



# Radical innovation within Philips Lighting

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## 1.0: Introduction

To state the obvious, radical innovation isn't easy. It involves taking a leap into the unknown – and is particularly difficult for established organizations who have a track record of success which they don't want to put at risk. So how does an organization jump the tracks? How can it switch off its immune system and open itself up to new – and potentially dangerous – inputs? How can it reframe, let go of its old ways of looking at the world and take on something which is very new – but by definition untried and risky?

These are not academic challenges but the very stuff of innovation management – the essence of what it means to lead strategically. Put very simply, innovation is a survival imperative. If organizations don't change what they offer the world – products and services – and the ways in which they create and deliver those offerings (processes) then they risk being left behind and at the limit disappearing. History shows us an almost Darwinian pattern of the rise of new entrepreneurial and agile organizations which mature, become comfortable and then fat and gradually lose their edge. Middle age gives way to a kind of sclerosis where change is reduced to smaller and smaller increments until one day the organization is upstaged by external events and unable to move fast enough to cope. It is the new kids on the block who exploit the new technology, pick up on the new market trends, and work out new and more appropriate business models.

We detect this pattern because it mirrors our own behaviour, our own life cycle. But there is an important difference – organizations have the capacity to reinvent themselves. Not many survive beyond a fairly short life span but a handful of organizations do last beyond decades, joining the centenarians and even – in a very few cases – lasting over several centuries. But close analysis shows just how much these organizations have had to change in order to reinvigorate themselves. For example, the Swedish firm Stora was founded in the 13<sup>th</sup> century and is still a successful business today – but it has survived not by remaining in the original business of copper mining but by changing. The German tourism giant TUI is coming up for its 100<sup>th</sup> anniversary – but when it was founded in 1917 it was the Prussian state lead mining and smelting company. Mining and melting rocks is a long way from the tourism, travel and services business of today. And Nokia began life as a timber and paper company, not the global mobile telecoms player it has become, nor the mobile media and services business it is transforming itself into.

Importantly studies of longevity in organizations suggest that it isn't simply a matter of '*out with the old and on with the new*'. What long term survivors do is manage crises in ways which incorporate the past strengths rather than replacing them. There is, of course, a need to take on new knowledge but there is also a process of letting go of what no longer matters. And most important there is a synthesis, a blending of old and new rather than a wholesale switch from one field to another. What Gerry Johnson and George Yip call 'strategic transformation' is much more than weathering storms, getting

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lucky in times of crisis or sweeping out the old and bringing in the new in a boardroom reshuffle. It's about learning new tricks but it also reflects a capability to *manage* the learning process.

Innovation management involves mostly steady state maintenance of a stable position but occasionally managing the radical, discontinuous shift to a new state. The long-standing challenge here is that capabilities for dealing with one are not the same as the other – the former is about maintenance whilst the latter is about entrepreneurial risk-taking and creation of new possibilities. How does a large established organization deal with this? The difficulty is striking a balance – maintaining the current business through steady state improvements whilst also allowing some measure of entrepreneurial freedom to some people so that new possibilities can be generated. But how to manage the tensions between the two approaches?

Perhaps the simplest response is some form of corporate venturing – to spin off, spin out, separate – in human terms it is about giving birth to children who will carry on the line. But another, more tricky approach seeks to engineer a change which retains the new spirit inside the old organization – how to renew from within?

This was the challenge facing Philips Lighting in 2000 – how to move from a strong position in what was becoming a very mature market? The original business, founded over a hundred years ago, had been about lighting but the limits to growth in what had become a commodity business were clear for all to see. The big question was where and how to move forward – how to make a radical leap into the future? This wasn't just a matter of finding new ideas but getting acceptance for them, building a new vision of what the company could be – and then implementing it. In other words the challenge was nothing less than one of how to change the corporate mind.

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## 2.0: Philips Electronics, a Dutch multinational Corporation founded in 1891

Philips is a global corporation and an internationally recognized brand name, active in a variety of fields with a core emphasis now on Healthcare, Consumer Lifestyle and Lighting. Described in its company profile as a “Health and Well-being” company, it had a 2007 turnover of EUR 26,793 million and an EBITA of 7.7%.

Philips is one of a relatively small band of firms which have survived longer than a century – the original company was set up in 1891 by Anton and Gerard Philips as Philips Gloeilampen Fabrieken N.V – and the Eindhoven factory they built began producing light bulbs  
(see <http://www.philips.com/about/company/history/index.page> for the company’s history.

It has a proud history of innovation and has been responsible for launching several ‘new to the world’ product categories like X-ray tubes in its early days, the Compact Cassette in the 60s and afterwards the Compact Disc in the 80s, more recently Ambilight TV. These successes are linked to Philips’ deep understanding of innovation, enabled notably by significant R&D investments and strong traditions in design.

Since 2003, Philips has been engaged in a market-driven change program to rejuvenate its brand and its approach to new product innovation with Fast Moving Consumer Goods expertise on end-user insights. Five years later and quite a few end-user insights more have significantly influenced the way Philips innovates, in line with the new brand promise of “sense and simplicity”. Yet in 2000, new product innovation was still predominantly shaped by R&D, particularly in its lighting business. In that same year Philips however incurred a net loss of EUR 3,206 million. Management was focused on dissolving the Components business, returning the Semiconductor business to profitability, simplifying the organization and making cost savings.

Philips role in the global lighting industry had always been dominant. Philips Lighting was Philips’ ‘cash cow’; it operated in a mature, low-growth oligopoly market in which finding new approaches to realize bottom line growth was the main challenge. End-user driven innovation was a new approach to innovation, perhaps truly a ‘radical’ one given the division’s history. How was this new approach piloted?

In the next paragraph, this ‘radical innovation journey’ is introduced as a near complete overview of events.



Then the way of working, the composition of teams and several important tools will be explicitly addressed in paragraph 3. In paragraph 4 the business outcome is explored. Finally, some key lessons for corporate intrapreneurs potentially supporting them to introduce radical innovation effectively conclude this case study.

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## 2.1: Five minutes of silence .....

In December 2000, the manager of the Central Lighting Development Lab organized an innovation workshop for his group managers. He was responsible for the medium and long term innovation of the Lamps business and his ambition was to increase the innovation effectiveness of his organization. The workshop's focus was on how to make this shift and it incorporated a creativity component. At the beginning of the 2-day workshop the facilitator asked the following question to around 30 participants:

*"You say your mission is to be a concept integrator; which types of concepts are you going to develop to safeguard the Lighting Future?"*

Silence. For five long minutes, with growing sounds and sense of discomfort the room remained quiet as the facilitator let the challenge sink in. People cleared their throats, shuffled chairs, papers, pens and pencils - anything to break the oppressive weight of the silence. Eventually, like a thunderstorm bursting from an impossibly close and humid night, the storm broke and a flood of talking followed. During the remainder of the workshop the participants struggled to understand what this silence meant and how to deal with it, - with the key conclusion that growth would not come from small increments of change, 'doing what we do but better'. Instead there was a need for a radical new vision.

## 2.2: Three exploratory projects in 2001

Following Albert Einstein's notion that *insanity is doing the same things over and over again and expecting different results*, senior management realised that something had to change as an outcome of the workshop. Consequently, in early 2001 the Chief Technology Officer of the Lamps business initiated a set of complementary activities of an exploratory nature in order to catalyze learning opportunities and help shape a platform for a future vision. These activities were:

- A vision team in the Central Lighting Development Lab. This involved four employees with an equal male and female representation, two of the people were new to the development lab, the other two well established and anchored informal leaders. The team's role was to bring outside inspiration into the development organization via lectures, workshops, visits and books. These activities resulted in the start of two "out of the box" innovation projects in 2002, one of which led to the invention of Ambilight TV.
- An exploratory automotive project for car headlights. This involved piloting a combination of the Dialog Decision Process (DDP)<sup>1</sup> and a Philips Design innovation process based on socio-cultural insights.
- A Philips Lighting 'New Business Creation (NBC)' group. This involved a team of four senior managers and one lateral thinker, whose role was to challenge mainstream business assumptions by asking simple questions. Established as a new organizational unit in a six month period, the NBC group was set up to provide the environment for "out of the box" business development. Once the unit was created, the main open question was how to fill the NBC idea pipeline?

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<sup>1</sup> See: Mathews & Mathews, The Smart Organization: The dialogue decision process suggests a dialog between a preparation team gathering relevant information and preparing decision scenarios and the decision team, taking a high quality, robust strategic decision with long term feedback loops.

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### 2.3: The 'Think the Lighting Future'-project in 2002

Building on the experiences of these three exploratory projects and using other Philips knowledge on radical innovation, the "Think the Lighting Future"-project (TTLF) was defined at the end of 2001. It was established in response to the CEO's ambition to identify a 10% top line growth opportunity (approximately EUR 500 million) which could be achieved in a five to seven year time frame. Senior management were instrumental in initiating the project.

The project had three tangible deliverables for the end of 2002:

- Clarify alternative scope definitions for Philips Lighting that could deliver 10% top line growth in the longer term
- Define 2 to 3 New Business Creation projects
- Define a process for knowledge sharing and updating the NBC long-list

In addition there were several 'intangible' aspirations for the project – for example it was envisaged that it would:

- Provide a "growing in opportunity" for the senior management team, thus creating commitment for additional scope
- Prepare for implementation (avoid "not invented here syndrome") for critical mass of colleagues
- Radiate, let involved colleagues experience that the whole exercise is about doing different things ... and doing them differently ...
- Create the confidence to deal with a stretching vision

'Think the Lighting Future' was a 'presidential project' with core team participation from each Lighting business group, Philips Design and Philips Research: which was - next to its scope of 10 years ahead – an innovation in itself. In addition, special attention was put on forming a diverse team to enable different views to be captured. Importantly this project provided opportunities for learning and improvement of the corporate innovation process – for example, the original 3-step Design process (information sharing – ideation – idea development & concept definition) was expanded by a fourth step (translation to action). Emphasis was also placed on creating broad ownership from the beginning both in management via the DDP approach and in the executing functions via multi-functional workshops. Subsequently the dialogue process has been expanded to a "trialogue" process (see graph 3) between decision team, core team (= decision preparation team) and implementation team.

At the end of 2002, TTLF was concluded and was regarded as a successful exploration and visioning project. It led to the selection of a 'theme' for new business: Atmosphere Provider, which was about "empowering people to become their own light designers".

It also led to three new business creation projects and delivered a list of ideas for New Business Creation. However, no additional turnover had yet been generated. The real work was about to start...

### 2.4: An unplanned, yet crucial incubation time → January – June 2003...

Due to internal restructuring, the first six months of 2003 turned out to be an "incubation time" for the new business theme 'Atmosphere Provider'. Formal progression of the project was on hold while other



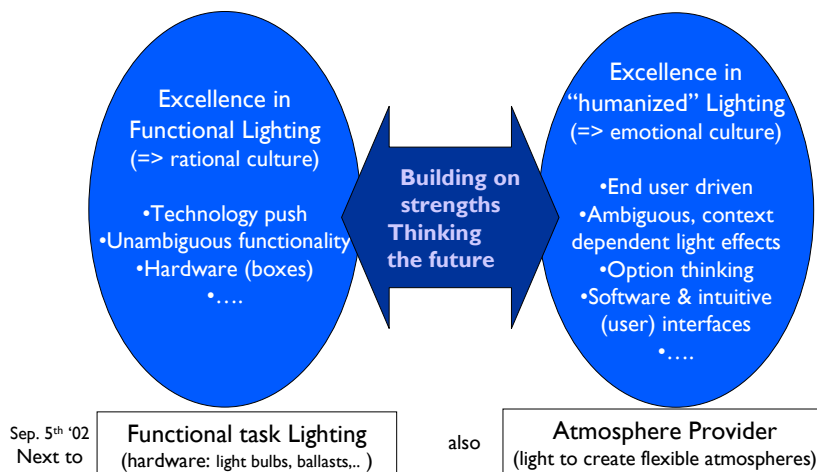
developments across the business took shape. For example, the NBC group's mission was redefined and it became the Solid State Lighting business group. Consequently, the intended 'landing point' for 'Atmosphere Provider' no longer existed. Eventually a new home was identified and 'Atmosphere Provider' became the first Lighting-wide market-driven innovation theme in the Global Marketing organisation.

These 6 months incubation time proved later to have been an important "sanity check" for the seriousness of the organisation to engage in something radically different. Two members of the TTLF project continued to work on Atmosphere Provider, safeguarding the smooth transfer of the vision and both explicit and implicit knowledge about the theme and the cooperation spirit established during TTLF.

It was also during this period that Atmosphere Provider became more deeply rooted in a network of around 10 colleagues at different levels and functions of the organization. In many conversations the "quality" of the innovation challenge ahead was discussed (→ radical innovation, beyond incremental product improvements), the need for a different culture became explicit (see figure below) and a shared intention and passion grew to make it happen.

## PHILIPS

### Philips (general) Lighting



**Figure 1: the Atmosphere Provider innovation**

Next to this, the 2 former TTLF-participants started to explore more deeply what "end-user driven" meant, identifying the scattered pockets of knowledge in Philips that were also exploring this new way of working and working on a comprehensive document capturing and structuring all the Atmosphere Provider relevant socio-cultural trend research into an absorbable format. For the first time in Philips Lighting "marketing knowledge" was brought in a roadmap of emerging – implicit – explicit – mature needs.

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## 2.5: The Atmosphere Provider Program → July 2003 – December 2005

In July 2003 senior management launched the 'Atmosphere Provider'-program. The program lasted two and half years and was given some explicit and several implicit deliverables:

Explicitly –

- Bring 'Atmosphere Provider' as a theme to life
  - Create a 'need-scape' for the new innovation area
  - Envisage the boundaries / solution space of the innovation & growth opportunities
  - Initiate the creation of a related patent portfolio
- Prove the business potential by piloting the three new business creation projects
  - Exploration towards new business proposition definition incl. initial product concepts
  - Prototyping and market testing
  - Business case development & transfer to mainstream business

And implicitly –

- Prepare for transfer and scaling up
- Initiate the building of an Atmosphere Provider network (with shared vision, creativity, cross-functional and discipline perspectives, embracing the required new way of working, etc.)
- Pioneer the end-user driven innovation

The program was set up so that theme development and new business creation cross-fertilized each other; emerging insights from creating the new business were captured via foundation documents (see paragraph 3.2); general observations derived from the theme development were fed back into NBC projects.

The core of the program was a team of four people: the overall program manager who had led the TTLF project and 3 project managers, of whom one had been a TTLF core team member; the other two were new to Philips Lighting. Over time, a small support team became involved: a lighting designer, an experienced market researcher, a marketing specialist and several colleagues from Philips Design. The team was small and flexible; additional skills and capacity were brought in on an as-needed basis, which in turn required good communication skills from the project managers and the commitment from senior management to ensure the needed resources were made available to the team when required.

### 2.5.1: One of the projects: 'Light Embedded in Furniture'

Unlike today, in 2003 Philips Lighting had less structured processes in place for handling new business creation projects with significant complexity in terms of applications, technologies, business models, new alliances etc. All Atmosphere Provider projects followed the here describes phases. The duration of the phases differed depending on the amount of newness of the exploration area.

The project's 2½ year timeline comprised three core phases:

1. Exploration to define the business proposition and product categories (12 months)
2. Prototyping and market testing (9 months).



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3. Writing the business case, preparing for alliances and transferring the results to a business unit (9 months)

### Phase 1: Exploration

Philips Lighting's mainstream culture – a culture steeped in successful product innovation – put an important emphasis on speed and through-put time, on functional lighting and new product definition.

- There were historical organizational beliefs that hampered exploration
- It wasn't apparent that different skills and tools were needed for exploration
- There was mounting pressure to complete the exploration as quickly as possible.

It was believed that it would take just a few weeks for the project team to define the proposition using traditional business tools and processes. Senior management on the other hand were more patient. Exploration ended after twelve months with a new business proposition, seven product concept ideas across different product categories, ideas for service based revenue streams and new business models for a newly emerging Philips Lighting business category. A comparison between exploration in steady state<sup>2</sup> and radical innovation projects is shown in the next table.

#### *Comparing steady state & radical innovation in the exploration phase*

	Product innovation	New Business Creation arising from radical innovation
Key deliverables	Product proposition with target group and customer insight.	New business proposition, ideas for: the product categories, service based revenue streams, business model, and a project vision embodied by the team.
Duration of phase*	Approximately 2-3 months	Up to 9-12 months
Key skills	Generic project management skills & techniques for the idea and opportunity stages in an innovation process	As per steady-state but including: 1.) Personal skills - intuition, natural timing, personal vision, reflection, awareness of the company's implicit beliefs, creating buy-in 2.) Innovation skills - facilitation, ideation, workshop design

\*depends on many factors such as the level of environmental complexity, team size, organizational capability, management support, budget, etc

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<sup>2</sup> There are different notions for innovation within existing product categories: incremental innovation, roadmap innovation, steady state innovation, etc.

## Phase 2: Prototyping and market testing

This phase brought the vision and proposition to life with prototyped concepts showcased in a dedicated room at the Philips Lighting Application Centre, Eindhoven.

The prototypes formed an important bridge between the pioneers and mainstream business worlds, they helped people envisage the business potential and were a powerful communication tool for a range of target groups including Philips staff, furniture industry manufacturers, product development teams, market researchers, and existing customers who wanted to see Philips Lighting's latest innovations. Some pictures of the prototypes are shown below.



*Figure 2: Figure 13: Bathroom demonstrator with different light scenes*

The seven concepts were evaluated in market research. This led to a prioritisation, further end-user insight refinements and quantitative assessments.

### ***Comparing steady-state & radical innovation in the prototyping & market testing phase***

	Product innovation	New Business Creation arising from radical innovation
Key deliverables	Build a product prototype, conduct market testing, refine the product concept.	Multiple hardware/software concepts shown in a context specific space. Qualitative and quantitative market testing. End-user insights. Inspire organisational momentum.
Duration of phase*	Approximately 3-4 months	Up to 9 months
Key skills	Generic project management skills & techniques for a proposition stage in an innovation process	As per steady-state but including: 1.) Personal skills - courage, stamina, patience, managing expectations, evangelizing, overcoming organisational resistance to the new vision 2.) Innovation skills – prototyping a business theme rather than a single product, end-user insights

\*depends on many factors such as the level of environmental complexity, team size, organizational capability, management support, budget, etc

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### Phase 3: Writing the business case, preparing for alliances and transferring the results to a business unit

By July 2005 the project was at a stage where a concrete business case could be written. In addition, the case was prepared for building strategic alliances with furniture companies. Successful meetings were held with industry leaders followed by a series of workshops. The project was then gradually transferred into the Solid State Lighting business group.

As the project came to an end the team were visited by the then four board members of Philips Electronics, including the CEO Mr. Gerard Kleisterlee. This was a strong sign of leadership and the hands-on approach by top management regarding growth and radical innovation. A smile and 'thumbs up' from Gerard Kleisterlee was recognition that the team had successfully explored a new and exciting business opportunity.

#### *Comparing steady-state & radical innovation in the business case phase*

	Product innovation	New Business Creation arising from radical innovation
Key deliverables	Approved business case with go to market plans	Approved business case. Furniture industry partners interested. Project transferred to correct business unit.
Duration of phase*	Approximately 2-3 months	Up to 9 months
Key skills	Generic project management skills & techniques for an investment stage in an innovation process	As per steady-state but including: 1.) Personal skills - awareness of the mindset and cultural issues in relating to other industries. 2.) Innovation skills - being the proposition's guardian

\*depends on many factors such as the level of environmental complexity, team size, organizational capability, management support, budget, etc

#### **2.5.2: The end of the journey**

By the end of 2005...

- In total > 1800 people had been involved globally, cross-BG and beyond Philips Lighting.
- 3 foundation documents were published, > 1000 copies distributed.
- Patents: > 50 IDs submitted, > 25 patents filed, > 10 patents in pipeline.

In the figure below – taken from the Atmosphere Provider closing document – an overview of the program objectives and results can be found.

#### Context of assignment:

Cross-functional with impact on PD level beyond single BG, positioned under Global Marketing, unclear ownership on executive level, no standard processes or tools => learn as you go.

#### Characteristics of assignment:

Innovation for additional profitable growth (out of the box), market-led, pioneering, emphasis on results in the form of content, high risk & high reward, phase 1 of change management.

#### Core team:

Dorothea Seebode, Gerard Harkin, Benedicte van Houtert, Paul Brulez, followed up by Stefan Verbrugh (by April 04).

#### Extended team:

Markus Reisinger, Liesbeth Floeg (by Dec.04), Ronald Dalderup (by Jan.05).

#### Mindset:

Focus on results, commitment, dialogue.

#### Explicit results

##### Flexible Ambiance in shops:

- The theme for shops to be launched on Light & Building 2006.
- Transfer theme ownership to BG Luminaires and BG Lamps by 2006.
- Flexible Ambiance in shops demo, incl upgrade with BU SSL.

##### Bathing Pleasure:

- The business case has been taken over by BU SSL in AOP 2006;
- Bathing Pleasure demo in LAC => two product concepts validated.
- Discussions started with selected bathroom companies.

##### Light & Fragrances:

- Market maturity of theme: latent awareness, lead users identified.
- Theme converged to validated insights for high end hotel segment.
- Demonstrators fragrance device integrated into My ColorTones, VB lobby.

CRE: Corporate Research Exhibition  
ID: Innovation Disclosure  
LMC: Lighting Management Conference  
LAC: Lighting Application Centre  
UI: User Interface



#### Theme development:

- 3 foundation documents published, >1000 documents distributed.
- Patents: over 50 submitted IDs resulting from AP vision during the last 2 years. Establishment of patent priority setting meeting for inventions in the field of Atmosphere Provider and User Interfaces.

#### Implicit results

##### Enriching the PD Lighting strategy:

- Participation in BU SSL strategy development 2004.
- PD Lighting market thrusts derived from Understand Atmosphere.
- Additional technology attention points => e.g. LightMan, UI, connectivity, Light & Fragrance scientific research.
- IKAM partnerships: vision shared with top 300 of Sonepar Oct. 04.

##### Image (shift) of PD Lighting:

- HomeLab contribution CRE 2004 & 2005.
- Atmosphere Provider as theme opened new exciting innovation areas.
- Raising the standard with regard to alliance preparation at PD Lighting.

##### Change process:

- "I'm very positive. Atmosphere Provider is on the agenda. We are talking differently about the lighting business. That's a big win" (senior executives).
- New use of LAC engaging customers in dialogues on future lighting solutions.
- LMC 2004 prize for contribution with highest impact on future business.
- Pioneering: business case for market-led innovation, theme thinking and acting beyond product development.

##### Way of working

- First diverging to understand the context.
- Then converging towards specific actionable business opportunities.
- Finalizing by transfer to a BG for execution or NoGo.

Figure 3: excerpts from the Atmosphere Provider closing document

### 3.0: Way of working, tools and team

In the previous paragraph, an exhaustive overview of the events marked the journey along its track. More flavour to how the journey was realized can be found in the following details regarding ways of working, some of the more important tools and dynamics around team-building. To grasp them more clearly, the beginning of the journey is readdressed.

#### 3.1: TTLF → The 'trialog' process, creativity tools and visualization

Vital to orchestrating communication, was the set-up of TTLF as an extended Dialogue (trialog) Decision Process around three key innovation dimensions:

- People → understanding and serving both end-users' explicit, current as well as their implicit, emerging needs

- Technology → understanding and using current and emerging technology options to enable user relevant functionality
- Business → understanding current and emerging market characteristics and dynamics; applying appropriate, future proof business models.

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### Think the Lighting Future project Set up as Dialog Decision Process

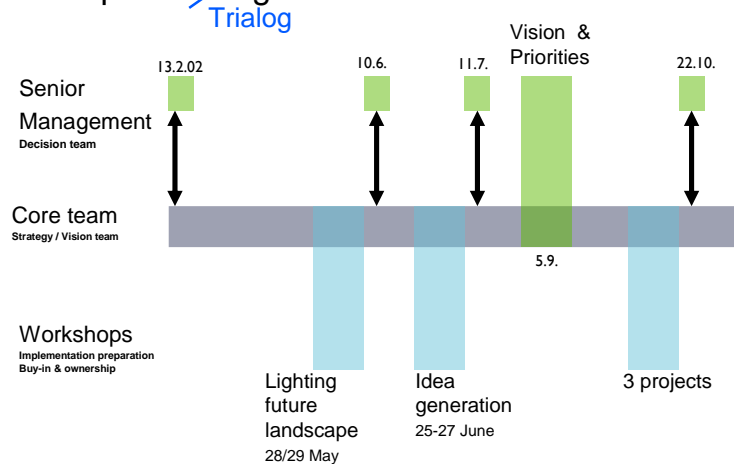


Figure 4: Think the Lighting Future timeline

The figure above shows the project timeline and team structure. The major work load was carried by the core team of seven people, which was supported by a top management coaching team, whose role was to help translate the workshop results into the correct language and context for senior management. Since the project had a scope within Philips Lighting but also beyond it, senior management acted as a steering committee and decision team; the CEO of Lighting took the role of project owner. This was essential since it gave the project the required weight and visibility.

32 colleagues were invited to two workshops. They came from different innovation backgrounds (marketing, business development, R&D) and from different Lighting businesses, Design and Research teams. Maximal possible global presence was established. Since TTLF was a highly visible presidential project, workshop participation was seen as an honour. The workshops served several tangible and intangible purposes, including:

- Enriching the core-team work by existing corporate knowledge
- Generation of business ideas seeds
- Preparing for later implementation.
- Building a 'performing' team around a shared vision

All workshop flows and all tools used during the workshops were especially designed such that the holistic outcomes became highly probable by equally and simultaneously focussing on the different dimensions: people and their needs, technology enabling related new solution spaces and business including generic competition and existing next to emerging business models facilitating value creation.

The **first** workshop was about understanding the current business situation, looking at socio-cultural & technology trends, introducing emerging business models and potential generic competition. After the workshop, all information was documented in “The Future Landscape” and made available to the steering committee and workshop participants, as preparation material for the ideation phase.

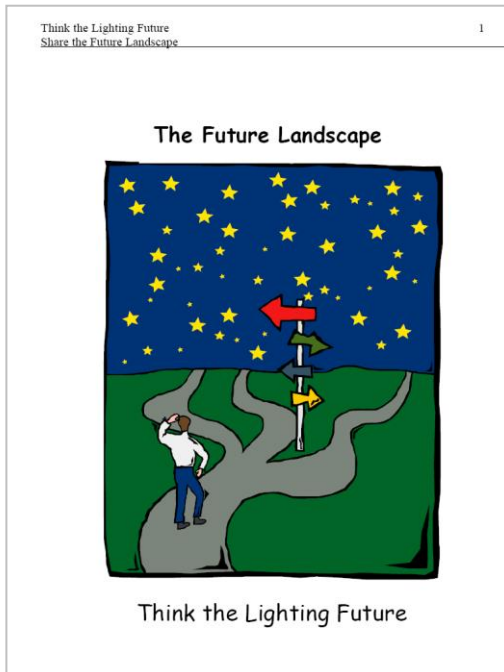


Figure 5: Future Landscape

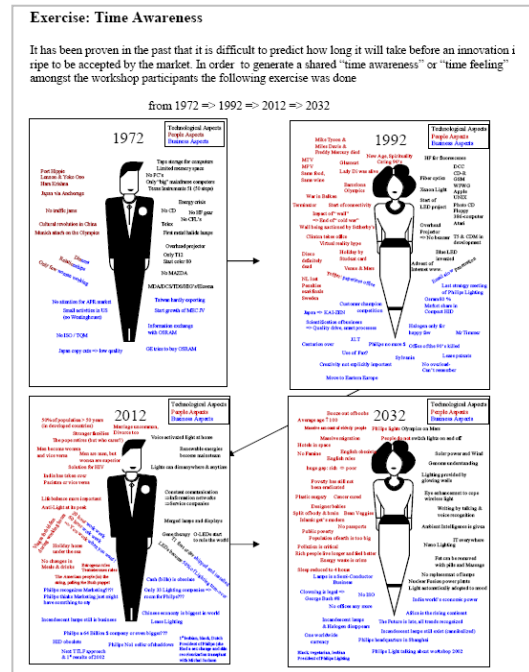


Figure 6: Time awareness

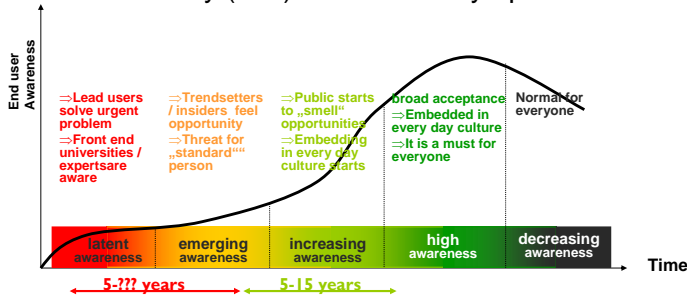
This workshop played a very important role in terms of team building. In order to take participants ‘out of the box’, it started with a “time awareness exercise” (see left picture). The three input dimensions were shared in cross functional groups and much of the workshop process involved building a shared vision and linkages across these groups.

Next to this the crucial tool “maturity bar” was introduced and equally applied to the three starting dimensions.



## PHILIPS

### Development of awareness and acceptance of innovations by (end) users / society / public



The length (in years) of the bar indicates the type of innovation  
The color indicates how "ripe" the public is to take it over

Figure 7: Maturity bar → example need development

In the **second** workshop around 140 business idea seeds were generated, of which 42 were further matured. The ideation teams were challenged to think from different geographical contexts and needs: Europe, North America, China, India. Ideation templates and specific creativity tools were developed (for example building on Edward de Bono's six thinking hats<sup>3</sup> and lateral thinking methods).

## PHILIPS

Format 1: Idea generation "Think the Lighting Future"

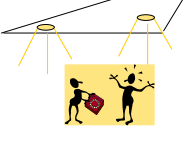
Title of business idea:	Group	Initials	Ref. no.
<b>Flexi Ambience</b>	Core Team		
Describe idea in detail => what do we offer?  We sell customizable lighting to provide flexibility and ambience. Not only the product, but also the personal advice or the information via Web	People need addressed Support to creative individual light setting		
Draw "sketch" or diagram to show how the idea could be applied  	Technology or competency required <ul style="list-style-type: none"> <li>Controls in RGB</li> <li>individually addressable flexible lamps (RGB)</li> <li>system integration</li> <li>integrated remote controls</li> </ul>		
	Business model: how to make money Provide products Provide web-enabled service Personal advice teams		

Figure 8: ideation template

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Format 3: Idea enrichment "Think the Lighting Future"

Title of business idea:	Group	Ref. no.
<b>Flexi Ambience</b>	Core Team	
Advantages <ul style="list-style-type: none"> <li>Market is ripe in Europe</li> <li>Market for home decoration and remote controls is booming =&gt; Lighting lays behind =&gt; this idea fills the gap</li> <li>No immediate competition</li> <li>We have got the brand for it!</li> </ul>	End user benefit / potential target group <b>Flexibility and Ambience</b> Target group: consumer with interest in home decoration	
Risks (generic competition, disadvantages, ..) <b>high barriers for users due to installation effort / cost</b> <ul style="list-style-type: none"> <li>organization not in place =&gt; needs a lot of re-organization in Philips</li> <li>easily copied ?!</li> <li>difficulties in selling services (mass market)</li> </ul>	Which "partners" do we need to realize the innovation? <ul style="list-style-type: none"> <li>home decoration experts</li> <li>service organization in touch with the consumer</li> <li>cheap manufacture of the final solutions (physical goods)</li> <li>flexible light sources (in/outside Philips)</li> </ul>	
How to overcome the risks? <ul style="list-style-type: none"> <li>good marketing</li> <li>clear value proposition</li> <li>Start with new buildings</li> <li>work with home decoration advisers</li> </ul>	Market potential (niche/mass, expensive/low price) Philips Market	

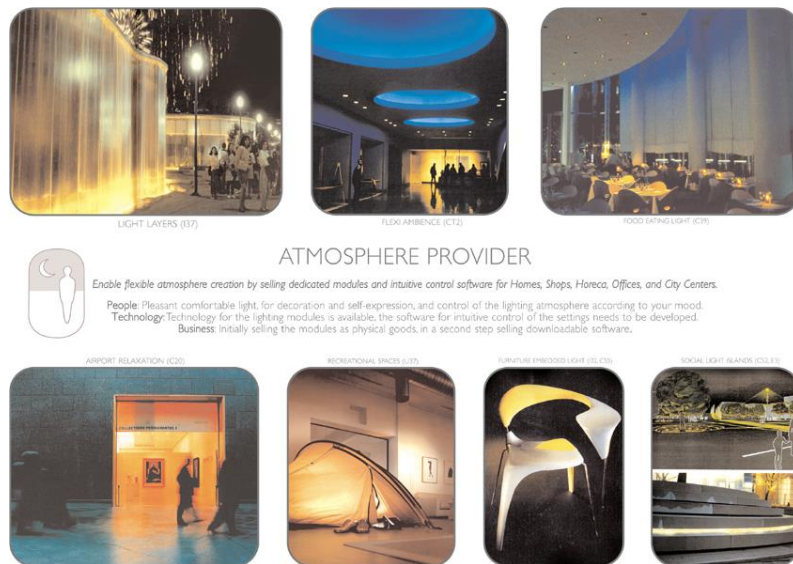
Figure 9: idea

Since any idea needed to incorporate all dimensions: people, technology and business, many "rudimentary idea spots" were dismissed during the team process. This also increased the team spirit and mutual trust between the different disciplines and created an understanding for the complementarities of skills and competencies.

The **third** workshop was attended by the senior management and was a sign of their active interest and involvement in the project. Eleven possible scope extensions for the company were distilled from

<sup>3</sup> See: Edward de Bono, six thinking hats, lateral thinking

the initial 140+ ideas of the ideation session. Of the eleven options, senior management selected a theme called Atmosphere Provider as the company's scope extension to focus on in the coming years.



**Figure 10: Visualization of the Atmosphere Provider theme**

The decision was in line with the (at that time) Philips corporate discussion around Healthcare, Lifestyle and Technology, in addition there was a feeling that it could deliver 10% top line growth, it was also consistent with many trends in the domain of business, people, technology, and other industries had previously transitioned from component suppliers to higher value products and services, the paint industry being one example.

For the first time in its more than 100 year long history, Philips Lighting had decided upon a fully people & application driven innovation theme, rather than the traditional technology driven approach.

The **fourth** phase of the TTLF project was about creating a deeper understanding of the Atmosphere Provider challenge from many different angles. To support this, an Atmosphere Provider theme map reflecting the starting dimensions of People, Technology and Business was created as shown in the next diagram.

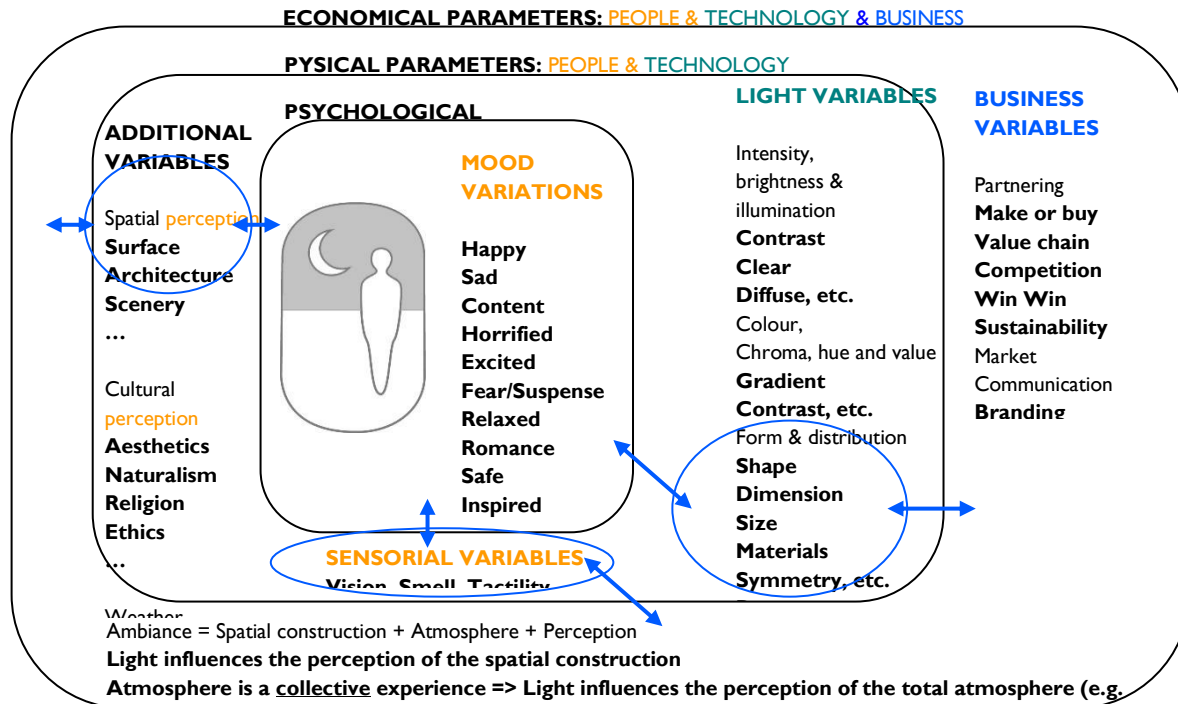


Figure 11: Atmosphere Provider innovation / business theme map

This theme map aided the selection process for the three new business creation projects (→ blue circles) that would form a basis of the Atmosphere Provider program. Projects were selected such that they contained different newness levels to phase potential market entries. It was envisaged that a project with only one newness dimension would mature towards market readiness quicker than a project with multiple newness dimensions. Another consideration for the project definition was the complementarities between Atmosphere Provider parameters & new skills.

In this way three new business creation projects were carefully chosen on the basis of their potential to enrich the understanding of the Atmosphere Provider growth area, to build the right sorts of new capabilities and to identify new business models at Philips Lighting. The three projects were:

- **Flexible ambience in shops** was about a new use of light in an existing application area. Since Philips Lighting had a prominent market share in the retail lighting business, this project would help shape the next evolution of that business.
- **Light embedded in furniture** was about a new use of light in a new application area. This was new for Philips Lighting and it made sense for a variety of reasons: furniture is widely used for creating an atmosphere, alliances with furniture companies would be an important strategic consideration, embedded light could enable new business model opportunities, etc.
- **Light and fragrance** was a new use of light combined with a new sense (for a lighting company) in a new application area. This project was chosen from the understanding that the perception of any atmosphere is based on multi-sensorial experiences.

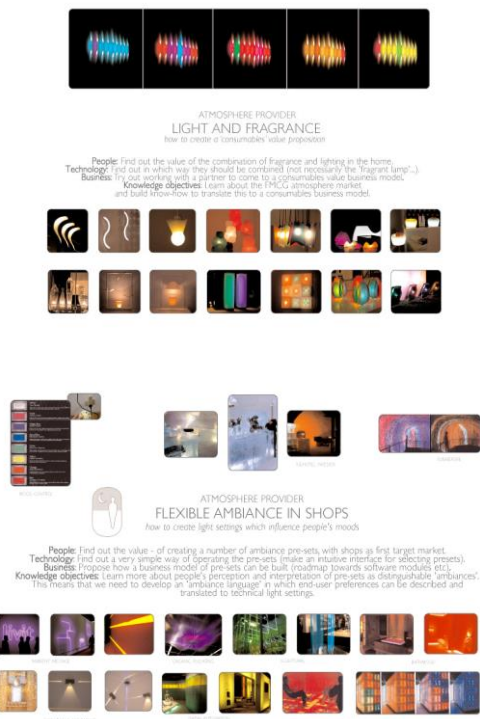


Figure 11: Visualizations of the three selected

### 3.2: Theme development → Atmosphere Provider Foundation documents

Three 'Foundation Documents' were published during the course of the Atmosphere Provider program. Their purpose was to create a shared global understanding of this emerging growth opportunity and to provide the frameworks and communication tools for people from different functions, locations and hierarchical levels to have consistent conversations on the same topic, beyond their personal interpretation of an abstract notion like Atmosphere Provider. Each document had a specific focus and was between 60-90 pages:

- **'Understand and Imagine Atmosphere'**, the first document, was people-centric. It decoded the meaning behind the word atmosphere, introduced a 'need-scape' framework for people's atmosphere needs and mapped these needs onto the market areas of home, workplace, commerce, outdoors with a view to identifying how willing people are to buy lighting solutions to fulfil their needs and how this willingness might change over ten years. This document also showed twenty one cutting-edge examples of where light was being used as a form of Atmosphere Provider.

*Figure 12: Covers of the Atmosphere Provider foundation ‘Talk Atmosphere’, the second document, was published in August 2004. While running the three projects it became evident that there was a language gap between the existing language for talking about lighting products and the anticipated language associated with Atmosphere Provider solutions. This newer language and tools for discussing the emotional and aesthetic qualities of light were uncovered by building on the projects’ experiences and by involving different atmosphere creation experts such as light designers, interior designers, cognitive psychologists etc. Next to this, ways were suggested on how to talk about these qualities with respect to atmosphere creation.*



*Figure 13: Covers of the Atmosphere Provider foundation*

- **‘Create and Build Atmosphere’**, the third document, was published in May 2005. It provided an insight into the different steps and process that people can take to enhance the atmosphere of their environments with light. Here the essence of the vision was formulated as *“Be enabled to be your own light designer”*. Next to this it introduced an overview of the future functionality of lighting solutions for atmosphere creation and the impact this would have on technology roadmaps and intellectual property.

Creating Foundation documents’ represented a key mechanism for capturing and making explicit what had been shared learning and experience – and also provided a way of communicating this to others. Writing the documents involved many different experts mainly from within Philips. Together this approach brought in many perspectives and built commitment (another lever for facilitating change). Almost two thousand booklets were distributed and went on to influence marketing strategies, sales training courses at the Lighting Academy, technology programs and innovation roadmaps. Writing the documents also brought another important benefit – it forced the AP core team of four to stay focused on the bigger picture of Atmosphere Provider as well as the new business creation projects. This provided a unique coherence because the shared overall vision was woven into the new business projects. This differs from some other change initiatives where the vision teams and new business teams are different groups of people.

Special attention was put to the graphical design and layout of the documents, since it needed to

- Radiate the spirit of the Atmosphere Provider theme

- 
- Provide a lot of deep knowledge in an easily absorbable way
  - Inspire and enable the reader to start to contribute to act upon the vision.

Significantly the original three documents are still in use by members of Philips Lighting, Philips Research and Philips Design.

### **3.3: Communication → metaphors, concept demonstrators, visualizations**

*“You don't see something until you have the right metaphor to let you perceive it.”*  
Thomas Kuhn

It is worth exploring in more detail the challenge of creating a shared language in communicating and shaping the Atmosphere Provider ideas. Atmosphere Provider started off being very ambiguous with fairly unknown applications, processes, skills and tools – and, not surprisingly, the existing ‘corporate mind’ did not understand what it was about (see figure 1). This led to early communication challenges - for example when talking about progress and next steps with senior management they came up with unrealistic targets and timelines. This was a ‘natural’ response – essentially monitoring and reviewing projects operated on an ‘unconscious’ level, shaped by the implicit – over decades built - knowledge of the corporate culture. Inevitably this led to some misunderstandings and tensions.

#### **Metaphors**

In order to make the difference between the two worlds explicit, the following “truck – jungle” metaphor envisaging the difference between an “operational excellence” way of working and a “radical innovation” mindset was introduced in one of the first senior management meetings of 2004.

This was a very important step to reassure confidence and keep the space for further exploration. The metaphor resonated with senior management and they were open to the new insights that would come from exploring the Atmosphere Provider theme. This metaphor was also regularly used by different people to help bridge both worlds.



## How to manage both cultures under one roof?



It's about **Efficiency Increase**  
It's about **Optimization**  
It's about **Control**

It's about **DISCOVERY**  
It's about **ADAPTABILITY**  
It's about **TRUST**



*Figure 14: 'Truck – Jungle metaphor'*

## Concept demonstrators

A new vision can invoke mixed reactions – some people's response when seeing the new prototypes was "where are the light bulbs" – the 'known' business frame. So concept demonstrators and good timing also play a very important communication role. In the steering committee meeting with in early 2004, the demonstrator for the Flexible Ambience in Shops projects was available for senior management to see, experience, and play with – the 'seeing is believing' effect. The prototypes challenged a deep Philips Lighting belief that they were in the business of making and selling light bulbs and other lighting related hardware. From that day onwards the project team provided a short introductory talk before showing the Atmosphere Provider concepts, it managed expectations and helped people shift from a 'light-bulb mindset' towards something very new to the mainstream organization: putting the people in the centre of the story by talking about light effects and the impact of light effects on human wellbeing. This strengthened their understanding of the Atmosphere Provider theme and what the team were working on.



*Figure 15: Flexible Ambience in Shops*

Soon, the demonstrator was also used by mainstream business as special ‘outlook into the future’ for preferred customers. In the coming years hundreds of Philips colleagues and customers saw the demonstrators and this helped evangelize the Atmosphere Provider story and build commitment throughout many parts of the company.

## Visualizations

Visualizations played an important role to enable the communication about the new innovation approach. It proved useful to build on known tools and expand them towards new usage areas like done here with the “market theme maturity graph (bar)” derived from the well known and broadly used “technology maturity graph”.

### PHILIPS

Market themes in Lighting (in 2003)

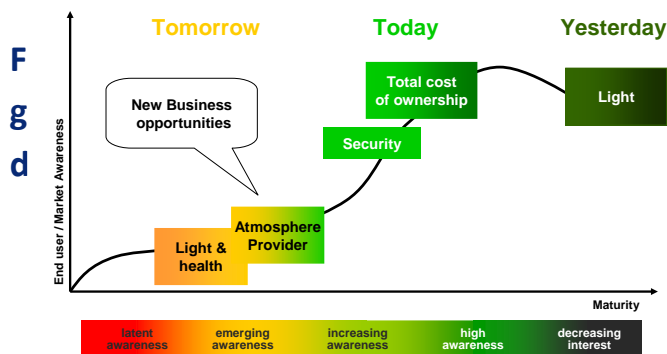


Figure 16: Market maturity graph

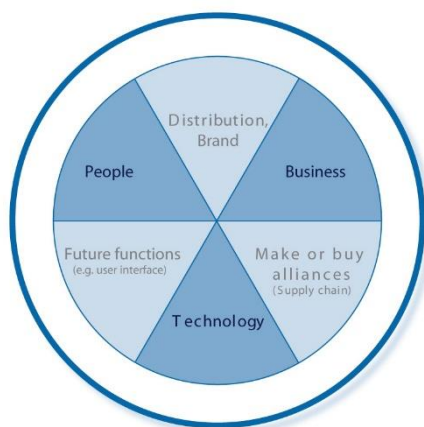


Figure 17: integral innovation circle'

- People needs (P) → insights
- Technology (T) → enablers
- Business (B) → applications, market segments, distribution channels, competition;

Strategic & converging decisions taken in intersecting areas:

- P/T → functionalities
- T/B → sourcing
- B/P → positioning & distribution.

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### **3.5: Team → diversity, management of expectations & consistency, coaching team**

Since finally all change and innovation is carried forward by people, special attention was put on team building, inclusion of as much diversity as possible and open and trustful cooperation between different functions and hierarchical levels. Building momentum was a key requirement for spreading the vision and engaging a growing circle of players outside the core team. The ‘ripple’ model was crucial to building momentum and ensuring that the radical project started to become embedded within the mainstream of the business.

#### **Diversity**

The risk in a renewed effort for vision-building is that the new vision is too easy a replication of the previous version. To avoid easy replication and to draw on explorations already going on elsewhere in the organization, efforts were made to recruit and maintain diversity across the growing teams involved in the process. As there were only very few members, it was even more important to ensure they differed in their perspective. A role in the selection was also played by an element of seeking out ‘internal entrepreneurs’ – people with the willingness to explore openly and take risks.

An important element in choosing candidates for the Atmosphere Provider (AP) team was their openness to learn, their pioneering attitude. Candidates were explicitly asked if they were able to cope with risks, what drove them in their lives, and how important a ‘quick & straight career path’ was to them. It was made explicit from the very start that this was an “out of the box” assignment.

As the projects gathered momentum, this diversity became a source of ‘creative conflict’. For example, during the first ‘Think the Lighting Future’ workshop it became clear that there was growing competition around which group represented the ‘most creative’ within the organization. This issue was explored openly in one of the plenary sessions. Fortunately the overall atmosphere during the workshop was so future oriented and optimistic, that the group could grow beyond this dissonance and start to appreciate each other for their complementarities. This was an important prerequisite for co-creating business idea seeds in the second workshop – it helped bring the groups out of their dominant ‘design’ or ‘technology’ orientation and generate concepts (‘business ideas’) which built *across* their functional areas. The sequencing of the workshops with a four week gap between them helped separate out early information sharing across these diverse groups and the later shared idea generation around new business possibilities.

#### **Management of expectations & consistency**

Facilitating the (highly experimental) TTLF project was accompanied by some challenges:

- Managing expectations: both the decision team and the workshop participants came with very diverse backgrounds, personal and professional experiences and expectations. It was therefore very important to clearly explain what would be the tasks and which result could be expected. Working with metaphors helped, as did introducing visualizations and re-using them consistently though out the whole process. It was also helpful that both the workshops and the board presentations radiated by their set-up and execution that something different was going on.

- 
- Development and use of appropriate language: the multi-disciplinarity of the workshop team required a conscious choice of language. Additionally the Board presentation radiated the “newness of the approach” by their conventional formats.
  - Encouraging and enabling reflection as the key to understanding, navigating, adjusting, communicating and managing expectations. This also provided the starting point for the identification of appropriate metaphors.

During later stages it became important to maintain enough core capacity and understanding to provide the nucleus around which the project could grow – even during periods when corporate attention was diverted elsewhere. During the six months ‘incubation time’ between exploratory work (TTLF) and the Atmosphere Provider program it was critical that two members of the TTLF project continued to work on Atmosphere Provider, the TTLF project manager who became the AP program manager and a core team member, who became responsible for one of the new business creation projects. These two safeguarded the smooth transfer of the vision and both visible and invisible knowledge about the theme and cooperation spirit established during the TTLF project. It was also during this period that the Atmosphere Provider theme became more deeply rooted in a network of around 10 colleagues at different levels and functions of the organization. In many conversations the “quality” of the innovation challenge ahead was discussed, the need for a different “culture” made explicit, and a shared intention/ passion grew to make it happen...

### **Coaching team**

Another core theme was the challenge to appropriately communicate with senior management, thus maintaining their interest and support and to engage with them as partners rather than simply sponsors. For example in the early TTLF work conversations were structured around an underlying metaphor of the captain of a big tanker meeting the captain of a speed boat sharing the responsibility for the company’s future in an interdependent way with very different, yet complementary skills, resources and approaches. This shared responsibility was made explicit by signing the project start up document at the beginning of the project.

Steering committee meetings were about maintaining and nurturing the confidence into the future and providing a learning opportunity of senior management to understand the characteristics of the emerging radical innovation beyond incremental innovation and operational excellence. A key model of value was that of a ‘coaching team’ developed in TTLF and deployed again in Atmosphere Provider. In this the core project team met regularly with senior executives; initially this was about knowledge sharing, discussing progress, building trust. But experience in TTLF suggested that this group could also provide a valuable bridge to senior management elsewhere in Philips – for example, playing a ‘translator’ role, helping the AP team to prepare for the senior management meetings and then to ‘decode’ these meetings afterwards. This was critical to manage expectations.

Later – when the Atmosphere Provider projects entered the phase of being transferred to a mainstream business - the coaching team role developed further to a project “godfather role”. Godfathers were those managers who would most likely incorporate the projects into their business portfolio.

This approach had the double advantage:

- 
- The 'godfather' had the opportunity to become familiar with the new business for his organisation
  - The Project manager was helped to understand how to prepare for successful transfer

## 4: Outcome

So was it worth it? How much changed as a result of the growing momentum behind radical change initiatives? Is innovation in the Lighting Division today significantly different from 2001 when the journey began? We can answer that in a number of ways.

Lighting remains one of the core strengths within Philips. The journey towards a new approach began back in the end of 2000 and has resulted in a quite some shift in the business. The here described envisioning project (TTLF) and 'Atmosphere Provider'-program are successful examples of a variety of activities that were executed to rejuvenate the Lighting business in the early 2000's. Currently one of the strategic directions of Philips Lighting is 'scene setting', a more concrete formulation of 'atmosphere provider'.

Within Philips, Lighting has once again strengthened its significance as one of the legs on which the future of the overall corporation stands (the others being Consumer Lifestyle and Healthcare). Within Philips Lighting, there has been an expansion in its range of activities with the setting up of several new divisions to take advantage of opportunities. Within these divisions a wide range of new products are emerging. The seeds for current Philips flagship products like 'Ambi-Light TV' and 'Living colours' were developed in the course of the radical innovation journey described here.

2002	2009
<i>Lamps</i>	<b>Lamps</b>
<i>Luminaires</i>	<b>Professional luminaires and systems</b>
	<b>Consumer luminaires and systems</b>
<i>Lighting electronics</i>	<b>Lighting electronics and controls</b>
<i>Automotive and special lighting applications</i>	<b>Automotive and special lighting applications</b>
	<b>Solid state lighting components and modules</b>

Along the way considerable learning has taken place. The original pilot projects explored areas like dynamic lighting in retailing, lighting embedded in furniture, links of lighting to other senses such as smell. Not all of these have moved into full-scale development, but the process of carrying them out has helped explore the space within which lighting as atmosphere provider might create. These projects acted as seeds, providing further input to R&D, design, market research and beyond.

The process also provided valuable integrating mechanisms, drawing together different groups from across Philips – in fields like technology development, R&D, design and marketing – and focusing their experience and interest on some core projects. These experimental and prototype ideas provided 'boundary objects' which focused widely differing views and ideas and laid new pathways for future co-operation. In this sense there was an element of 'rewiring' the corporate brain to work with new concepts – essentially the principle underlying Henderson and Clark's work on 'architectural' innovation.



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## 5.0: Key lessons for innovation management

In paragraph 2 the chronology of events in Philips Lighting was detailed. In the 3<sup>rd</sup> paragraph more attention was paid to specific ways of working, tools and teams. Clearly, radical change not only involves the stages of formal projects and development programs. Those explicit elements are surrounded by a complex ‘invisible architecture’, composed of structures and processes designed to deal with the anxieties, aspirations, conflicts, and other emotional elements which inevitably emerge during radical and risky change. What can be learned from exploring the contours of this ‘invisible architecture’ during its innovation journey at Philips Lighting?

**5.1: Think big! En-VISION the future** – what emerged from the ‘5 minutes silence’ was an awareness of the lack of a compelling vision for radical alternatives to provide the growth the company needed. Creating, exploring and building such a vision then became the key task in the early projects which the Chief Technology Officer piloted and the CEO commissioned – essentially finding a target towards which a growing number of people could focus their innovation ideas and their creative energies. ‘Imagining the future’ and ‘translating it into actionable opportunities’ is an explicit skill with specific terminology. ‘Big business’ potential is captured by innovation themes that are materialized in clusters of (cross BG) product families – not in incremental products innovations.

**5.2: Coaching team** – involving senior management in informal coaching sessions with the core teams of both TTLF and the Atmosphere Provider program was important as was the creation of their ‘godfather’ roles when the New Business Creation projects matured to become transferred to mainstream organisations. The coaching team built a credible bridge to their colleagues in senior management, thus playing a crucial role in supporting to create the space for a high risk activity within which ideas can incubate and be explored. They also helped to manage their senior management expectations, expand mental models and increase their degree of understanding the characteristics of the chosen radical innovation path.

**5.3: It can start with an incident, yet is a long journey** – just like human beings it is rare that people change their minds in a flash. Change is challenging and often seen as threatening so bringing people along at a pace which allows them to let go of old (and reliable) ways of framing the world and take on a new vision needs to be seen as a learning process. Managing radical innovation as a phased journey – and using a map of the phases to guide the process – is critical.

**5.4: The dialog between intuition and facts** – intuition played an important role on the journey that followed the 5 minutes silence; especially throughout the TTLF and AP programs. In personal and group reflections an explicit dialog was established that created the awareness that both are important compasses towards right decisions. Regular team-days were common for the TTLF and AP core teams – giving the opportunity to reflect, validate with facts and then tune in to the current and next steps.

**5.5: Building momentum means building community** – the process of persuasion, of bringing others on board and building momentum is not simply a matter of presenting a more compelling business case. It involves recognising that there is a strong emotional dimension – people have commitments to the old models, may feel (justifiably) anxious about the uncertain new model, especially since by its nature it is tricky and uncertain. Letting go requires both a compelling vision towards which people can focus their emotional energies and some reasoned case for making the move. Early on in the process

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the information available about markets, technologies, competitors, etc. will be very limited and so the need for emotional support (energy around a vision, passion and enthusiasm for the new) has to be emphasised; as more is learned (via prototypes, test marketing, etc,) so the business case can take shape and reinforce the commitment to the new model.

It involves building and expanding a community of people who believe in the new idea and can then share it with others – essentially following an ‘epidemic’ model. In the early stages the core team require a high degree of flexibility – the ability to explore, try out and let go of new concepts as they emerge. Gradually this will take shape – via a common language and vision – into a core concept which can be taken to the wider organization. But it is also important to ensure that – whilst the group needs a degree of autonomy early on in the process – there is provision for re-integrating that team back into the mainstream of the organization.

Working in integral projects first creates language tensions, later enables quick decision making, as all necessary perspectives are represented. Next to this they can provide the “organizational elasticity” for achieving results in risky and dynamic contexts.

**5.6: The pioneer dilemma** – if you talk about something new in the old language you lose its essence, if you describe the new with a new language, nobody understands what you want to say ... The core group needs a common vision and language – the case shows the key role images and metaphors played in helping define and shape the vision, especially at early stages. As ‘tangible’ results are achieved, metaphors become useful to explain what the radical innovation team are doing – they become a strategic tool helping to:

- create a dialogue between the different working styles
- frame the demonstrators
- manage expectations

Boundary objects help engage others in shaping the future vision – and in bridging between their world and the new one. Making the vision real through physical prototypes – provides experience and validation, seeing and feeling is believing. At the same time capturing and articulating what is being learned and sharing this – via the ‘Foundation Documents’ – helped cement the new thinking in people’s minds.