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How to boost EPC in Flanders? Do's & don't's

Flux50-event – 19/10/2018

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Wattson is an initiative of Wattson-management, 3E, Impact Capital and PMV



- Consultancy, research and software company in sustainable energy
- Expertise in buildings & sites, wind, solar and grids & markets
- Nearly 20 years of track record in renewable energy and energy efficiency projects
- 75 employees in 8 worldwide offices with HQ in Brussels



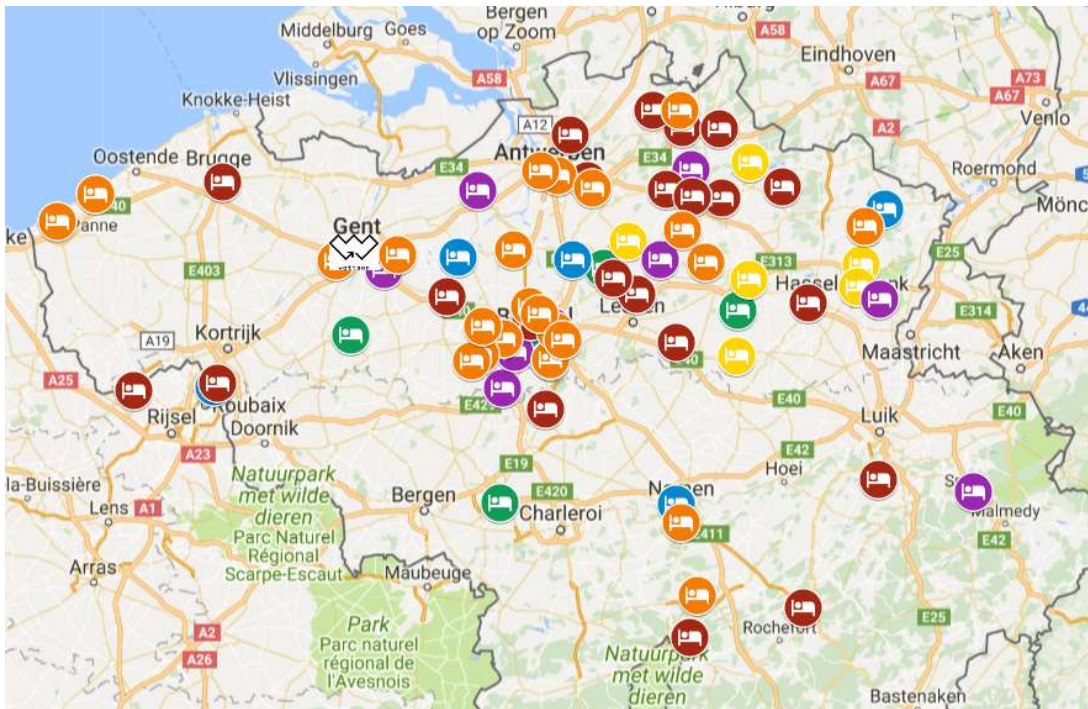
Impact Capital

- Investment fund of Piet Colruyt
- Focus on environmental and societal impact investing
- Re-Vive, Storm en i-Propeller in its portfolio
- Actively contributes to combating climate change



- Investment vehicle of Flemish government
- Specific focus on financing of energy-efficiency-projects

Active on 70+ sites in 3 regions



- Focus on elderly homes
 - Senior Living Group
 - Armonea
- First EPC's for a school project has been launched
 - Sint-Jozefinstituut in Bokrijk
 - PTI – Eeklo (together with Democo)
- Flux50 member & involved in innovation projects focusing on “comfort as a service”
 - Vlaamse staak – Opwijk (together with POM, Haviland, municipality of Opwijk)
 - Renovation of 40 apartments in Lummen (together with Renotec)
 - Sustainable district in Mechelen (together with Re-Vive, Enervalis)



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EPC: do's & don'ts: how can we boost EPC-business?

Watch out with energy savings projects!



Illustrative case

- OCMW-nursing home
- Built in 1990ies
- Energy cost of 70.000 euro/year
- Relighting program already established
- Typical energy savings potential of 30% when 150.000 euro is invested
- Contract of 10 years
- ~~EPC : realistic option?~~

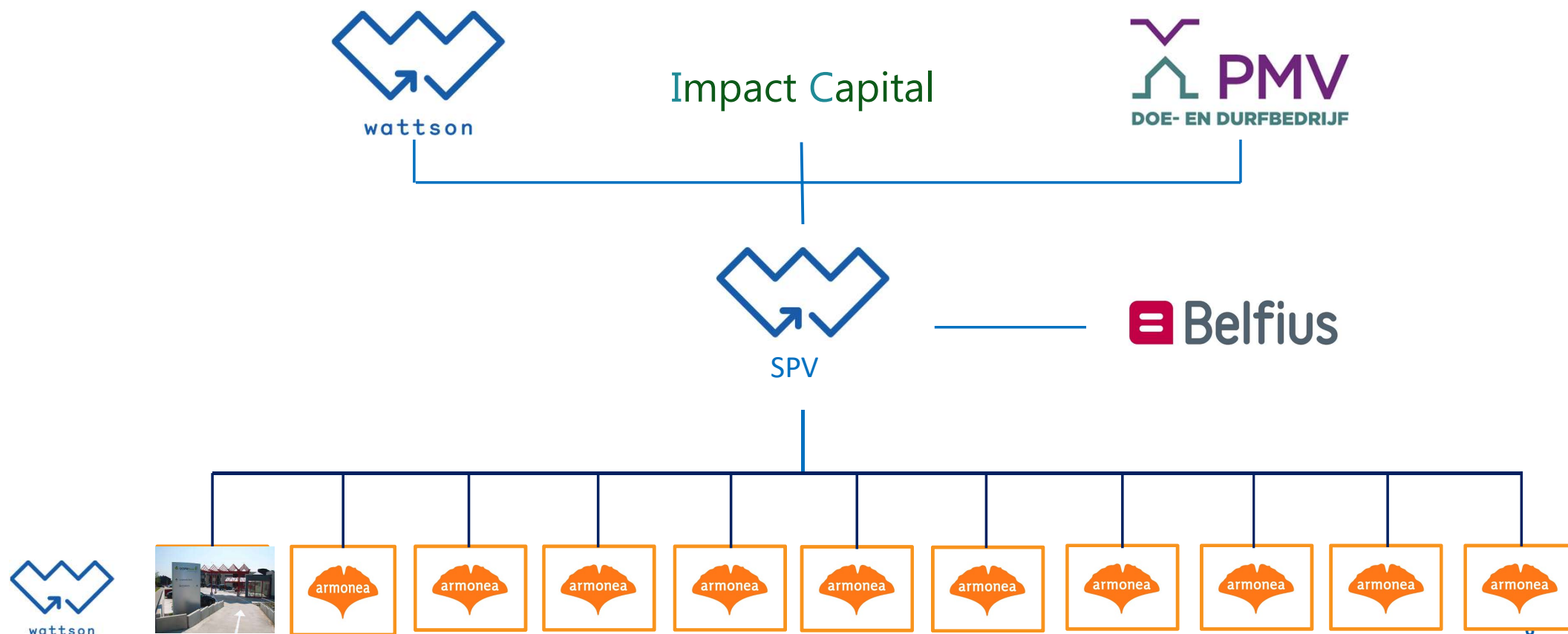
Blocking points to realize EPC in this nursing home

Different elements explain why EPC is difficult to realize

- **Scale**
- Lack of an integrated approach
- Public procurement -> additional costs

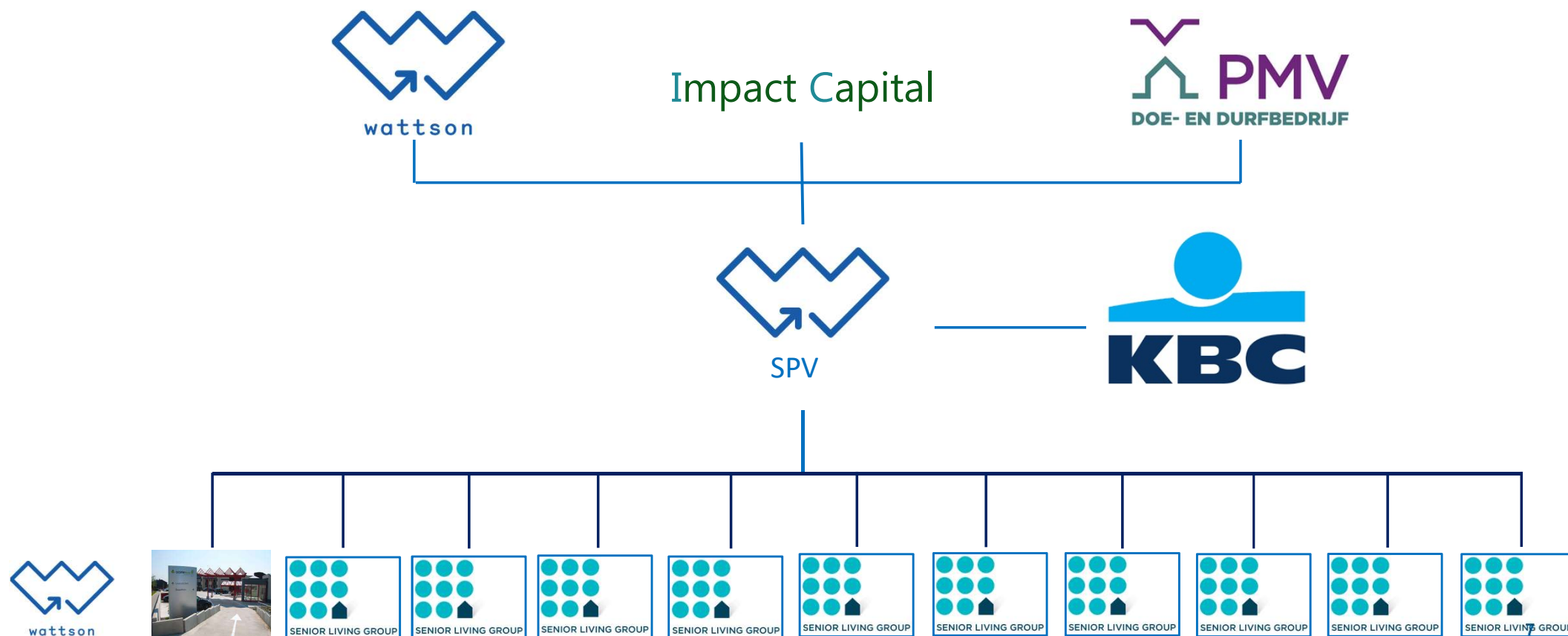
Pooling of different elderly homes improves business case

Scale is important for bankability & risk mitigation



Pooling of different nursing homes improves business case

Scale is important for bankability & risk mitigation



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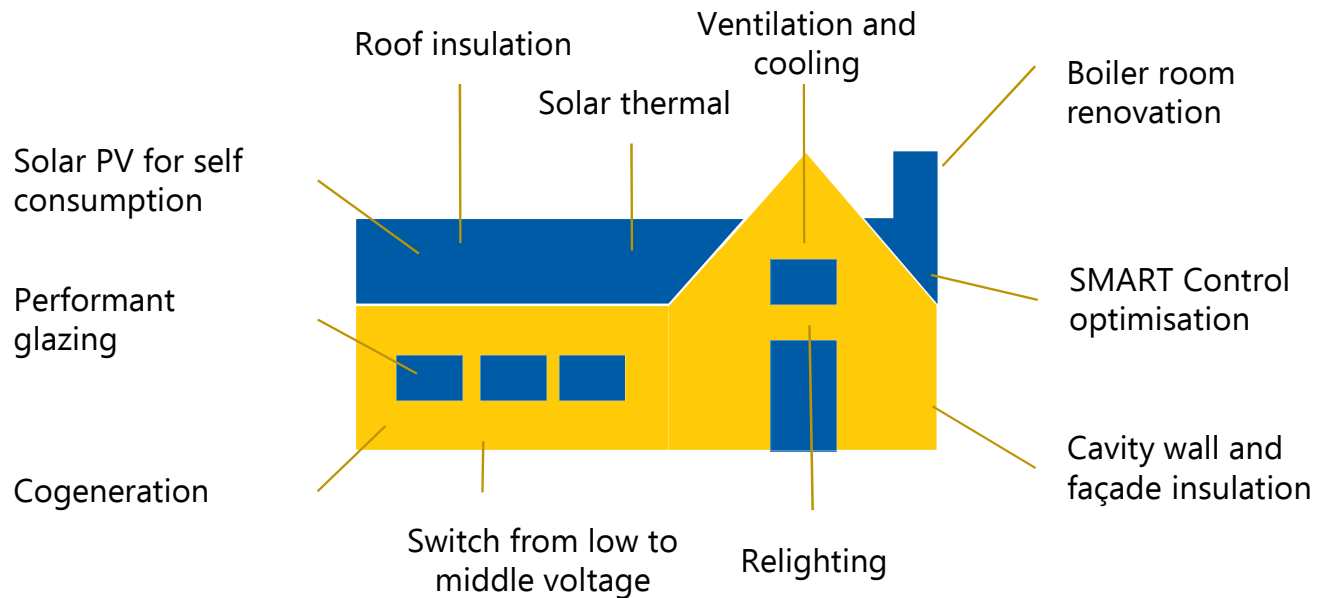
- Scale
- **Lack of an integrated approach**
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Wattson combines several technological solutions in multiple buildings to achieve significant energy cost savings

Overview of Wattson's technical solutions for energy cost saving in buildings

Wattson mixes

- Wattson combines various energy saving techniques in different buildings into a single package with an average payback period of about 8 years resulting in a total energy saving of approximately 30% (based on a 10 year contract)
- Wattson proposes a **smart combination** of so called "obvious" solutions (such as relighting) with financially more challenging, but very environmentally friendly techniques (such as boiler renovation & insulation)



Low hanging fruit is required to reach an acceptable payback

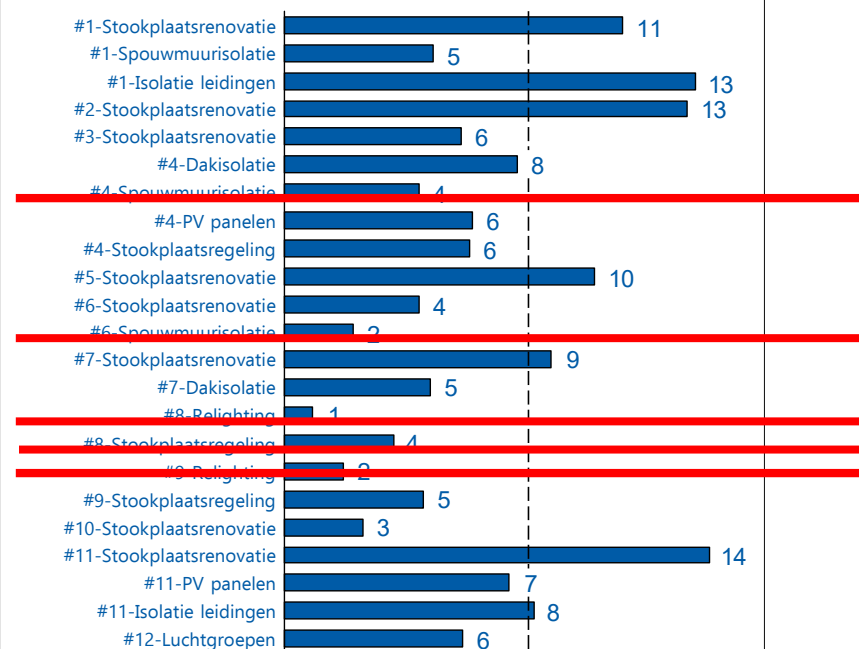
Details of a technical & financial analysis

Long list of technical solutions is budgeted...

Scenario1						
#1	beschrijving	maatregel	CAPEX €	co-inv €	subsidies €	TOT Inv. €
	Totaal stookplaats 2x ketel 395 kW + gaswandketel 110 kW	Stookplaats	207.428	55.000	4.800	17.715
	Spouwmuurisolatie Gebouw A, B, C, D	Isolatie	63.184	-	24.496	4.643
	Dakisolatie	Isolatie	131.700	-	39.510	11.063
	WKK 48 KWe ; 77 kWth	Stookplaats	100.000	-	-	12.000
Scenario1						
#2	beschrijving	maatregel	CAPEX €	co-inv €	subsidies €	TOT Inv. €
	Totaal 2 stookplaatsen 2x ketel 110kW + 1 gaswandketel 60	Stookplaats	277.742	-	-	33.329
	Spouwmuurisolatie	Isolatie	22.247	-	-	2.670
	Dakisolatie Loft 45; 20,5 cm isolatie bovenop bestaande 6 cm rol	Isolatie	43.040	-	10.760	3.874
	WKK 17 kWe ; 37 kWth Ensor	Stookplaats	55.000	-	-	6.600
Scenario1						
#3	beschrijving	maatregel	CAPEX €	co-inv €	subsidies €	TOT Inv. €
	Totaal stookplaats 2x ketel 190kW + 1 gaswandketel 60 kW	Stookplaats	156.047	-	-	18.726
	Spouwmuurisolatie	Isolatie	300	-	200	12
	Buitenmuurisolatie, zuidmuur	Isolatie	50.600	-	12.000	4.632
	Buitenmuurisolatie, overige muren	Isolatie	126.380	-	-	15.166
	WKK 17 kWe ; 37 kWth	Stookplaats	55.000	-	-	6.600
Scenario1						
#4	beschrijving	maatregel	CAPEX €	co-inv €	subsidies €	TOT Inv. €
	Totaal stookplaats	Stookplaats	176.000	-	-	21.120
	Dakisolatie met nieuwe dakbedekking	Isolatie	67.700	-	-	8.124
	Spouwmuurisolatie	Isolatie	9.802	-	2.400	888
	PV panelen	PV panelen	285.817	-	-	34.298
	WKK	Stookplaats	120.000	-	-	14.400
Scenario1						
#5	beschrijving	maatregel	CAPEX €	co-inv €	subsidies €	TOT Inv. €
	Totaal stookplaats	Stookplaats	160.542	-	-	19.265
Scenario1						
#6	beschrijving	maatregel	CAPEX €	co-inv €	subsidies €	TOT Inv. €
	Totaal stookplaatsen MK1 en MK3	Stookplaats	283.158	-	-	33.979
	Spouwmuurisolatie	Isolatie	15.098	-	5.592	1.141
	Dakisolatie, buitenkant	Isolatie	42.035	-	6.726	4.237

... selection in function of a global payback criterium

Overview of selected measures with their payback time (# years)



Weighted average: ~8 years

10+ years



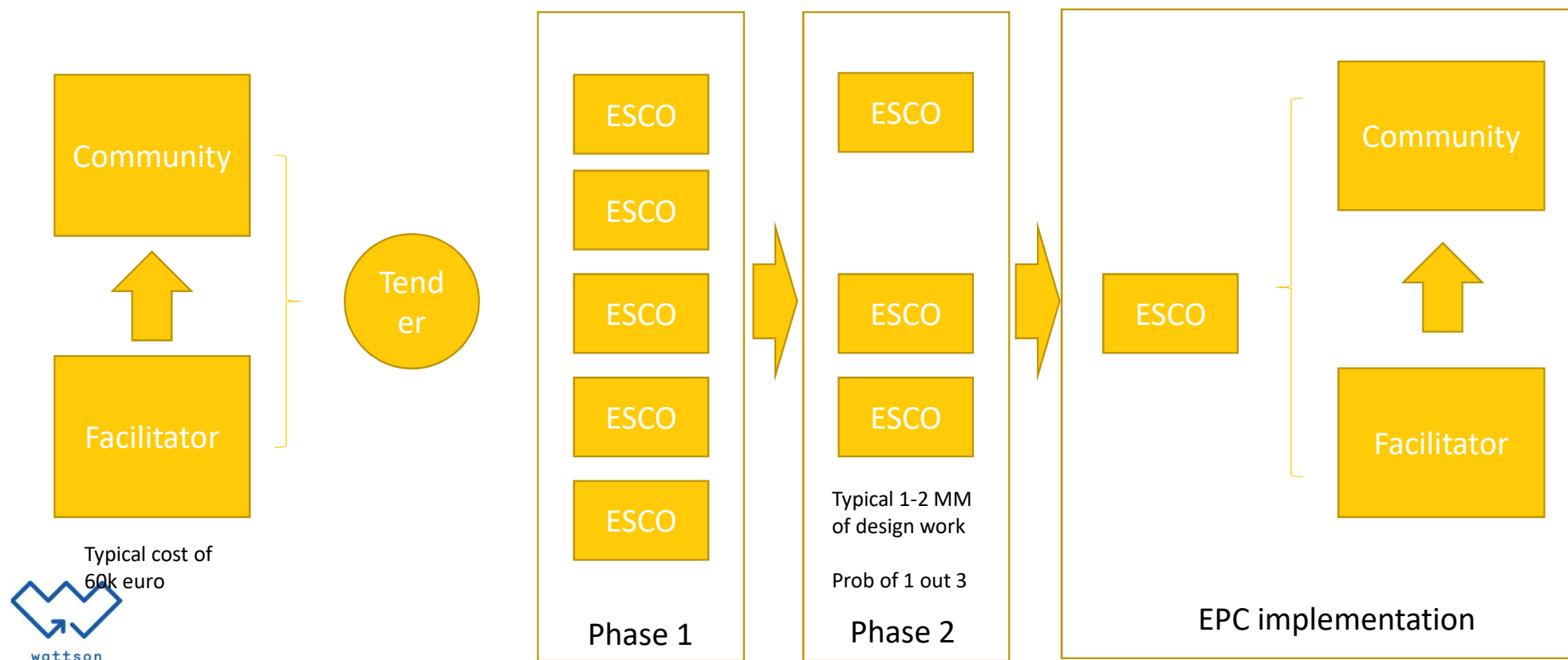
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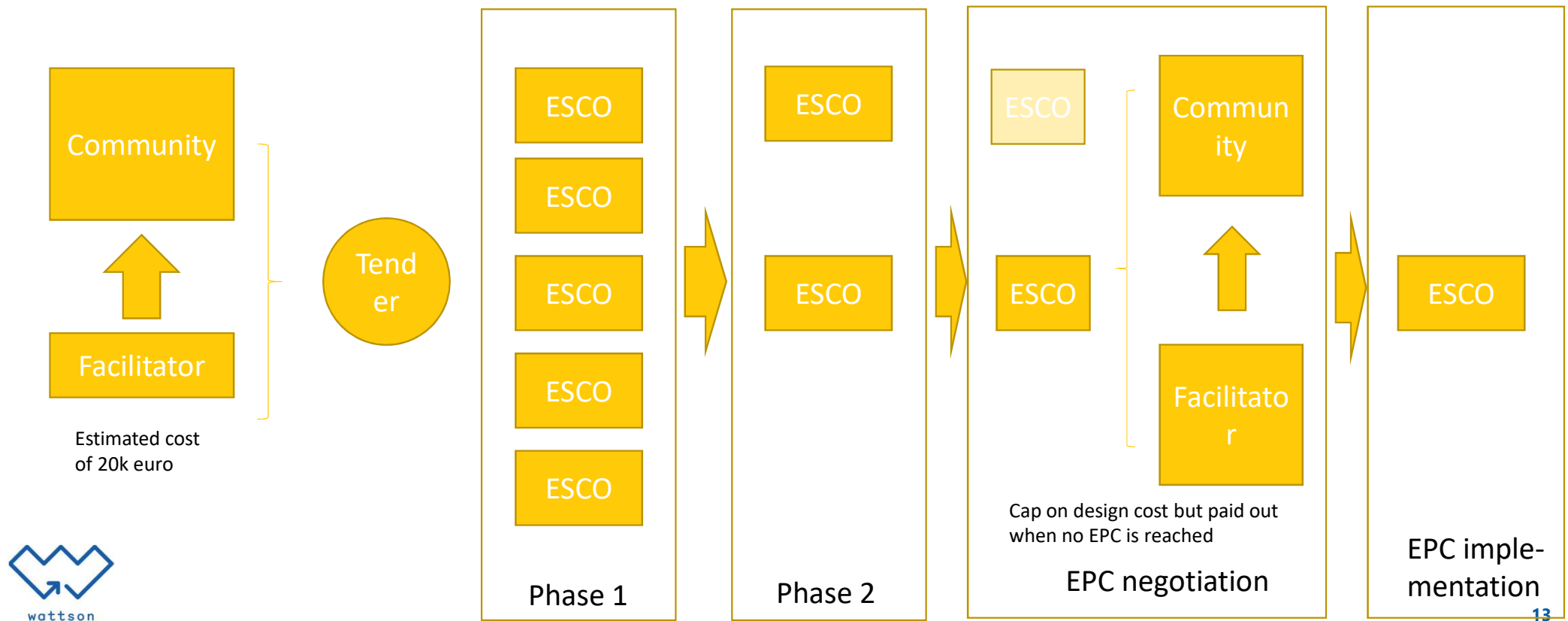
Public procurement procedures result in additional costs

Double up between facilitator & high up front design costs <-> EPC market



Smart procurement creates level playing field for EPC

Focus on additionality of facilitator & ESCO + limit up front costs



Recommendations

TOP 5 to boost EPC in Flemish region

- Go for **portfolios of min 2 mio euro of investment cost**
- Stimulate **integrated renovations** instead of focusing on low hanging fruit
- **Pool public money** with ESCO's: 1 euro from climate funds + 1 euro from third parties -> much longer paybacks are possible -> so also structural renovation programs
- **Procurement procedures** should respect balance between client & ESCO-party
- **CO2-tax** can boost EPC business since it reduces pay back times significantly