

**Building** sustainable  
innovation ecosystems

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Ambition setting

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Vision development

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Roadmapping

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Project portfolio

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... VISIONS & **ROADMAPS**

## Developing a shared strategy

Nowadays innovation is no longer an activity that takes place in closed research departments of companies. More and more companies are embarking on 'open innovation', in close collaboration with other companies.

**More recently there is another trend: innovation driven from societal needs.**

The aim is to use technology to develop meaningful solutions that contribute to quality of life. Such innovations require collaboration between various parties: public and private, large and small, for-profit and non-profit organisations and even end-users or citizens. To be successful in the longer term it is important that the different parties share a vision of the desired future scenario to enable a sustainable collaboration in the realisation of the strategy.

**LightHouse has developed an approach to develop a shared strategy. The approach focuses on the creation of a shared vision and roadmap to initiate joint activities to spur development and implementation of innovative solutions.**

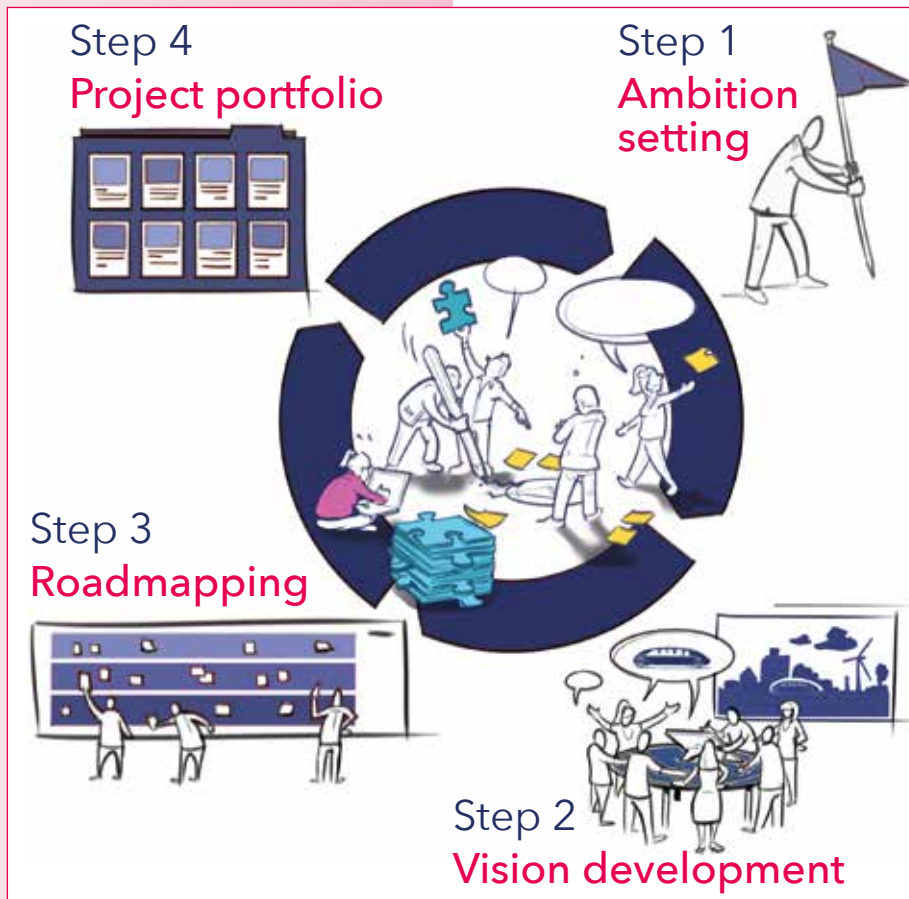
## A four step process is applied:

- 1 ■ The first step sets the ambitions for the project. The ambitions of the participating parties are identified and shared. Activities in these steps involve interviews as well as workshops to develop a mutual understanding of the different ambitions of the involved parties.
- 2 ■ The second step is to develop desired scenarios for the future. In this step often the method Future Telling is applied to involve thought leaders from various perspectives (economic, social, technological, ecological, political) to obtain rich stories of possible futures. These stories are analysed to identify the drivers for change that will have the highest impact on the future. With these drivers for change and the stories a dedicated desired future scenario for the project is developed in co-creation with the various parties. A visualisation and rich description helps to clarify the desired future scenario, also for parties that join the project later on.
- 3 ■ During the third step the roadmap is created, existing and future technologies and other developments will be identified, which enable the realisation of the desired future scenarios. Opportunities and developments will be plotted on a time-line to provide insight in the required steps and milestones towards the favoured scenarios. This step involves various interviews with businesses and other organisations of different related domains to gain a broad understanding of relevant technologies that are available already and are expected to become available in the future. The resulting roadmaps often contain technologies, as well as required organisational developments that are needed to realise the desired future scenario.
- 4 ■ During the final and fourth step a project portfolio is generated with new projects and initiatives to reach the ambitions, visions and roadmaps. This portfolio provides an overview of individual and joint projects and includes a discussion on the realisation of an innovation.

Although the approach has proven to be applicable in a wide range of projects, a dedicated process is designed for each project: taking into account the number of stakeholders to be involved, their preferred way of involvement, required planning, available budget and complexity of the context.

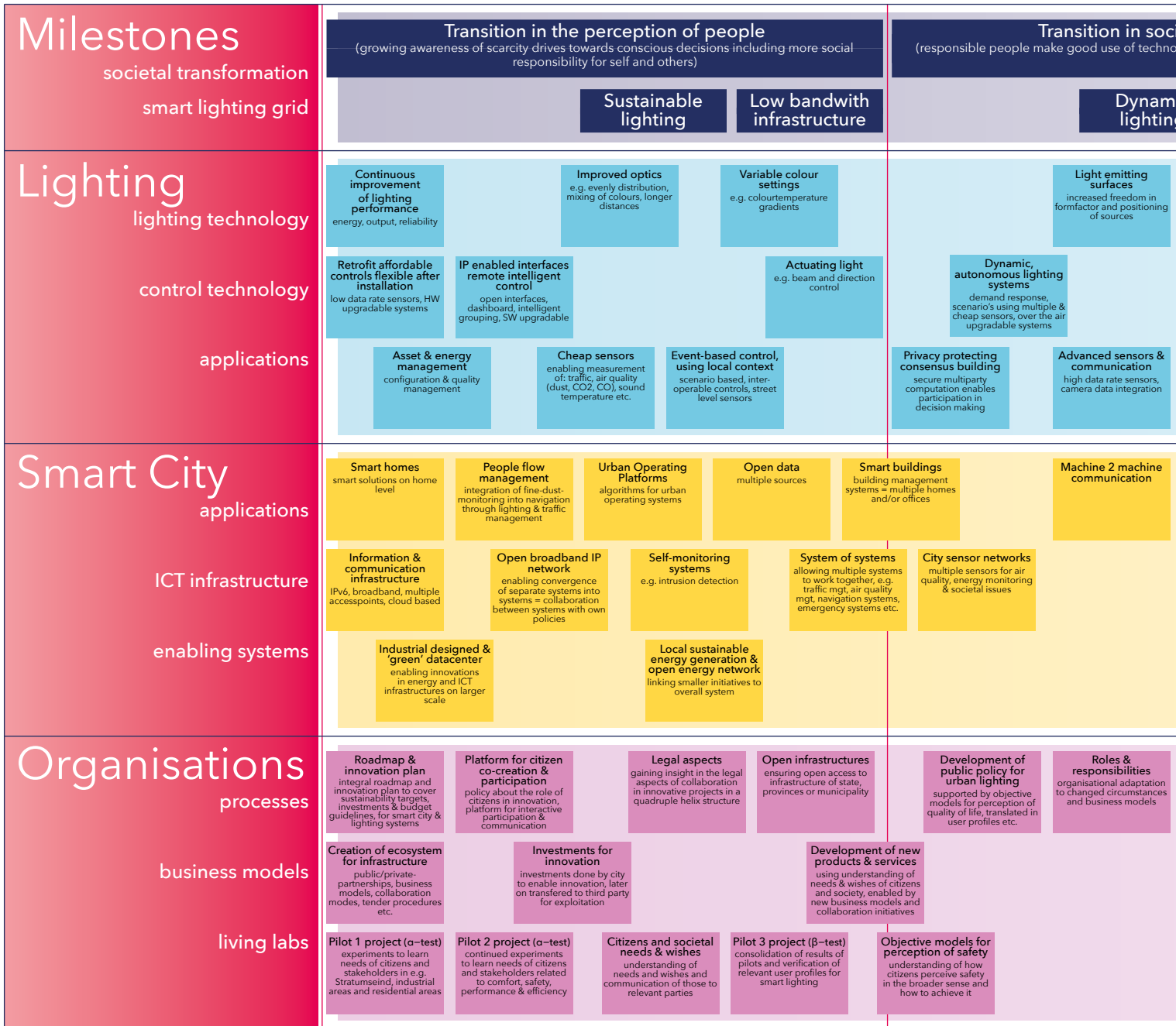
LightHouse designs an inclusive approach to engage key stakeholders, such as companies, citizens, public and private organisations and knowledge institutes, in co-creating a clear and well thought through implementation plan. In this approach, a stronger commitment is built through the joint effort for the actual implementation.

LightHouse practices a designerly approach, including a visual way of thinking and doing. A visual language is used to easily connect people with widely differing expertises, enabling them to create a mutual language, to share their main insights, and to inspire them to explore further than they first imagined.



**... PATHS TO THE FUTURE**

# Roadmap Eindhoven 2030



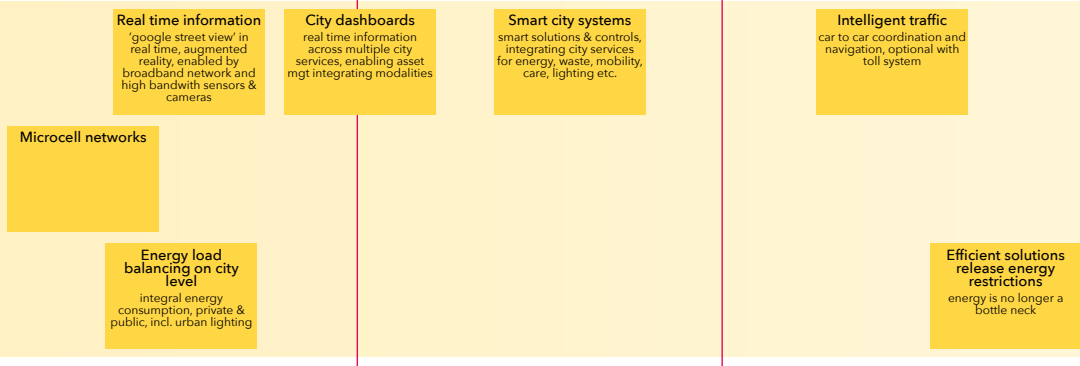
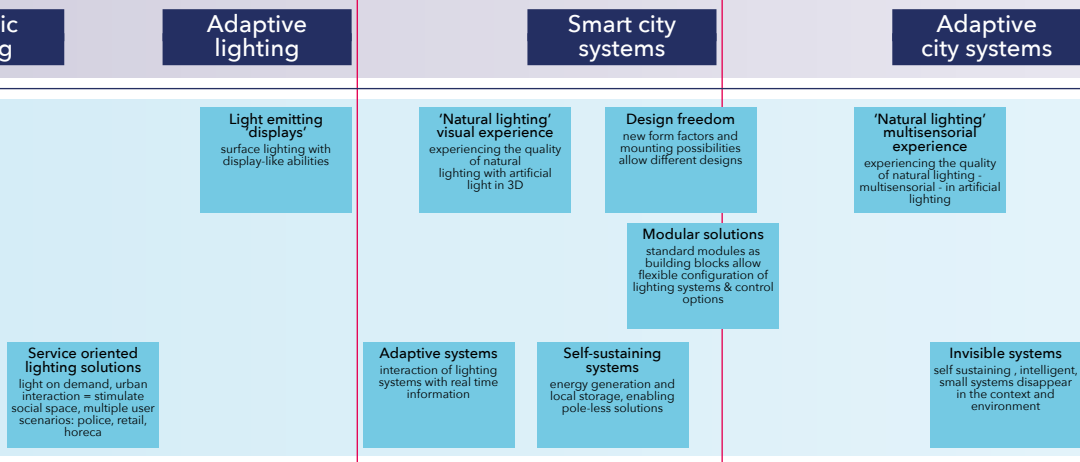
2012

2015

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 ology to create new meaningful connections)

**Transition in social innovation**  
 (entrepreneurial people and cities co-innovate towards valuable solutions that contribute to a higher quality of life)

# Eindhoven in 2030



## Main values in Scenario 2030:

An omnipotent smart lighting grid will bring ICT (IP), energy and lighting together. This facilitates new possibilities (and new design possibilities) for the social urban space.

- The municipality:**
- provides the smart lighting grid as a public utility, including:
    - lighting in the broadest sense; from functional lighting to multimedia (art) projections
    - safety in the broadest sense; including social safety, traffic systems and air quality
  - is responsible as 'provider' and guards the public interest
  - develops stepwise and sustainable
  - strives to change the perception of the public space; as living space rather than transit space

- Safeguards for citizens:**
- that they will always have a say in their own public space
  - that they will be involved in the implementation in their neighborhood, also as co-creator of their environment
  - that the basic provision is free for all, and optional extra's at a fee

- Setting up processes to:**
- guard the public interest: organising roles, responsibilities, involvement of citizens, signaling unforeseen effects etc.
  - opening the grid for all kinds of initiatives (from citizens or commercial parties): to ensure continuous development in and by the quadruple helix
  - allow room for experiments, by enabling (temporary) living labs to co-create and test solutions with various partners



2020

2020

2030

Lighthouse was founded to make the knowledge of Eindhoven University of Technology (TU/e) about intelligent lighting and smart cities accessible to society at large.

LightHouse maintains close links to the research programmes into urban lighting and smart cities. LightHouse works closely together with the TU/e strategic areas of Mobility and Energy, and the research programmes of the Intelligent Lighting Institute (ILI), the Data Science Centre Eindhoven (DSC/e) and the Smart City Program Eindhoven (SCP/e). LightHouse operates knowledge-intensive projects based on people's wishes or requests from the community and organisations. This work forms part of the valorisation activities of the TU/e Innovation Lab.

We make use of the knowledge, methods and designs of the various departments of the university in practical applications. In this way we create liveable, sustainable solutions in the areas of public lighting and smart city solutions.

We co-create solutions together with cities, multinationals, SMEs and start-ups. We add value to TU/e by inspiring its new research and teaching programmes with best practices and societal trends.

## Projects

- Vision & roadmap urban lighting Eindhoven 2030
- Vision & roadmap energy-neutral Eindhoven 2045.
- Vision & roadmap healthy urban living, with Breda, Eindhoven, Helmond, 's-Hertogenbosch, Tilburg
- R4E - Roadmaps for Energy, with Eindhoven, Forli, Istanbul, Newcastle, Murcia, Palermo, Sant-Cugat and Tallinn.
- Smart Urban Mobility for The Dutch Ministry of Infrastructure and Water Management.
- UNaLab for climate and water resilient cities, with Stavanger, Cannes, Castellon, Basaksehir and Prague.

For more information, please visit:  
**[www.tue-lighthouse.nl](http://www.tue-lighthouse.nl)**



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