Co-funded by the Intelligent Energy Europe Programme of the European Union

IWU Institut Wohnen und Umwelt

Building Typologies

European Perspective

Institute for Housing and Environment,
Darmstadt, Germany

Co-funded by the Intelligent Energy Europe Programme of the European Union

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Typology Approach for Building Stock Energy Assessment

Contract N° IEE/08/495

Period: June 2009 - May 2012

Coordination: IWU

Focus:

Development and application of a common concept for residential building typologies

Energy Performance Indicator Tracking Schemes for the Continuous Optimisation of Refurbishment Processes in European Housing Stocks

Contract N° IEE/12/695/SI2.644739

Period: April 2013 - March 2016

Coordination: IWU

Focus:

(1) Extension of the TABULA concept to
(a) further countries
(b) new buildings
=> „TABULA“ branch of the Espicope project

(2) Carrying out monitoring and scenario studies (application of typologies)

Common TABULA / EPISCOPE website: www.episcope.eu

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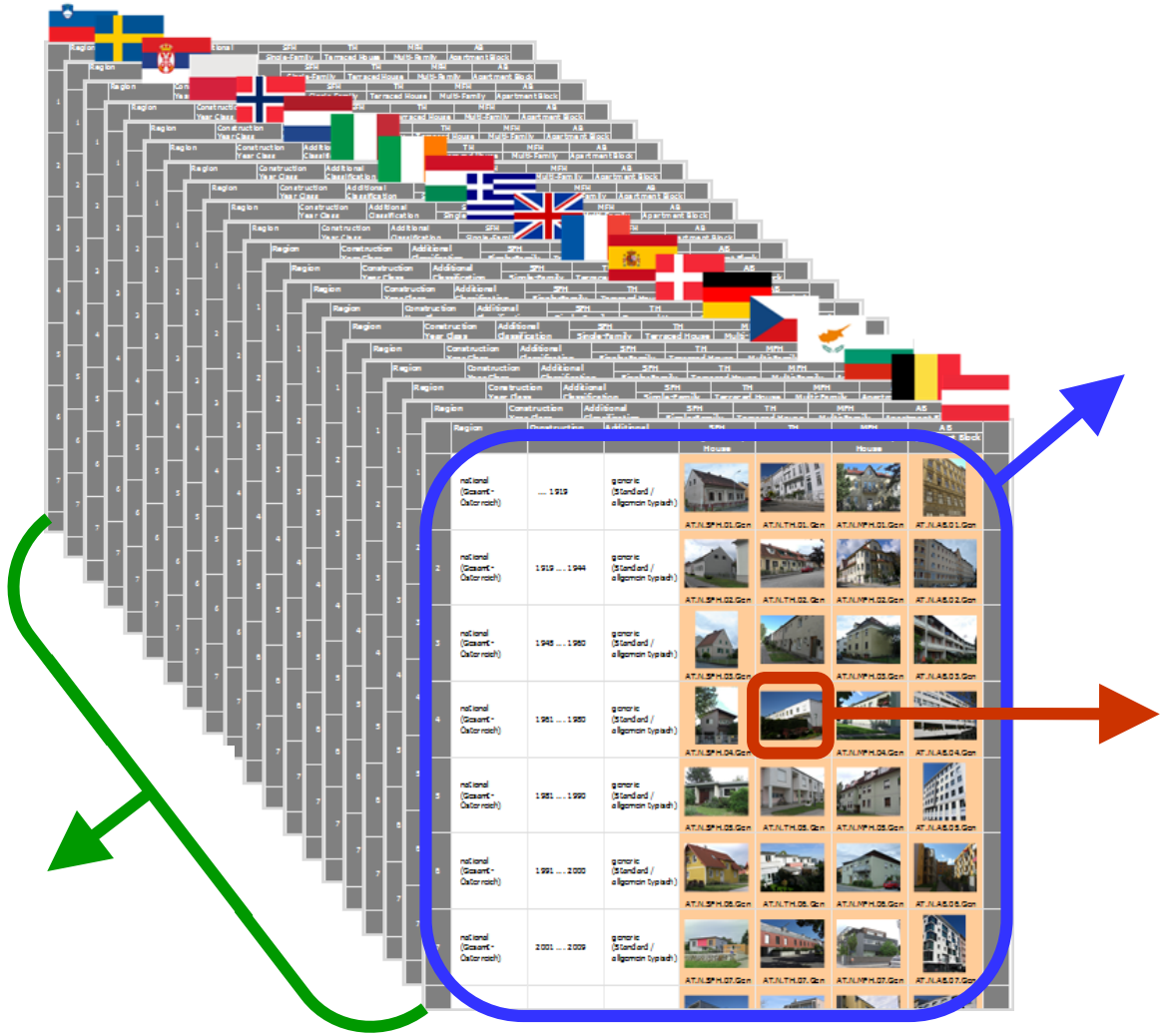
Project partners

TABULA	EPISCOPE	Organisation (22 partners)		Country (20 European Countries)		
x	x	IWU	Institute for Housing and Environment		DE	Germany
	x	BPIE	Buildings Performance Institute Europe		BE / EU	Belgium
x	x	ZRMK	Building and Civil Engineering Institute ZRMK		SI	Slovenia
x	x	SBi	Danish Building Research Institute, Aalborg University		DK	Denmark
x	x	AEA	Austrian Energy Agency		AT	Austria
	x	BRE	Building Research Establishment Ltd		UK	United Kingdom
x	x	NOA	National Observatory of Athens		GR	Greece
x	x	VITO	Flemish Institute for Technological Research		BE	Belgium
x	x	POLITO	Politecnico di Torino - Department of Energy		IT	Italy
x	x	STU-K	STU-K		CZ	Czech Republic
x	x	Energy Action	Energy Action Limited		IE	Ireland
	x	BME	Budapest University of Technology and Economics		HU	Hungary
x*	x	IVE	Valencian Institute of Building		ES	Spain
	x	CUT	Cyprus University of Technology		CY	Cyprus
	x	DUT	Delft University of Technology		NL	Netherlands
	x	Pouget	Pouget Consultants		FR	France
	x	NTNU	Norwegian University of Science and Technology		NO	Norway
x*	x*	Uni Belgrade	University of Belgrade		RS	Serbia
x		SOFENA	Sofia Energy Agency		BG	Bulgaria
x		MDH	Mälardalens University		SE	Sweden
x		ADEME	Agence de l'Environnement et de la Maîtrise de l'Energie		FR	France
x		NAPE	Narodowa Agencja Poszanowania Energii S.A.		PL	Poland

*associated partner

Overview of Results

National Residential Building Typologies



Common data structure + calculation procedure -> simplified exchange of information, cross-country comparisons, ...

Set of average buildings + related statistics -> basis for building stock models (saving potentials, scenarios, impact of policies and measures, ...)

Set of exemplary buildings (datasets + pictures) -> showcase calculations (consumer counselling, consequences of political instruments, ...)

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TABULA Classification Grid

Guideline to the definition of building types for your country.

The first step is the definition of **construction periods** for your country. Select the border years of these periods by considering changes in construction materials, construction principles and architecture (geometrical shape, groundplan design, appearance of the building) but also changes in the legal requirements for the thermal properties of the envelope. Take into account the building age criteria that are used in the available national buildings' statistics.

The TABULA **building size classes (SFH, TH, MFH, AB)** and the construction periods of your country define a pattern with different building types to which the individual residential buildings from your national stock can be assigned to.