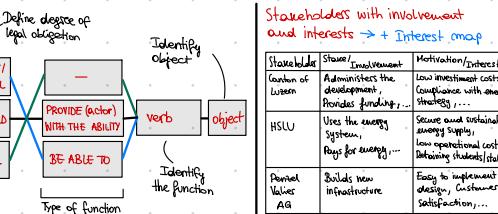




SWG



Stakeholders with involvement and interests → Interest map

Stakeholder	Stakeholder's involvement	Motivation/interest
Canton of Lucerne	Administrator of development, Provides funding,...	low investment costs, compliance with energy strategy,...
HSLU	Uses the energy system, pays for energy,...	Secure and reliable energy supply, low operational costs, defining students/staff...
Private Values AG	Builds new infrastructure	Easy to implement, customer satisfaction,...
Municipality of Horw	-	Show consideration, benefits of the new energy system, meet their needs, conduct on area of interest,...

Engagement strategies

Stakeholder	Engagement strategies
Canton of Lucerne	- Personal contact - Motivation/personal concern - Involve in decision
HSLU	- frequent update - consider their options - ask what they would do
Private Values AG	- Show consideration - Show benefits of the new energy system
Municipality of Horw	- Show consideration - Show benefits of the new energy system - Meet their needs - Conduct on area of interest,...

Verification techniques:  
Did we build it right, in accordance to requirements?

**Review of Design:** shall consist of using approved records or evidence that unequivocally show that the requirement is met.

**Analysis:** shall consist of performing theoretical or empirical evaluation using techniques agreed with the customers

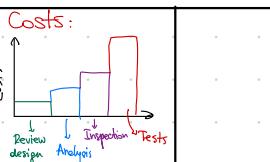
**Inspection:** shall consist of visual determination of physical characteristics.

**Test:** shall consist of measuring product performance and functions under representative simulated environments

- Test environment  
**Validation** → did we built the right thing? = customer feedback

**INCOSE**

- Inspection: visual/dim. examination (Swg, 12m, low, green)
- Analysis: Analytical evidences, logic
- Demonstration: Shows correct operation without physical ones.
- Tests: Tested in real conditions
- Analogy: based on previous experiences
- Simulation: analysis sub-set/based on mockups
- Sampling: based on verification of characteristics based on samples



### Verification matrix

REQ. NR.	REQ. TEXT	COMPLIANCE STATUS	COMPLIANCE COMMENT	VERIFICATION METHOD	VERIFCAT. IN DOC	VERIFICATION STATUS
<b>FUNCTIONAL REQUIREMENT</b>						
SYS-FUN-001	The Locarb OT shall collect garbage deposited in its container and compact it along side of Swar and sound.	C		X X X	TBD	OPEN
SYS-FUN-002	The Locarb-GT shall compact the garbage in its container in order to minimize the overall truck length (and by that minimize energy consumption	C		X X X X	TBD	OPEN

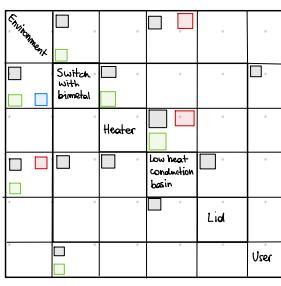
### Evaluation matrix

Concept Criteria	0	△	□	◇	★
A	+	-	+	-	+
B	-	++	+	-	S
C	+	--	-	+	-
D	++	+	+	-	S

$\Sigma +$	4	3	3	1	1
$\Sigma -$	1	3	1	3	1
$\Sigma S$	-	--	-	-	2

### Functional structure



Energy connection  
Physical connection  
Mass flow  
Information flow

### Weighting by paired comparison

Weighting by paired comparison	Energy self-sufficiency	Thermal power generation	% sustainable energy generated	Space efficiency	level of reliability	total	weight
Energy self-sufficiency	0	0	1	2	1	4	13,4%
Costs	2	1	2	2	2	9	30%
Thermal power generation	2	1	2	2	2	9	30%
% sustainable energy generated	1	0	0	2	1	4	13,4%
Space efficiency	0	0	0	0	1	1	3,4%
Level of reliability	1	0	0	1	1	3	10%

### Non-Discriminating trade-off

Scoring [1; 5]	Concept A	Concept B	Concept C	weight
Energy self-sufficiency	2	5	4	0,134
Costs	< budget	= budget	> budget	0,30
Thermal power generation	1	4	2	0,30
x sustainable energy generated	3	4	5	0,134
Space efficiency	3	5	5	0,034
Level of reliability	1	3	5	0,10

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