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Accelerate SSL Innovation for Europe

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Open Innovation methodology for accelerated and effective development and deployment of SSL

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Summary

This report describes the 'Open Innovation Methodology for accelerated and effective development and deployment of SSL', which will be used in organizing workshops on Open Innovation (Task 4.2) and in the Business Development Experiments (Task 4.3).

This Open Innovation Methodology is meant to be used side-by-side with the Open Innovation Toolkit. It can be understood as a further, more practical elaboration of Chapter 3 of the Open Innovation Toolkit ('Through the Open Innovation Process').

The target group of this tool is any group of companies and/or institutes that jointly want to work on a business experiment. The intent of this document is that such a group should be able to use the templates and tools provided independently, within the scope of the SSL-erate project however, facilitators of several European lighting clusters have been trained to support this.

1 Introduction

The SSL-erate project has been set up to accelerate the innovation and adaptation speed of Solid State Lighting in Europe. Solid State Lighting has a number of key, disruptive characteristics that make it a very promising source of innovation like e.g.:

- It's highly efficient
- It's compact, so products can be miniaturized
- It's small and can relatively easily be integrated in structured and devices
- It's an electronic device, which allows easy adjustment of the lighting characteristics, especially in colour and intensity.

The combination of these make it an excellent enabler to fulfil the requirements of those areas that have been identified as the most promising for (new) business creation in the field of green business development (SSL-erate WP2) and Health and Well-being (SSL-erate WP3).

Many of the resulting new business opportunities require resources that an individual company may not have access to at the moment, this is where collaboration with partners is, especially for SME companies, a faster and more effective way-to-market.

Examples of this are concepts for health and well-being which are quite likely to require both products of which the lighting properties can be adjusted to the local requirements (which could be done on a European basis) but will also require a person that can adjust the settings to local needs; furthermore without a 'common' healthy light recipe, it's doubtful that customers will believe the promises made by individual companies.

Smart lighting systems will have to be able to cooperate with other related systems of competitors; customers want a solution for their problems and/or new opportunities that added value – if a collaboration of parties brings that together, they are more likely to succeed than individual parties that only provide part of the puzzle.

However, collaborative innovation, often also referred to as open innovation – despite the fact that the knowledge and revenues are not 'open to the public', also has its challenges and potential problems. It can only thrive if there is e.g. sufficient trust between the partners, when the activities they engage in are sufficiently complementary to one another and when there is for all parties a good balance between the efforts and investments they have to do, and the rewards that will come back to their companies. Finding that balance is a delicate process where openness is crucial, but that openness will not be there from day 1.

The process has been designed to allow for this: step by step the companies are taken through the key questions that they have to ask themselves. In most cases rushing through will not work, as after certain steps it is crucial that the participants go back to their home company and check whether that is still in sync and, ultimately, committed.

It's challenging, it's fun and, when done well, extremely rewarding for both the people who build the cooperation and their companies as $1 + 1 \gg 2$, and, together a stronger proposition can be build that is much harder to copy by competition.

2 Templates

In the following section the templates will be described. Updated versions of the templates will be published at the lightingforpeople.eu website and the project website <http://ssl-erate.eu> (PowerPoint file: *SSLerate Business experiment process tool.ppt*).

The objective of these tools is to bring a collaborative group of companies to the point where the main business decisions have been taken and the implementation project can start – the latter is not in the scope of this report.

The process is easy to describe, the reality is tough as new business creation seldom go as planned. So:

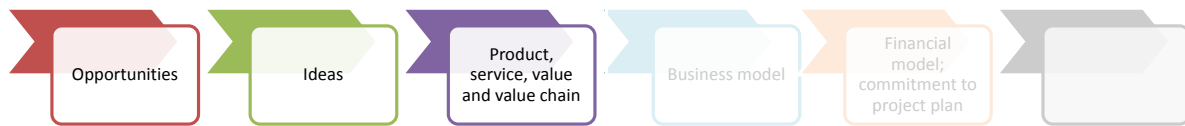
- Learn, be flexible to adjust the plan, problems are often a blessing in disguise that demand a better solution . You may need a few iterations before getting there;
- Realize that each partner has its own interest and at some moment in time all parties need to come to an agreement that is win-win for all.

There are 3 main steps that will be dealt with in the following pages, which can be regarded as separate (half day) working sessions:

- 1) Shaping the idea,
- 2) Business model,
- 3) Financials and next steps.

Resist the temptation to do it all at once as time to think it through and check things for acceptance back in each of the partner companies will be necessary. The objective is not to fill the templates as quickly as possible, but to use the templates to come to the most value creating proposition for all parties ! In this respect it also helps to plan some ‘social’ time during these sessions, e.g. by having half an hour before the meeting starts, where people can come in and have a cup of coffee together and a lunch break.

2.1 Shaping the idea



The first phase of the business experiment process is about shaping the idea. Many ideas start with either an entrepreneur that sees an opportunity in the market (often without knowing precisely how to address that opportunity) or, at the other extreme, an (technical) innovator that invests some great new product, feature, app or service,(often without knowing precisely how to find the customers that are willing to pay for it).

So the challenge is to bring complementary minds together that are open enough to accept each other's wildest ideas initially, but have eventually the joint strength to build on each other's strength to come up with something that is much better than anyone of them could have thought up on his own.


Diversity is key at this stage of the process like e.g. in culture, role in the value chain, age & experiences, etc.

2.1.1 Idea generation



Idea generation

- A collaborative business project starts with 3 things come together:
 - An **opportunity** in the market to create value
 - An **idea** on how to deliver that value
 - And **people** that are willing to commit time and money to realize the idea and harvest the opportunity

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Having a good business idea starts with creativity: one needs to spot an opportunity to add new value, have a sense of how that value could be delivered and you need the right people (i.e. the right capabilities) to realize that idea.

As time goes by most opportunities and ideas on how to realize them change – this may mean that also the competencies/ capabilities required may need to be adjusted. That's unavoidable – so be aware of that from the start.

2.1.2 Template 1: Opportunities

Template 1: OPPORTUNITIES	
Idea name	
Describe the opportunity ?	
How will it bring value ?	
Where would it be applied ?	
What's the alternative today ?	

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SEVENTH FRAMEWORK PROGRAMME

The essence of the opportunity statement is to make it as clear and specific as possible. That is very important because in collaborative innovation the people involved come from different companies and probably have different perspectives – and oftentimes people do not realise that they have that. Diversity of the group is valuable, so like in brainstorming: there are no bad ideas.


2.1.3 Template 2: Business idea




Template 2: BUSINESS IDEA

Idea name	
What is the product / service ?	
Who is the customer / buyer ?	
What is the value to this customer / buyer ?	
Which value chain parties are interested (+ indicate business scope)	

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Describe the idea as specific as possible – it’s about business so it’s a product or service with certain features, that hopefully provide value to some customers.

Can you already qualify the benefits that a customer will create with the product ?

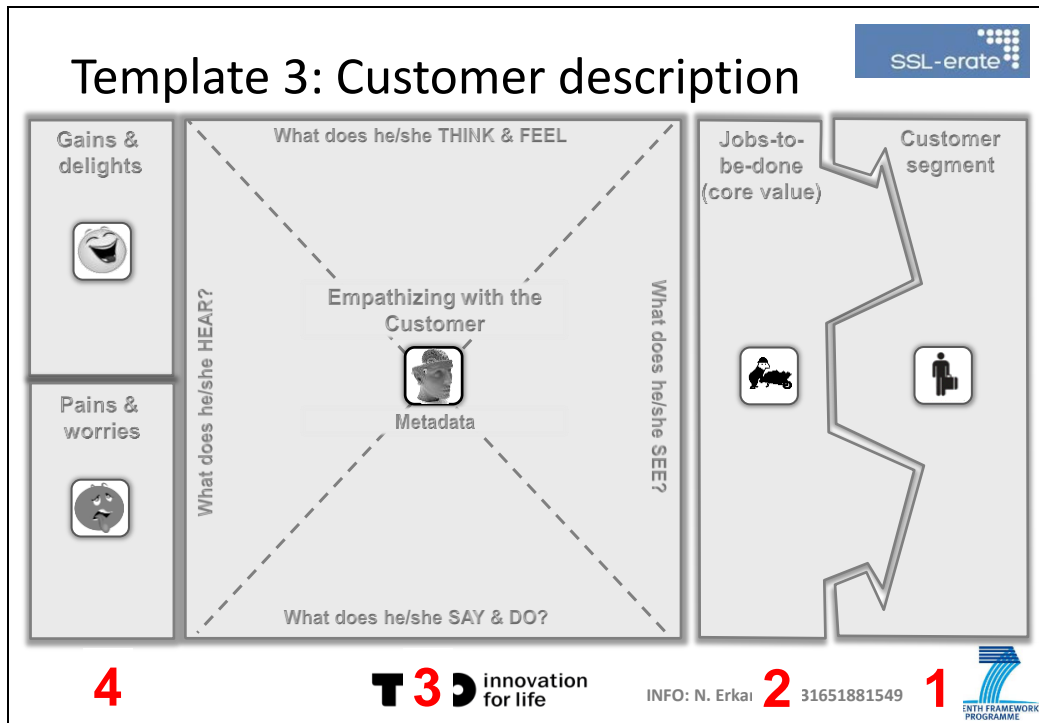
The savings that can be created with energy efficient lighting over life are normally 5 – 10 times the value of the original product purchase, there is a bigger market to address than just the (traditional) product market.

Similarly if the right lighting conditions could arrange that a patient could leave the hospital 1 day earlier, that would bring a saving of more than € 1000. This means not only a happy patient, but also an enormous value that can be captured.

Who would benefit from this saving ? That would be the real customer of such a proposition.

Finally there are other players in the market to consider (of course competitors or other alternative solutions); which complementary partners that you already know could help you to jointly make this to a success ?

2.1.4 Template 3: Customer description

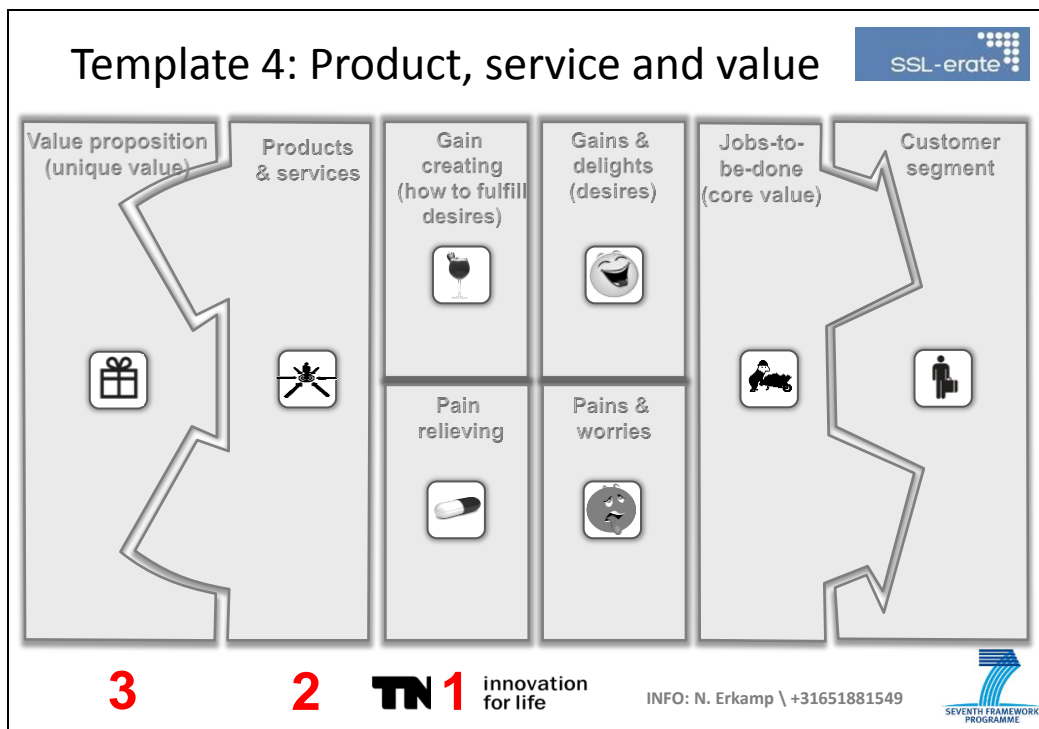


In this template we will describe the customer in more detail. The contents generated here will later on be used to fill in the complete Business Model Canvas.

- Step 1 is the description of the customer segments, the customer being the organization or person that is ultimately going to pay for the service. There can be more segments to be targeted.
- Step 2 looks at the core value that the product is going to be delivered: what job is the customer trying to get done ?
- In step 3 you try to put yourself in the shoes of the customer: what does he/she think, feel, say, do, etc. around this job, the situations it is applied in and/or about similar products or services. If you're not sure: why not interview a few customers or follow their activities for a day to see what is really happening or bothering them.
- Finally in step 4 you describe what would make him happy if he would get it (gains) or what are the things that must be avoided at all costs (pains and worries).

A practical way to fill this in, especially when doing this with a few people together, is my putting the content on little post-it notes. That helps when you move to template 4.

2.1.5 Template 4: Product, service and value



First you start by copying the relevant information from template 3 onto template 4 (make sure you have copied or photographed template 3 before moving on).


Now start at the gains that you would like to deliver: how are you going to fulfil this ? What are the benefits you will bring ?

Are there any pains and worries that you can take away as well ? If so, great, but often these are things that you don't want to talk about too much. Make sure however that you do not add new problems, you should be at least at par with existing offers.

What would your product or service then look like: what are the key features ?



And finally: what is the value proposition ? These are a few unique values that your offer is bringing. As a rule-of-thumb: most people forget number 1, if you present them number 5. It's better to have 3 real strong ones, than a dozen kind-of me too statements.

2.1.6 Template 5: Enriched idea

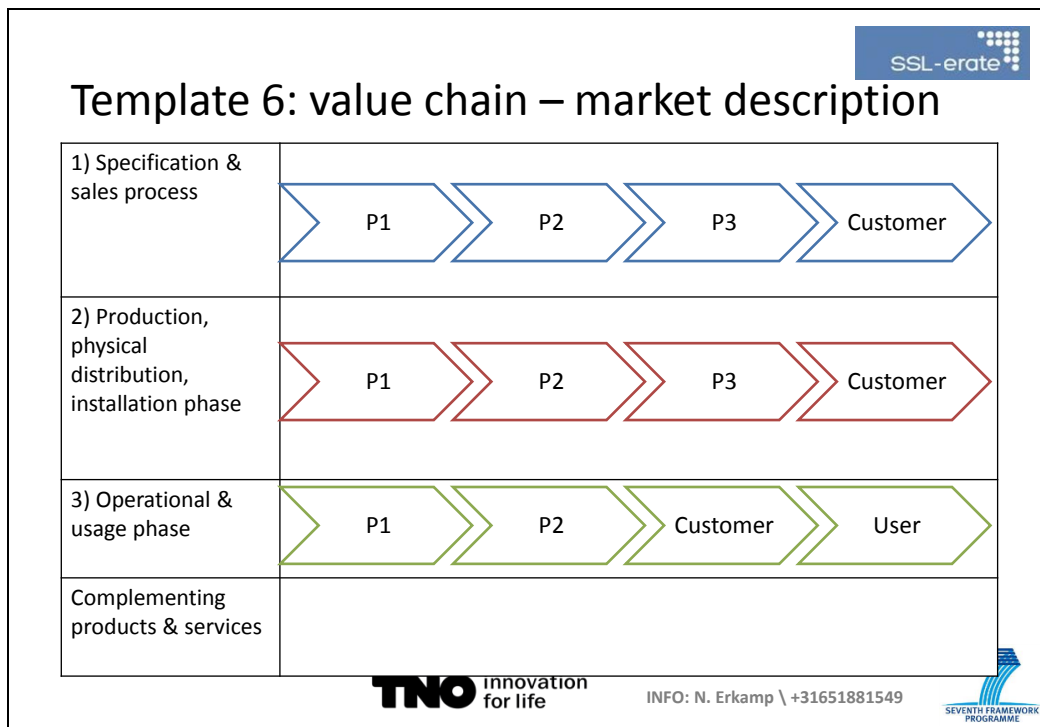


Template 5: ENRICHED IDEA

Idea name	
Describe the product or service	(+ add features in template 5)
What is the value proposition ?	(+ add main points in template 5)
What is a customer willing to pay ?	
What is the market & segment size ?	In quantities and value
What are competitors or alternatives ?	

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2.1.7 Template 6: Value chain



2.2 Business model

In the second part of the business experiment process we start looking at the business model: we are going to look at how we want achieve the goals, what revenues it will create to pay for the effort we are doing (and some profit to safeguard the companies' future), the competencies needed to achieve that and at costs and investments.

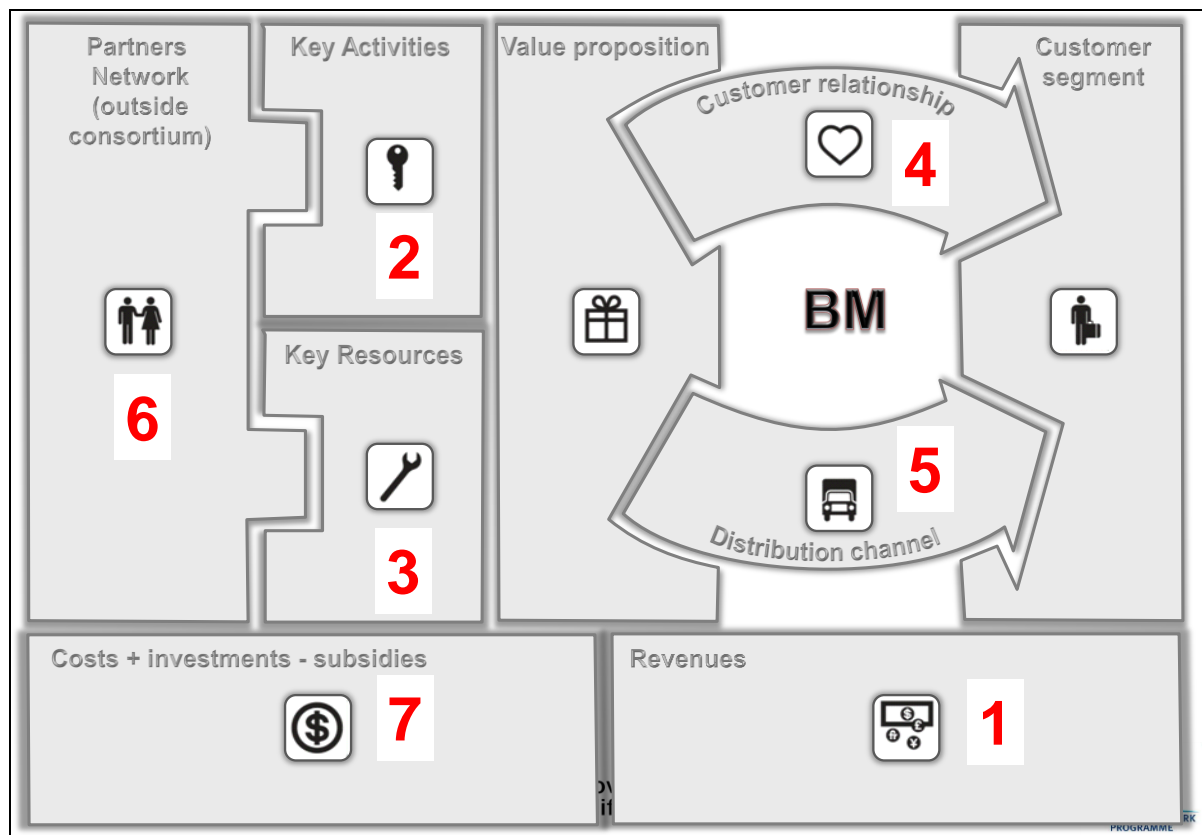


Prior to starting on this topic it's important that the partners have had some time to think over what the consortium is aiming at:

- Is the home organization just as positive and committed about the initiative as the persons around the table ?
- Do they have the same ideas on the value that they want to capture vs. the partners ?

Skipping this reflection may initially give the idea that the consortium is moving fast, in praxis this turns out to cause big problems as when the opinions of the different companies are not sufficiently aligned, at a later stage it may be very difficult to adjust and find a suitable compromise.

2.2.1 Template 7: Business Model Canvas




We will now use the original Business Model Canvas as it was designed by Osterwalder e.a. The problem in filling in this canvas from scratch is that there is an infinite number of possibilities and starting points. In this approach we first copy the customer segments and value proposition in from template 4 and start from there. The first step is the defining where revenue can come from. A model with a variety of revenue streams could become stronger or create more financial stability for the approach. In a collaborative project it can be that the revenue of one partner is actually the cost of someone later in the chain – it is then crucial that there can be “open-book” discussions to find a solution that both parties are happy with. Without that – it will quickly end up with no deal. What customers are willing to pay for defines your key activities (2) and key resources (3) as they should be the main source of differentiation in the market. Next you consider how you want to bring the message to the market (4) and how you want to deliver it to them (5) – Template 6 is the reference for this, but changing the process can be a major source of competitive advantage. Then you try to outsource everything that is not crucial to your venture and that others are better at (6); if you can't find anyone that's tough luck and you'll have to solve it yourself. Finally you look at all necessary costs to run the operation, the investments that have to be made initially, which you may be able to reduce a bit if you find the right subsidy program.

Then the proof of the pudding is in the comparison between revenue and cost: it may be a great idea, but is it actually going to bring the invested money back to the parties in a decent time.

Working together by sticking post-it notes on a poster (A0) size business canvas is an excellent way of making progress: it becomes a joint effort to build up the model and the effect of getting a joint result may be just as important as the content on the poster.

Be aware however that one will meet the 'devil's advocate' back in the home organization, so a thorough understanding of the complete approach by all people is required.


2.2.2 Template 8: Business model consortium conclusions




Template 8: BM consortium conclusions

	Type	Potential partner
What core competence do we not have in the team ?		IN consortium
Complementary partners <small>(includes current consortium partners that do not have a crucial role)</small>		OUTSIDE consortium
Are there tasks that more than 1 party can do ?		Decide who does what asap !

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In this template we look at the type of competencies that are available in the consortium: can all key activities be done in the best possible way by the companies that are around the table ?


Make a clear distinction between what is unique about and crucial to this cooperation and activities that are 'generic': one of the conclusions can very well be that a company around the table does not necessarily have to be part of the core team. If the part that they provide is not significantly differentiating and does not require specific efforts and/or investments to realize this project, that could be an indication.

Such a complementary partner is better positioned outside the consortium: the more partners (voices) you have in the consortium, the more effort and time it will take to make it a success. Also that partner will thus avoid having to spend a lot of time in meetings that it is not really contributing to.

Last, but not least: make sure that there are no free riders or 'tourists' in the partnership.

A last point of discussion is to check whether there are companies with overlapping business interests. If there is 100% overlap, then it's obvious that one has to go. But in reality it's hardly ever that black/white. The key is then to make as soon as possible agreements about who will take which scope. Once that is confirmed an effective collaboration is possible; if that is not done, both parties will be likely to have their own agenda in the back of their minds.


2.2.3 Template 9: Project leadership




Template 9: Project leadership

Idea name	
Who is in the team ? Who takes the lead ?	
What are the open questions ?	
What are the key risks ?	
Next actions	e.g. -Each partner to agree results within his own organization -Answer open questions -Address key risks -Get right partners to join

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The final stage of the 2nd phase of the business experiments is about how to bring the project forward to the next stage:

Who will lead the team ?

There's is no general rule about who should be doing that: the company with the biggest investment, the company closest to the customer, an independent (research) institute or project officer from a cluster alliance - they can all be good possibilities depending on the case at hand. The most important thing is that the partners have confidence and trust in the person, that/he she will act on behalf of the consortium and not only on behalf of the home organization.

After that it's good to look at open questions that have come up, share with one another what each party sees as the key risks and build an action plan to make progress on those points in the next meeting.

1. And again: after this phase one has to make sure that the home organization is still connected and committed. To check on this it might be a good idea to have each participant do a 'sign-off' of the business canvas in his/her organization. This assures that the topic is discussed in sufficient depth.

2.3 Financials & next steps

2.3.1 Template 10: Financial discussion

Having the financial discussions at a very early stage of the project, actually before the real working is being started, is very crucial to prevent getting into problems at a later stage. After all each individual party is investing money and resources and wants to have a good return on that. A bigger or attempt to get a too big part of the pie for one party, may reduce the profitability and attractiveness for another. Such a win-lose approach, can quickly end up in a lose-lose situation, where nothing happens at all.

So creating a business model requires a win – win mind-set to come to a solutions in which risks and rewards are shared in a satisfactory manner. This is achieved by applying ‘open book’ principles, which allows for a honest discussion, leading to a joint approach. This requires that the potential partners already have sufficient trust in each other; alternatively, when that is not the case, this will become visible very quickly in the behaviour of people. If so, the trust issue needs to be addressed first, as when that is not resolved it’s not likely that the joint project will succeed.

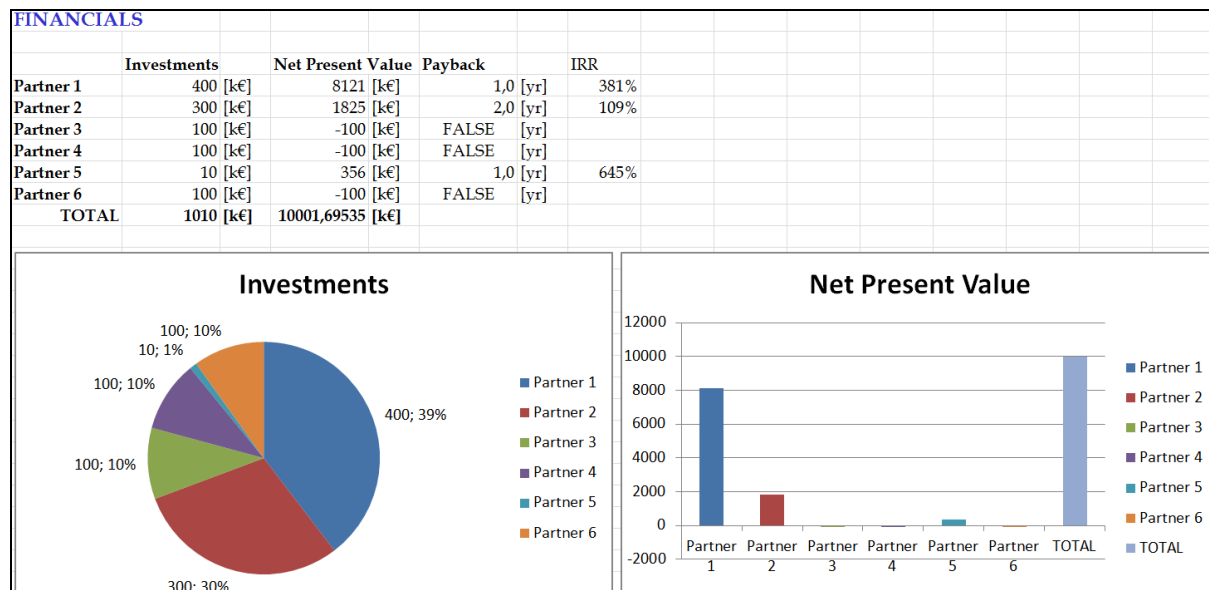
2.3.1.1 Preparation

The financial discussions start when each party prepares its own financial outlook. The tool ‘*SSLerate partner finance.xlsx*’ – a simplified pay-back calculator, which can be found on the project website <http://ssl-erate.eu> – can be used for this purpose.

PAY BACK & CASHFLOW CALCULATOR						
Project name	name1					
Partner name	Partner 1					
NPV	-100	[k €]				
Payback Period	FALSE	years				
IRR						
Required investment	100	[k €]				
Selling expenses	20,0%	[% of sales]				
WACC \ Interest rate	5,0%	%				
Sales price erosion	2,0%	%				
Product cost reduction	2,0%	%				
New product sales	2015	2016	2017	2018	2019	
TOTAL QUANTITY			0	0	0	[kpcs]
AVERAGE SALES PRICE		0	0	0	0	[€]
AVERAGE COST PRICE		0	0	0	0	[€]
Cannibalisation	2015	2016	2017	2018	2019	
TOTAL QUANTITY			0	0	0	[kpcs]
AVERAGE SALES PRICE		0	0	0	0	[€]
AVERAGE COST PRICE		0	0	0	0	[€]

In preparation of the meeting the project coordinator or facilitator can collect the different inputs from the partners and bring them together in the project finance tool '*SSLerate project finance.xlsx*' (on project website).

The tool brings the input from up to 6 partners together (more partners is in practice unlikely to reach to an effective working arrangement) and creates an integral overview of the investments (which are often related to the business risks) and rewards.



2.3.1.2 Getting to a joint approach

On the basis of the prepared information a discussion can take place between the partners to come to a joint approach that each party is satisfied with. Assure that the people present at the discussion have the right support from the management of their own organisation to assure that agreements will (normally) be adhered to by the home organisation.


One of the 'dirty' tricks in negotiation is to have first a low level person negotiate and then send at a later moment a higher level person in to tweak the deal more into their favour. While in 1 on 1 negotiations this behaviour is obviously not appreciated, in multi-party negotiations this can kill the trust between the partners and hence the whole agreement.

2.3.2 Sanity check: this customer is always right ... as he ultimately pays the bill.

When the partners have reached the point where they have come to a joint agreement on possible investments and rewards, the original business model of template 7 (paragraph 2.2.1) needs, if necessary, to be updated.

A next step is to quantify the financial consequences for the customer.

Professional customers do not only consider the purchase price, but also the other installation consequences and the running costs (for lighting mainly energy and maintenance). A total-cost-of-ownership calculation (TCO) or life cycle cost analysis (LCCA) is a good method to compare the new solution with available alternatives. Typical information that is required for such an evaluation is noted down in the image below.




Cost-of-ownership


Collect inputs on each of the parameters below on the new proposition and on the existing alternative. Then calculate through with the TCO model

	Parameters			Result
Installation design	Number of units	Installation cost	Unit price	Investment
Energy	Burning hours	kWh price	Average power / unit	Power consumption Energy/CO2 cost
Maintenance	Replacement cycle	Cleaning / checking cycle	End-of-life time	Maintenance cost
Value creation	Re-usage value	Societal value (% or €)		

To be prepared by the partner who is in closest contact with the end customers



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There are various of such tools available: one¹ of the examples is the LCCA tool that has been created in the DEEP project (<http://deep.iclei-europe.org>), for which a manual² has been made available as well. This work has been supported by Intelligent Energy Europe, to help purchasers in making the right (long term) decisions.

For consumer products this can more easily be judged as the buying decision is in most cases dominated by the initial purchase price relative to the features offered by the product. Installation and maintenance costs are often ignored and energy plays only a minor role, as the slow adoption of energy saving lamps has demonstrated.

¹ http://deep.iclei-europe.org/fileadmin/user_upload/Procurement/DEEP/DEEP_Toolkit/2.a_LCCA_Tool_01.xls

² http://deep.iclei-europe.org/fileadmin/user_upload/Procurement/DEEP/DEEP_Toolkit/2.b_LCCA_Tool_User_Guide.ppt

Then the real sanity check needs to be done: with a number of prospective customers, as at the end of the day, the customers must be willing to buy the new product or service.

Questions to be asked are a.o.:

- What are the main problems they encounter in doing their job ?
- Will the proposed new product or service help them in that ?
- What does the customer like / dislike about the proposal ?
- With which alternative does he compare the new solution ?
- What do they believe is the (financial) value this brings to them ?
- How does the customer calculate the financial impact like e.g. in a cost-of-ownership analysis ?
- What requirements should be met to make him switch over from his current way-of-working to the new solution ?
- How can the companies help him in that ?
- And, last: what does he see as a fair price for the new product / solution ?

All questions are open questions, as that will provide the customer to give his input in the best way.

Finally ...:

The process of creating an idea, bringing it with partners to a working business model and checking that with customers is iterative. It is very likely that some of the answers given on the questions above may initiate an adjustment to the proposed solution. This may cause a delay to the project, but it's in most cases a good thing as through these 'shaping' steps the best solutions are being created. One needs to know however when to stop with adjustments, as time-to-market is also important and 'good enough' normally creates a better business than an endless strive for perfection.

2.3.3 Next steps

The final step of the third workshop is in making agreements on how to continue. Some of the logical first steps to plan for have been summed up in template 11.

Template 11: NEXT STEPS	
Topic	Who
Check agreements with home organization	Each partner
Consortium and other contractual agreements	
Create steering team	
Agree project team and project manager	Steering team
Assemble team and plan project kick-off meeting	Project manager

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SEVENTH FRAMEWORK PROGRAMME

The first thing to assure for the people active in the collaboration up to this point, is whether their senior management supports the decisions made and is committed to making the project a success. There will be contracts required that have to be checked by legal people and have to be signed by people who are formally authorized to do so. Preferably this person, or someone on behalf of him/her, will be the companies' member of the steering team later on.

Once there is a green light from all parties (eventually after another round of discussion) the project coordinator/facilitator could help in getting the contracts together.

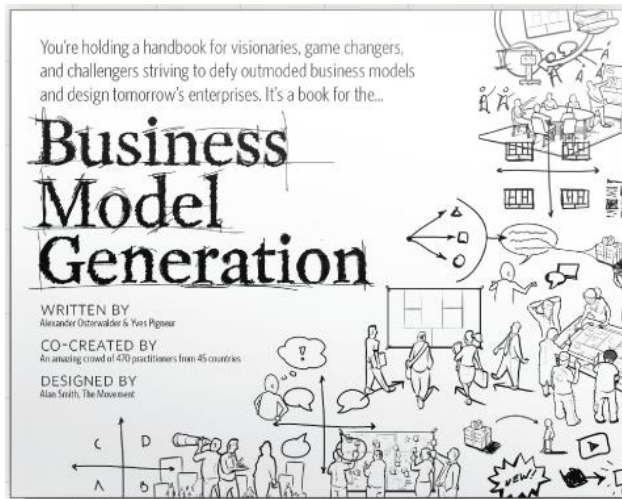
The first steering team session could include the contract signing and some social time also for these people to get to know another better. In practice the steering team will be the party that assigns the project to the project manager and the team (including boundary conditions) and will only have to become very active when there are unexpected issues to resolve. A good relationship and level of trust between the people in the steering team, is then often a key factor of success. Another KFS is that these people must really have the mandate of their organization to make decisions.

A second action during the first steering team meeting is to agree on the project manager, this should preferably be someone with experience in multi-party projects as the project manager has no formal authority over the team members, but should manage by using his personal credibility and influencing skills. From that moment on it's up to the project manager to assemble his team and get the project done.

References

Some of the contents of this Open Innovation Methodology is based on the works of Alexander Osterwalder and Yves Pigneur:

- Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers



- Value Proposition Design: How to Create Products and Services Customers Want

