

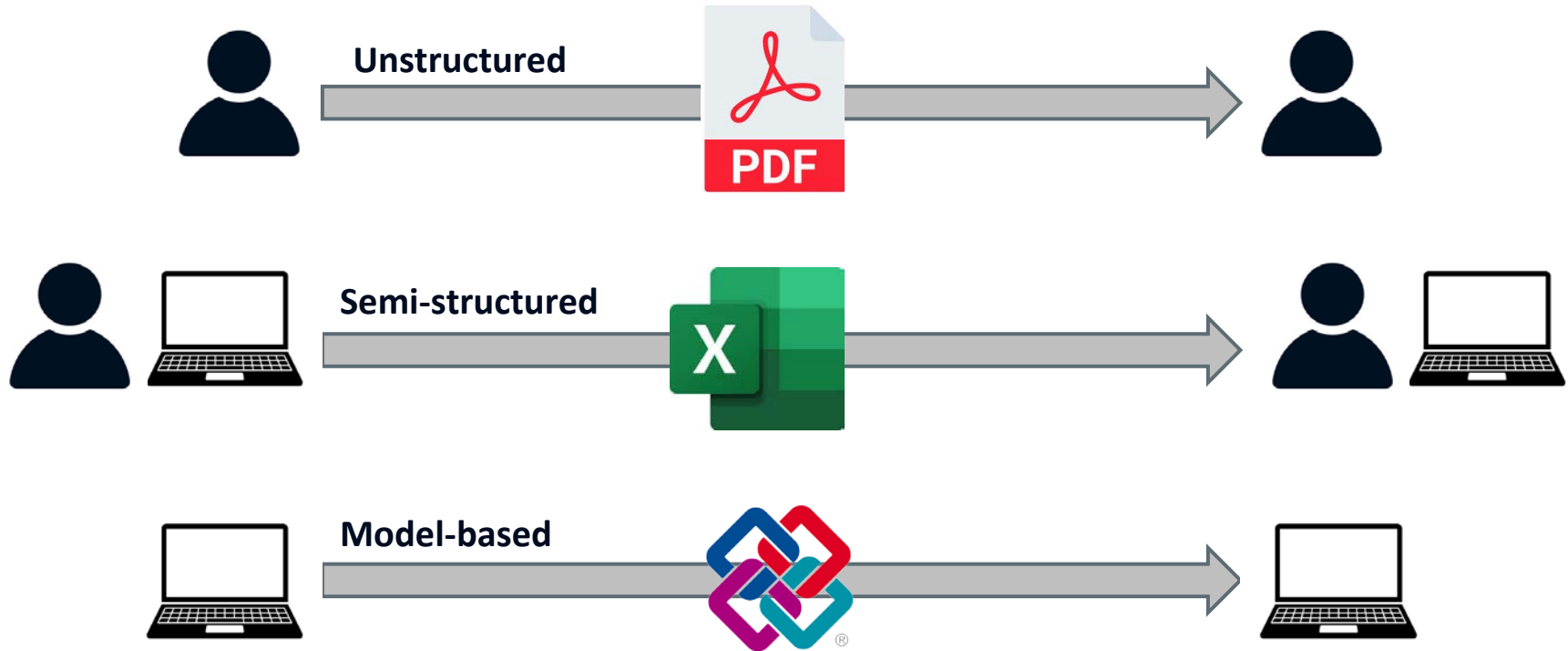
IEA EBC ANNEX 91

OPEN BIM FOR ENERGY EFFICIENT BUILDINGS

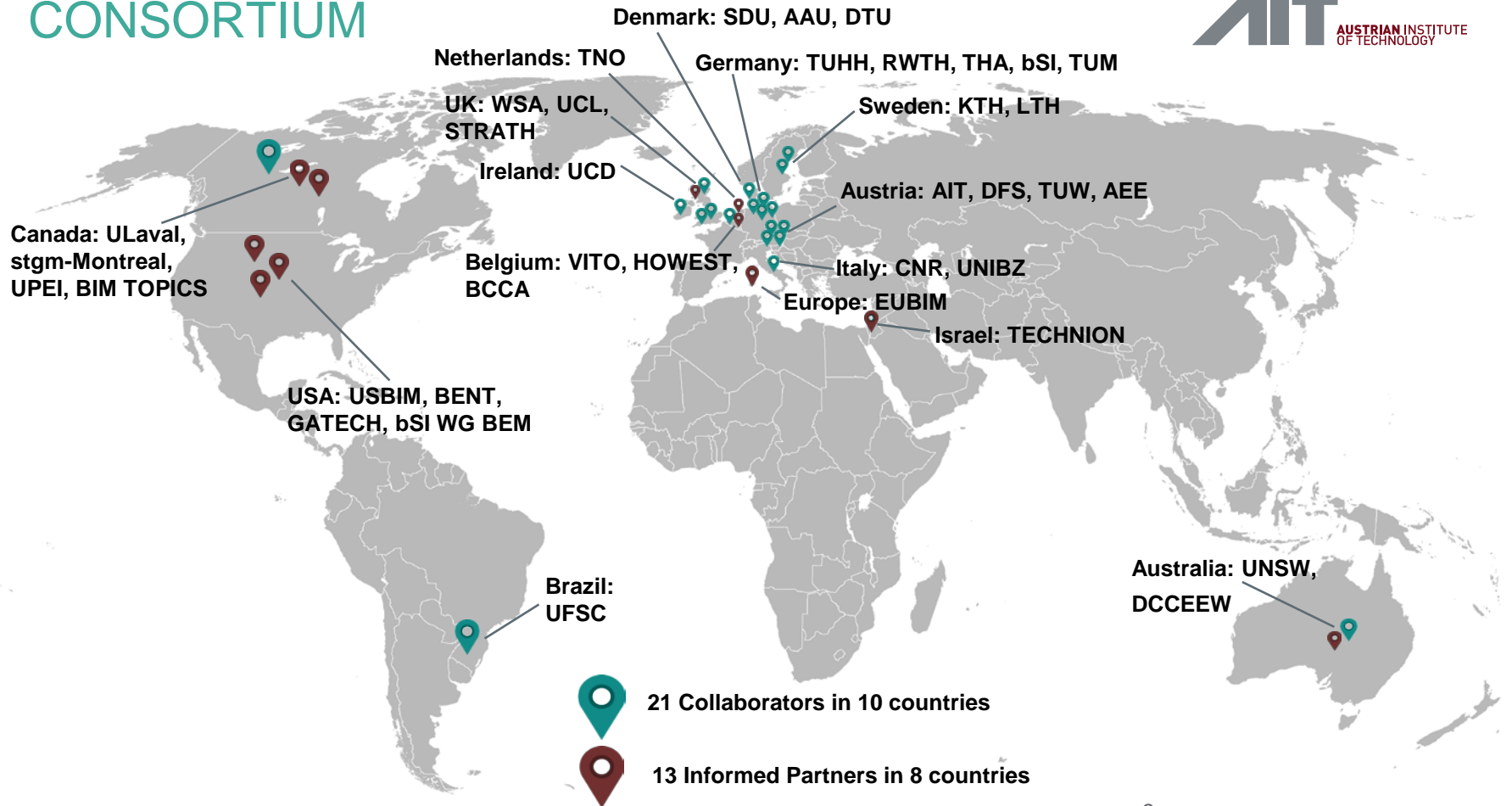
2024 – 2026

annex91.iea-ebc.org

DATA EXCHANGE IN DIGITAL CONSTRUCTION



CONSORTIUM



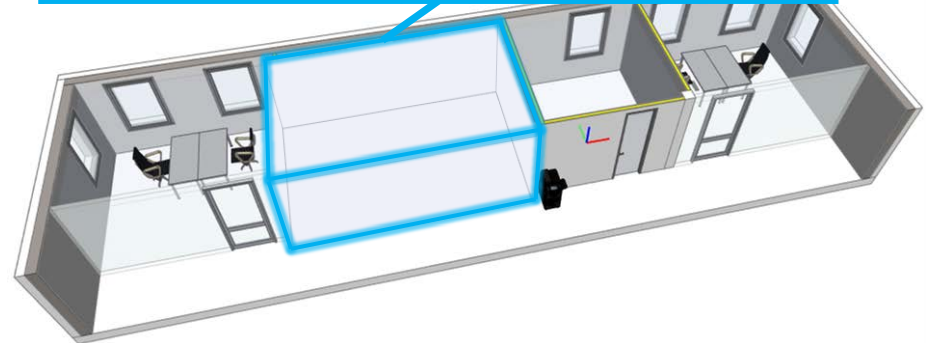
BIM FOR ENERGY EFFICIENT BUILDINGS

	Design	Operation & Control	Refurbishment
Processes	Modelling guidelines for building performance	Building operation and FM Energy management BACS	Historic BIM
Tools & Algorithms	Geometric transformation Parametric model generation Ifc.js viewer	Sensor data visualization Energy topology extraction	UCL BIM for retrofitting tools
Data & Ontologies	BIM library for element-based cost calculation	Smart Readiness Indicator in BIM Data capture ontologies Real-time data linking	HBIM Psets

MODELLING EXAMPLE

- Definition of the relevant parameters in the BIM model
- Testing and quality assurance
- Check for data completeness (LCA, circular economy)

Name	Value	Unit	Description
IfcSpace	Office		
	2		
Pset_SpaceHVACDesign			
TemperatureSetPoint	22	°C	Indoor temperature setpoint
AsiP_SpaceHVACDesign			
CO2SetPoint	800	Ppm	Setpoint CO2
Pset_SpaceHVACDesign			
HumiditySetPoint	35	%rH	Humidity setpoint
AsiP_SpaceHVACDesign			
MaxAirVelocity	0,25	m/s	Max. air speed
Pset_SpaceOccupancyRequirements			
OccupancyNumber	2	pax	Occupancy requirements



THANK YOU



Gerhard Zucker
Senior Scientist
AIT Austrian Institute of Technology
gerhard.zucker@ait.ac.at
+43 664 2351921

annex91.iea-ebc.org