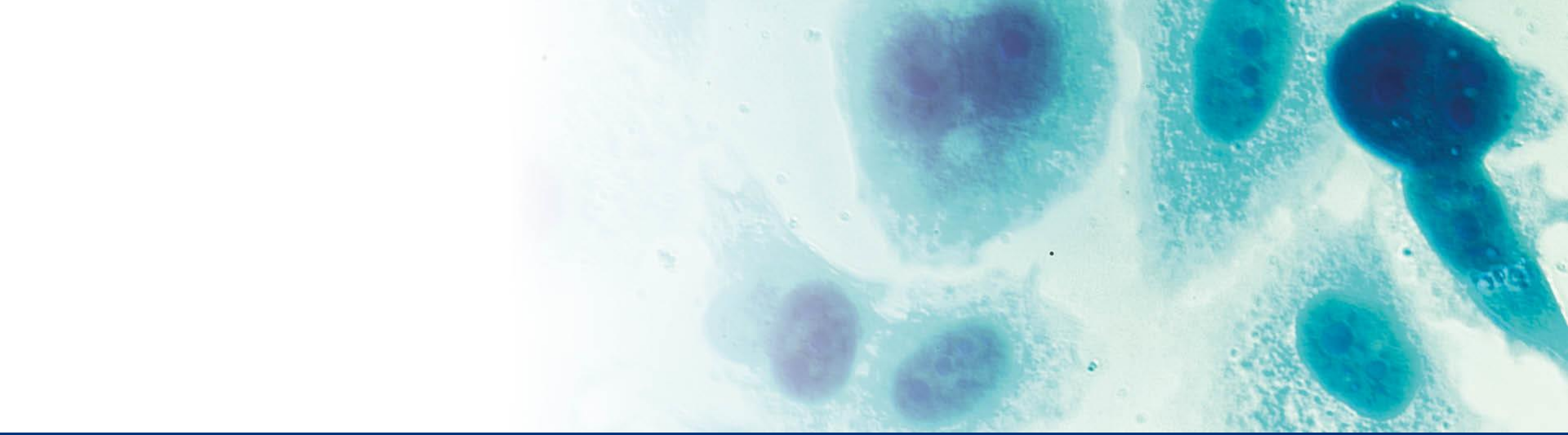


Big data and its added value in clinical research

Pictured above: Ulcerative Colitis

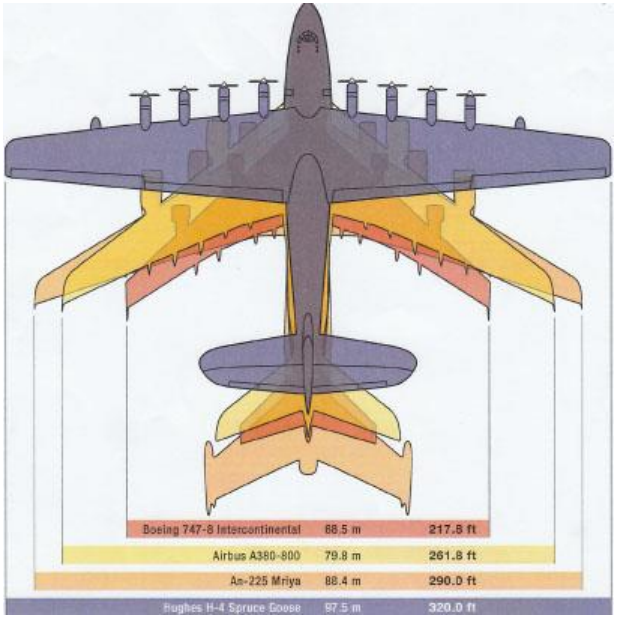
Bart Vannieuwenhuyse
September 2019 | Janssen Clinical Innovation

“The patients are waiting!”

To eliminate disease through developing highly innovative medical solutions for people around the world

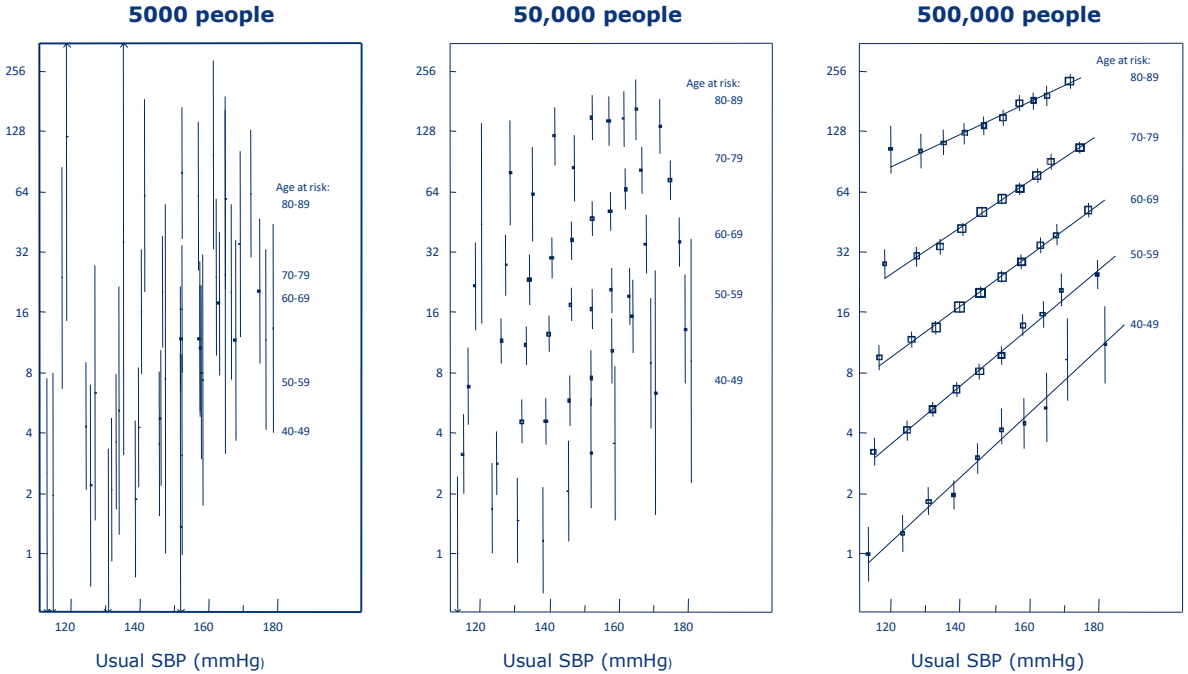
Dr. Paul Janssen

Bigger = Better ??



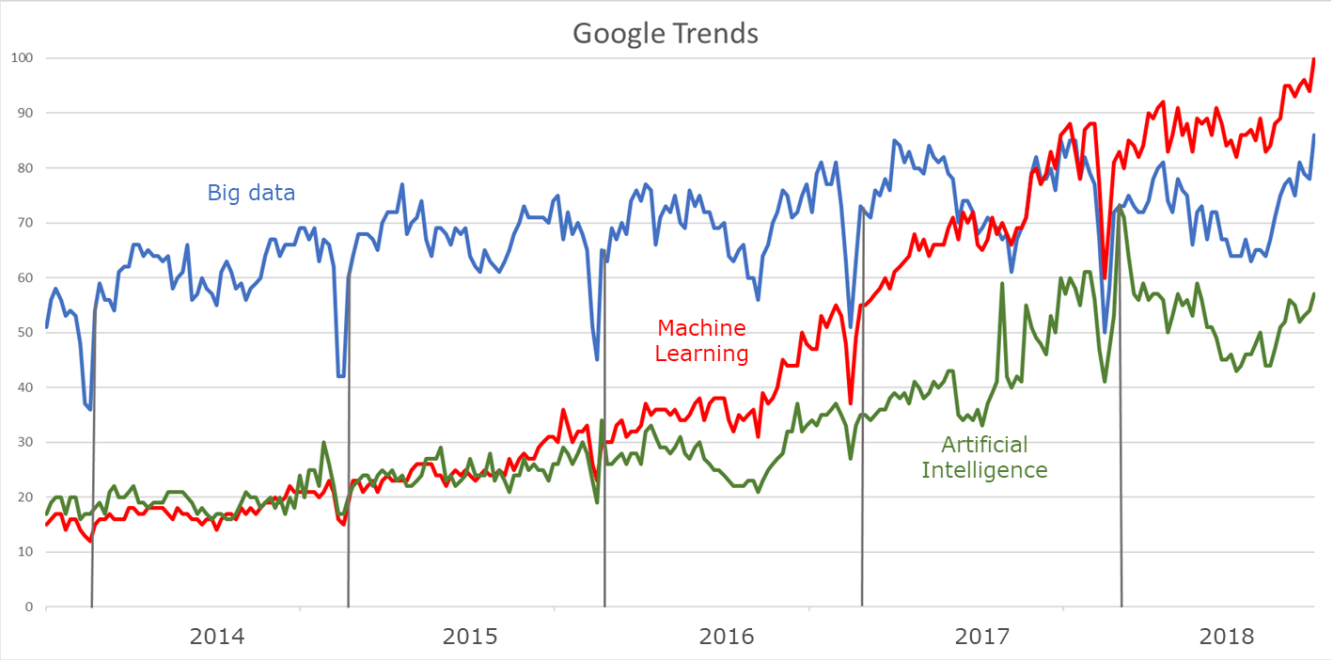
Howard Hughes' plane only flew one mile …

Power in numbers …

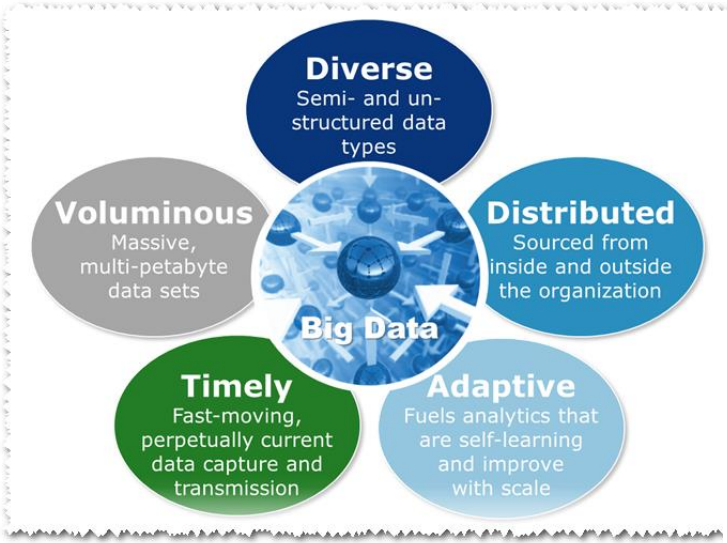


The Prospective Studies Collaboration: Lewington et al. 2002

Machine Learning has overtaken Big Data

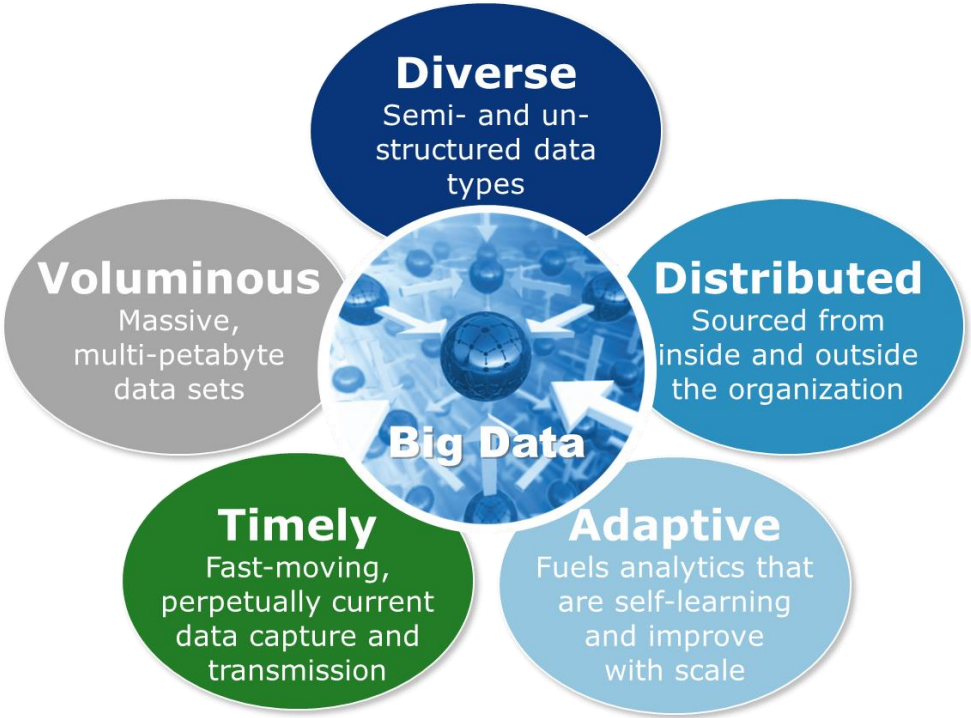


Big data vs Real World Data



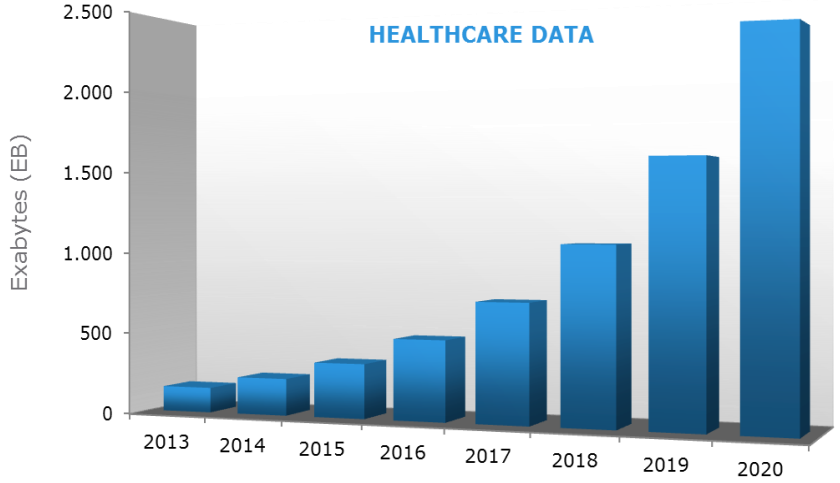
- RWE is generated using data typically collected in **usual health care settings**. RWE is most commonly **generated using a range of non-interventional (observational) studies**, including:
  - **Primary data** collections such as **registries** collecting prospective and/or retrospective data, or **surveys** collecting cross-sectional or retrospective information.
  - Analyses of **secondary data that includes (electronic) medical records, insurance claims data, and government databases** which provide data typically used for retrospective analyses.

Big Data Defined

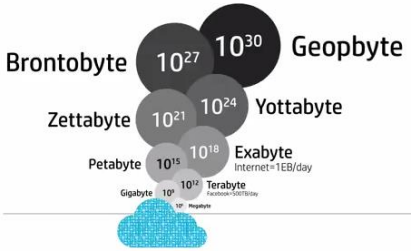


Explosion of healthcare data

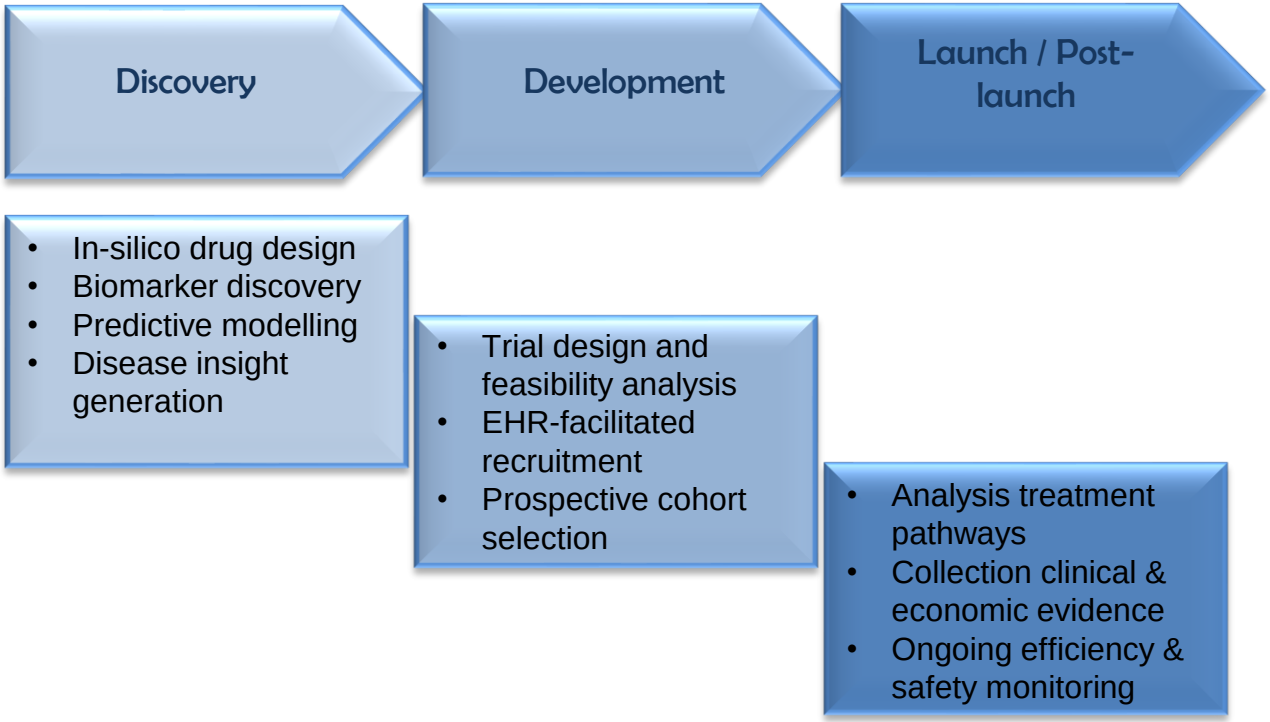
Healthcare data growth is one of the fastest across many industries.
A 48% annual growth rate will lead to 2,314 Exabytes of data in 2020.



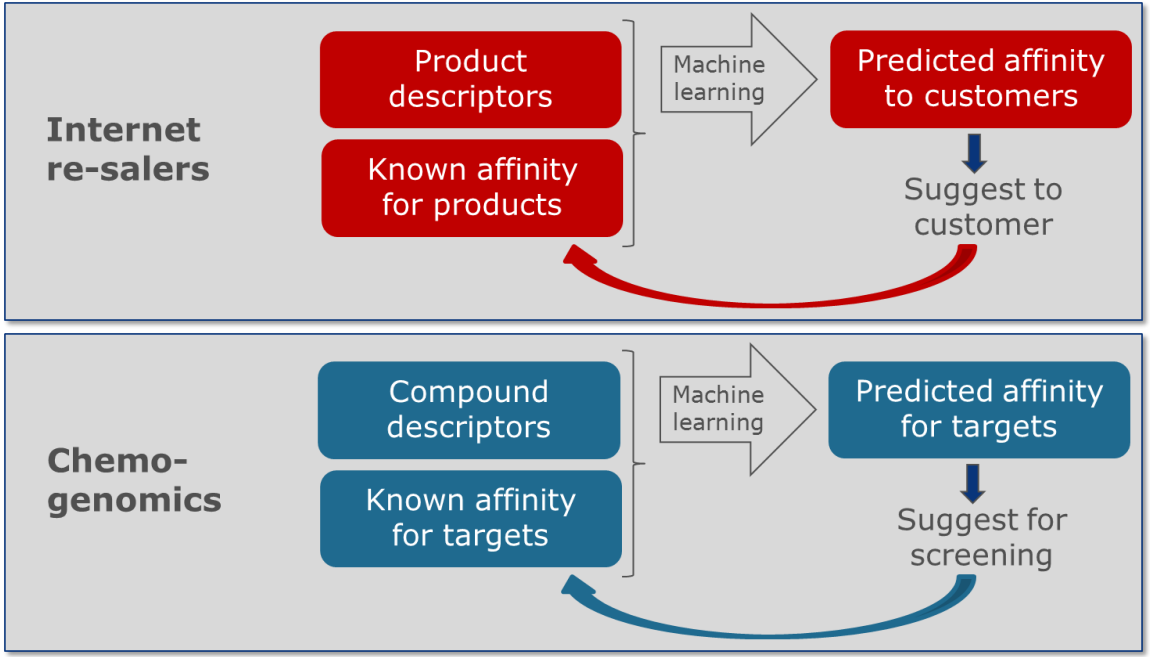
Enterprise Strategy Group 2011, Research report: North American Healthcare Provider Information



Opportunities for Real/Big data



Developing in-silico drug design

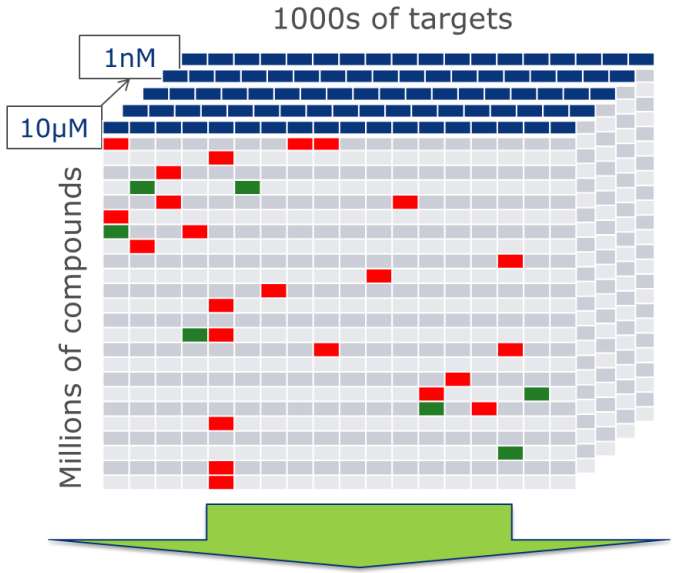


THE NETFLIX-IZATION OF DRUG DISCOVERY

>100M data points with biochemical activities of tested compounds available for training

ABCD
GOSTAR
GVK BIO Online Structure Activity Relationship Database
THOMSON REUTERS
ChEMBL
OpenTox

>100M training points



Identify and select compounds with good biochemical activity for target(s) of interest.

MELLODDY
https://twitter.com/MELLODDY_IMI

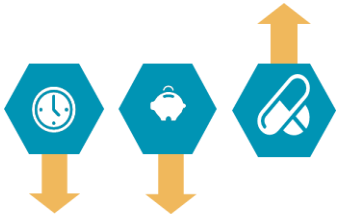
New IMI project in which 10 pharma companies collaborate

THE NETFLIX-IZATION OF DRUG DISCOVERY

Challenges in trial execution

The percentage of studies that complete enrolment on time:
18% in Europe,
7% in the US

Potential improvement through use of Real World Data



1/3 of protocol amendments are avoidable, at a cost of **$0.5m**

Almost **half** of all trial delays caused by patient recruitment problems

Only **1/3** of the sites engaged in a multicentre study manage to enrol the requisite number of patients

50% of today's clinical trials fail to achieve the target recruitment

Source: IMI-EHR4CR project

EHR4CR

The EHR4CR project

- EHR4CR – Electronic Health Records for Clinical Research
  - 4+1 year project (2011-2016), 35 partners, budget >17M€
- Objectives & Scope
  - Provide a platform for **trustworthy re-use of EHR data** to support innovation in clinical research and healthcare operations.
  - Securely reusing **health data** for optimising clinical trials
  - **7 pilot sites across Europe**
- Status
  - Extended into 2016 for making the transition to a sustainable platform
  - Initiated a **Champion Programme**, connecting hospitals to an operational platform, building up experience with pharma
  - The **European Institute for Innovation through Health Data** – an independent governance body

For more information:
http://www.ehr4cr.eu/

efpia

imi

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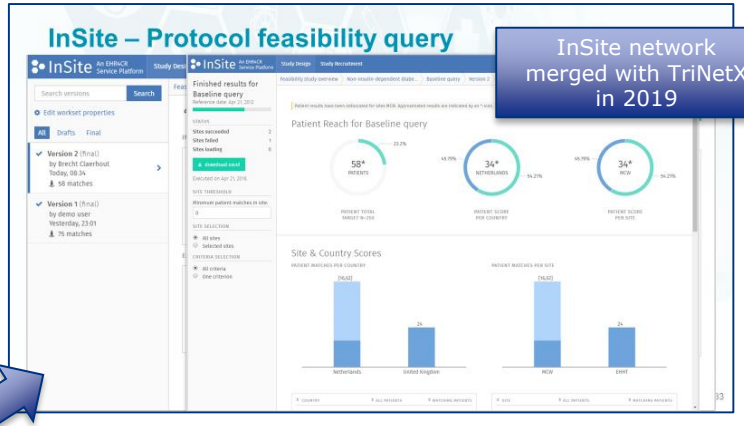
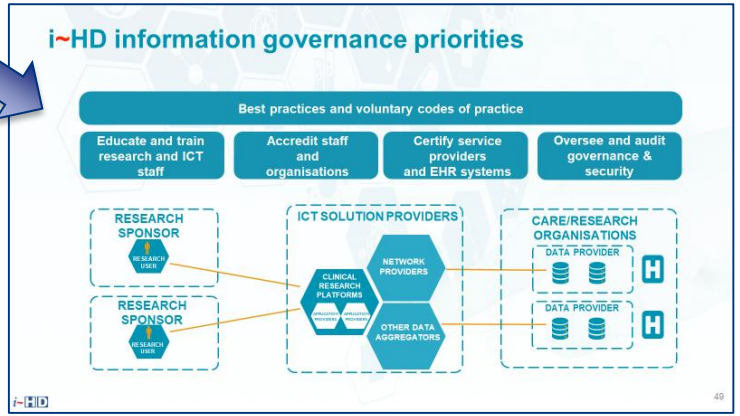


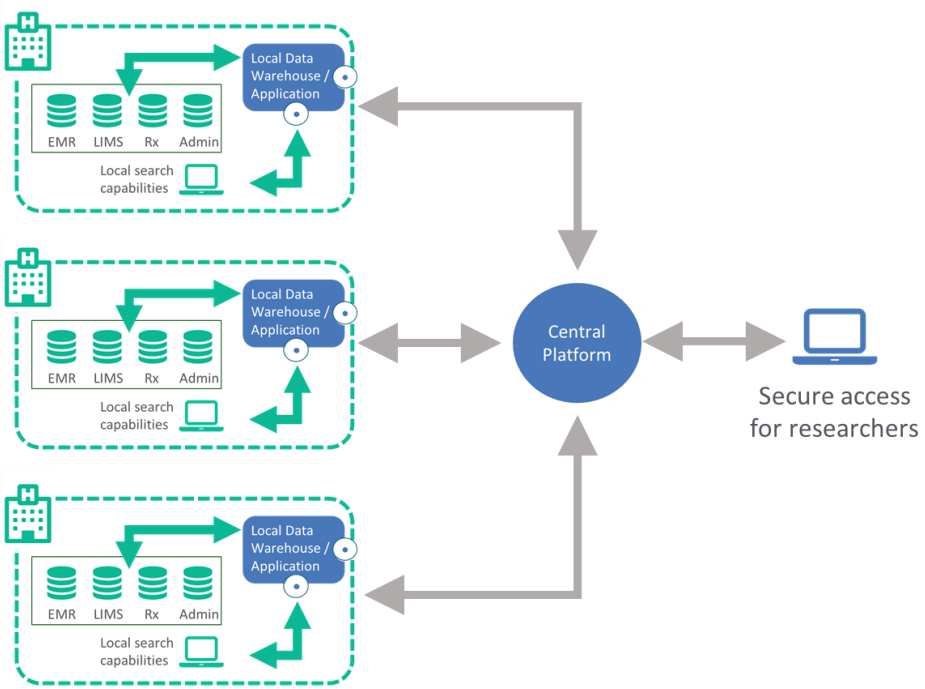
For profit – InSite platform



Non-profit – iHD institute

Source: presentation Prof Dipak Kalra

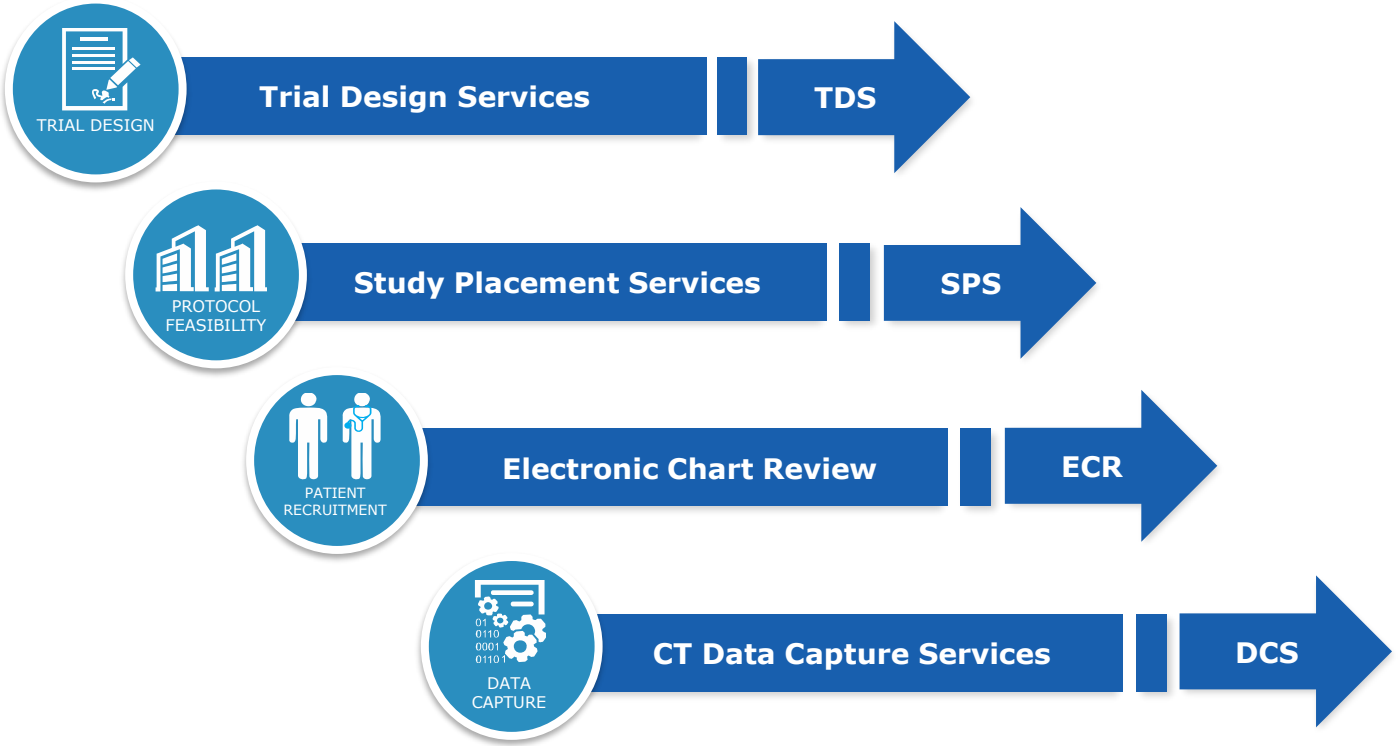
Stimulating the flow of data through federated networks



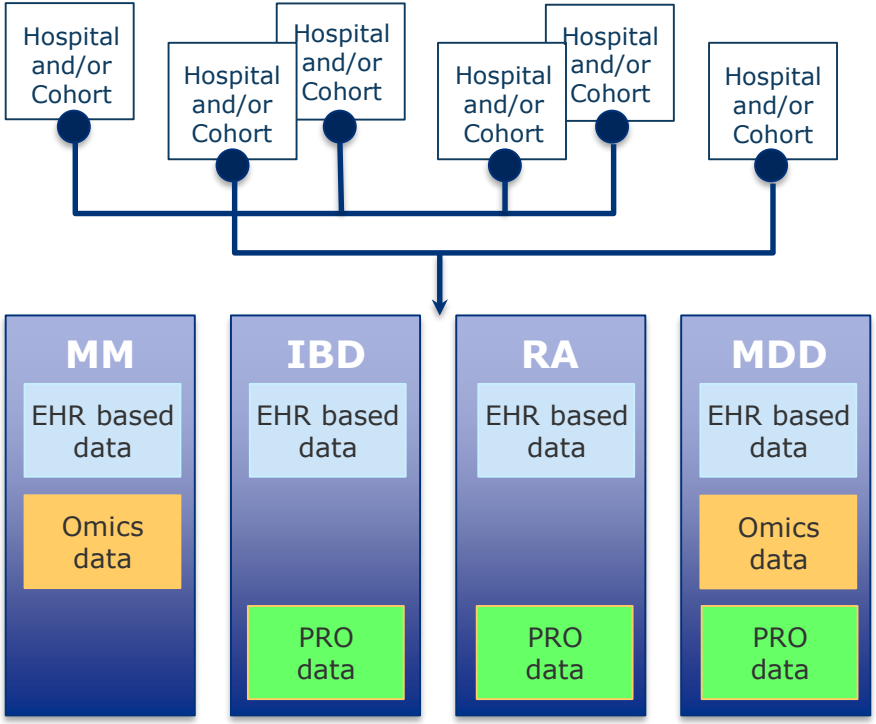
Benefits of federated networks

- Data remains under the control of the data owner
- Locally required legal and ethical approvals apply
- No patient level data leaves the owner's site, only aggregated counts, thereby ensuring patient privacy
- GDPR – *'Privacy by Design'*
- Analysis is "brought to the data" rather than creating central data repository
- Use of common data model allows for efficient search / analysis across multiple data sets
- Requires close collaboration with data owners which builds trust

Using federated data in clinical research



From “broad” to “deep” data

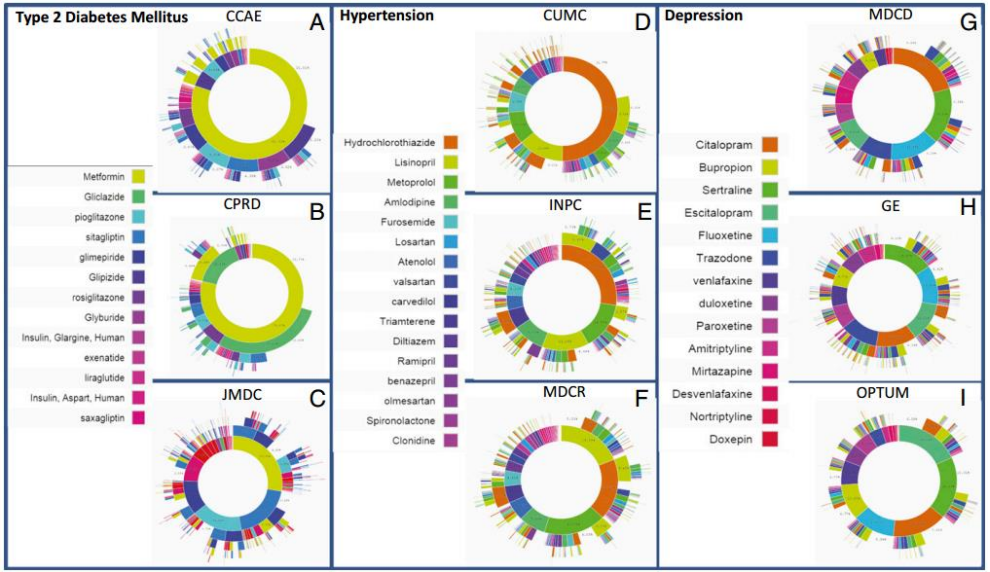


The broad network of RWD sources (hospitals, cohorts, other) can serve as starting point for enrichment (deepening).

By disease area, original RWD can be enriched based on the needs for (clinical) research, thereby creating a so called “T-shaped” data ecosystem (combining broad and deep data)

True open science collaboration

Power of distributed data --



Collaboration with
11 data sets representing
255Mio subjects

Characterizing treatment pathways at scale using the OHDSI network

George Hripcsak[a,b,c,1], Patrick B. Ryan[c,d], Jon D. Duke[c,e], Nigam H. Shah[c,f], Rae Woong Park[c,g], Vojtech Huser[c,h], Marc A. Suchard[c,i,j,k], Martijn J. Schuemie[c,d], Frank J. DeFalco[c,d], Adler Perotte[a,c], Juan M. Banda[c,l], Christian G. Reich[c,j], Lisa M. Schilling[c,m], Michael E. Matheny[c,n,o], Daniella Meeker[c,p,q], Nicole Pratt[c,r], and David Madigan[c,s]

OHDSI
OBSERVATIONAL HEALTH DATA SCIENCES AND INFORMATICS

New IMI project

EHDEN
EUROPEAN HEALTH DATA & EVIDENCE NETWORK

- Harmonised 100 million records, mapped to the OMOP common data model
- Ecosystem of certified/qualified SMEs harmonising data sources, supported by €17mio fund via open series of calls
- Federated analytics via OHDSI tooling, ARACHNE and EMIF platforms
- Impact: Improving trust and reusability of real world data for key stakeholders

Conclusions

- Big data offers opportunities along the full product life cycle
- Specific analytical skills and methods are required
- Analysis and approaches to big data need to take patient / subject privacy challenges into account
- Federated approaches can help to mitigate privacy challenges

Bart Vannieuwenhuyse
bvannieu@its.jnj.com

Mr. Yvon Merlière

Project Director DMP, Caisse Nationale de l'assurance maladie

Project DMP

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Presentation of the SMR (DMP): The Shared Medical Record

12th September 2019

Sommaire

Introduction about the SMR

The SMR: A digital health record booklet enshrined within the French legislation

In 2016, the national Parliament enacted a law providing every French citizen with a digital health record booklet called the SMR.

2016 : Law relating to the modernization of the healthcare system

Opt-In creation of the SMR:

The creation is based on the explicit consent of every patient

2021

Opt-Out creation of the SMR:

The creation is automatic, similar to what is done in Belgium, Canada and Australia

Why has France developed the SMR ?

To meet patients' need of information by setting up their medical file

2002 : Law relating to the rights of patients and the quality of the healthcare system

"Patients have the right to dispose of their medical file without having to consult a physician. Medical information is accessible on the internet."

To improve disease prevention and healthcare coordination

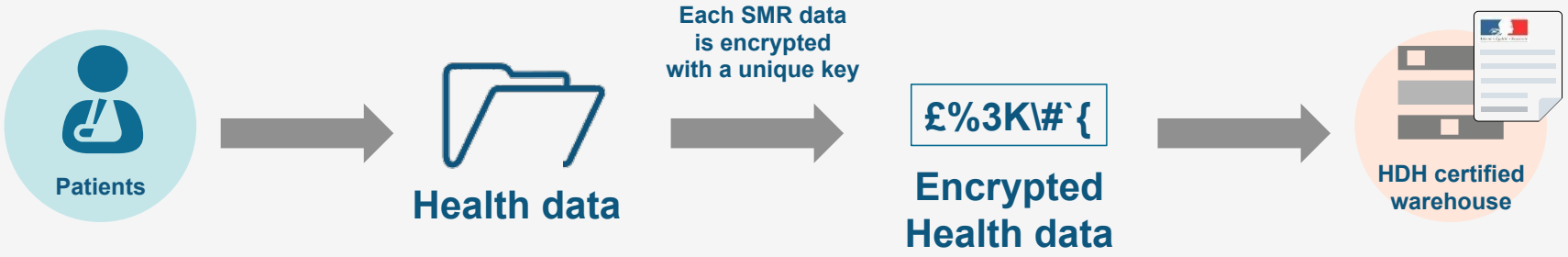
Patients dispose of all of their medical information, especially in case of emergencies or when they go on vacation.

They can then, give access to their medical data to the new physicians they choose to consult.

Data Security

The SMR: A highly secured service

SMR Data Storage



Data is stored in a **unique, centralized and secured warehouse**

The conditions of storage are **regulated by French law**:

- The GHISP (General Health Information Systems Policy) is in charge **of setting the standards for any warehouse** that whishes **to store health data**: The HDH (Health Data Host) standard
- The **HDH standard** is certified by the **Ministry of Health**

Access regulation

SMR Access Modalities: Restricted rights

Access to the SMR is limited to the patient and members of his medical care team. A strong two-factor authentication system has been put in place:

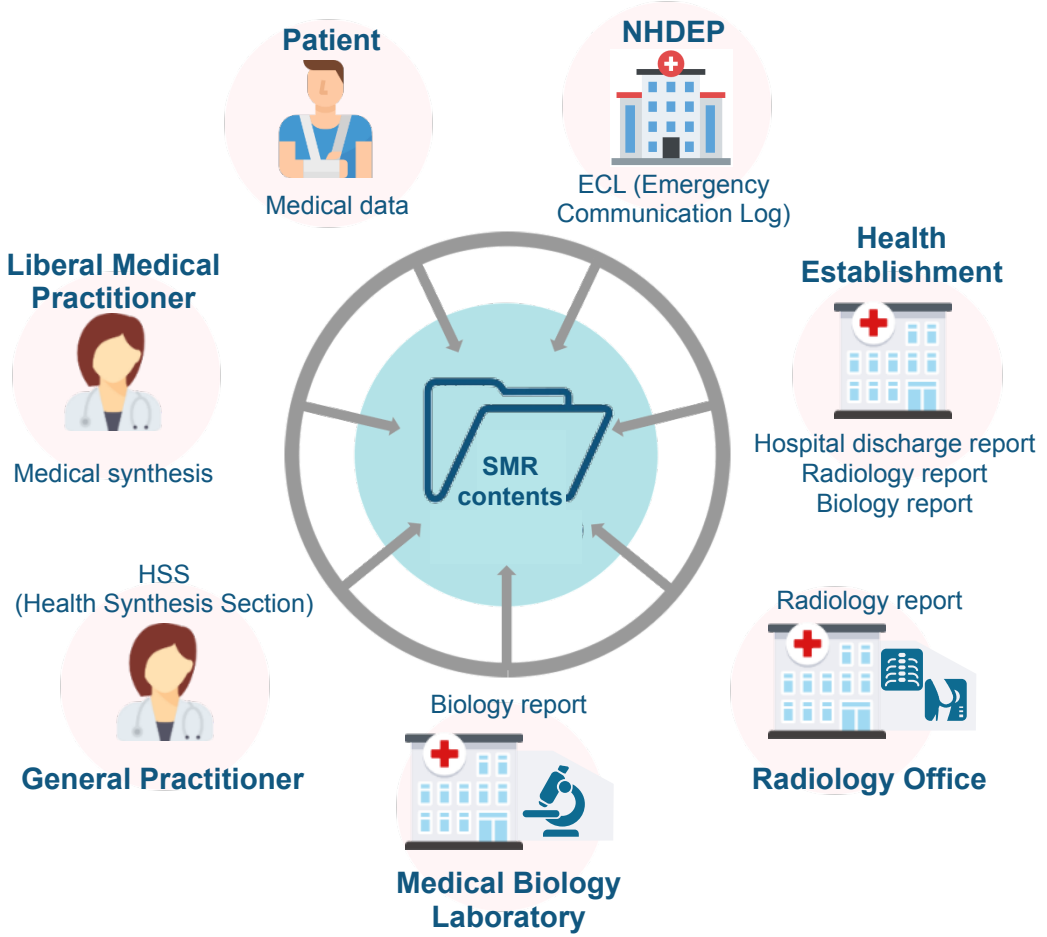
For the patient	For the medical team member *
	
User ID and Single-Use password	Medical Professional Card (MPC) delivered by professional authorities
+	+
One-time password (OTP)	PIN number

*The only medical practitioners able to access the SMR are those authorized by the patient.

In light of these restrictions, it is impossible, for example, for the French Social Security System (Assurance Maladie) and/or private companies to access a patient's SMR data.

Contents of the SMR

The SMR: Filled by both the patient and his medical care team (1/2)



- **The SMR contents is added by the patient, medical practitioners, health establishments and social medical institutions**

The SMR: Filled by both the patient and his medical care team (2/2)

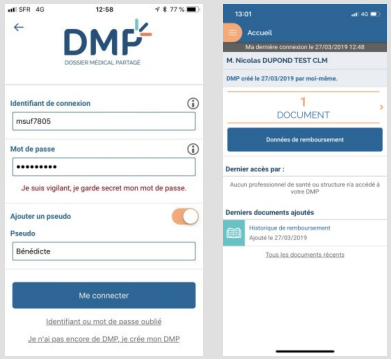
The SMR

Contents

- The SMR contains medical syntheses, such as the HSS (Health Synthesis Section) which gathers essential information about the patient medical history (medical treatments, allergies, …).
- The SMR contents are added by both the patient and his medical care team.

Patient Access

- The patient can access his SMR via the SMR's website and/or the mobile application intended for it.

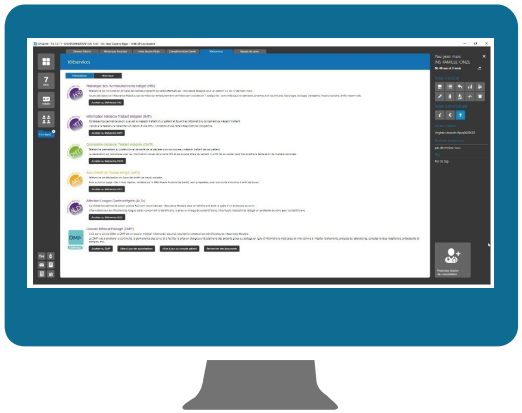


Integration of the SMR to professional software solutions

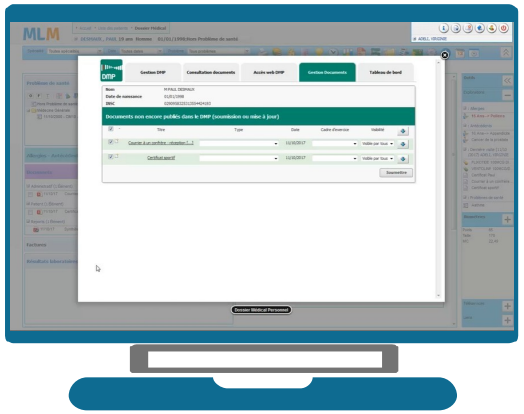
Integration of the SMR to professional software solutions

The integration of the SMR to professional software solutions is facilitated by the interoperability framework defined at the national level, by the French Agency of Digital Health. This framework is defined to enable all health software solutions to send and receive data from one another in regulated and predefined flows.

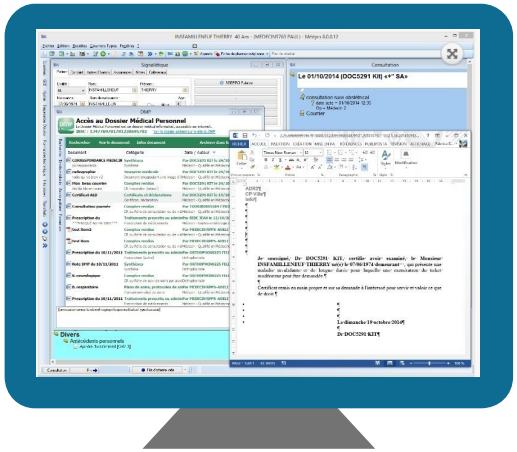
Simply Vitale



Dr Santé



MLM



MedyCS

A lot of workshops have been done in collaboration with software publishers in order to define the links between the SMR and the health professional software solutions.

Use-cases

Use-cases of the SMR by medical practitioners

Survey concerning the use-cases of medical practitioners consulting the SMR

Amongst the Medical Practitioners who consult SMR the most, we find that several use-cases are directly linked to the practice of the MP, but there is also one use-case resulting from a patient request.

❑ 6 use-cases linked to the practice of the MP:

1 In case of an MP's imminent **retirement**

Case of a pediatrician: "The practitioner uses the SMR as he plans to retire […] and whishes for all of his patients to have an updated SMR when they go consult a new practitioner".

2 Within the scope of **telemedicine**

Case of a pediatrician: "The practitioner uses the SMR for telemedicine".

3 For the follow-up of **Patients at risk,** especially on their vacation place or in case of emergency

Case of a general practitioner: "The practitioner consults the SMR and adds the HSS document for patients suffering from serious conditions".

4 To consult documents **following the hospitalization** of a patient

Case of a general practitioner: "The practitioner consults the SMRs of hospitalized patients".

5 To secure the work of **anesthesiologists**

Case of an anesthesiologist : "I consult the SMR of each and every patient to check the information they gave me about the medication they are on. 37 % of patients forget information."

6 To **research information** about a patient

Case of a pediatrician: "The practitioner systematically consults the SMR when he has no information about a patient".

❑ 1 use-case of SMR consultation at the patient's request

Main figures and objectives

Evolution of the accumulated created SMRs

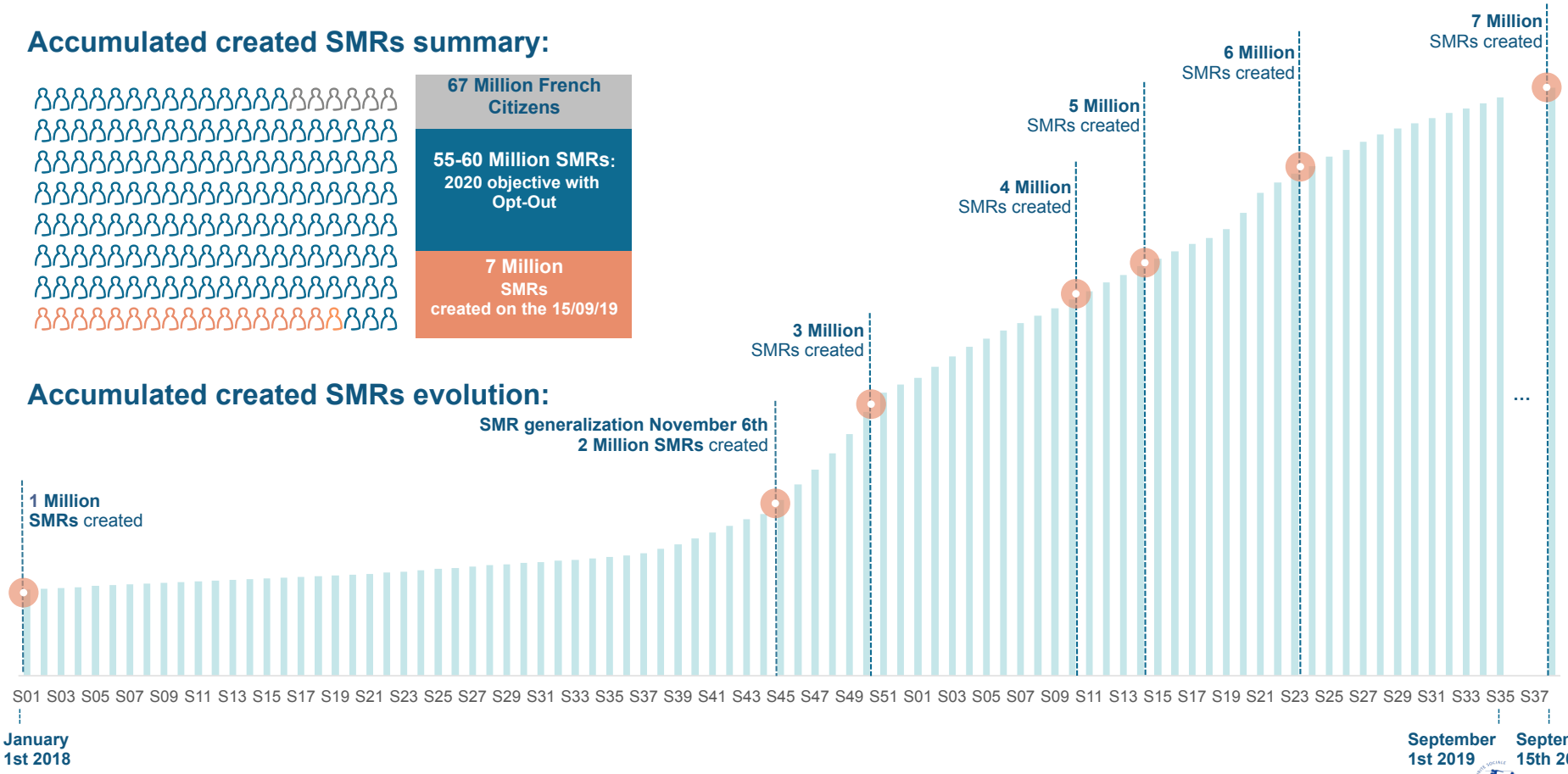
Accumulated created SMRs summary:

67 Million French Citizens

55-60 Million SMRs:
2020 objective with Opt-Out

7 Million
SMRs
created on the 15/09/19

Accumulated created SMRs evolution:



SMR Activity of various medical professions

Summary of the SMR created and number of electronic records consultations performed by the various medical professions

Summary of the active SMR medical practitioners in comparison to the total population of practitioners within the territory

City Professions (Liberal Professions)	Number of independants practicing within the territory	From January 2016 to December 2016				From September 2018 to August 2019			
		Populating MP	%	Consulting MP	%	Populating MP	%	Consulting MP	%
General practitioner	52 641	383	0,7%	840	1,6%	10 996	20,9%	23 567	44,8%
Medical Specialist	54 555	35	0,1%	56	0,1%	1 629	3,0%	3 993	7,3%
Masseur-Physiotherapist	67 860	19	0,0%	39	0,1%	98	0,1%	1 126	1,7%
Nurses	93 206	33	0,0%	126	0,1%	132	0,1%	815	0,9%
Other professions	77 562	3	0,0%	11	0,0%	144	0,2%	1 130	1,5%
Medical Biology Laboratories	3 864	6	0,2%	5	0,1%	12	0,3%	10	0,3%
Dispensing pharmacies	21 510	1	0,0%	3	0,0%	542	2,5%	2 437	11,3%

SMR Activity of HE and NHDEP

15% of Health Establishments have performed at least one SMR record action

Summary of the active SMR Health and Social Medical Institutions

HE populating SMRs	From January 2016 to December 2016	From September 2018 to August 2019
Health Establishments (HE)	52	389
Nursing Homes for Dependant Elderly People (NHDEP)	186	296
Total	238	685

Summary

Summary

The French parliament enacted a law providing every French citizen with a digital health record booklet called the SMR « Shared Medical Record »

This SMR is **not mandatory**. The official holder of the SMR is the patient.

The SMR contains reports and syntheses added by the patient himself or by a member of his medical care team.

The objectives of the SMR are:

- **To allow the patient a better understanding of his medical information**
- **To offer the medical care team an easier access to the patient's medical file, in order to insure the coordination, continuity and quality of the needed medical care**

The implementation of the SMR is incorporated **within the framework of the Personal Data Regulating Law in France** ("Loi informatique et libertés"):

- **Centralized hosting of data**
- **Respect of the security rules** as defined by the General Health Information Systems Policy (GHISP), with a restricted access to data only to members of the medical care team, who have been approved by the patient himself.

Today, **7 million SMRs have been created**, with an objective of **55 to 60 million of SMRs by 2021**.

Thank you for your attention


LE DMP, LA MÉMOIRE DE VOTRE SANTÉ.

Mrs. Ann Costello

Global Franchise Lead Centralised Solutions,
Roche Diagnostics International

Clinical decision support that helps in saving live

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Roche
Ann Costello
Head of CPS Business Area
Roche Diagnostics
FROM DATA POINTS
TO CLINICAL DECISION SUPPORT FOR IMPROVED PATIENT CARE
WHERE CARE LEADS

Why are we here?

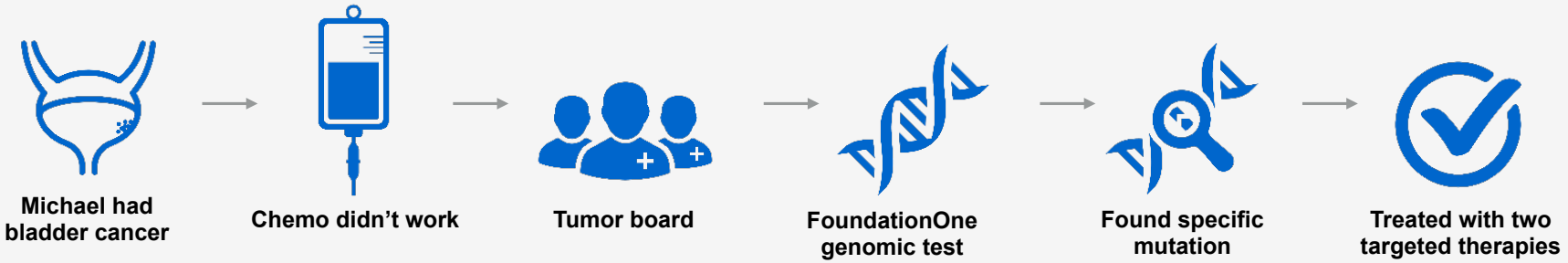
“According to my doctors, I am not supposed to be talking to you now. They gave me about a year to live after I developed aggressive bladder cancer. But here I am three years later, telling you my story — almost cancer-free and living my life.”

— Michael Negrin, Israel

WHERE CARE LEADS

Michael's journey

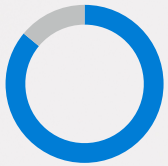
Combining the power of diagnostics, data and therapy to save his life



Today, access to multiple data sets and targeted therapies are **MAKING PATIENT CARE MORE COST-EFFECTIVE FOR HOSPITALS AND IMPROVING PATIENT OUTCOMES**

WHERE CARE LEADS

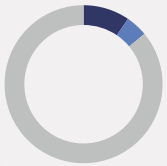
New era of healthcare challenges



86% of all healthcare costs are associated with managing chronic disease[1]

Staffing shortages continue to rise across healthcare

The **aging population** is significantly driving this rise in costs;[2] **61% increase in morbidity** due to cardiac conditions, cancer and infectious disease by 2030[3]



Healthcare spending is projected to consume **9.5%–14% of global GDP** by 2060[4,5]

[1]CDC. Chronic disease overview. https://www.cdc.gov/chronicdisease/overview/index.htm. June 28, 2017. Accessed October 6, 2017. [2]http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DELSA/HEA/WD/HWP(2017)5&docLanguage=En.
[3]Disease Burden 2030 Fact Book. Divisional Medical and Scientific Affairs June 24, 2015.
[4]OECD. Organization for Economic Cooperation and Development. OECD (2013). "What Future for Health Spending?" OECD Economics Department Policy Notes. No. 19. June 2013.
[5]https://read.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2017_health_glance-2017-en#page11.

WHERE CARE LEADS

By 2020, medical knowledge will double itself every…

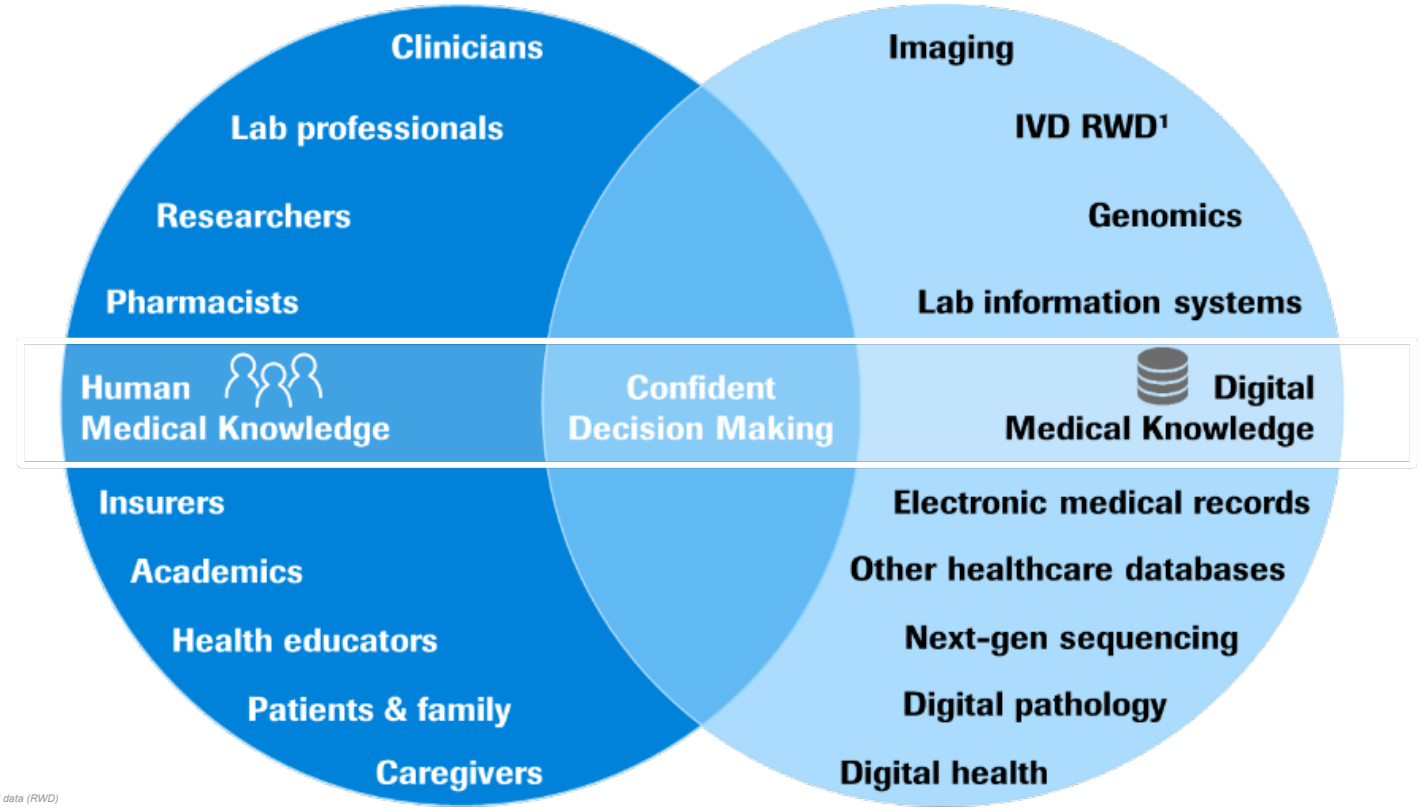
[1] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3116346/

Data is accelerating changes in healthcare

Opportunity to address some of the complexity

Opportunity – Data Enabled Healthcare

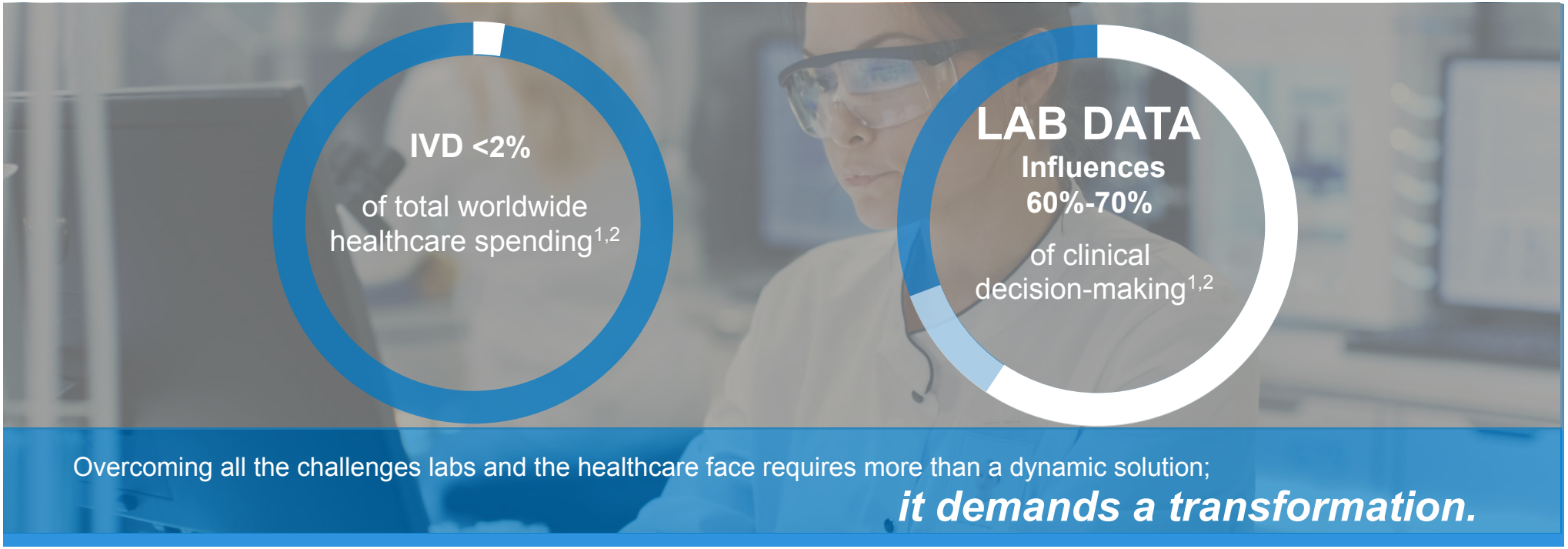
Good medicine is the result of human & digital medical knowledge



List not exhaustive
¹ In-vitro diagnostics (IVD) real-world data (RWD)

The laboratory is the engine of digital transformation

Foundation for good clinical decision-making



1. European IVD Market Statistics. EDMA. 2013.
2. Rohr U-P, Binder C, Dieterle T, Giusti F, Messina CGM, Toerien E, et al. (2016) The Value of In Vitro Diagnostic Testing in Medical Practice: A Status Report. PLoS ONE 11(3): e0149856. https://doi.org/10.1371/journal.pone.0149856.

WHERE CARE LEADS

Digital Transformation at Roche Diagnostics

Patient journey optimization in heart failure

Hospital Juan Ramon Jimenez — Spain

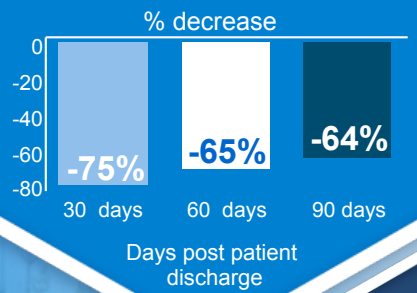
608 beds

Public hospital

MAIN REASONS FOR ACTION

- Optimize patient journey by using diagnostic information

HEART FAILURE READMISSIONS



SAVINGS

Achieved 1.5M EUR

per year in savings for hospital

Source: Customers In Sight

...ERE CARE LEADS

Rapid heart attack diagnosis reduces resource use

Significant savings possible in the ER with Roche cTnT-hs 1h algorithm

Resource saving per patient	Resource saving per patient	Resource saving per patient	Saving in:
GBP 2,081 - 46%	**CHF 5,807 - 40%**	**EUR 908 - 38%**	**Phlebotomy**
			**EGCs and imaging**
UK[1]	**Switzerland**[1]	**Germany**[1]	**Personnel time**
Annual saving of **50,000 days of bed space**			

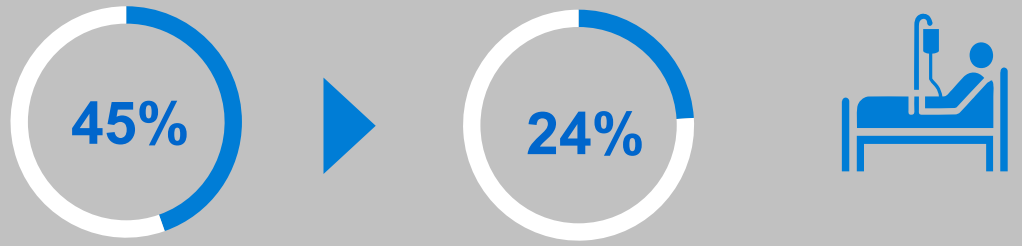
1. Ambavane, A. et al. (2017). PLoS One 12(11), e0187662 Cost savings vs Standard of Care (SoC)

WHERE CARE LEADS

Preeclampsia testing helps reduce pregnancy care costs

Example from Germany shows savings from fewer unnecessary hospitalizations

Use of the Roche sFlt-1/PlGF ratio can **reduce hospitalization rates**[1]



Expected cost saving ***361 EUR*** *per patient**

Expected annual cost savings of more than ***39 mEUR*** *nationally in Germany*[† ,2-4]

sFlt-1/PlGF reimbursed by statutory health insurance in Germany, starting Oct 2019

PE: Preeclampsia; PlGF: Placental growth factor; sFlt-1: Soluble fms-like tyrosine kinase-1
*Robust to plausible changes in main parameters. † Based on 108,968 pregnant women per year presenting with hypertensive disorders[2-4]
1. Schlembach D1, BMC Health Serv Res. 2018 Aug 6;18(1):603. doi: 10.1186/s12913-018-3406-1., 2. www.gbe-bund.de 3. Engel J, et al. Der Klinikarzt 2012, 4. Dietl A, et al. Geburtshilfe Frauenheilkd 2015

WHERE CARE LEADS

Using data from multiple sources to support decision making

NAVIFY® Decision Support Portfolio

NAVIFY® Tumor Board solution for oncology care teams

Secure Patient Data

Collaboration Among Specialists

Track Tumor Board Decisions & Follow Up

Increased Workflow Efficiency

Comprehensive Patient Overview

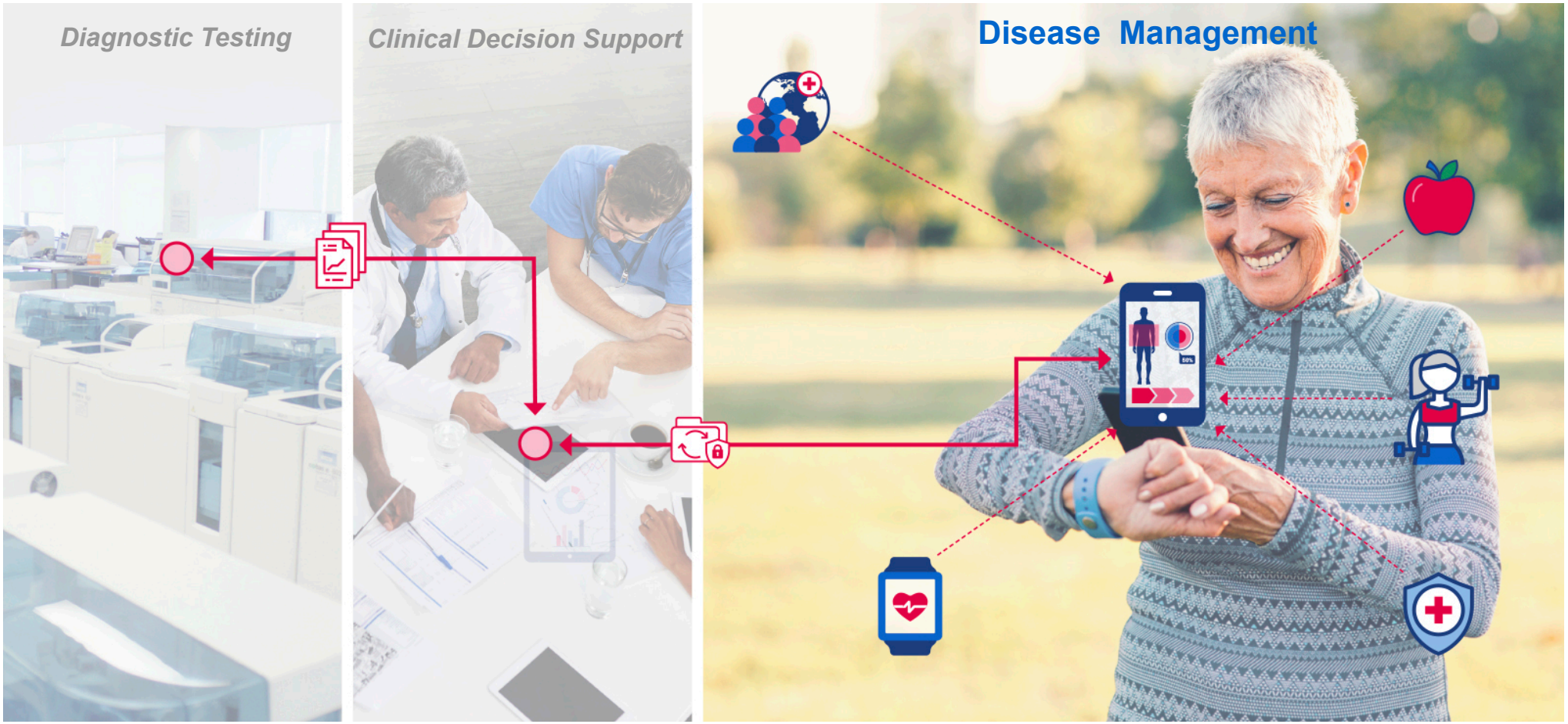
Standardization Across Tumor Boards

NAVIFY Apps:

- **Clinical Trial Matching**
- **Publications search**
- **Guidelines (development)**

WHERE CARE LEADS

Disease Management



Digital tools supporting Disease Management

Improved diagnosis and management of atrial fibrillation patients

Screening	Confirmatory Diagnosis	Stroke & Bleeding Risk Prediction	Therapy Guidance & Monitoring
Digital biomarkers • FDA cleared • Device agnostic FibriCheck	**Wearables** • CE Class IIa Medial Device SmartCardia	**Clinical ALGOs** • Proven and new biomarkers • Risk scores, e.g. ABC score Roche	**Digital biomarkers** FibriCheck

NORDIC HEALTH LAB +

Collect and integrate data from patients and physicians along patient journey

Closing thoughts

The role of In-vitro diagnostics (IVD) testing is **under valued** in clinical decision-making and we believe it can **reduce costs** and support a **positive impact** on patient outcomes

Clinical decision support tools can **fundamentally change** the way we **diagnosis and treat** patients

By leveraging the combined strengths of **diagnostic testing, digital tools and therapy**, we can help close the gaps in patient care and aspire to **make a real difference** in the lives of patients

Doing now what patients need next

Mr. Bert Hoorne

Industry Technology Strategist

Az Groeninge: Applied AI in healthcare

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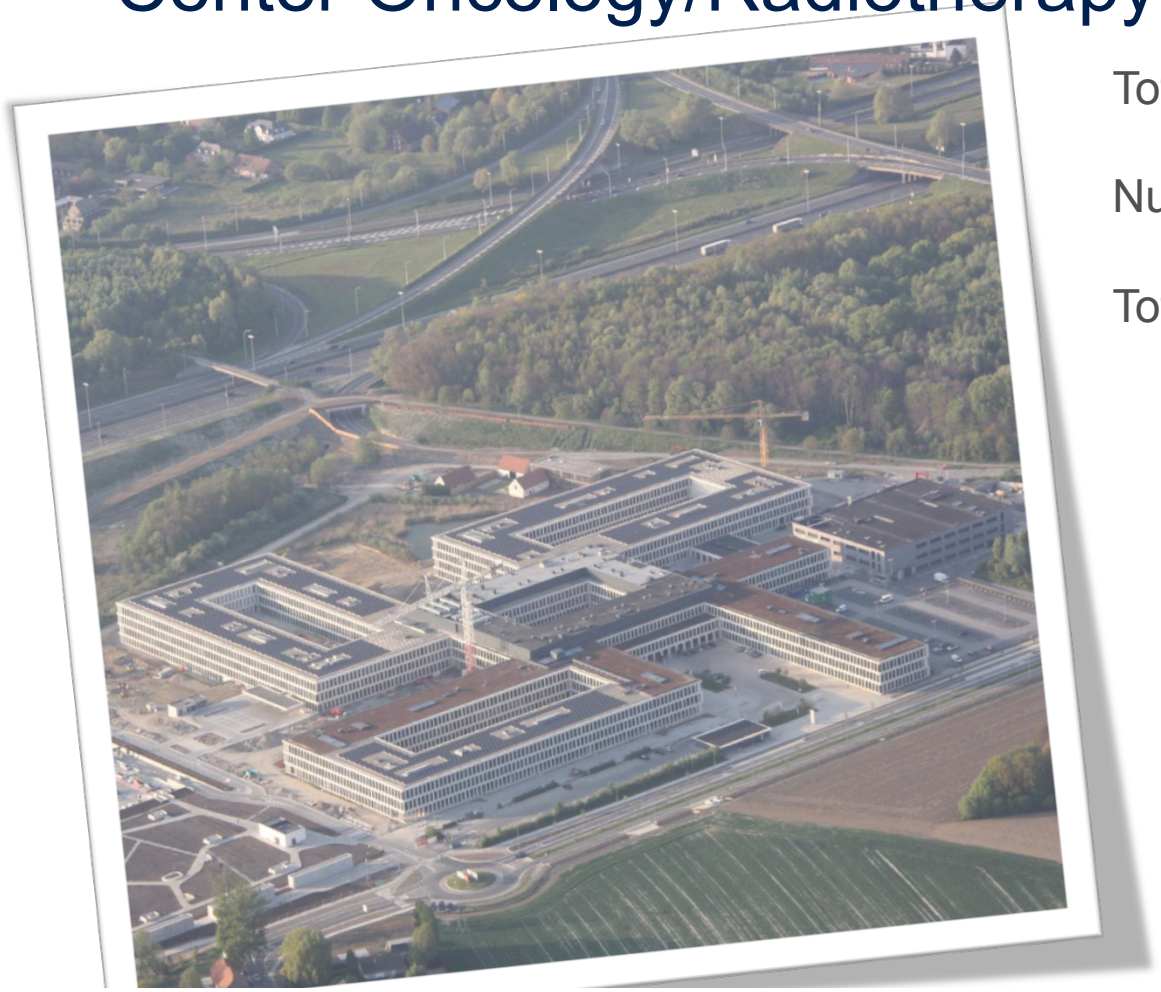
Applied A.I. in Healthcare

Medical Imaging AI to Empower Clinicians

September 11th , 2019

Bert Hoorne
Health Industry Technology Strategist
Western Europe

Center Oncology/Radiotherapy



Total Surface Area: **117.422 m²**

Number of medical doctors: **197**

Total recognized beds: **1054**

Radiation Therapy?

Why?

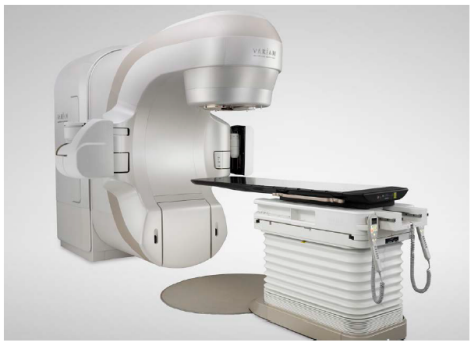
To cure cancer
To reduce symptoms

How?

Damaging the DNA within cancer cells, destroying their ability to reproduce

Linear Accelerator: TrueBeam (Varian)

TrueBeam | TrueBeam STx



Radiotherapy
- 120 leaf MLC

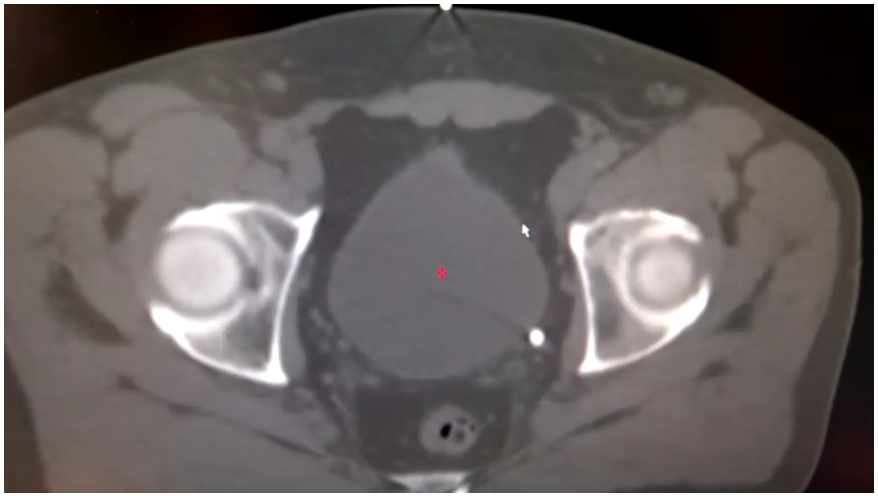
Radiotherapy & **Radiosurgery**
- 120 leaf **High Definition** MLC

Assistive AI for radiotherapy planning

az|groeninge kortrijk

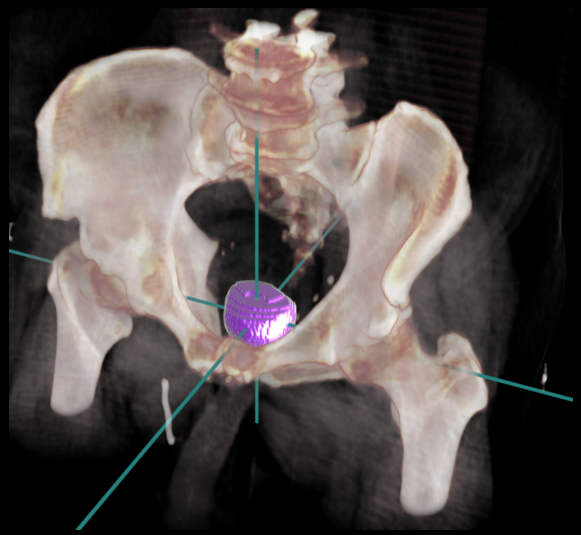
Problem: Delineating tumors and anatomy in images by hand is costly and inaccurate

A linear accelerator (linac) for radiotherapy delivery



Tracing anatomy in a popular commercial tool

The InnerEye position



az|groeninge kortrijk

InnerEye is a **research project** that develops machine learning cloud services to

assist medical experts

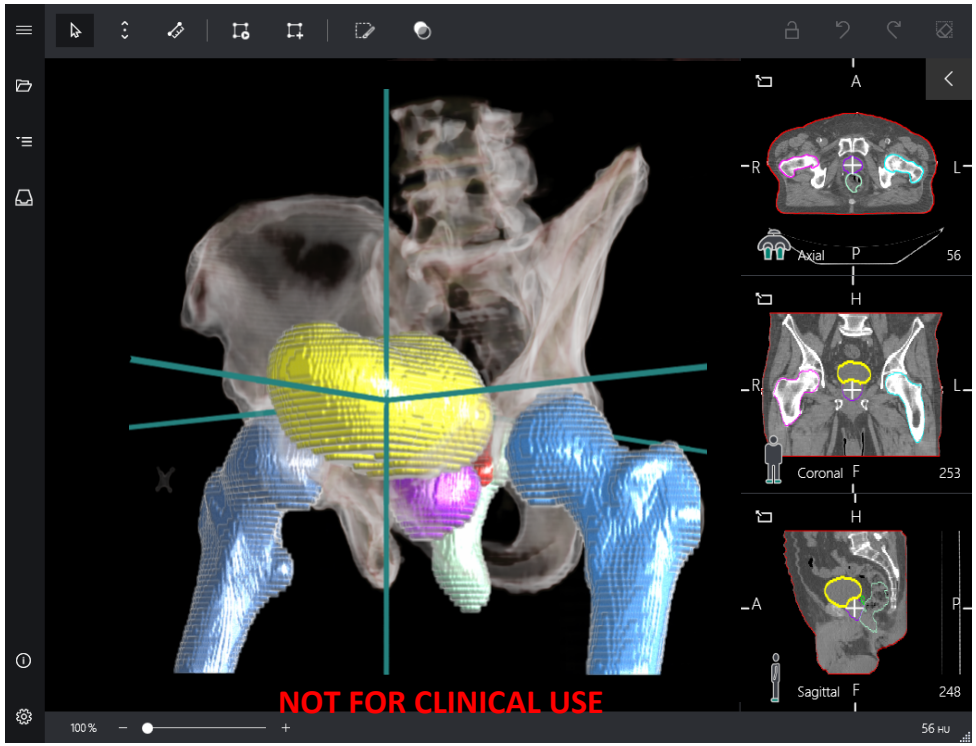
in tasks of **measurement, delineation** and **quantitative temporal assessment**

“What used to take hours can now be done in minutes”

Dr. R. Jena, Radiation Oncologist, University of Cambridge Hospitals

The 3D image segmentation app

Efficient segmentation of anatomy and pathology



FDA 510(k) clearance received on Dec 28th 2017 as class II medical device.

ML segmentation of a prostate structure set

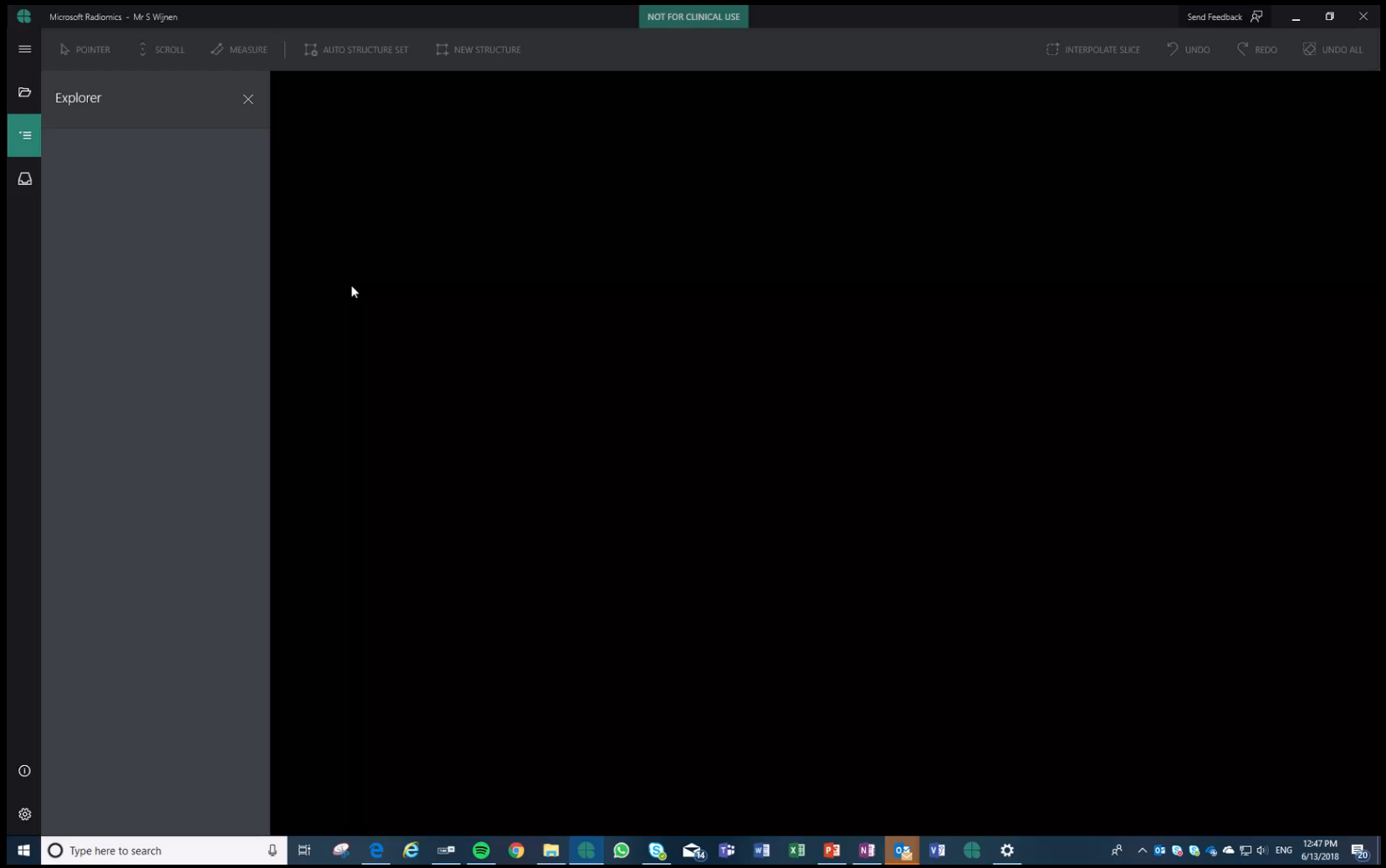
Loading CT DICOM image

Selecting the ML model: ProstateRT

Applying the ML in the cloud (approx. 58 seconds)

- De-identifying the image
- Compression and transmission to the cloud
- Returning the contours

Visualization of the contours axial and in 3D


Microsoft Radiomics - Mr S Wijnen
NOT FOR CLINICAL USE
Send Feedback
POINTER
SCROLL
MEASURE
AUTO STRUCTURE SET
NEW STRUCTURE
INTERPOLATE SLICE
UNDO
REDO
UNDO ALL
Explorer
Type here to search
ENG
12:47 PM
6/13/2018

Responsible AI – it's all about Integrity & Trust

az groeninge kortrijk

Health

Reproducibility

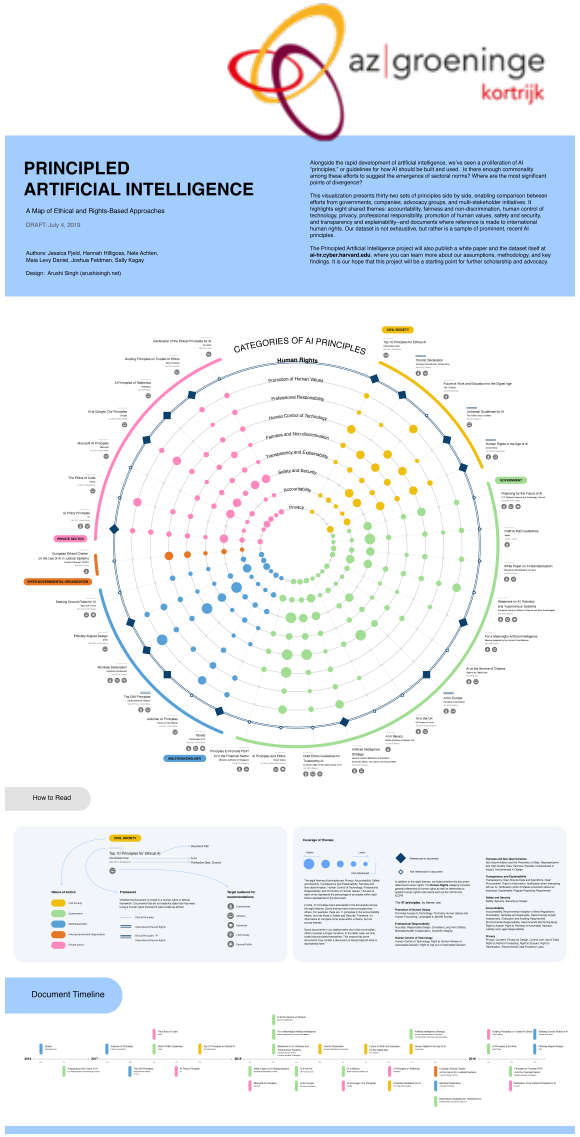
Explainability

Security

Integrety - Trust

7 key requirements that AI systems should meet in order to be deemed trustworthy

1. Human agency and oversight
2. Technical Robustness and safety
3. Privacy and data governance
4. Transparency
5. Diversity
6. Societal and environmental well-being
7. Accountability



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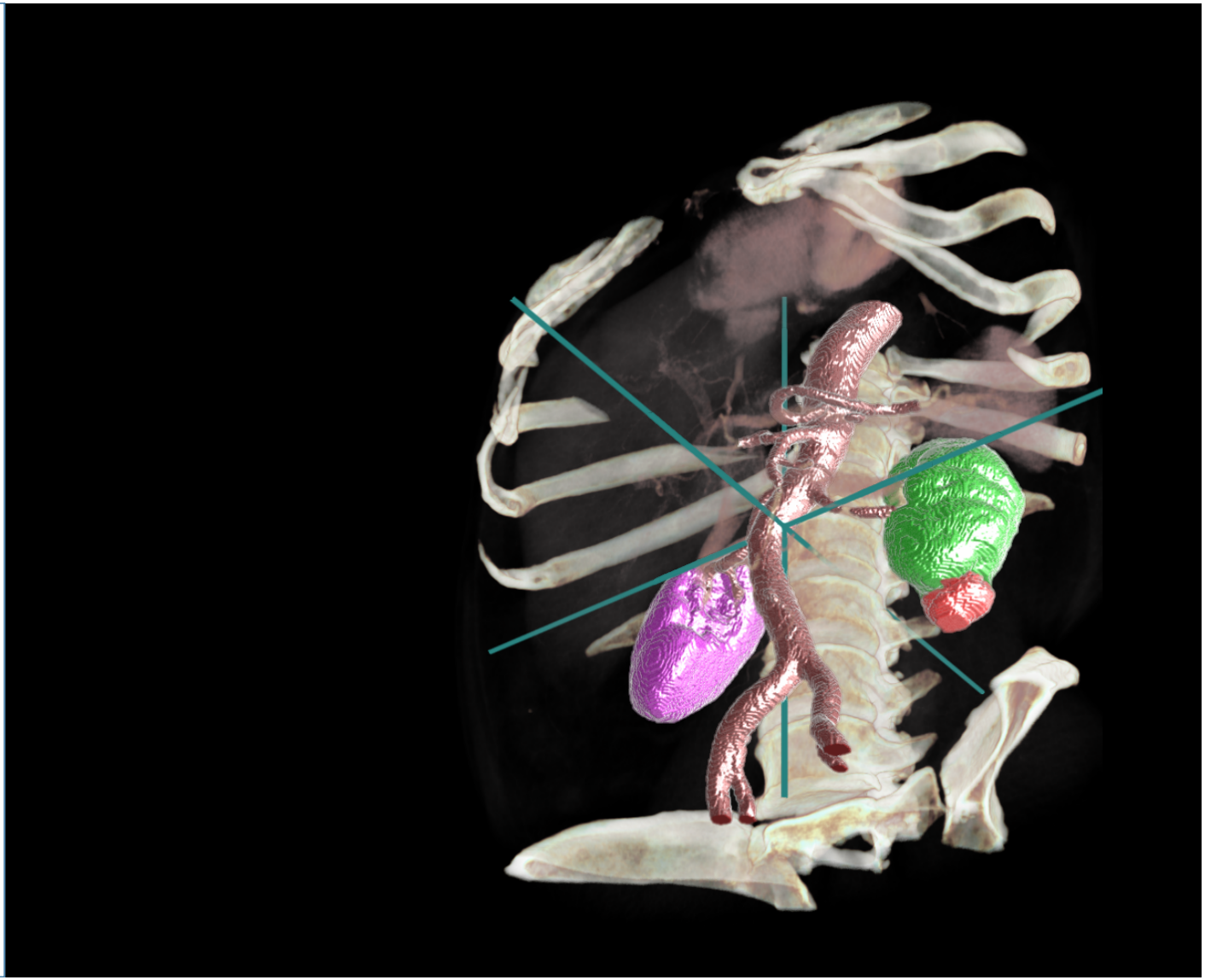

Other A.I. Possibilities

Medical conversations to medical intelligence

Mr. Felix Wandel

EMEA Business Unit Leader of SPI, Johnson & Johnson, Medical Devices EMEA

CareAdvantage Experience Introduction

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Johnson & Johnson
FAMILY OF COMPANIES

Solving starts with listening.

CareAdvantage | Johnson & Johnson FAMILY OF COMPANIES

We are here to help hospitals and healthcare providers achieve the triple aim

CareAdvantage | Johnson & Johnson FAMILY OF COMPANIES

How we operate

Needs Identification

Discuss challenges and perform analysis to define opportunities where we can help

Co-Creation

Working together to understand how your needs can be addressed using our capabilities

Desired Results

Tailor the approach to deliver results and measurable impact

We believe solving starts with listening.

CareAdvantage | Johnson & Johnson FAMILY OF COMPANIES

Our tailored capabilities address your specific needs

Patient Pathways

Designed to help hospitals put patients at the centre of care; engaging them from hospital to home. We aim to improve outcomes and patient experience, while eliminating inefficiencies and reducing cost of care.

Operating Room Optimization

Lack of operating room capacity is a constant challenge for many hospitals. To address this, we aim to help operating rooms run more efficiently, enabling the surgical team to operate on more patients.

Hospital Logistics

Many hospitals are now expected to deliver improved outcomes more efficiently. We focus on co-creating tailored solutions that help streamline resources, workflows, and processes, ultimately reducing time and costs.

Financing Solutions

Hospitals are under pressure to do more with less. We offer a range of financing solutions to enable investment capabilities and support innovation where hospitals and healthcare providers need it the most.

Surgical Excellence

Designed to elevate care to new heights of surgical excellence. We develop world class technologies to enhance surgical performance, help optimize surgeon skills and knowledge, and guide patients successfully to full recovery.

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What you will see today

Connecting the health care team and patients throughout the entire patient pathway through portals and apps

SPI is developed to enable surgeons to choreograph their OR, guiding the entire care team seamlessly through every surgery. It achieves this through a system of synchronized workflows, effortless documentation and real-life learning

C-SATS, part of the Johnson & Johnson Family of Companies, is an accurate and objective surgical skills assessment system, designed to help health care professionals continuously improve. *In Pilot stage and limited rollout.*

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What you will see today

PRE-OP

care4today

INTRA-OP

SPI SURGICAL PROCESS INSTITUTE

POST-OP

C-SATS

care4today

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Instructions for workshop

- Group to be split into 3 groups
- Each rotation will be 15 minutes
- You will have a chance to rotate through all 3 stations

Theme workshops:

Pre-Surgical/Patient Engagement Experience (Care4Today)

Intraoperative standardization & digitalization (SPI)

Post-operative peer review and feedback (C-SATs)

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THANK YOU FOR YOUR ATTENTION

WISHING YOU AN INSPIRATIONAL TOUR

SAFE TRIP BACK TO THE MEET & GREET CENTER