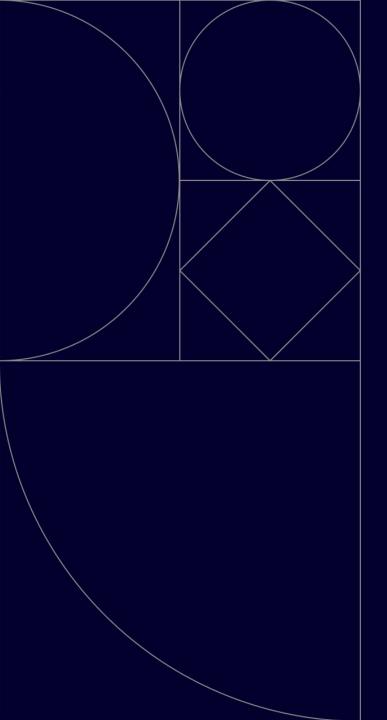


VIVATECH

# Let's democratize low-carbon buildings





.

## Problem

44 %\*

of French energy consumption is attributable to buildings

28 %\*\*

of national carbon emissions come from buildings

**75** %\*\*\*

of carbon emissions come from the thermal uses of buildings

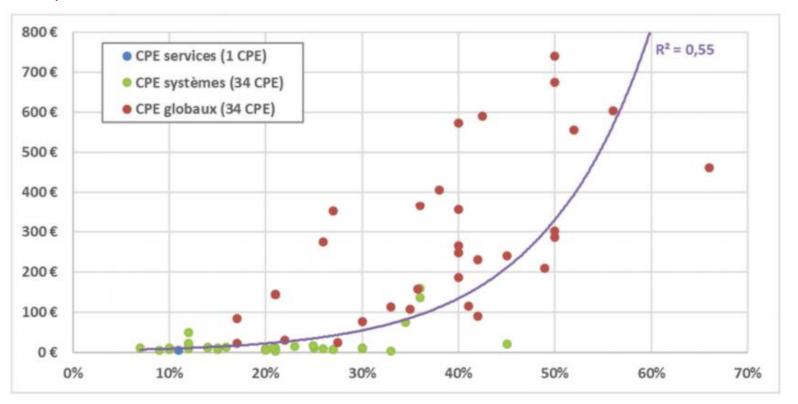
<sup>\*</sup> Source - Ministère de la Transition Ecologique

<sup>\*\*</sup> Source – Stratégie Nationale Bas Carbone Mars 2020 – P.86

<sup>\*\*\*</sup> Source – Stratégie Nationale Bas Carbone Mars 2020 – P.88

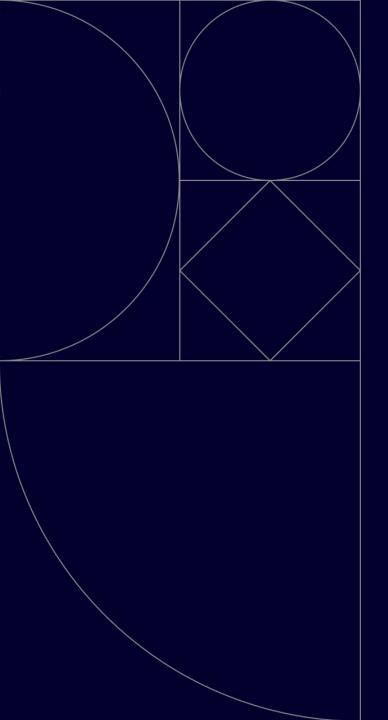
## But the cost for ambitious renovation hinders deployment

#### Cost/sqm



**Energy consumption** reduction

Source – Observatoire des Contrats de Performance Energétique – June 2019 – Figure 18



2.

## Solution

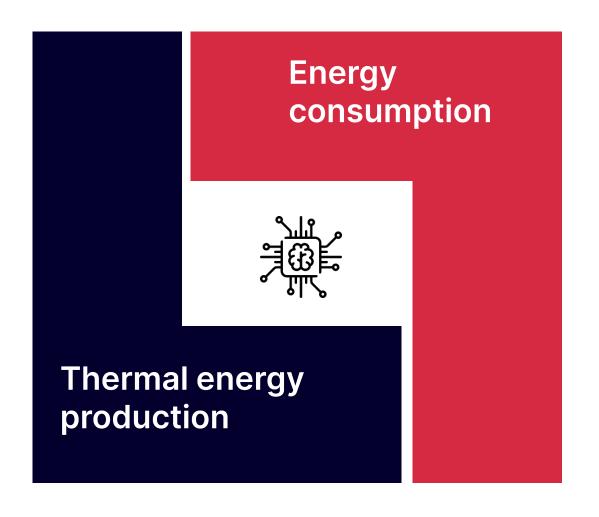
## Accenta leverages the two pillars of energy efficiency

1. Production optimization

Use less energy to produce 1 thermal kWh

2. Consumption optimization

Consume less energy for the same service



## With a turnkey go-to-market strategy and commitment on performance for maximum simplicity at the customer level

## **Simplicity**

A turnkey offer, operated and financed











## **Expertise**

Aïden - A dedicated joint venture between Accenta and two major energy players

- 4300 employees
- 1 Bn€ + turnover
- ESCO N°3 in France



**X** idex

- Independant Power Producer
- 3,3 GW renewables assets operated around the globe
- 950 employes

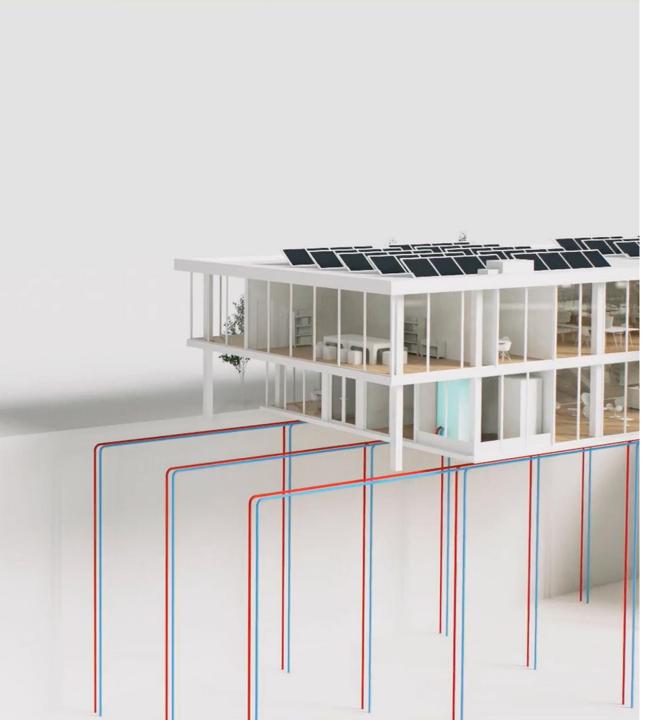
## Reliability

We comit our revenues against the energy reduction commitment. We can do so by combining the power of AI to the know-how of our Energy Managers



#### SOLUTION

# Technologies overview



## Low-carbon energy system

•PILOT® LowCarbon

#### → How does it work?

• The system equipped with geothermal heat pumps captures renewable heat in the summer and stores it underground via geothermal probes up to 200m deep, for heating in winter. The cold captured and stored in winter is used for cooling in summer. It can also be deployed on several buildings to create a thermal smart grid.

#### A system optimized by Al

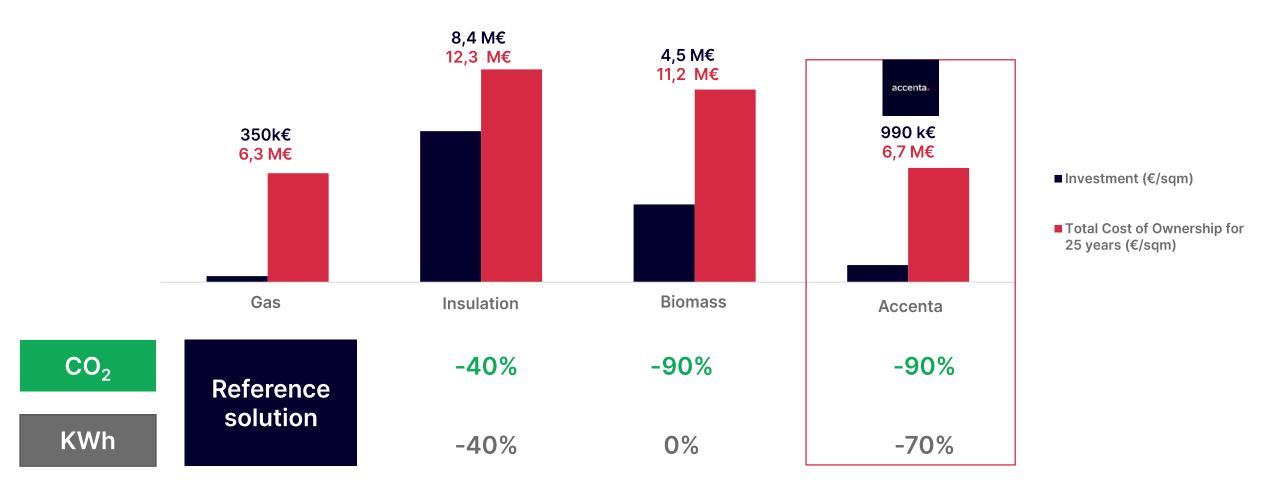
- Simulates thousands of sizing options in seconds and chooses the one that maximizes performance at the lowest cost
- Operates the system in a predictive manner with Machine Learning in order to guarantee performances

### → Why it's different from competition

- It is less expensive than a conventional geothermal system thanks to the optimization of the design and investment by AI
- Performance is maximized thanks to AI control that anticipates the building's needs
- It can combine different technologies (solar thermal, heat pump, PV) in order to create the optimal system from a cost and performance point of view

## This is the most competitive solution to decarbonize heating and cooling

Comparison for a 28 000 sqm warehouse only for heating (worst scenario for our technology)



Cost assumptions from ADEME for a 7.5 MW biomass and gas plant The overall cost includes energy supply and boiler room maintenance, with inflation Assumptions without optimal sizing of the Accenta solution



## **Building Management System**

•PILOT® SmartBuilding

#### → How does it work?

 Our Cloud based, universal and multi-protocol software platform interfaces with all building management systems hardware to automatically control energy consumption in a unified manner and optimize the self-consumption of renewable energy. For one or hundreds of buildings.

#### A system optimized by Al

 PILOT SmartBuilding's Artificial Intelligence algorithms determine the optimal way to run energetic equipments

#### Why it's different from competition

- A simple and evolutive Cloud native solution compared to the complicated and non-performing on-premise historical architecture
- Ability to control from a single platform an entire fleet of heterogeneous buildings
- Renewable energy self-consumption optimization
- Predictive operation thanks to IA



## **Energy Management System**

#### •INSIGHT®

#### → How does it work?

 Our secure Cloud platform INSIGHT ensures the collection of energy data to centralize and monitor consumption in real time at scale for a building or a complete fleet.

#### **⊢** Why it's different from competition

• The system is interoperable with other Accenta technologies to facilitate the deployment of an energy strategy

## References low-carbon energy system



**OFFICES** 

36 000 sqm

77 %

Energy consumption reduction

87 %

Carbon emissions reduction

24/7

**Monitoring & Control** 



**OFFICES** 

18 000 sqm

59 %

Energy consumption reduction

82 %

Carbon emissions reduction

24/7

Monitoring & Control



**WAREHOUSE** 

100 000 sqm

60 %

Energy consumption reduction

71 %

Carbon emissions reduction

24/7

**Monitoring & Control** 

## References BMS & EMS





**PUBLIC BUILDINGS** 

65 buildings

15 % to 40 % Energy consumption reduction

15 % à 40 % Carbon emissions reduction

> 24/7 Monitoring & Control



**WAREHOUSE** 

30 000 sqm

33 % Energy consumption reduction

33 % Carbon emissions reduction

> 24/7 Monitoring & Control



**OFFICES** 

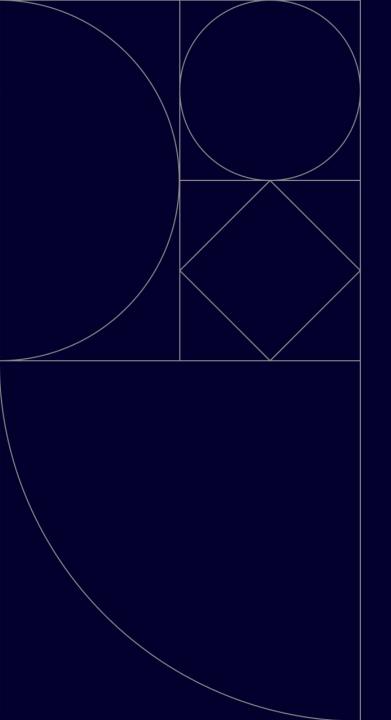
24 000 sqm

29 %

Energy consumption reduction

29 % Carbon emissions reduction

> 24/7 Monitoring & Control



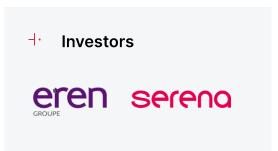
3.

## **About us**

**About us** 



Key figures
2016 45 14,7 M€
Year of incorporation employees raised since 2019





- **→** Our mission
  - Democratize low carbon buildings by optimizing, thanks to algorithms, energy production, storage and consumption.

Management team



## Pierre TREMOLIERES

### CEO & co-founder

- Pierre co-founded Accenta in 2016 and has since held the position of Chief Executive Officer, in charge of Accenta's strategy and development.
- He created his first company at the age of 22 in the field of edutainment games, which he sold to the Ubisoft group. He then launched into online marketing and e-learning. In 2005, Pierre created the e-commerce website delamaison.fr, specialized in home equipment, taken over by Adéo group (Leroy Merlin, Weldom, Bricoman,...) in 2012. Pierre is co-founder in 2012 of 50 Partners, an incubator specialized in new technologies. He is a member of the strategic committee of the 50P Impact fund.
- Pierre is a graduate from Ecole des Gobelins, HEC Management (97) and Stanford Entrepreneurship (14).



## Marine DOQUET-CHASSAING

### COO & co-founder

- Marine co-founded Accenta in 2016 and since then has held the position of Chief Operating Officer, in charge of the development and execution of energy projects equipped with Accenta's Low Carbon and Smart Building technologies.
- Prior to co-founding Accenta, Marine spent nearly 25 years with the Veolia Group holding management positions in Europe and Africa and worked for 4 years as an engineering consultant in the United States. This experience led her to manage projects for various local authorities and private clients in the fields of waste treatment, water, wastewater treatment and energy services.
- Marine holds an engineering degree from AgroParisTech and an MBA from London Business School.



## Philippe BRUAND

## CTO & co-founder

- Philippe co-founded Accenta in 2016 and since then has held the position of Chief Technological Officer, in charge of the R&D team that develops Accenta's Artificial Intelligence algorithms, Low Carbon and Smart Building technology software platforms.
- Philippe has more than 25 years of experience in creating and managing IT R&D teams. He held senior positions at Atos Origin, Julhiet Sterwen and delamaison.fr where he worked alongside Pierre Trémolières as Information Systems Director.
- Philippe is a graduate from Supinfo.



## Maher CHEBBO

### Chief Revenue Officer

- Maher joined Accenta in 2020 as Chief Revenue Officer, in charge of Accenta's business development contributing to its local and international growth.
- Prior to joining Accenta, Maher spent 3 years at General Electric as Global Chief Commercial and Innovation Officer for GE Digital's energy-related offerings. Previously, Maher spent 21 years at SAP where he held several industry management positions, including General Manager Europe, Middle East and Africa of the Energy & Natural Resources division and co-founder of SAP's Corporate Venturing division which incubated its flagship digital platform.
- Maher, who has also led expert groups and public organizations focusing on energy transition, digital and energy access, holds a PhD in Energy from Mines ParisTech.



## **Etienne DE ROCQUIGNY**

### Chief of Science

- Hereigh Etienne de Rocquigny is a mathematician & entrepreneur with more than 25 years of international experience in the field of algorithmic innovation.
- He is former vice-dean of Ecole Centrale Paris and former senior scientist of EDF, International Scientific Expert (Ministry / CIR, National Research Agency, BPI France, European Commission, Nordforsk, United Kingdom. Bocconi Milano...), and is author of world reference books and numerous publications.
- H: Etienne is graduated from Ecole Polytechnique, ENSTA and Imperial College London



# Thanks for going through the deck!

We hope to hear from you soon

## accenta.

Headquarters 696, rue Yves Kermel 92100 Boulogne-Billancourt FRANCE Tel. 0033 (0)1 81 19 71 53 contact@accenta.ai

2 avenue des Saules Parc EuraTechnologies, 59160 Lille/Lomme FRANCE Tel. 0033 (0)3 51 08 11 63 contact@accenta.ai