



December 11, 2018

# 9<sup>th</sup> Investor Summit

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

# DIGITAL

**01**

## Introduction

Laurent Labrune  
CEO, Cegedim

**02**

## Healthcare in Digital Transformation

Jan Eryk Umiastowski  
Chief Investment Officer  
Head of Investor relation

**03**

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



# Cegedim DIGI TAL

## Introduction

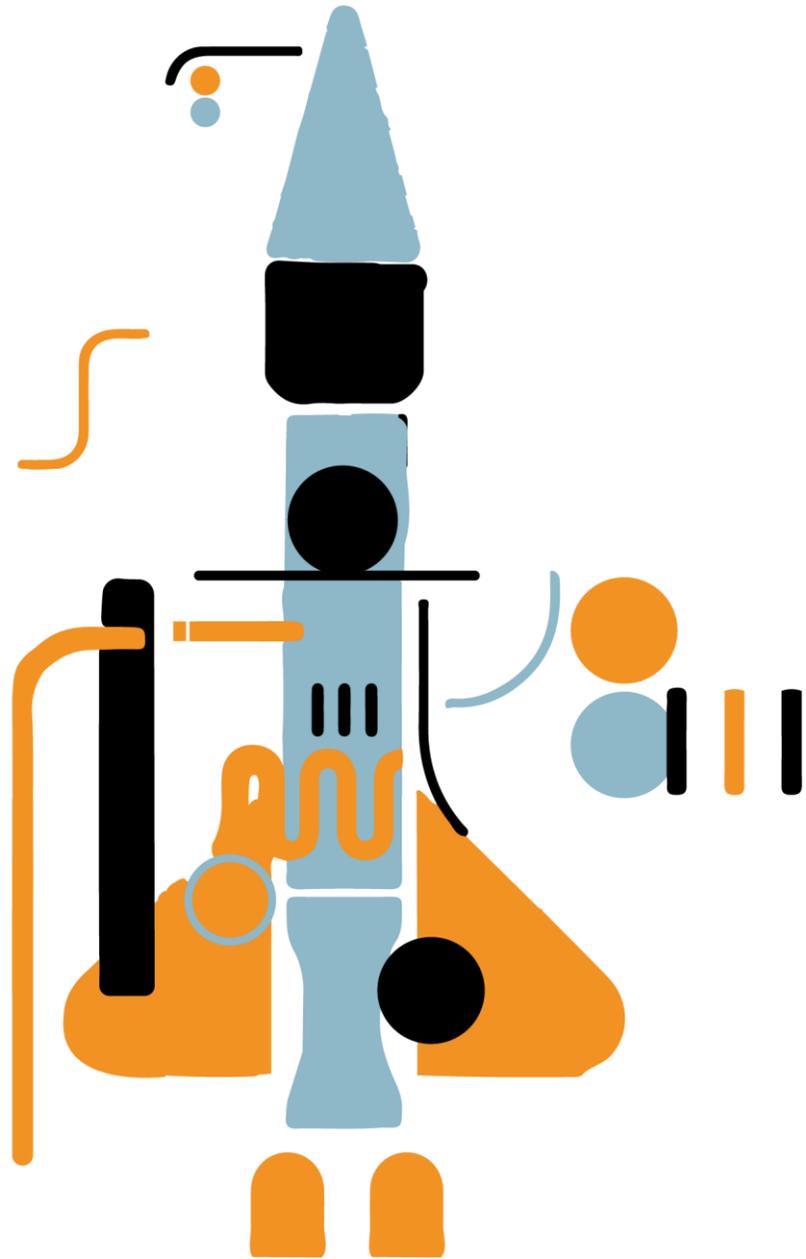
Laurent Labrune  
CEO Cegecim Group



**Cegecim**  
**DIGI**  
**TAL**

# Healthcare in Digital Transformation

Jan Eryk Umiastowski  
Chief Investment Officer  
Head of Investor Relation

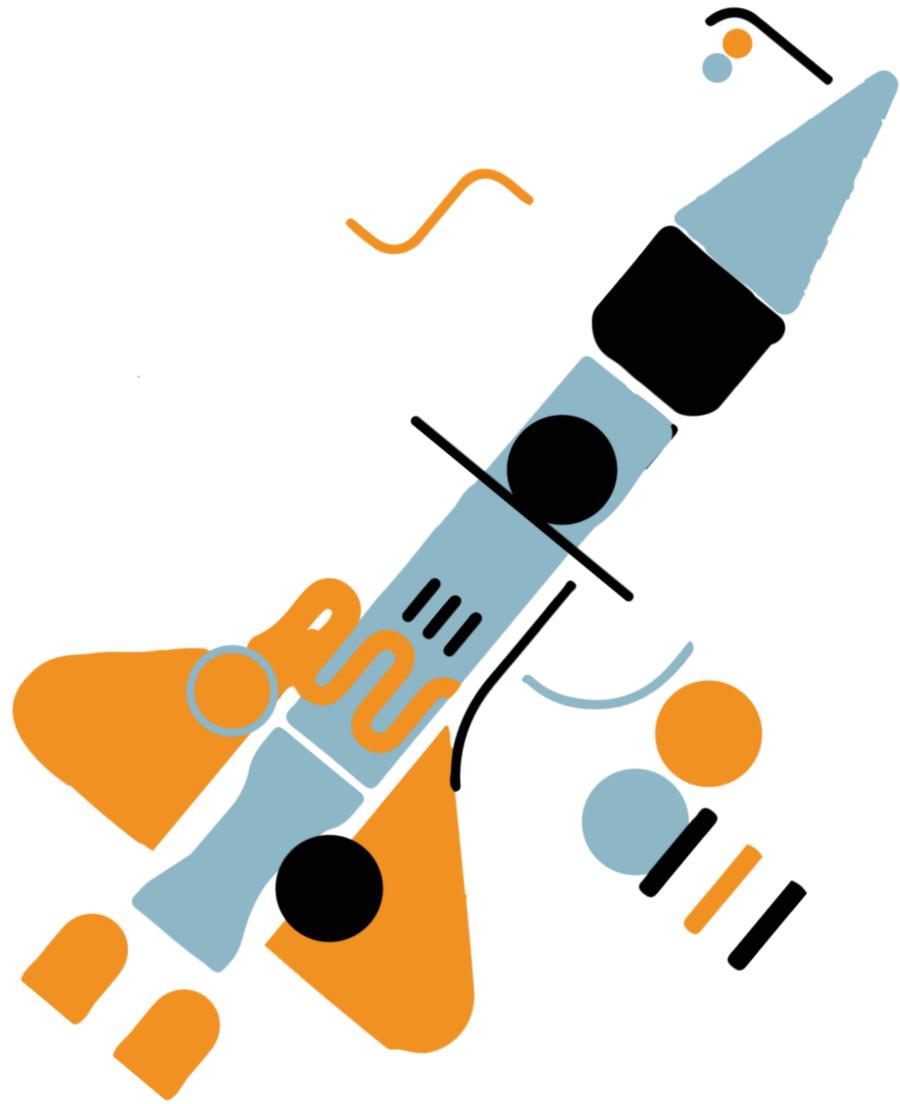


- Historically, **digital transformation** was used to define the fact of turning paper into digital information: **digitization**.
- **Digitization does not equal digital transformation**
- Digitization is needed in order to optimize in a digital transformation

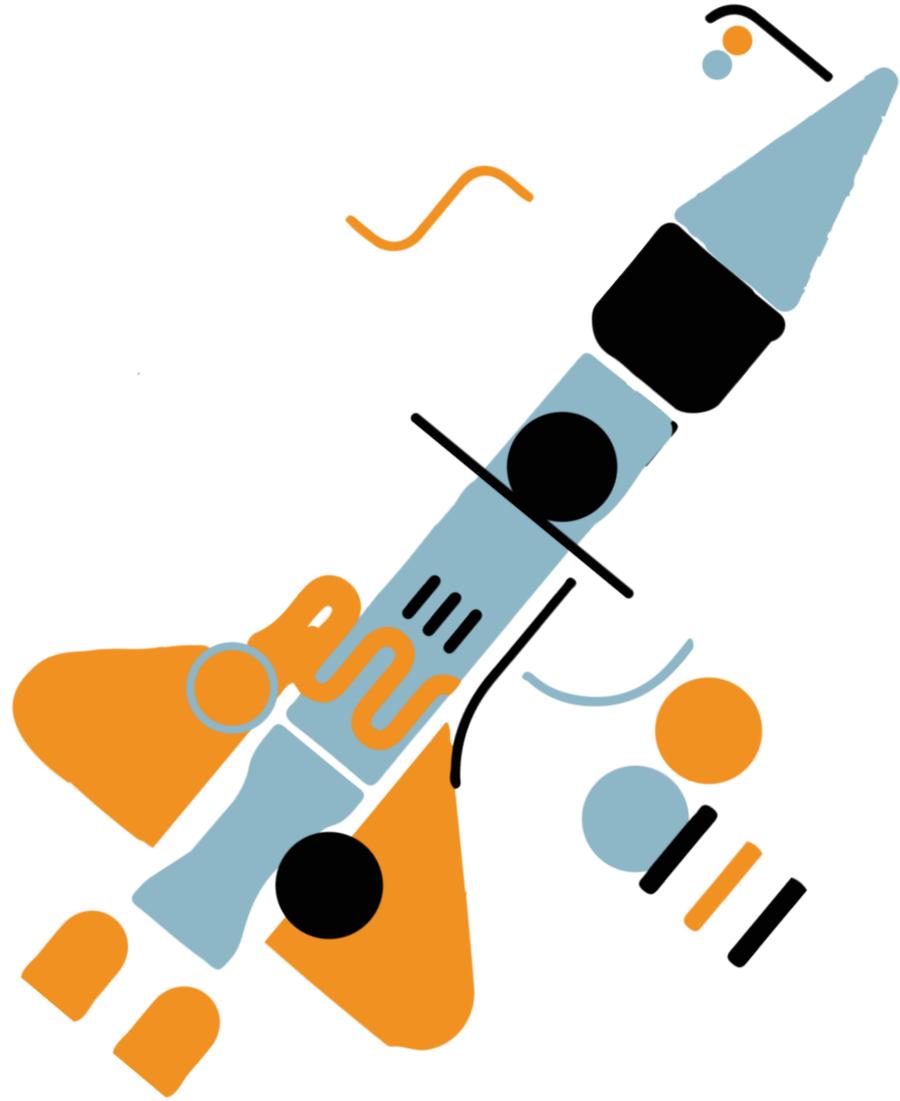
Cegedim

**DIGI  
TAL**

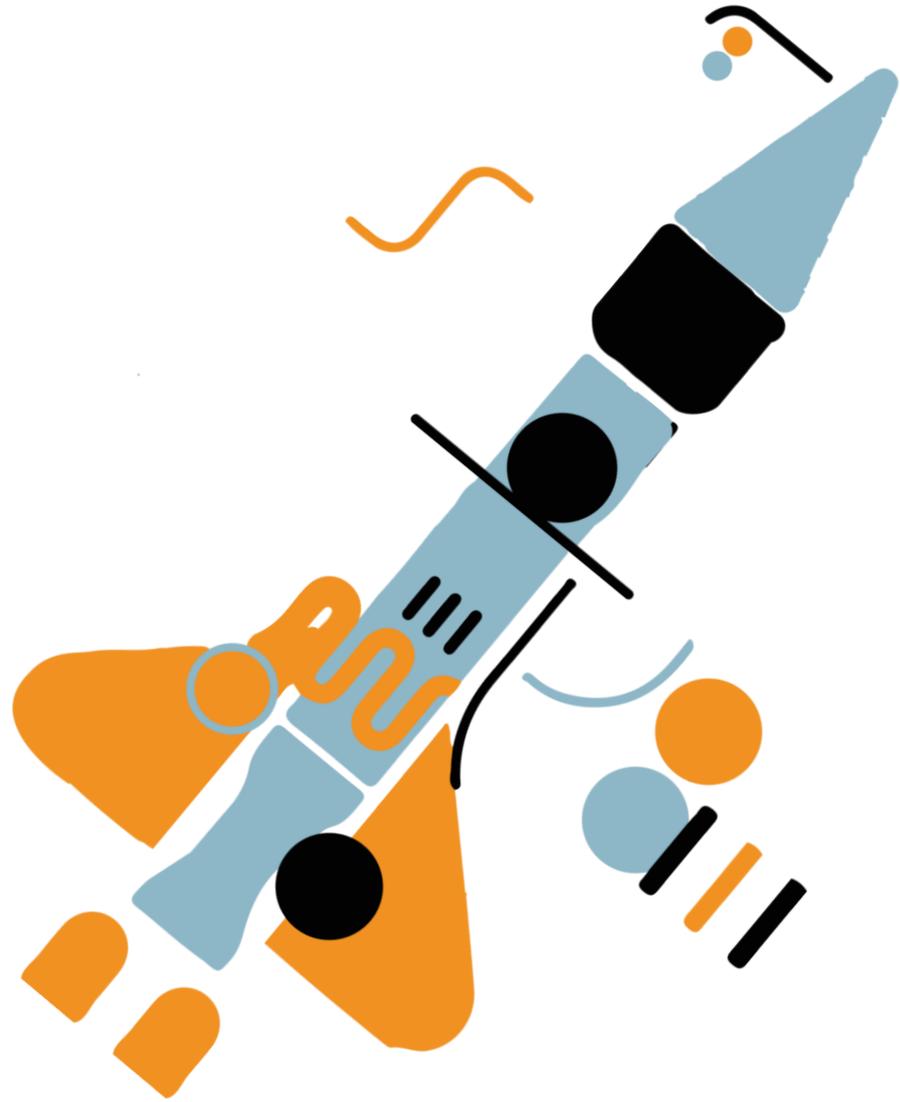
**Digital transformation is  
much more than  
disruption or technology**



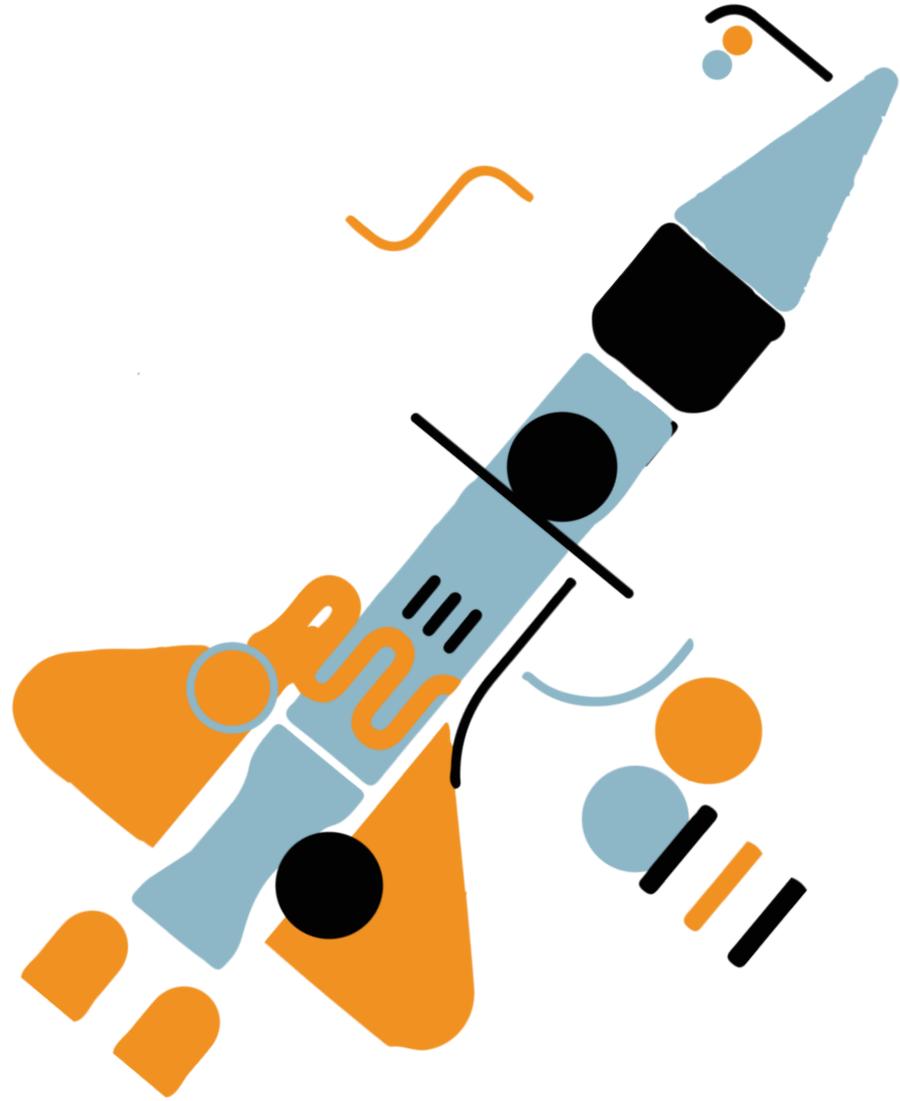
# DIGITAL Transformation



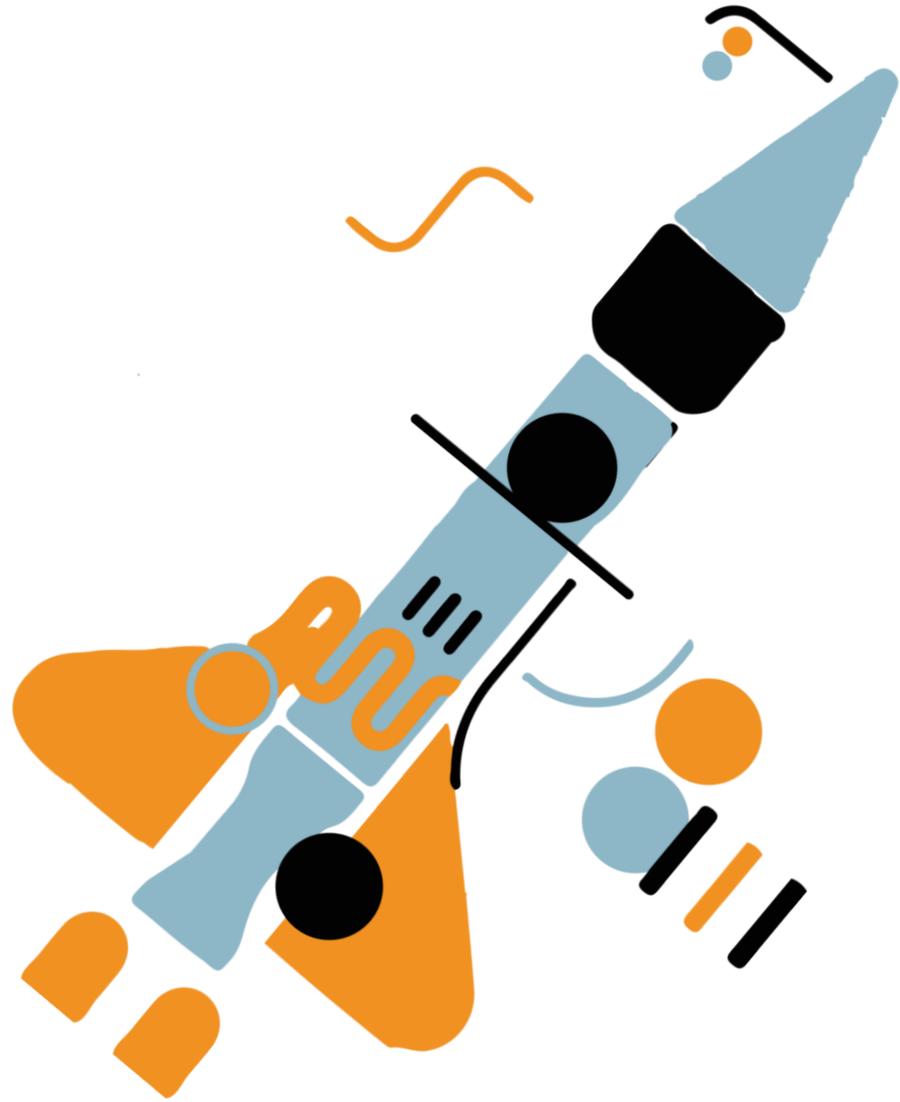
Rethinking business  
model and  
processes....  
**To become more  
efficient or effective**



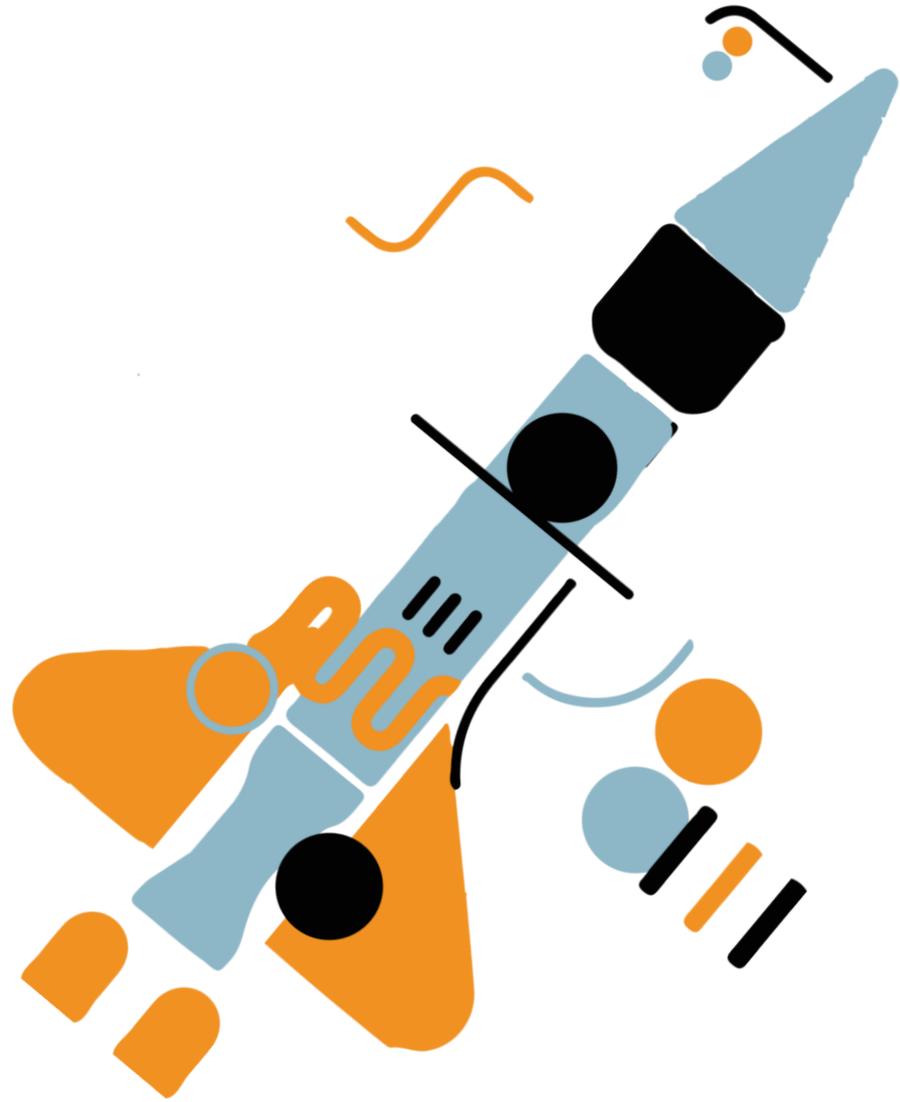
Not replicate an  
existing service ....  
**In a digital form**



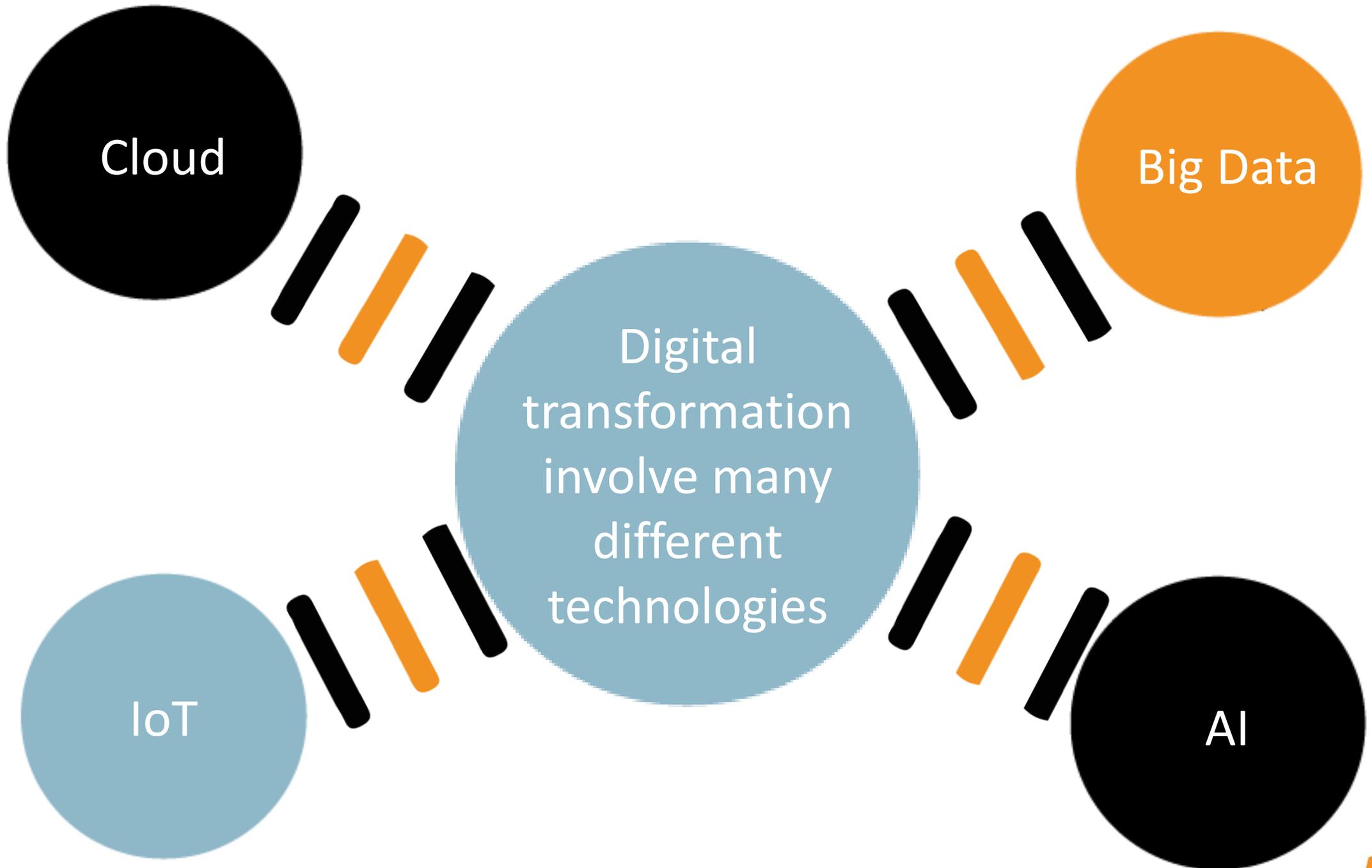
But use technology  
to transform that  
service into  
something...  
**Significantly better,  
new**



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**



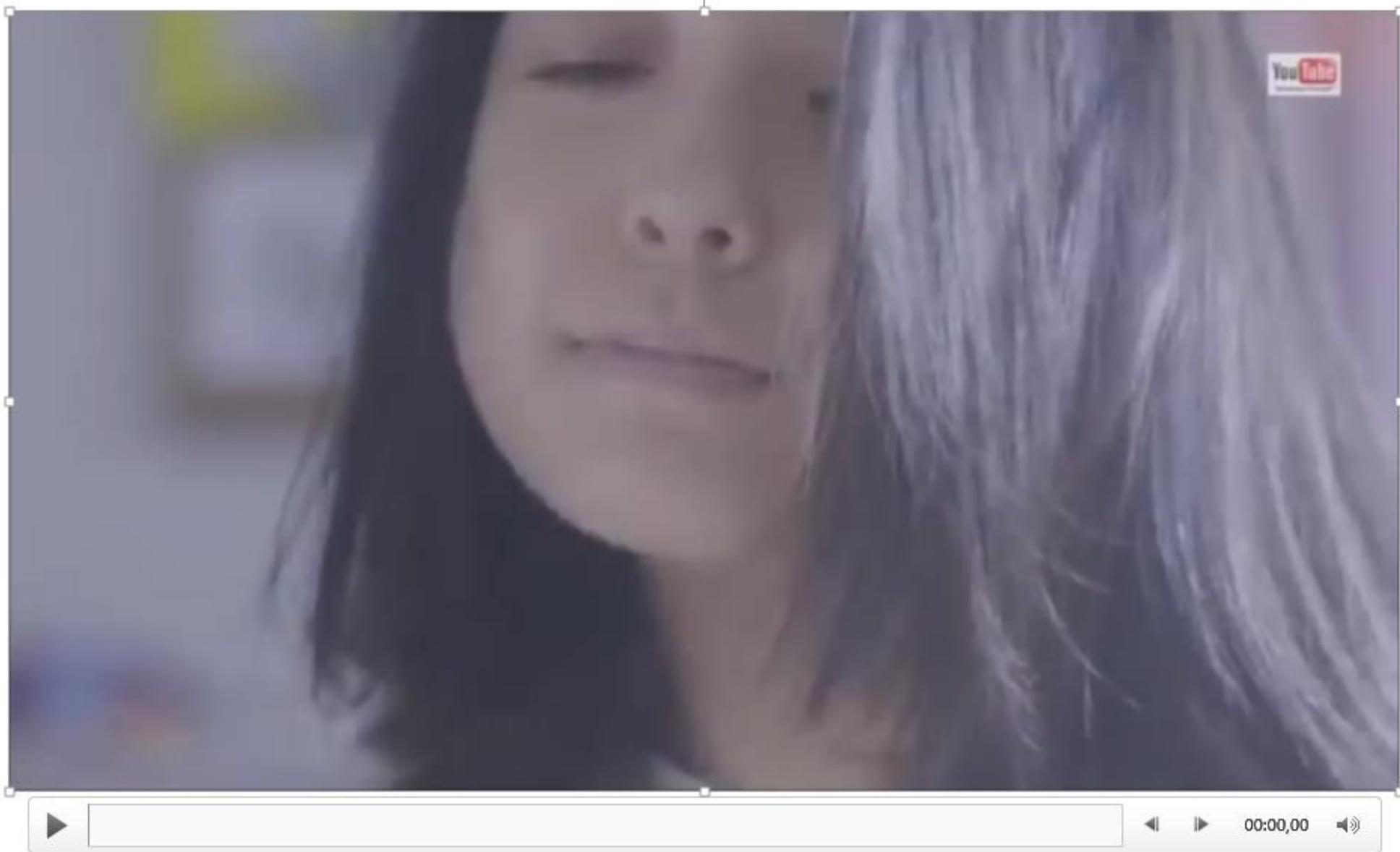
**More advanced innovation**



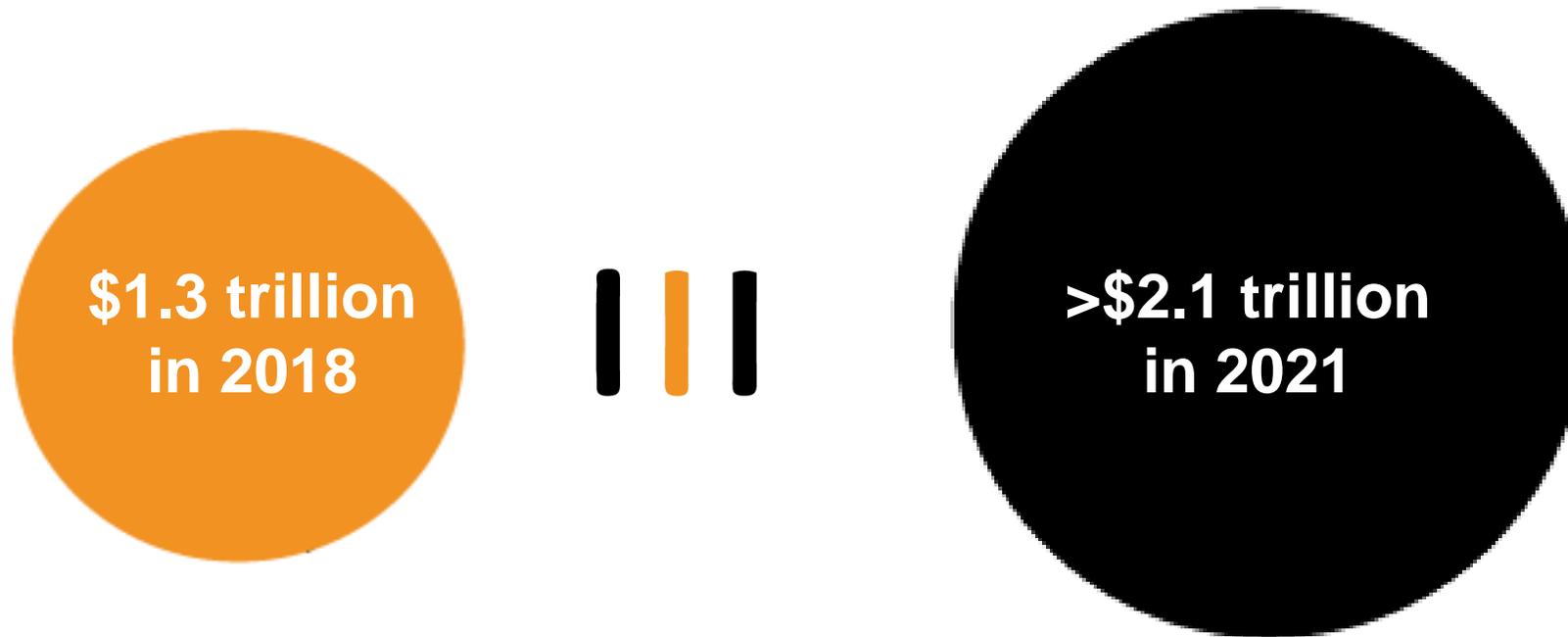
**Digital can have  
a significant  
positive impact  
through four  
levelers**

**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)

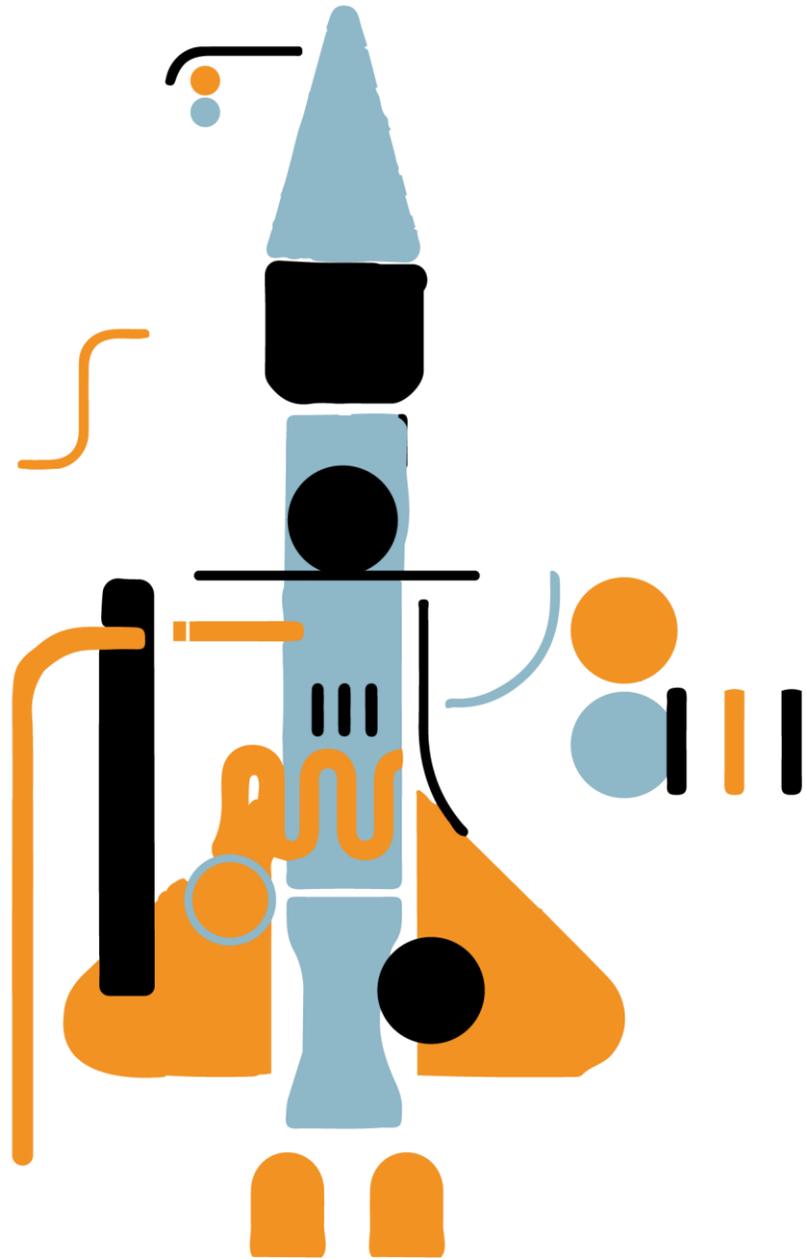


Source: IDC: IDC Forecasts Worldwide Spending on Digital Transformation Technologies to Reach \$1.3 Trillion in 2018 Dec. 15, 2017  
<https://www.idc.com/getdoc.jsp?containerId=prUS43381817>

Cegedim

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TAL**

# 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

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# **Digital Transformation** A major opportunity for healthcare

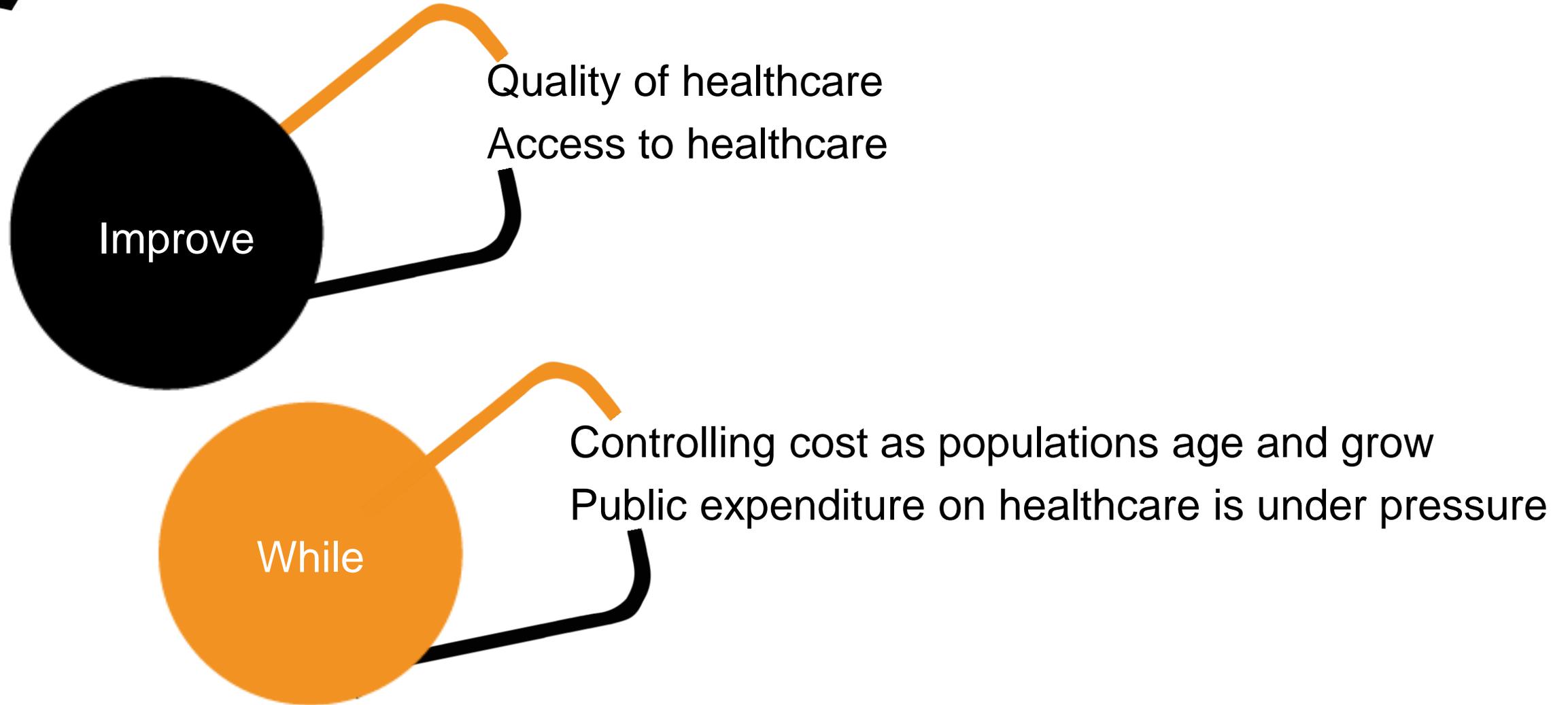
Cegedim

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TAL**

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

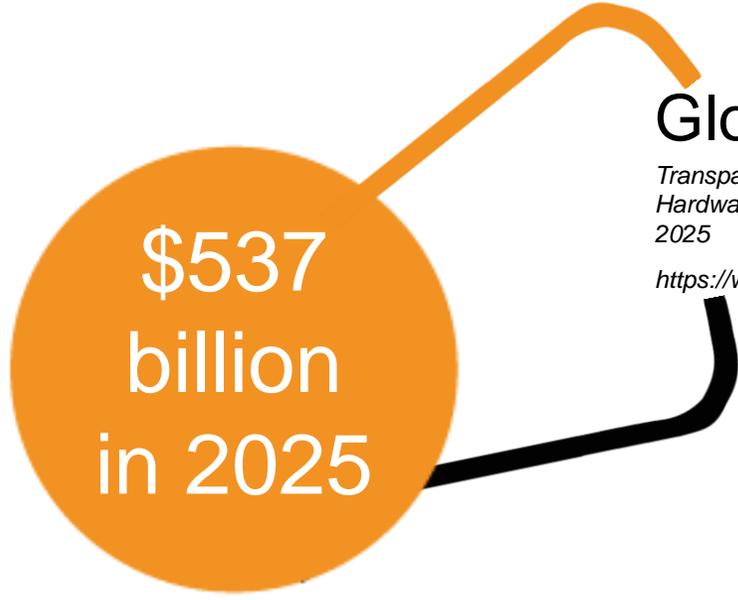
With aging population also comes less people are 'active' and are able to contribute to healthcare systems funding and increase of chronic diseases

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](http://www3.weforum.org/docs/WEF_Harvard_HE_GlobalEconomicBurdenNonCommunicableDiseases_2011.pdf)

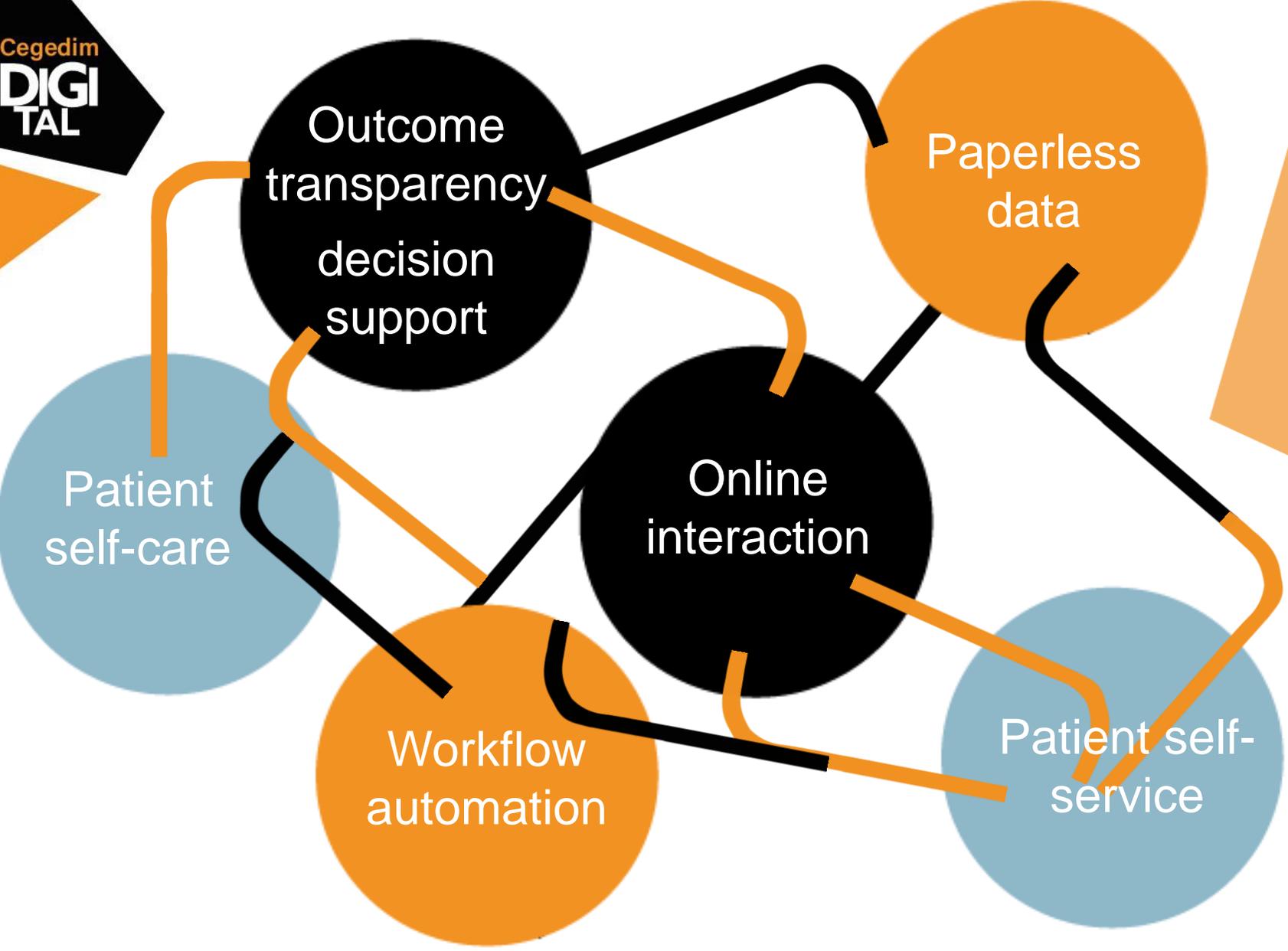


## Global Digital Health market Revenue

*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

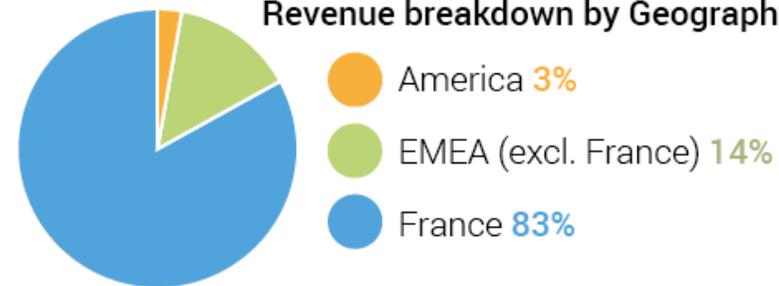


- Health Insurance, HR & e-services **64%**
- Healthcare Professionals **35%**
- Corporate & Others **1%**

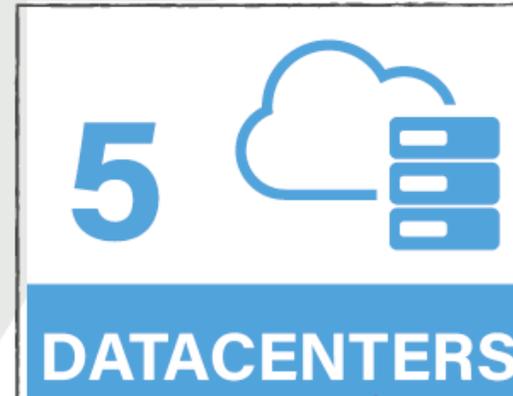
## A GLOBAL PRESENCE



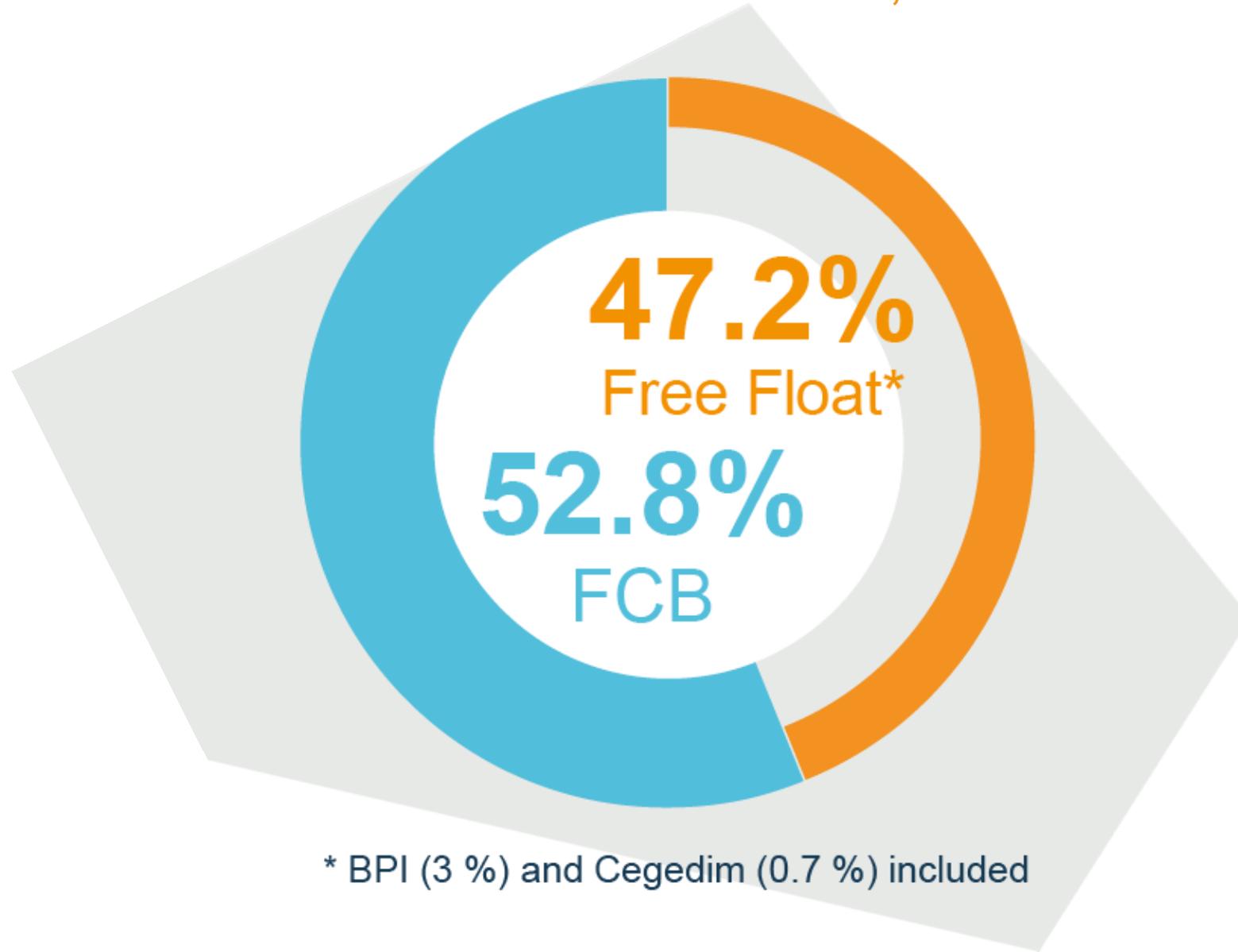
### Revenue breakdown by Geography



# Cegedim Key Figures

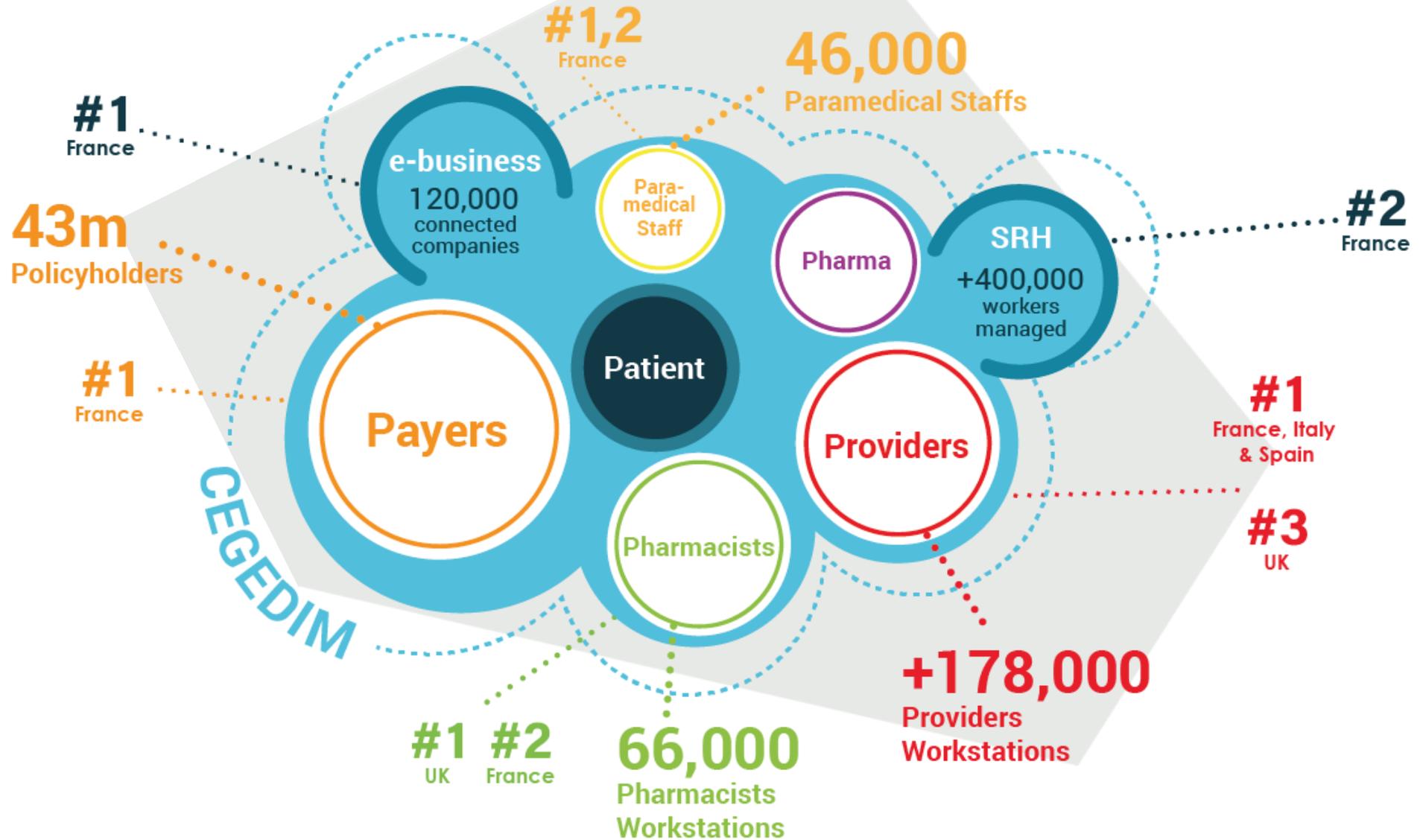


# Shareholder Structure as of October 31, 2018



\* 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



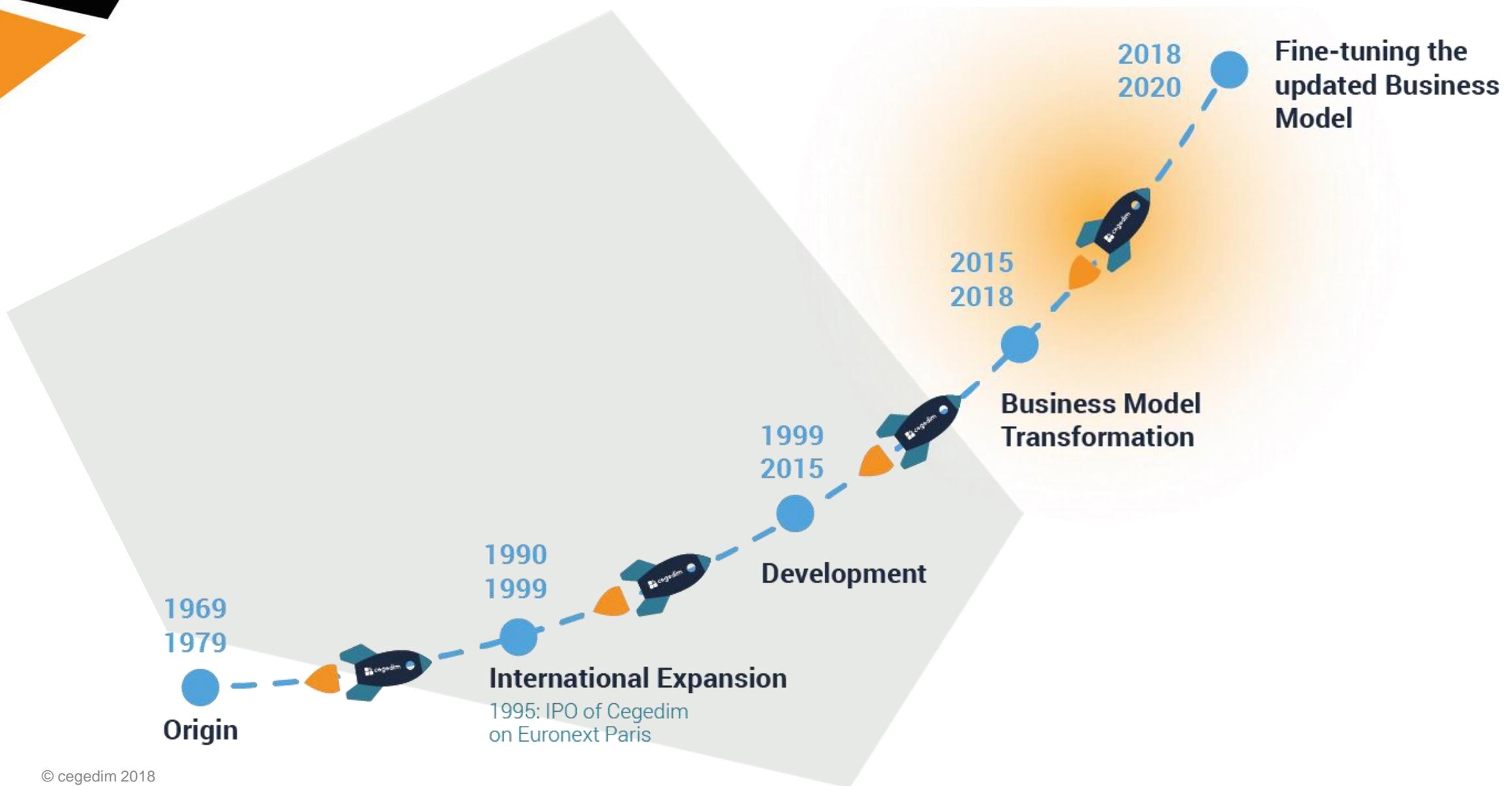
Long-standing majority  
shareholder

# Overview: Health Insurance, HR & e-services solutions

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

# Overview: Healthcare Professionals Solutions

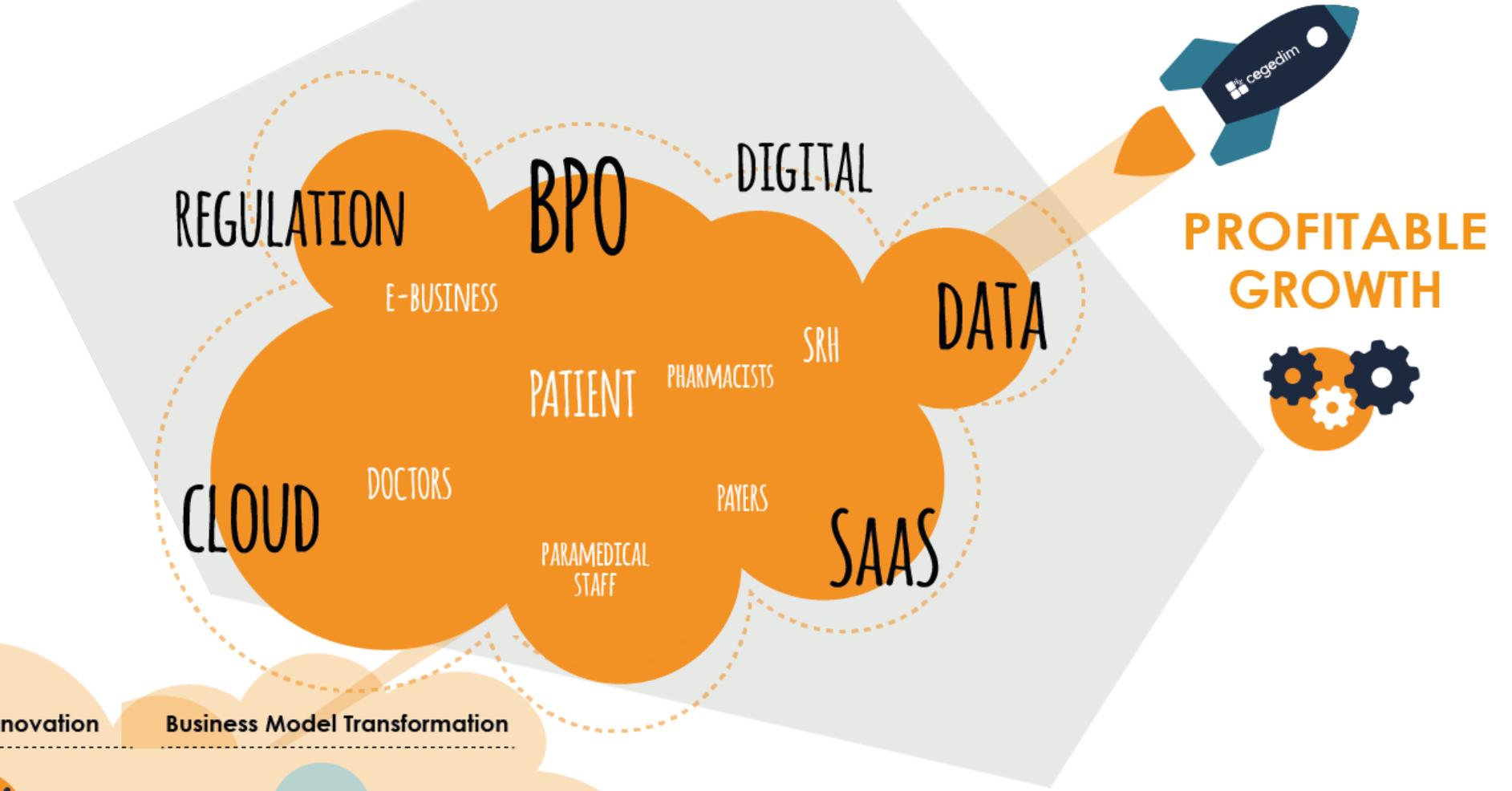
Product Division	Solutions	Key figures
 <b>Pharmacy software</b>	<ul style="list-style-type: none"> <li>+ Integrated software for pharmacy</li> <li>+ Web solutions for patients monitoring and medical benefit reimbursement</li> </ul>	<ul style="list-style-type: none"> <li>• <b>39%</b> market share in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



# 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



# Cegedim DIGI TAL



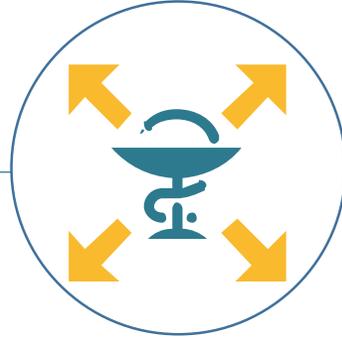
## Success story

Stefan Janssens  
President Cegedim Healthcare Software

## Few KPIs



**178,000**  
providers



**66,000**  
pharmacies



**46,000**  
paramedics

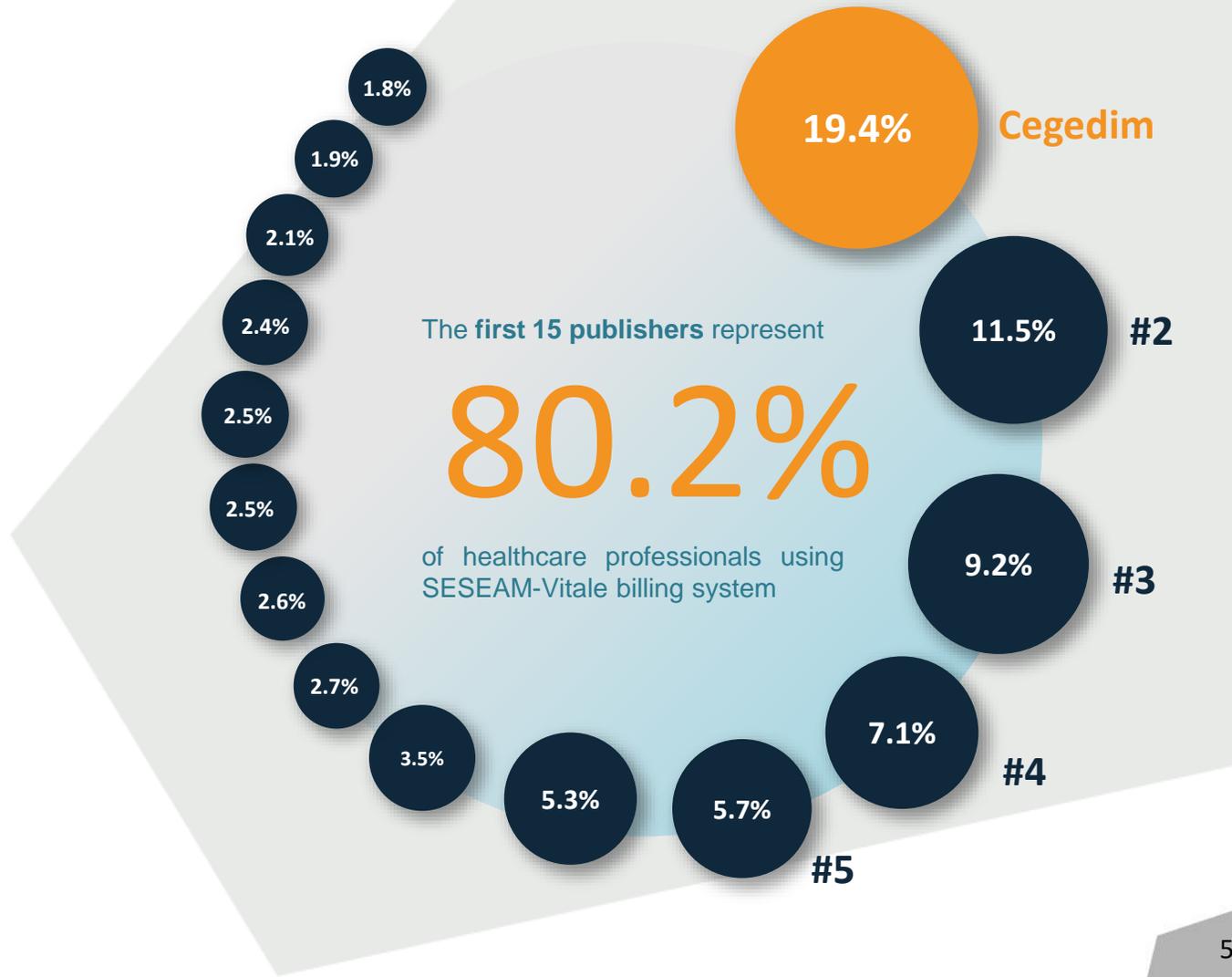
- Activities in **11 countries**
- Only supplier that has an agreement with the 4 NHS bodies in the UK
- Cloud solutions across the board
- **28%** staff is in R&D
- All affiliates have certified solutions
- BCB in **5 countries**

# Cegedim Healthcare Software FRANCE

**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)

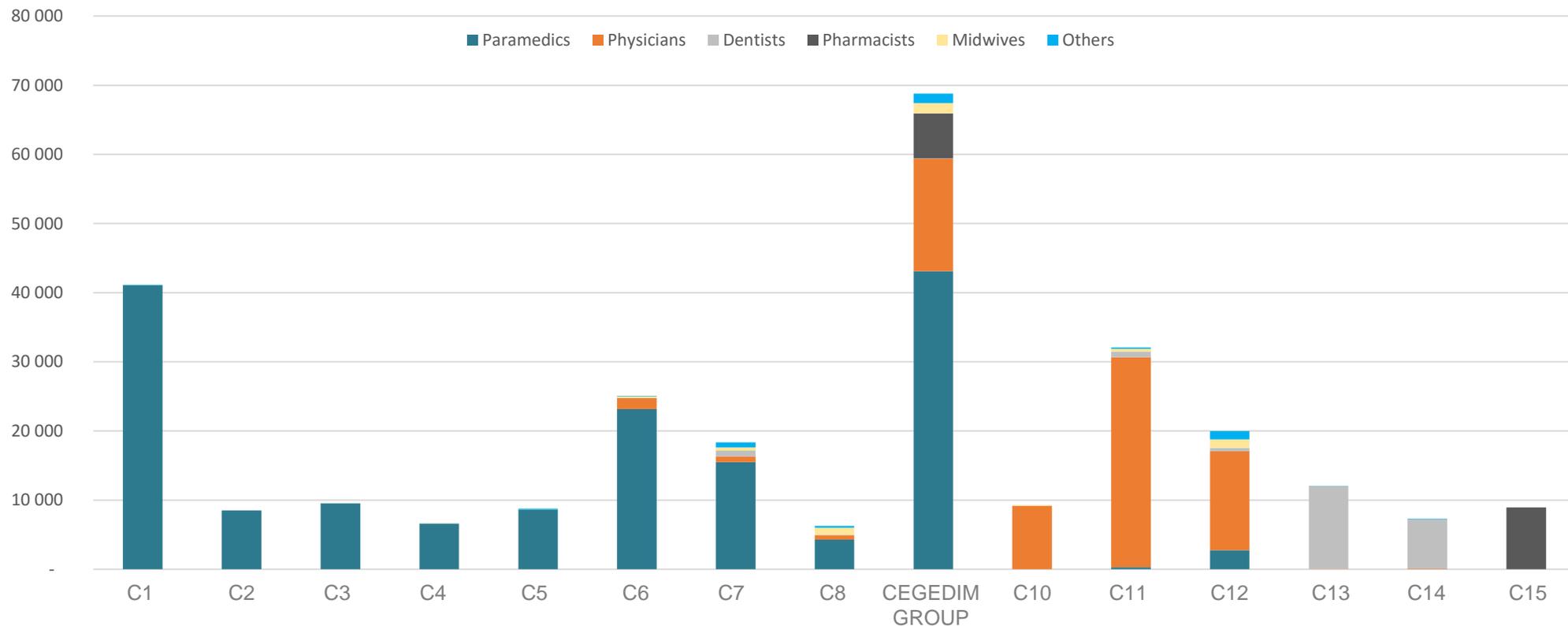
● This surface represents one percent of market share  
*Market survey performed by SESAM VITALE - 2017*





# 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

# Organization

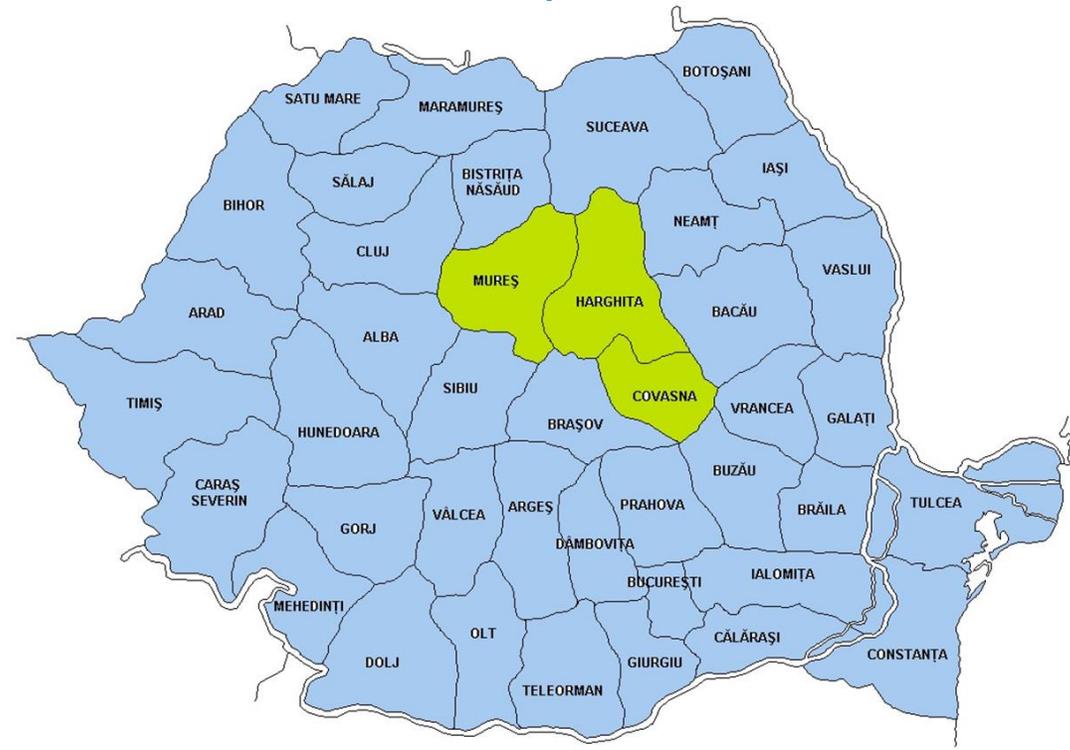
# Romania

12 months ago

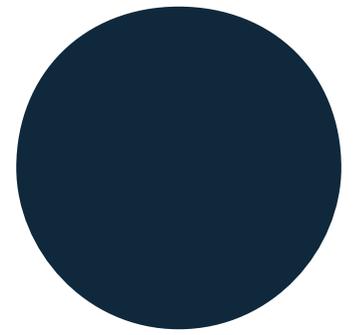
and now



Cegedim exclusive



- 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**

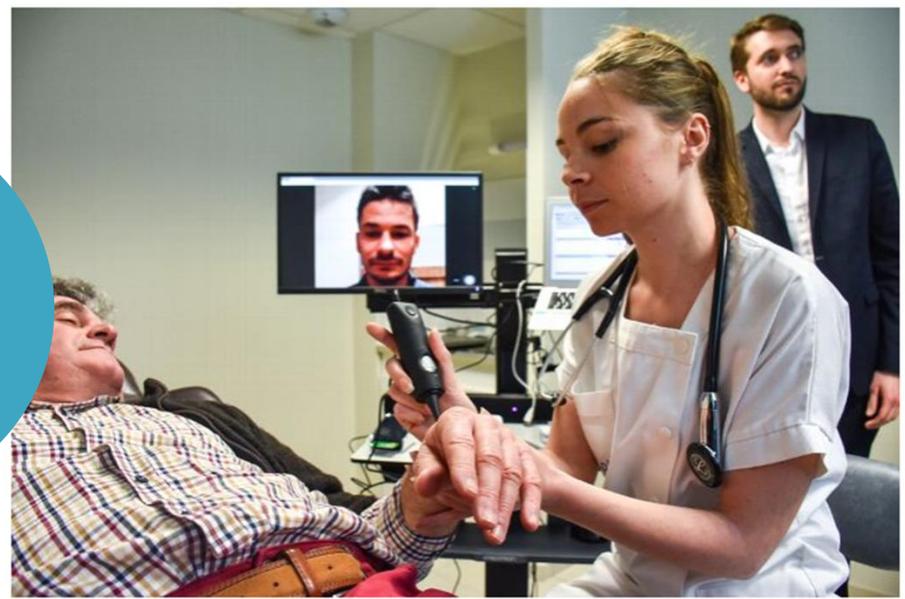
# Assisted Teleconsultation France



The patient resides in an under-dense medical area

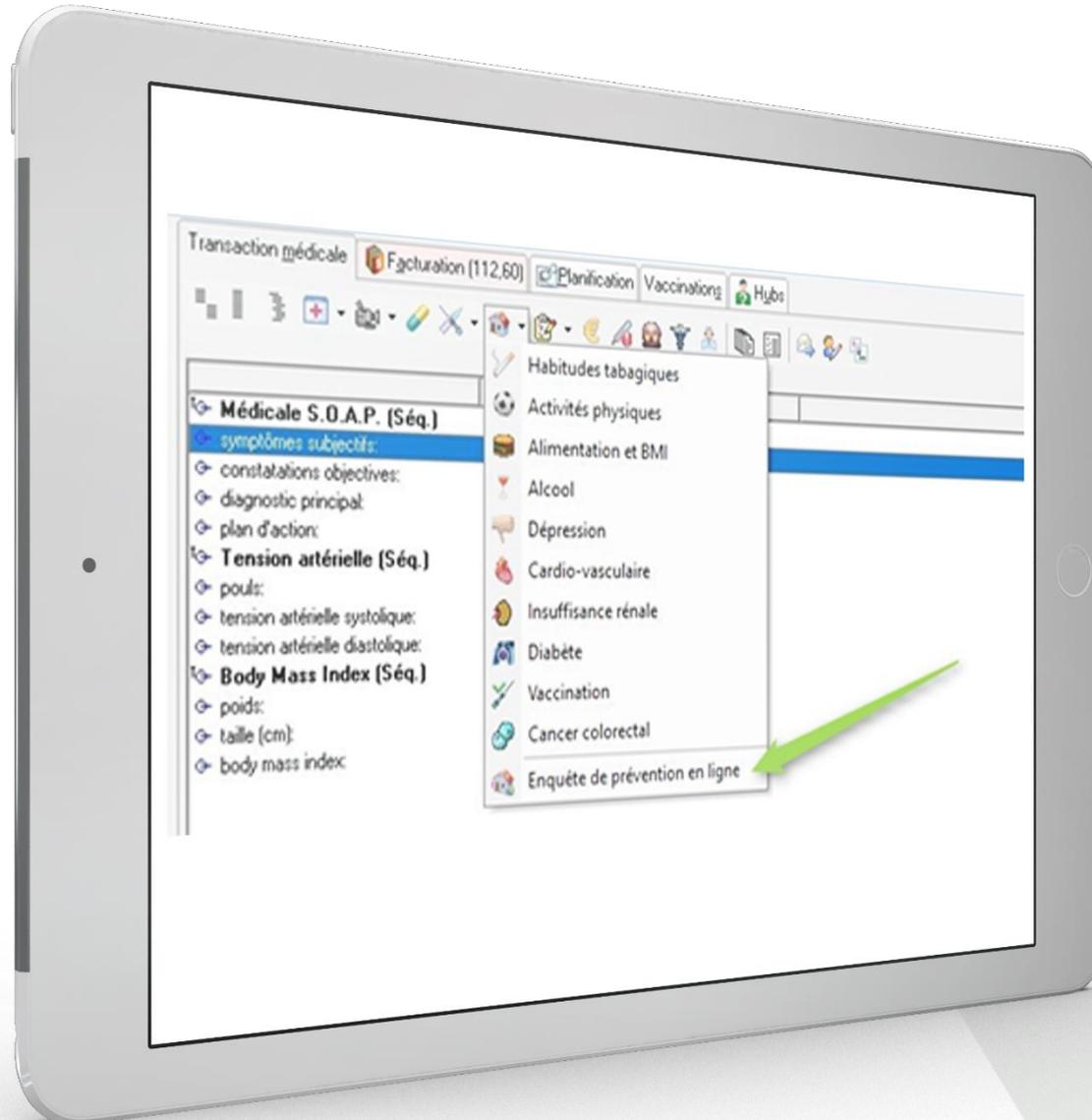


The patient is assisted by a nurse, the doctor is in a remote location



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

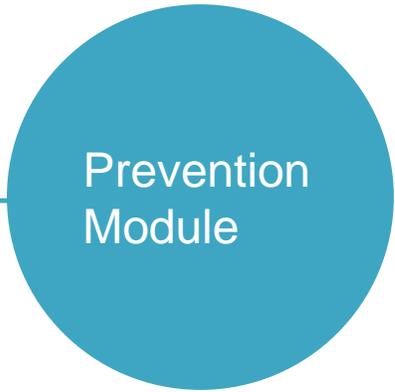
# HDMP (Belgium)

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**

DMG Plus - Aude Roche

**Activités physiques** Dernière évaluation : 04-05-17

Prévention en ligne

Évaluation (RAPA)

**Evaluation rapide de l'activité physique (RAPA)**

**Evaluation rapide de l'activité physique**

Comment est votre activité physique ?

Est-ce que ceci vous décrit exactement ?

J'ai rarement ou jamais fait des activités physiques.  Oui  Non

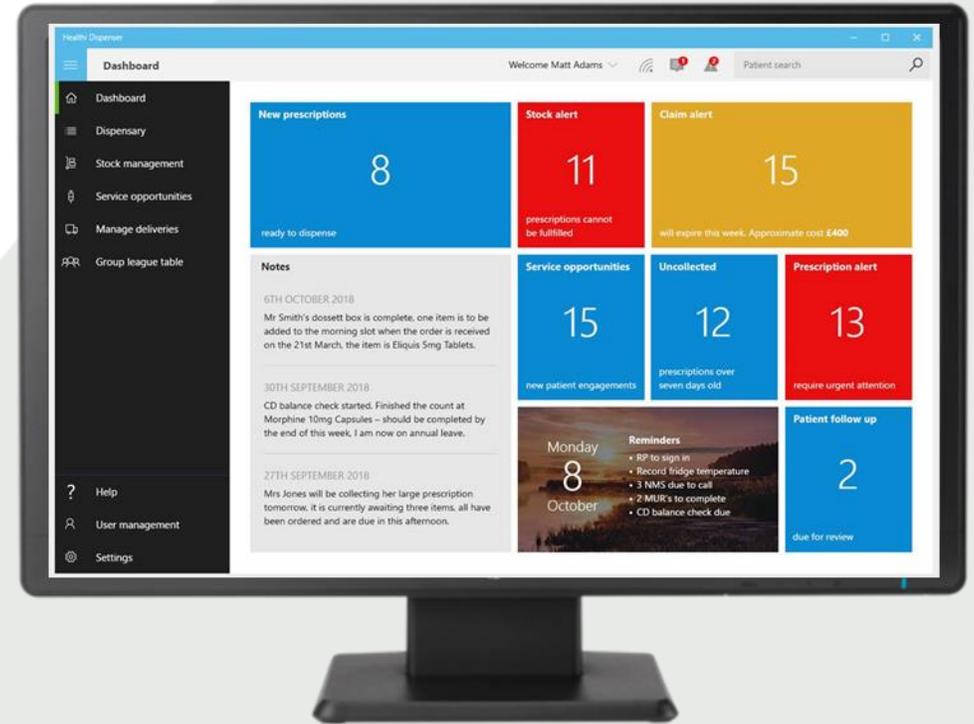
Je fais des activités physiques légères ou modérées, mais pas chaque semaine.  Oui  Non

Je fais une activité physique légère chaque semaine.  Oui  Non

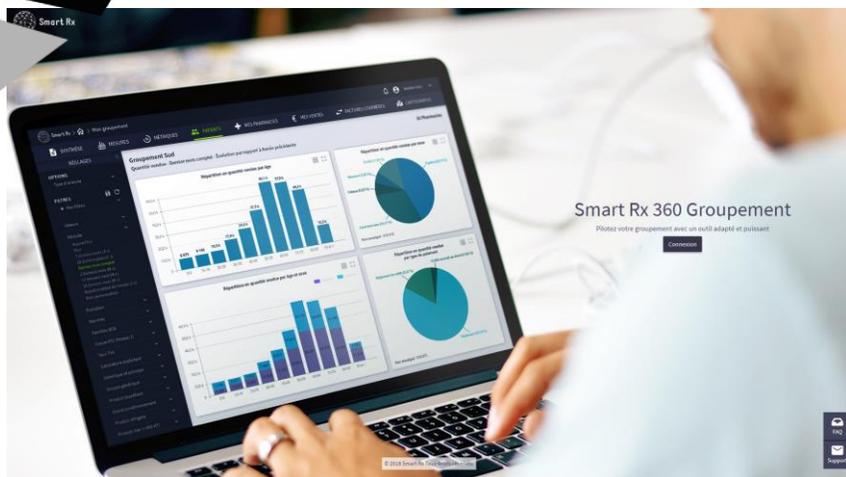
Je fais des activités physiques modérées chaque semaine, mais moins de 30 minutes par jour ou 5 jours par semaine.  Oui  Non

# 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 de	% Evolution	Quantité en
							(Mois/mois)		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
<b>Total</b>	<b>1 690 €</b>	<b>-65.28%</b>	<b>59.15%</b>	<b>37.17%</b>	<b>179</b>	<b>-4.28%</b>	<b>67.43 €</b>	<b>-24.51%</b>	<b>203</b>

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

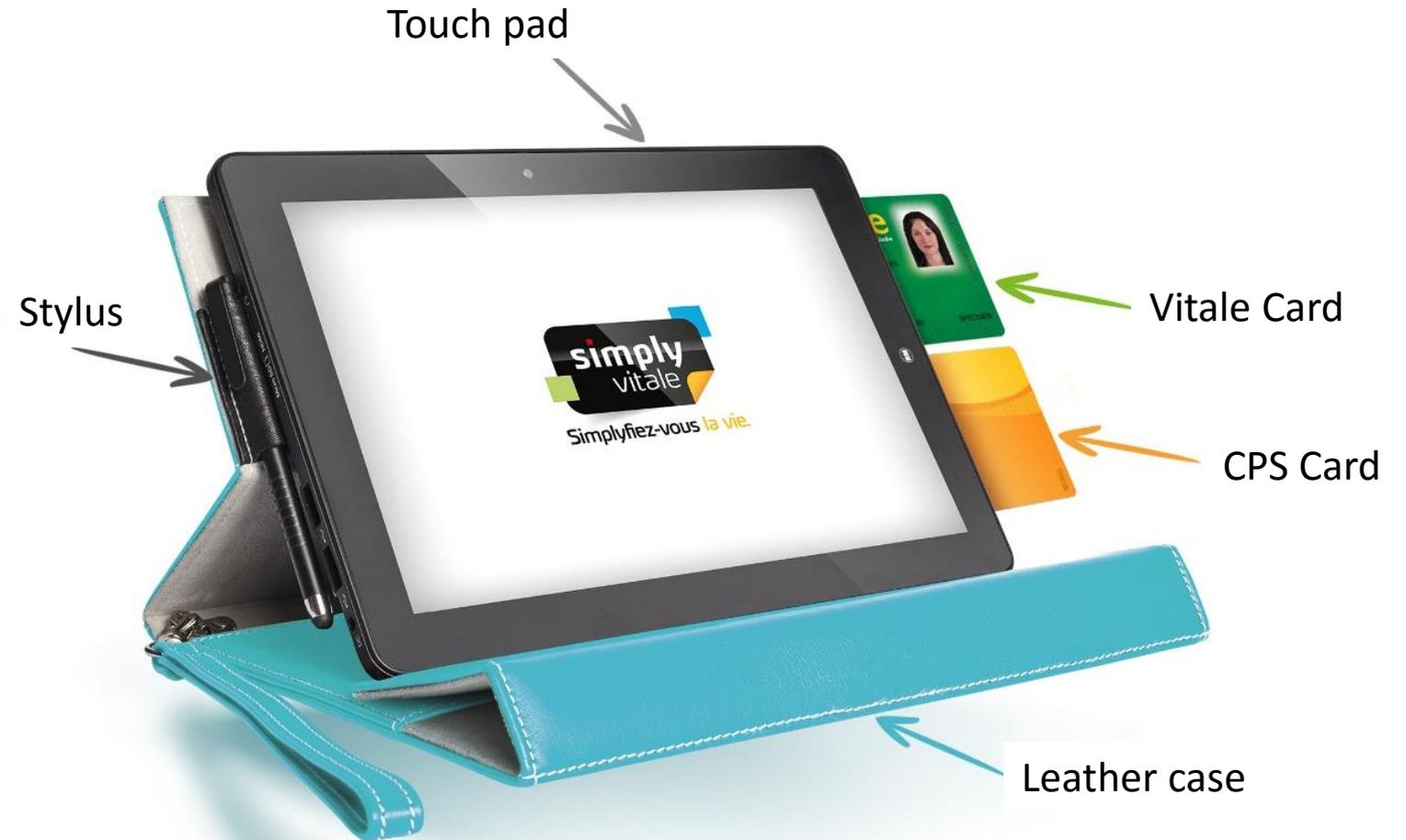
# Vision Anywhere (UK)

- **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





**Cegedim**  
**DIGI  
TAL**

# US Healthcare Digital Transformation

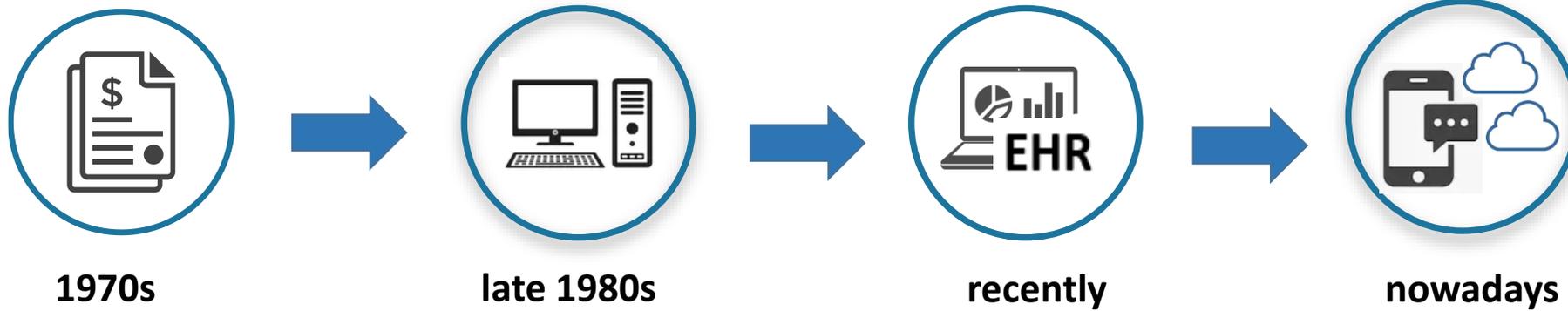
**Kathy McClung**  
Practice Administration at OANO

## 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

**DIGI  
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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**DIGI**  
**TAL**

 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***





**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 15<sup>th</sup>
- 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

Cegedim

**DIGI  
TAL**

**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



# 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

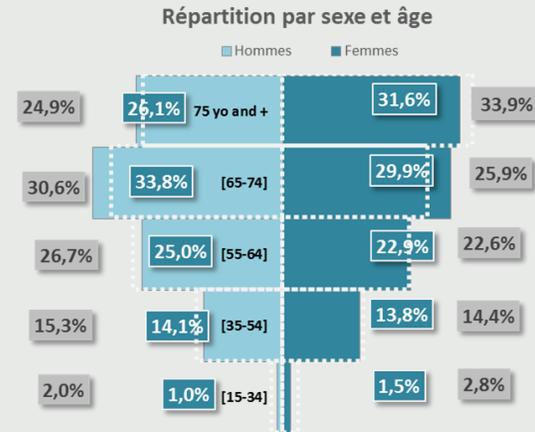
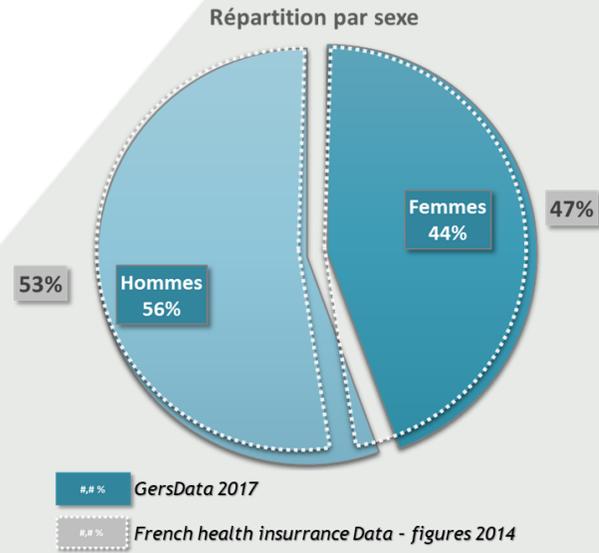


**GERS Data is also used by health authorities (CEPS...)**

# Reimbursement

Patients DT2 active in 2017 - GP's Annual results

# 113 376 patients - 4.2% prevalence (vs. 4.1% in France en <sup>(1)</sup>)

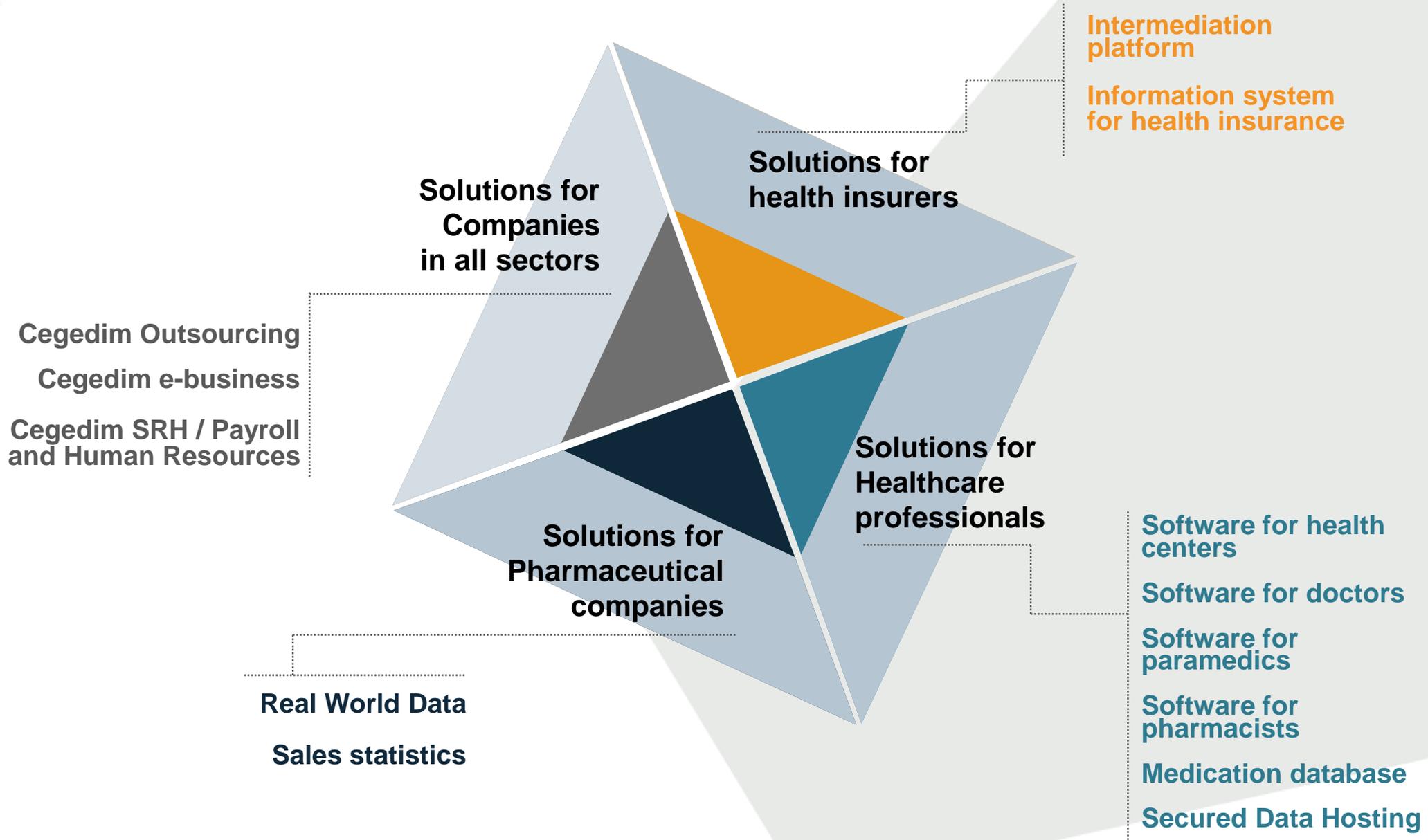


Average age: 67 years old (vs. 66 years old <sup>(1)</sup>)  
 Patients > 75 years old : 26% (vs. 29% <sup>(1)</sup>)

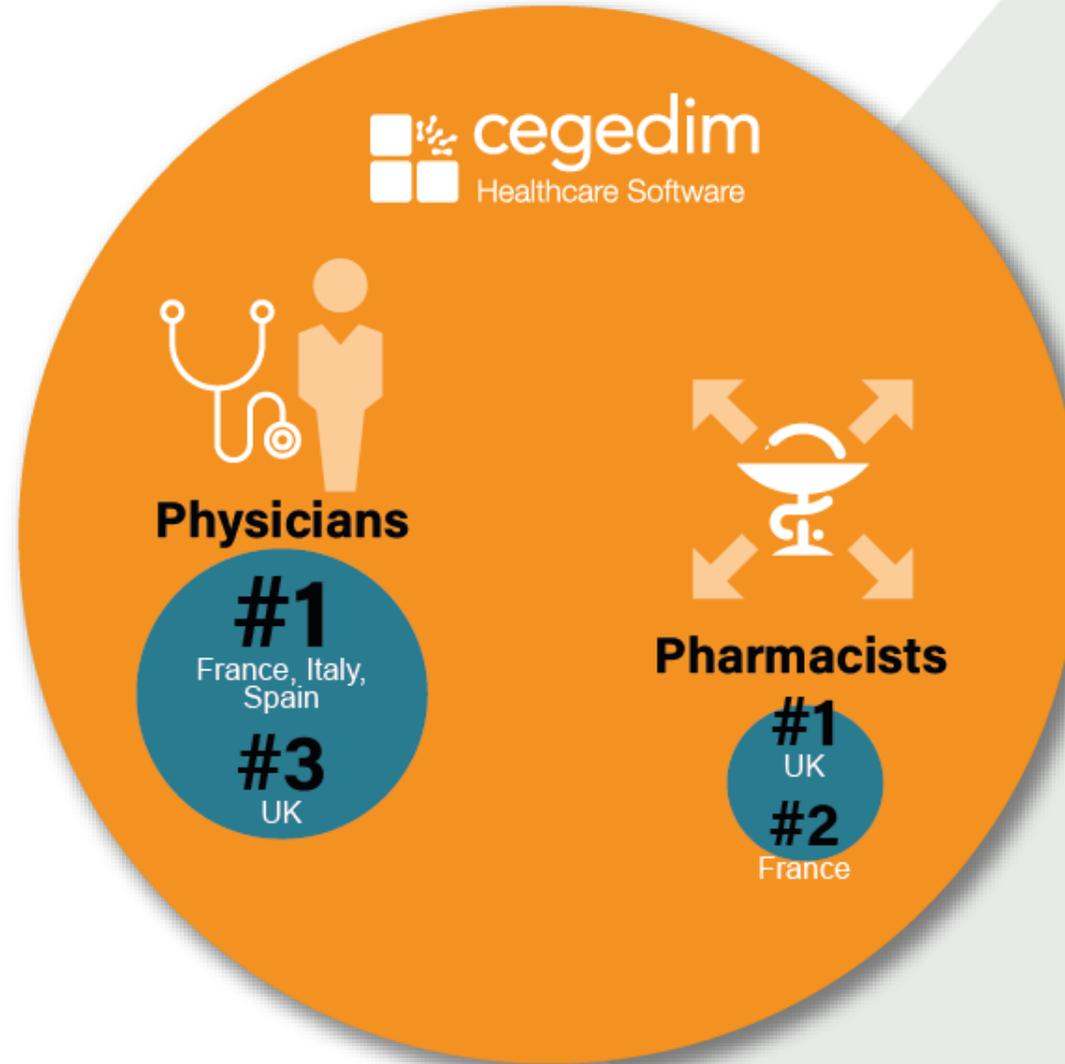
(1) Source : Pathology sheet update 08/08/2016 CNAMTS/DSES/DEPP & DEOS c



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

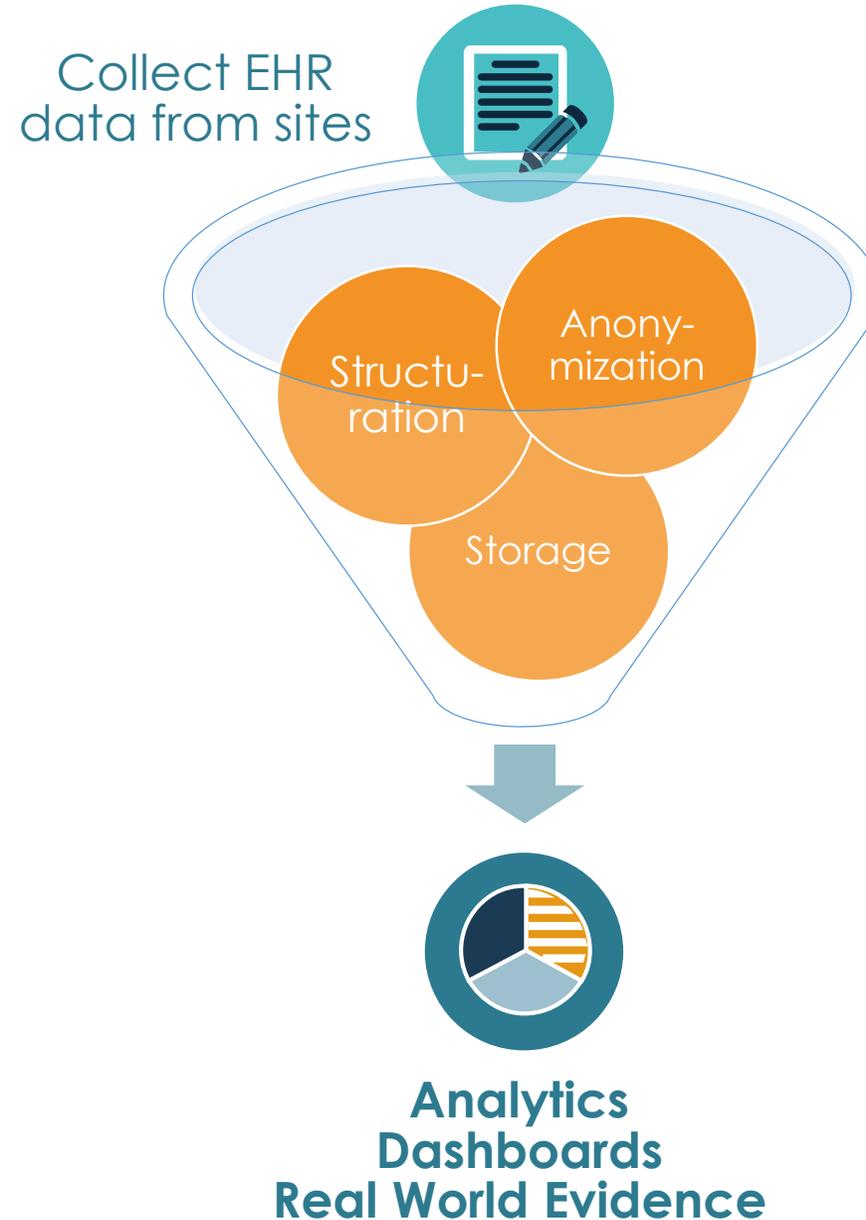


# Cegedim HCP's software leading market position and main health data provider in France



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

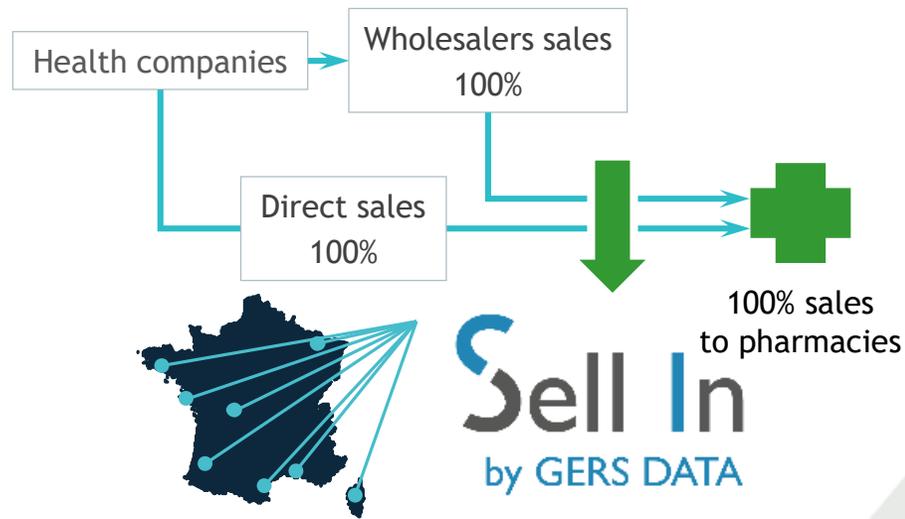
- Because Cegedim has a deep IT and software expertise, we are able to **collect, structure and produce** patient database, **available immediately** for the users
- The Cegedim databases **complies** with the relevant applicable **data protection laws**, are **fully anonymised** and data collection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



THIN<sup>®</sup>™ 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

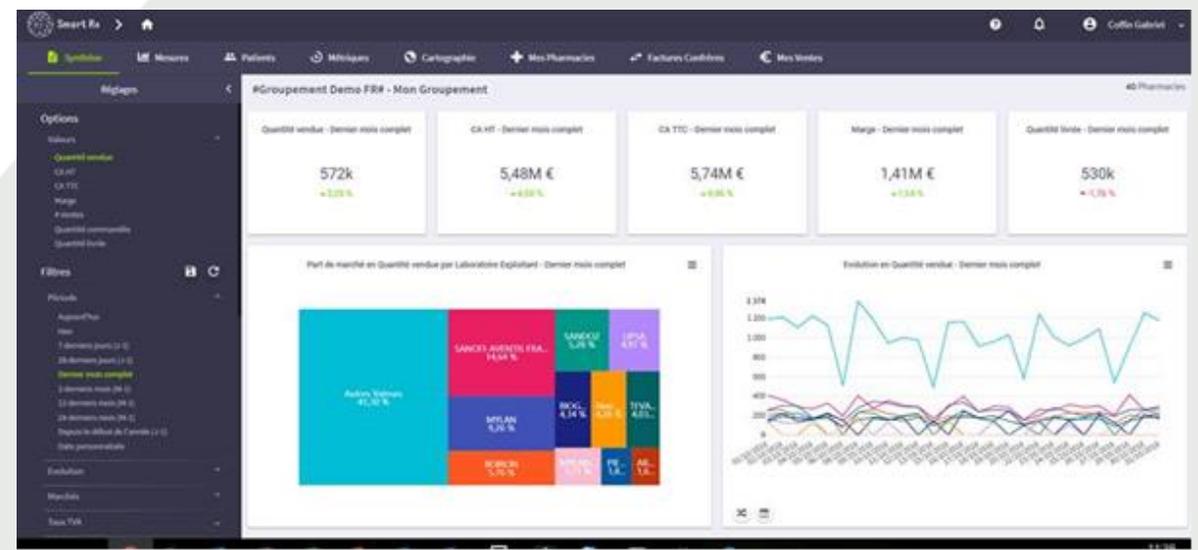


### 10 632 Pharmacies under contracts with CEGEDIM

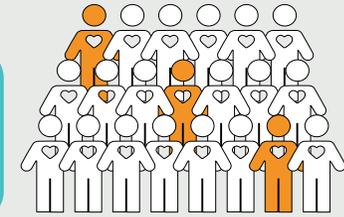
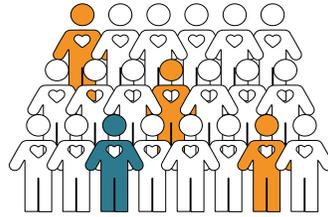
- Purchases
- Sales

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**

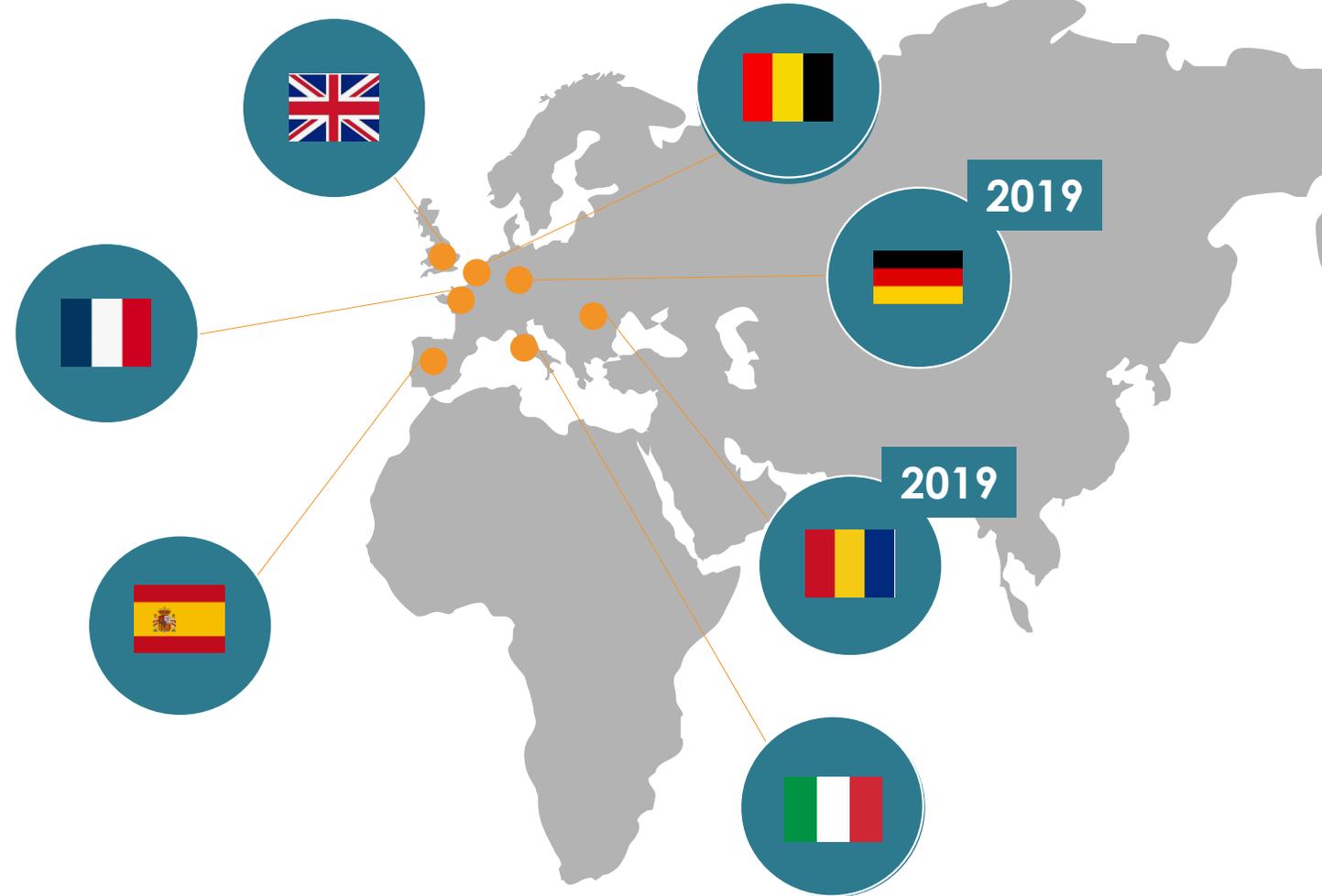
# Cegedim Health Data: a key player in Europe

**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<sup>®</sup>™ 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

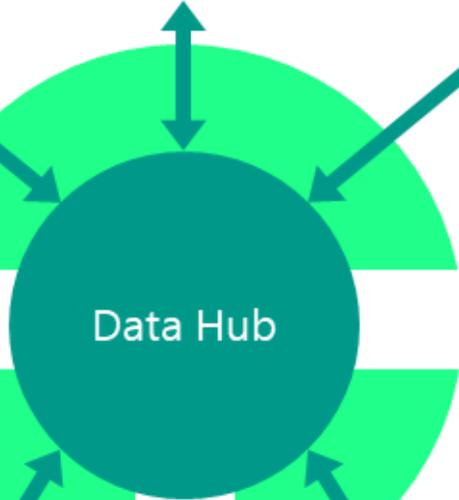
# Share patient records with Physician software in UK: How does it work ?

GP Practices



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

Sharing agreements control the data available to each local service.



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.**

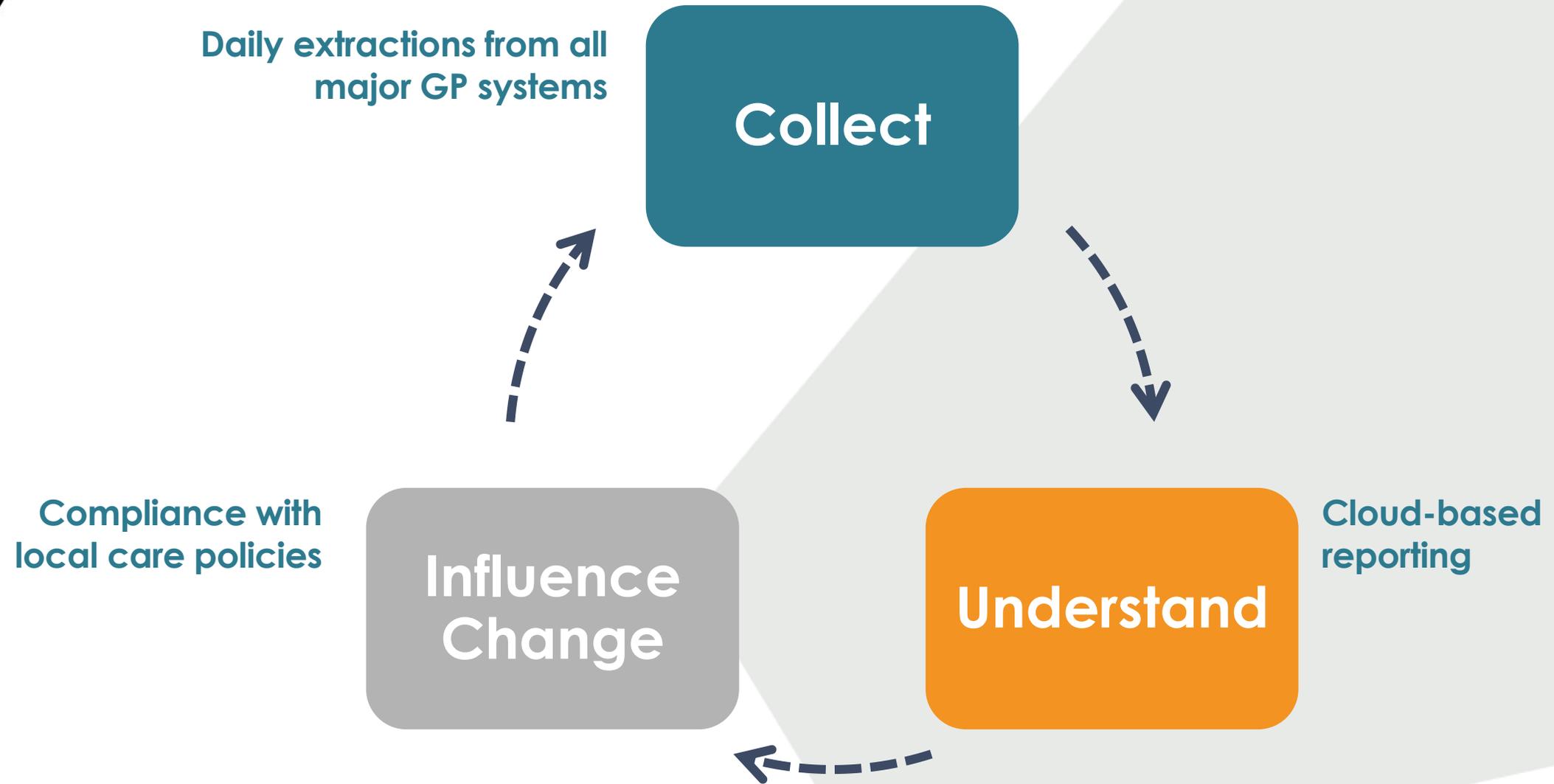
Sharing medical records with community nurses.



**vision**  
A Cegedim Brand

**Intelligent Healthcare.**  
[www.visionhealth.co.uk](http://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

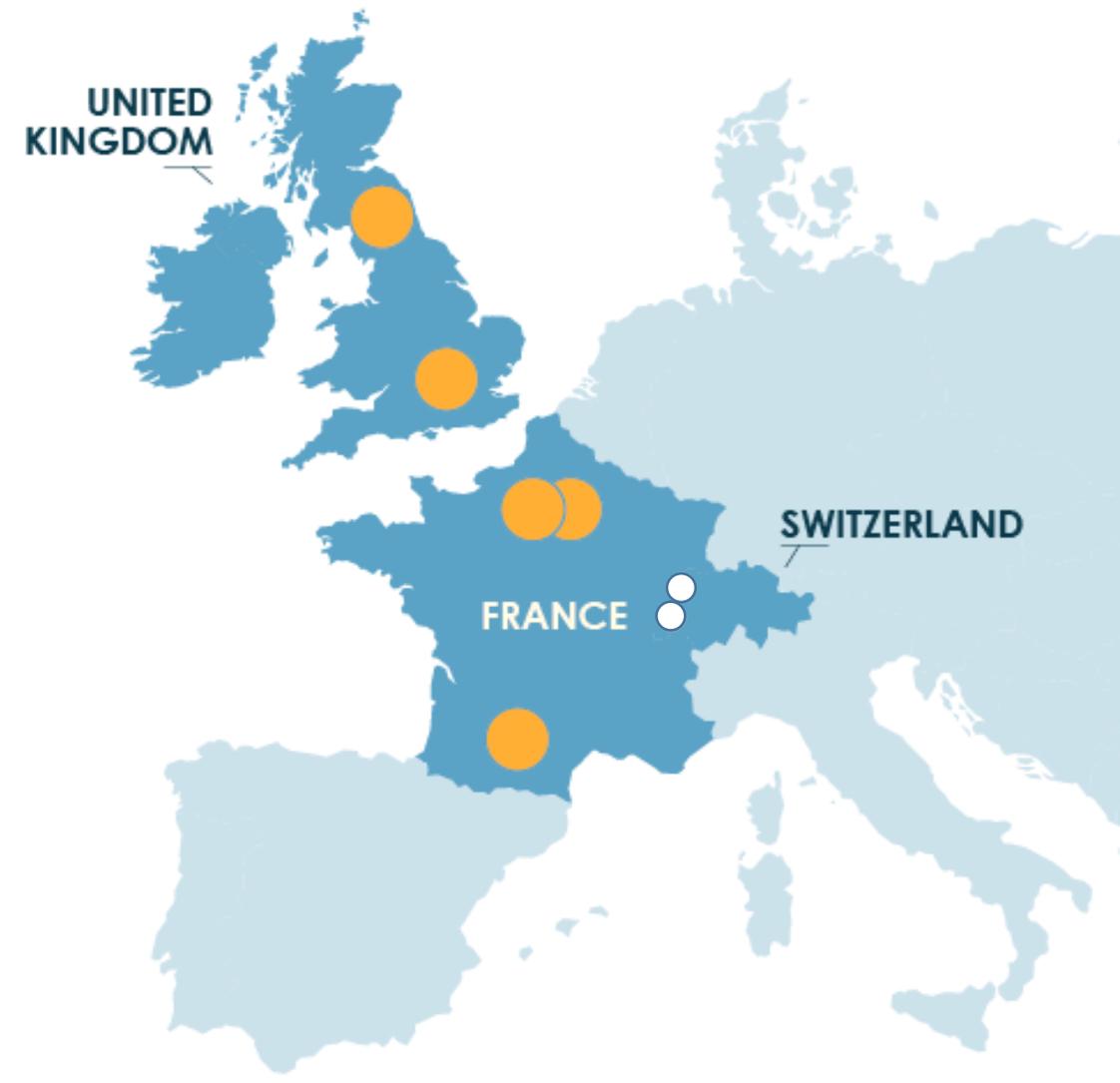
- **6 datacenters** with 3 in France
- **Infrastructure** « Best of breed »
- **French TelCo operator** (CGIT registered to the ARCEP)
- **122 headcount**
- Multiples agreements and certifications



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

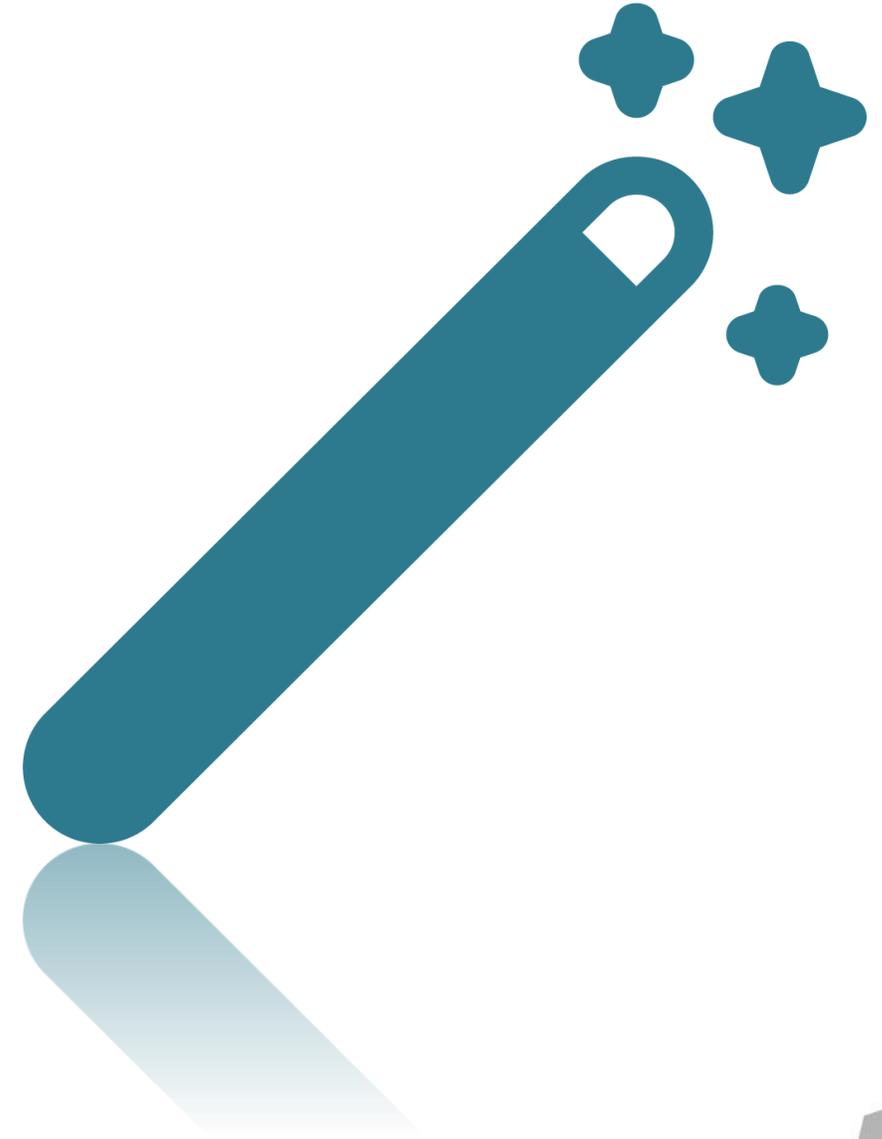
## Solutions

- 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

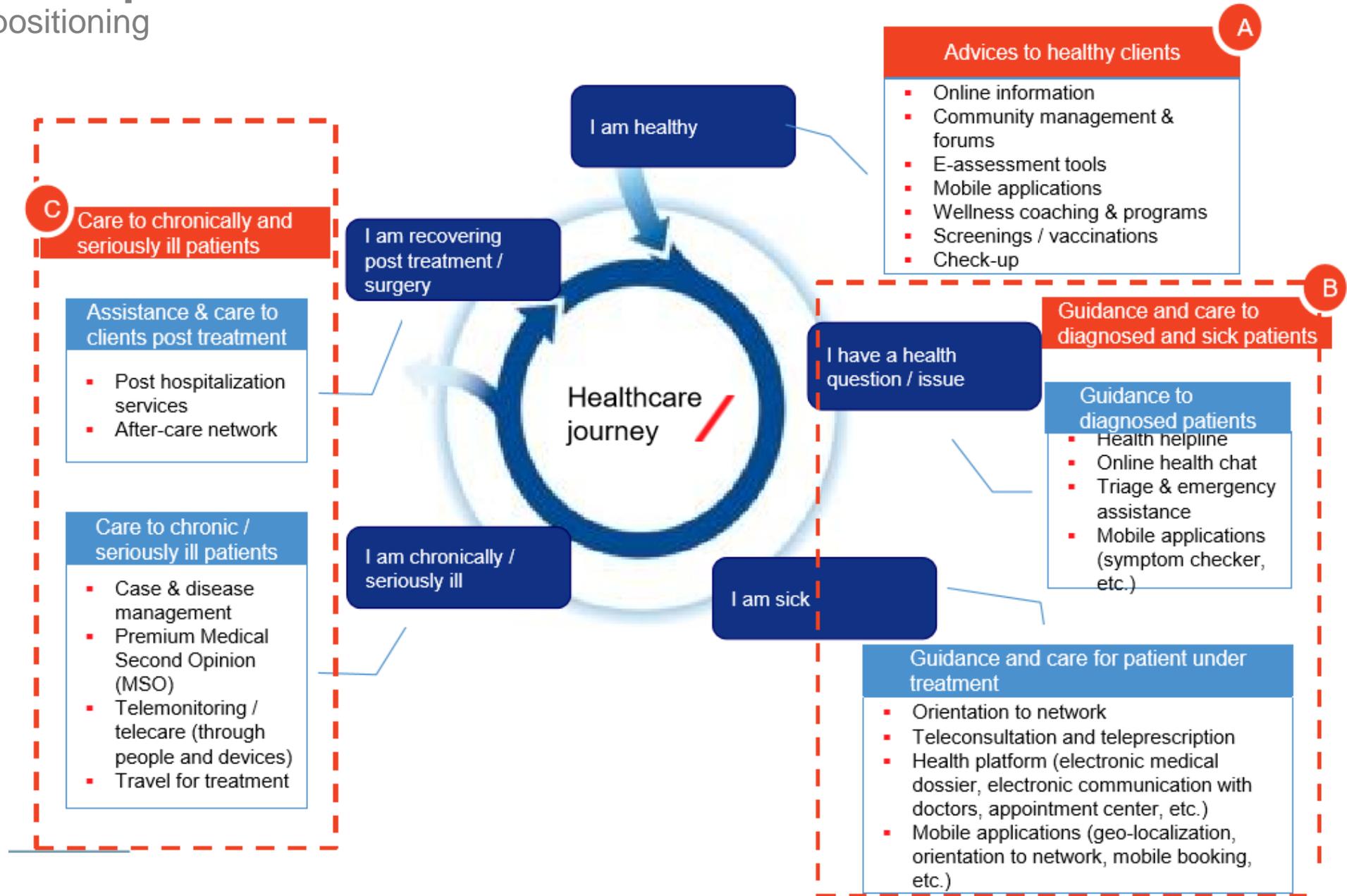
Companies are becoming clients in their own right, alongside HCPs

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

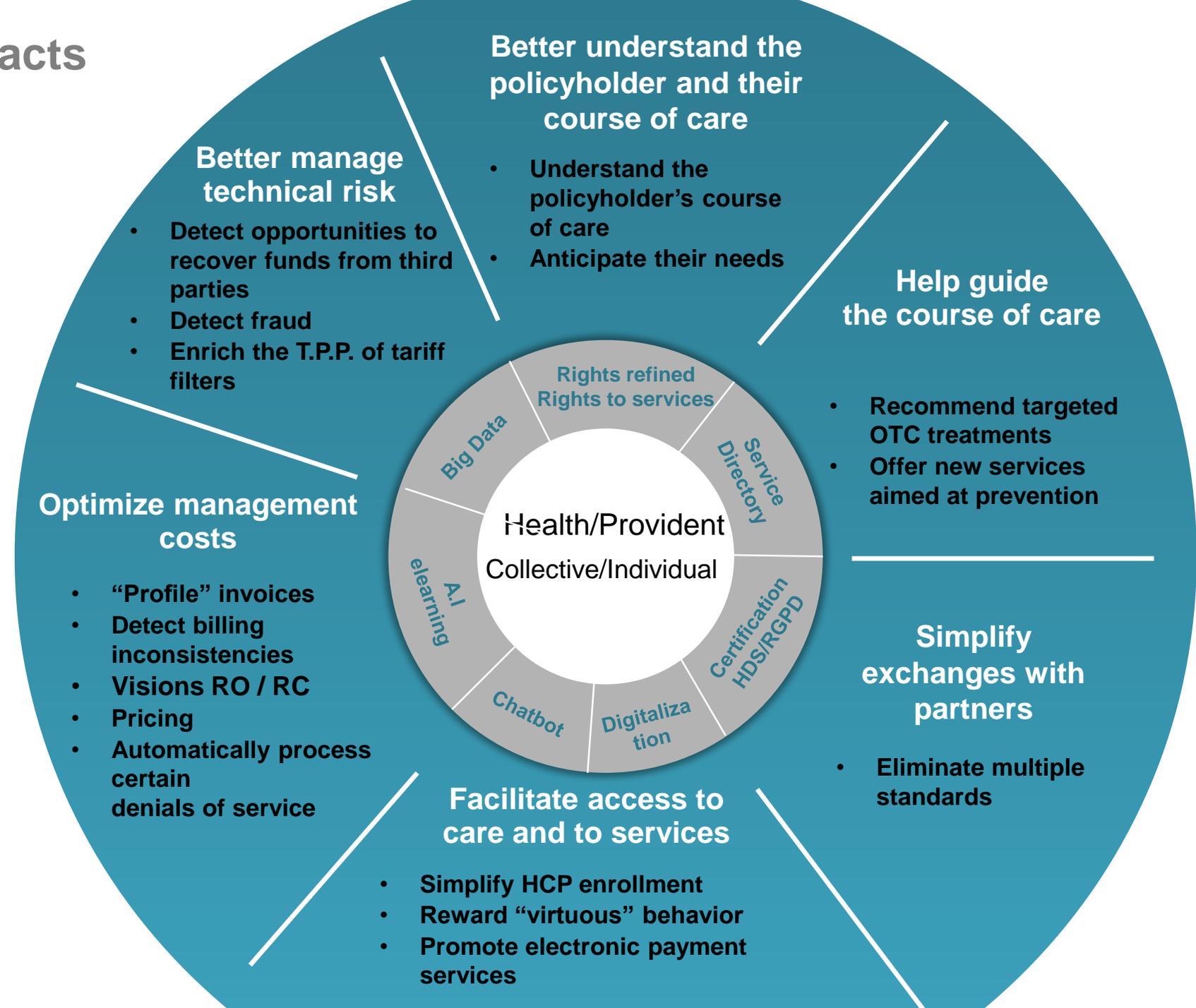
## New positioning



Source : Axa, 2<sup>nd</sup> Healthcare Insurance Innovation Summit – Vienne 2017

# Market impacts

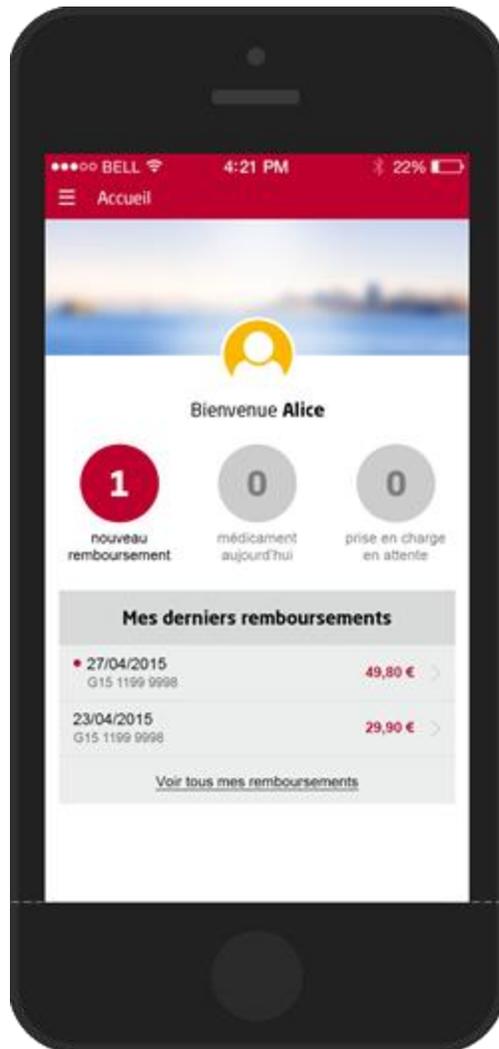
New positioning



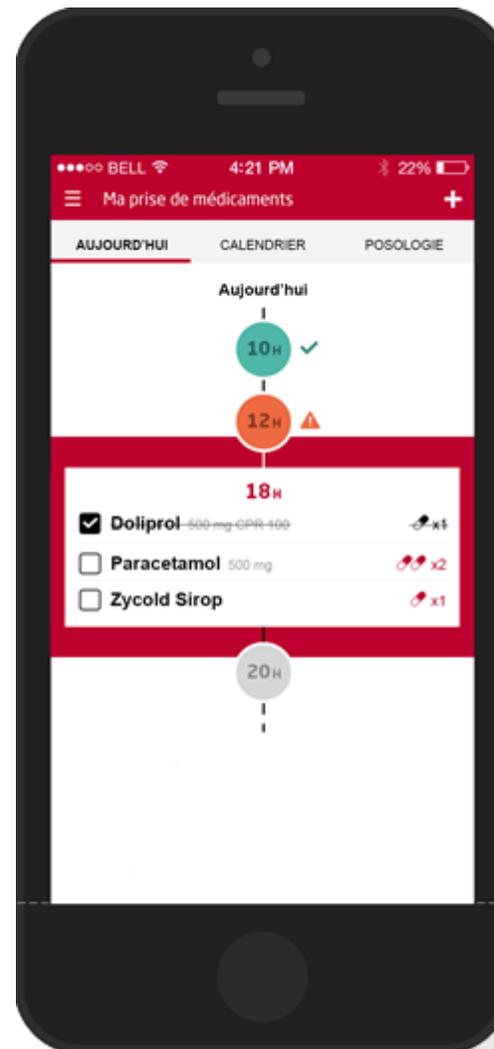
# How Cegedim Insurance Solutions is responding

Example: digitalization of services – Mobile app for policyholders

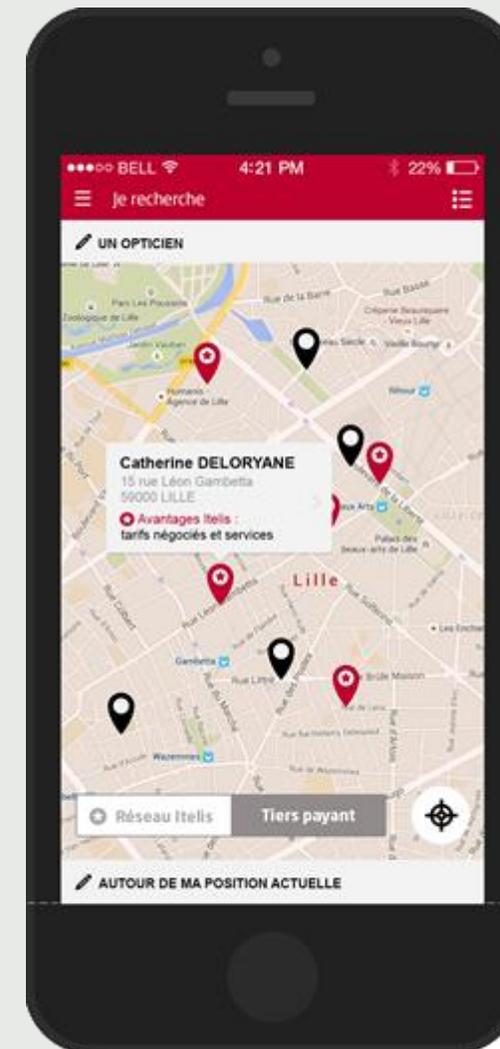
Recent payments



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

**Bénéficiaires**

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

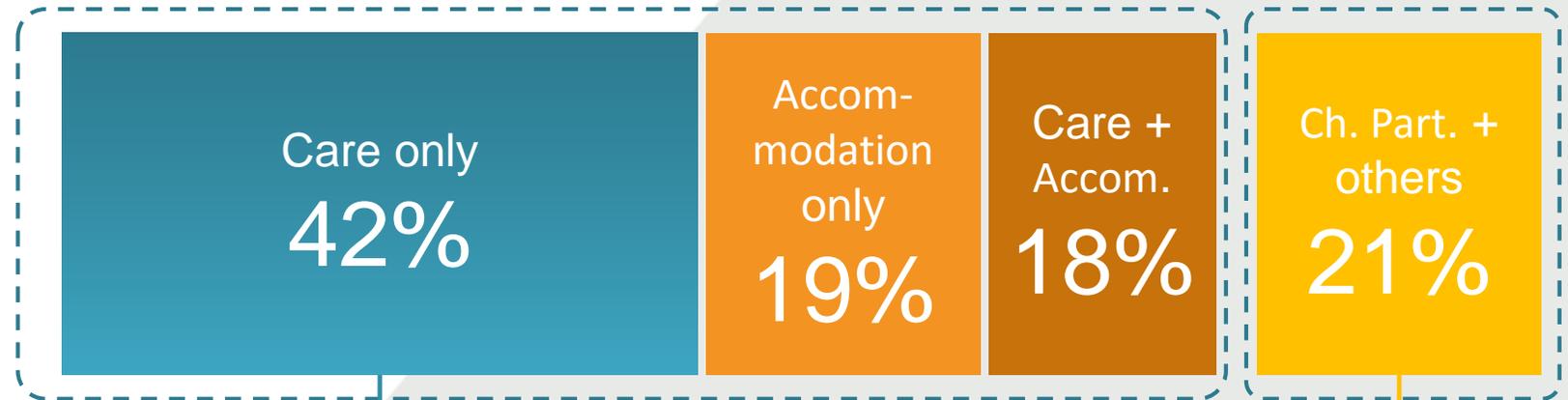
[Annuler] [Souscrire]

Electronic payslip  
(corporate intranet)

# How Cegedim Insurance Solutions is responding

Example: Big data services – Sorting hospital invoices by type

## Possible invoice types for a hospital stay



### How we add value:

- Simplify the invoice payment process by factoring in the invoice type
- Offer insurers quick productivity gains



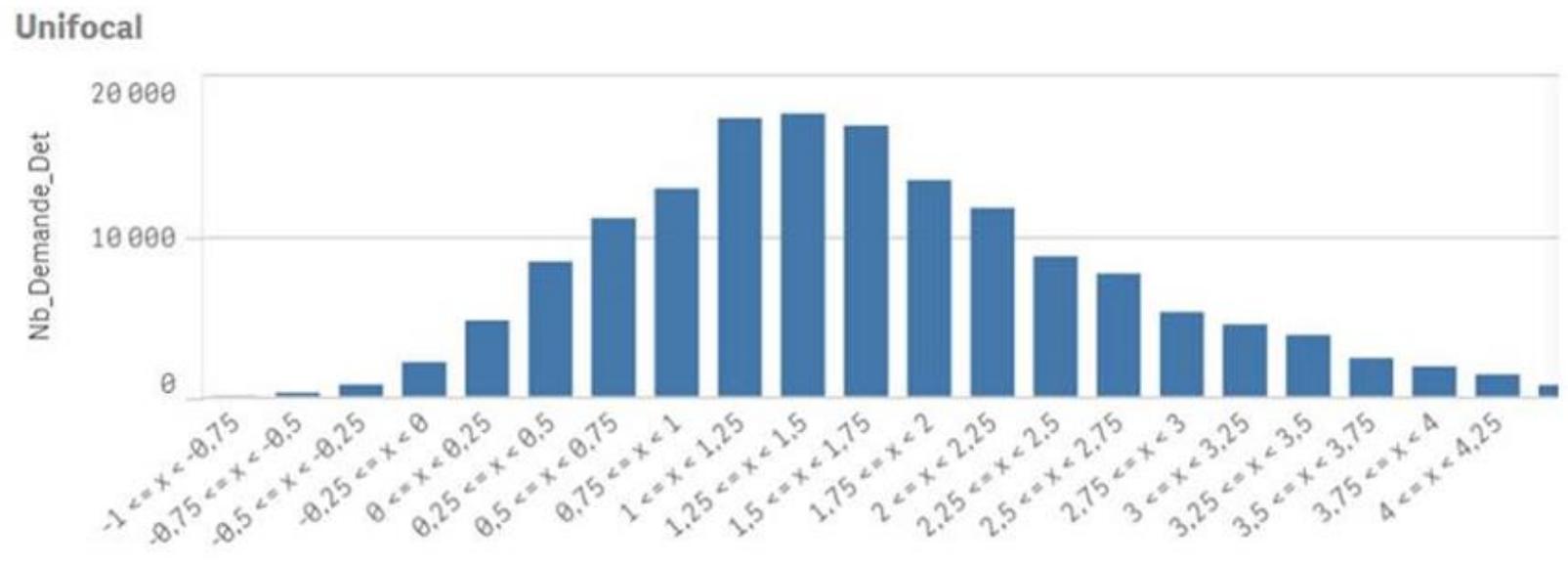
# How Cegedim Insurance Solutions is responding

Example: Big data services – Optician pricing database

## 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

## Single vision lens prices



% 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  
& 1<sup>st</sup> contributor to the  
Chorus Pro portal

ENERGY

EDI operator  
since

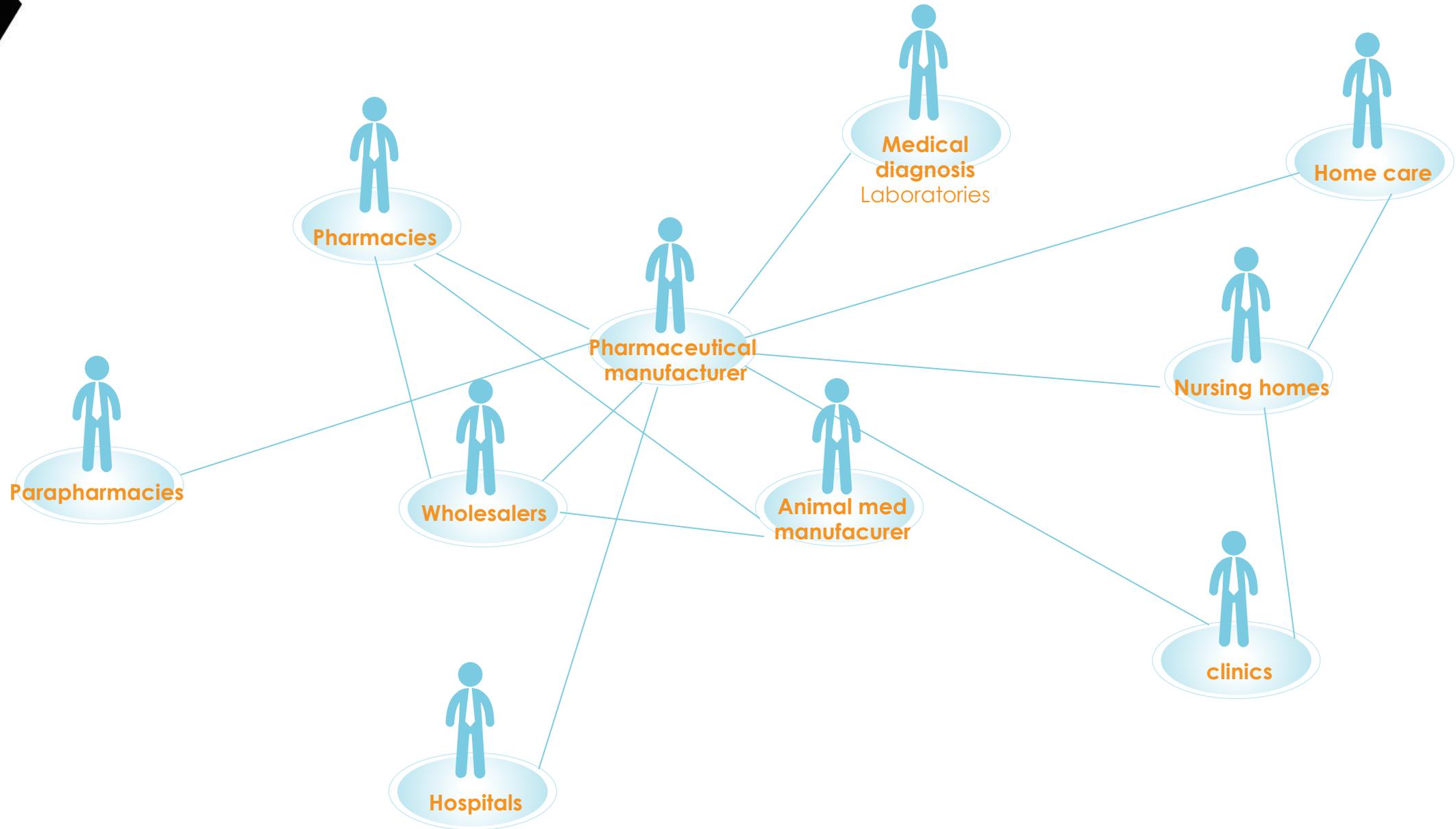
**1991**

**+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

<p><b>PHARMACISTS</b></p> 	<p><b>HOSPITALS</b></p> 	<p><b>MEDICAL ANALYSIS LABS</b></p> 
<p><b>22 000 PHARMACIES</b></p> <p>DIRECT SALES</p> <p>INVOICING</p> <p>CROSS CANAL</p> <p><b>CATALOG</b></p>	<p>1400 HOSPITALS</p> <p>INVOICING</p> <p><b>ORDER</b></p> <p>CATALOG</p> <p>FLOW TRACABILITY</p>	<p>INVOICING</p> <p><b>E-PROCUREMENT</b></p> <p>4000 DIAGNOSIS LABS</p> <p>CATALOG</p>

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

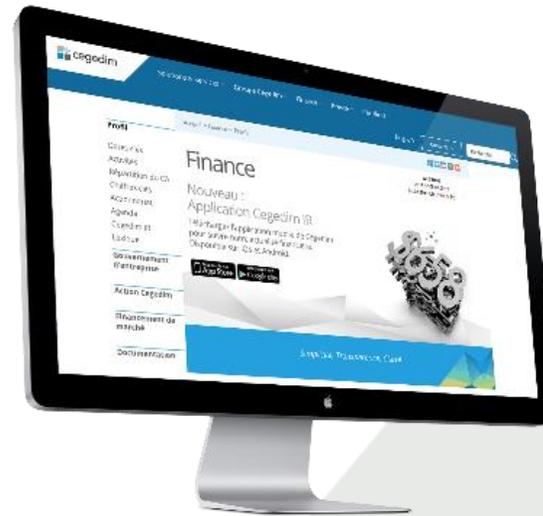
# Cegedim Financial Calendar 2018 -2019



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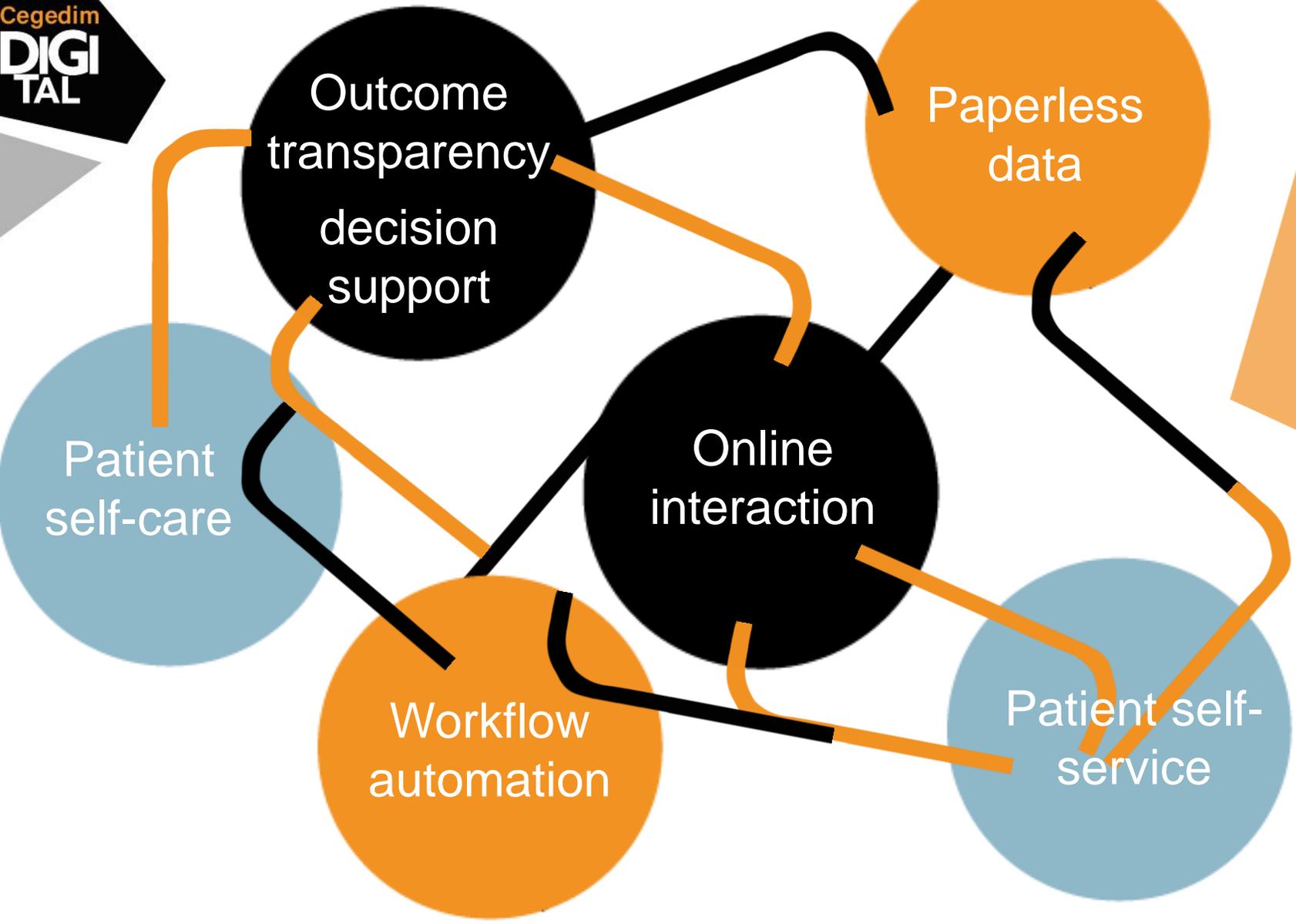
# COCKTAIL

Cegedim

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# ANNEXES

# 6 areas of improvement through digital transformation



Paperless  
data

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

Online  
interaction

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

Jan Eryk Umiastowski

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