



European Commission

THE EUROPEAN ENERGY APPROACH FOR SUSTAINABLE BUILDINGS AND CITIES

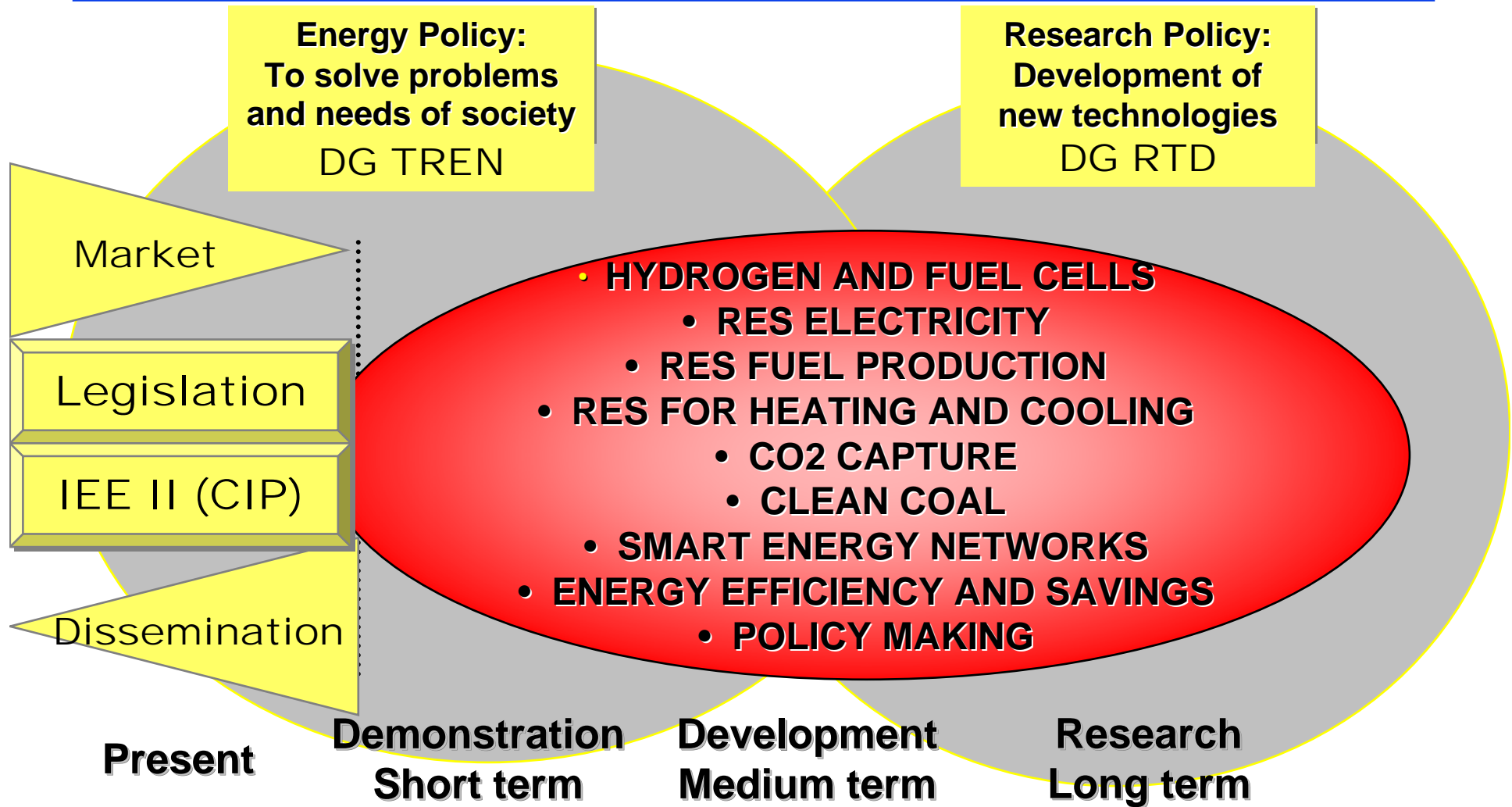
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UNIT INNOVATION AND TECHNOLOGY DEVELOPMENT
IN ENERGY

VERSAILLES 21 NOVEMBER 2006





The relations between Community instruments





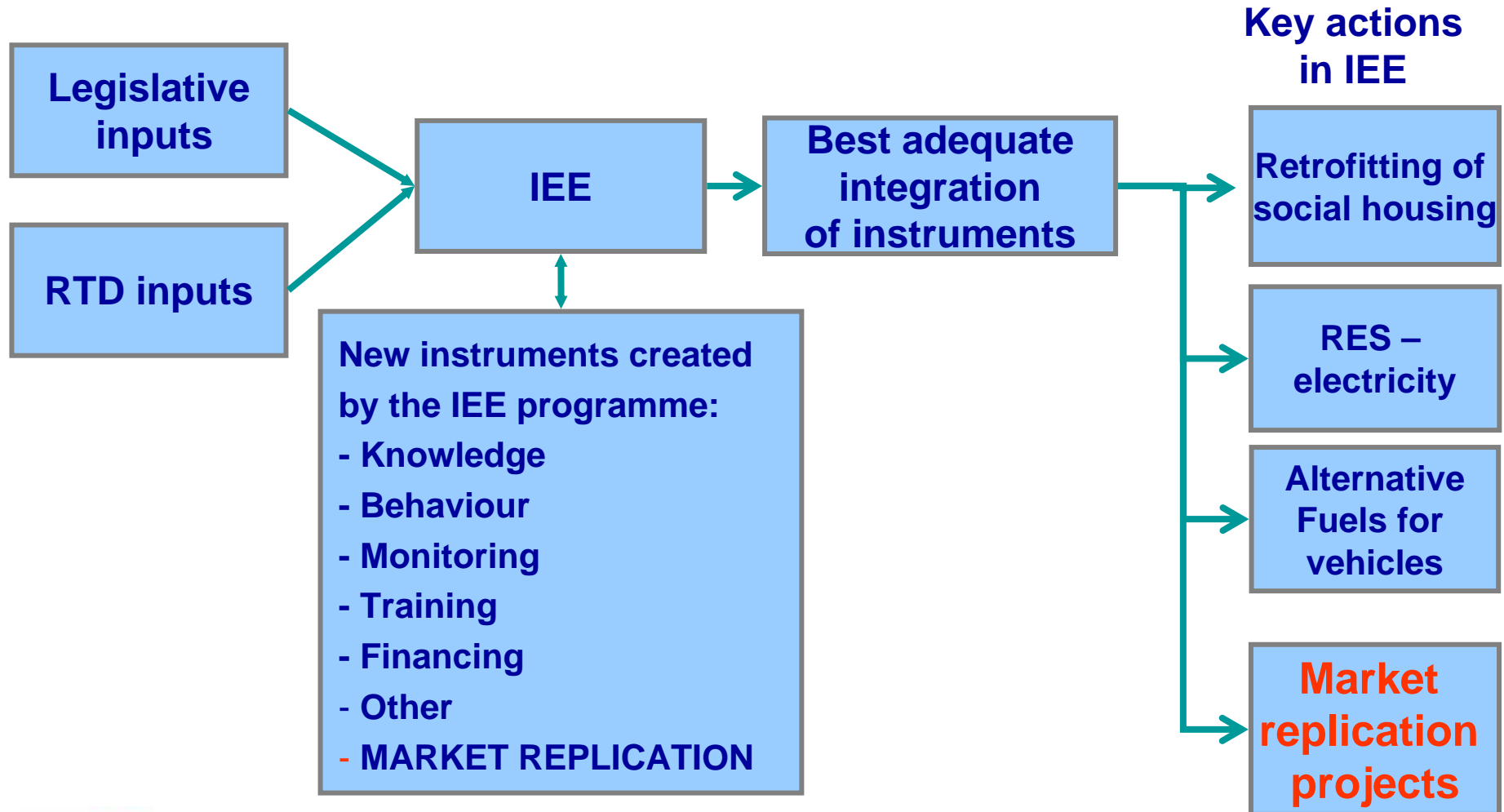
Political and Legislative instruments

Political and legislative instruments:	Sector		Supply	Demand		
	RES	EE		BU	TR	IND
White Book on Renewable Energy Sources	X		X	X		X
White Book on Transport 2001					X	X
Action Plan on Energy Efficiency in Europe	X	X		X	X	X
Directive on RES-electricity	X		X	X		X
Biomass Action Plan	X			X		X
Directive on Energy Perform. of Buildings	X	X		X		
Directive on Cogeneration	X	X	X	X		X
Directive on Bio-fuels	X		X		X	
Directive on Energy Services	X	X		X	X	X
Directive on Eco-design...		X		X	X	X
Other: Lighting, Informatics...	X	X		X		





INTELLIGENT ENERGY EUROPE: the facilitator programme





FP6 Eco-buildings

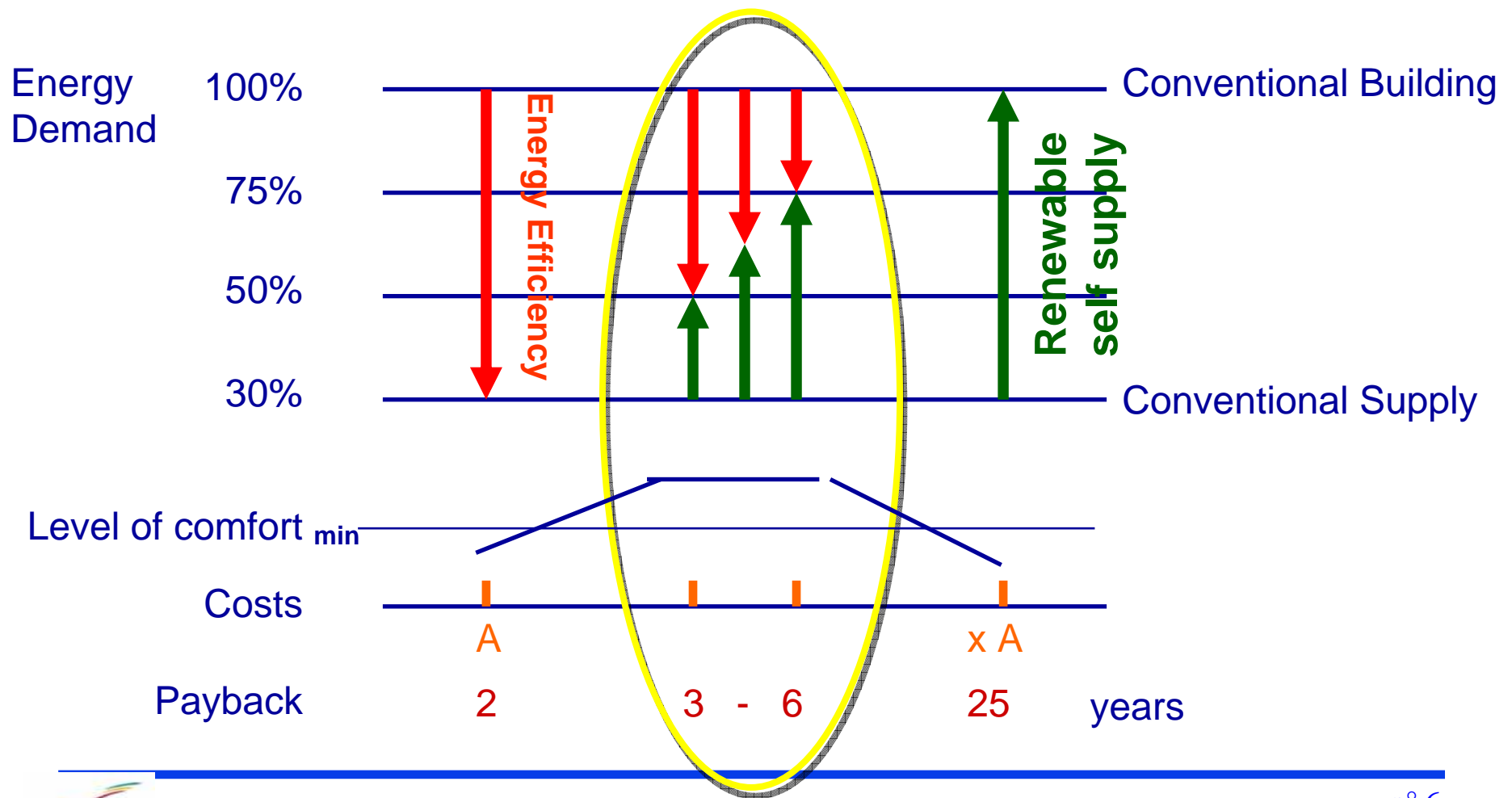
The unit of action is the building

- Innovative solutions (demonstrations) including all aspects from planning, land and building characterisation, construction and operation.
- Through a conceptual integration of all aspects of demand management and external/self supply
- With the objective of creation of sound and large technological bases for future regulations in the buildings sector





FP6 ECO-BUILDINGS: Integration of EE and RES Technologies





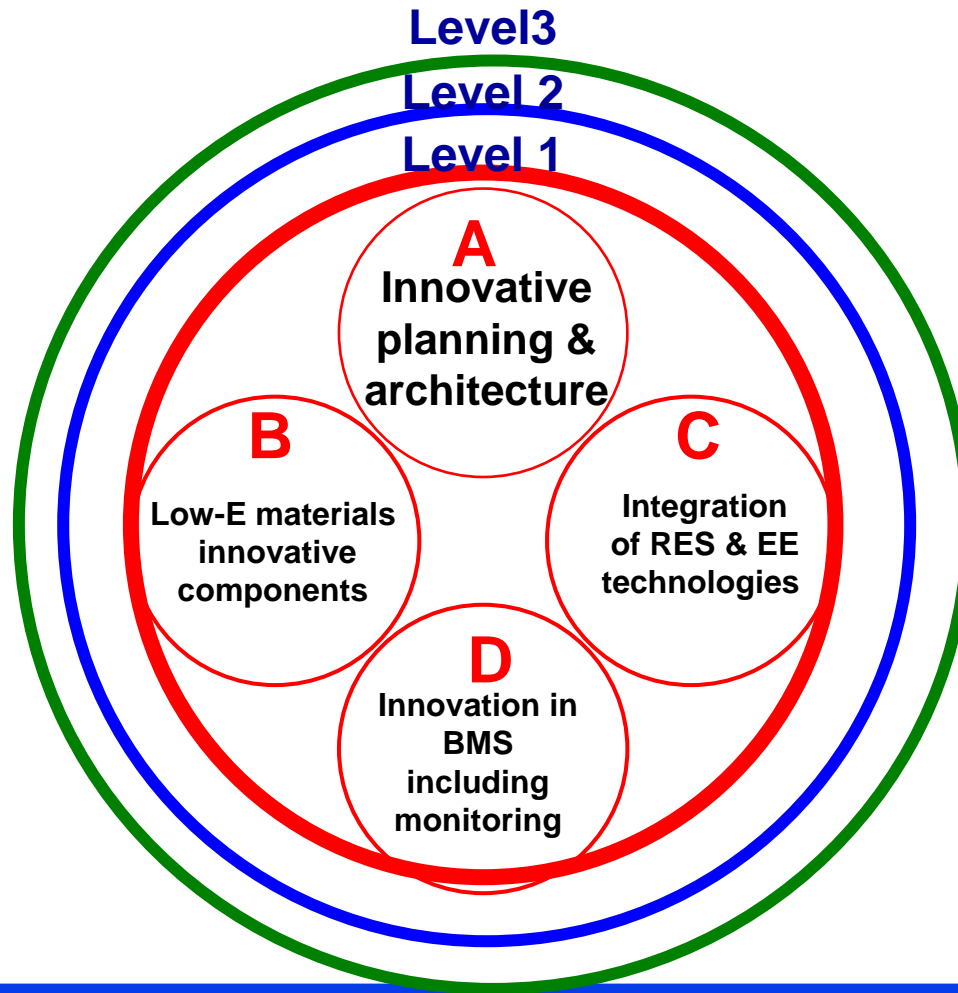
FP6 ECO-BUILDINGS: from conceptual integration to physical integration

Conceptual
Integration

Level 1
Level 2
Level 3



Physical
integration



Level 2
Optimised operation
Users influence
Maintenance
Energy Services

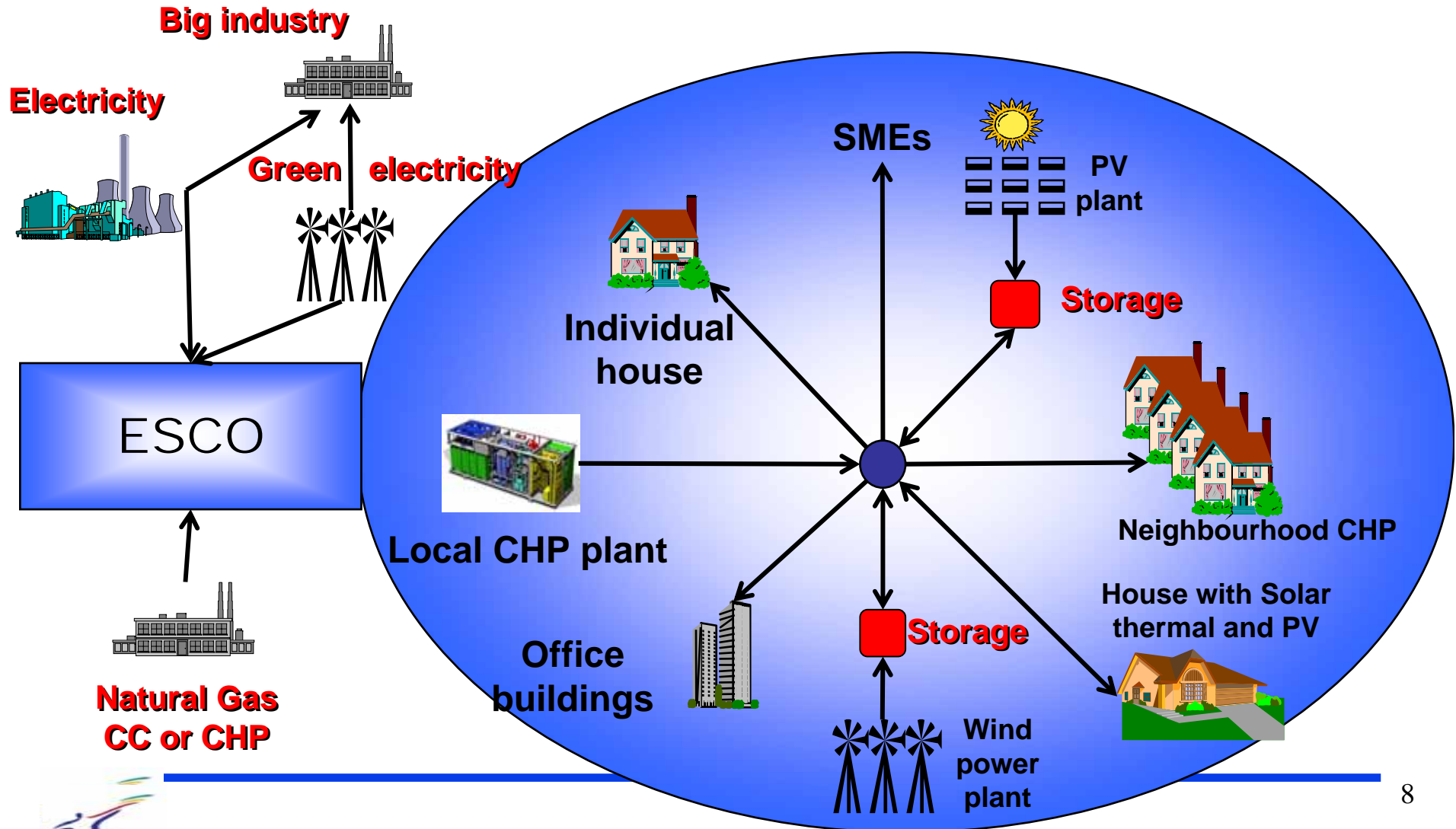
Level 3
Education: professionals, users
Planning of structures in relation to energy behaviour
Benchmarking, Indicators
Guidance for authorities
Tariff structures





FP6

CONCERTO



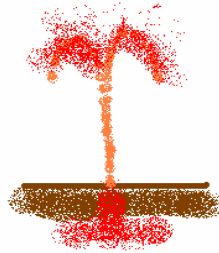


CONCERTO

Renewables



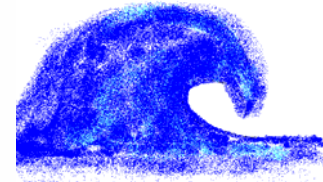
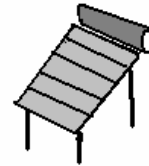
Bioenergy



Geothermal



Solar



Wave/Tidal



Wind

LARGE SCALE INTEGRATION

Energy Efficiency

- Ecobuildings
- Polygeneration
- Grid issues





Types of **CONCERTO** Communities

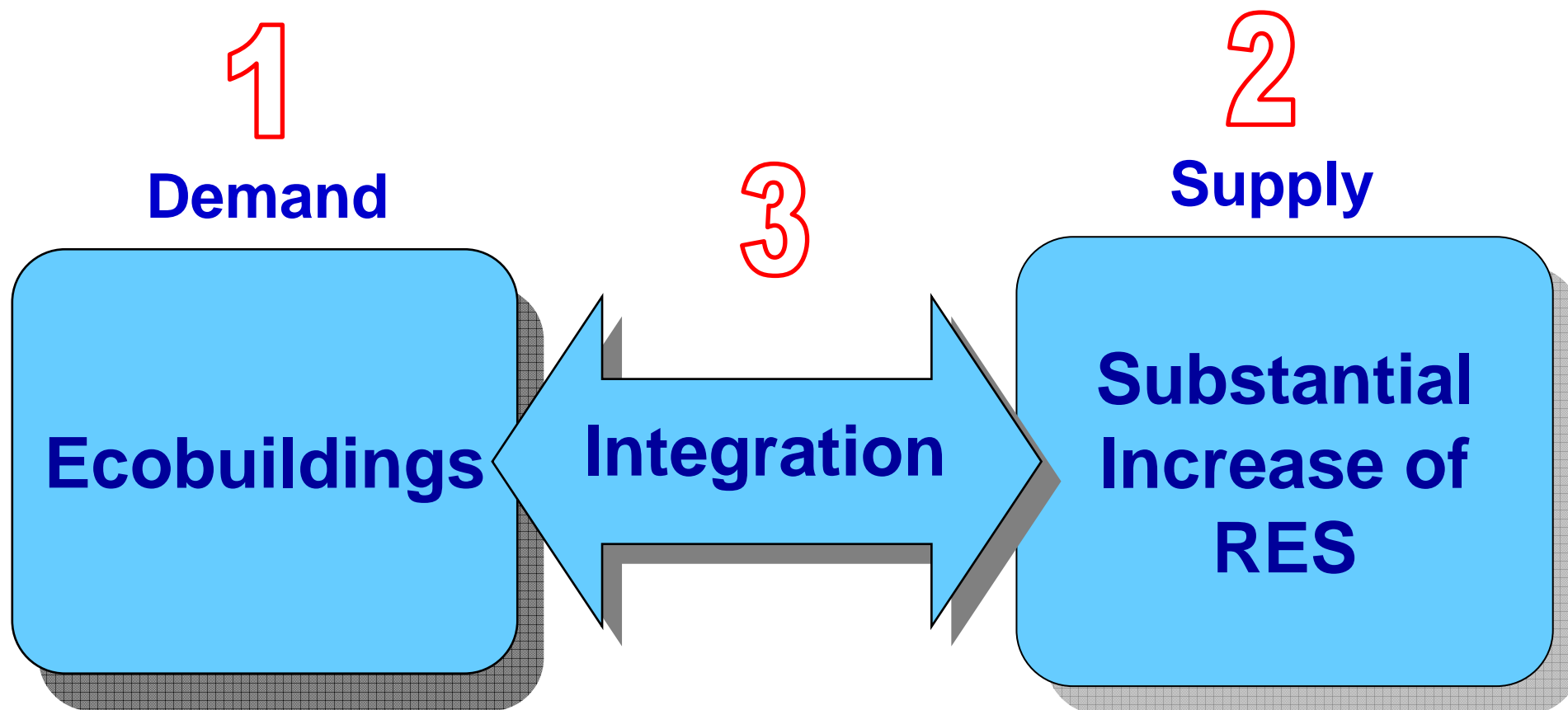
- **Urban (domestic, industrial)**
- **Isolated (rural, island)**
- **Under refurbishment, or development**
- **Part of a city, small town, group of villages**

Must be clearly defined geographical areas/zones





The 3 essential components of a **CONCERTO** community



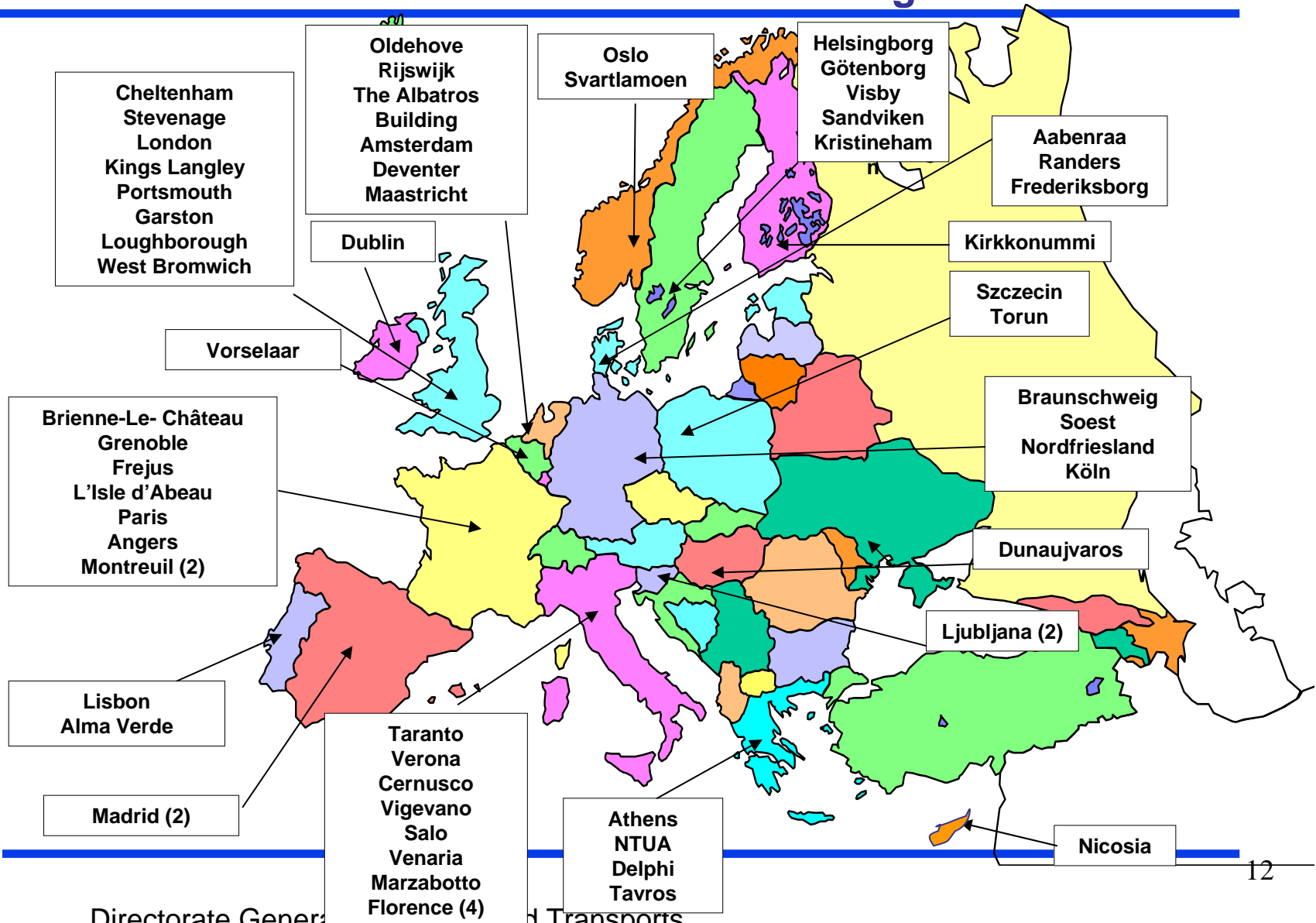
Polygeneration is optional





ECO-BUILDINGS (FP5)

64 Demonstration Buildings

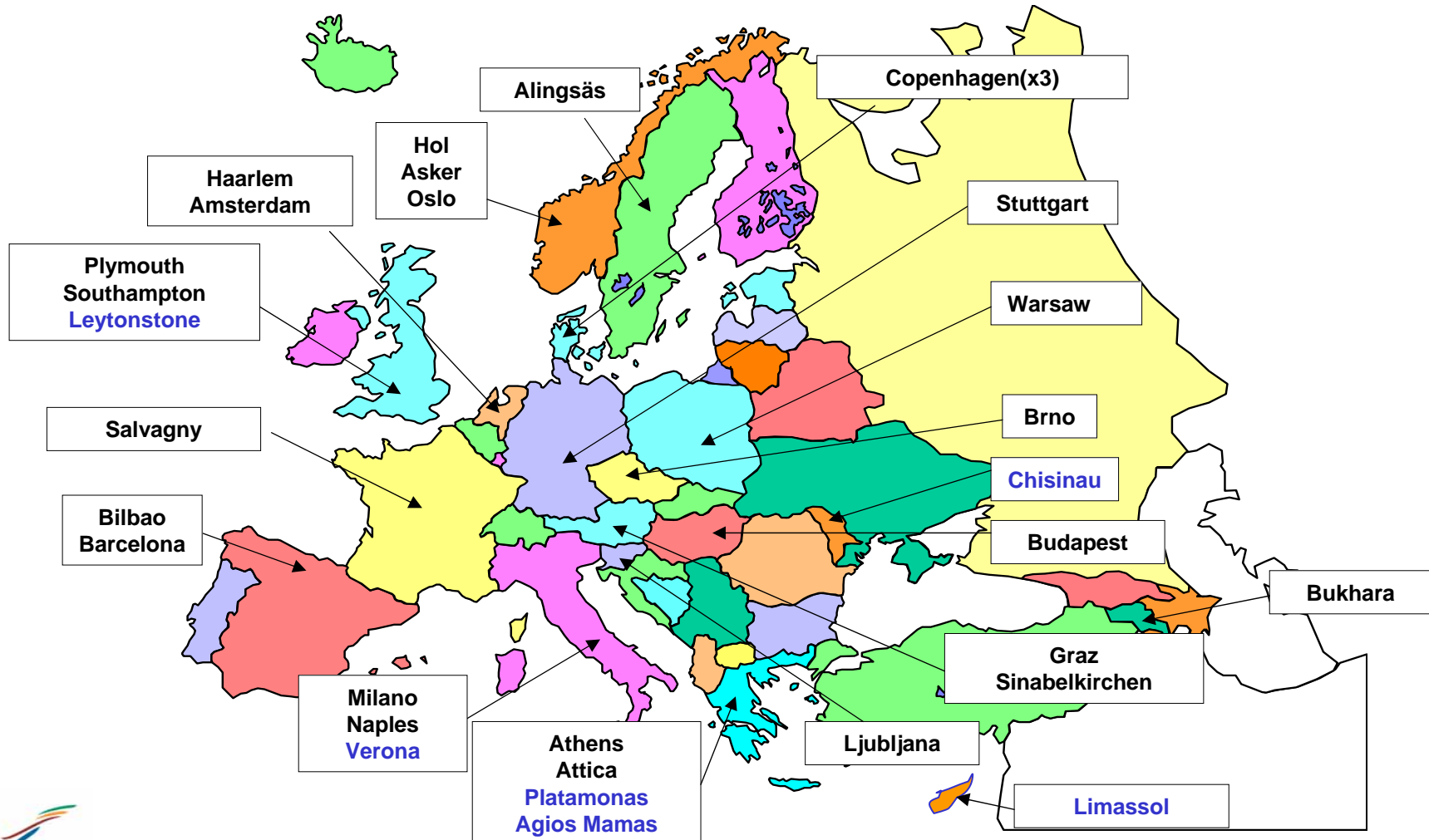




ECO-BUILDINGS (FP6)

TREN 1 : 27 Demonstration Buildings

TREN 4 : 6 Demonstration Buildings





CONCERTO Communities (FP6)

CONCERTO I : 29 Communities (plus 50 Follower Communities)

CONCERTO II : 19 Communities (Recently selected projects)

