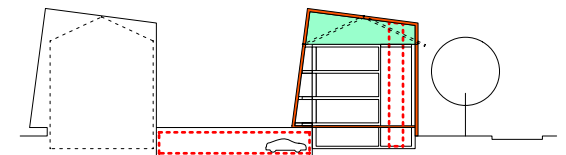
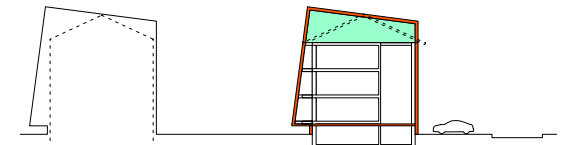
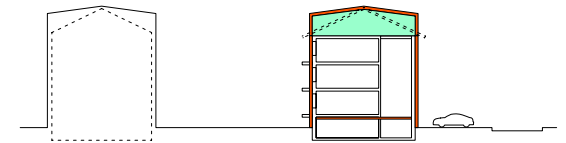
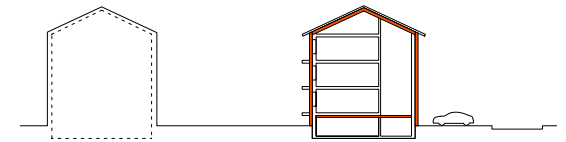
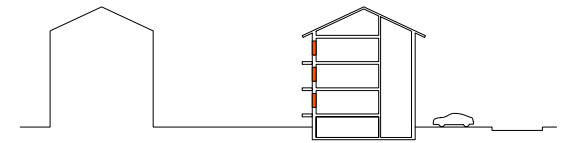


IEA BCS Annex 50

Prefabricated systems for low energy renovation of residential buildings

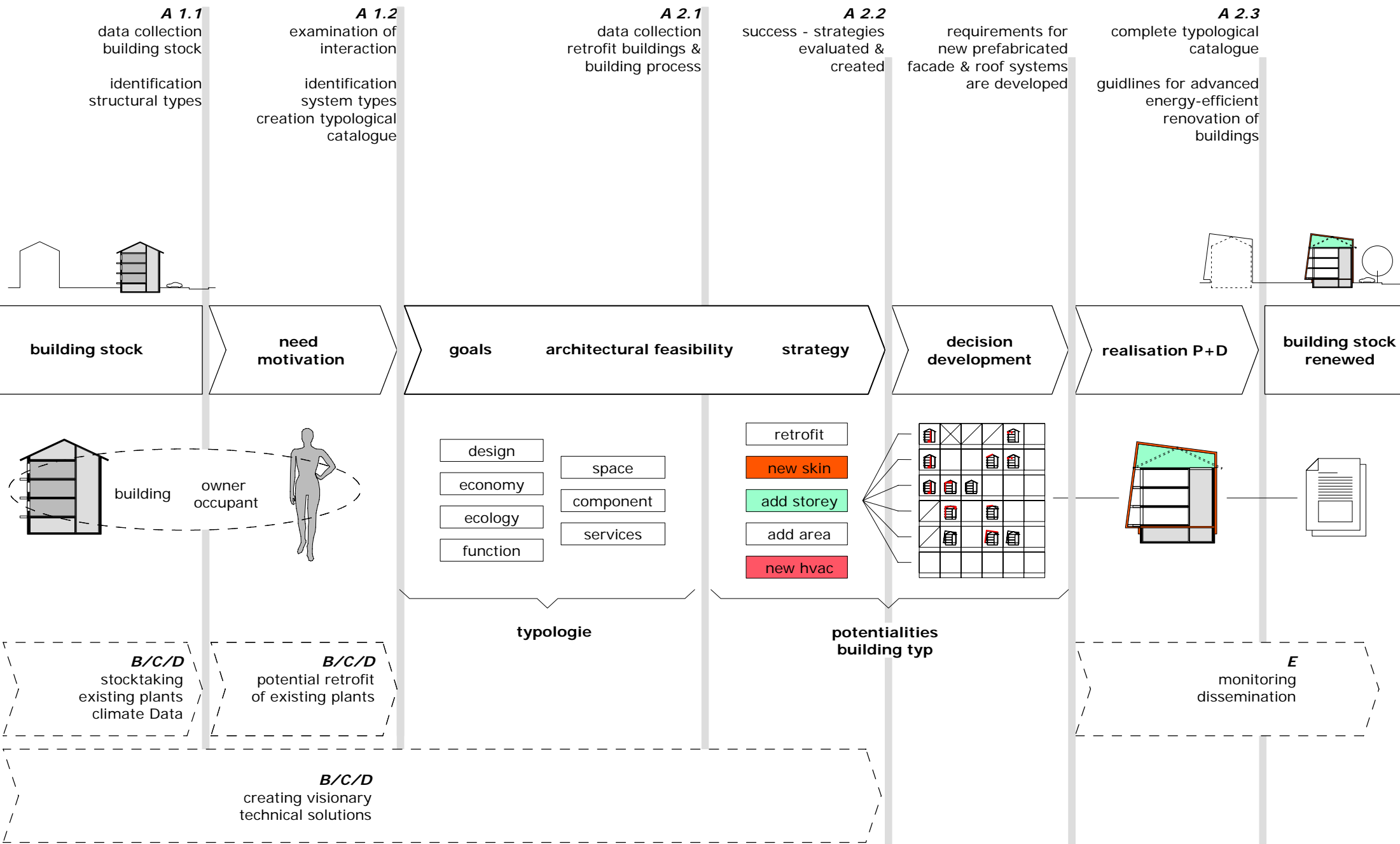
Subtask A: concept definition and specification

Conception typology - v1.1



university of applied sciences in technics+architecture, lucerne
competence center typology and foresight planning in architecture

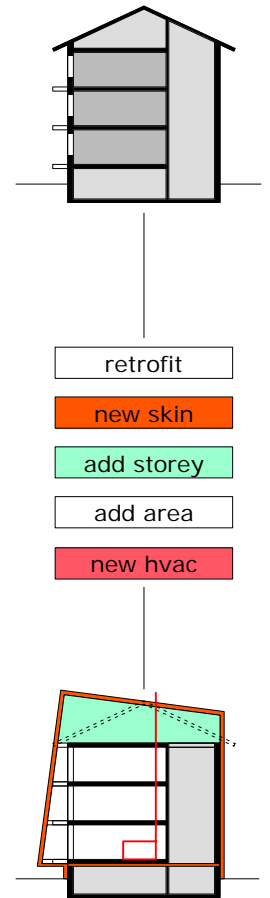
24. 01. 2007 - dr. schwehr, fischer, lamster



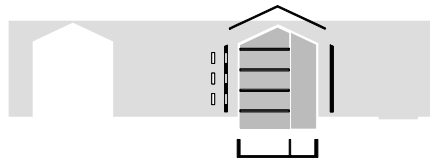
architectural feasibility

technical solutions

		retrofit existing building services	ventilation	floor heating / overhead heat	solar thermal collector / pv collector	building automation	[X...]
	indoor retrofit + new window						x1
	indoor retrofit + building skin						x2
	indoor retrofit + building skin + add storey						x3
	indoor retrofit + building skin + add storey + add area						x4
	[...Y]						xy

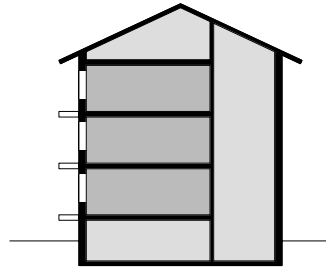


structure

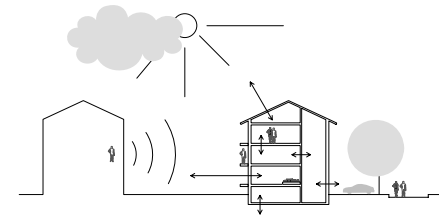


*form (volume)
boundary (facing)
dimension (bigness)
constitution (matter)*

type



topics



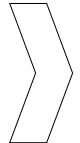
*purpose
need (desideratum)
condition*

- city
- neighborhood
- doorway
- staircase
- entrée
- room
- kitchen
- sanitary room
- balcony
- basement
- soil
- wall
- roof
- floor
- ceiling
- stairway
- door
- window
- installation
- infrastructure
- medium
- fitting
- disposal

space

component

services



retrofit

new skin
F1 F2 F3 F4 F5
R1 R2 R7

add storey
R3 R4 R8 R9

add area

new hvac
T1 T2 T3 T4 T5 T6 T7



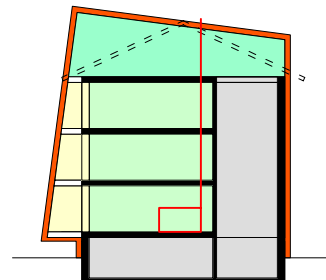
design

economy

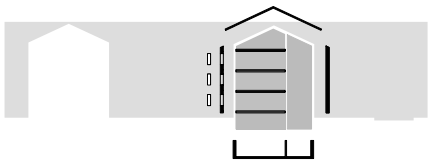
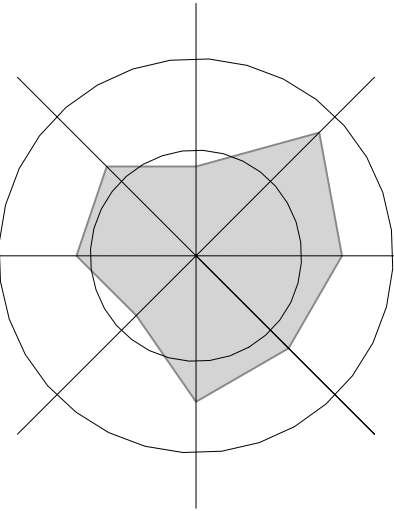
ecology

function

- genius loci
- ambiance
- route
- building costs
- running costs
- tenant profile
- amortisation
- rate on return
- promotion
- demand of energy
- durability
- manufacturing process
- immission/ emission
- environment
- utilisation
- health
- flexibility
- representation
- acceptance
- community
- security
- laws

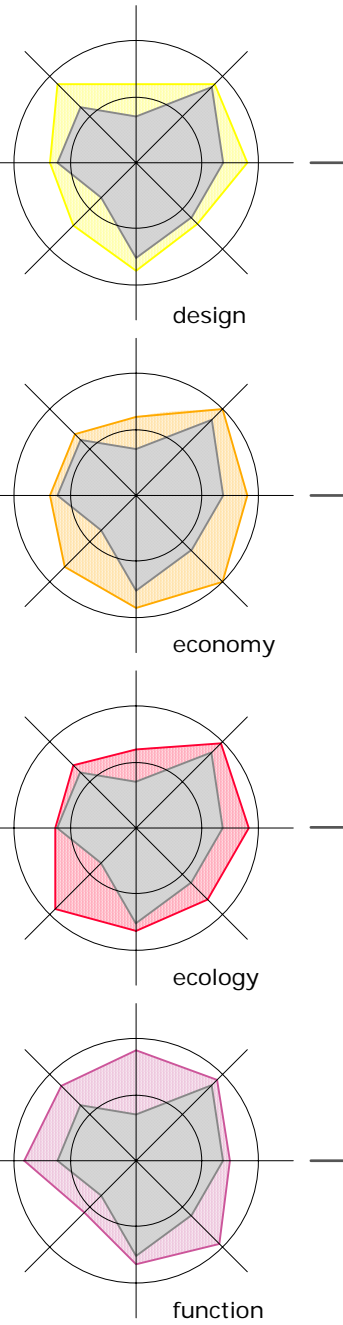


- space
- component
- services

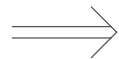


structure

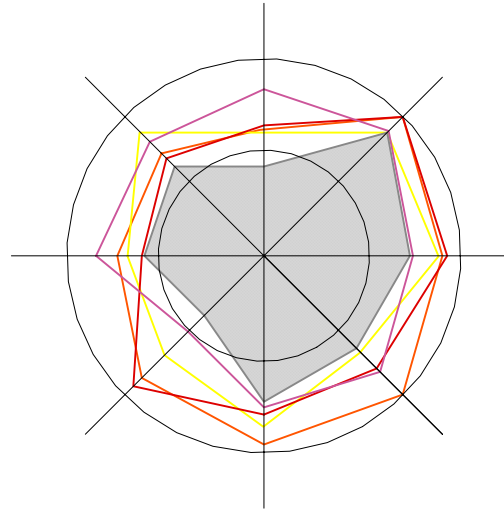
+



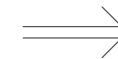
topics



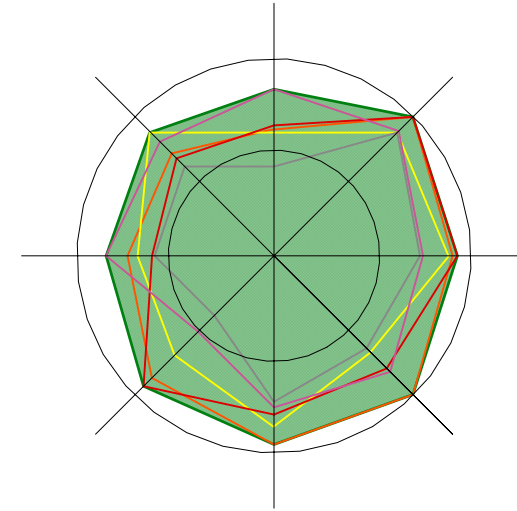
- design
- economy
- ecology
- function



structure + topics



- retrofit
- new skin
- add storey
- add area
- new hvac



type strategy

