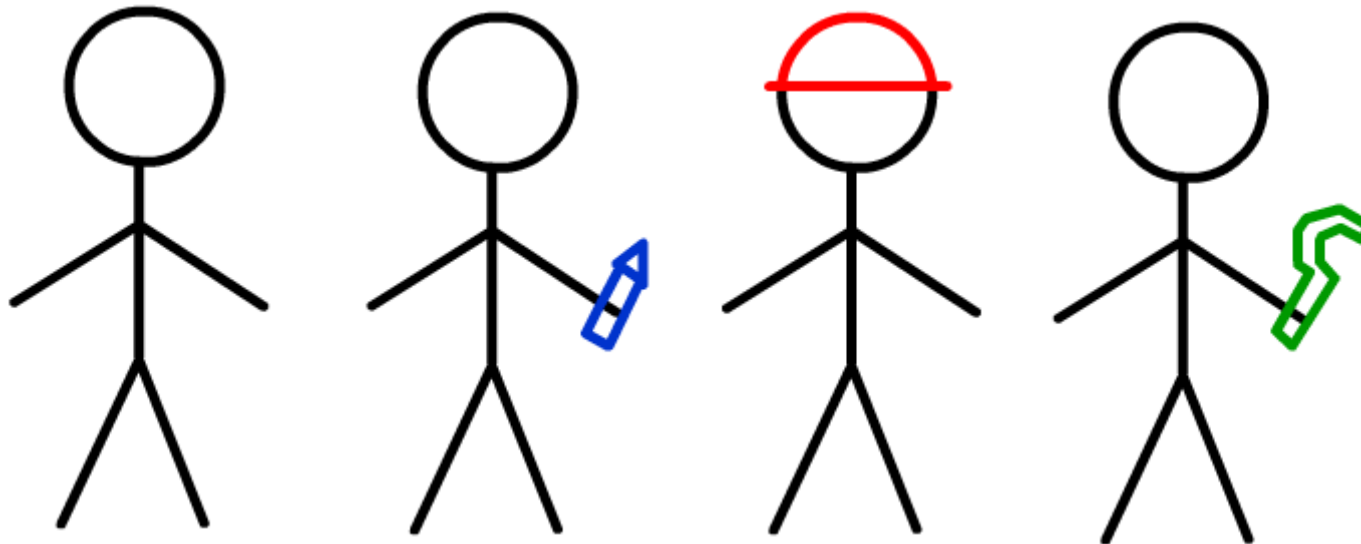




www.shelterproject-iee.eu



A methodology for choosing the best adapted delivery methods: SHELTER Guide and Recommendations for energy renovations

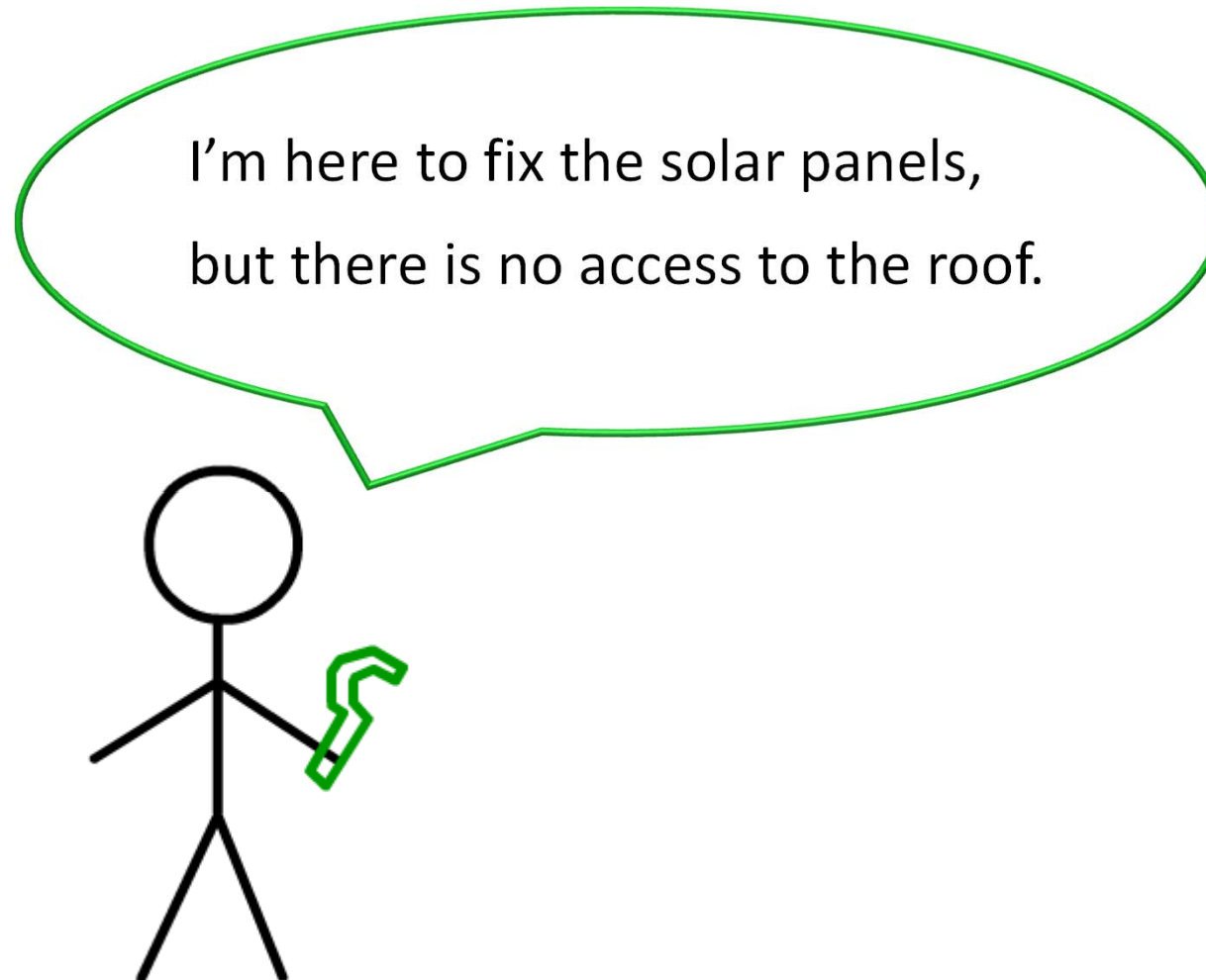


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The Problem “examples”



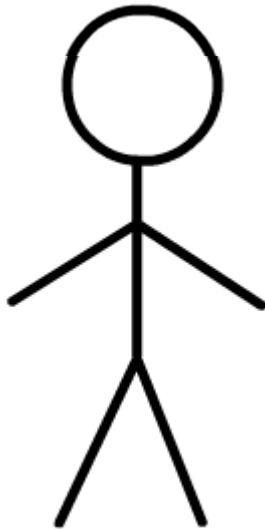
The Problem “examples”

I'm here to fix the boiler again. I don't know why have you chosen for this brand. Everyone knows that they brake after 3 years.

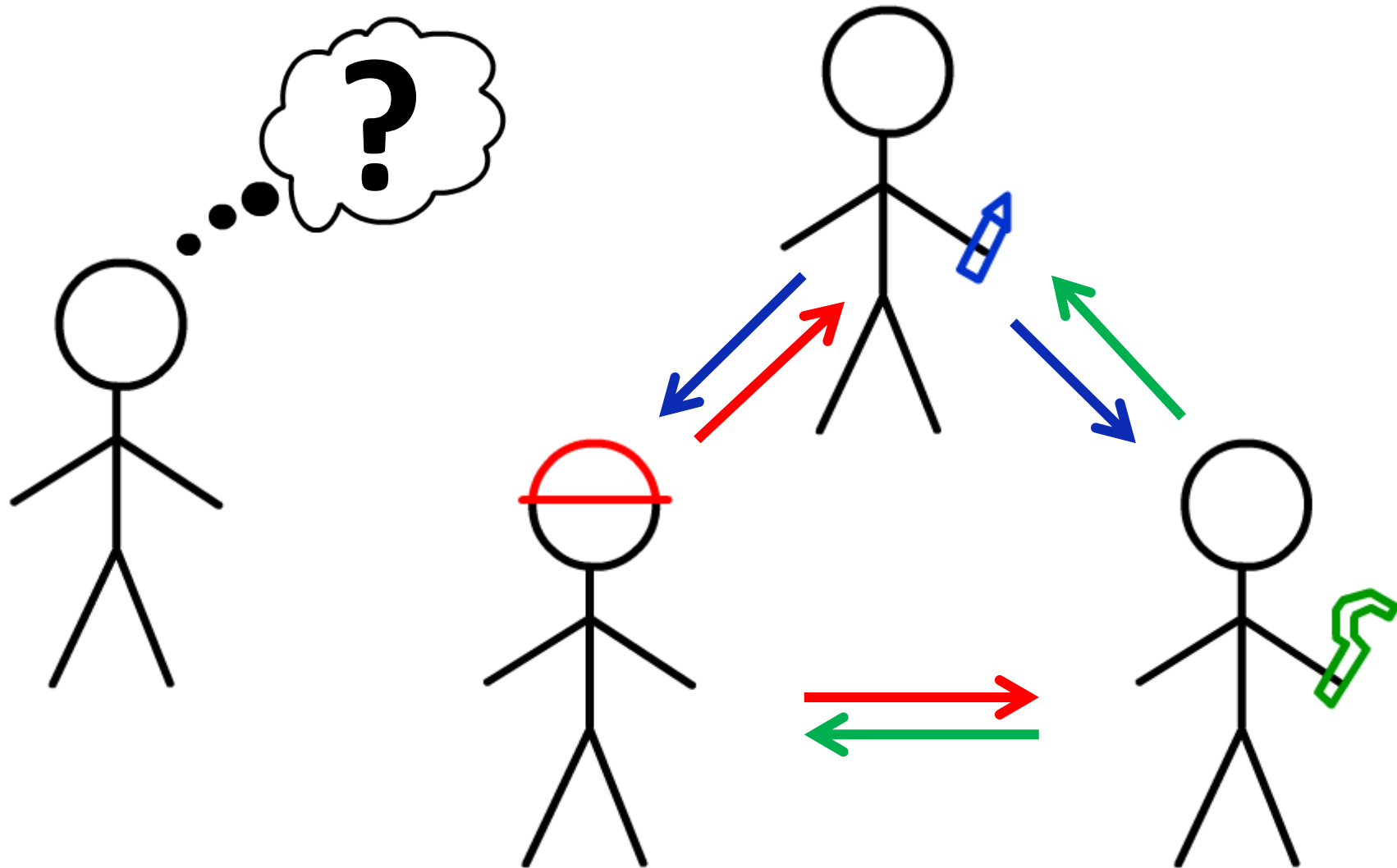


The Problem “examples”

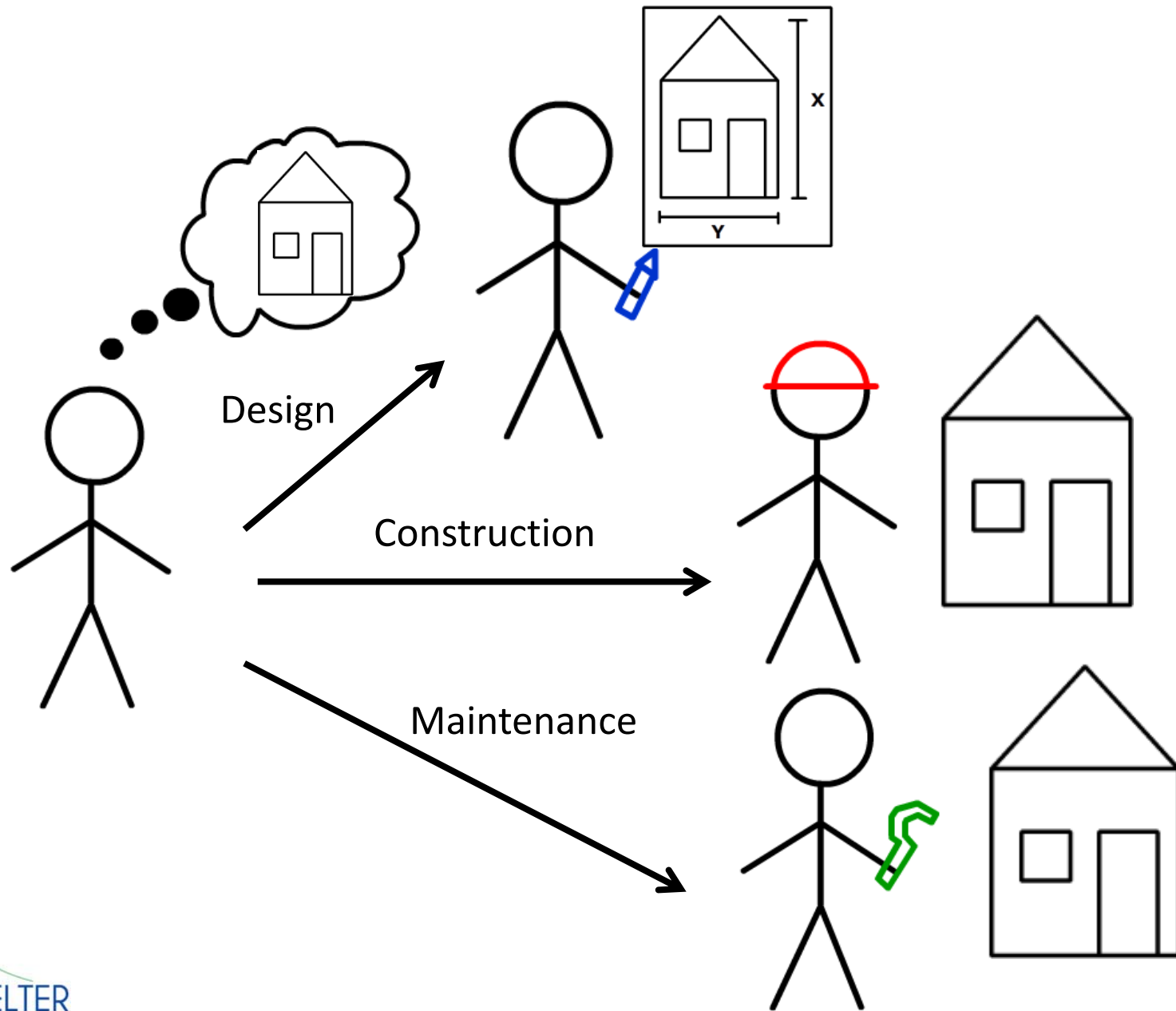
After renovation our tenants were supposed to pay 40% less in their energy bill, but they only save 20%.



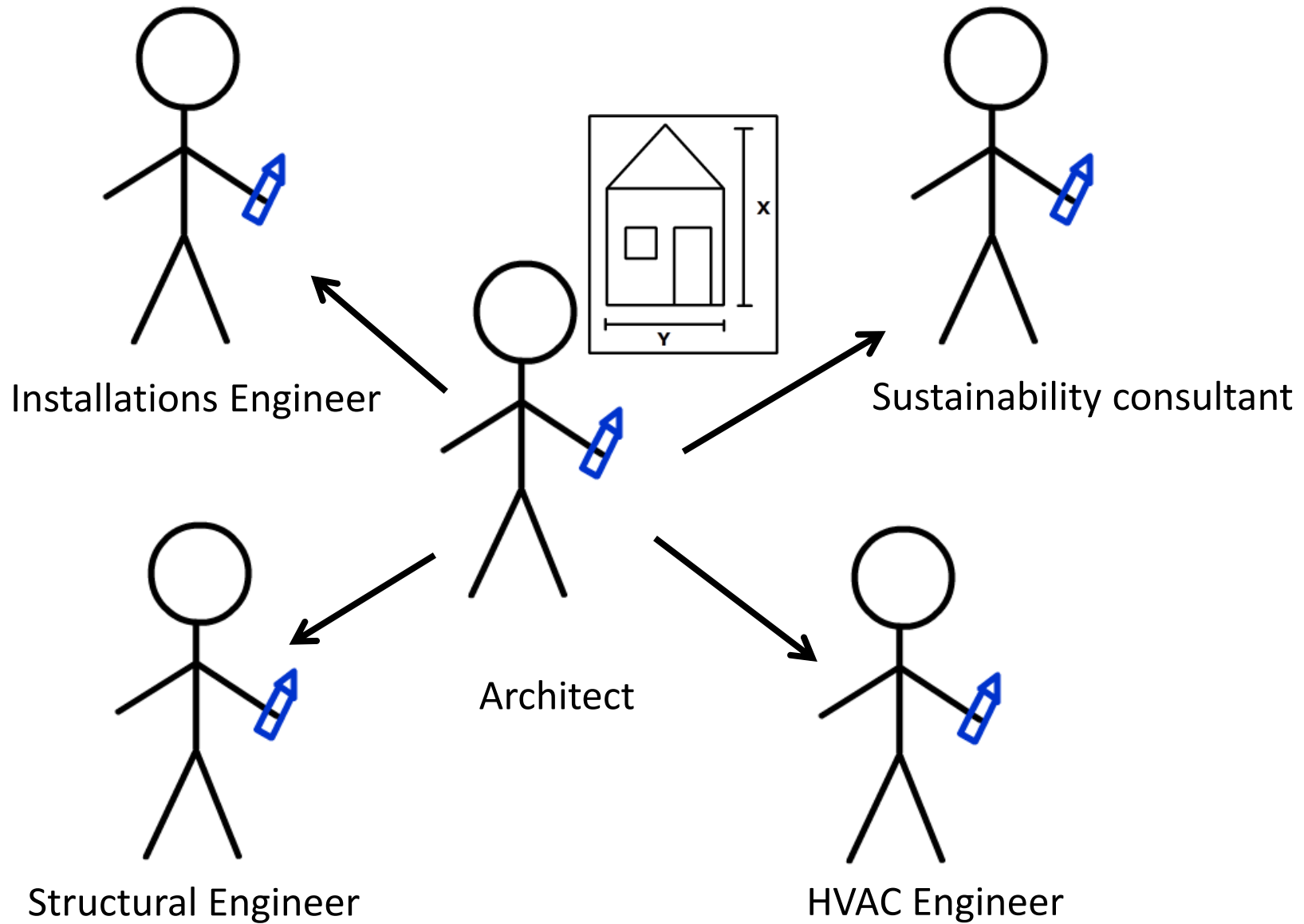
The Problem “examples”



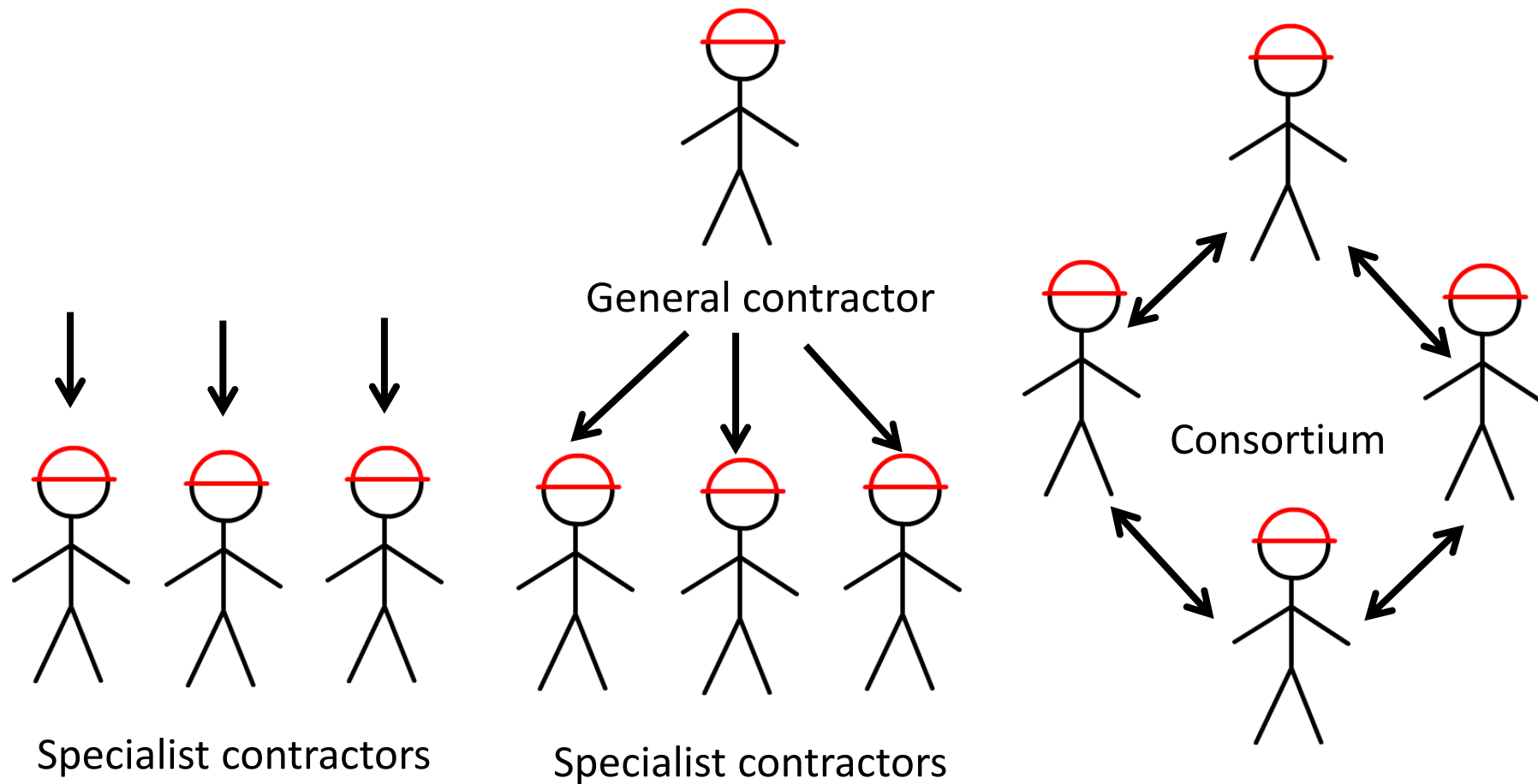
Renovation process



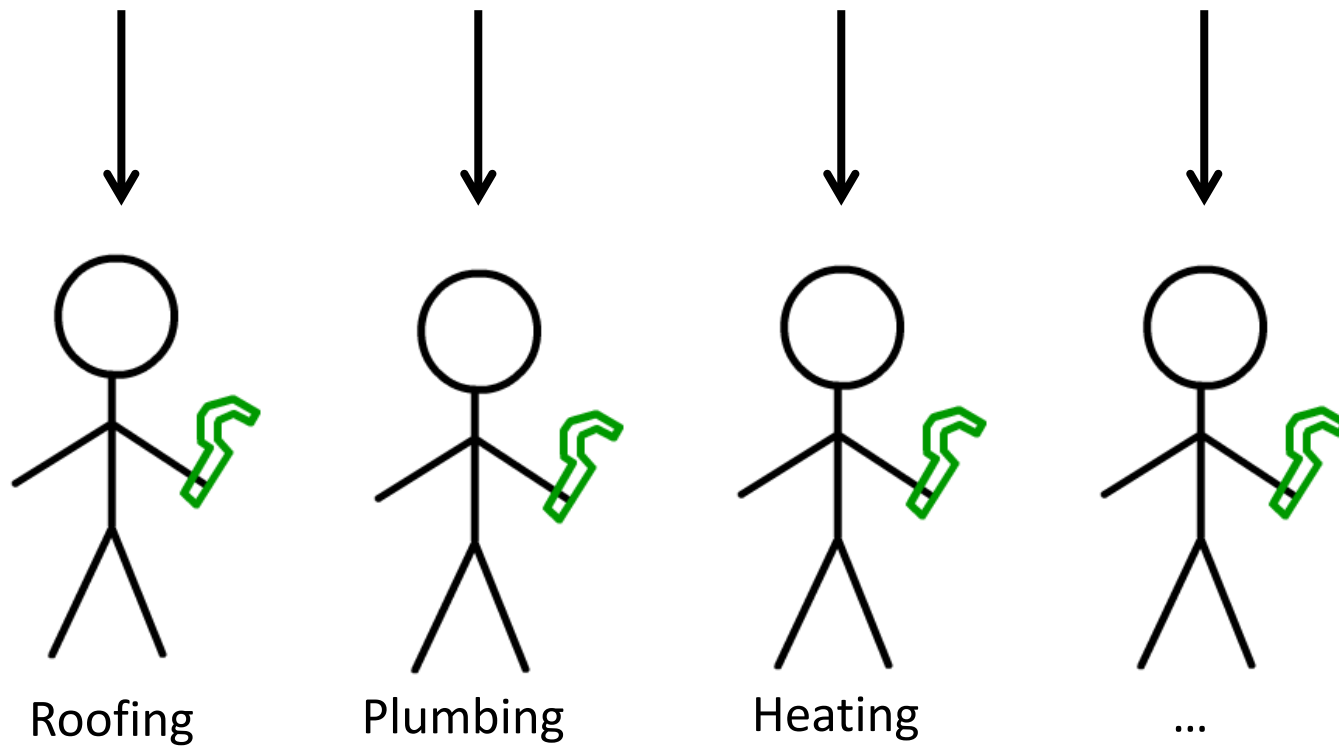
The Design Companies



The Construction Companies



The Maintenance Companies


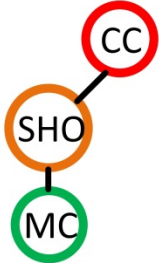


The SHO often a body governed by public law

“The **award of contracts** concluded in the **Member States** on behalf of the State, regional or local authorities and other **bodies governed by public law entities, is subject to respect of the principles of** the Treaty and in particular to the principle of freedom of movement of goods, the principle of freedom of establishment and the principle of freedom to provide services and to the principles deriving therefrom, such as the principle of **equal treatment, the principle of non-discrimination,** the principle of mutual recognition, the principle of proportionality and **the principle of transparency**”

Directive 2004/18/EC for the award of public works contracts, public supply contracts and public service contracts

Project Delivery Methods	Actors	Phases			Contractual relations
		Design	Build	Maintain	
Step-by-Step					
Design-bid-Build					
Design-Build					
Design-Build-Maintain					

Project Delivery Methods	Actors	Phases			Contractual relations
		Design	Build	Maintain	
Step-by-Step	SHO DC CC MC				
Design-bid-Build					
Design-Build					
Design-Build-Maintain					

SbS Step by Step

+

Split renovation into small interventions

Components whole-life costing approach

Easier to secure specific subsidies





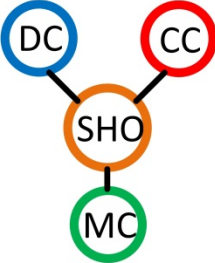
Facilitates intervention over pepper-potted stock

-

Prevents interactions between components





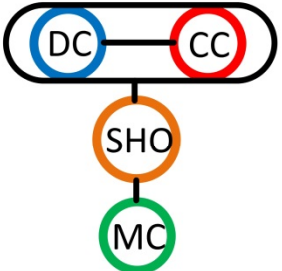
Favours components with short pay-back time

No cooperation between construction teams

Project Delivery Methods	Actors	Phases			Contractual relations	
		Design	Build	Maintain		
Step-by-Step						
Design-bid-Build	SHO DC CC MC					
Design-Build						
Design-Build-Maintain						

DBB Design-Bid-Build

+	<p>Benefit from potential interactions</p> <p>All actors know their role well</p> <p>Well suited to tendering for the lowest price</p>
-	<p>Lack of collaboration between actors</p> <p>Harder to manage liability</p>

Project Delivery Methods	Actors	Phases			Contractual relations	
		Design	Build	Maintain		
Step-by-Step						
Design-bid-Build						
Design-Build	SHO DC CC MC					
Design-Build-Maintain						

DB Design-Build

+

Improves certainty of price for renovation works

Completed in shorter time than DBB





Performance-based specifications can be implemented

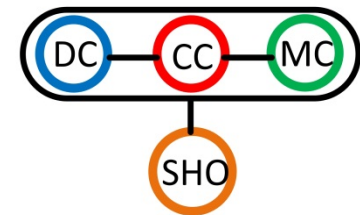
-

Direct involvement of SMEs more complicated

Precludes referee role of design companies

Presupposes a change in the role of the actors

Project Delivery Methods	Actors	Phases			Contractual relations
		Design	Build	Maintain	
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Design-bid-Build					
Design-Build					
Design-Build-Maintain	SHO DC CC MC				



DBM Design-Build-Maintain

+

Substantially improves the certainty of price

Transfer the majority of design risk failing

Easier to use performance-based specifications

-

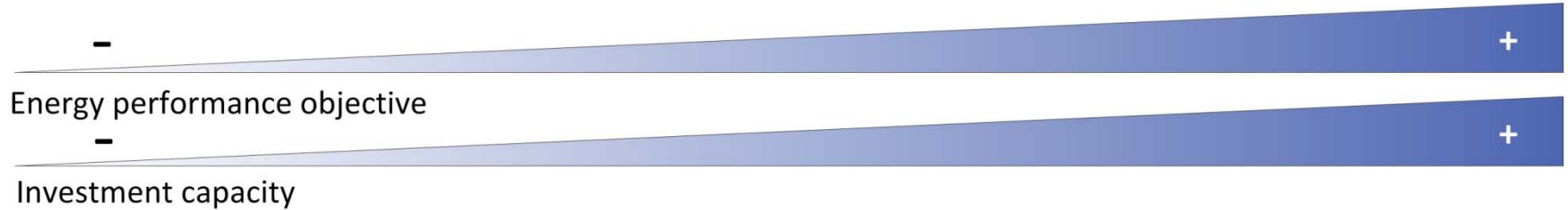
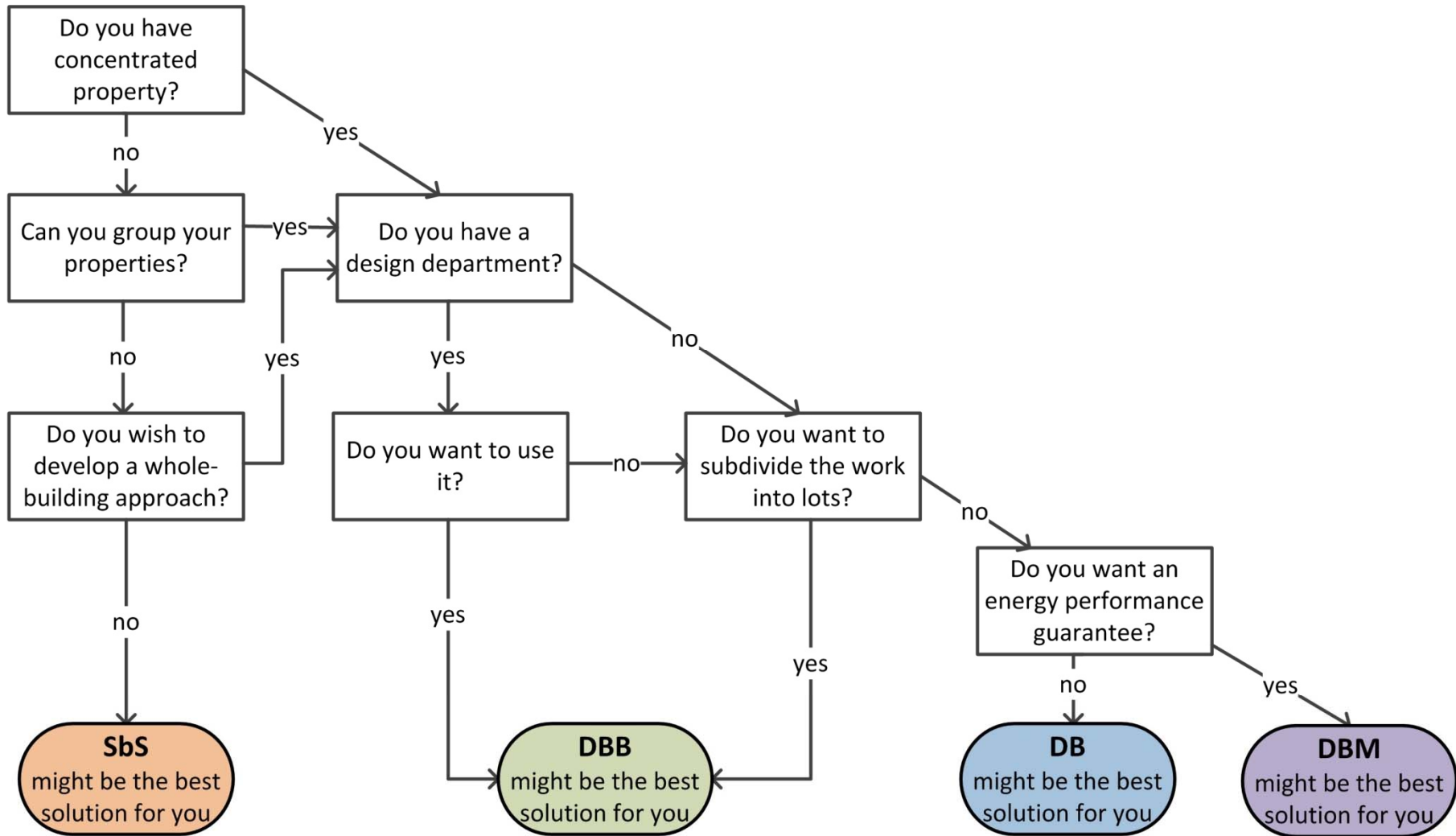
Direct involvement of SMEs more complicated

Precludes referee role of design companies

Presupposes a change in the role of the actors

Presupposes change in management strategy

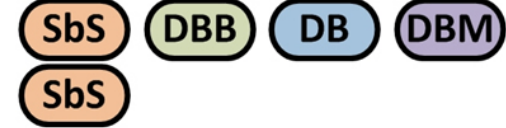
Project Delivery Methods	Actors	Phases			Contractual relations	
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Design-bid-Build	SHO DC CC MC					
Design-Build	SHO DC CC MC					
Design-Build-Maintain	SHO DC CC MC					



Recommendations

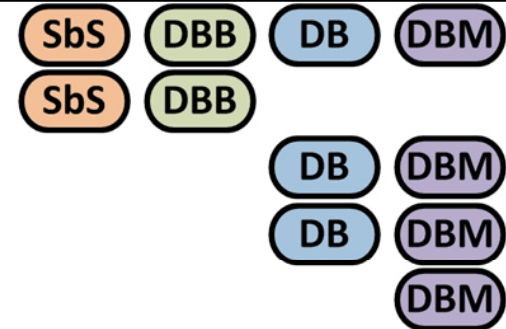
Strategy

- Introduce energy efficiency as one of the key parameters
- Group properties by typology and geography



Tendering and contracting

- Use award criteria
- Use framework agreements
- Use performance-based specifications
- Use competitive dialogue
- Use Energy Performance Contracting



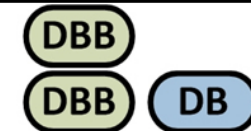
Design

- Design models by typology of dwellings
- Invite maintenance companies to participate in design phase



Construction

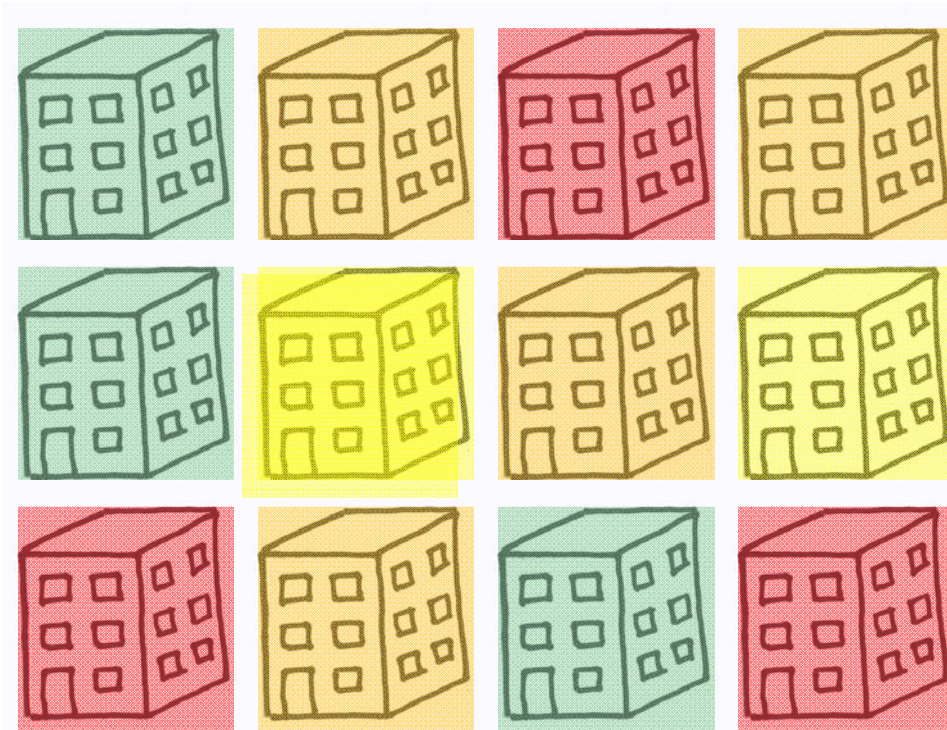
- Organize at start meeting with all the contractors
- Define transfer period between construction and maintenance



Strategy

Introduce energy efficiency as one of the key parameters

SbS DBB DB DBM



Tendering and contracting

Use award criteria



- Price 45%
- Works methodology 14%
- Energy performance objective 20%
- Quality of the maintenance 14%
- Tenant's guidance 7%



- Price 30%
- Energy savings proposed 10%
- Energy saving measures proposed 15%
- Obtaining of the French BBC certificate 5%
- Technical report 25%
- Architectural quality of the project 15%

Tendering and contracting

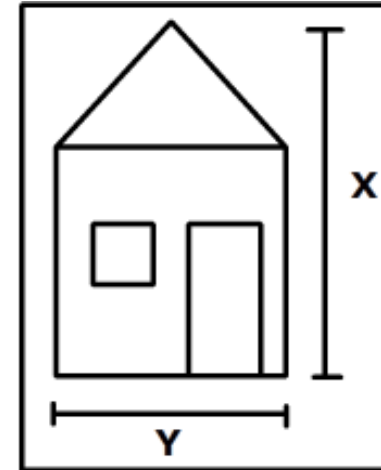
Use performance-based specifications

DB DBM

Specifications

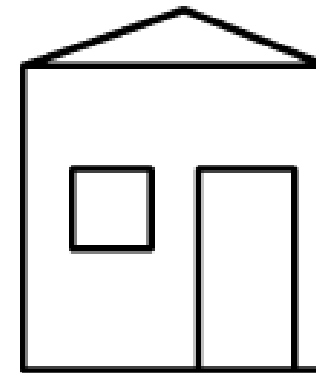
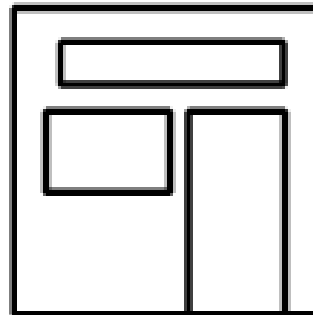
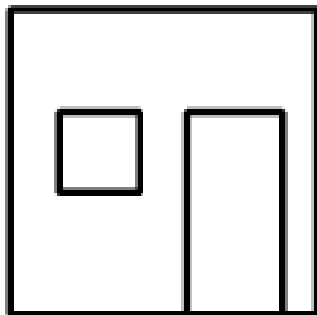
- Descriptive

House: 4m wide, 5 m tall, door on the right side, window on the left side, pitched roof.



- Performance-based specifications

House: for two persons, with natural light, low energy use.



Tendering and contracting

Use performance-based specifications



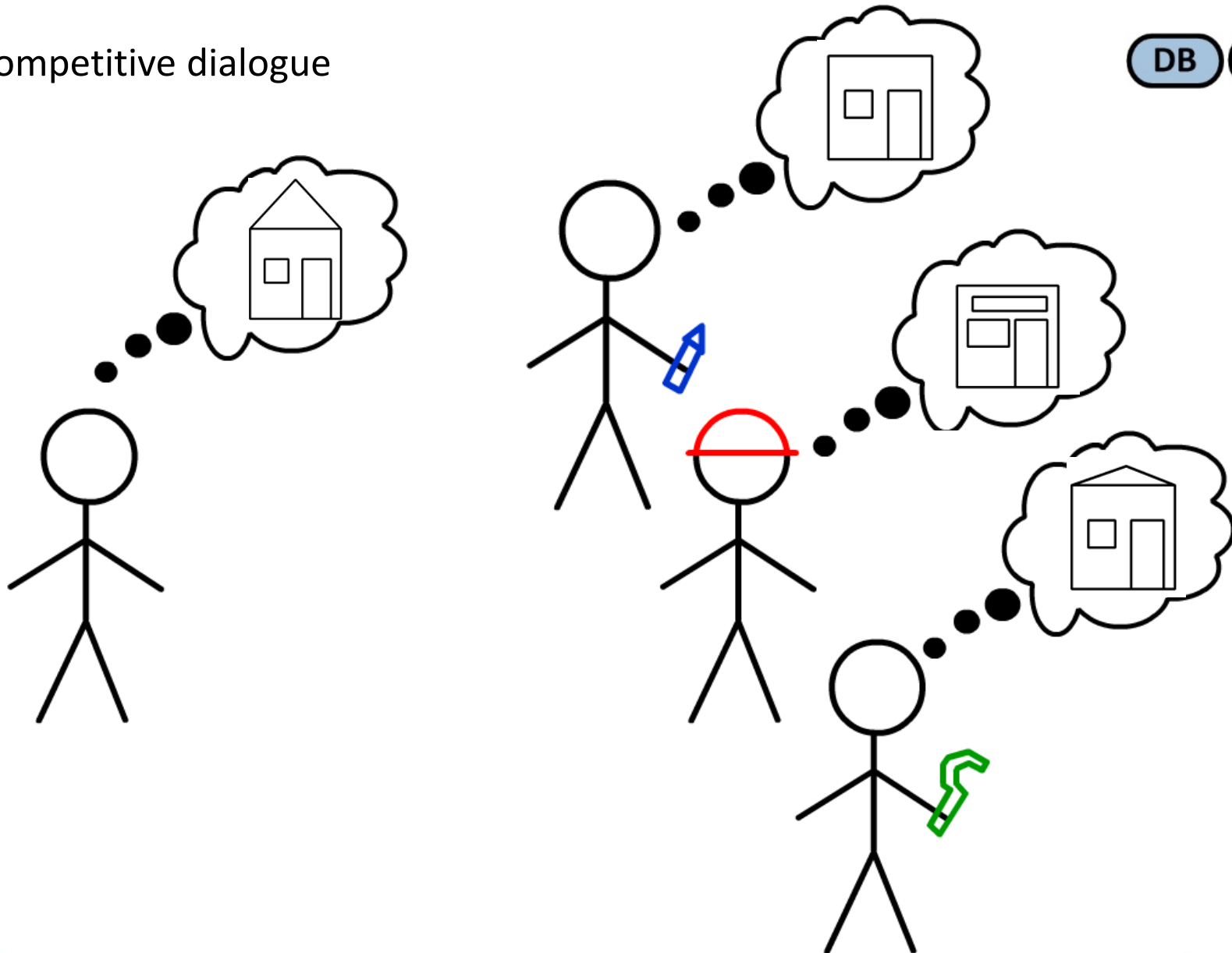
Energy objectives:

- Obtain label BBC.
- Minimum thermal energy use reduction of 30%, with warranty of results.

Tendering and contracting

Use competitive dialogue

DB DBM



Design

Invite maintenance companies to participate in design phase



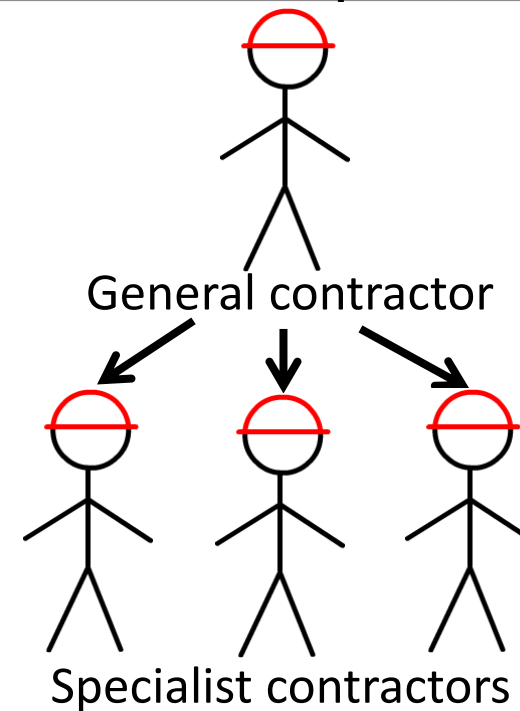
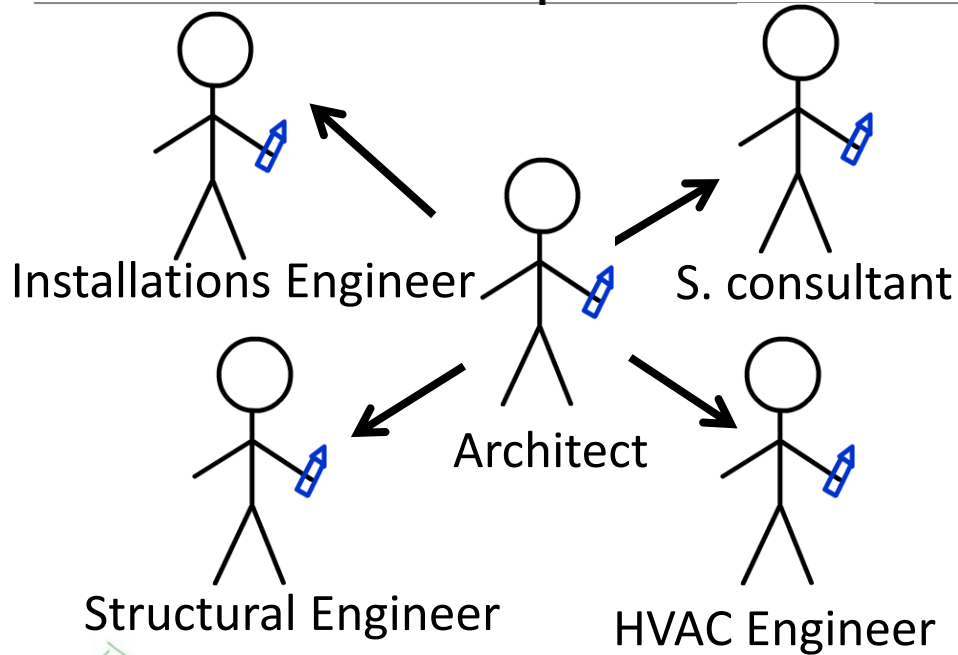
Project Delivery Methods	Actors	Phases			Contractual relations	
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Design-Build	SHO DC CC MC					

Construction

Organize at start meeting with all the contractors

DBB

Project Delivery Methods	Actors	Phases			Contractual relations
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Renovation vs Maintenance

