

# FACT

a new facility for building envelope test

## Contacts

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# FACT

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FACT is a new experimental outdoor facility which allows to evaluate technologies for building in real scale



FROM RESEARCH TO INDUSTRY  
**cea tech**

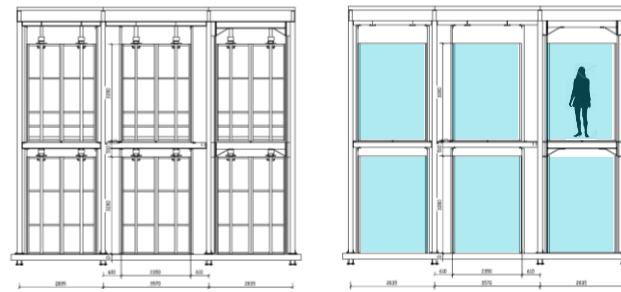
# FACT

concept

A new facility named FACT (FACade Tool) will be soon inaugurated in the experimental platform of CEA-INES (Le Bourget du Lac – France).

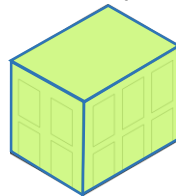
This new versatile tool will be dedicated to building envelope components test:

- opaque and transparent elements,
- light-weight and massive façades,
- different thickness and heights (from 10 to 60 cm and up to 8 m)
- and different geometry of the indoor environment



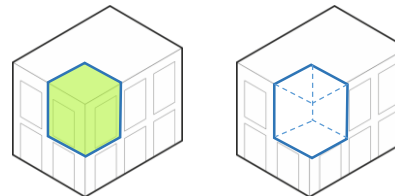
Secondary structure to hung heavy tested façades (left), configuration to test transparent envelope without the secondary structure (right)

Envelope test

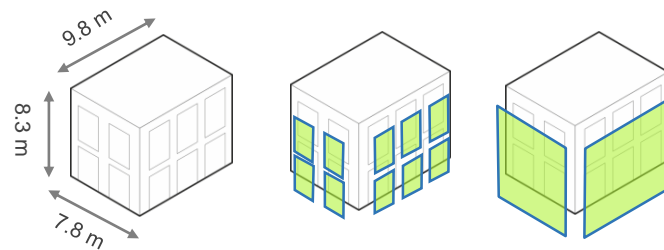


Heat and mass transfer  
Solar and light transmission  
PV/TC efficiency

Room test



Energy performance  
IEQ: visual comfort, thermal comfort,  
air quality, acoustic



Different façade test configurations

# FACT

objectives

FACT is designed to perform experimental measurements at different levels:

- the building envelope components themselves;
- the impact of these components on the energy behavior of the room and the building;
- the indoor environmental quality

The building envelope tests can be carried out measuring:

- heat and mass transfer in the tested envelope;
- light and solar transmission for transparent envelope;
- the efficiency of PV or thermal collector integrated in façade.

