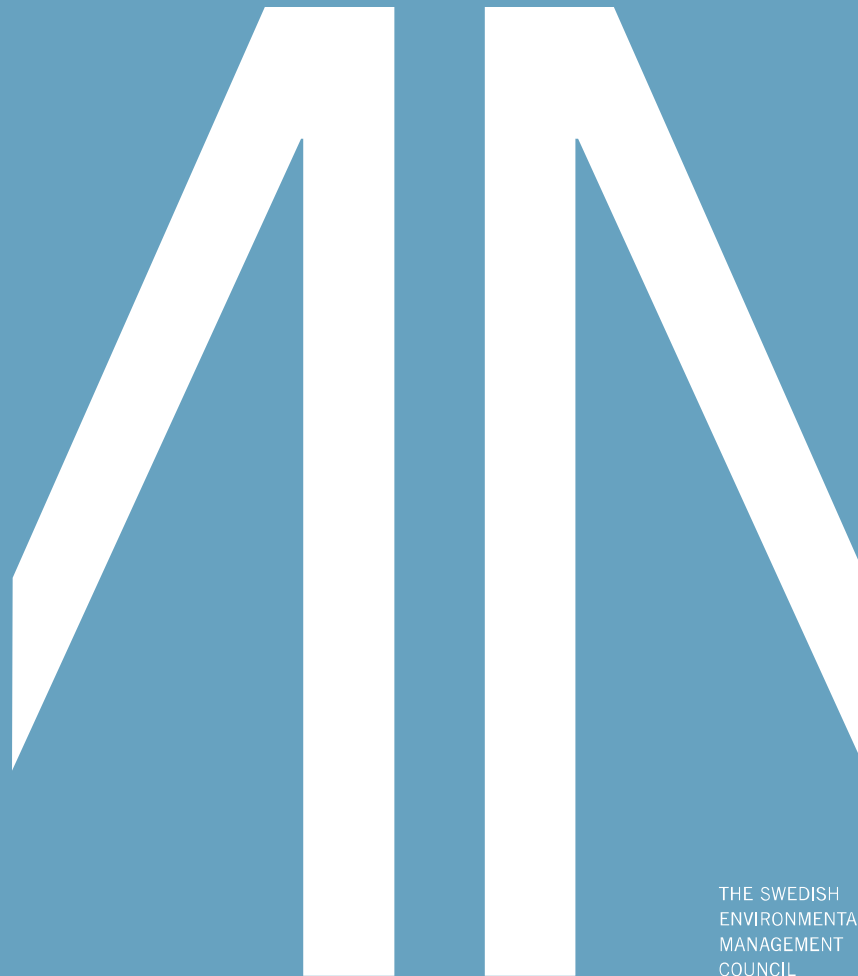


# Life Cycle Costing (LCC) – a modern procurement tool

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THE SWEDISH  
ENVIRONMENTAL  
MANAGEMENT  
COUNCIL



# Agenda

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- What does The Swedish Environmental Management Council do within the area of LCC
- Coming work
- What is important in order to initiate LCC in the public sector? Our experiences



## Swedish statistics

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- 32% uses LCC when considered relevant
- 50% don't use it although it could be relevant!





## SEMCo:s work to initiate LCC

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- Integrate LCC when developing procurement criteria
  - LCC-criteria
  - Calculation tool
  - Guidelines
- Information
- Good examples
- Lectures / Training



## Our concrete work in 3 steps

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1. Products suitable for the calculation
2. LCC in the procurement process
  - Needs analysis / tender assessment
3. Calculation tools



# 1. Products suitable for the calculation

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- Our existing tools: Cars, Vending machines, Outdoor lighting
- Coming product areas: Construction, Medical equipment, professional kitchen equipment, Indoor lighting
- Statistics
- Good examples



## 2. LCC in the procurement process

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LCC can be used in different ways

- Needs analysis – estimation of total costs
- Tender process – evaluation of the most economic advantageous offer



## Needs analysis

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- General tool to estimate the Life cycle costs
- What will be the economic outcome if you choose an environmental good?
- If the calculation shows economic benefits, 2 options:
  - Buy the environmental alternative
  - Use the calculation in the award phase





## Award phase

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Important: Same principles are valid as in “normal” procurement!

- Equal treatment
- Non-discrimination
- Transparency



## Important to stress in order to get comparable numbers

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- Clearly define the preconditions for the supplier
  - Quantity, Number of years of usage, Discount rate, Energy, consumption, Energy price, Annual use etc.
- Clearly define what information the tender should submit
- Clearly define the standards that should be used
  - Standards for measuring energy consumption and measuring maintenance costs



## Concrete information

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- While developing criteria we always make an investigation whether LCC is relevant
- Actual criteria concerning LCC
- Including what information is needed (preconditions, standards etc.)
- Contract clause to help the following up
- Link the criteria to a tool



### 3. Calculation tools

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- MSR has developed tools with assisting guidelines, [www.msr.se](http://www.msr.se)
- Net present value - calculation
- Tools are developed with experts within the specific area, often while developing the criteria sets – to adjust it to the target group, the procurer.
- Other more specified tools can be downloaded from different organizations /authorities



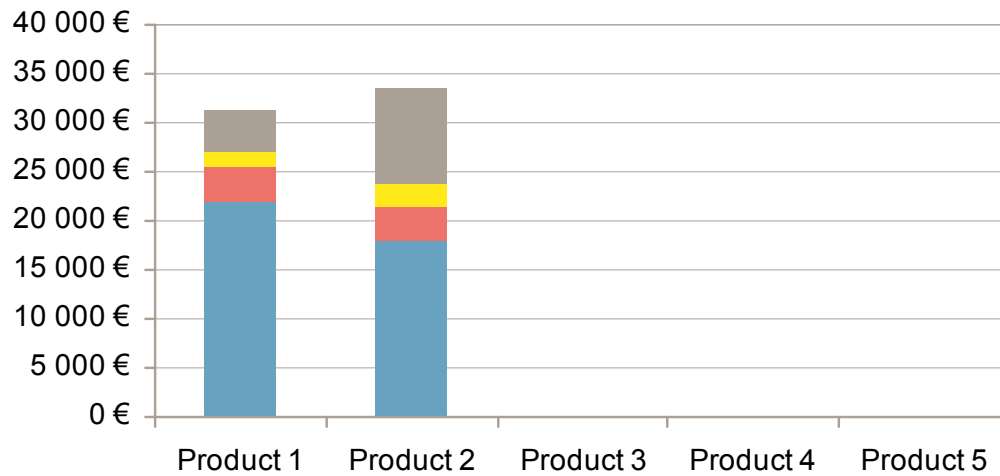
# LIFE CYCLE COSTING OF PASSENGER CARS

<b>GENERAL INFORMATION</b>			
Quantity*	unit	90	
Number of years of usage*	years	5	
Discount rate	%	4	
<b>PRODUCT, fill in the intended product</b>		<b>Hybride car</b>	<b>Petrol car</b>
<b>INVESTMENTS</b>			
Initial investment per unit	EUR/unit	22 000	18 000
<b>COSTS OF ACQUISITION PER UNIT</b>		<b>22 000 €</b>	<b>18 000 €</b>
<b>Costs for fuel</b>			
Fuel consumption per vehicle	litre/km	0,04	0,09
Annual use per vehicle	km	20 000	20 000
Fuel price	EUR/litre	1,2	1,2
<b>OPERATING COSTS PER UNIT NPV</b>		<b>4 274 €</b>	<b>9 616 €</b>
<b>MAINTENANCE</b>			
Service	EUR/unit,year	800	800
<b>MAINTENANCE PER UNIT NPV</b>		<b>3 561 €</b>	<b>3 561 €</b>
<b>Taxes and other costs</b>			
Tax	EUR/unit,year	0	200
Insurance premium	EUR/unit,year	300	300
<b>TOTAL OTHER COSTS PER UNIT NPV</b>		<b>1 336 €</b>	<b>2 226 €</b>
Remnant value / resale value	EUR/unit	11 000	8 000
<b>TOTAL LCC PER UNIT</b>		<b>22 130 €</b>	<b>26 828 €</b>
<b>TOTAL LCC</b>		<b>1 991 660 €</b>	<b>2 414 510 €</b>



# Diagrams

Costs during the life cycle



Costs of acquisition



Operating costs NPV



Maintenance costs NPV



Other costs



# Tools

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Existing tools on our webpage:

- General
- Passenger cars
- Public outdoor lighting
- Vending machines

Coming soon:

- Indoor lighting
- Construction (new buildings)



## Coming work

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- Reconstruction (new windows, isolation)
- Medical equipment
- Refrigerators / freezers for professional use
- Tool for vehicles will be updated according to the new EU-directive

Other projects:

- Follow the municipality of Uppsala in their work with LCC





## Important factors – our experience

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- Integrate LCC when developing criteria
- It is important to give concrete information!
- Stress the importance of transparency!
- Simple tools are demanded
- Develop the tool and criteria with potential users
- Guide on how to use the tool/criteria

Thank you for listening!

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