

## Models of coordination and approaches to integrated design

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# Shelter Partners

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## Social Housing Organisations

Belgium – Societé Wallon du Logement (Charleroi)

Bulgaria – Bulgarian Housing Association (Sofia)

Italy – ARTE Genova

France – Logirep (Paris), Dynacité (Bourg en Bresse)

UK – Black Country Housing Group (Birmingham)

## European Federations

ACE – Architects Council of Europe

EBC – European Builder Confederation

CECODHAS – European Federation of Social Housing entities.

## University

TU Delft – OTB Research Institute for the Built Environment

# Research method

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## 1. Analyses of renovation processes

- 3 days' visits to 6 SHOs
- Interviews of SHOs staff and actors involved in Erenovations like: architects, construction companies and maintenance companies.



# Research method

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## 2. Survey

Questionnaire to SHOs in 8 European countries.

Reponse:36





# Research method

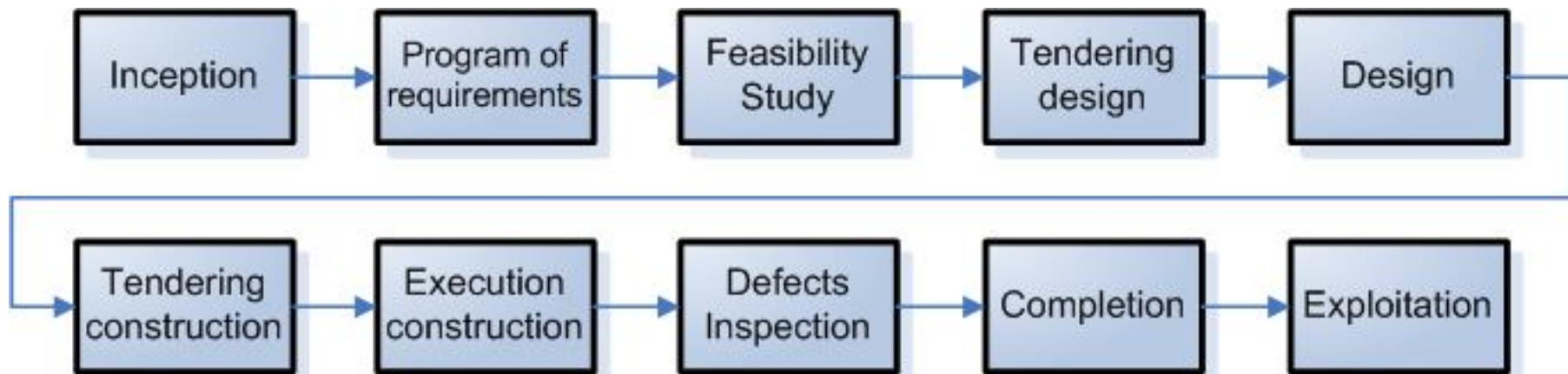
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## 3. Interviews

- 14 experts in 10 different countries.
  - Architects, technical advisors, juridical advisors, politicians and builders.
- How to promote award criteria for Erenovation tenders?
  - How to promote use of performance-based specifications ?
  - How to promote participation of contractors and maintenance companies in the design phase?
  - What do you think about the role of the architect in Erenovations?
  - What do you think about the role of SMEs in Erenovations?

# Analysis

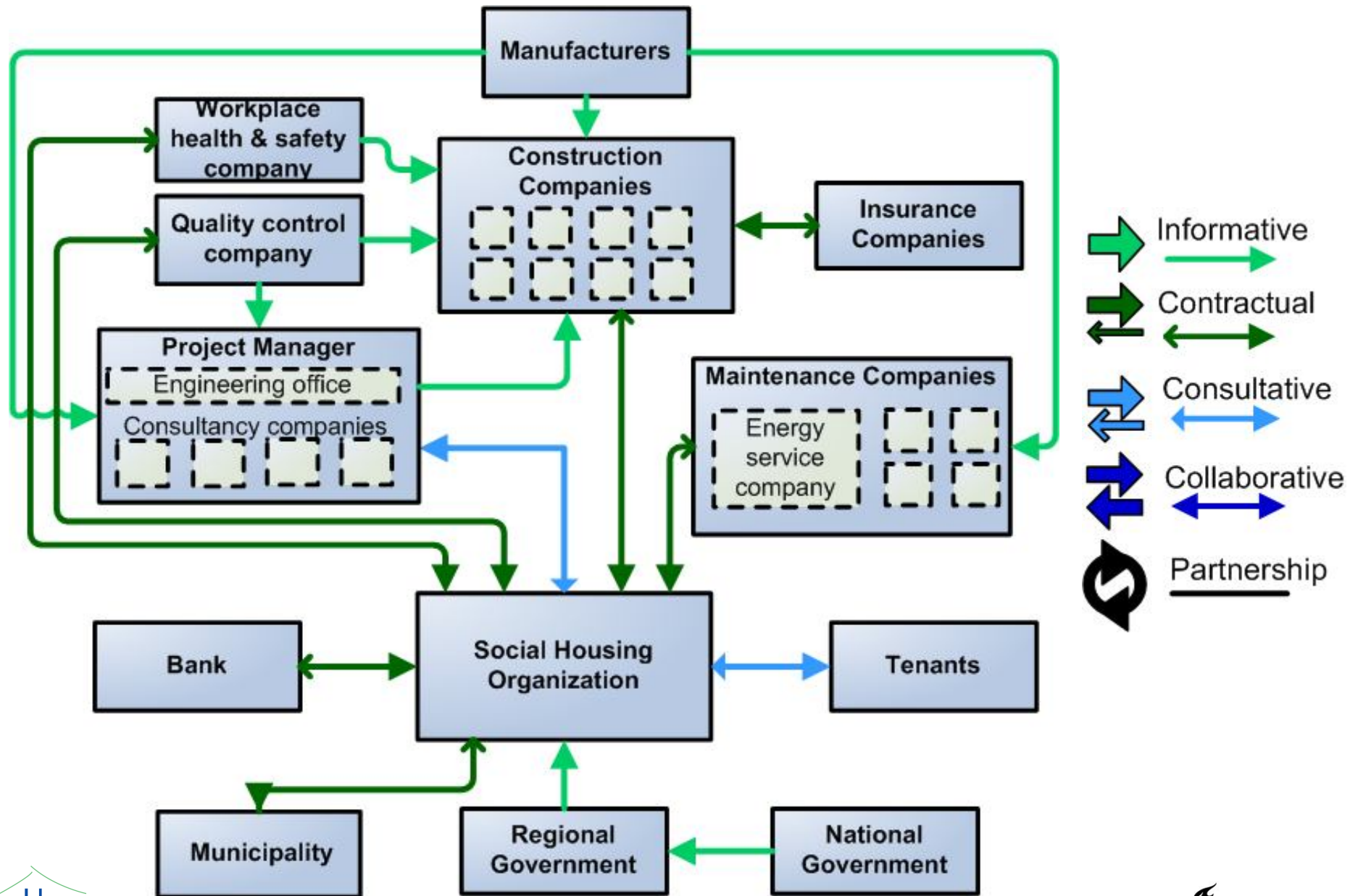
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# Analysis

Actors	Duties	Phases										
		I	PR	FS	DT	D	CT	C	DI	C	E	
Social housing organization	Decision making											
	Communication with the tenants											
	Finance											
	Design contract draw up											
	Project Monitoring											
	Maintenance											
Bank	Finance											
Municipality	Give construction permits											
Regional Government	Finance											
National Government	Finance											
Insurance company	Insure											
Project manager (Maitre d'œuvre)	Design											
	Technical Advise											
	Communication with the tenants											
	Construction contract draw up											
	Request construction permits											
	Construction supervision											
Quality control company	Quality control											
Workplace health and safety company	Workplace safety											
Construction companies	Construction											
Maintenance Companies	Exploitation/Maintenance											
Tenants	Decision making											
	Proposals for the renovation works											
	Cohabitation with construction works											
	Cohabitation with maintenance companies											
Manufacturers	Advice											
	Building products and systems sells											

# Analysis



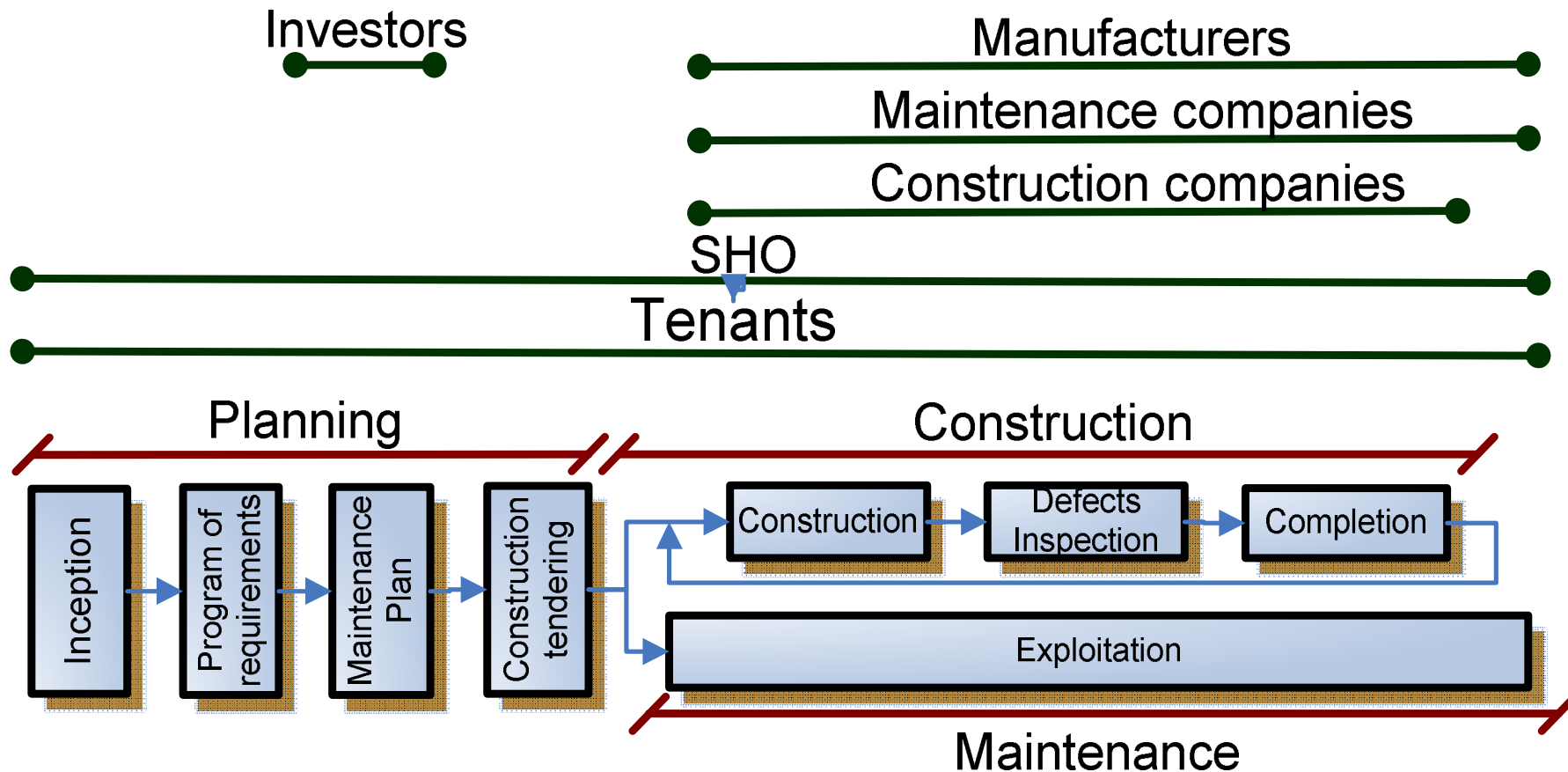


# Analysis

	ARTE Genoa	BCHG	BHA	Dynacité	Logirep	SWL
1. Strategy						
2. Project Organization						
3. Work Organization						
4. Design decisions						
5. Tendering and contracting						
6. Knowledge						
7. Influence on tenants behaviour						

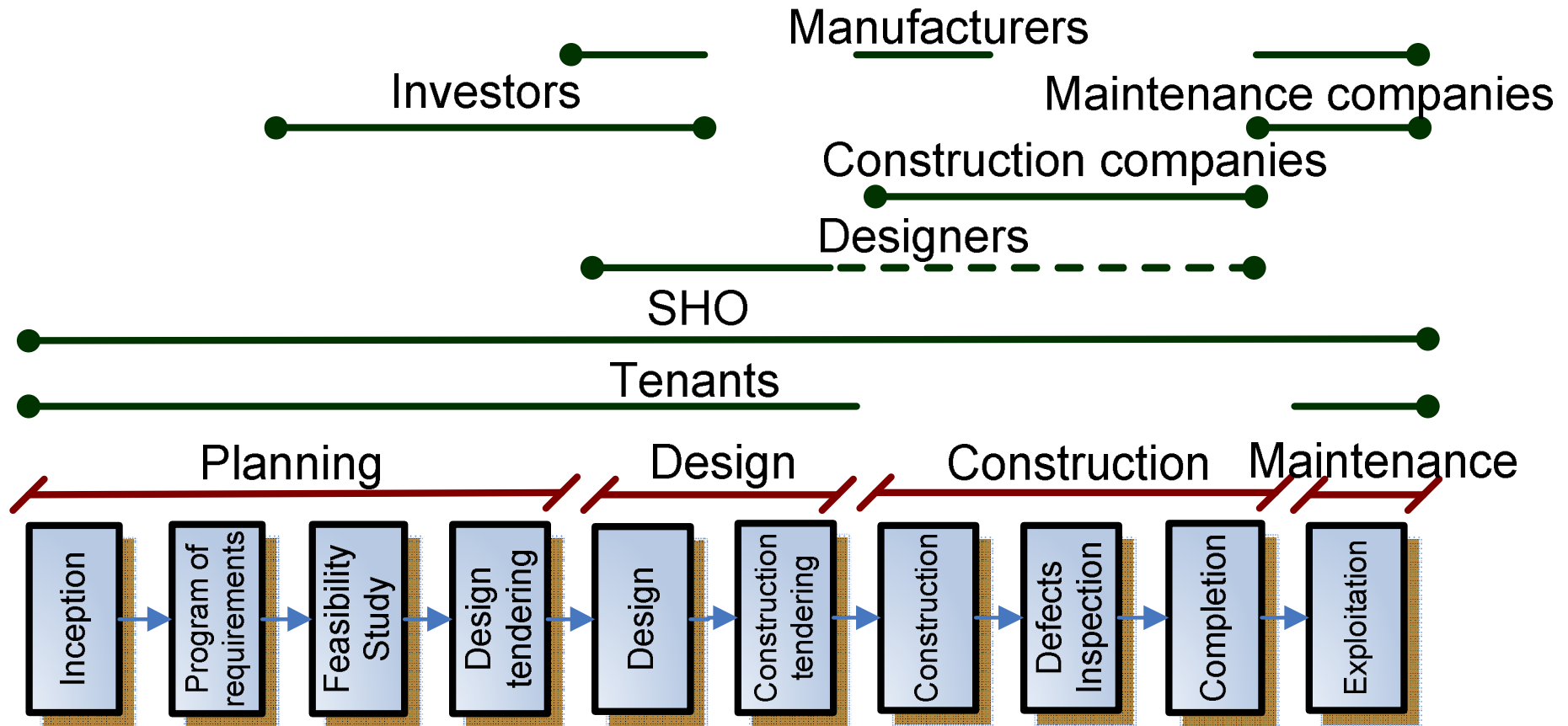
# Current Renovation Processes

## 1. Iterative minor renovations



# Current renovation processes

## 2. Design-Bid-Build



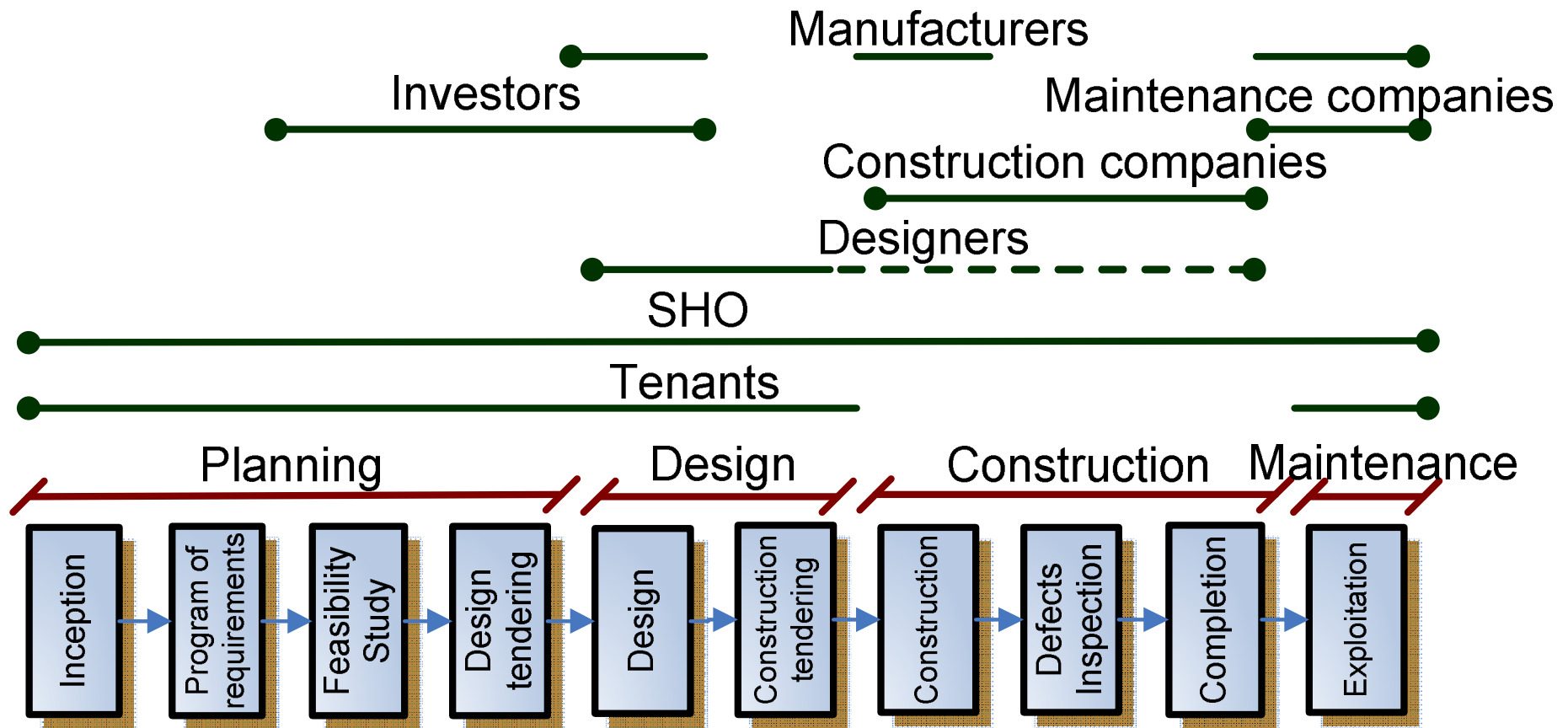
# Current renovation processes

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	Advantages	Disadvantages
<b>Major renovation</b>	<ul style="list-style-type: none"><li>- Allows integrated design.</li><li>- Allows possibility for extensions, modifications of the properties.</li></ul>	<ul style="list-style-type: none"><li>- High investment at once</li><li>- Difficult to apply to individual properties geographically spread.</li><li>- Requires high level of coordination</li></ul>
<b>Iterative minor renovations</b>	<ul style="list-style-type: none"><li>- Optimize the life span of the different building products and systems.</li><li>- Investment distributed in several years</li></ul>	<ul style="list-style-type: none"><li>- Difficult to benefit from positive interactions.</li><li>- Difficult to benefit from extensions, modifications of properties.</li><li>- Less cooperation among professionals working on the same dwelling.</li></ul>

# Current renovation processes

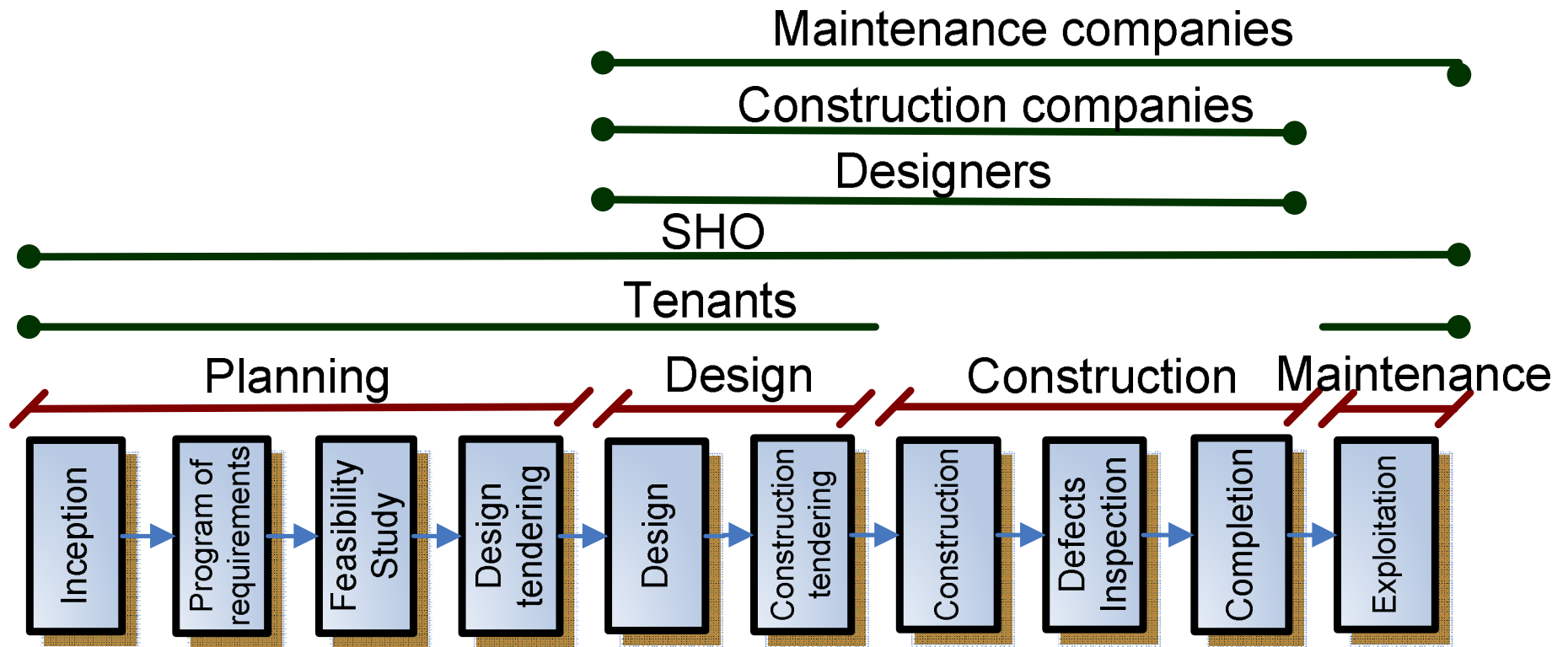
## 2. Design-Bid-Build





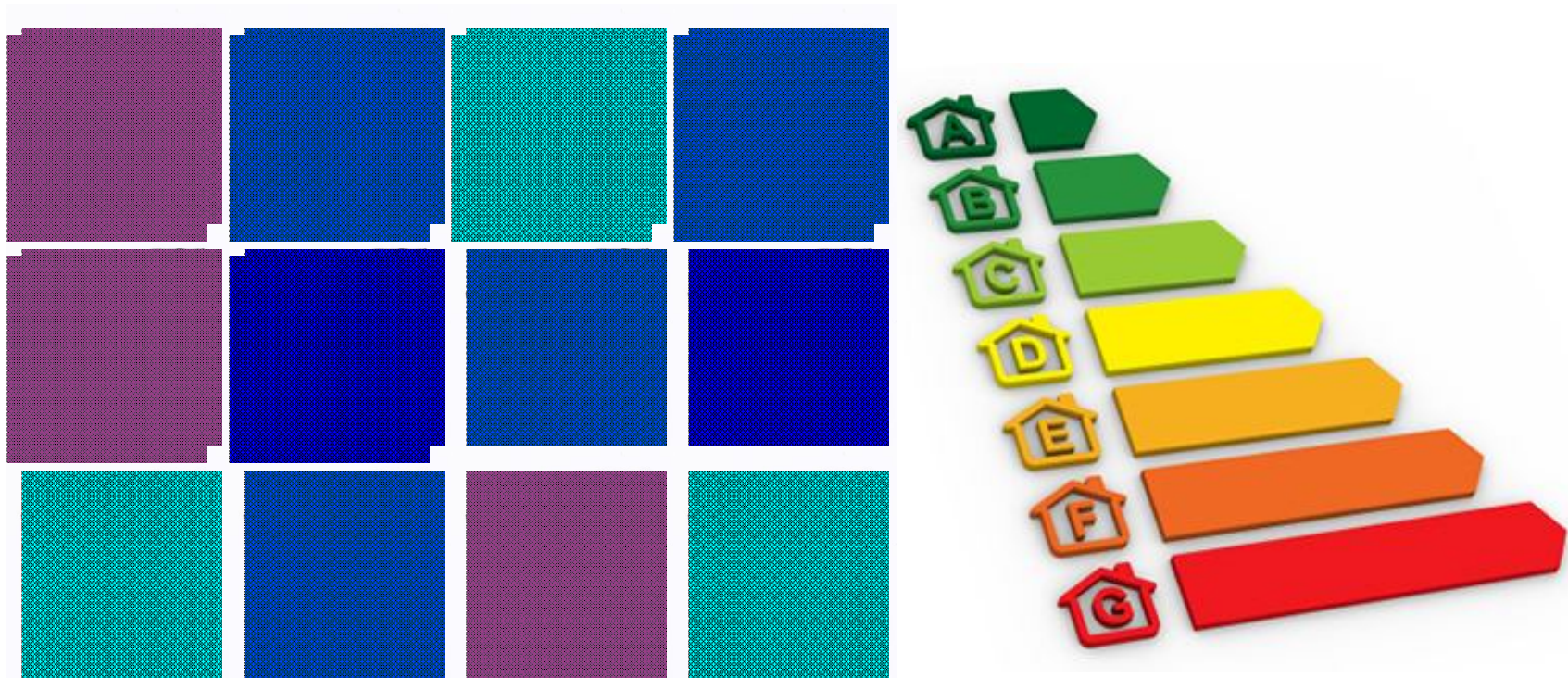
# Current renovation processes

## 3. Design-Build-Maintain



# Current renovation processes

	Advantages	Disadvantages
<b>Design-Bid-Build</b>	<ul style="list-style-type: none"> <li>-Allows division of contracts into lots</li> <li>-Architects can act as referee between client and constructor.</li> </ul>	<ul style="list-style-type: none"> <li>-Forces use of descriptive specifications.</li> <li>-Facilitates use of lowest price tendering.</li> <li>-Precludes communication between architects and constructors on design phase.</li> </ul>
<b>Design-Build-(Maintain-Operate-Finance)</b>	<ul style="list-style-type: none"> <li>-Allows cooperation between all actors involved on design phase.</li> <li>-Facilitates use of award criteria for tendering.</li> <li>-Facilitates use of performance-based specifications.</li> <li>-Facilitates implementation of innovations.</li> </ul>	<ul style="list-style-type: none"> <li>-Single large contract. SMEs have less options to bid.</li> <li>-Dual relationship client-contractor, no referee role of architect.</li> <li>-Force actors involved in renovation to change their interaction with other actors.</li> </ul>



**Thank you for your attention.**

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