

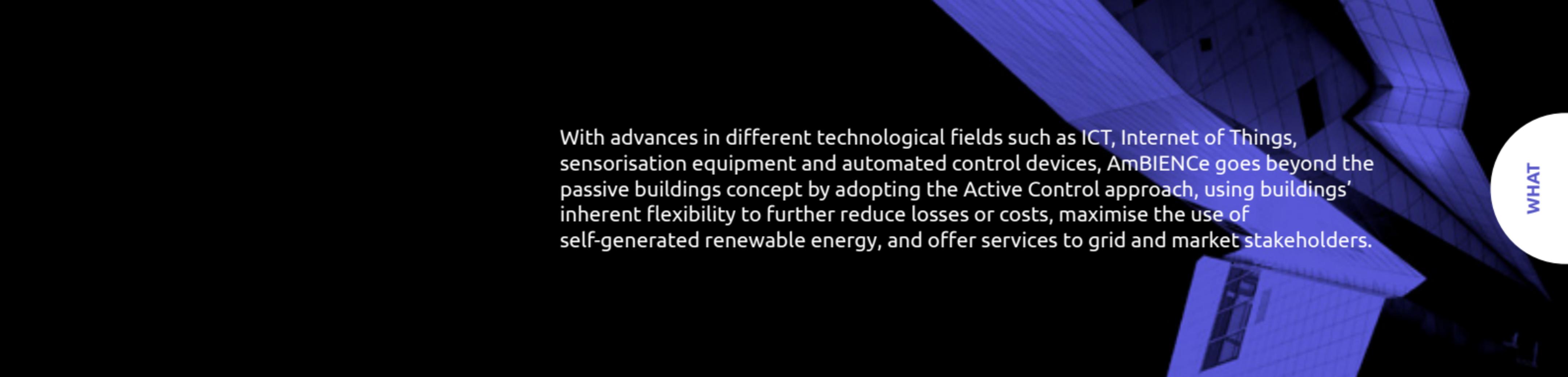


ambience

Active managed Buildings  
with Energy PerformaNce  
Contracting



The EU-funded project AmBIENCE, which stands for 'Active managed Buildings with Energy PerformaNce Contracting', extends the concept and approach of business-as-usual Energy Performance Contracting (EPC) to Active Buildings – buildings whose assets can be controlled in an active way to enable the use of flexibility – and makes it available and attractive to a wider range of buildings.



With advances in different technological fields such as ICT, Internet of Things, sensorisation equipment and automated control devices, AmBIENCE goes beyond the passive buildings concept by adopting the Active Control approach, using buildings' inherent flexibility to further reduce losses or costs, maximise the use of self-generated renewable energy, and offer services to grid and market stakeholders.

WHAT



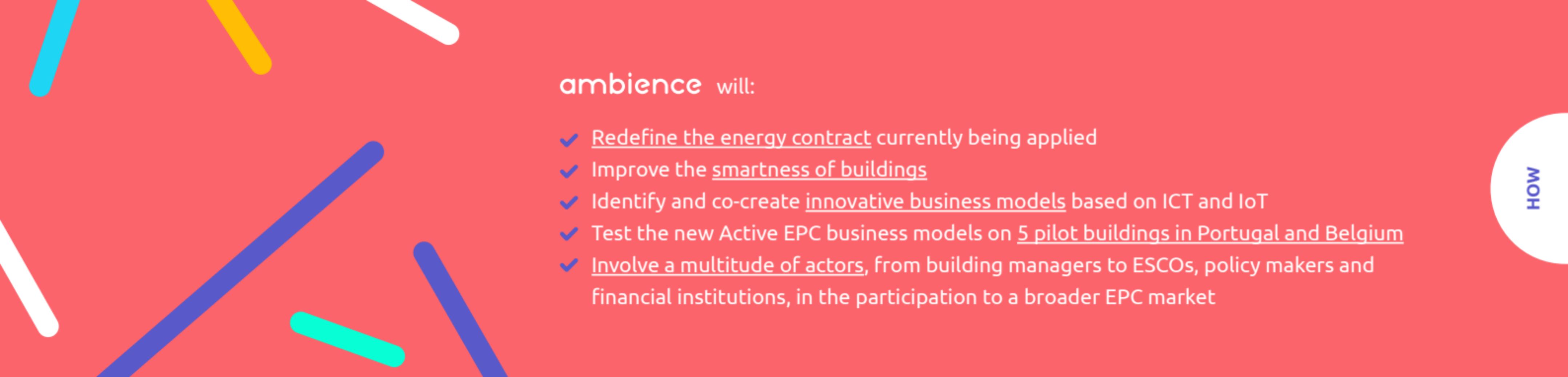
AmBIENCe helps meeting the climate goals stated in the European Commission's long term 2050 vision, by fully unlocking the potential of buildings towards energy and cost savings and CO<sub>2</sub> emissions reduction with the development of smart energy services, that exploit flexibility from demand-side resources in different sectors.

WHY



AmBIENCE offers a way to overcome the technical and financial barriers related to deep renovation, by combining energy efficiency measures with the active control of building assets, leveraged from ICT-based renovations, possibly resulting in similar emission reductions as deep renovation, yet at lower costs and reduced pay-back times.

AmBIENCE answers the need for system flexibility, key for the integration of more intermittent RES in the energy mix by tapping into the flex offering potential of millions of buildings.



ambience will:

- ✓ Redefine the energy contract currently being applied
- ✓ Improve the smartness of buildings
- ✓ Identify and co-create innovative business models based on ICT and IoT
- ✓ Test the new Active EPC business models on 5 pilot buildings in Portugal and Belgium
- ✓ Involve a multitude of actors, from building managers to ESCOs, policy makers and financial institutions, in the participation to a broader EPC market



Empowered consumers by full transparency on energy consumption, savings and billing, and flexibility and capacity to act as prosumers, improving their interaction with buildings' energy behaviour as well as grid and market stakeholders.

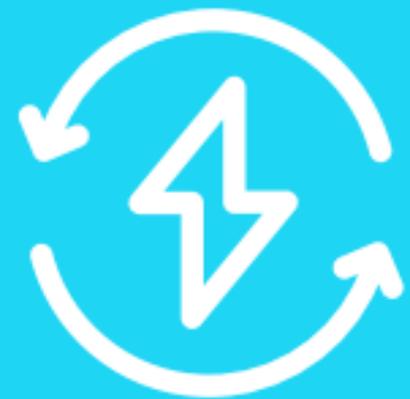


Increased willingness to invest in additional sensorisation, ICT and IoT, providing homeowners and tenants with non-energy services, integrated with energy services, such as improved security and comfort.



Reduced and smarter energy consumption, through the maximization of the use of green and local self-produced energy.

OUTCOMES



Triggered energy and cost savings as well as facilitated access to finance for building managers and owners and facility management companies.

OUTCOMES



Decreased transaction costs and administrative burdens, facilitated demand and risk reduction thanks to higher data transparency, as well as higher customer satisfaction.



2019

2020

2021

Kick-off

Analysis of the framework for the active building EPC concept and business model

Development of the Active Building EPC concept, methodology and business model.

Implementation of the concept in five pilot buildings

Operational phase: deployment and pilots' monitoring

Scenario development & adoption of an Energy System  
Impact calculation  
active control

Publications of guidelines and recommendations on the enabling conditions to support the active EPC

Exploitation plan

WHEN



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