Project Plan

Urban Nodes & Places

In the near future, mobility will radically change.
The impact on the public domain will be enormous.
In a series of international Winter and Summer Schools,
we will explore, in Asian and European cities, how we
need to adapt our urban nodes to the new forms of mobility.

In these Winter and Summer Schools we will bring together
Design Firms, Universities and Cities from Asia and Europe.
During these events we aim to show the value of an integrated
design approach.

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1. Summary

Technological, economical and social changes in the (near) future will cause a radical transformation of mobility. It will create new systems of mobility, that will lead to new patterns of everyday life and changes in our environment. How this will impact our public domain and our public health is not something with a given outcome. Cities can influence its outcome.

This project will focus on regional public transport networks and the urban nodes that belong to it. The project will focus on the quality of the public domain in and around the urban nodes of the future.

New technological innovations create many opportunities to improve mobility, the quality of the public domain (of urban nodes and elsewhere) and of the environment in general. However, if regions and cities want to use their full potential they need to be aware of both the need for public intervention and the need for an integrated planning and design approach.

Only local governments can safeguard the public character and spatial quality of the urban nodes. Knowing what needs to be done, requires exploration and discussion. Design, knowledge and experimentation are three necessary steps to develop new solutions. We believe that our Dutch expertise in designing mobility nodes can greatly contribute to this international urban challenge.

This project intends to bring together designers, city officials and mobility experts from European and Asian backgrounds as well master students in Architecture and Urban Design from Asian and European universities in a unique mixed workshop setting. The aim is to work in a series of international workshops in Asian and European cities. The recurring mutual visits will foster trust, a reflective approach and in depth discussions.

At each of the workshops the international teams will work on concrete assignments presented by the local government. The first of this series took place in Chungju and Seoul (South Korea) from August 11 until August 16, 2017. The ambition is that the recurrent workshops will lead to a structural collaboration between the design offices, mobility expert, cities and universities.

2. Theme and relevance

2.1 Theme

The future of urban nodes and regional public transport systems

On-going urbanization and growing mobility is increasing the pressure on mobility networks and nodes in regions and cities around the world. In the past decades, both in Europe and Asia, we have witnessed large investments in public transport infrastructure. Networks, especially for long distance, high-speed trains, have been expanded, new stations have been built and existing stations have been renewed.

In many cases networks, stations and surrounding areas have been developed in an integral way. The development of station areas has proven to be a delicate task. Within station areas many interests and dimensions come together. To create a well-designed urban node requires both design expertise and a thorough knowledge of transformation processes.

The Netherlands is a case in point. In the past two decades it has invested in the renewal of a number of station areas through the so-called national key projects program (*Sleutelprojecten*). Many of these projects are exemplary for the Dutch tradition of integrating planning, urban design as well as architectural design. In these projects a lot of attention has been paid to the connection of the urban nodes to the city, the programming and routing of these nodes, the design of the public domain and the architectural design.

In the future more investments in public transport networks and urban nodes will be necessary to meet rising demand and policy goals on sustainable development. Both in Europe and in Asia governments are generally aiming to move forward with the development of a public infrastructure network. This project aims to share the specific expertise and experience of the integrated Dutch planning and design tradition with respect to transport networks and urban nodes with international partners in Europe and Asia.

However, the aim of this project is not only to share Dutch expertise but to learn from each other and share experiences with respect to the development of mobility networks and nodes. We expect to learn from the various European and Asian practises, e.g.: Japanese and South-Korean governments and companies are often quicker to use new technologies and integrate these technologies in existing systems.

This project will primarily focus on the development of regional public transport systems. After three decades of development of (inter-)national public transport networks national, regional and city governments are increasingly focusing on the development of a high quality regional transport network. The development of (inter-) national (high-speed) public transport networks is by all means not a finished job. But one of the most important factors in the future of cities will be the quality of the regional transport system and, as an integral part of that, the quality of its urban nodes.

2.2 Relevance

A critical assessment of the future of urban nodes

Technological, economical and social changes in the (near) future will cause a radical transformation of mobility (see below). This will fundamentally change the way cities are used and experienced. Many experts point at the promising positive environmental impact for cities: cleaner air, less noise and perhaps less space taken up by cars. And there will be the positive impact on our everyday schedules: the time we use to move around is no longer lost, it will be spent leisurely (while cycling) or as work time (in a driverless car).

However, technological and socio-economical changes will not necessarily relieve the pressure from networks and urban nodes. On the contrary, they might actually encourage the growth of mobility. And if the trend of the past decades continues it will accelerate the development of urban nodes into full-blown urban (sub-) centres with a high density and a variety of functions (retail, leisure, office and even residential). The nodes of the new mobility systems will be increasingly the meeting places of the city.

Whether this will mean that our future mobility nodes can avoid the fate that Marc Augé described, that of the *non-place,* for the 20th century mobility nodes and can become true public domains, accessible and open for everyone, remains an open question. This is one of the critical questions for cities of the 21st century. New technological innovations will create new systems of mobility, that will lead to new patterns of everyday life. How this will effect our public domain is not something with a given outcome. Cities can influence its outcome.

Technological innovations and social-economic developments will create many opportunities to improve mobility and the quality of the public domain. But cities have to be aware that the old and new players in the market of mobility, the internationally operating companies such as Uber, Tesla, Google, BMW, often seek to dominate the mobility systems and as a consequence the public domain.

Only local governments can safeguard the public character and spatial quality of the urban nodes. If regions and cities want to use their full potential –and creative destruction might be a part of that- they need to be aware of both the need for public intervention and the need for an integral planning and design approach.

The direction of the development of mobility systems is unknown and nobody can entirely predict the impact on the public domain. We therefore think it is important not to limit the discussion to one case or one region as we risk to be blinded by local peculiarities and circumstances. As the dual development of mobility and public domain is at the same time driven by international (generic) developments and by specific (contextual) circumstances we can only understand this properly by comparing cases and developments in an international setting.

2.3 Background

Changing regional mobility systems

Today, regional public transport systems in most developed cities are dominated by light-rail or metro and regional bus lines. These transport systems are generally operated by (semi) public organisations that use relatively big vehicles that make use of rigid, hierarchically organized infrastructure networks (organised around one central core) and run on fixed time schedules.

This system will be challenged by a number of parallel fundamental transitions that are currently taking place. In short, we can expect a number of transitions:

- from combustion (fuel) to electric (battery) driven propulsion;
- from manual to automatic driving;
- from pre-scheduled (fixed time-tables) to interactive systems;
- from a preference for individual owned vehicles to a preference for mobility as a service;
- from heavy and all purpose vehicles (family cars) to light and specific vehicles (e.g. all kinds of electric bikes);
- from publicly owned and/or regulated transport systems to hybrid transport systems (mixed public, collective, and private ownership);
- from hierarchical, centrally managed systems (with one central core) to multimodal, non-hierarchical systems.

If the outcome and timing of any these single trends is difficult to predict, the combined impact of all these unpredictable developments is even harder to predict. Still, architects and designers need to think about the possible consequences of these development for the public domain and explore potential future urban nodes.

3. Project description

3.1 General structure

This project is part of a scheduled series of events organised in collaboration with a network of Asian and an European universities and offices. The collaboration started with an initiative by the Korean National University of Transport (KNUT) in Chungju. The collaboration builds on existing contacts of the lead partners. Benthem Crouwel Architects has visited South-Korea in August 2017 to give a lecture and take part in a jury. The City of Eindhoven visited South-Korea with a delegation in March 2017. The University of Eindhoven, Faculty of the Built Environment will participate in the Design Summer School & International Seminar in Chungju and Seoul organised by the KNUT in August 2017.

The KNUT is interested in extending the Summer School to a series of events focusing on the future of mobility and urban nodes. Their extensive network within the transport sector in South-Korea and other Asian countries is an interesting opportunity for Dutch design offices and the University of Eindhoven. The KNUT is interested in learning from the Dutch design tradition in mobility projects and in connecting the network of Asian cities, experts and universities with a network of European universities.

The aim is to organise a series of recurrent workshops and international seminars taking place in summer and winter for professional designers (architects and urban designers), mobility experts and city officials from both Asian and European backgrounds. Each participating country

will assemble a team with mixed professional backgrounds complemented with master students in architecture and urbanism. The present request for a grant by the Creative Industries Fund is intended to finance the second event, a Winter School and the costs for the preparation of the third event, a Summer School.

3.2 1st Urban Nodes & Places Event
Design Summer School & International Seminar in Chung-ju and Seoul

The first event is organised and funded by the KNUT and took place from August 11 until 16, 2017. The other participating universities are: Saga University, Japan, Thammassat University, Thailand, Chiang Mai University, Thailand, KazGASA University Kazakhstan and Eindhoven University of Technology. The workshop will focus on three sites in Chungju. The city of Chungju is a mid-size town south of Seoul. Theme of the workshop is smart mobility, the development of urban nodes (TOD) and the spatial quality of these nodes. The workshop targets three urban nodes in Chungju.

Before and after the workshop in Chungju the Dutch team, lead by Wouter Hilhorst and Marcel Musch will work on a research of the urban nodes in Seoul in collaboration with the KNUT. The research will follow the format of a research about urban nodes in Tokyo that has been carried out by the University of Eindhoven in 2014. The result of the research about the urban nodes in Seoul and Tokyo will be presented in an exhibition that will be shown at the 2nd Urban Nodes & Places event in the winter of 2018.

3.3 2nd Urban Nodes & Places Event
Design Winter School & International Seminar (Waalre, Eindhoven and Valkenswaard)

In the winter of 2018 the lead partners will organise the 2nd Urban Nodes & Places event.
The sites for the workshop will be along a new regional public bus line (HOV line) that will lead through three municipalities: Waalre, Eindhoven and Valkenswaard. The development of this new regional public bus line will be a catalyst for developments around the new mobility nodes.

The municipality of Waalre for example has the ambition to use the development of the new regional public transport line as an opportunity to redevelop the centre of Waalre by diminishing car traffic through its main street. Also it is looking for the application of innovative mobility solutions to connect the Inhabitants of Waalre to the new public transport line (the so-called ‘last mile’). These interventions and other should lead to an improvement of the public health in Waalre. Eindhoven and Valkenswaard have similar plans and goals.

3.4 3rd Urban Nodes & Places Event
Design Summer Workshop & International Seminar (preliminary site: Saga, Japan)

In the summer of 2018 the aim is to co-organise a Summer School in Japan or Thailand. The university Chiang Mai (Thailand) and the Saga University (Japan) have both shown an interest to host the third event (or the fifth event in the summer of 2019). This Summer School will use the same format as the previous Winter- and Summer School.

4. Partners (who)

4.1 Lead partners

Benthem Crouwel Architects	Ir. Joost Vos (partner)
Municipalities of Waalre, Eindhoven, Valkenswaard	Toine Schoester
	Martin Verschuren
University of Eindhoven	Ir. Wouter Hilhorst
	Ir. Marcel Musch

4.2 Participating universities

University of Eindhoven

- Faculty of the Built Environment
  Chair of Rational Architecture (RA)
  Chair Urbanism & Urban Architecture (UUA)

The University of Eindhoven will support the event as an extra-curricular event open for interested Master students.

Asian universities*

- Korean National University (KNUT)
- Saga University, Japan
- Thammassat University, Thailand and Chiang Mai University Thailand

European universities*

- Aalto University, Finland (prospective partner)
- ENSA, Paris Malaquais, France (prospective partner)
- Roma Tre, Italy (prospective partner)
- Technische Universität Munich, Germany (prospective partner)
- ETH Zürich, Switzerland (prospective partner)

* Of these 8 (prospective) universities we intend to select 6 participating universities. Each of the participating universities will compose a team consisting of 6 students, 2 university staff members, 2 city representatives, 2 experts (designers or mobility experts).

4.3 Government

Local government

- Municipality of Waalre
- Municipality of Eindhoven
- Municipality of Valkenswaard

The municipalities of Waalre, Eindhoven and Valkenswaard have offered to host and financially support the event. Waalre will act as the coordinating partner for the municipalities. The alderman for Economy, Environment, Housing, Infrastructure and Municipal Property and the alderman for Sustainability, Social Affairs and Public Works of the municipality of Waalre and the

alderman for Mobility, Environment, Housing, Maintenance and Public Space of the municipality of Valkenswaard, the alderman of Innovation, Culture, Design and Sustainability of the city of Eindhoven has endorsed the intensification of the collaboration with our South-Korean partners. They will be the responsible local government executives.

Regional government

In the Netherlands the following regional partners will be involved:

- Provincie Noord-Brabant

Regional and national partners in the other participating countries will be contacted in the following months.

4.4 Professional NGO's

The Korea Rail Architecture and Technology Association has offered to link their annual competition, the Korea Railway Architecture Awards to the event in Waalre/Eindhoven/Valkenswaard (see: www.kraacompetition.com). (The association is supported by the Korea Ministry of Land and Transport, Korea Rail Corporation and the Rail Network Authority.)

5. Project aim

The main aim of the project is to raise awareness of the impact technological innovations (automatic driving, new business models and organisational concepts et cetera) and social trends will have on the public domain and the city as a whole. The project wants to show the value of the Dutch integrated approach for this challenge and discuss its usefulness in an international context.

The integrated approach is, first of all, an approach in which the different scales, planning, urban design and architecture, are related to each other. Secondly, it is an approach in which different experts and stakeholders have the opportunity to influence the result. Thirdly it increasingly includes the collaboration between governments, private parties and knowledge institutions, the so-called triple helix. And fourthly, the integrated approach is more and more understood as a process in which new solutions are tested while they are being developed, in close collaboration with stakeholders and users, the so called living labs. In all of the four dimensions, designers and design thinking can play an important, connecting and explorative, role.

The integrated approach is an approach that fosters goals that go beyond sectorial goals. Ultimately the intervention in mobility and the transformation of the centres should lead to an improvement of the quality of life and of public health (or: healthy urbanization).

Showing the experience and creativity of Dutch design in these processes strengthens the international position of the industry. Also, taking up these roles enlarges the working area of designers. Finally, the project is designed to foster sustainable relations between the partners.

6. Focus group

The project is aimed at the following focus groups:

- Asian and European cities
- Stakeholders in mobility development
- Mobility specialists and urban and architectural designers
- Asian and European universities (staff and students)

The focus group is intentionally rather large. We believe in fostering exchange between these groups and believe that design and knowledge exchange can stimulate new solutions.
The events are not part of their curriculum and will take place in the summer- or winter breaks.

7. Financial contribution

The total costs for the organisation of the Winter School in 2018 and the participation of the Dutch team in the Summer School in 2018 will amount to 125 K €. The two events are thematically and financially linked as the international partners of the collaboration have agreed to cover most of the costs of the event in their own country. In return the organising countries will be invited to the other events. See for an overview of the costs the appendix.

The lead partners in this project will contribute their time in kind to the project. A maximum of half of the travel and accommodation costs will be carried by the international teams themselves. Also, a large part of the additional costs will be carried in kind by the lead partners. Furthermore most of the cost to prepare the content of the Winter and Summer Schools will be carried by the lead partners. In total 60 K € will be covered by the in kind contribution of the lead partners and the contribution of the participating teams (52%).

The participation of international teams requires funding to pay for the remaining costs for travel and accommodation. Also the costs for the (logistic) preparation of the Winter and Summer Schools needs funding.

The lead partners will support the event with 60 K € in cash (48%).