

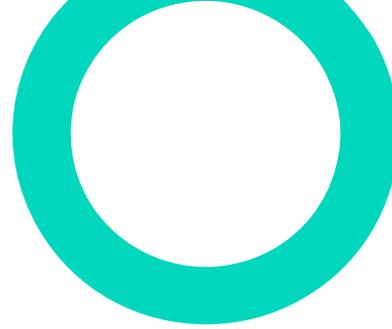
colt

ICAIDE

# 5G Pilot in Paris La Défense Toward the Smart Building

**Thierry Borgel** – Icade CIO-CDO  
**Aaron Partouche** – Innovation Development  
**Francesca Serravalle** – Emerging Technologies  
7 February 2022





Icade's

# 5G background & expectations

Thierry Borgel



# QUICK OVERVIEW OF ICADE: WHAT WE ARE, WHAT WE DO



Origine - Nanterre, Hauts-de-Seine

## TERTIARY PROPERTY: Icade, the leading real estate player in Greater Paris

- Portfolio as of 12/31/2019 : **9,1 Bn€ (100%)**
- Development pipeline : **2,2 Bn€ (380 000 sq.m)**
- Mainly located in the Paris region, close to the main stations of the Greater Paris area
- **880 000 sq.m** of land reserves



Hôpital privé du Confluent - Nantes, Loire-Atlantique

## HEALTHCARE PROPERTY: Icade, leading player in Europe

- Portfolio as of 12/31/2019 : **5,3 bn€ (100%)**
- **130** healthcare institutions in France: **107** short and medium-stay and **23** EHPADs (retirement homes)
- **26** long-stay healthcare facilities in Europe (Italy and Germany)

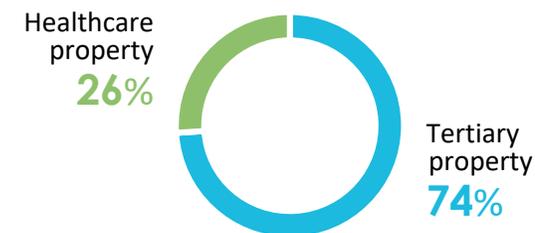


Île Seguin - Boulogne-Billancourt, Hauts-de-Seine

## PROPERTY DEVELOPER : 6<sup>th</sup> largest french developer

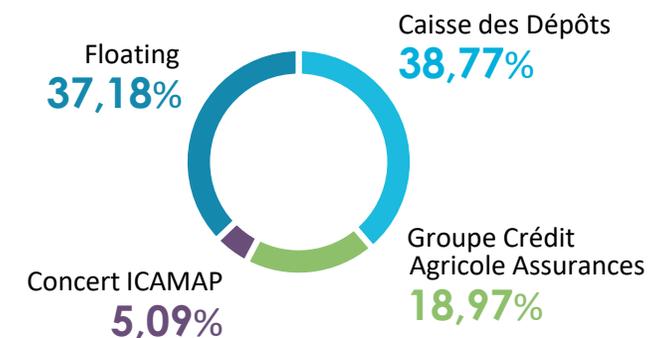
- Limited and Profitable Exposure (less than **10%** of the Group's equity)
- A generalist developer (offices, housing, etc.) with a large national network (**21** locations)

**11,5 Bn€ in assets**  
(as of 12/31/2019 excluding PdG duties)



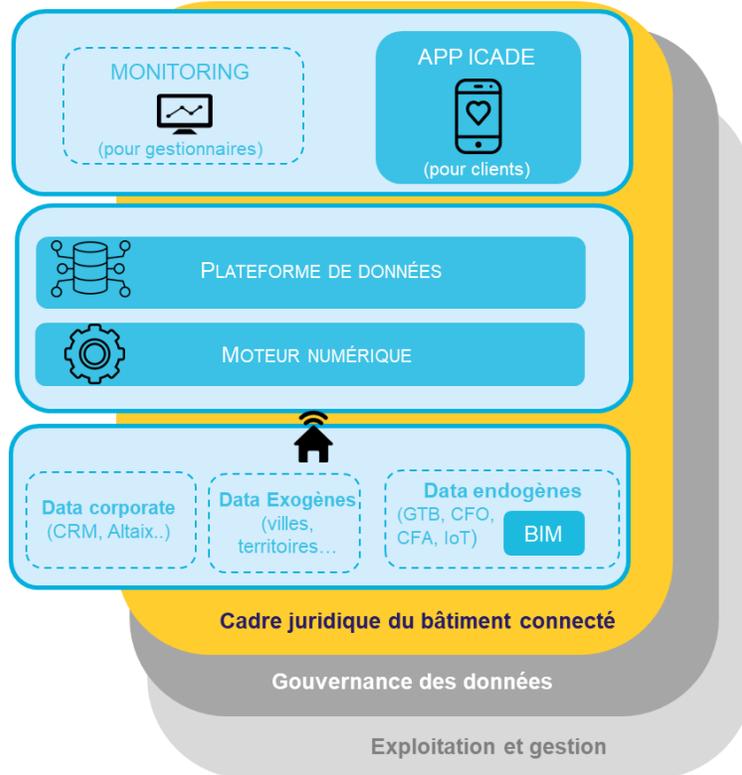
## Icade shareholding

as of 12/31/2019 (in %)

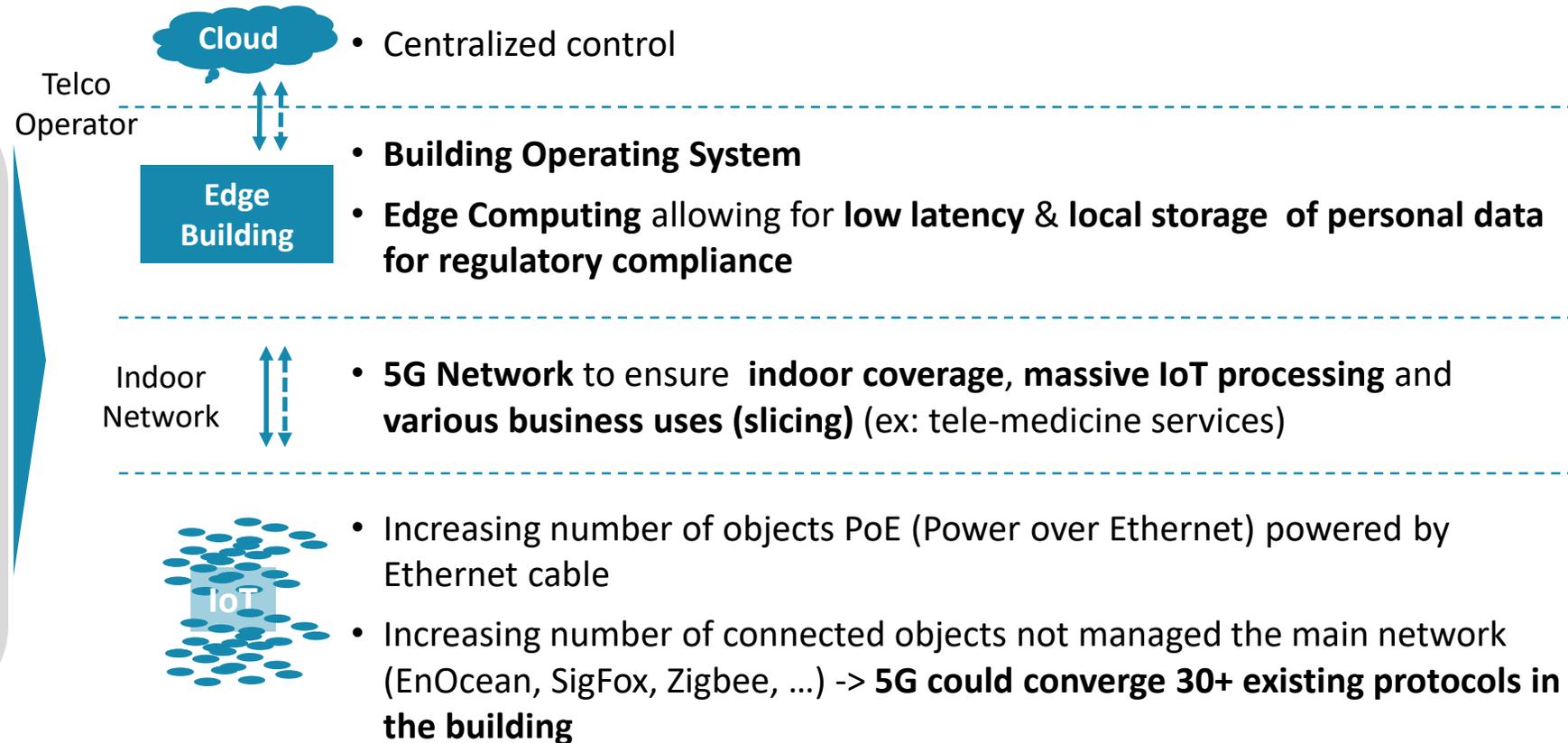


# 5G IN REAL STATE: A NEW BUSINESS?

**Our vision : the building becomes a platform for data & services**



**To implement this vision in an industrial way, Icade must standardize the way to produce/transport/store and process Smart Building data**



# 5G: NOT AN EASY TOPIC IN FRANCE

## Mid – 2020

### 5G, a sensitive subject

A public controversy on the health and environmental impacts of the "general public" uses of 5G led by the ecologist mayors of large cities



## Late 2020

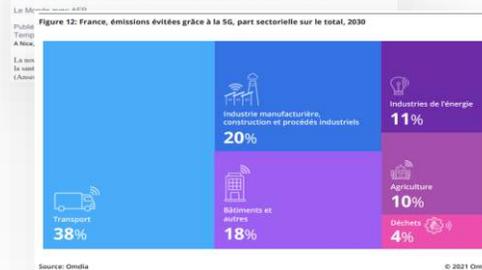
### Controversy fades

Expert reports (ANSES, OMDIA...) that reassure about the health and environmental impacts.

A massive investment by the State in the deployment of infrastructures

5G : « Pas de risques nouveaux » selon l'Anses, qui recommande de poursuivre les recherches

Dans un avis très attendu, l'Agence nationale de sécurité sanitaire souhaite qu'à l'avenir de telles études sanitaires soient réalisées « préalablement [au] déploiement » de technologies nouvelles.

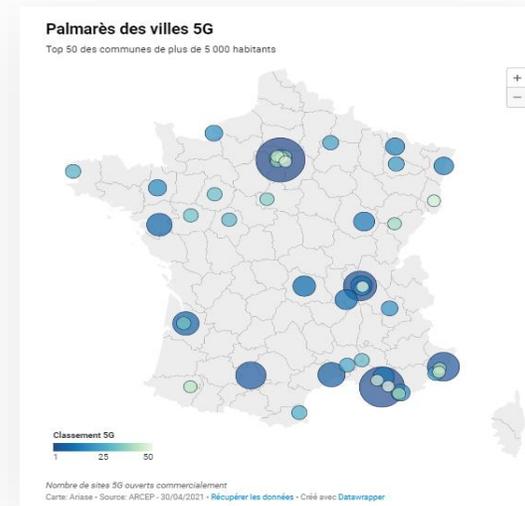


## Mid - 2021

### French deployment underway

France's major metropolises have finally sided with 5G.

French cities are welcoming operators and starting to significantly improve their coverage and welcome

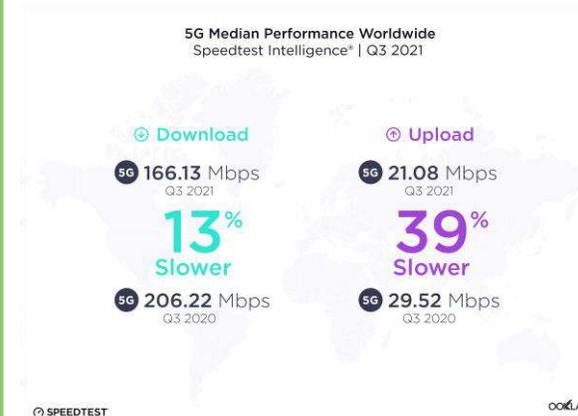


## 2022

### 5G networks expanding globally

If they were 13 a year ago, it is now 112 countries that have started their 5G deployment.

This global rollout is having an impact on the average speeds recorded, which seem to be slowing down. However, according to experts, a rebound in speeds is expected for this year 2022.



# 5G: NOW A HOT TOPIC IN ENTERPRISE...

In France

**65 %**

Annual increase in data traffic

**X 10**

That's the multiplication of data traffic between 2017 and 2021

Today

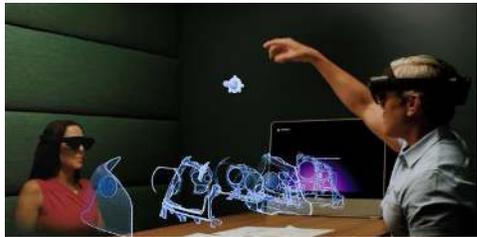
**80 %**

Of mobile traffic is generated within a site

Today

**60 %**

Respondents are not satisfied with their indoor connection



**Cisco Webex hologram:**  
AReality video conferencing solution



**« La Vitre »:**  
videoconferencing solution to enhance spontaneous exchanges



**Google starline:**  
immersive video conferencing solution

... and also for Icade to tackle these 3 challenges

## 1 – Control of the environmental impact

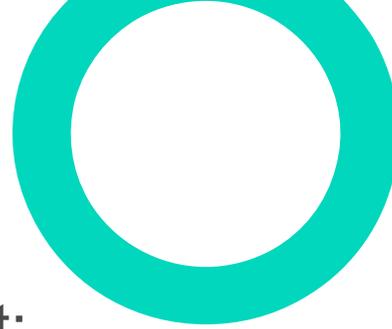
- In a context of data consumption explosion in the buildings
- Icade is particularly sensitive to the subject of RF exposure and impact of energy consumption.

## 2 – Indoor Building connectivity & evolution

- Convergence of different building connectivity networks (Wifi, Mobile & IoT) on the 5G infrastructure
- Evolution of operational models to be expected with the emergence of the Zero Trust trend

## 3 – Tomorrow's work environment

- Under the pressure of remote office, the building must become a service platform for the end user
- 5G is an enabler to transform employee experience, especially with AR and new immersive collaboration solutions



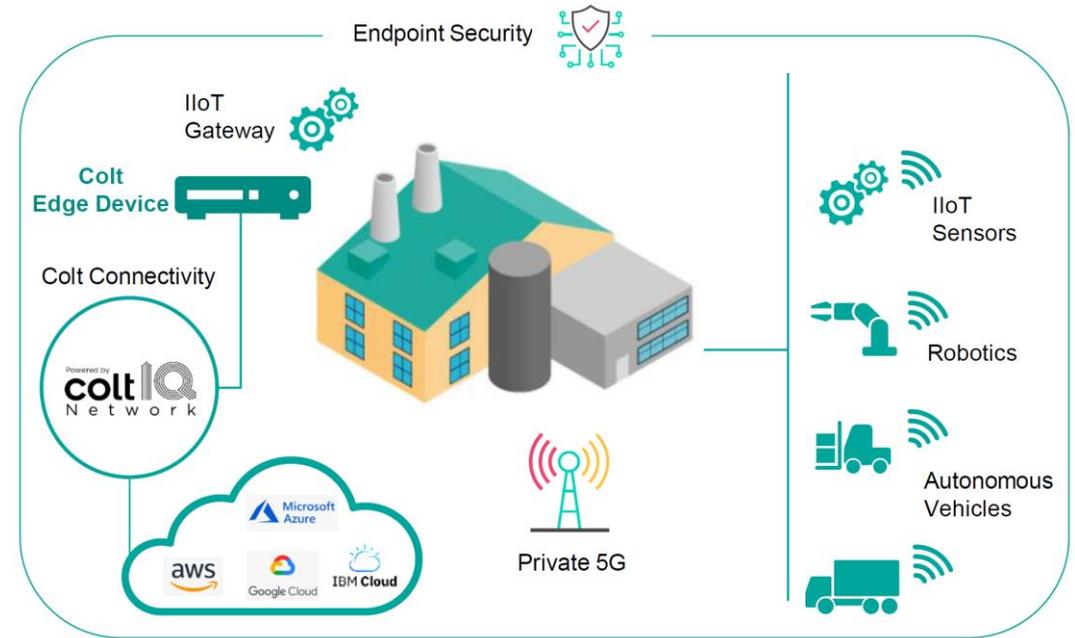
Colt's Innovation Development:

# Incubate Private 5G with Icade

Aaron Partouche



colt



## Pilot 5G consortium role and location of the 5G Pilot

*“The incubation project is one of the first to test end-to-end private 5G in real estate using disaggregated architecture.”*



provide the underlying infrastructure components, including hosting of virtual functions



provide the RUs, 5G modems and End-to-End Open RAN software components



provide its Griffone 5G Stand Alone mobile core network



- ❑ Private 5G networks to the PB5 La Défense building in Paris, enabling the exploration of varied use cases for the co-working space environment managed by Imagin'Office, an Icade subsidiary.
- ❑ This field lab ecosystem will test 5G use cases, including creating immersive experiences for the future workplace for a variety of industries.



Coordinate the consortium / provide Internet/ Ethernet & Optical with 5G Sync and Distributed Edge facilities



provide performance monitoring and analytics solutions to assure the digital experience of the 5G service.



provide on field 5G network operation & manage workplace uses cases

- ▶ Come & Join us to test your innovation in our 5G Pilot!
- ▶ Contact: [aaron.partouche@colt.net](mailto:aaron.partouche@colt.net) / [pierre-louis.couette-externe@icade.fr](mailto:pierre-louis.couette-externe@icade.fr)

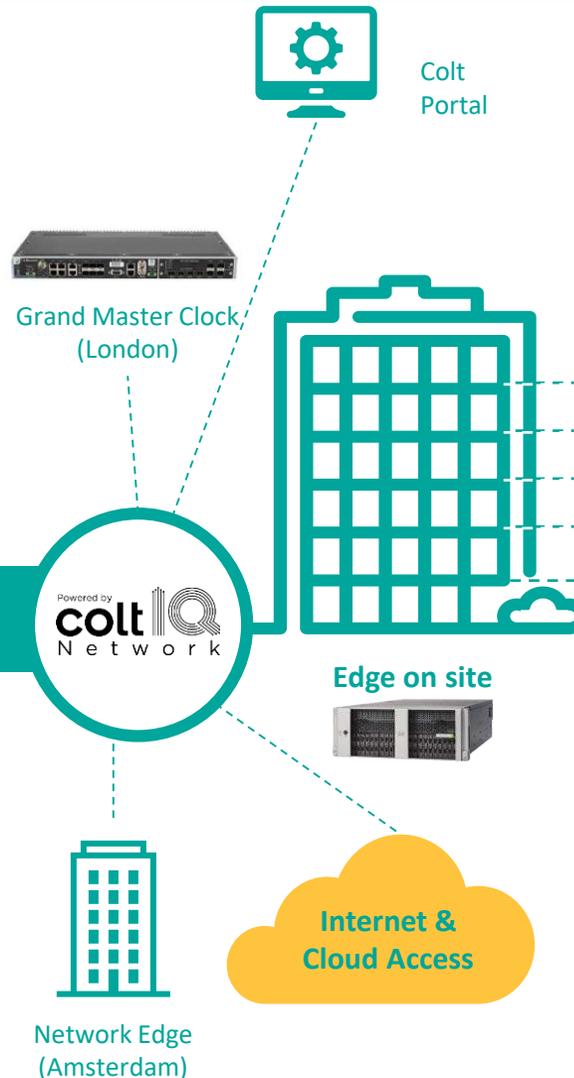
# Convergence of smart building networks

## ICADE's CONTEXT

- *Within a few years, we should be able to converge all the connectivity needs of a building on a single largely wireless infrastructure, greatly simplifying its construction, management and renovation. Can private 5G play this role?*
- At the same time and following the evolution of usage, more and more companies are looking at the possibility of moving towards a **zero-trust model\*** for access to their IT resources

## DISTRIBUTED EDGE CLOUD

- We are leveraging Colt's Edge cloud capabilities to distribute the Private 5G functions across Amsterdam, London & Paris and provide max of flexibility based on low latency backbone networks



Mission Criticals  
Push-To-Talk



Voice / UC



IoT & Energy  
consumption



5G Internet



Remote  
assistance



\*Zero Trust Model: Recent changes in technology and usage are challenging the traditional perimeter defense model. The increased use of cloud computing, telecommuting and personal resources to access business data are reducing the control that entities have over their information. The Zero Trust model proposes to overcome security problems by changing the notion of perimeter and reinforcing the security to access resources rather than networks. Employees would now access services via Internet rather than the corporate network

# Initial feedback from 2021's activities

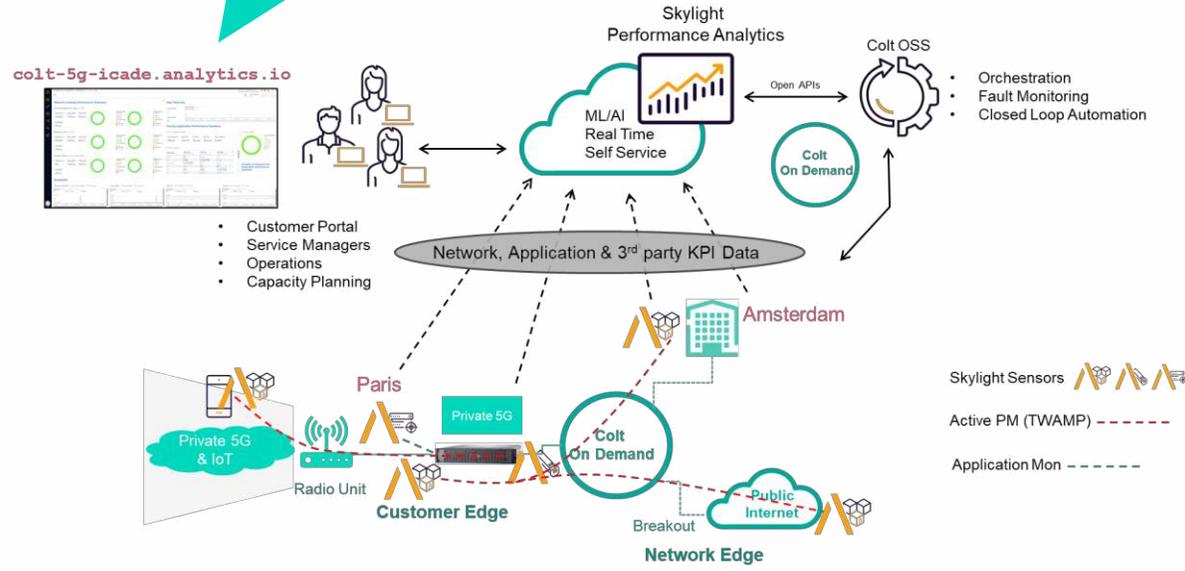


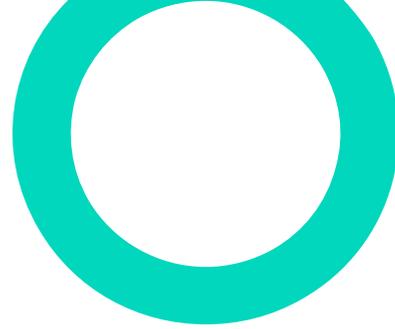
All the on site equipments are included in a small van !

Perfect integration in the office environment: 5G antennas near WiFi AP's



Cloud based monitoring access for full visibility of network performance – baseline for futur Closed Loop Automation!





Fireside chat:

# How to co-innovate with several partners

Francesca Serravalle



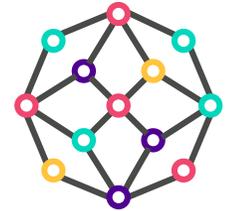
Thierry Borgel



Aaron Partouche



colt



Thank you!

