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Table of Contents

Summary	4
1 Introduction	5
2 Need for Open Innovation in Solid State Lighting	6
2.1 Opportunities for promoting health and wellbeing	6
2.2 Opportunities for green business development.....	6
2.3 Transitions	6
3 Open Innovation: Communication and collaboration	8
3.1 Advantages of Open Innovation	8
3.2 Risks of Open Innovation	9
3.3 Example of Open Innovation	9
4 ‘Square 1’	10
5 How to organize Open Innovation	12
5.1 Relationships and cohesion.....	14
5.2 Open communication and dialogues	15
5.3 Commitment.....	16
5.4 Trust and safety	17
5.5 Climate for innovation and creativity	18
5.6 Clear strategy and goals for collaboration	19
5.7 Selection of relevant and appropriate partners	21
5.8 Structure and governance for collaboration	22
5.9 Contractual arrangements.....	23
5.10 Evaluation of process and results	24
6 Next steps	25
6.1 Share your experiences	25
6.2 Further reading.....	25
7 Conclusion	26

Summary

This document constitutes the deliverable D4.1 report. The body of the report, Section 2 to Section 6 contains the first version of a set of introductions and instructions, the Open Innovation Toolkit, which is meant to support the use of an open innovation strategy in the development of SSL applications, systems and services. The Open Innovation Toolkit contains recommendations and checklists for topics like: relationships, communication, commitment, trust, creativity, strategy and goals setting, selection of partners, structure and governance, and contractual arrangements.

1 Introduction

Deliverable 4.1 concerns the development of a first version of an Open Innovation Toolkit, which is meant to support the use of an open innovation strategy in the SSL domain.

The Open Innovation Toolkit is in the format of a text document, which helps the reader to be introduced to and understand the concept of open innovation and to start working on the practicalities when this concept is implemented. The first version will be used and tested in the Business Development Experiments, which are organized by Local Lighting Clusters in the framework of the SSL-erate project.

The 'Open Innovation Toolkit' will be the basis for training material for both the cluster leaders and the participants in the Business Development Experiments. After receiving feedback and developing more SSL specific insights, a second version will be developed later on. The content of the first version is presented integrally in the next four sections (two to six).

2 Need for Open Innovation in Solid State Lighting

There is a need for radical innovation in the domain of Solid State Lighting (SSL). We will not be able to capture the real potential of intelligent SSL solutions if we stick to 'current business' of doing 'more of the same'. We need to explore and create new ways of working, in order to capture the potential added value of SSL. Therefore, we propose to look differently at lighting and at the opportunities that SSL enables.



2.1 Opportunities for promoting health and wellbeing

SSL enables the delivery of better quality light than traditional lighting. SSL is an opportunity to promote 'health and wellbeing' by developing innovative lighting concepts and solutions. We can translate scientific knowledge, concerning the effects of light on people, into intelligent and dynamic lighting products and services. Innovations like this will also help to promote a broader interest and public investments in SSL.

2.2 Opportunities for green business development

SSL enables better functionality and attractiveness with solutions that also save energy. SSL offers opportunities to develop green business based on innovative lighting concepts and solutions. We can see SSL as a way to combine sustainable development and new business creation, in line with companies' ambitions for corporate social responsibility, and in line with governments' ambitions for societal social responsibility.

2.3 Transitions

The SSL-erate project aims to accelerate the uptake of high-quality Solid State Lighting (SSL) technology in Europe by supporting open innovation and bringing validated information to all relevant stakeholders. This ambition can be visualized as transitions along

two axes, going beyond current business and current experiences: towards Improving Health and Wellbeing, and towards Green Business Growth, typically involving also the development of new ways of working and new business models - see Figure 1.

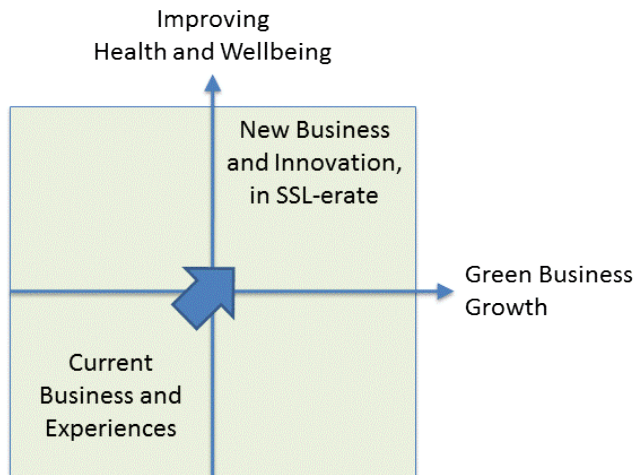


Figure 1. SSL-erate aims to facilitate radical innovation in SSL

In order to develop such radical innovations, it is crucial to understand the needs of potential customers and users. We need to organize open dialogues, and jointly explore and develop new products and services. Such dialogues need to involve diverse actors: companies across the value chain, from development and manufacturing to marketing and deployment; and institutions, governments and municipalities, which can act as lead customers.

3 Open Innovation: Communication and collaboration

Open Innovation can be defined in a number of ways. For the purpose of the Business Development Experiments, it is defined as ‘organizing an innovation process in which companies and/or organizations collaborate in a network or consortium’¹.

Open Innovation typically involves open dialogues and sharing knowledge. Additionally, and typically for the business experiments in the SSL-erate project, Open Innovation refers also to the following:

- Using knowledge and ideas concerning ‘green business development’ and/or ‘lighting for health and wellbeing’
- Inviting and using input from ‘lead customers’, e.g. cities, local governments, schools or hospitals, or from ‘lead users’
- Articulating and sharing ‘lessons learned’ and ‘best practices’ within and between local lighting clusters.
- Cobranding as a way to highlight the potential synergies between various interests and actors.

Typically, there will be different partners with different backgrounds, roles and interests, e.g. from the ‘supply side’ as well as from the ‘demand side’, who share a common goal. They collaborate in order to solve a specific problem, to seize a specific opportunity, to create something new together, a new product, service, process or business model. They collaborate in order to achieve something that each one of them could not have done individually.

In our Open Innovation² concept, we combine an ‘outside-in’ approach (in which an organization ‘imports’ ideas or knowledge) and an ‘inside-out’ approach (in which an organization ‘exports’ ideas or knowledge) so that a ‘coupled’ approach emerges. In other words, an approach in which diverse companies and organizations collaborate, enter into open dialogues and share knowledge in order to jointly create something new that did not yet exist.

3.1 Advantages of Open Innovation

In general, Open Innovation provides the following advantages:

- Opportunities for radical innovation and joint value creation—because diverse actors collaborate and can jointly do something that they alone cannot do
- Build a ‘new market’ (where there is currently no market), collaboration between suppliers and customers, creating an interest
- Less effort is needed, compared to conducting ‘own’ innovation/development (‘outside-in’)

¹See: Vanhaverbeke 2006. This is different from the early or mainstream literature on Open Innovation, which tends to focus on innovation within one (large) company, which ‘imports’ or ‘exports’ ideas or knowledge.

² See: Chesbrough 2003 and Enkel et al. 2009.

- More opportunities for bringing products or services into ‘new markets’ (‘inside-out’)
- Incorporate knowledge and ideas from suppliers or customers—early on, to improve success
- Use of specialized expertise from ‘outsiders’
- Faster or better innovation process, e.g. learning from others—also from ‘competitors’
- Shared costs, shared risks

3.2 Risks of Open Innovation

In general, the risks of Open Innovation are the following:

- Less control over innovation process and over deployment/marketing—because other parties are involved, which also exercise control
- More complexity, e.g. management, control, governance or leadership—because other parties are involved, e.g. requiring extra coordination
- Risk of ‘loosing’ valuable information or intellectual property to others—which was not intended for sharing
- Difficulty of aligning different innovation processes within the organization, e.g. when ‘Open Innovation’ and ‘Closed Innovation’ exist parallel to each other
- Resistance in the company, e.g. the ‘Not Invented Here’ (difficult to import and adopt ideas from outsiders) or ‘Not Sold Here’ (difficult to export or sell products to outsiders) syndromes
- Difficult to create a ‘culture’ for openness and collaboration

3.3 Example of Open Innovation

In 2010 the German Federal Research Ministry launched the innovation promoting LED competition *Communities in a New Light*. The City of Rietberg won a € 2 million grant. One competition rule was that the cities must share their learning’s. Concurrently, the Environmental Ministry also support conversion of streetlights to LED.

Philips developed the Rietberg solution in open dialogue with two universities and the local association for visually impaired. The feedback proposed a change of light color from white to yellow, glare reduction and better guidance, which is appreciated by many more than the visually impaired. One other company-branding example is that *Hess AG Form & Licht* is marketing that they assisted four of the ten municipalities that won the competition.

Rietberg’s mayor André Kuper: *“This project marks a milestone in modern urban development and climate policy. It shows how energy saving LED lighting can be successfully integrated within a historic atmosphere.”* In 2013, Rietberg won the city.people.light award and got the jury’s statement: *“The result changes the character of the city and turns it into a safer, more enjoyable, and inviting city center”*. This city beautification embodies significant co-branding values for authorities, companies, cities and individuals.

4 'Square 1'

An innovation process is inherently 'slippery'; at the start of an innovation process it is not entirely clear what the end-result will be. The preferred way of coping with this 'slippery' element is to express and discuss, as early as possible, the possible end-result of the innovation process, e.g. as a 'sketch', and to organize iterations in which this 'sketch' is re-visited, discussed and improved.

Please describe—or sketch—the contents of the contents of the innovation:

- Is it a new product? A new service? A new way of working? A new business model? Or a combination of these?

- Which organization/people will buy it, that is pay for it (customers)? E.g. a public school.

- Which organization/people will actually use it (users)? E.g. teachers and students.

- Other organizations/people that will be affected by the innovation? E.g. maintenance.

- In which situation(s) will the product/service be used? Which problem does it solve?

- Which products/services are currently available or used in these situations?

- What is its 'relative advantage' compared to currently available products or services?

- What do organizations/people pay for these currently available products/services?

- What do you expect that organizations/people will pay for this new product/service?

The *SSL-erate* project aims to develop innovations that promote people's health and wellbeing, and/or green business growth. As a consequence, these questions need also to be addressed:

For promoting health and wellbeing

- How exactly is this new product/service promoting health and wellbeing?
- How is it 'better' in this respect, compared to currently available solutions?
- And what does 'better' mean, practically, from the perspective of customers or users?
- Can we quantify the improvement that this innovation offers?
- ...

For green business development

- How exactly is this new product/service promoting green business development?
- How is it 'better' in this respect, compared to currently available solutions?
- And what does 'better' mean, practically, from the perspective of customers or users?
- Can we quantify the improvement that this innovation offers?
- ...

5 How to organize Open Innovation

Companies or organizations that participate in Open Innovation may face several challenges or problems. Below are some of the key topics and success factors that need to be managed and taken into account when organizing Open Innovation³.

The first topics (1-5) relate to the ‘soft’ side of managing Open Innovation (‘relational governance’)⁴, and they require constant attention, from the start-up of the collaboration and in many of the day-to-day operations of collaborative innovation.

1. **Relationships and cohesion** between the people and parties involved
2. **Open communication and dialogues** between the people and parties involved
3. **Commitment** of people and parties to collective goals, e.g. risk of ‘free riding’
4. **Trust** between the people and parties involved, e.g. feelings of safety
5. **Climate for innovation and creativity**, e.g. dealing with uncertainty

The other topics (6-10) relate to the ‘hard’ side of managing Open Innovation (‘structural governance’)⁵ and to building a network or consortium, and making the collaboration a success—roughly presented in chronological order.

6. **Clear strategy and goals** for collaboration, e.g. ‘make or buy or collaborate’
7. **Selection of relevant and appropriate partners**, e.g. combining ‘own’ competences with other parties’ competences
8. **Structure and governance for collaboration**, e.g. dividing of tasks and processes for decision making and conflicts resolution
9. **Contractual arrangements**, e.g. for dividing investments and revenues, or for sharing knowledge, including Intellectual Property (e.g. Non Disclosure Agreements)
10. **Evaluation** (during collaboration) of process and results of collaboration

In the next Section, these topics are briefly introduced, and practical recommendations are provided, in order to help to organize a successful process of Open Innovation.

³ Partly based on: Omta et al. 2011.

⁴ Partly based on: Enkel et al. 2011.

⁵ Partly based on: Tjemkes et al. 2012.

Like any toolkit, one can use this Open Innovation Toolkit in many different ways.

- If there is already some kind of collaboration, and if it needs to be improved, one can go to sections 1-5, depending on the topic that needs to be improved, e.g. open communication.
- If parties are busy starting-up the collaboration, it can be useful to (also) look at sections 6-10, in roughly that order: from strategy and partner selection to contracts and evaluation.

5.1 Relationships and cohesion

Productive relationships between people and parties are at the heart of successful Open innovation. Different organizations and companies can collaborate in the form of a network or consortium. They can share their knowledge and experiences, and their different competences and skills can supplement each other. Combining their differences offers benefits. However, making the collaboration productive and successful may also require extra attention.

There is a natural development in a team's functioning: 1) 'forming', bringing the people together; 2) 'storming', positioning and trying-out each roles; 3) 'norming', finding norms and ways to collaborate; and 4) 'performing', actually collaborating. This means, e.g. that it is 'natural' when there is some level of friction in the start-up period of a team, and that critically discussing 'norms' and ways of working can help to move towards productive collaboration.

When forming a team, it is also critical to be aware that different roles are necessary, and that there are dynamics between these roles. It may be useful to consider and discuss different people's different roles explicitly, e.g. by using the 'Belbin roles', and assessing whether these are present within the team: Plant, Resource Investigator, Co-ordinator, Shaper, Monitor/Evaluator, Teamworker, Implementer, Completer/Finisher, and Specialist.



In order to make teamwork and collaboration productive, these topics need attention:

- Open communication (see below, section 2)
- Commitment to collective goals (see below, section 3)
- Trust and safety (see below, section 4)

The following actions are ways to create (more) productive relationships:

- Each party expresses their own vision, interests and overall goals
- Each party expresses their concerns, bottlenecks or challenges
- Each party expresses their expectations for other parties' activities

Next, they can bring their interests, concerns and expectations together, and jointly articulate:

- A shared vision and overall, collective goals
- A shared vision on how to collaborate
- How to collaborate practically, e.g. dividing tasks, dealing with conflicts

5.2 Open communication and dialogues

Open communication and open dialogues are critical for Open Innovation. Interestingly, communication and dialogues have two sides. Expressing ideas, interests, concerns and expectations is one side. Listening to other people, and their ideas, interests, concerns and expectations is the other side. Openness requires efforts from all the people involved.

These are practical recommendations to facilitate communication:

Interpretations

- Use language that other people can understand, e.g. avoid technical jargon
- If you need to use technical jargon, please explain what you mean
- Check whether you have interpreted information correctly

Assumptions

- Express any implicit assumptions, in order to avoid misunderstandings
- Ask for other people to also express their implicit assumptions
- Check whether you understood other people's assumptions correctly

Problems

- Discuss any problems or challenges—preferably before they 'get out hand'
- Make sure others understand the problem or challenge
- Work together on exploring the problem and on finding solutions

Practically

- Agree on with whom to communicate—within the project
- Agree on with whom to communicate—outside the project ('public relations')
- Agree on which means to use—e.g. a mix of face-to-face, conference calls, and email
- Agree on a mixture of frequent/shorter meetings and less-frequent/longer meetings
- Communicate regularly—and effectively, e.g. with clear agenda points
- Document important issues, to share them with those who were not present
- If you use emails, please make them 'actionable', e.g. asking for specific actions
- Communication fosters trust and helps to keep the project 'on track' and 'on target'

Checklist—to evaluate communication:

- We freely express our thought and feelings
- We listen to each other, what they say, and also 'what they don't say'
- We understand each other's language
- We express implicit assumptions
- We freely discuss problems and challenges
- We ask questions, to check our interpretation and understanding
- We have clear agreements on how to communicate, and with whom
- We communicate frequently and effectively

5.3 Commitment

For Open Innovation, it is critical that the people and parties involved commit to collective goals—the goals for collaboration. Please note that it is okay if people and parties also have their own, individual goals, as long as they can also commit to their shared, collective goals. In addition, it is critical that higher management provides sufficient support and resources.

The following recommendations can help to create (more) commitment:

- Discuss which are individual goals of specific people or parties, and which are shared, collective goals—and identify whether there is sufficient ‘overlap’ or ‘togetherness’
- Find ways to safeguard that shared goals are guiding the collaboration—instead of, e.g., the individual goals of one person or party
- Distribute ownership over more than one person, in order to prevent that only one single enthusiastic person is responsible and visible as ‘driver’
- Make clear agreements for different people’s roles, tasks and responsibilities—so that they can indeed commit to these roles, tasks and responsibilities
- Exchange personnel on a regular basis—personal contact and site visits are essential for maintaining communication and trust
- When committed to collective goals, people can also help each other informally, i.e. beyond or besides their formal roles and tasks
- And: Celebrate successes—because positive feelings help to generate and improve commitment (much better than e.g. sanctions or negative feelings)

Checklist—to evaluate commitment:

- We understand each other’s individual goals
- We have clear and shared, collective goals
- We have clear agreements for roles, tasks and responsibilities
- Our commitment motivates people to help each other

5.4 Trust and safety

Trust and safety are important in order to bridge differences between parties. Only if parties trust each other and feel safe, will they share ideas and knowledge and communicate openly. Trust and safety are therefore key conditions for successful Open Innovation.

Recommendations that can help to develop or improve trust and safety are:

Team building

- Make sure that the team ‘feels’ like a team and functions like a team
- Create social relations between people from different organisations
- Develop multiple collaborations projects—successful collaboration in one project can help partners to cope with collaboration in less successful projects

Procedures

- Make sure there is knowledge about intellectual property rights (IPR), or ask assistance regarding IPR
- Create an open dialogue about IPR challenges in a team with multiple parties—i.e. discuss IPR matters openly and early-on; there is no benefit in acting as if IPR is *not* an issue...
- Make sure your legal and IP department have an open attitude
- Make clear agreements on ‘knowledge leakage’, e.g. sharing ideas outside the project
- Make agreements for knowledge management: how to collect and share knowledge

Fairness

- Make sure there is a balance in the (various) costs and (various) benefits that each party brings to the collaboration and receives from the collaboration
- If something is unbalanced, make that explicit and find a solution
- Beware of ‘freeriding’, e.g. one partner enjoying the benefits of collaboration, while contributing little

Risks and learning

- Encourage partners to take risks and present new ideas, e.g. noticing new opportunities
- Emphasise the benefits of learning, e.g. make sure there are little or no sanctions on ‘failure’ (provided that those involved learn from it)

Checklist—to evaluate trust and safety:

- We act like a team, and it feels like team
- We share knowledge in effective and productive ways
- We have clear (legal) arrangements for IPR
- What each party brings to the project and gets from the project is balanced and fair
- We promote a healthy amount of risk taking and learning

5.5 Climate for innovation and creativity

Open Innovation requires not only a climate for collaboration, but also a climate for innovation, including elements like: leadership, incentives, 'mind set', and resources.

Leadership

- Make sure that higher management supports Open Innovation, and that people within the organization know about it, e.g. via 'success stories' of Open Innovation and its benefits
- Leadership styles need to facilitate collaboration and innovation. E.g. , democratic or servant leadership (http://www.mindtools.com/pages/article/newLDR_84.htm)

Incentives

- Make (individual personnel) targets, assessments and rewards in line with an Open Innovation approach, e.g. reward: collaboration, sharing knowledge and innovation
- Create incentives for employees to become involved in Open Innovation and take leading roles for Open Innovation

'Mind set'

- Promote initiative taking and entrepreneurial attitude and behaviour in employees
- Promote the screening of the external environment for new opportunities

Resources:

- Resources that enable employees to make commitments and enter into agreements
- Facilities that enable Open Innovation, e.g. communication and information sharing

Checklist—to evaluate the climate for innovation and creativity:

- Our management supports Open Innovation
- There are incentives to for innovation attitude and behaviour
- Our 'mind set' includes initiative taking and exploring new opportunities

5.6 Clear strategy and goals for collaboration

A first step in successful Open Innovation is the joint articulation of a clear strategy for collaboration and of clear goals for collaboration.

A clear strategic purpose is key—collaboration is never an end in itself; it needs to contribute to a business strategy. Therefore, each party—before the collaboration is created—needs to assess what they want to achieve; they need to articulate their own, individual goals. A careful examination of these individual goals can result in three basic, strategic options:

- I can realize these goals by doing things by myself ('make')
- I can realize these goals by buying something from somebody ('buy')
- In order to realize these goals, I need to collaborate with others

For 'collaboration', the parties involved need to discuss their individual goals and to articulate shared, collective goals. They need to articulate a way to jointly create value, e.g. by combining their different resources or competences. E.g. so that an idea from Company A can be further developed by company B. Or so that A and B can jointly develop this idea into a new product or service. Or, so that a product or service from company C can be brought to the market by company D. Or so that C and D can jointly market this new product or service.

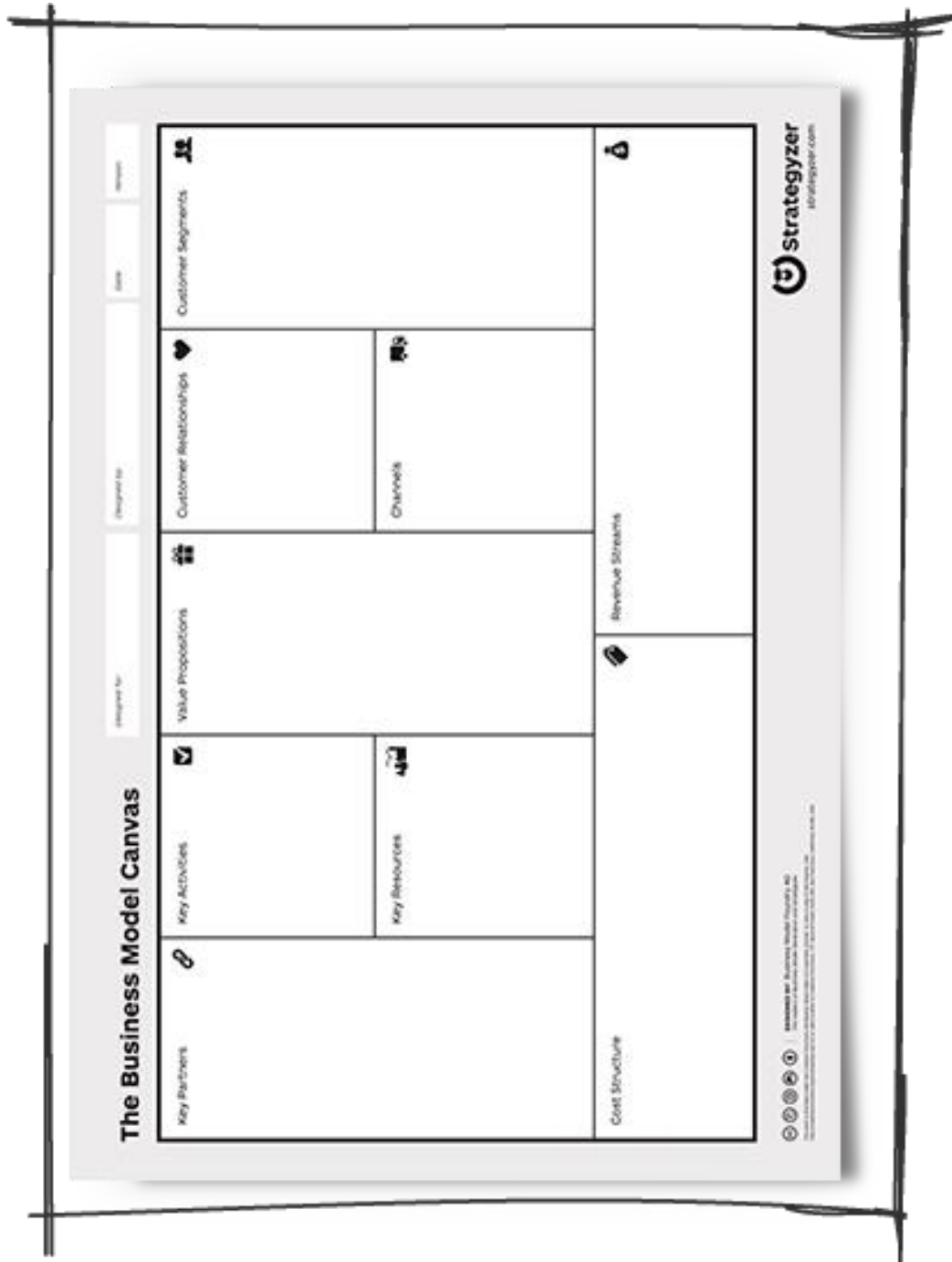
There are many options. Therefore it is of key importance to articulate clear and specific collective goals—preferably in the 'SMART' format: *Specific, Measurable, Achievable, Results-based, and Time-bound*.

Given the goals (to promote health and wellbeing and green business) of the *SSL-erate* project, 'SMART' can also be read as: *Sustainable, Meaningful, Ambitious, Relevant, and Time-boxed*.

- Please operate with long-term horizons—having long-term goals and gains top of mind promotes collaboration 'here and now'
- Please allocate tasks and responsibilities in such a manner that each party can do what they do best ('specialize')

Business model

The development of a viable and feasible business model for collaboration is at the heart of successful Open Innovation. CANVAS is a practical approach to jointly develop ('sketch') a business model for innovation and collaboration. Participants can plot their own efforts and efforts by others. By doing that, they clarify why and how they will collaborate, and also what other parties might be needed in order to create or deliver the innovation.



5.7 Selection of relevant and appropriate partners

Open Innovation is not done by one party. Different partners are needed in order to combine different competences or fields of expertise. In order to make Open Innovation successful, the right partners are needed. This process starts with identifying relevant and missing actors.

First, it is useful to assess whether conditions are present for the partner selection process:

- Diversity of collaboration: are you capable to work with diverse partners and in diverse forms of partnerships?
- Network building: have you built a network of diverse contacts and (potential) partners?
- Selection process: How structured is your partner selection process?
- Partner selection: how good are you in selecting the right partner for the right moment?
- Partnering: Are your employees trained in how to start, run, and finish partnerships?
- Training and education: To what extent are your employees capable of dealing and working with external partners?

Next, the right partners need to be selected—the following questions can help to do that:

- Which are potential and appropriate partners?
- What could be this partner's role or position in the network or business model?
- What is this partner's reputation? E.g. it is a trustworthy partner?
- Looking at different potential partners: is this a homogeneous or heterogeneous network?

Checklist—to evaluate the partner selection process:

- We have similar expectations
- We have complementary knowledge, skills and expertise
- All partners are able and willing to share financial risks
- We do not notice opportunistic behaviour
- We have similar culture and operational routines
- We are really willing to collaborate

5.8 Structure and governance for collaboration

Open Innovation does not mean that there is no structure or governance. On the contrary, choosing an appropriate structure and mode of governance is critical to its success.

Parties can choose between different types of collaboration. In the table below are listed several types of collaboration, with different typical durations, advantages or disadvantages.

<i>Type of collaboration</i>	<i>Typical duration</i>	<i>Advantages</i>	<i>Disadvantages</i>
<i>Subcontracting</i>	Short term	Reduction of costs, risks, and lead-time	Search costs (product performance and quality)
<i>Cross-licensing</i>	Fixed term	Technology acquisition	Contract cost and constraints
<i>Consortium (e.g. a project)</i>	Medium term	Expertise, standards, share funding	Knowledge leakage; subsequent differentiation
<i>Strategic Alliance</i>	Flexible	Low commitment; market access	Potential lock-in; knowledge leakage
<i>Joint Venture</i>	Long term	Complementary know-how; dedicated management	Strategic drift; cultural mismatch
<i>Network</i>	Long term	Dynamic, learning potential	Static inefficiencies

For creating an appropriate legal form, it can be helpful to ask help from a (legal) advisor.

The following recommendations can help to coordinate Open innovation:

- Report Open Innovation activities to a central position within the organization, to create an overview
- Communicate Open Innovation activities within the organization, to inform all relevant people

Checklist—to evaluate structure and governance:

- We chose a structure that helps us to achieve our collective goals
- We coordinate our Open Innovation activities

5.9 Contractual arrangements

Contractual arrangements are critically needed for successful collaboration. It is unhelpful to avoid the effort of making contracts. Sooner or later, the lack of contracts can backfire.

Interestingly, there is an interplay between (informal) trust and (formal) contracts: when there is trust, people can make a contract; and making a contract can improve feelings of trust.

Moreover, it can help to keep in mind that contracts need to be helpful to achieve collective goals (not an end in themselves) and need to be specific (focusing on the collaboration).

First clarify:

- What is the goal of the collaboration?
- Where do we need to make agreements on?

Topics that can be put into a contract:

- Ambitions and goals
- Business plan (strategy, activities and results)
- Scope of collaboration
- Legal issues
- Financial issues: Division of investments and revenues
- Regulations on compensation
- Governance structure
- Rules, tasks and responsibilities
- Ownership: e.g. How is intellectual property organised?
- Conflict management
- Exclusivity and competition
- Rules and solutions for dealing with internal and external developments
- Prerequisites for consequences of quitting the collaboration
- Communication structures
- Specifying location of activities

Checklist—to evaluate contractual agreements

- We have a clear view on the goal of the collaboration
- We have a clear view on where agreements are based on
- We have contracts everyone agrees on

5.10 Evaluation of process and results

During the process of Open Innovation, it is critical to organize moments to evaluate the *process* of collaboration and innovation, and to the interim *results*.

This can be done by making 'evaluation' an agenda point of each meeting, and giving each participant room to express her or his thoughts and feelings on the process and its results.

Or one could organize a meeting dedicated to evaluation once in a while.

If we do not create such moments for reflection, evaluation and discussion, there is a risk of tensions building-up between people or parties, with the risk of negative consequences.

The goal of evaluating is to share thoughts and feelings, and to find ways to deal with negative sentiments and to steer collaboration towards positive sentiments—and positive results.

Questions that can help to evaluate the process (to be answered by each participant):

- How satisfied are you with the current *relationships and cohesion*?
- How satisfied are you with the current *communication* processes?
- How satisfied are you with your organization's commitment? And with the commitment of other participants and organizations?
- How satisfied are you with the trust and safety between participants?
- How satisfied are you with the climate for innovation within your organization? And with the climate for innovation between participants?
- Overall, how satisfied are you with the these relational topics?*

- How satisfied are you currently with the initial strategy and goals?
- How satisfied are you currently with the consortium and its partners?
- How satisfied are you with the current structure and governance?
- How satisfied are you with the current contractual arrangements?
- Overall, how satisfied are you with the these structural topics?*

Questions that can help to evaluate the (interim) results (to be answered by each participant):

- Looking at the concrete results that we envisioned (section 6) , how are we moving forward?
- On a 1-10 scale (or 10-100%), how far have we realized what we envisioned, in your perception?*

- How are we proceeding regarding our goals for health and wellbeing (section 6)?
- On a 1-10 scale (or 10-100%), how have we realized our health and wellbeing goals?*

- How are we proceeding regarding our goals for green business (section 6)?
- On a 1-10 scale (or 10-100%), how have we realized our green business goals?*

6 Next steps

6.1 Share your experiences

In line with the Open Innovation approach, the SSL-erate project will facilitate the sharing of 'success stories' or 'best practices' of Open Innovation—and also of things that went differently, e.g. 'less successful', with 'lessons learned' and recommendations to do things better next time.

You are encouraged to share your stories (<http://lightingforpeople.eu/open-innovation/>)

6.2 Further reading

This Open Innovation Toolbox is based on various resources. Below is a list of recommended literature for further reading:

Academic literature

- Chesbrough, H. W. 2003. **Open innovation: The new imperative for creating and profiting from new technology**. Boston, Massachusetts: Harvard Business School Press.
- Enkel, E., J. Bell, and H. Hogenkamp. 2011. **Open innovation maturity framework**. *International Journal of Innovation Management* 15 (6): 1161-1189.
- Enkel, E., O. Gassmann, and H. Chesbrough. 2009. **Open R&D and open innovation**. *R&D Management* 39 (4): 311-316.
- Gomes-Casseres, B. **Alliance Strategy: Managing Beyond the Alliance**. Available from: www.criticaleye.net
- Tidd, J., J. Bessant, and K. Pavitt. 1997. **Managing innovation. Integrating technological, market and organizational change**. Chichester: John Wiley & Sons Ltd.
- Tjemkes, B., P. Vos, and K. Burgers. 2012. **Strategic alliance management**. New York: Routledge.
- Vanhaverbeke, W. 2006. **The interorganizational context of open innovation**. In *Open innovation: Researching a new paradigm* (pp. 205-219), eds H. Chesbrough, W. Vanhaverbeke and J. West. Oxford: Oxford University Press.

Online resources

- Belbin team roles: <http://www.belbin.com/rte.asp>
- Business Model Generation CANVAS: www.businessmodelgeneration.com
- Leadership styles: http://www.mindtools.com/pages/article/newLDR_84.htm

7 Conclusion

The first version of an Open Innovation Toolkit, which is meant to support the Business Development Experiments in the SSL-erate project, has been developed. It will be applied in the initiating and starting-up phase of the Business Development Experiments in the Local Lighting Clusters and the feed-back received from the participants as well as the issues encountered will be used when making a second improved version.