



December 11, 2018

9th Investor Summit

Cegedim, a partner of choice for the digital transformation of the healthcare sector.

DIGITAL

01

Introduction

Laurent Labrune
CEO, Cegedim

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Healthcare in Digital Transformation

Jan Eryk Umiastowski
Chief Investment Officer
Head of Investor relation

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In practical terms, how is
Cegedim revolutionizing the
healthcare industry?



Cegedim DIGI TAL

Introduction

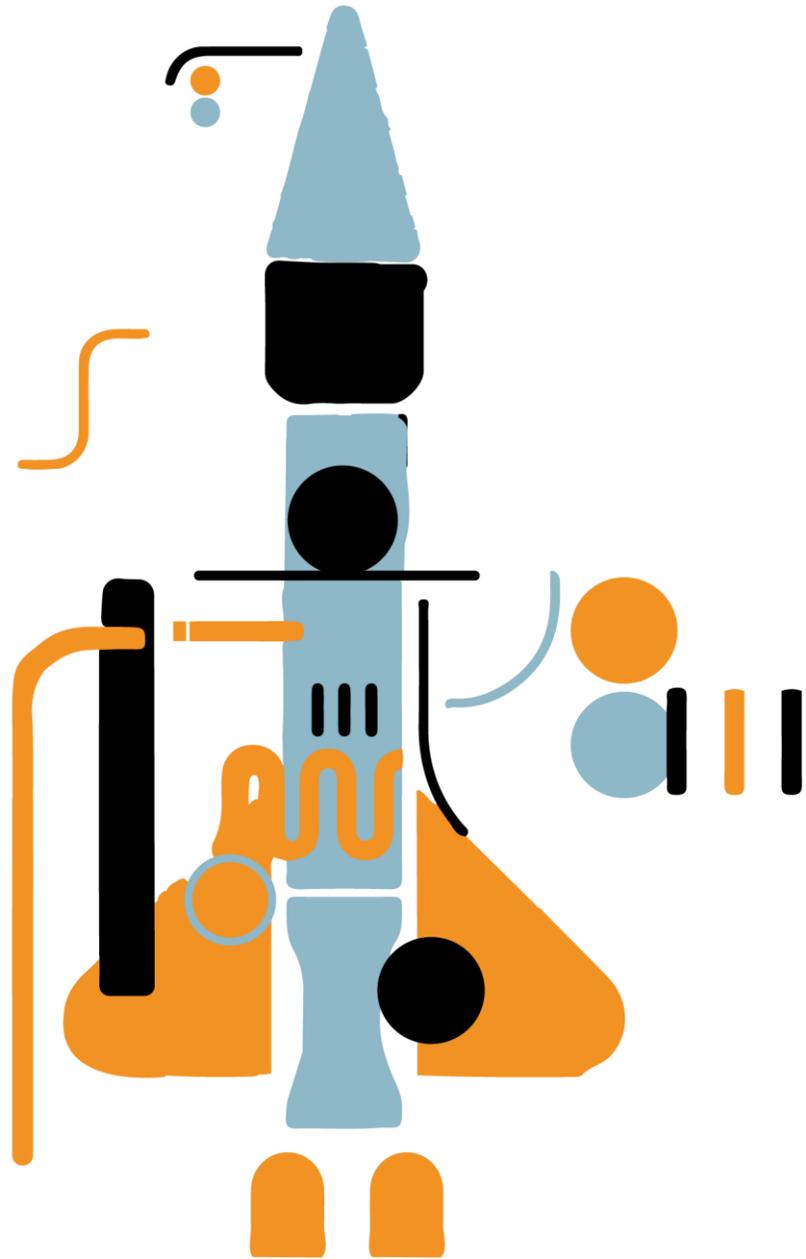
Laurent Labrune
CEO Cegecim Group



Cegecim
DIGI
TAL

Healthcare in Digital Transformation

Jan Eryk Umiastowski
Chief Investment Officer
Head of Investor Relation

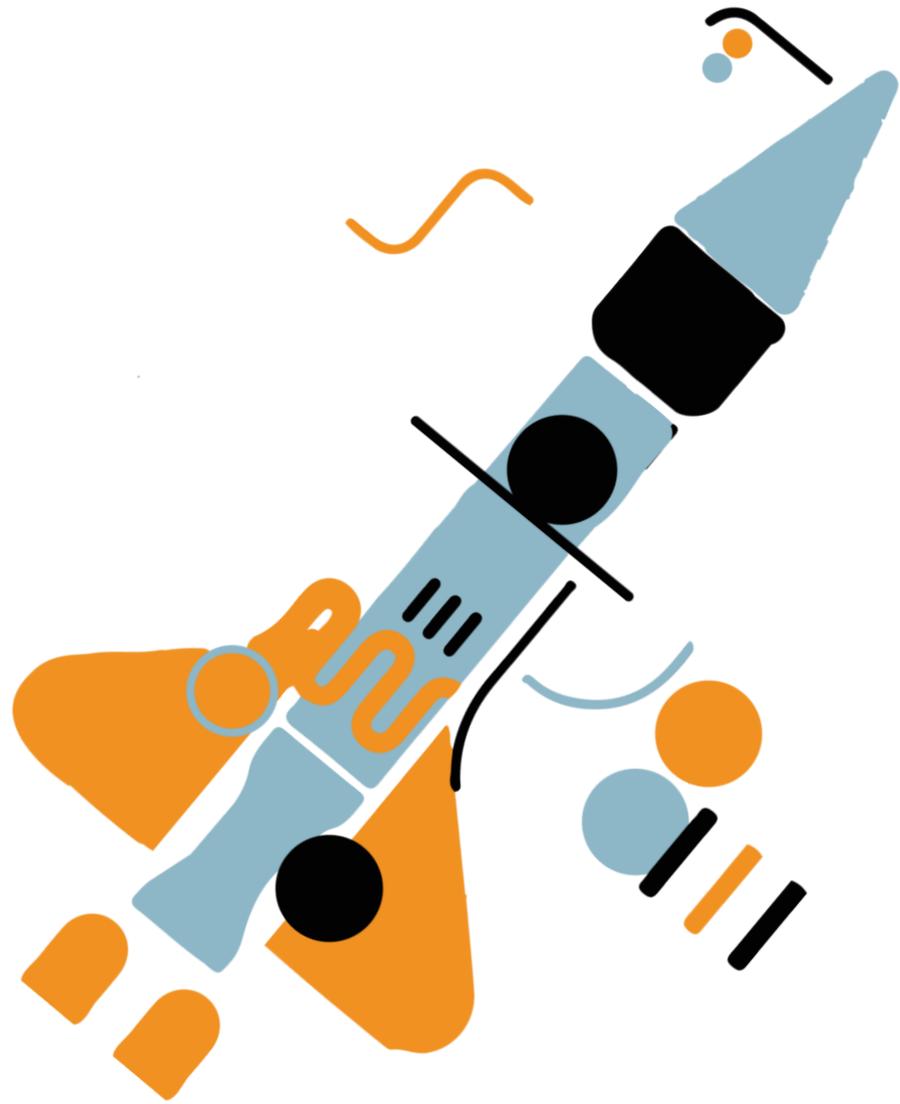


- Historically, **digital transformation** was used to define the fact of turning paper into digital information: **digitization**.
- **Digitization does not equal digital transformation**
- Digitization is needed in order to optimize in a digital transformation

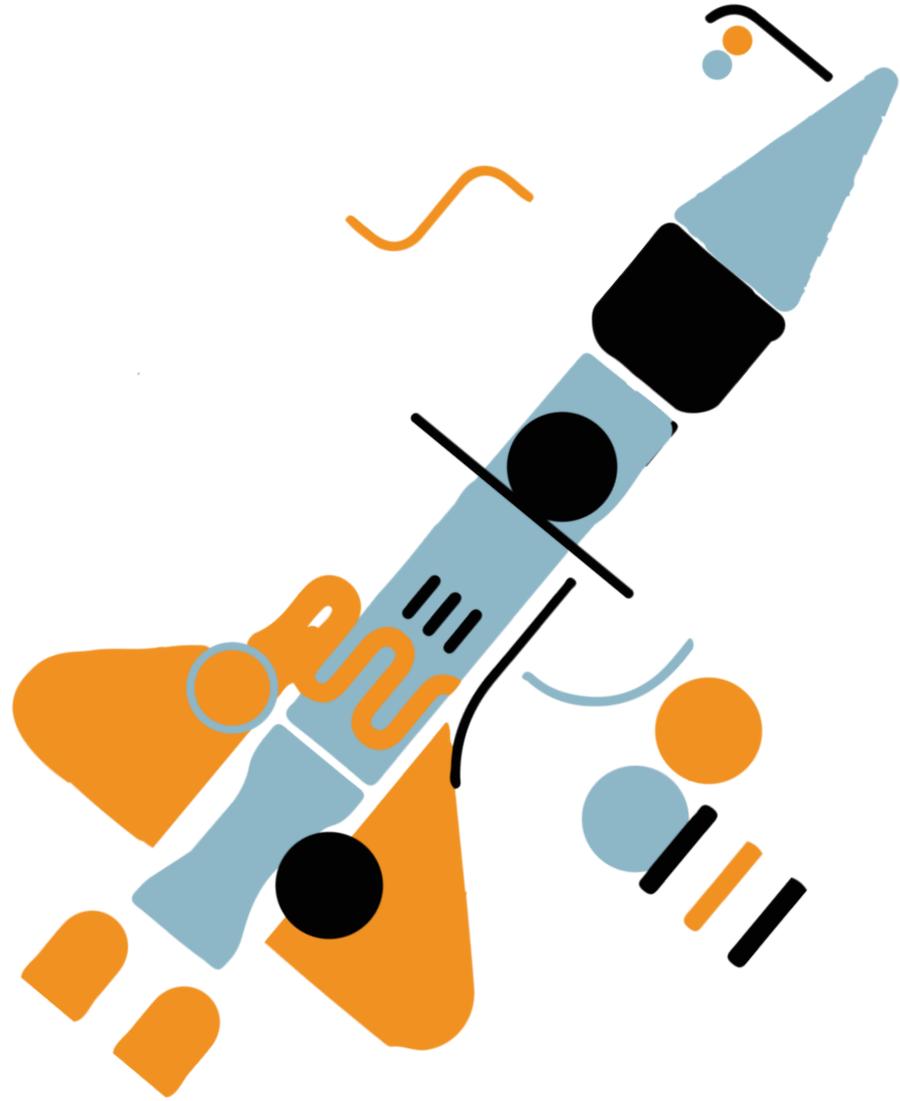
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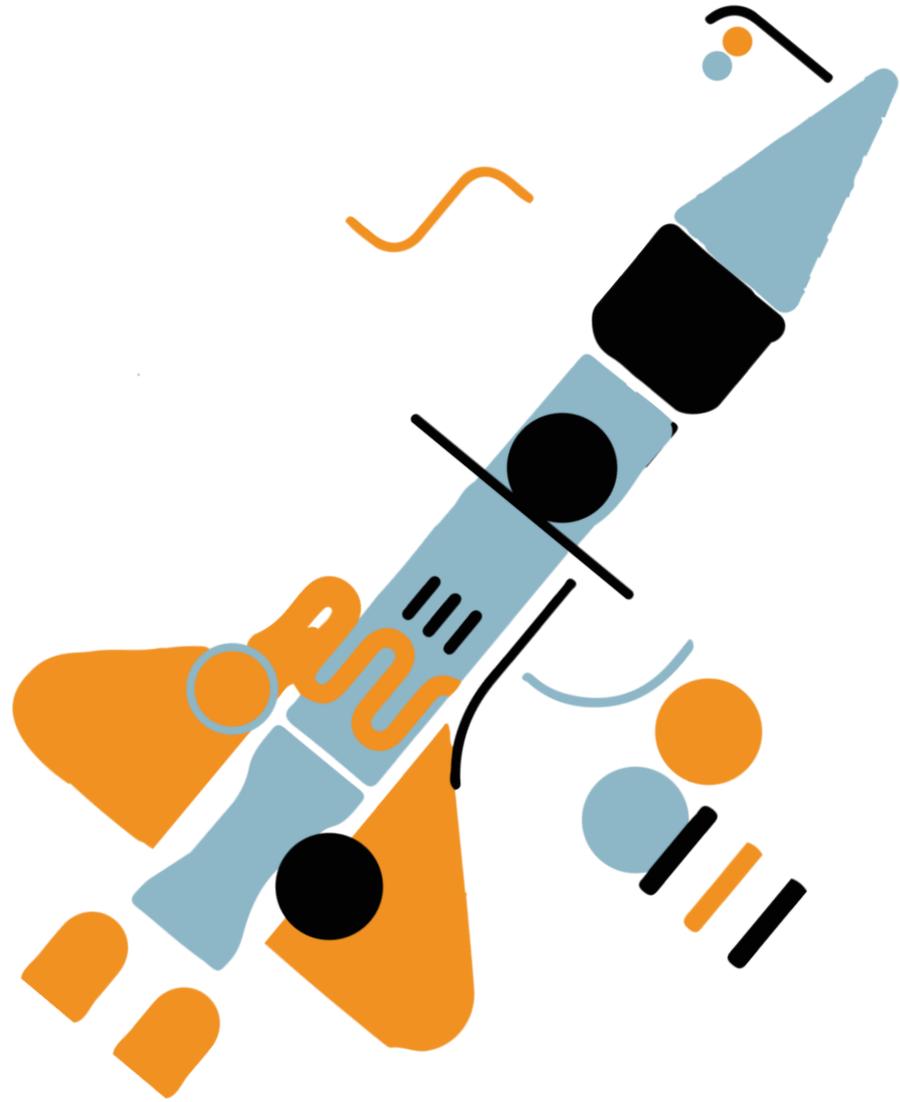
**Digital transformation is
much more than
disruption or technology**



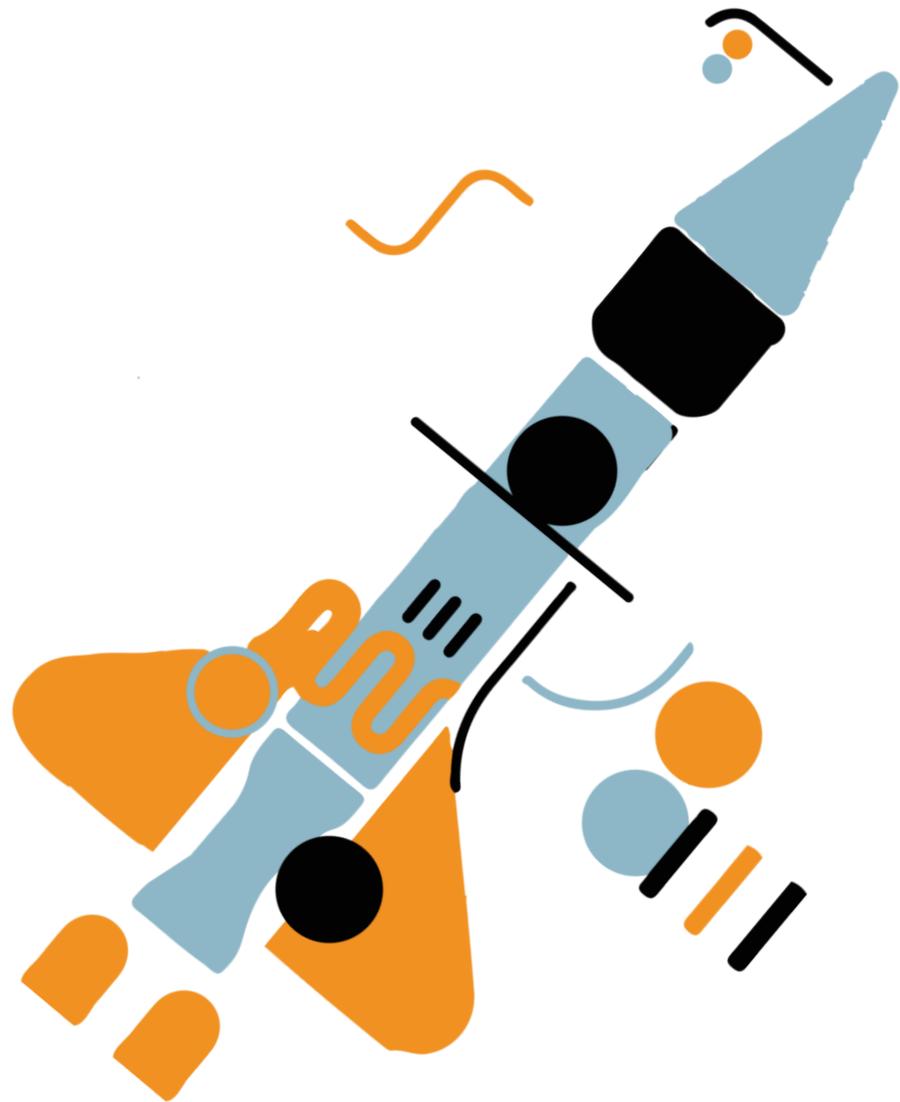
DIGITAL Transformation



Rethinking business
model and
processes....
**To become more
efficient or effective**



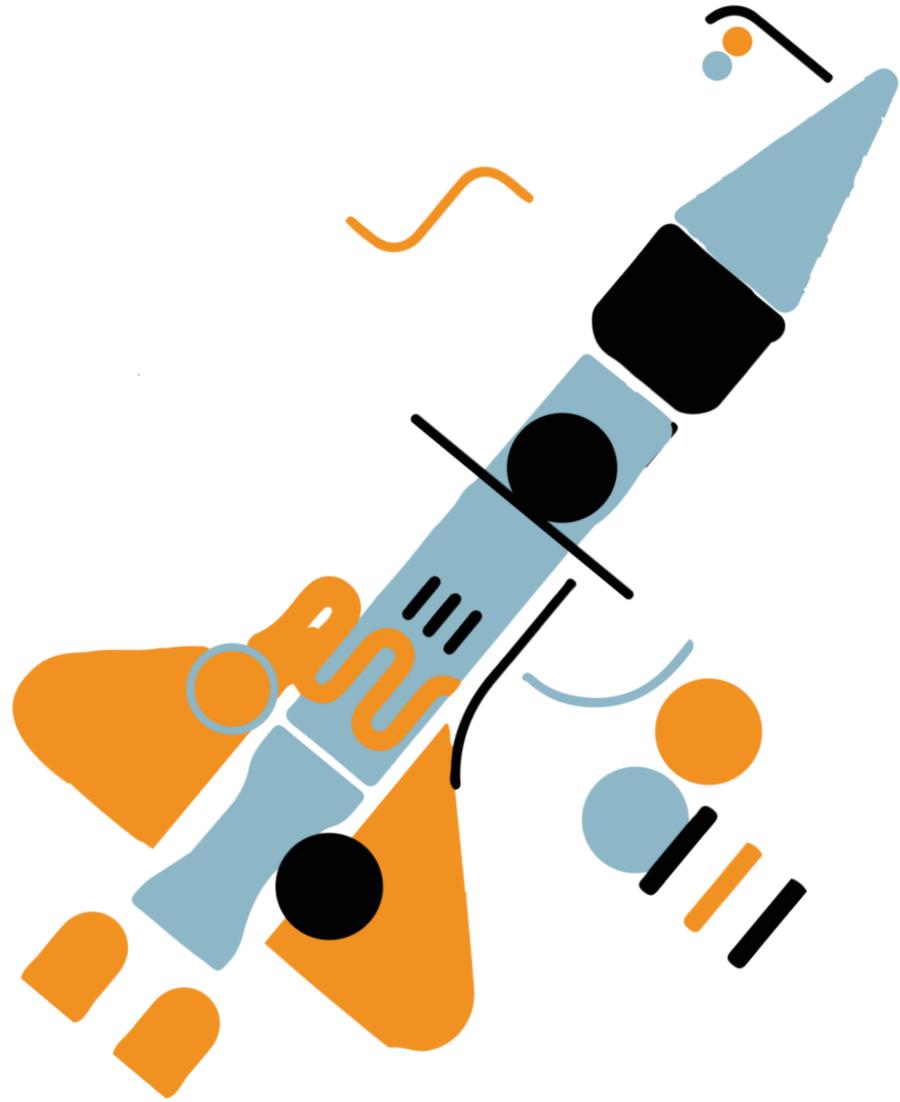
Not replicate an
existing service
In a digital form



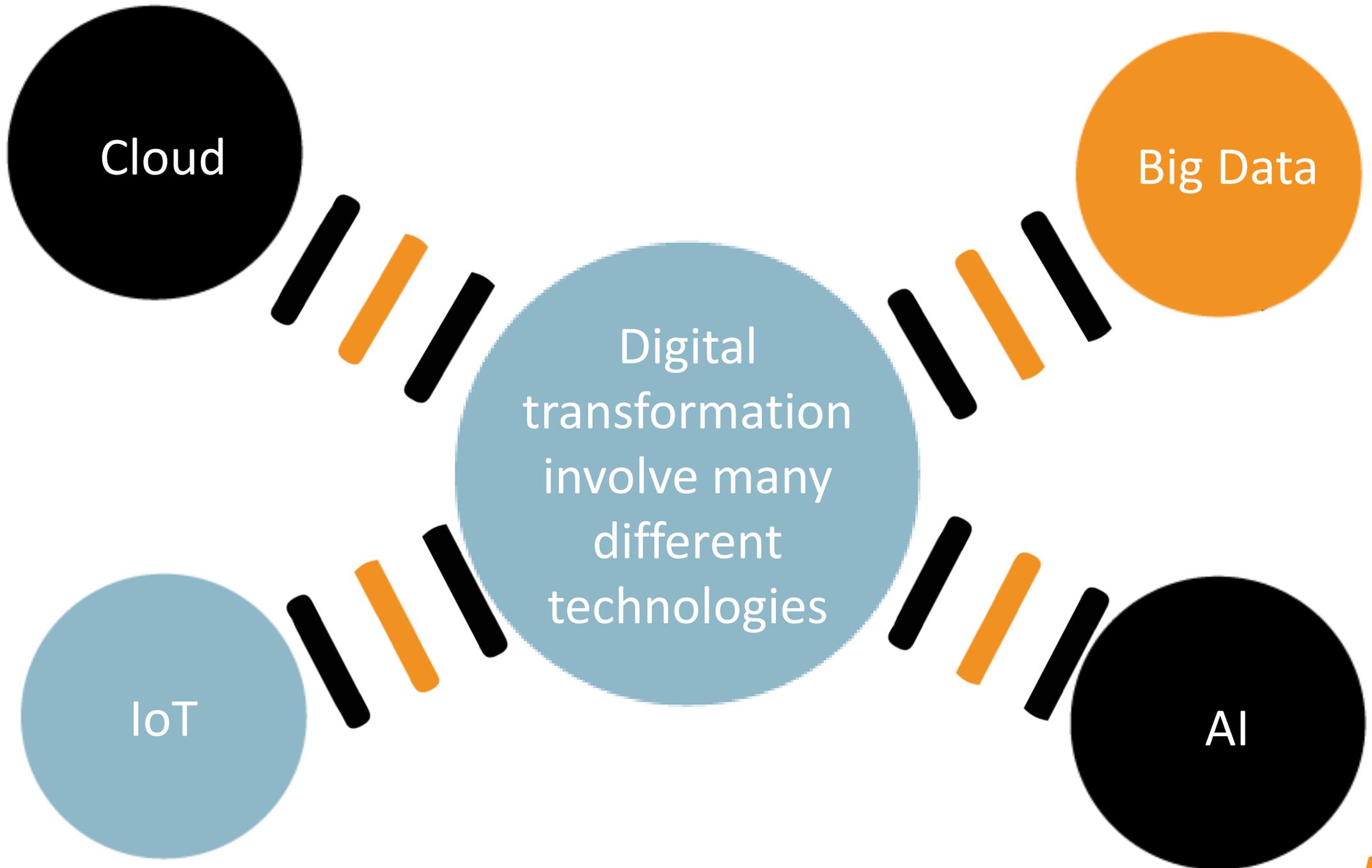
But use technology
to transform that
service into
something...
**Significantly better,
new**



Essential aspect of digital transformation:
Interdependency and interconnectedness of everything



**The true transformation is a
journey not a destination**



Automation

Digital
customer
Interface

4 leavers supported
by technologies

Mobility

Social



Stronger connectivity



Greater efficiency and automation



Better decision making



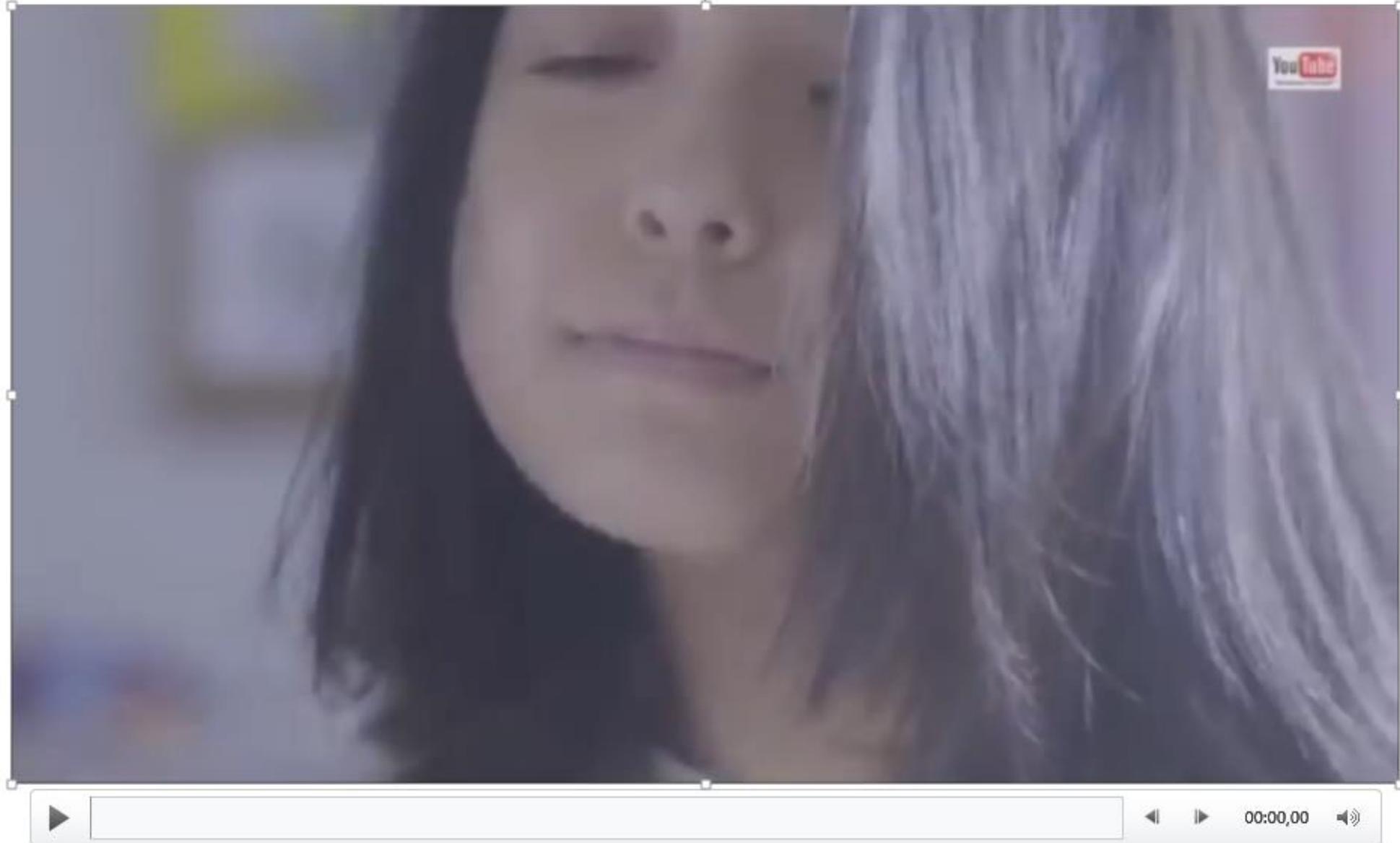
More advanced innovation



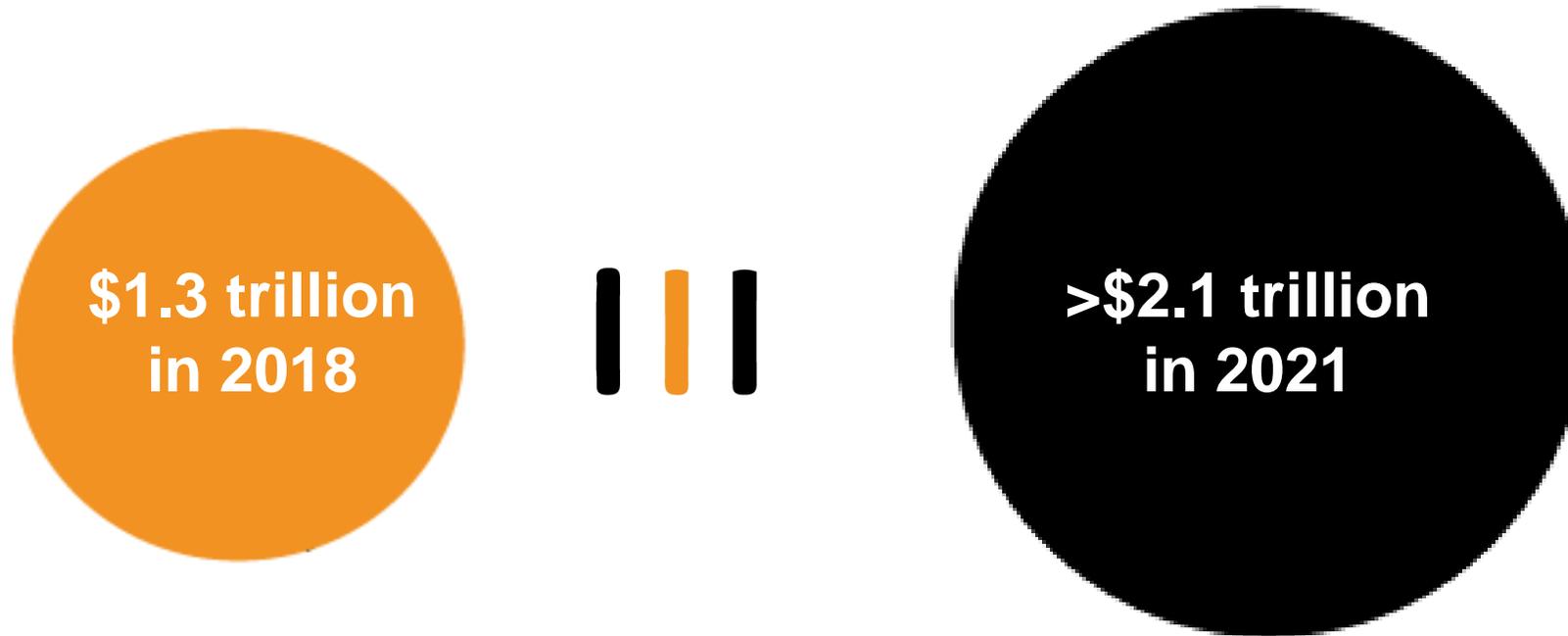
**Digital can have
a significant
positive impact
through four
levelers**

Japan's Prime Minister, Shinzo Abe published in 2017 this commercial created by the Japanese government about the new advanced "Society 5.0"

Project Society 5.0 in Japan



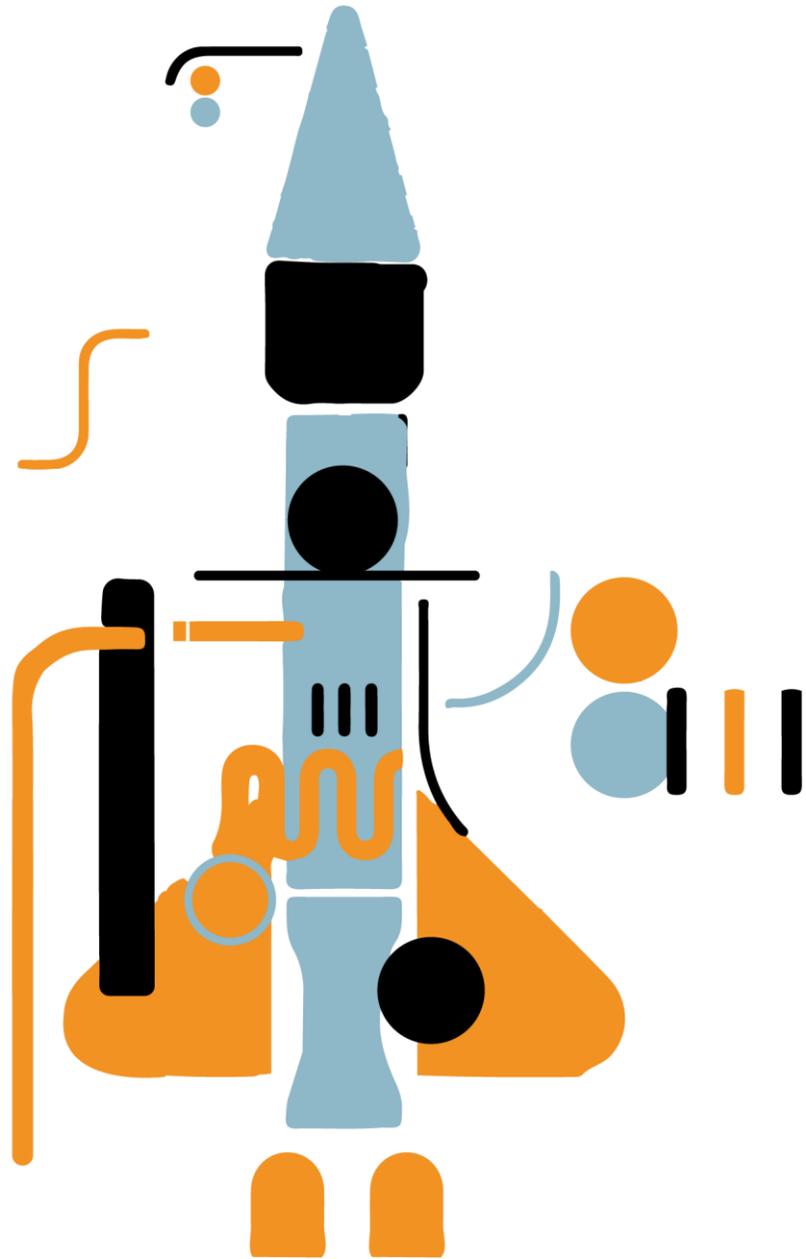
Worldwide spending on digital transformation technologies (hardware, software, and services)



Source: IDC: IDC Forecasts Worldwide Spending on Digital Transformation Technologies to Reach \$1.3 Trillion in 2018 Dec. 15, 2017
<https://www.idc.com/getdoc.jsp?containerId=prUS43381817>

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**Digital transformation
and the key role of
data and information**



- Information management is **essential** to digital transformation
- 4 information chaos challenges
 - 1. How do we optimize business processes?
 - 2. How do we get any business insight out of all the information we collect?
 - 3. How do we use information to better engage customers, employees and partners
 - 4. How do we manage the risk of growing volumes and complexity of content?
- Information management **turn** these 'information chaos' **problems** into **solutions**

According to John Mancini of AIIM (Association of Information management Professionals)

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Businesses in every industry
need to apply a digital
transformation **not only to stay**
competitive, but to survive

Digital Transformation
A major opportunity
for healthcare

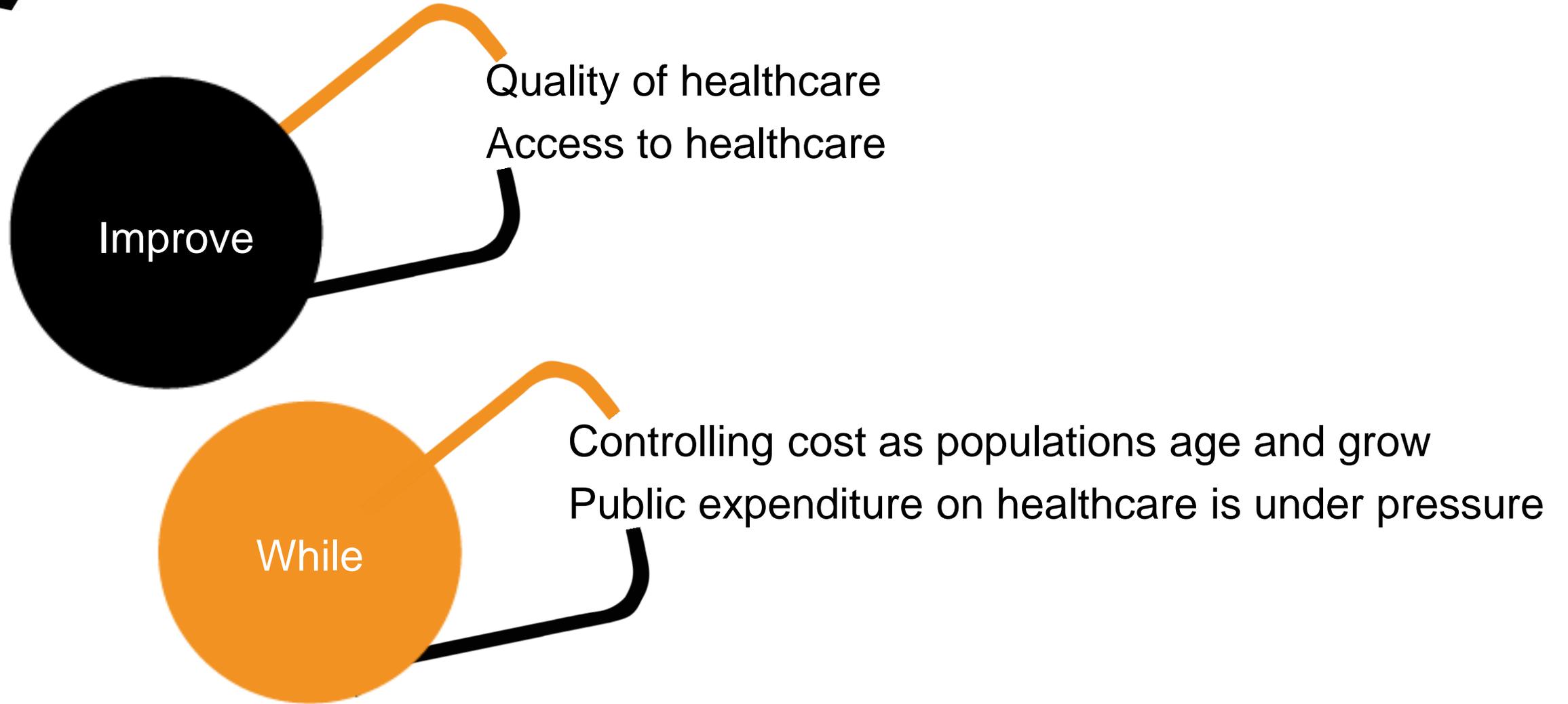
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The healthcare industry is experiencing rapid change resulting from evolving consumer and employer demands and regulatory requirements, as well as the rapid evolution in technologies

The healthcare industry is experiencing rapid change resulting from evolving consumer and employer demands and regulatory requirements, as well as the rapid evolution in technologies

Challenge of making healthcare better across the globe



The aging population

America's 65 and over is projected to nearly double over the three decades
National Institute on Aging

Percentage of the population over 65 years old

- 26.3 Japan
- 22.4 Italy
- 21.2 Germany

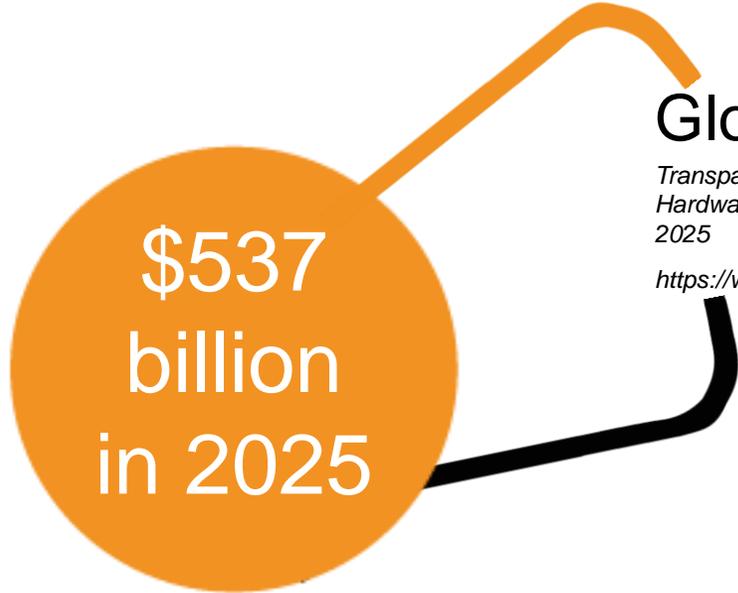
With aging population also comes less people are 'active' and are able to contribute to healthcare systems funding and increase of chronic diseases

Chronic diseases
already account
for three quarters
of deaths across
the globe



Only 5 of these
diseases will cost
the economy 47
trillion USD by
2030

Source: World Economic Forum – The Global Economic Burden of Non-communicable Diseases
http://www3.weforum.org/docs/WEF_Harvard_HE_GlobalEconomicBurdenNonCommunicableDiseases_2011.pdf

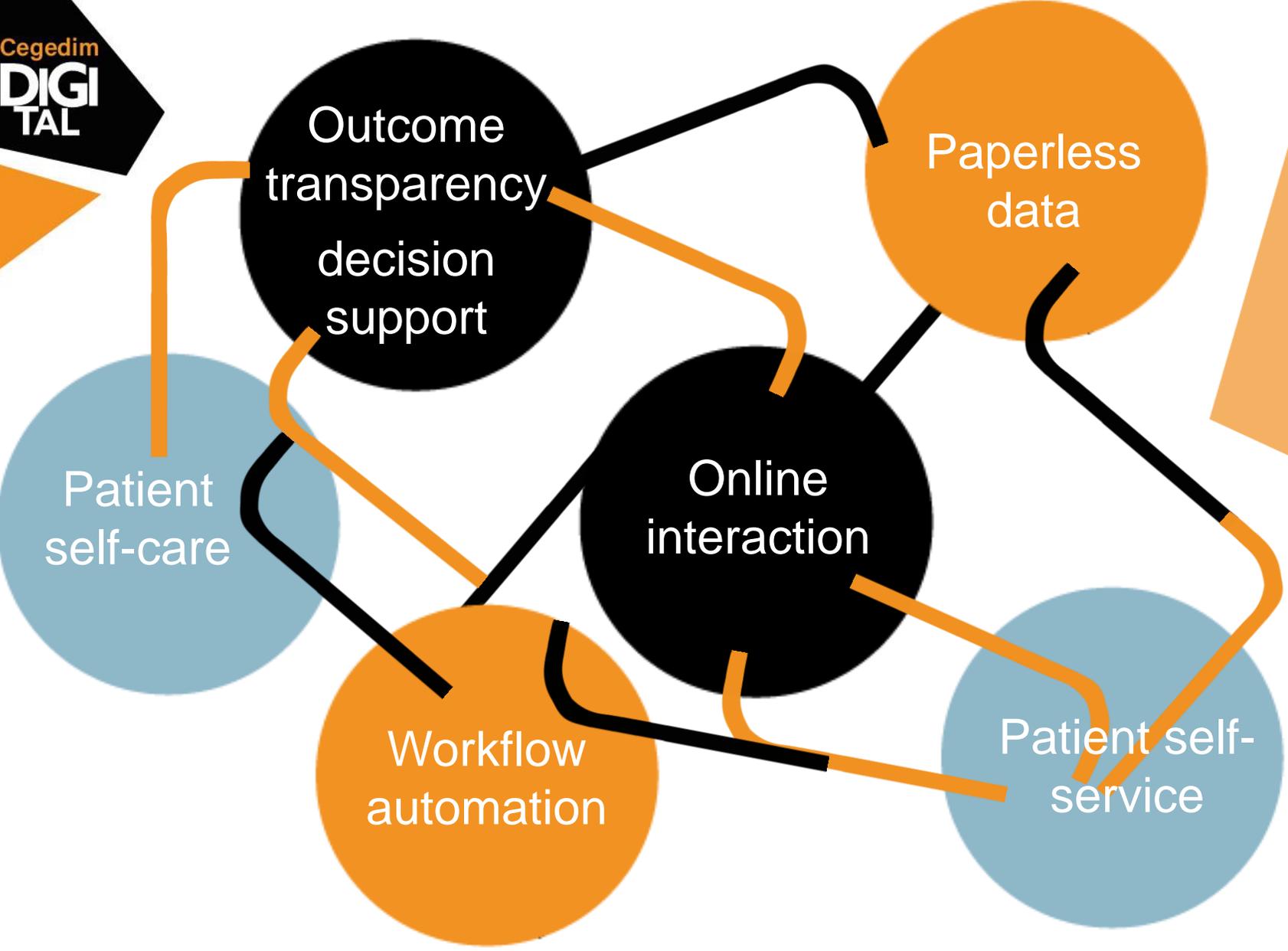


Global Digital Health market Revenue

Transparency market research: Digital Health Market (Product - Health Care Information Systems and Wearable Devices; Component - Hardware, Software, and Services; End User - B2C and B2B) - Global Industry Analysis, Size, Share, Growth, Trends and Forecast, 2017 - 2025

<https://www.transparencymarketresearch.com/digital-health-market.html>

**6 areas of
improvement
through digital
transformation**



Digital solutions helps



Cut Costs



Alleviate problems



Example of expected savings due to digital transformation

Potential value of digitizing healthcare in Germany

Digitizing healthcare-opportunities for Germany. Digital McKinsey October 2018

€34
billion

Up £13.7
billion

Expected savings by NHS from investment in electronic health records, digital services, and data out of a £127 billion forecasted healthcare budget by 2020–21

Tim Kelsey, NHS England's director of patients and information

- **Simplify complexity**
- **Eliminating complexity, offering clear information and automating parts of the routine tasks, freed up resources**

- **Growth patient engagement and responsibility**
- **Healthcare systems will increasingly take into account lifestyle and behavior**
 - **Live healthy and get rewarded**
 - **Live unhealthy and don't get awarded**

- **Security and patient data challenges**
- **Data is intensively used and transformational for the healthcare industry. Consequence: Security is a key priority**

Why digital is now crucial for private health insurers in Europe?

- A digital transformation can enable
- Private Health Insurers (PHI) in Europe to:
 - **Control costs**
 - **Attract new customers and retain existing ones**
 - **Influence the quality and quantity of delivered care**
 - **Transform how they interact with customers**
 - **Transform how they manage their organizations**

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Cegedim a partner **of
choice for the** digital
transformation **of the
healthcare sector**

Cegedim at Glance FY 2017

FRANCE-BASED COMPANY ESTABLISHED IN 1969

Cegedim is an **innovative technology and services** company in the field of **digital data flow management for healthcare ecosystems** and B2B, and a **business software publisher for healthcare and insurance** professionals.

2 OPERATING DIVISIONS

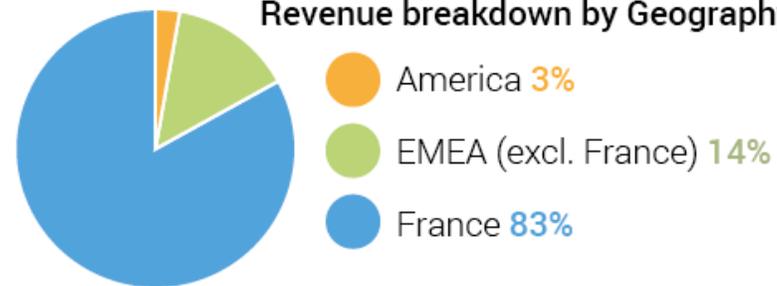


- Health Insurance, HR & e-services **64%**
- Healthcare Professionals **35%**
- Corporate & Others **1%**

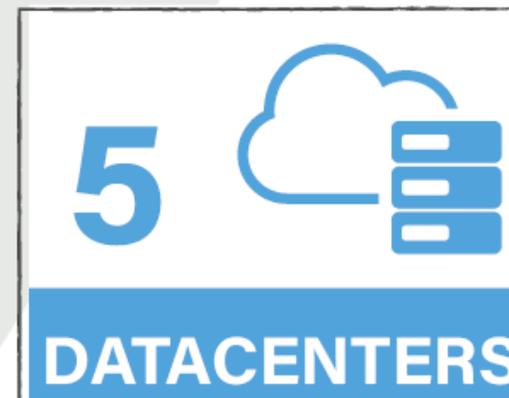
A GLOBAL PRESENCE



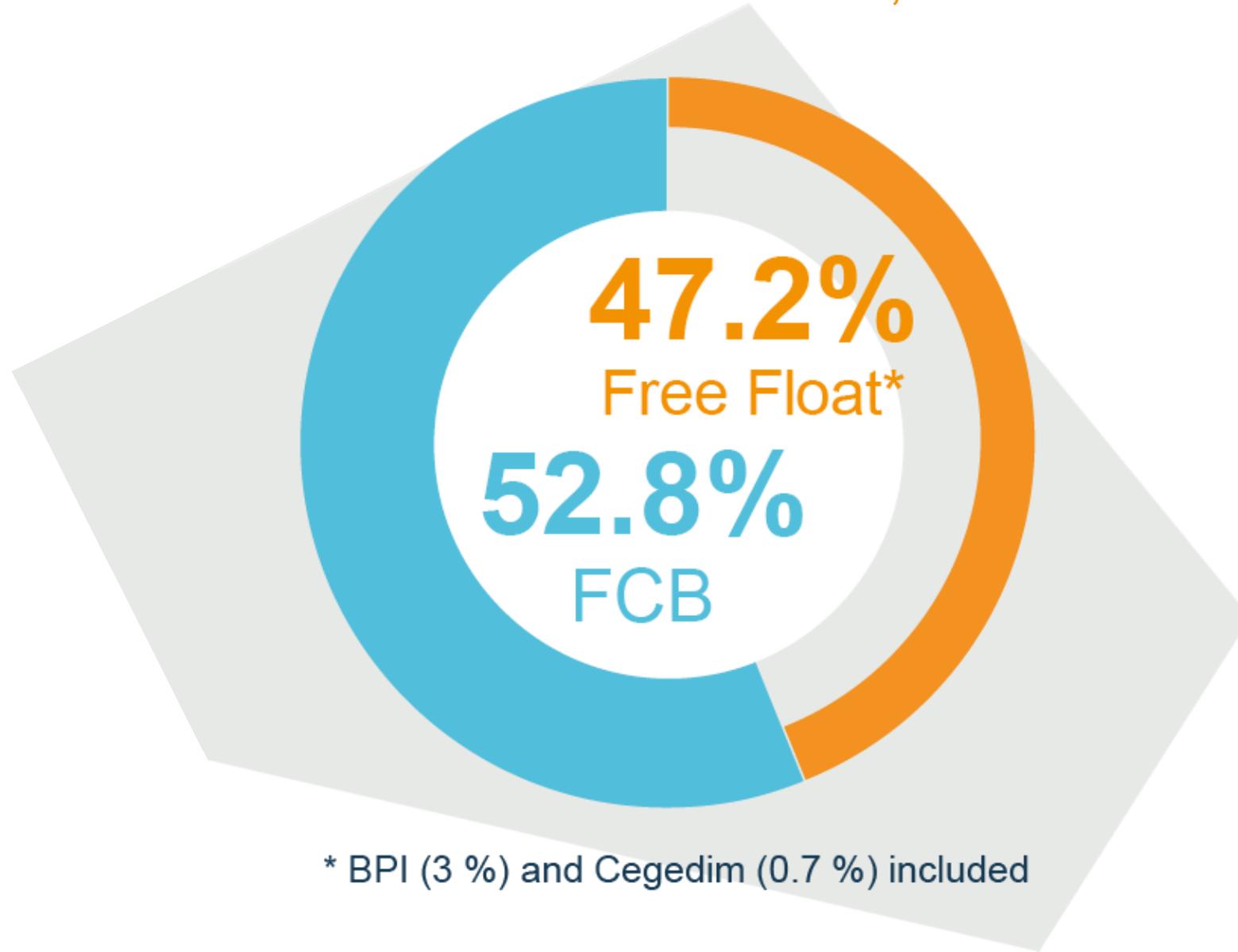
Revenue breakdown by Geography



Cegedim Key Figures

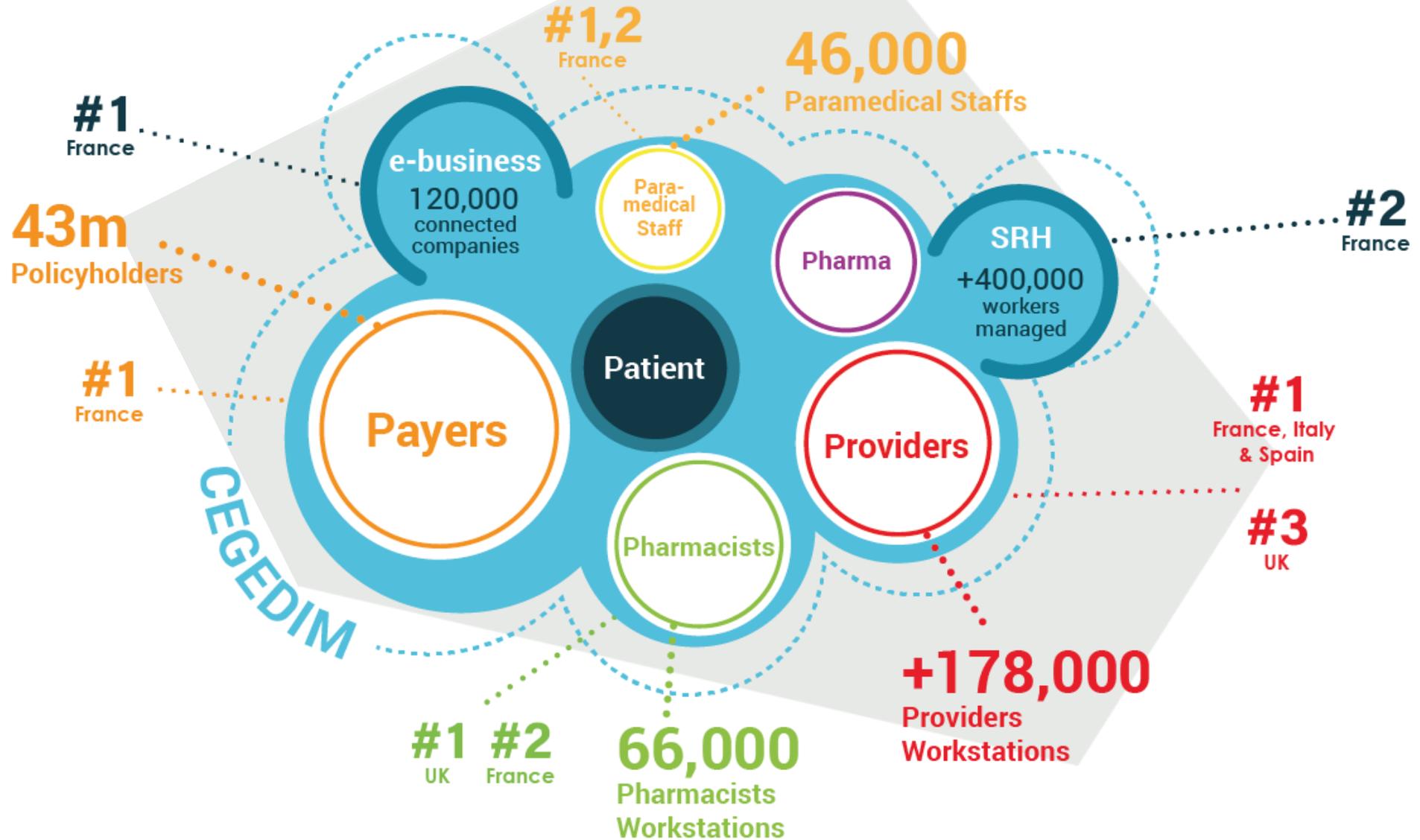


Shareholder Structure as of October 31, 2018



* BPI (3 %) and Cegedim (0.7 %) included

Cegedim: Unique Connected Healthcare Ecosystem



Cegedim: Key Facts



An integrated player
in the healthcare
ecosystem, with
leading positions on
niche segments



A successful business
model transformation



Strong R&D capacities
supporting innovation
efforts



Diversified clients in
longstanding relationships



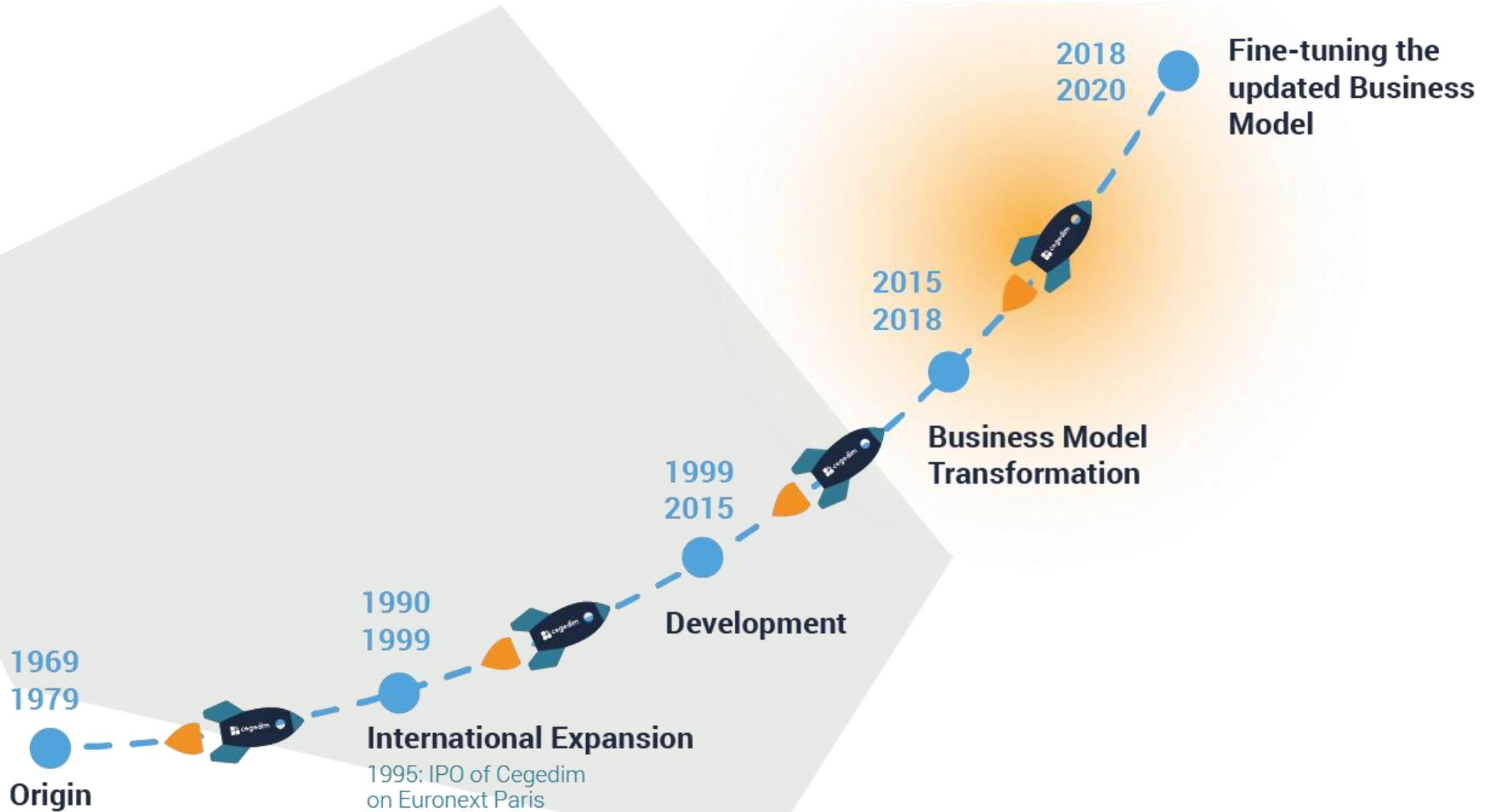
Long-standing majority
shareholder

Overview: Health Insurance, HR & e-services solutions

Product Division	Solutions	Key figures
 Insurance Solutions	Software Digital Solutions for preventive healthcare BPO services Third-party payment management	<ul style="list-style-type: none"> • 43 million persons managed • 3 billion health benefits invoices managed / year
 Digital and Data	<ul style="list-style-type: none"> + E-promotion + Digital communication + Sales statistics for pharmaceutical & HABA products 	<ul style="list-style-type: none"> • Network of 8,000 pharmacies in France
 HR Solutions	<ul style="list-style-type: none"> + SaaS platform for HR management + HR BPO services 	<ul style="list-style-type: none"> • for all industries • +250 clients
 e-business	<ul style="list-style-type: none"> + SaaS platform for electronic data exchange including payment and process digitalization platforms 	<ul style="list-style-type: none"> • for all industries • 2.9 billion euros paid
 Other services	Outsourced services	<ul style="list-style-type: none"> • 1 new BPO service center created in 2017

Overview: Healthcare Professionals Solutions

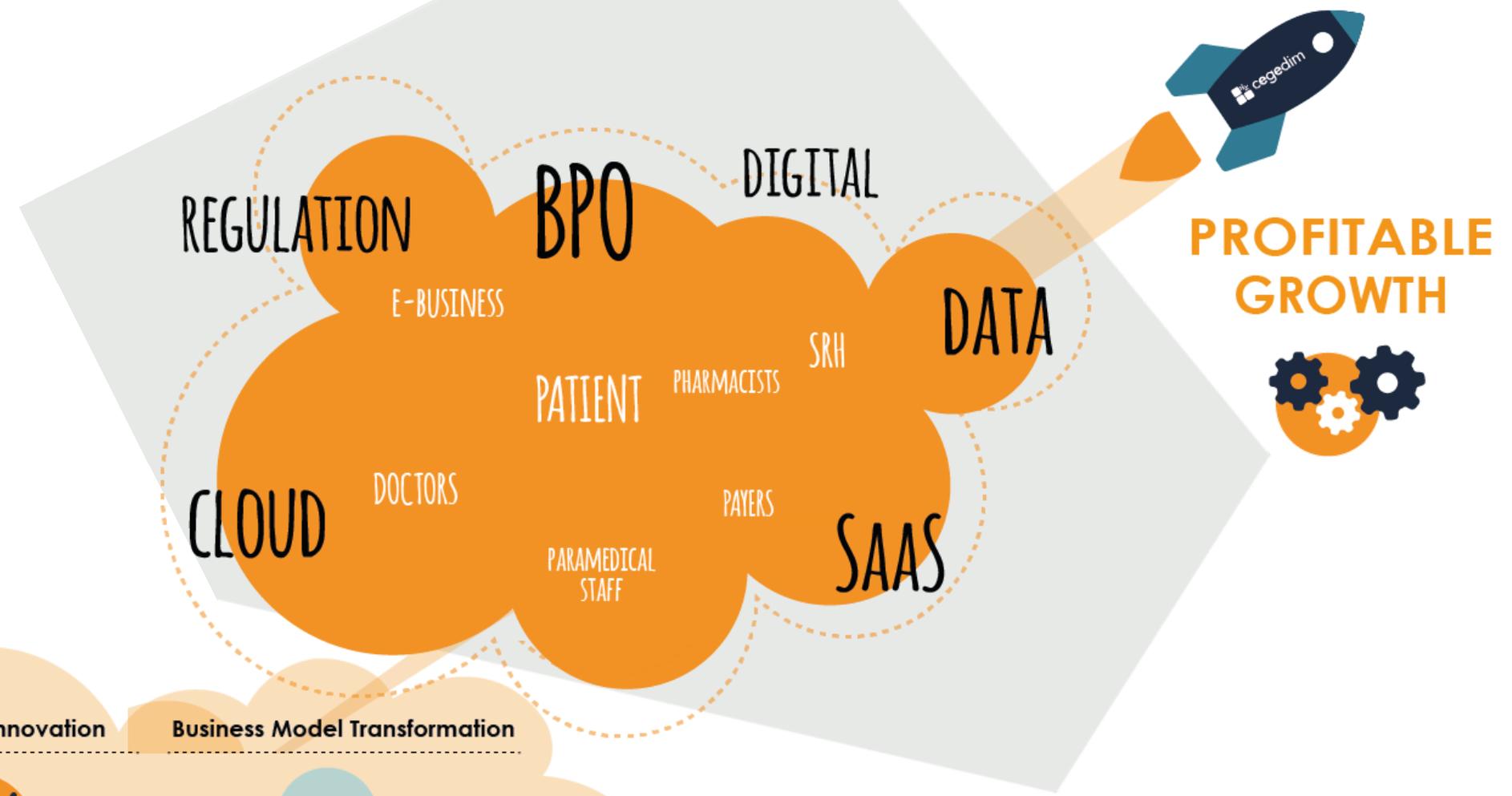
Product Division	Solutions	Key figures
 Pharmacy software	<ul style="list-style-type: none"> + Integrated software for pharmacy + Web solutions for patients monitoring and medical benefit reimbursement 	<ul style="list-style-type: none"> • 39% market share in the UK • 650 millions prescriptions managed / year in the UK with Cegedim Rx
 Doctor software	<ul style="list-style-type: none"> + Practice Management Software + Electronic patient record management, billing solution, Revenue Cycle Management SaaS/ mobile solutions 	<ul style="list-style-type: none"> • #1 France, Italy, Spain • #3 United Kingdom • 10,000 healthcare practitioners network in the US
 Paramedical software	<ul style="list-style-type: none"> + Practice management software + Mobility integrated solutions 	<ul style="list-style-type: none"> • 46,000 healthcare practitioners using RM Ingenierie Solutions in France in 2017
 Medication database	<ul style="list-style-type: none"> + Medication database + Development of apps and web portals providing access to the BCB database 	<ul style="list-style-type: none"> • A database used by Healthcare Professionals in 5 countries • Approved database by the «Haute Autorité de Santé» since 2008



Many Drivers Ensure Profitable Growth



Many Drivers Ensure Profitable Growth



Portfolio Management Investing in Innovation Business Model Transformation



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In practical terms, **how is Cegedim** revolutionizing the healthcare **industry?**

01

CHS

Stefan Janssens

President Cegedim Healthcare Software

02

**US Healthcare
Digital Transformation**

Kathy McClung

Practice Administration at OANO

03

**Telemedicine: Legal Framework
and Docavenue**

Eric Jarrousse, VP Strategy CHS

Arnault Billy, General Manager

04

Gers Data

Gilles Paubert, Global Head of Real World Data

David Syr, Managing Director Gers Data

05

Cegedim.Cloud: Digital trust builder

Frederic le Guillou, Chief Information Officer

06

Digitalization of company processes in and outside healthcare segment

Philippe Simon, CEO BU Cegedim Insurance

Pierre-Henri Comble, Head of Strategy BU
Cegedim Insurance

07

SY by Cegedim: Process Digitization in and outside healthcare segment

Benoit Garibal, General Manager



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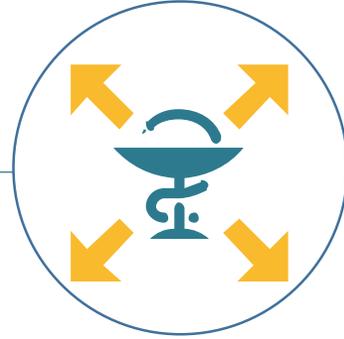
Success story

Stefan Janssens
President Cegedim Healthcare Software

Few KPIs



178,000
providers



66,000
pharmacies



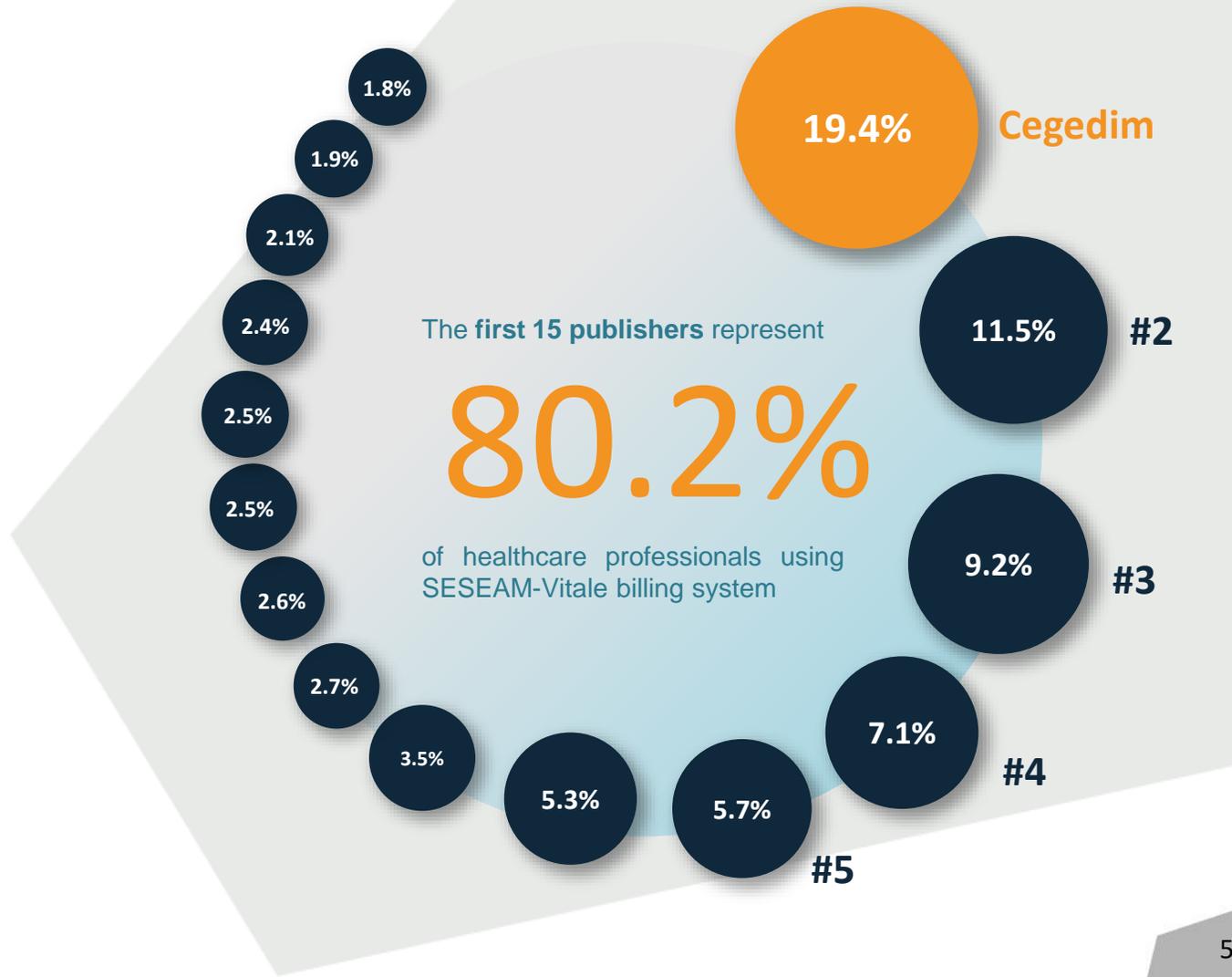
46,000
paramedics

- Activities in **11 countries**
- Only supplier that has an agreement with the 4 NHS bodies in the UK
- Cloud solutions across the board
- **28%** staff is in R&D
- All affiliates have certified solutions
- BCB in **5 countries**

Cegedim is the market leader in number of healthcare professionals using SESAM-VITALE invoicing system.

SESAM-Vitale publisher's market share in number of health professionals
(calculated at group level)

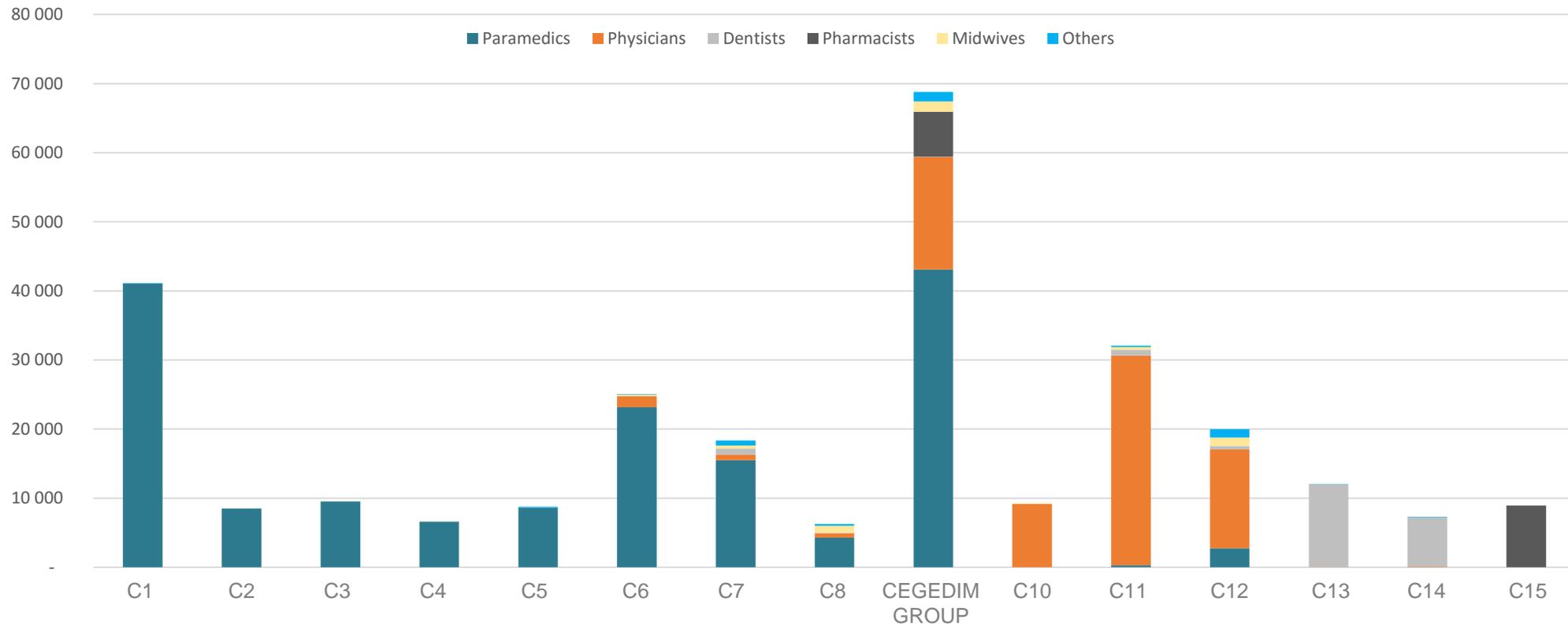
● This surface represents one percent of market share
Market survey performed by SESAM VITALE - 2017





Cegedim Healthcare Software FRANCE

Unlike its main competitors in France, Cegedim is not specialized in only one category of health care professional software. Through its three entities CLM, SMART RX and RM INGENIEERING, CEGEDIM addresses the vast majority of healthcare professionals software.

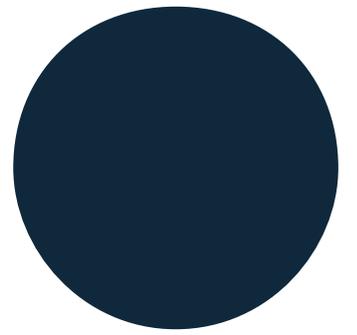


Market survey performed by SESAM VITALE - 2017

Organization

- The creation of the Software factory proves to be a success
- Increasing Nearshore/Offshore Teams and Quality
 - Romania
 - Morocco
 - India
- Ahead of our competitors with the creation of Docavenue (100 staff) and the launch of our teleconsultation solution
- CHS Organization responds to the rapidly changing Healthcare environment
 - Strategy to converge our solutions
 - Businesses in UK and Romania under the umbrella of 1 General Manager

- CHS supports clients:
 - to provide better healthcare services
 - to be more efficient
- A few examples of both



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**Better Healthcare Services:
CHS Solutions**

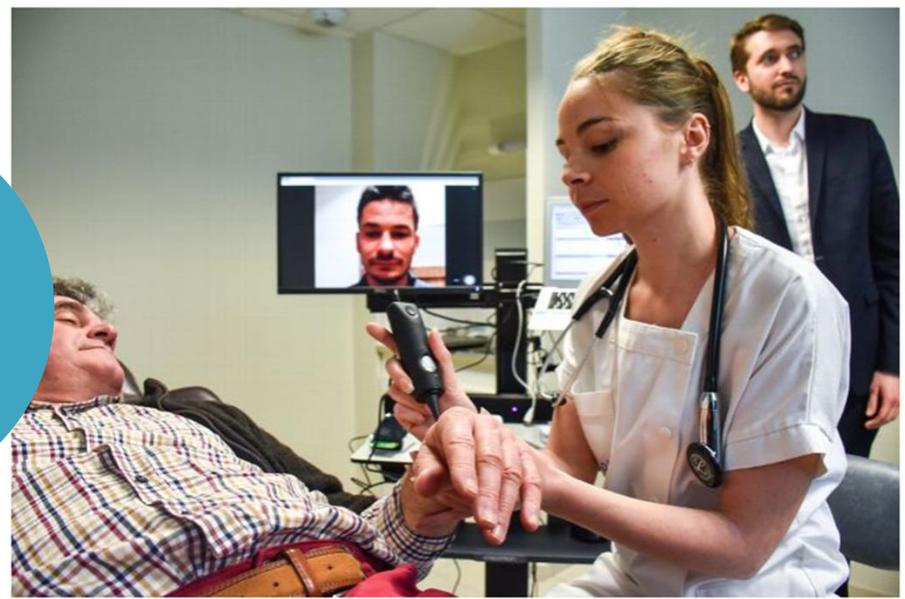
Assisted Teleconsultation France



The patient resides in an underdense medical area

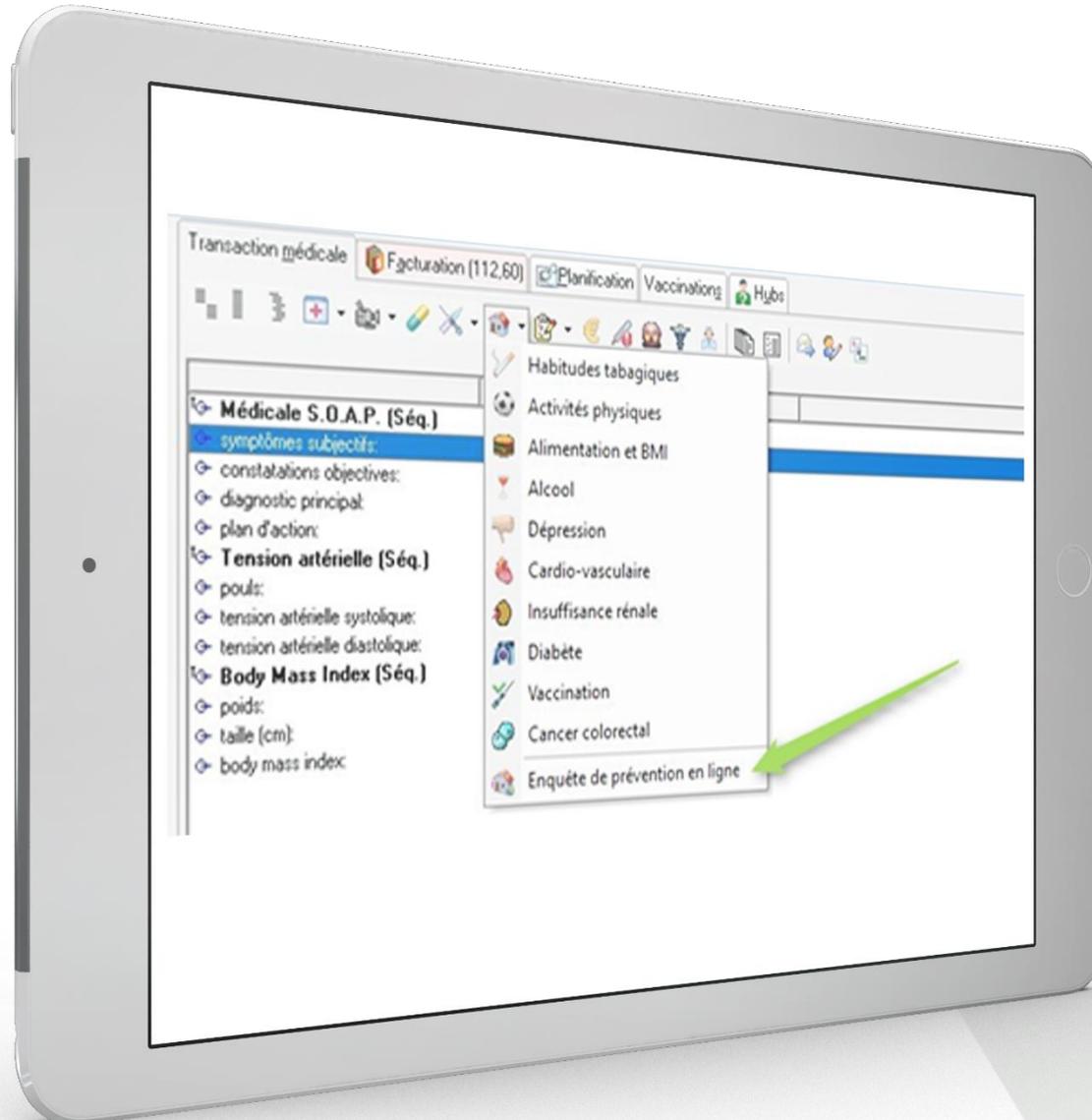


The patient is assisted by a nurse, the doctor is in a remote location



L'infirmière utilise les instruments connectés, sous le contrôle du médecin, via la webcam. © JB Dos

HDMP (Belgium)



- **Prevention Health Guide**, developed by the leading Doctor Organization (Domus Medica & SSMG)
- **Paper questionnaire** processed manually by the GP in his HER
- **Time consuming ... Result = Poor Prevention**
- HDMP created a **digital online version** of the questionnaire
- **Can be completed at home** or on a tablet in the waiting room of the practice
- **10 chapters** : smoking, diabetes, depression, alcohol, ...
- Patient is invited by email to complete the questionnaire

HDMP (Belgium)

Enquête de prévention en ligne

Le patient est déjà activé
Voici ce qui a déjà été complété 85%

Maladies cardiaques ou vasculaires	✓
Aide au sevrage tabagique	✓
Alimentation saine	✓
Activités physiques	✓
Consommation d'alcool	✓
Poids	✓
Dépression	✓
Détection de diabète	✓
Vaccination	—
Cancer du sein	✓
Cancer des ovaires	✓
Cancer du col de l'utérus	✓
Cancer de l'intestin	—

Fermer



- GP can follow status, and gets alert when completed.
- Answers will be integrated in the Prevention Module of the EHR

Depending on the Patient answers :

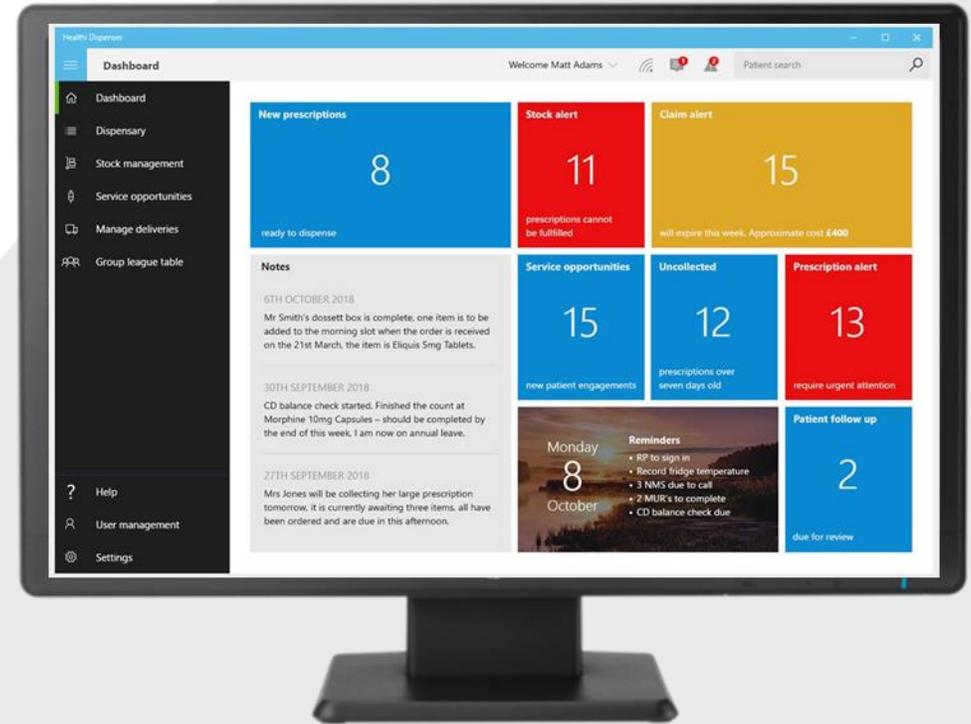
- More questions can be raised
- Guidelines are proposed to the GP

Cegedim RX UK

- **Healthi Dispenser** is Cegedim Rx's next generation dispensing platform

- Using Healthi Dispenser Pharmacists can:
 - **Have a centralized dashboard** that highlights the condition of the Pharmacy, so that any issues can be easily identified and addressed

 - **Use intuitive dispensing workflow** allowing pharmacists to dispense quicker allowing greater patient management



SmartRX 360 Pharma Groups Strategy



Options & Filtres

Résultats par Pharmacies - Dernier mois complet comparé à Année précédente

Pharmacie	Marge	% Evolution	Taux Marge	Taux Marge	# Ventes	% Evolution	Part	% Evolution	Quantité en Stock
Pharmacie 36	85.13 €	-51.99%	56.27%	36.01%	8	-34.29%	146 €	-0.33%	14
Pharmacie 45	199 €	-38.30%	131%	56.74%	11	-37.50%	65.28 €	-30.64%	13
Pharmacie 14	173 €	-60.46%	131%	56.62%	12	-25%	47.61 €	-42.01%	11
Pharmacie 42	137 €	-62.01%	133%	56.99%	9	-80%	68.97 €	-17.05%	10
Pharmacie 33	89.71 €	-26.96%	105%	51.25%	8	-100%	67.61 €	-24.08%	10
Pharmacie 29	79.05 €	-81.16%	56.57%	36.13%	9	-350%	95.40 €	-42.98%	8
Pharmacie 30	125 €	-73.49%	132%	56.95%	7	-41.67%	50.08 €	-49.37%	8
Pharmacie 13	-4.02 €	-108%	-2.97%	-3.06%	6	-200%	54.61 €	-51.93%	8
Pharmacie 0	0 €	-100%	0%	0%	0	-100%	0 €	-100%	8
Pharmacie 18	162 €	-71.16%	132%	56.95%	10	-9.09%	59.32 €	-48.54%	7
Pharmacie 3	0 €	N/A	0%	0%	0	N/A	0 €	N/A	7
Pharmacie 16	62.30 €	-58.64%	132%	56.95%	4	-20%	63.46 €	-22.91%	6
Pharmacie 21	37.41 €	-13.83%	133%	56.99%	3	-50%	36.18 €	-32.95%	6
Pharmacie 2	0 €	-100%	0%	0%	0	-100%	0 €	-100%	6
Pharmacie 34	98.13 €	-83.12%	128%	56.06%	7	-75%	64.74 €	-20.30%	5
Pharmacie 10	49.95 €	-77.49%	133%	57.07%	4	-20%	62.97 €	-35.61%	5
Pharmacie 7	49.54 €	-66.12%	130%	56.60%	3	-40%	56.64 €	-35.85%	5
Pharmacie 37	62.35 €	-0.45%	133%	56.99%	3	-40%	50.55 €	-20.26%	5
Pharmacie 40	12.47 €	-48.81%	133%	56.99%	1	0%	78 €	-0.33%	5
Total	1 690 €	-65.28%	59.15%	37.17%	179	-4.28%	67.43 €	-24.51%	203

Mode copie

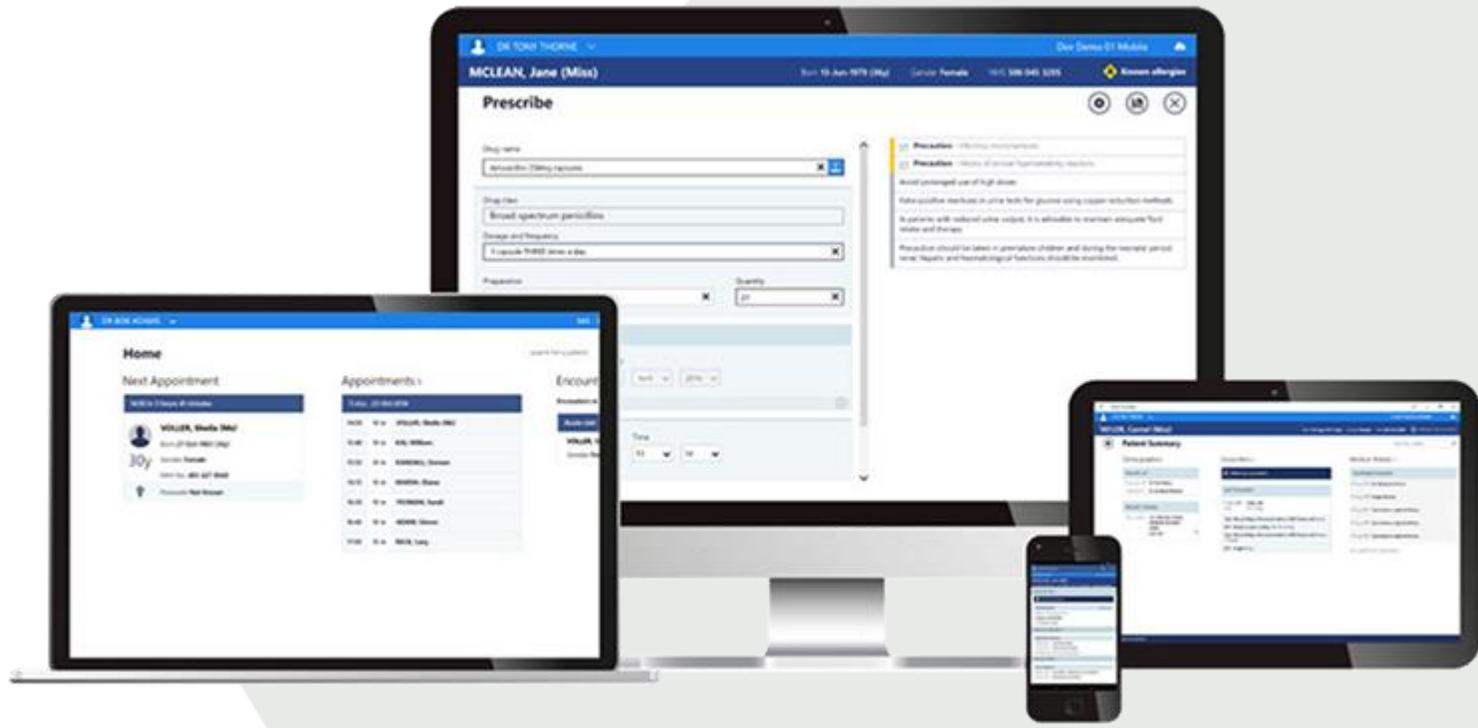


For the Pharma Groups:

- Real-time monitoring tool to support commercial strategy proposed by Pharma groups to their members
- Follow up of contracts / market
- Promotion tracking tool
- Margin follow up by range of product
- Competitors analysis

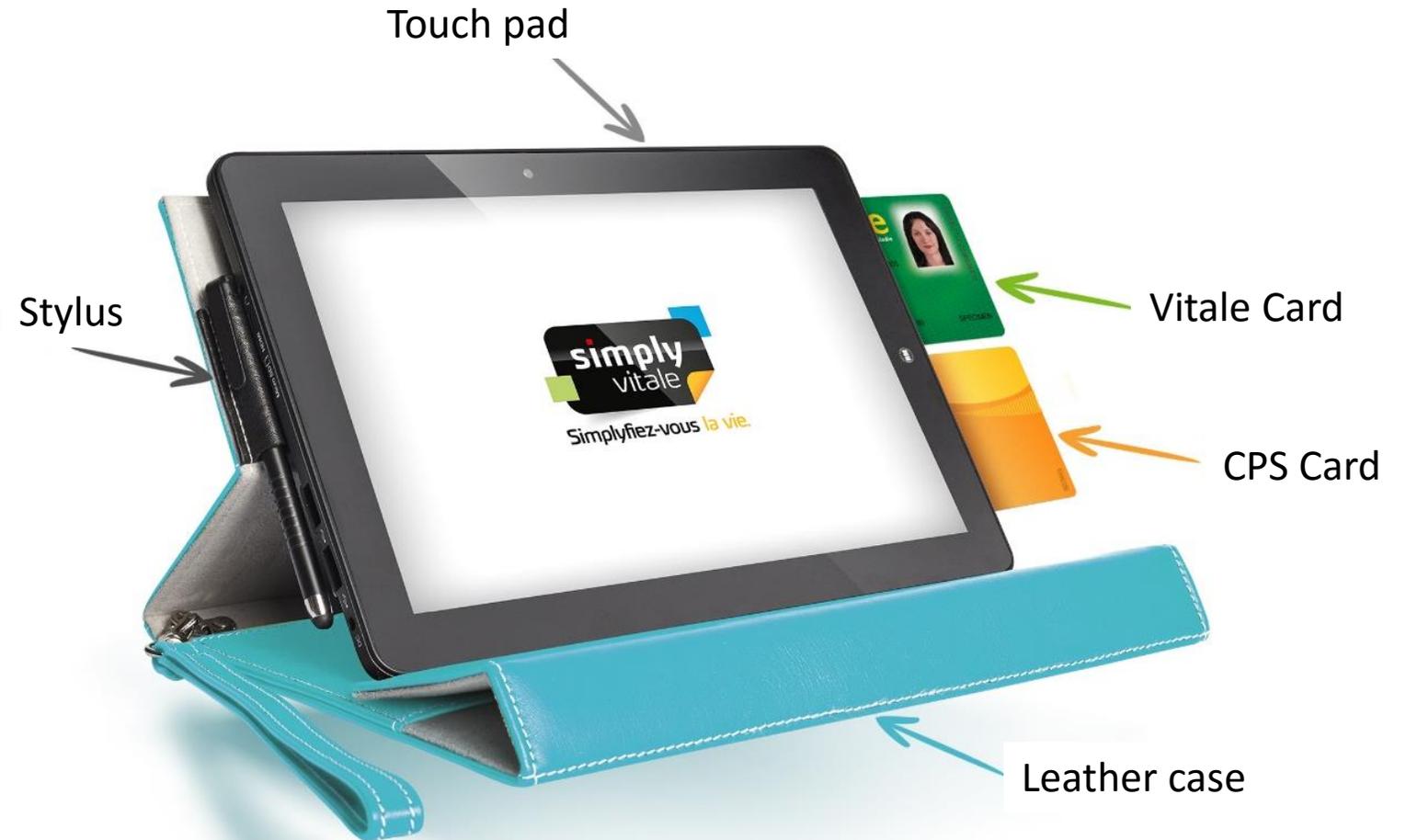
Vision Anywhere (UK)

- **Anytime, anywhere** access to patient records by desktop, iPhone, iPad, AndroidTM phones and tablets.
- The NHS Highland pharmacy team now uses Vision Anywhere during remote medication reviews to :
- Conduct the reviews from any location.
- Have sight of medical records
- Add details of interventions.
- Save on the need to travel to each GP practice to see their patients



Simply Vitale

- RMI : Twintab for Simply Vitale
- 2 card readers : CPS (healthcare professional) + Vitale card
- TwinTab 2 integrates a 4G card to allow access to the Cegedim telemedicine APIs from the patient's home



Improved efficiency

How to bring more service to our customers?

- Backup time is a wasted time
- The absence of recent backup in case of problems on the computer may have significant consequences (lack of medical data, missing billing elements, non-registered patients, ...)

Characteristics

- Daily backup in the background
- Cegedim Health Data Hosting
- History of 5 backups
- Monitoring & alerts
- User gain: 15min / day

médisauv
LA SOLUTION DE
SAUVEGARDE EN LIGNE





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US Healthcare Digital Transformation

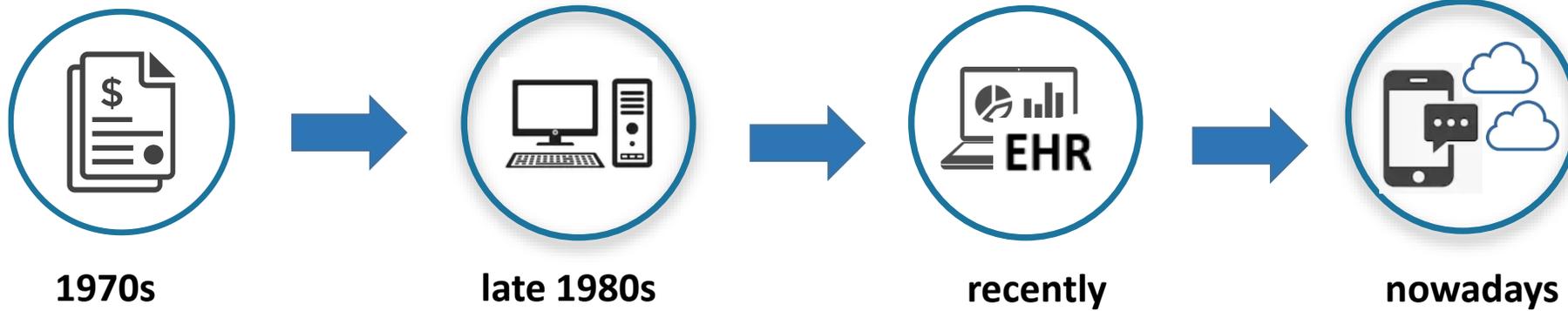
Kathy McClung
Practice Administration at OANO

Kathy McClung

- New Orleans, Louisiana
- 40+ years in Healthcare field
- Started in 1973 as a receptionist in a Dermatology practice
- Currently is Administrator for Orthopaedic Group
of 5 Orthopaedic Surgeons who execute 125 surgeries/month



Evolution of Medical Billing & Technology



Patients want the convenience of contacting a doctor's office.

(e.g. They text pictures of injuries and post of surgery incisions.)

Trends

- Demand for Cloud solutions reducing Total Costs of Ownership and business continuity
- Interoperability enabling physicians to manage end-to-end customer care
- Digital channels improving patient engagement
- Usability improving system utilization
- RCM robust reporting tools increasing business transparency
- Telemedicine improving patient access to medical service

Reasons for Cloud Technology

- Security
- Compliance
- Mobility
- High Availability & Redundancy
- Ease of management
- Hardware Agnostic
- Disaster Readiness
- No Server Maintenance, or Servers at all!
- Minimal Intervention

US Healthcare Landscape



- Regulations:

- MACRA: Merit-based Incentive Payment System (MIPS) and Alternative Payment Models (APM)
- HIPAA: Health Insurance Portability and Accountability Act on processing of Personally Identifiable Information



- Growing Costs of Healthcare Service Delivery:

- High-deductible health plans
- Patient responsibility and Co-pay
- Co-building risk-based premiums



- Market Consolidation:

- Consolidation of practices with each other
- Merges with hospital systems

US Physician Practice Challenges



OANO Experience

- In 2017 Orthopaedic Associates merged with four other Orthopaedic groups in New Orleans.
- Major reason was to avoid acquisition by a hospital entity.
- The merger was Louisiana Medical Group, LLC (LMG).
- Pulse was engaged with LMG and did a great job.
- Orthopaedic Associates ended participation with group after 8 months, due to lack of transparency...
- Stayed with Pulse to avoid impact on productivity and revenue.

OANO and Pulse Partnership

- Cooperation started in 2013.
- OANO is a Revenue Cycle Management and Technology customer.
- Started using Pulse Cloud in 2018 that *reduced total costs, increased user enablement and ensured business continuity.*
- Very user friendly...*training time for new or current employees has decreased tremendously.*
- Developed very special relationship

Benefits of Digital Transformation



Stronger Practice

Improved Patient Service

Increased Revenue

More Savings

Better Communication

Efficient Management



Cegedim DIGI TAL

Legal framework and opportunities in the remote consultation market in France and abroad in 2019

Eric Jarrousse
Vice President CHS in charge of Strategy

01

Remote consultation: legal framework

02

Opportunities in remote consultation

Cegedim

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TAL**

Remote consultation: legal framework

The legal framework for remote consultation

- Around a decade ago, most countries decided **to allow healthcare professionals to treat their patients remotely.**
- In some countries, such as **France and Portugal, national law defines both the legal framework and eligible procedures.** In others, such as the US and Canada, regulation is handled by professional bodies and/or may differ from state to state.
- Most countries without a national legal framework have issued non-binding standards or guidelines.
- Lastly, national healthcare models, i.e. predominantly public (Denmark) or private (US and Canada), affect the legal framework and development opportunities for RC. In the US, for example, 50% of companies offer their employees telemedicine services.

The legal framework for remote consultation

Every country is trying to limit potential risks related to:

- **Verifying patient and practitioner ID**, practitioner qualifications, and patient consent;
- **Procedures for referrals** to/from the remote doctor and interaction with other doctors, for example the patient's treating physician;
- **Personal information and medical record** confidentiality and security;
- **TIC equipment reliability**, including network reliability and image quality;
- **Incorrect diagnosis or treatment**, for example due to the lack of a physical exam or poor image quality;
- **Writing prescriptions** remotely without an appropriate exam or access to a patient's medical history.

The legal framework for remote consultation

In France: remote consultations (and four other telemedicine procedures) were first authorized in 2010 but were not yet reimbursed, apart from ETAPES projects. As of September 15, 2018, “Remote consultations for all” became a part of ordinary law, provided the consultation follows the prescribed Course of Care.

- Patients must have visited their treating physician (TP) in person within the past 12 months.
- If the patient has no TP or if the patient’s condition requires them to see a doctor before the TP is available, they may conduct a RC with another doctor in the health system’s Territorial Organization, such as at a multidisciplinary health facility (MSP) or a regional professional healthcare community (CPTS).
- Exceptions include patients under age 16 and specialists that may be seen directly (gynecologist, dermatologist, psychiatrist, etc.).

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TAL**

Opportunities in remote consultation

Opportunities in remote consultation

- More than 3 million patients in less populated areas no longer have access to care, and 25% have stopped going to the doctor.
- Shortages in the medical profession will get worse over the next decade: the workforce has shrunk by 9% since 2007, and in 12 departments the decline is greater than 20%.
- The way healthcare professionals are being organized is paving the way for remote consultations because certain procedures can be delegated. The first Advanced Nurse Practitioners will be certified in 2020, along with 4,000 Medical Assistants, which will bolster this trend.
- The government's MaSanté 2022 plan calls for 1,000 regional professional healthcare communities (CPTS) nationwide by 2022. The CPTS will be the second option for coordinating remote consultations, after the treating physician.

Opportunities in remote consultation

- Of the 18 million annual emergency room visits in France, 80% are for a simple problem that could be handled by a PCP.
- In an opinion requested by the Minister of Health, France's National Authority for Health said that no clinical procedure should be outside the bounds of remote consultation. Rather, eligibility requirements should be decided case by case.
- In the immediate term, the potential market for remote medical consultations is estimated to be around 24 million procedures annually.



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 docavenue

Teleconsultation in motion

Arnault Billy
General Manager

01

What's our ambition

02

What's timeless in daily medical practice management for HCPs?

03

What's evolving, at last !

04

Docavenue Teleconsultation
... in motion

2019& more: Strategy & Ambition

Our mission / Why do we do Docavenue ?

Help HCPs focusing on their Patients care

How do you do Docavenue ?

Making HCPs players of innovation

Smoothing a flawless care pathway

Improving the patient access to healthcare

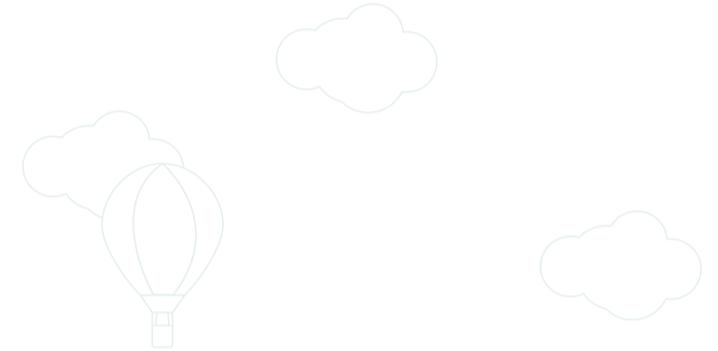
Building an innovative team sharing the same values

Which services?

An ecosystem of services simplifying the daily life of HCPs, starting with booking appointment and TeleHealth

One ambition:

By 2021, become the leading digital healthcare assistant solution for HCPs





STERN
TRUST Co

Timeless:
HCPs running
after the clock



**Timeless: HCPs
keeping on having
patients on the
phone...**

What's evolving
#1 technology



Even though you always keep **the link with your patients**



So the technology will enable you to:

- Still perform a true consultation
- In a regulated way, in line with the new Health convention from Sept 15th
- Including video so it helps to be more reliable and create human relation
- In a securised and HDs environment
- Monetization
- Gain time and efficacy



Ready
for the demo?





Cegedim DIGI TAL



How data is driving digital transformation

David Syr
Managing Director Gers Data

Gilles Paubert
Global Head of Real World Data

01 Gers Data, the French data solutions for HCP digital's application

02 **2 examples of digital solutions for HCP**
1. Pharmacists: Smart-RX 360 for pharmacist
2. Physicians: Rare diseases detection program

03 **Cegedim Health Data: a global team for a global RWD brand "THIN"**
(The Health Improvement Network)

04 **An example of an European solution: identification of patients with long-term conditions**

If the Health Data Hub already exists !

Agnès BUZYN has launched the prefiguration mission of « Health Data Hub », a lab to harness the health data 12/06/2018

➔ ... The first mission of the « Hub » will be to ease the enlargement of the SNDS to clinical data



THIN
THE HEALTH IMPROVEMENT NETWORK

The reference Real World database

By  **GERSDATA**

GERS Data follows the « 3 Q » rule

- The data :
 - 4 millions of patients in 2018
 - ~7 years of history per patient
 - Fully irreversibly anonymized

- The patient life line over the time :
 - Diagnostic
 - Prescriptions
 - Drugs dispensing
 - Hospitalization
 - Lab test

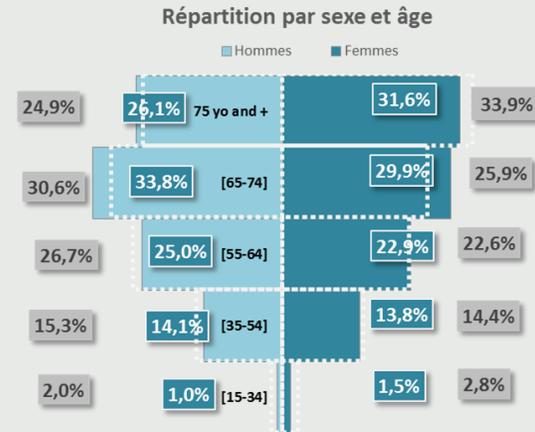
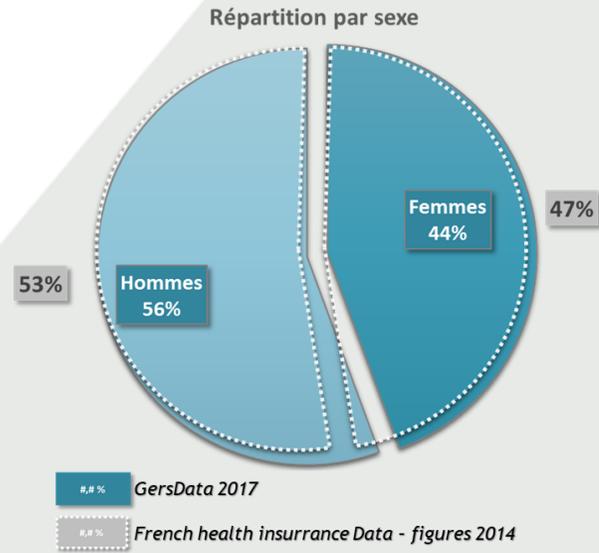


GERS Data is also used by health authorities (CEPS...)

Reimbursement

Patients DT2 active in 2017 - GP's Annual results

113 376 patients - 4.2% prevalence (vs. 4.1% in France en ⁽¹⁾)

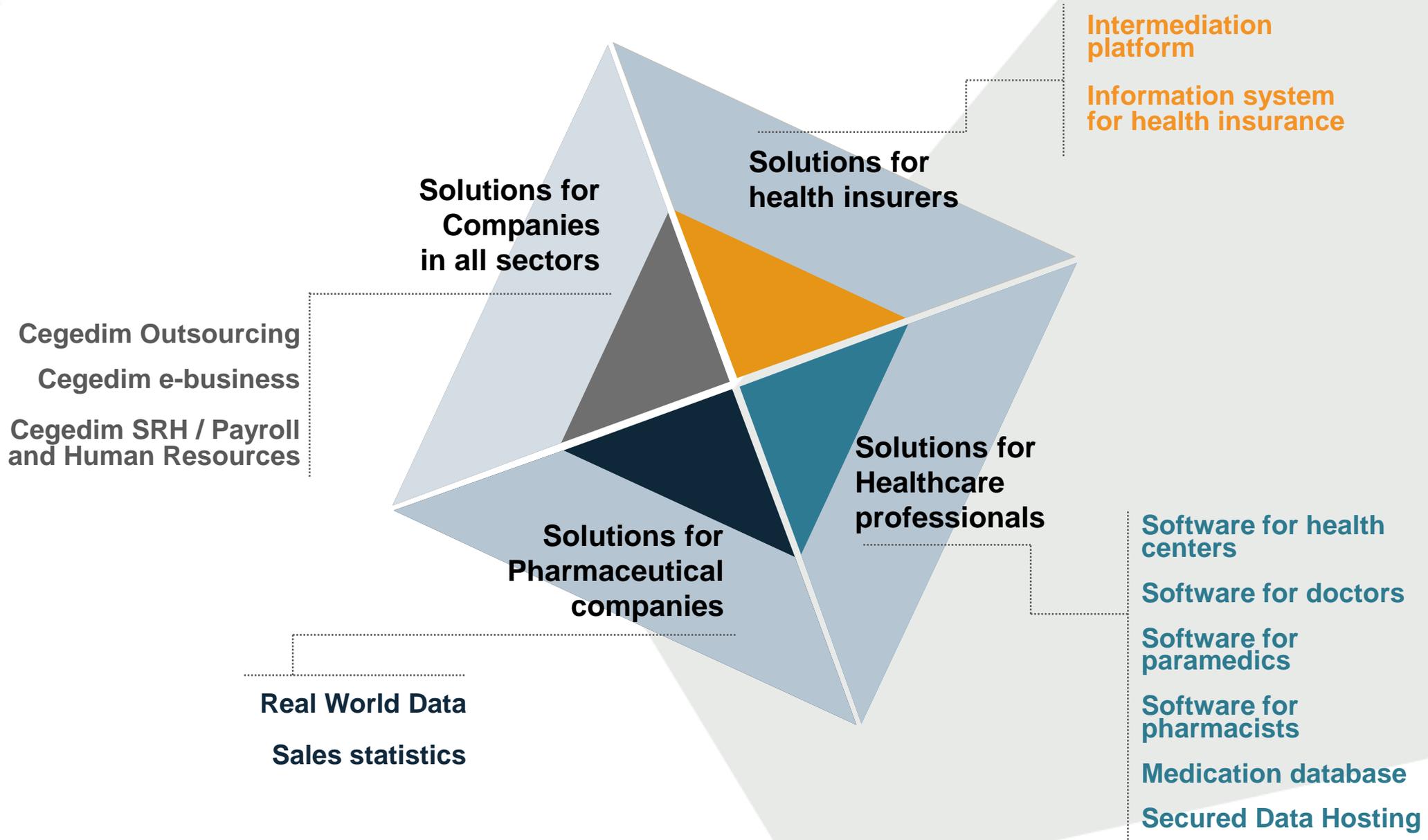


Average age: 67 years old (vs. 66 years old ⁽¹⁾)
 Patients > 75 years old : 26% (vs. 29% ⁽¹⁾)

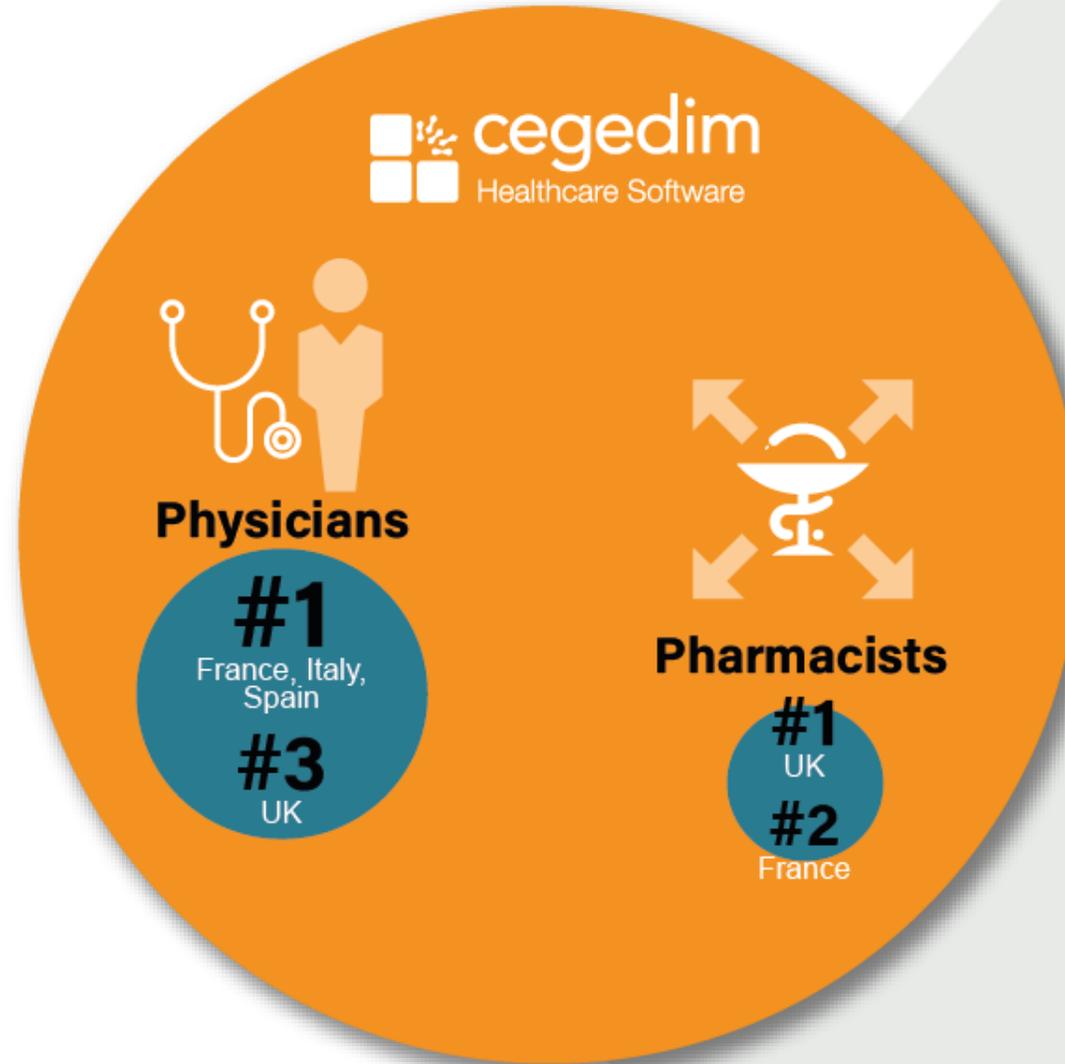
(1) Source : Pathology sheet update 08/08/2016 CNAMTS/DSES/DEPP & DEOS c



Gers Data and HCP's software are part of Cegedim activities

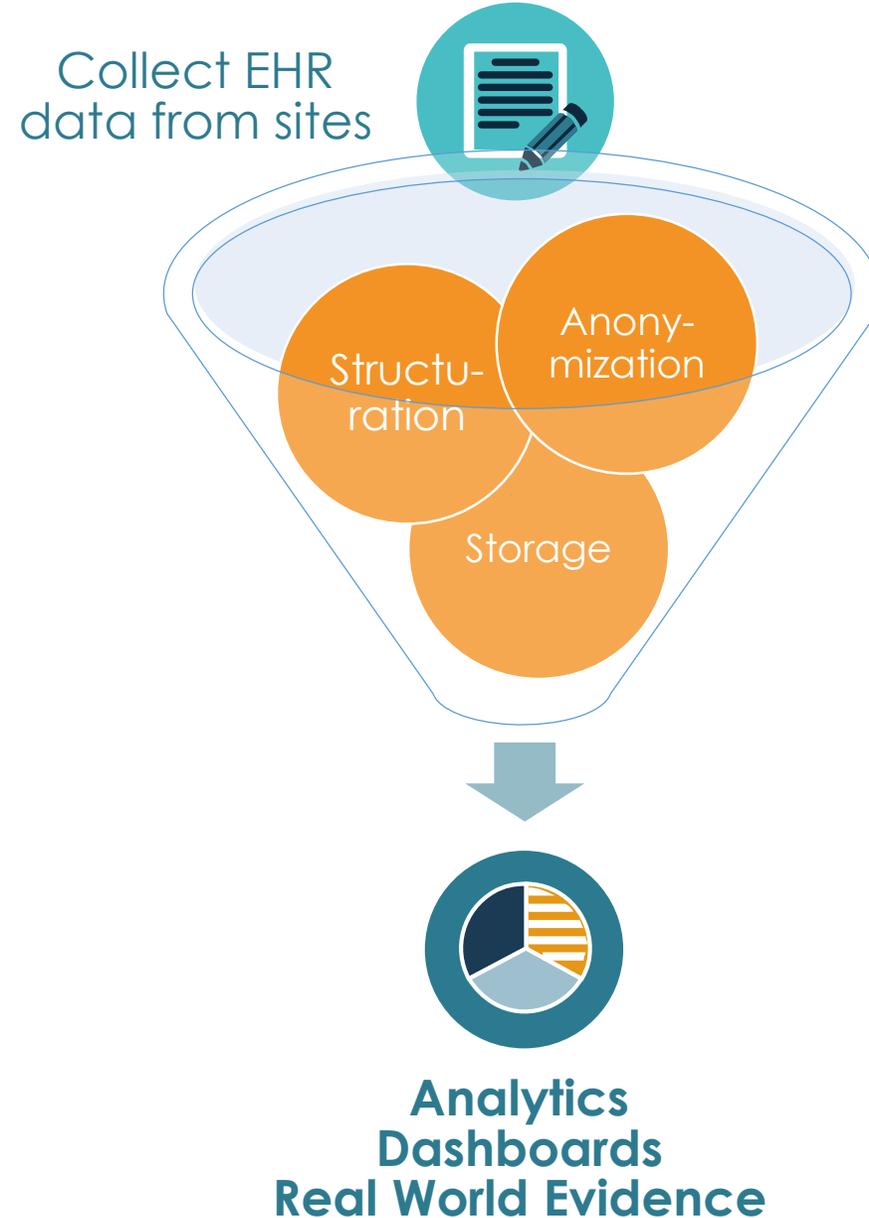


Cegedim HCP's software leading market position and main health data provider in France



GERS Data, a dedicated R&D team to produce high-quality real world data

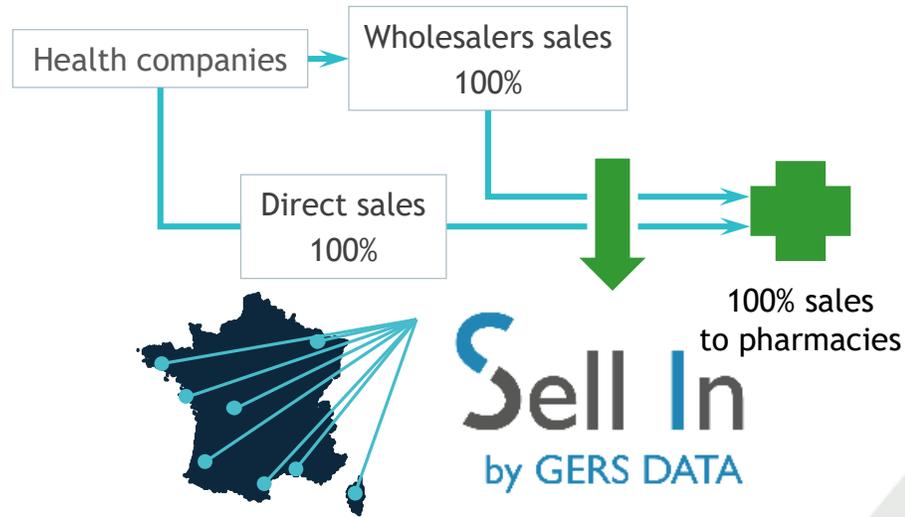
- Because Cegedim has a deep IT and software expertise, we are able to **collect, structure and produce** patient database, **available immediately** for the users
- The Cegedim databases **complies** with the relevant applicable **data protection laws**, are **fully anonymised** and data collection is subject to a **contract**



THIN[®]™ is a Cegedim - proprietary database and registered Trademark

Actionnable data from pharmacists software to increase the precision of the Sell Out GERS

An unique view thanks to the Sell In GERS



100% of pharmacies

- Reimbursed drugs
- OTC
- Medical devices
- Food supplements
- Dietary
- Dermo-cosmetic
- Etc...

An augmented precision with the Sell Out GERS

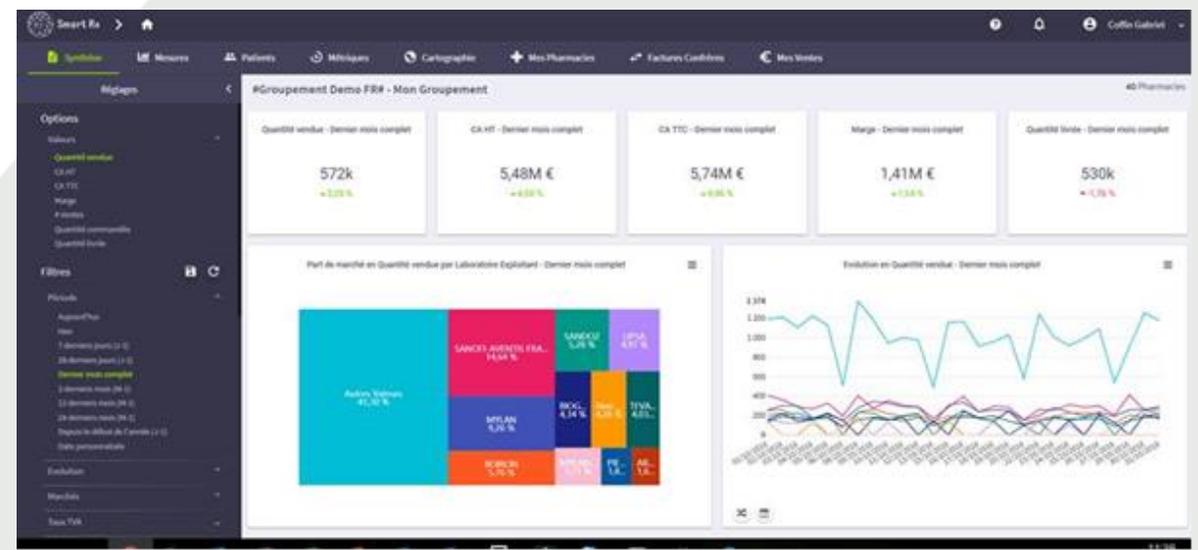


10 632 Pharmacies under contracts with CEGEDIM

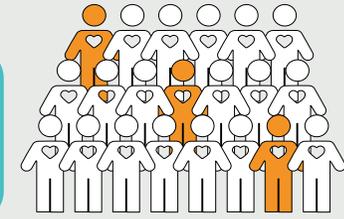
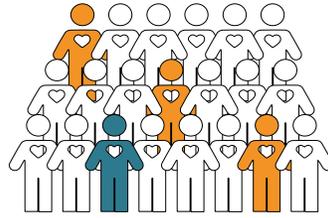
- Purchases
- Sales

For 100% « market » references sold in pharmacies

Actionnable data for pharmacists' activities in France: Solution Smart-RX 360 pharmacists groups



An example of actionable data for physicians' activities in France



Identify **diagnosed** patients into THIN

Help physician to **make a decision** for new patient management

Analyze **medical history, characteristics** of diagnosed patients



Implement the **algorithm** in HCPs software

Define an **algorithm** based on **triggering criteria**

- Rare diseases detection



23,000 physicians,
incl. **14,500 GPs**

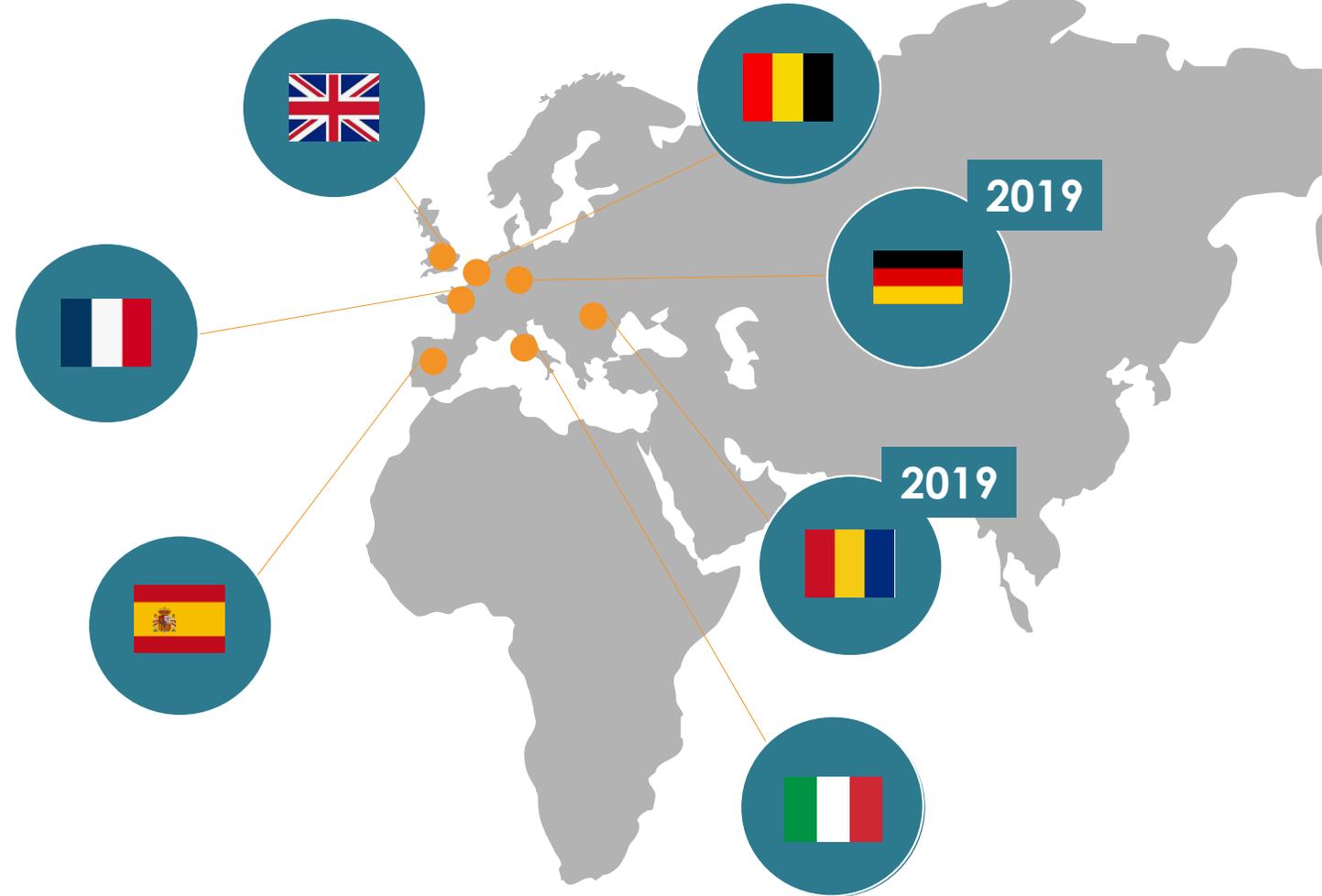
Cegedim Health Data: a key player in Europe

THIN
THE HEALTH IMPROVEMENT NETWORK

> **54 M** patients (FR/UK)
> **5,4 M** active patients since **1994**
~**7** years of history per patient
An **immediate access** to data for
AI applications & action

Anonymized Data reference for

- **Health Authorities** in FR and UK
- More than **600** publications



The Cegedim databases complies with the relevant applicable data protection laws and are fully anonymised

THIN[®]™ is a Cegedim - proprietary database and registered Trademark

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recipient is prohibited

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Digital transformation drives changes in the international data environment

- Thanks **Big Data technology**, the system is able to store a bigger amount of data from several countries
- The **Artificial Intelligence** applies on THIN transforms Real World Data into action, for HCP's and patients.
- Health Big Data and AI implemented at software level help **to develop**:
 - Patient records sharing between HCPs
 - Patient Pathway Optimization
 - Rare diseases detection
 - Population Health Management
- As requested by Pharmaceutical Companies & Health Authorities

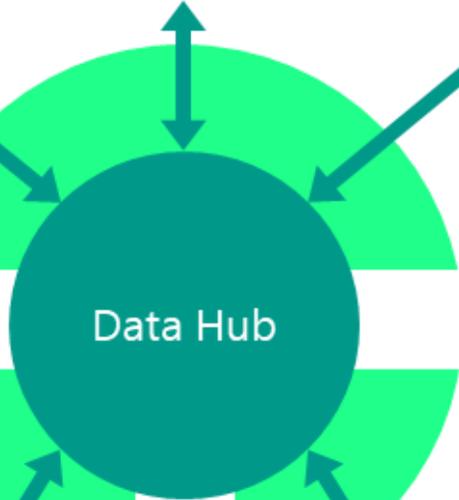
Share patient records with Physician software in UK: How does it work ?

GP Practices



Sharing agreements control the data that the local GPs agree to share.

Sharing agreements control the data available to each local service.



Data Hub



Nurses working in treatment rooms



Physiotherapists

1. **Consultation details** are streamed from the GP practices into the Data Hub. This is an ongoing autonomous background process
2. **Sharing agreements** control the data that the local GPs have agreed to share
3. **Service providers**, such as nurses working in hubs or treatment rooms, or physiotherapists access relevant medical information during episodes of care
4. **Sharing agreements** control the data available to each local service
5. **Details of the care** provided by local services are sent back to the patient's GP practice via the Data Hub

Share patient records with Physician software in UK: influence change !

- Vision's patient record sharing is allowing community nurses in the rural village of Letham to improve care for local patients.
- **Access to healthcare services has improved, the utilization of the nurse-led clinic has quadrupled, and the community nurses' caseload has halved.**

Improve access for rural communities. Save time and ease pressure on GPs.

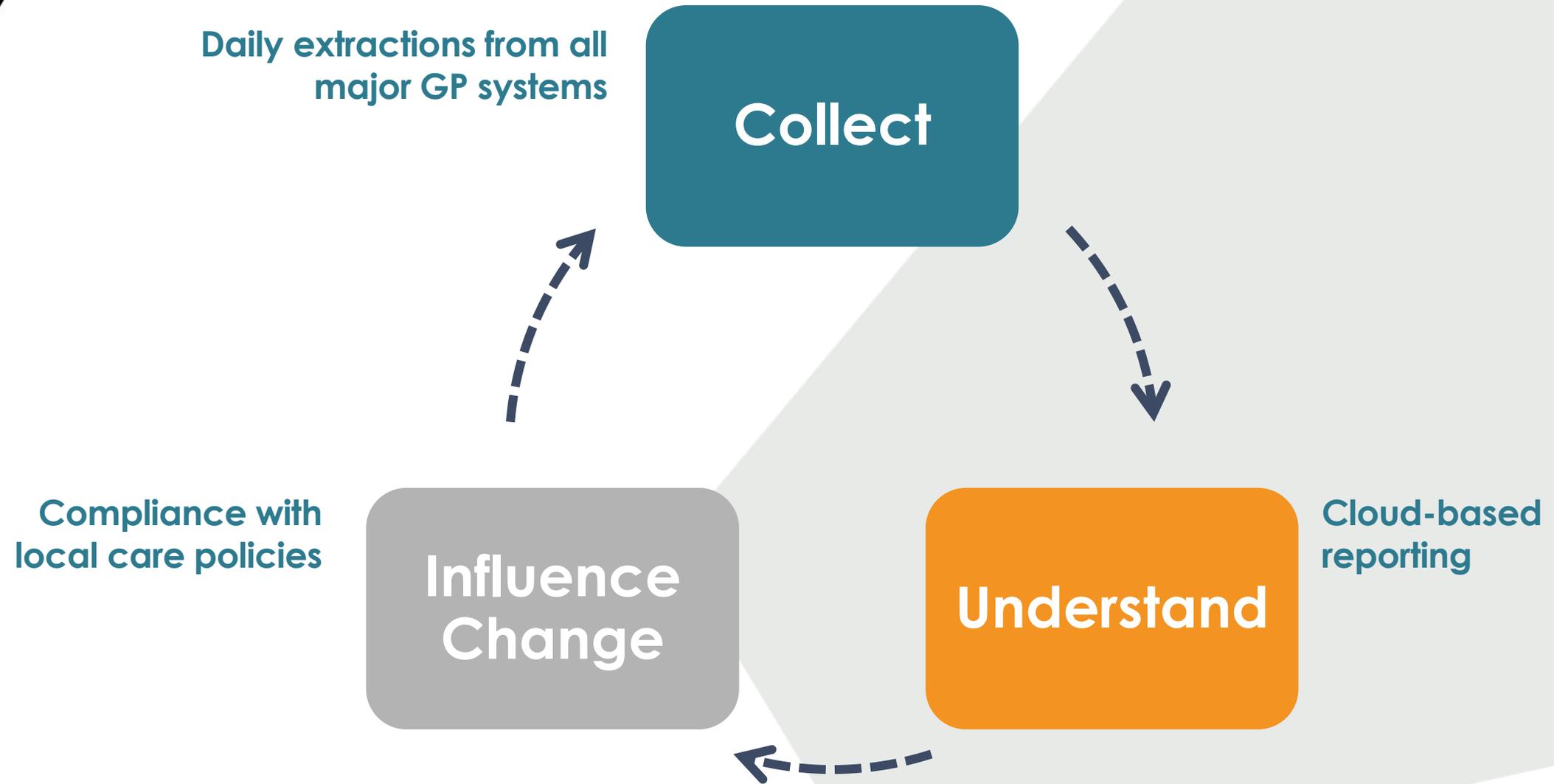
Sharing medical records with community nurses.



vision
A Cegedim Brand

Intelligent Healthcare.
www.visionhealth.co.uk

Population-level healthcare in UK: how does it work?



Population-level healthcare in UK: influence change!

Outcomes Manager in action at a NHS CCG level

Outcomes Manager enabled NHS Greenwich CCG to effortlessly identify an additional 4,000 patients with long term conditions, reducing health inequalities and increasing life expectancy in the borough.

“ I was really impressed with how up-to-date data from all of our 39 practices across the borough was available for me to review in one central dashboard enabling me to track progress on the identification and review of patients with long term conditions and ensuring accurate service payments were made.”

Jan Matthews, Director of Commissioning at NHS Greenwich CCG



Cegedim DIGI TAL

cegedim.cloud

Digital trust builder

Frederic Le Guillou
Chief information Officer

Critical services operator

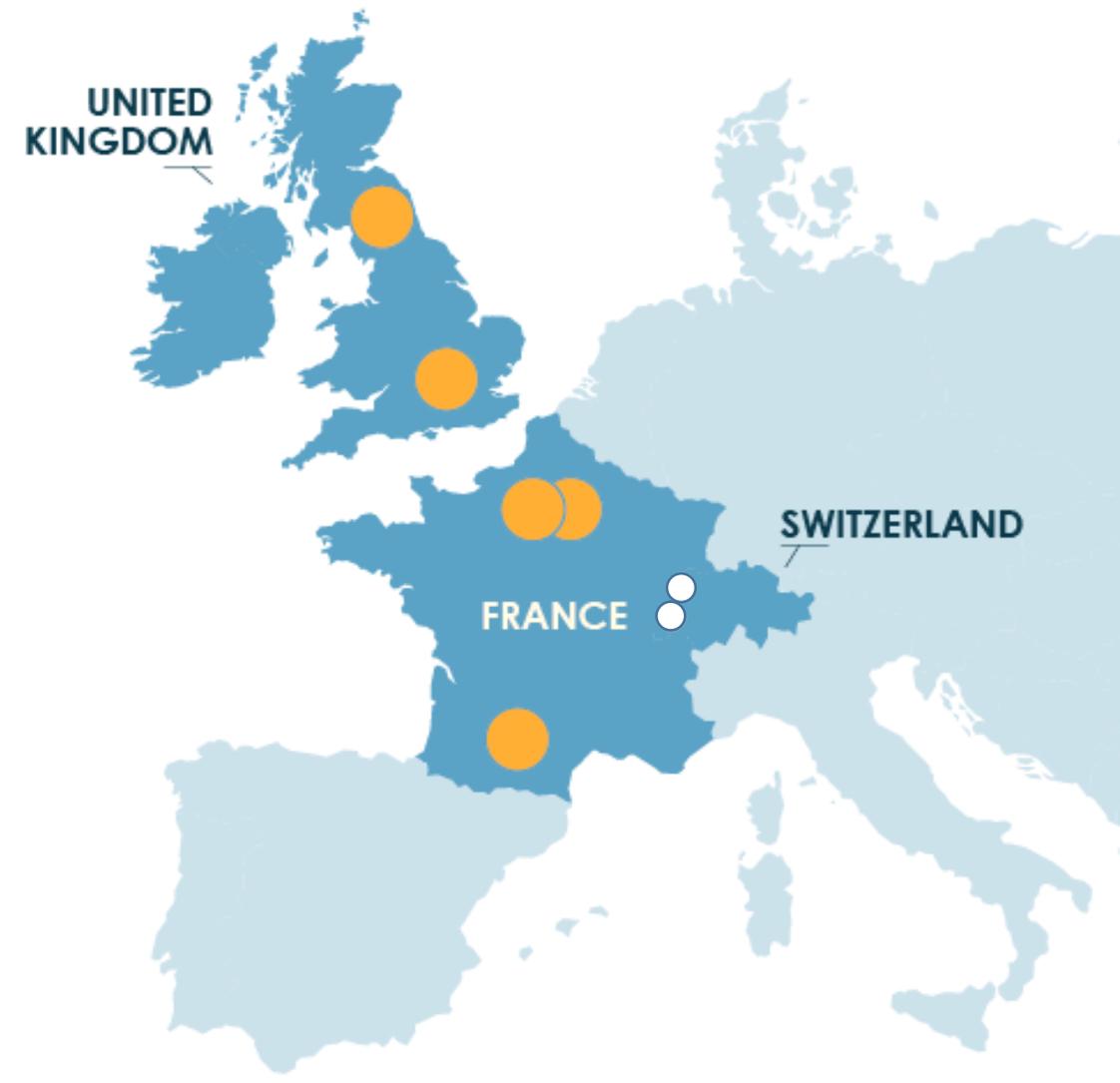
- **6 datacenters** with 3 in France
- **Infrastructure** « Best of breed »
- **French TelCo operator** (CGIT registered to the ARCEP)
- **122 headcount**
- Multiples agreements and certifications



Datcenters France



International presence



○ Coming soon

Key figures



cegedim.cloud: our offer

Hosting

- 10 Compute / Storage
- 10 Managed/Secured platforms as a service (Databases...)
- 10 Application management and user experience monitoring

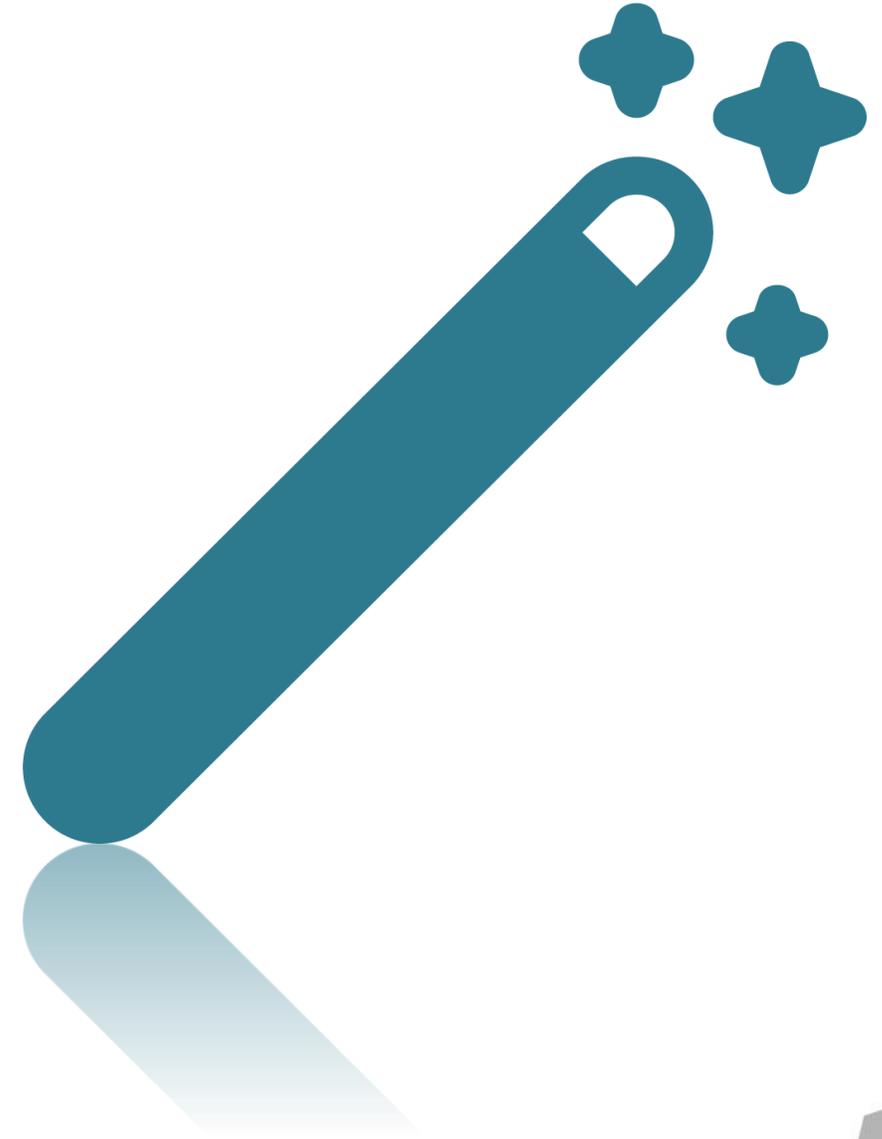
Solutions

- 10 Telco / Internet Provider
- 10 Data and file exchange services
- 10 SMS broker
- 10 Cloud Storage

Professional Services

- 10 Cloud Solution Architecture
- 10 Outsourcing
- 10 SaaS Maturity Coaching
- 10 FinOps
- 10 Security and Compliance

cegedim.cloud
performed its own
digital transformation
3 years ago !



Five pillars as foundations

▪ **Customer Engagement**

- Give them what they dream of !
- Be the catalyst that fuels their innovation

▪ **Operational Performance**

- Self care : divide by 10 the time to market of SaaS application
- Automate everything, including Scalability / Performance / Availability / Security / Compliance
- Predictable and optimal cost to master business model

▪ **Change Management**

- Support and empower staff in the in-depth change of the strategy

▪ **Cutting-edge technology**

- Encourage and enhance the innovation and creativity of developers
- Data-driven : Artificial Intelligence / Machine Learning
- Partnerships with the major IT players

▪ **Security and compliance by design**

- Anticipate and influence security standard evolution
- Report in real-time security status to customers and users.

Digital Transformation Enabler

- **Helping our customers with our own experience in digital transformation**
- **Understand and contain Cyber-Risk**
 - Regulation Knowledge (Cloud Act...)
 - Cutting-edge Security By Design
- **Have a predictable cost model**
 - Build business models
 - Leverage Cloud capabilities (Pay per use paradigm)
- **Business Process Digitalisation requires Change Management**
 - Bring Awareness through trainings
 - Continuous feedback gathering
- **Adaptive and agile service offer (technology and services)**
 - For your customers : from a pharmacist to international group
 - For your company : from a start-up to a leading software publisher

Digital Transformation Enabler

- **A strong experience at the service of the thirties Cegedim Group BU's digital transformation**
 - **cegedim.cloud** services agility and scalability to enable transformative re-engineering of business processes
- **An experience exported beyond Cegedim Group boundaries ...**
 - through direct **cegedim.cloud** offer
 - Already engaged with more than 50 external customers
- **A wide range of customers that allows cegedim.cloud to be always at the forefront and an activator of innovation**

To help them to build the **digital trust** required by their own customers



Cegedim DIGI TAL



Digitalizing company processes in the healthcare segment and beyond

Philippe Simon
CEO Cegedim Insurance Solutions BU

Pierre-Henri Comble
Head of Strategy Cegedim Insurance Solutions BU

01

Ongoing trends

- Our 2016 vision
- What's new in 2018?

02

Market impacts

03

How Cegedim Insurance Solutions is responding

Just like music, film, and photography, healthcare is being disrupted by digital technologies



- Paired with the rise of the internet, these new technologies allow real-time information sharing and provide users with the information they need, when they need it
- The array of communication technologies and formats available today is truly stunning
- Against this backdrop, this presentation aims to show:
 - The lasting impact of these disruptive trends
 - How they are affecting our markets
 - The new products and services they have made possible at Cegedim Insurance Solutions

Ongoing trends...

Our 2016 vision (word for word)

- Rethinking the scope of supplemental health insurance policies with the concept of “responsible” insurance policies
- Online third-party payments expanding
- Market reaching maturity with respect to business process outsourcing (BPO) amid mounting pressure on management costs
- Enhancing personal health data protection (cf. GDPR)



Better results through patient empowerment!



Previously unavailable to all HCPs



Automation (self-care, chatbot, etc.) **is making inroads into Health insurer operations**



Making the processing, access, and use of personal data more secure

Ongoing trends...

What's new in 2018?

- **Growth** in data flows continues
 - Corporate data (DSN social data reporting) is following in the footsteps of invoice data
- **Artificial intelligence**, backed by Big Data, is “infiltrating” management information systems (IS)
- **Customer relationships** are developing through multiple channels

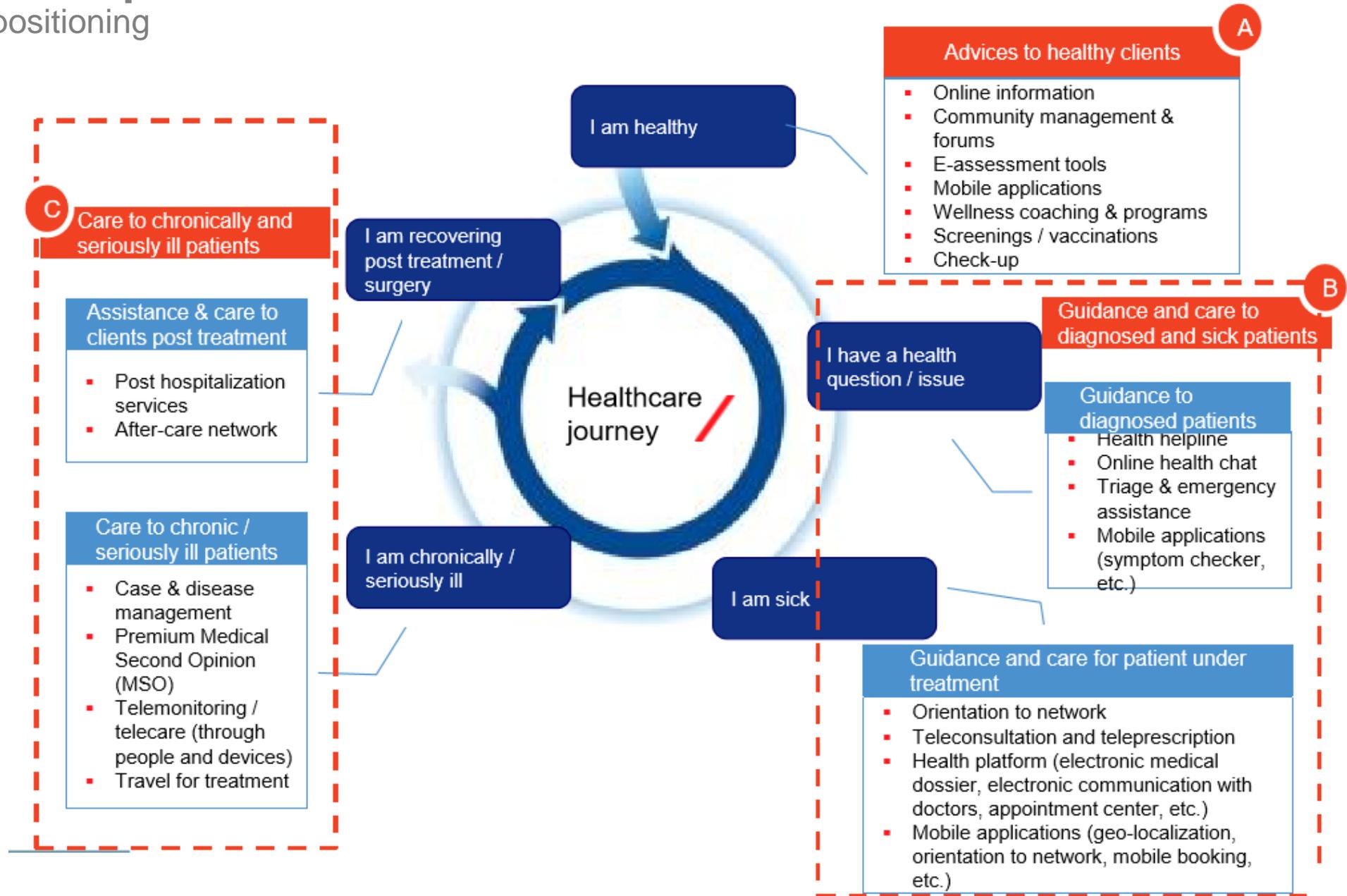
Companies are becoming clients in their own right, alongside HCPs

IS now incorporate algorithms that go beyond the rules of traditional management

IS need to offer the same level of service across all formats available to users

Market impacts

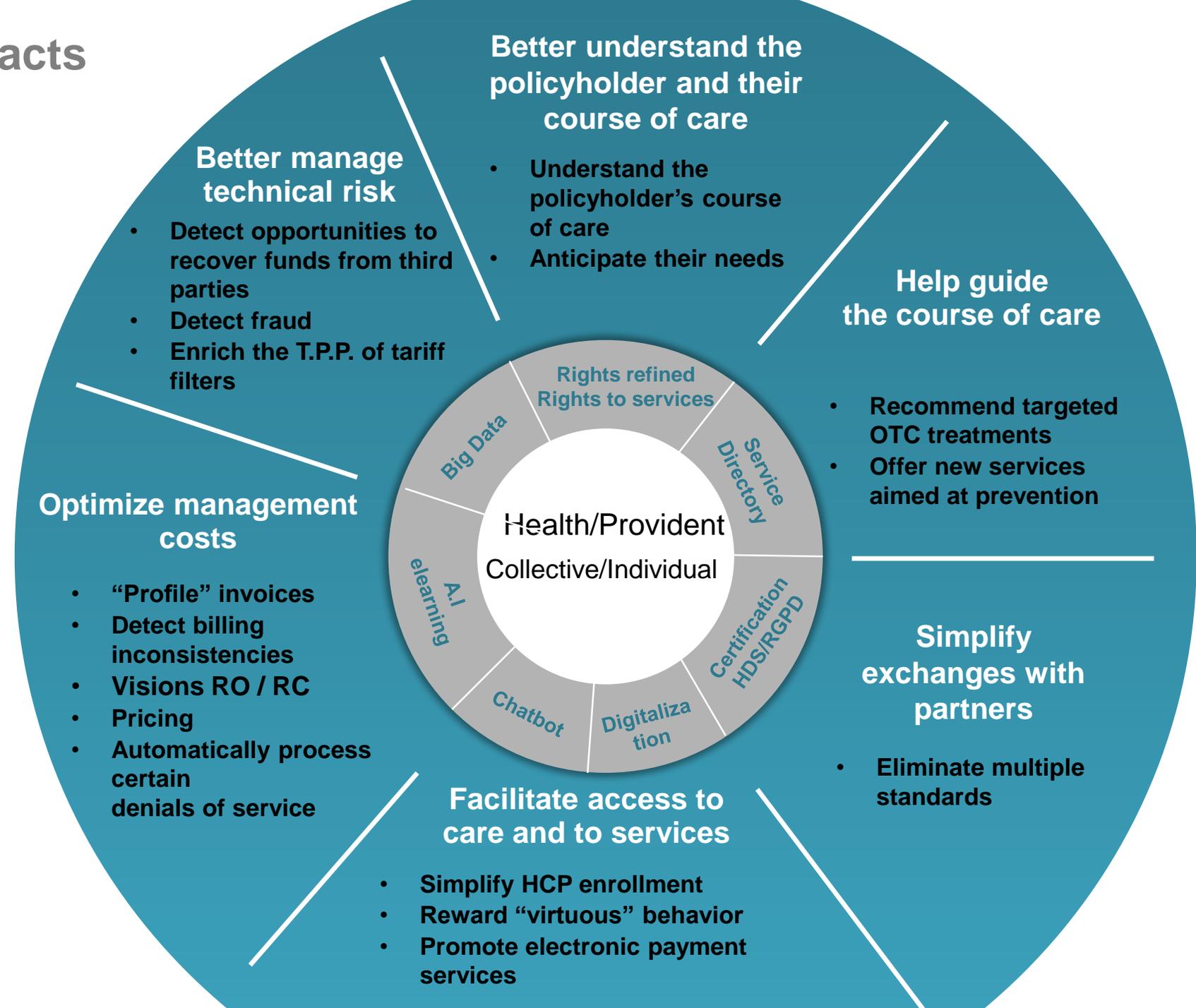
New positioning



Source : Axa, 2nd Healthcare Insurance Innovation Summit – Vienne 2017

Market impacts

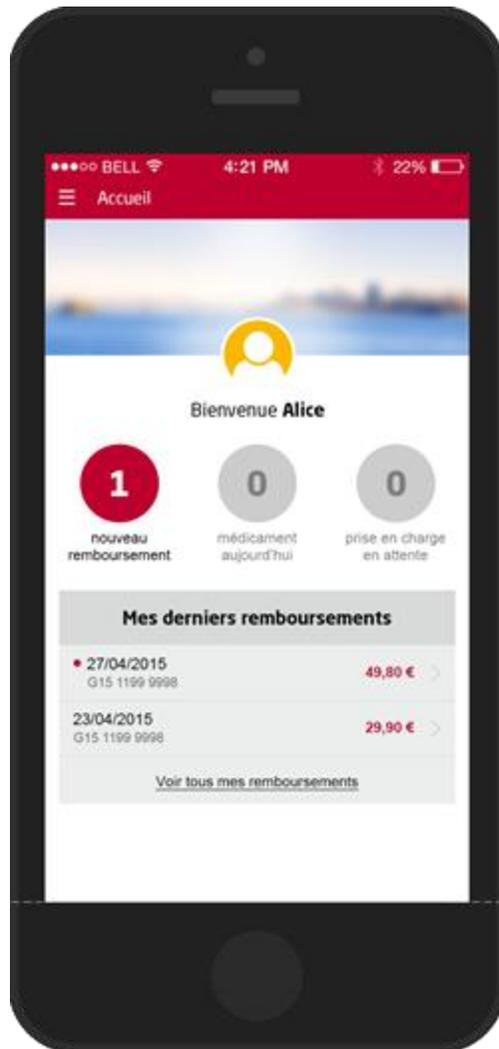
New positioning



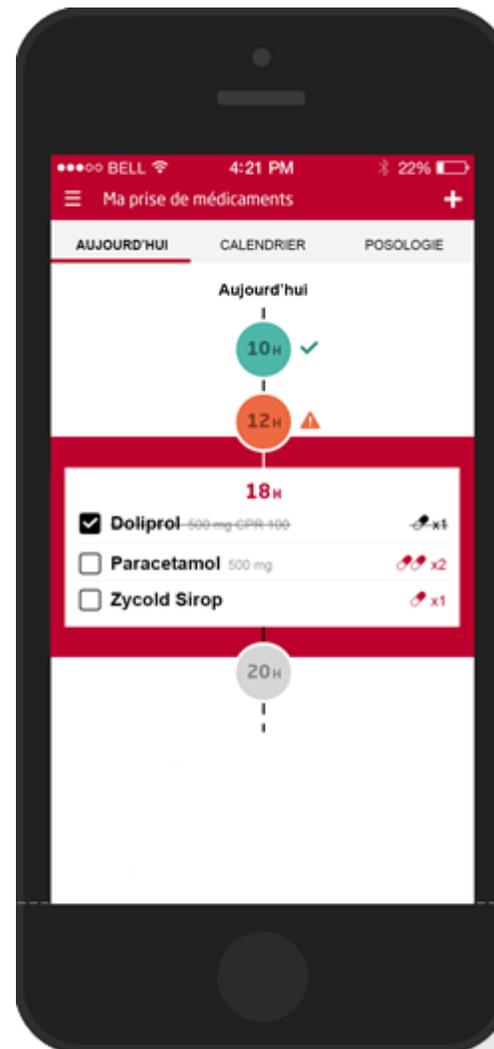
How Cegedim Insurance Solutions is responding

Example: digitalization of services – Mobile app for policyholders

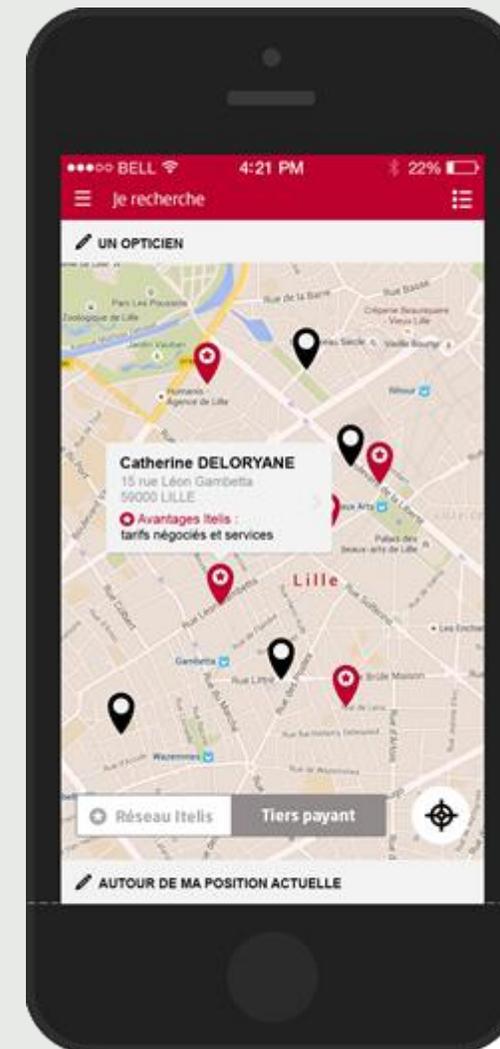
Recent payments



Medication reminder



HCP finder



How Cegedim Insurance Solutions is responding

Example: digitalization of services – Self-care

Adding extra
coverage
(policyholder portal)

MY DAILY VIEW

Mon dossier correspondant | Gestion administrative | **Gestion des effectifs** | Outils | Historique | Contact | Administration | Déconnexion

FICHE SALARIE

DUPOND AURELIE

Numéro d'adhérent: 016245840
Date de souscription: 01/01/2010
Dernière fiche de liaison: [Image]

Situation Familiale: [Modifier]

Adresse: PLACE CAPITOLE 31000 TOULOUSE [Modifier]

Courriel: duponda@yahoo.fr
Téléphone domicile: 01 39 93 21 20 [Modifier]

RIB [Modifier]

[Modifier les garanties] [Demander une carte TP] [Radier un salarié] [Ajouter bénéficiaire]

INFORMATIONS SUR LES BÉNÉFICIAIRES

Nom	Type d'assuré	N° Sécurité sociale	Né(e) le
Mademoiselle DUPOND Aurelie	Assuré principal	2890775118000	05/07/1989
Monsieur DUPOND Warrick	Enfant		20/07/2012
Mademoiselle DUPOND Loreyna	Enfant		06/08/2015

Sélection du contrat: **Choix de l'option** | Souscription | Signature | Confirmation

Renforcez la complémentaire santé collective obligatoire de votre entreprise par une surcomplémentaire.
Etape 1 : choisissez un des deux renforts qui vous permettra d'avoir une protection santé correspondant à vos besoins.

Contrat

Souscripteur: ARTAK DAVIDIAN Né(e) le 23/07/1970

Produits: ProtecVia indice 30, ProtecVia Option Assistance

Nom complet	Date de naissance	Type assuré
DAVIDIAN ARTAK	23/07/1970	Assuré Principal
ABABOVA NARA	14/04/1979	Conjoint
DAVIDIAN LIANNA	12/07/1998	Enfant
DAVIDIAN MOVIK	24/07/2000	Enfant
DAVIDIAN EVA	06/09/2011	Enfant
TORRES EMMA	10/04/2008	Enfant

Date d'effet *: 01/02/2018

Choix de l'option *: **Renfort BIEN-ETRE**

Description non définie

28.56 € / mois
soit 342.72 € / an

[Détail de la garantie]

Cotisation globale hors éventuelle réduction

[Annuler] [Souscrire]

Electronic payslip
(corporate intranet)

How Cegedim Insurance Solutions is responding

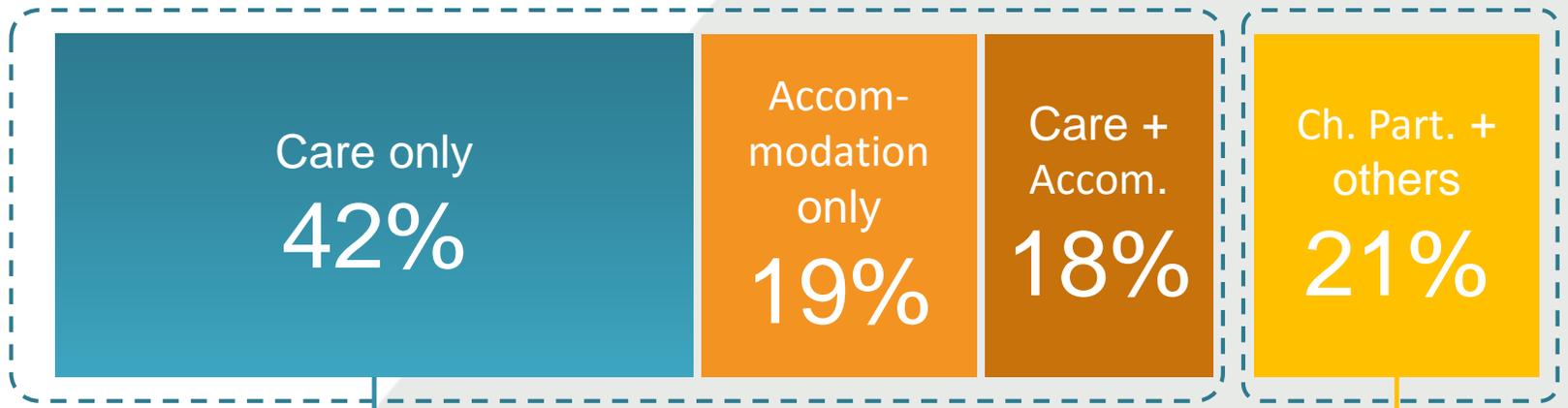
Example: Big data services – Sorting hospital invoices by type

How we add value:

- Simplify the invoice payment process by factoring in the invoice type

- Offer insurers quick productivity gains

Possible invoice types for a hospital stay



79% of invoices can be processed immediately

21% of invoices require additional management action

How Cegedim Insurance Solutions is responding

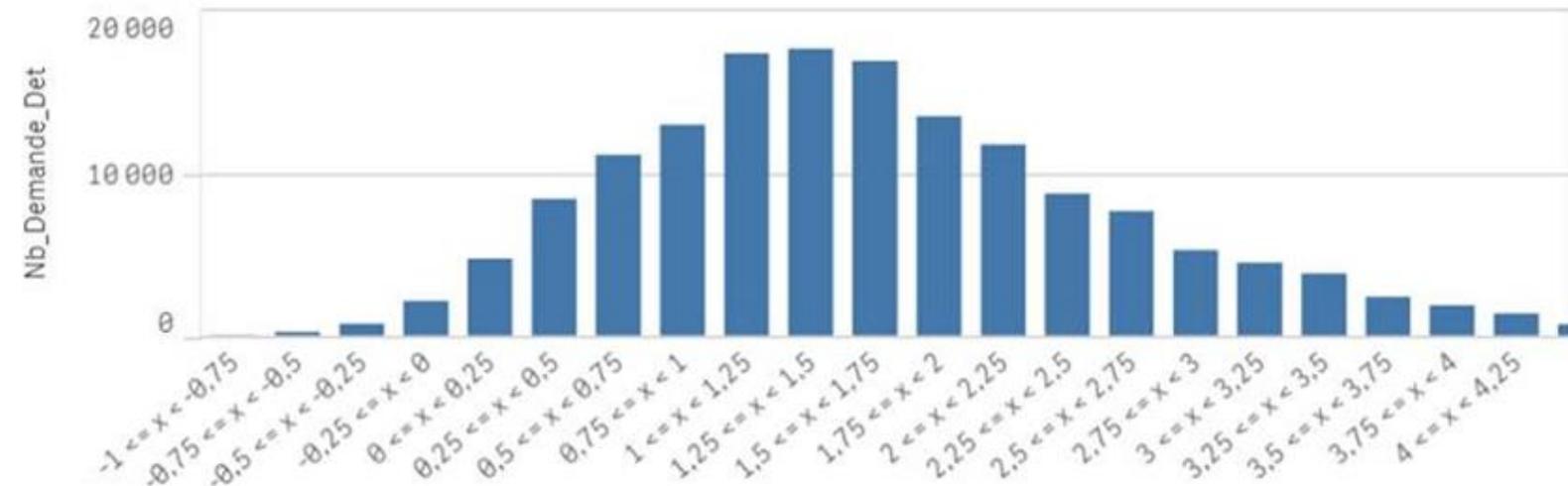
Example: Big data services – Optician pricing database

Single vision lens prices

How we add value:

- Analyze pricing using the data collected from managing third-party payments to opticians
- Offer insurers tools for managing the underwriting margin against the backdrop of the “100% Santé” reform without joining a network
 - Either upon delivery of claim acceptance
 - Or by educating policyholders

Unifocal



% difference relative to maximum purchase price

How Cegedim Insurance Solutions is responding

Example: Big data services – Scoring policyholders

How we add value:

- Help our clients better target interactions with policyholders and the services they offer them
 - Create policyholder cohorts
 - Examples: periodic users, cardiac patients, emergency room visitors
 - Anticipate changes in how they use care
 - Factor this information in when determining what services to offer each policyholder, using a “Healthcare CRM” approach



Examples of cohorts

Periodic users

Cardiac patients

Cluster	Nb Benef (RFM)	Age	Fréquence	PH_65	Med_Gen	Med_Spe	Med_Car	Med_Ped	Inf	Hospi	Kine	Urgence	SSR
Totaux	59774	38	8	3,41	2,33	0,49	0,02	0,05	1,03	0,29	0,47	0,01	0,030

Planned hospitalization

Note: the variables presented here correspond to frequency of use over 12 months. The most salient variables for each cohort are shown against a red background.

Emergency room visit

An example of a policyholder's course of care

Spotlight on the cardiac patient cohort

Sample course of care for a patient in the cohort

Vision Patient



Axis – Type of care

Axis – Care timeline



Cegedim DIGI TAL



Process Digitization in and outside healthcare segment

Benoit Garibal
General Manager



IS A DIGITAL NATIVE & DIGITAL EVOLUTIVE SOLUTION



For all
documents



For **clients**
& **suppliers**



For
invoicing



For
purchasing

SY BY CEGEDIM: a digitization solution

SY FLOW

> **Digitization** of invoices, orders and payments from a single platform.

SY GN

> **Business Process Management** through configurable and adaptable electronic signature & business e-books,.

SY DATA

> **Data expertise** to drive business, monitor the flows, undertake gap analysis and improve performance.

SY NETWORK

SERVICES

RETAIL

350 MILLION
invoices & electronic
messages

30 MILLION
electronic signatures

HEALTHCARE

500 MILLION
direct debits

MANUFACTURING

BANK & INSURANCE

B2G

PEPPOL Access Point
& 1st contributor to the
Chorus Pro portal

ENERGY

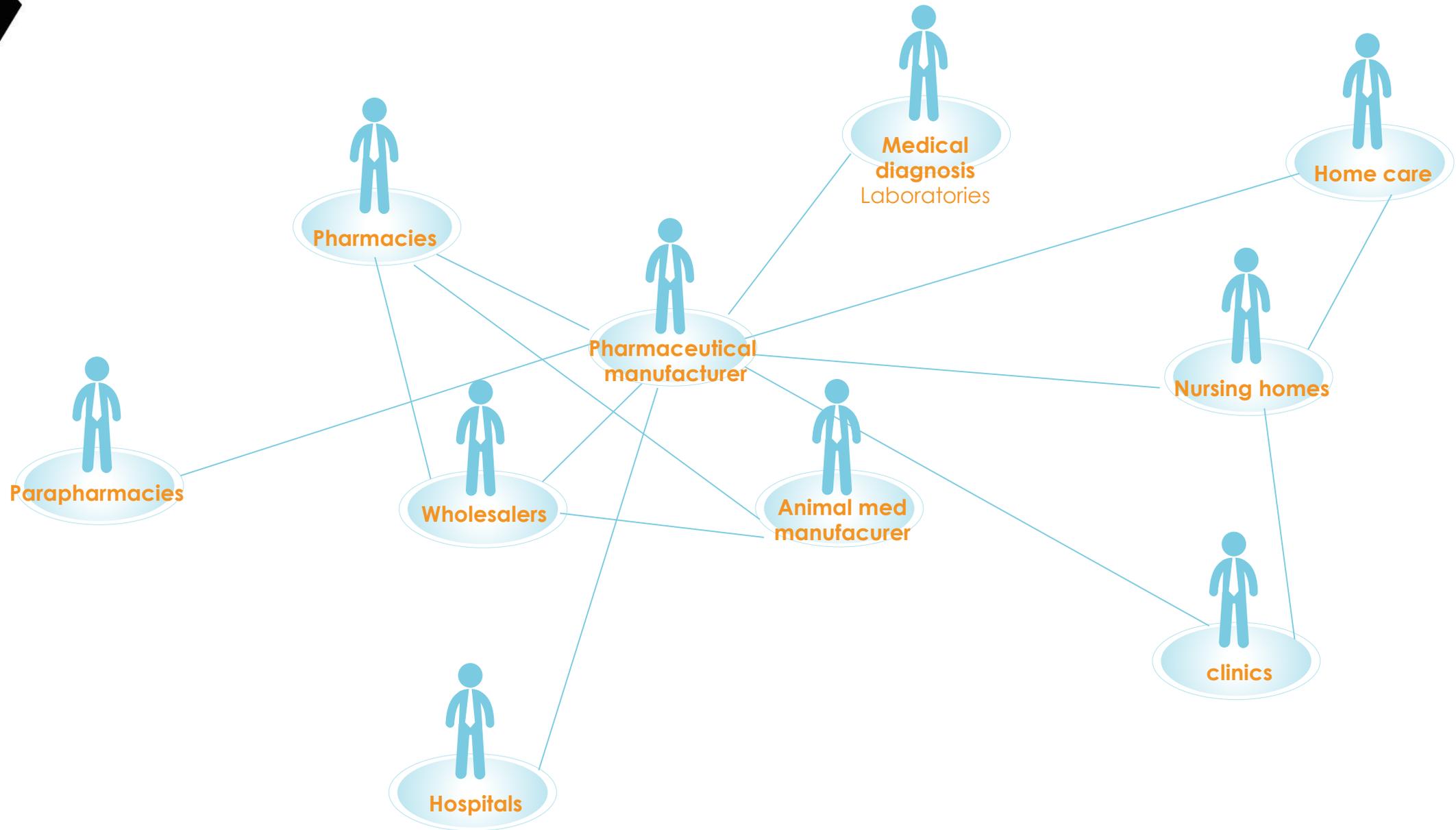
EDI operator
since
1991

+30%
flows in 2017

+13,4%
revenue in 2017

120 000
connected companies

SY for the healthcare industry: a collaborative ecosystem



SY FLOW for the healthcare industry: digitization of the supplychain



Focus on the healthcare applications

PHARMACISTS



HOSPITALS



MEDICAL ANALYSIS LABS



22 000 PHARMACIES

DIRECT SALES

INVOICING

CROSS CANAL

CATALOG

1400 HOSPITALS

INVOICING

ORDER

CATALOG

FLOW TRACABILITY

INVOICING

E-PROCUREMENT

4000 DIAGNOSIS LABS

CATALOG

Cegedim
**DIGI
TAL**

Cegedim Financial Communication

Outlook: Cautiously Optimistic for 2018

- In order to position itself as a major telemedicine player in France, the Group has decided to make a meaningful investment in its appointment scheduling and remote consultation platform, Docavenue.
- The Group expects for 2018:

L-f-I REVENUE

**Moderate
growth**

FY 2018 EBITDA

**Stable compared
with 2017**

Potential Impact of Brexit

Cegedim operates in the UK in local currency, as it does in all the countries where it operates

No major European health program is at work in the UK

The impact on the consolidated Group EBIT margin should be marginal

UK REVENUE

10.9%

As a share of 2017 consolidated Group Revenue from continuing activities

UK EBIT

14.0%

As a share of 2017 consolidated Group EBIT

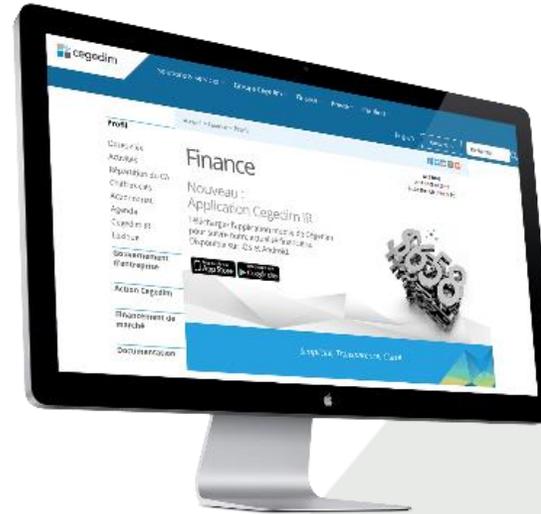
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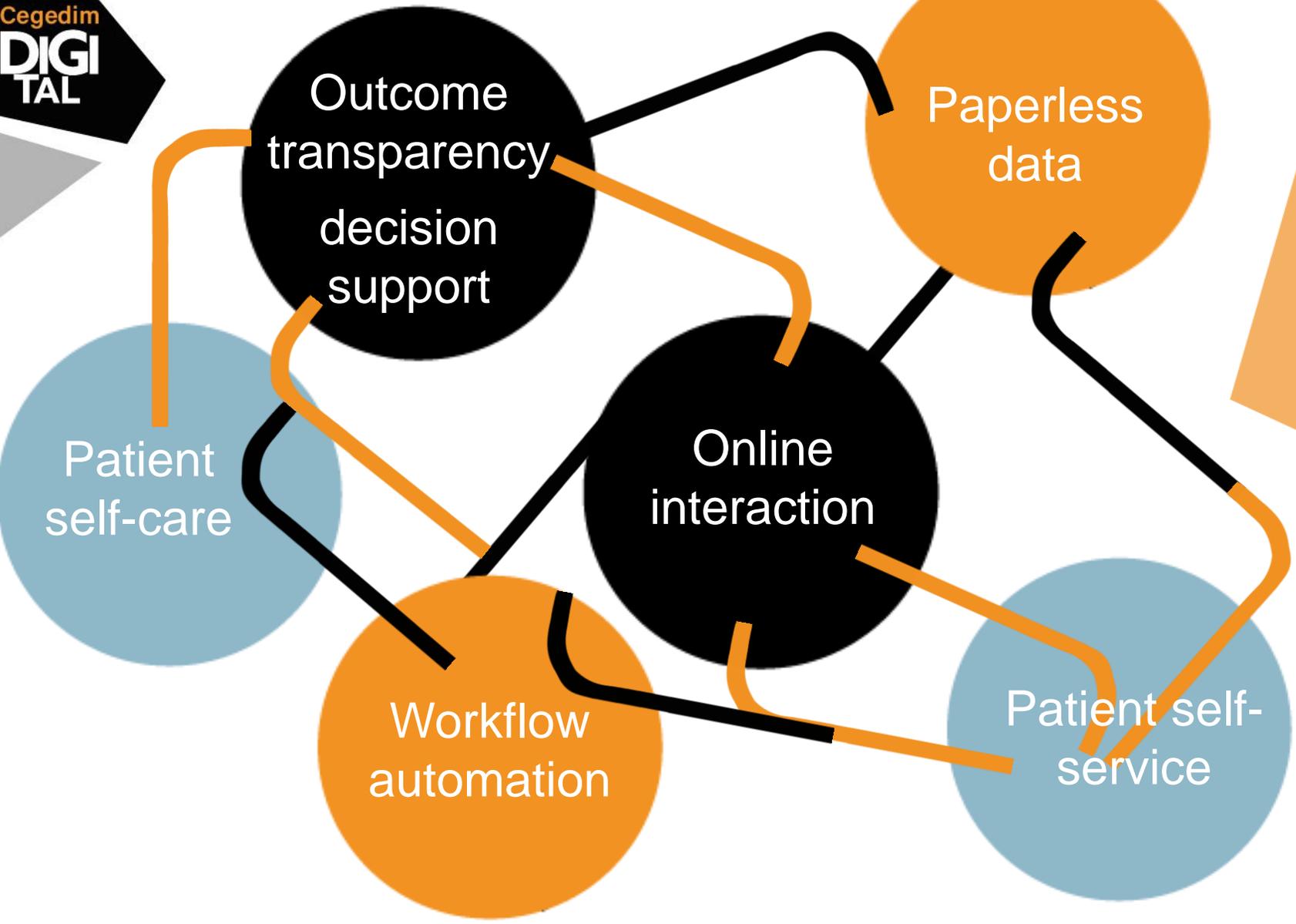
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ANNEXES

6 areas of improvement through digital transformation





Unified electronic health record/exchange
E-prescribing
Intrahospital staff communication
Clinicians' virtual assistants (AI)



Teleconsultation
Remote monitoring of chronic disease
patients
e-triage



- Nurse mobile connectivity
- Barcoding medication administration
- RFID tracking
- Vital parameter tracking
- Hospital logistics robotics
- Process automation through robots
- E-referrals



- Performance dashboards
- Patient flow management
- Clinical decision support
- Advanced payer analytic
- Genetic testing

Patient
self-care

Chronic disease management tools

- Mental health
- Diabetes
- Respiratory diseases
- Cardiovascular diseases

Medical chatbots

Disease prevention tools

Patient support network

Digital diagnostic tools

Virtual reality for pain management

Patient
self-service

E-booking (electronic appointment system)

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THANK You
for your attention

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