How different Evaluation Criteria can impact your investment decisions: the importance of looking beyond the hurdle of first costs

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Decisions in healthcare are...



Long-lasting



Expensive



Hard to redress





Joram Nauta- senior project manager



We often do not realize that: Half of total lifetime housing costs



running costs and periodic upgrading







Erasmus MC

2.a

Development of Award Criteria

"Do we really care about how beds are cleaned or do we care about the outcome?"

"Quality is non-negotiable - we need an auditable solution"

"Provide us with a positive businesscase and we support you"

"We must be able to handle the solution"

Award Criteria:

- Total Cost of Ownership/Service of the solution
- Carbon footprint
- Impact for the organisation

To be tested first! (capability & confidence building)







Finding the optimum







Challenges for TCO analysis



Calculate total TCO-effects for (building) projects

innovation for life

Gauge effects on total lifetime costs of decisions/options in design and construction

Aid in decision-making at various stages of the design and construction process







The Total Cost of Ownership Principle









Example

What is the cheapest product A or B?

Product A: Investment: € 9.000 Running Costs: € 450 per year Lifecycle: 5 years



Product B Investment: € 10.000 Running Costs: € 200 per year Lifecycle: 5 years

Answer: Product B (NPV €10.348,--, product A has a NPV of € 10.426,--) (assumed IRR= 5%)







Case Study Erasmus MC; Buying an ultrasound machine

- 4 offers were received (Company A, B, C, D):
- Including contracts for (preventative) maintenance & spare parts.
- Use of energy was monitored during field testing

Decisions made on basis of economically most advantageous offer - 30% of overall score was based on lowest price

What would happen if we would select on basis of lifecycle costs?







Business case approach

TNO innovation for life











Important: - sensible use of discount rate (point of discussion)

- involve all stakeholders in organization
- make clear calculations and comparisons
- more than one budget involved (where do extra costs come from and who receives savings?)
- in this case energy costs are only a minor issue





A Different Life Cycle: Carbon Footprint



Benchmark old system vs new solution



Carbon Footprint based on:

- 70.000 beds per year
- Lifecycle of 10 years.
- Use of electricity, water, soap, steam, chemicals
- Maintenance/revisions
- Building related carbon (embedded)
- End of life









Carbon Footprint (continued)

During Lifetime 89% of carbon footprint is related to use of machine Carbon Footprint of usage of machine is derived from:











Looking for Solutions: Cleaning Beds in Erasmus MC



- 70.000 beds need cleaning & disinfection per year
- Solution wanted in 2013
- Lowest Total Cost of Ownership/Carbon Footprint

Announcement Launched: 9th of September 2011





Procurement (March 2012- March 2013)



innovation for life

Competitive dialogue:

- Phase1: Pre Qualification phase (May 2012)
 - Pro innovation, no pre-requisites (except bankrupcy, criminal records etc),
 - 10 consortia/companies applied (SME multinational, service providers & producers, known & unknown, Dutch & foreign),
- Phase 2: 8 consortia/partners entered Dialogue phase (June 2012) <u>During dialogue assistance was provided by TNO with TCO and carbon</u> <u>footprint models</u>

Phase 3: Best & final offers: 1 offer received from last 2 remaining dialogue partners







Practical Assistance with TCO and carbon footprint models

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During Competitive Dialogue:

- Issue of benchmark TCO & Carbon Footprint models to bidders
- Specific models were issued for each remaining bidder based on their specific solution (only quantities/amounts could be changed)
- Development of the Solution and Dialogue rounds stopped when Level of Detail was enough to prepare a bid based on these models

After Selection of winning bid:

- ErasmusMC used models for internal approval
- ErasmusMC checked models with "as-built" specification; is it up to promise?







Thank You!



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