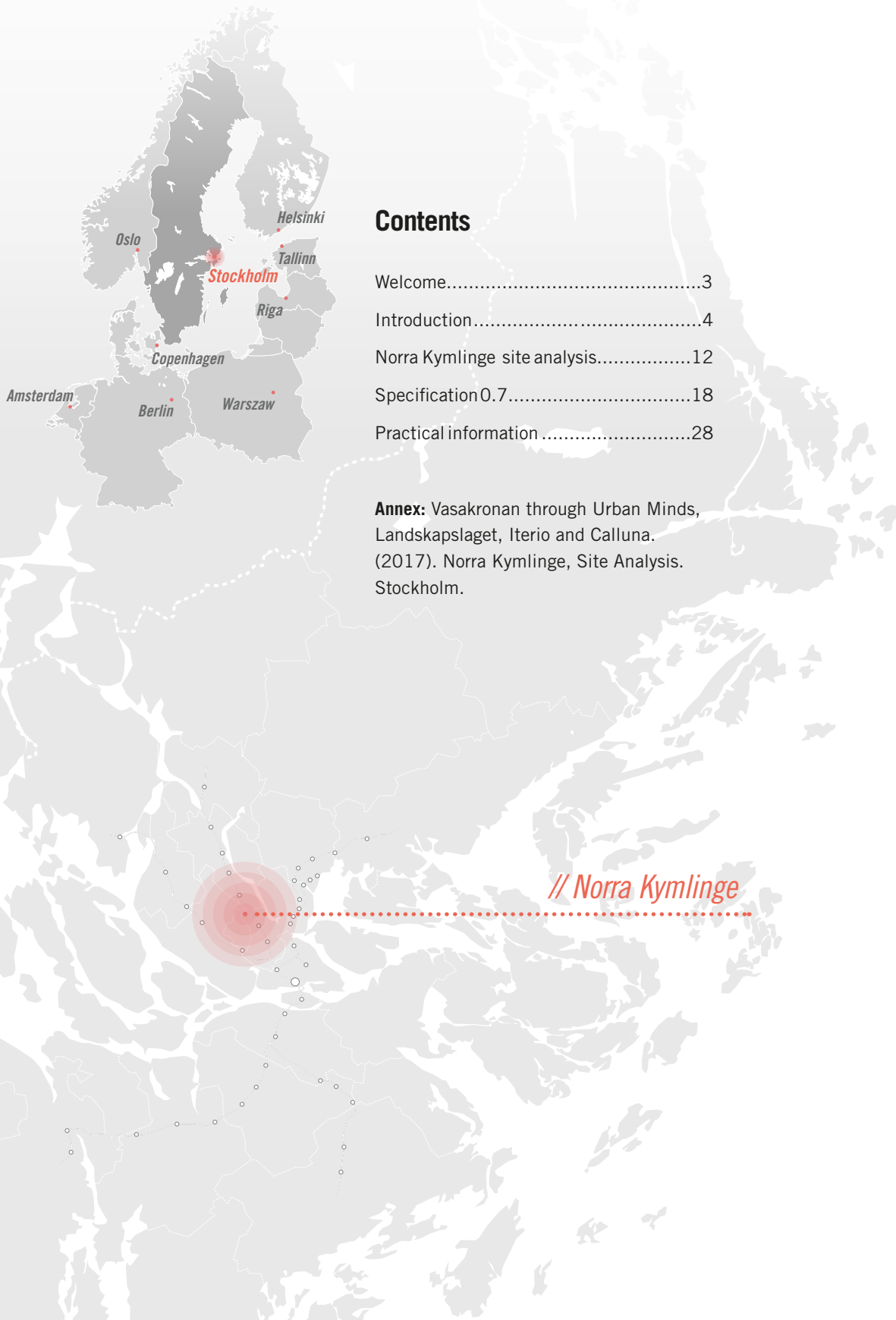


**INTERNATIONAL WORKSHOP
PROGRAMME 8-11 MAY 2017
NORRA KYMLINGE**



VASAKRONAN



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Annex: Vasakronan through Urban Minds, Landskapslaget, Iterio and Calluna. (2017). Norra Kymlinge, Site Analysis. Stockholm.

Welcome

Prototyping Norra Kymlinge 0.7

We would like to welcome all of you who have taken up the challenge of planning a district that meets the requirements defined to achieve a strong level of sustainability. A district where we can enjoy quality of life within planetary boundaries.

Sustainable cities of the future must generate value. They must act as organisms within an ecosystem in which there is no waste; simply transformation of resources into something that can be used by others. In the light of the slow rate at which cities are changing, it is not sufficient for new city districts to simply achieve a 'no net loss level'. We need to go beyond that point and create urban settlements that contribute more than they consume.

This is an ambitious initiative to say the least. We know that no one has all the answers to how we will achieve our goal. But asking questions and setting our sights high are crucial if we are to bring about change. In most instances, asking the right questions is just as important as finding the right answers. Norra Kymlinge is an excellent location for a testbed where we can develop know-how relating to the creation of truly sustainable cities.

Now moving onto the next stage in our work and it gives us great pleasure to see that you are accompanying us on our journey!

Stockholm, May 3, 2017

Anna Denell, Sustainability Director, Vasakronan.
Per Thiberg, Head of Business Development, Vasakronan.
Mats Enander, Property Development Officer, Vasakronan.
Peter Lindroos, External Project Manager, Vasakronan/Urban minds.



“Abundance within planetary boundaries requires a deep mind-shift. Not growth without limits. Not limits to growth but growth within limits.”

*Johan Rockström and Mattias Klum,
“Big World Small Planet”.*



Introduction

No urban development project worthy of the name would state that it does not aim to achieve sustainability. But what exactly is sustainability? Early on in our work we asked ourselves the question: Is there anywhere we can visit where we can learn how to build truly sustainable cities?



Are there any truly sustainable cities?

In recent decades, we have taken a number of critical steps in Sweden towards achieving sustainable development and Stockholm has been hailed as a leading example of green growth. But from a global perspective, and taking into account growing rifts on several fronts, we are far from being sustainable role models. We have developed city districts that aim to become sustainable, but despite all our good intentions and a good measure of innovation, these districts can hardly be termed truly sustainable as they continue to contribute to increased segregation and escalating use of resources.

There are numerous innovative solutions that have been marketed as sustainable. In many cases these simply resolve isolated problems instead of addressing sustainability on an overall level. Incremental improvement alone is insufficient to create truly sustainable cities and communities. We must ask ourselves what needs to be done from a global perspective rather than simply restricting ourselves to the gradual improvement of 'business as usual' and doing what is deemed possible on a local level.

To date, the answer to the question about the existence of sustainable cities would appear to be 'no'. There are districts that are clearly better than others, but there is no city or district that at present can be described as sustainable in the true sense of the word.

Working together to build up leading-edge knowledge and insights

Stockholm is one of the most rapidly growing cities in Europe and at the same time it is a city with a distinct housing shortage. As is the case in many other cities, Stockholm is facing sustainability challenges in the form of increased segregation, car -dependent infrastructures, contaminated land and water and varying quality and access to healthcare and education.

Over the past 20 years, the focus in Stockholm has been on developing districts on land that has already been allocated for use, with close proximity to the regional core and access to a high-capacity public transport system.

However, there is a growing lack of old, centrally located brownfield sites in the region. To solve this dilemma, there are plans to extend the underground system to incorporate more sparsely developed or undeveloped areas and thus facilitate expansion at locations farther away from the regional core but with good public transport links.

Imagine if we found an area in the immediate vicinity of an existing underground station, with good access to other infrastructure and immediately beside one of the most important employment zones in Stockholm. And what if this location also happened to be an undeveloped woodland area adjacent to a nature reserve and extending along the edge of a green wedge, linking the Royal National City Park to the region's outlying green spaces? Would this not make it an area where the only urban district that could be contemplated would be one that meets the most stringent sustainability demands imaginable?

Norra Kymlinge offers unique potential to develop leading edge knowledge and insights relating to truly sustainable districts. On a practical level, use can be made of the existing infrastructure to reduce the housing shortage.



Vasakronan owns the Norra Kymlinge area and is responsible for running this project. The municipality of Sundbyberg holds decision-making power regarding legally binding plans for the area. To date, no decision has been taken to commence formal planning work for Norra Kymlinge as the political parties in Sundbyberg have not been able to agree on a way forward. Certain forces in the municipality are in favour of allowing Norra Kymlinge to become part of the Igelbäcken nature reserve. Others are working to ensure planning commences to create a new city district in Norra Kymlinge.

Using the current conditions at Norra Kymlinge and in the municipal area generally as a starting point, Vasakronan has decided that the goal for the project should be as follows:

» Together with stakeholders and other parties, develop and disseminate knowledge in order to build a district that is at the very forefront in urban sustainability with Norra Kymlinge as an applied example.

The project work will be arranged into three phases:

- 1. Concept development – a sustainable district at the very forefront in urban sustainability (previous phase).**
- 2. Production of a prototype for a sustainable district – ‘Norra Kymlinge 0.7’ (current phase).**
- 3. Testing and development of a prototype for a sustainable district – ‘Norra Kymlinge 1.0’ (probable coming phase).**

The goals for this, the second phase of the project, are:

- a. Produce prototypes for ‘Norra Kymlinge 0.7’ that satisfy the specification, are fully testable but are not yet ready for the end-user.**
- b. Evaluate how well ‘Norra Kymlinge 0.7’ meets the manifesto/specification.**
- c. Develop the specification based on the prototyping.**

The best city district for the world

Sustainability is a concept and a term that has been in a continuous state of development since it became more widely known through the Brundtland Commission at the end of the 1980s. Since then, it has gradually shifted away from being a question of increasing the aggregate economic, social and environmental capital, towards a stronger and more exacting model where none of these three dimensions should be undermined and where there are absolute limits on the use of social and economic capital.

Planetary boundaries and social foundations are two concepts that concretise what needs to be done from a global perspective to achieve strong sustainability.

Planetary boundaries as a concept was produced by a group of researchers specialising in planetary and ecological systems. The concept is a framework produced to define guaranteed scope for action for humanity. Johan Rockström et al. (2009) propose nine planetary boundaries within which humanity can continue to develop. The researchers state that we must remain within these boundaries if we are to ensure that in the future the planet can retain the stability that has been crucial to the survival and development of humanity over the past 10,000 years.

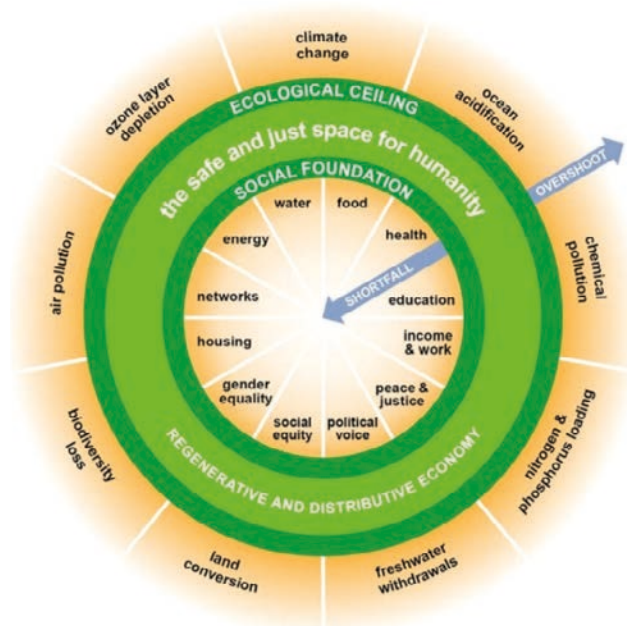
A supplementary concept inspired by the planetary boundaries comprises the 11 dimensions of the social foundation proposed by Kate Raworth (2012) in a discussion paper from Oxfam. The concept is based on the social prioritisations identified by the world's governments in the preliminary work leading up to Rio+20. We need to ensure basic access to resources for everyone, otherwise it will lead to unacceptable shortcomings, including famine, ill-health and poverty.

By combining these two concepts, a framework for strong sustainability can be created, following a format similar to a doughnut. Within the doughnut there is a safe and just space for humanity to act and within which we can continue to live and thrive. Kate Raworth maintains that quantification of planetary boundaries and social foundations “make the framework a compass from a global perspective, and provides an indication of human and planetary well-being in relation to the boundaries for sustainable development”.

Instead of using what is attractive or what is deemed possible on the local level as a starting point and attempting to push this in a more sustainable direction, the doughnut offers a conceptual model, where

the point of departure comprises the absolute limits on a global level, and allows for the creation of an attractive city within this framework. Not the best city district in the world but the best city district for the world. A 'doughnut district'.

In other words, the doughnut is a conceptual model that demonstrates that there is scope for continued innovation and development of city districts that are strongly sustainable as they offer quality of life within planetary boundaries.



// "The Doughnut: a twenty-first-century compass. Between its social foundation of human well-being and ecological ceiling of planetary pressure lies the safe and just space for humanity".
Raworth, K. (2017). *Doughnut Economics. 7 Ways to Think Like a 21st Century Economist*. Chelsea Green Publishing, Vermont, p. 38.

Prototyping in an international workshop

We now aim to move on in our work by developing know-how within specific areas in line with the overall aim of the project – planning and building the best city district for the world. This means that the overall specification – quality of life within planetary boundaries – will be broken down into specific requirements that can be used as a starting point for prototyping a city district.

Our intention, through a workshop with your involvement in your capacity as leading international experts on sustainability issues and urban development, will produce, test and evaluate prototypes for Norra Kymlinge. The prototypes will meet the specification, i.e. "a doughnut district – a district where we can enjoy good quality of life within planetary boundaries".



// Doughnut Districts – Quality of Life within Planetary boundaries. Urban minds inspired by Raworth (2012).

The purpose of the workshop is to prototype Norra Kymlinge in a way that we achieve the goals set out in the project. This would take place by following an iterative process, where feedback of knowledge to all parts and stages in the project is central. The prototypes that will be produced will be prototyped further in the next phase of the project. The specification and approach are also part of the prototyping and we expect that these will change during and after the workshop.

The aim of the workshop, based on the specification, is to design, test and evaluate prototypes (settlement structures) for Norra Kymlinge that;

- a. meet the demands in our conceptual model for strongly sustainable cities. sustainable cities as a starting point and to satisfy those demands,**
- b. can be tested and**
- c. build up knowledge that can be utilised in the development of the specification and in future work.**

Using the conditions and potential of the area as a starting point, each team will create a prototype for a city district; a concrete sketch showing the structure, volume and design for a city district that meets the specification. At the same time, it will draw on the potential presented by its location in the region and the interface between the underground station, neighbouring districts and adjoining nature reserve.

Direct, indirect and general impact

We know that a great deal of our impact on the planet derives from our actions with regard to housing, food and travel – our lifestyles. How we choose to live depends on a series of factors although one key factor is the structure of our cities. A simple example is the choice of mode of transport. In certain urban structures, there is good access to public transport and it is therefore easy to use public transport. At other locations, there is an absence of public transport and we are totally dependent on the car.

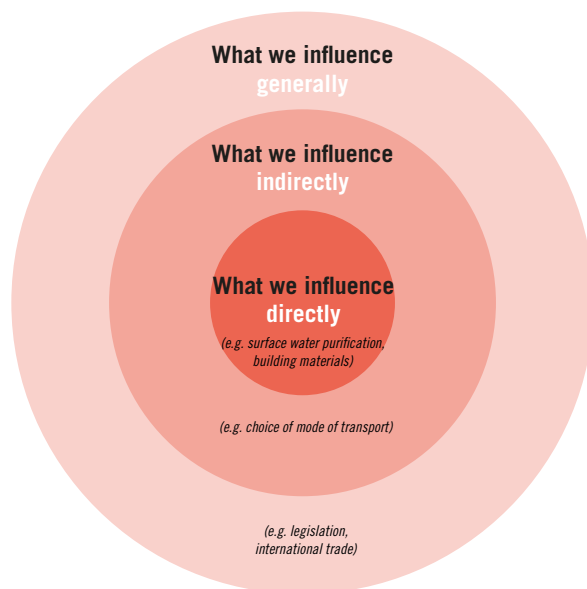
This is where we identified a major challenge as there is a lack of in-depth knowledge about the mutual dependence and relationships between city structures and our lifestyles. At the same time, it is crucial that we take into account the complex links between collectively designed structures and systems (both physical and intangible) and individual choices, in order to bring about clear changes along the road towards achieving strong sustainability.



There is a multitude of aspects of a district's sustainability that we influence directly through the built environment. Other aspects are only affected indirectly in the fact, for example, that we provide better or worse conditions for human beings' lifestyle choices. There are other aspects that we only affect generally – by developing new methods and techniques or by presenting good examples.

As we need to find a common vision for sustainability and then work in a cross-sectoral way to achieve it, it is not sufficient to say that we have no control over how the world develops generally. However, we can clarify the degree to which, through the built environment and urban development processes, we affect other sectors.

A view based on what we influence directly, indirectly and generally is something that we believe will pave the way for putting us in a better position to determine whether society's overall undertakings are sufficient to guarantee that we remain within the safe and just space within which humanity can act – the doughnut.



// Direct, indirect and general impact from the built environment.

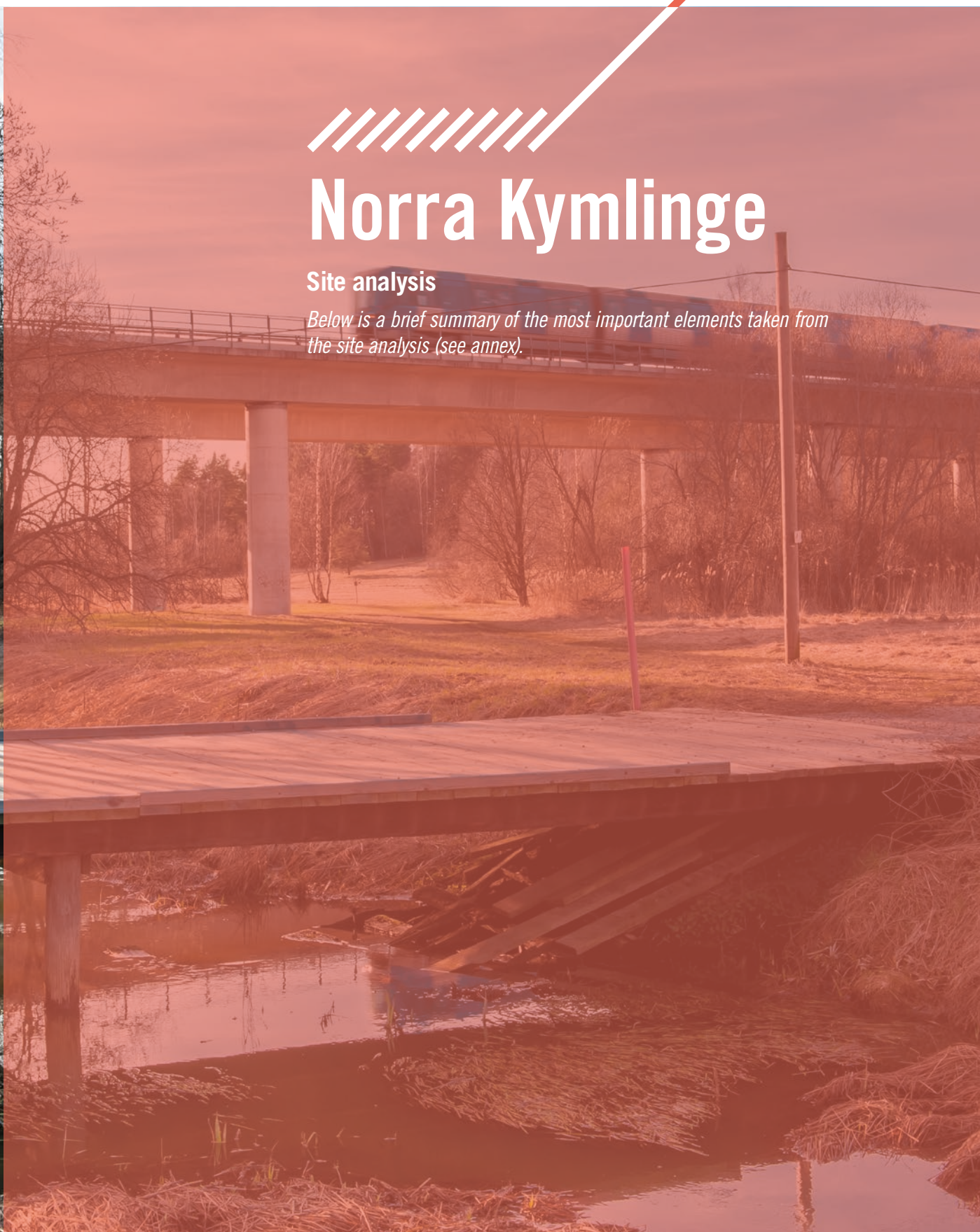
During this stage of the project we will focus mainly on what we influence directly (e.g. structures and systems) although we will also focus on what we influence indirectly (human beings' lifestyle choices and the various choices made by companies). At the same time, we will state openly, just like everyone else, that we have a responsibility and that we play a part through the influence we exert on the general level (e.g. legislation and international trade).



Norra Kymlinge

Site analysis

Below is a brief summary of the most important elements taken from the site analysis (see annex).





Identity of the area

Norra Kymlinge is situated in a hilly, patchwork landscape, which in many respects has retained its natural land forms and older land use as a result of military operations and state ownership during the 20th century. In relation to the central parts of Sundbyberg, it is a peripheral green space and is clearly cut off by roads and railways from the neighbouring districts of Kista and Silverdal.

The Igelbäcken valley is one of five character areas adjoining Norra Kymlinge. The valley comprises the clearest cohesive landscape space in an east-west direction and is demarcated by hills and forest fringes.

The Ursvik recreation forest is located south of the Igelbäcken valley and has a varied topography with relative height differences of 10-20 m.

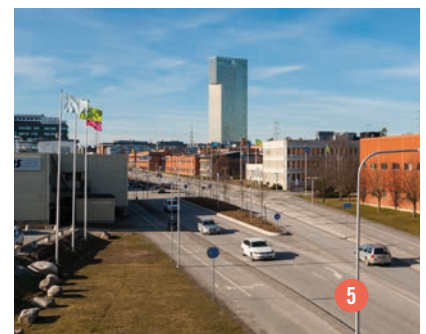
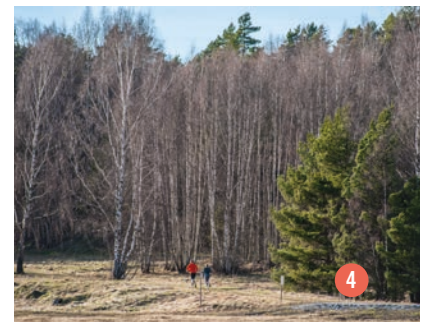
Kymlinge forest, north of the Igelbäcken valley, is a very hilly area with relative height differences of 10-40 m. The area has a patchwork structure, without any clear alignments, and a number of open areas among the forest-clad hills. Norra Kymlinge, in the northern part of Kymlinge forest, is the part of the area that is not included in the nature reserve.

Kista, north of Kymlinge forest, is a relatively flat area that is characterised by large-scale development of offices and other activities in a grid pattern and where the majority of the streets have long sightlines.

The roadscape is entirely built and is characterised by large-scale roads and the East Coast Line railway. The size and width of the roads means that they create their own scale in what is otherwise quite a small-scale landscape. The roadscape forms its own landscape elements, giving the patchwork landscape a clear orientation.

The unopened underground station at Kymlinge is an ever-present reminder of the expansion plans of a bygone era, harking back to the large-scale development of Kista, Husby and Akalla during the 1960s and 1970s. The station is also intrinsically linked to the legendary 'Silverpilen ghost train'.

The area has a considerable time depth. At the beginning of the late Iron Age (500 AD), land rise led to the north Stockholm area acquiring its first permanent population. In the Igelbäcken nature reserve there are graves and burial grounds from that time. At the end of the late Iron Age (1000 AD) the land had risen to such an extent that the present-day Igelbäcken valley was simply a narrow inlet from Edsviken. Large flat areas became exposed that could subsequently be cultivated and maintained.



*// A wooded greenfield site with an unopened underground station in the middle, next to Igelbäckens nature reserve in south and the ICT cluster in Kista district in north.
Ortofoto @ Lantmäteriet.*

Cohesive city

Norra Kymlinge is located in the south-east part of Järvafältet, which is part of the semi-central urban structure around Stockholm, comprising the municipalities of Sundbyberg, Solna, Danderyd and Lidingö, as well as the boroughs of Bromma, Spånga and Kista.

Despite its central location in the region, Norra Kymlinge currently has weak links with the surrounding areas and has very few urban features. This can be attributed to the fact that the area is largely cut off from the surrounding districts by traffic barriers, distance and topography, and that the area is generally undeveloped. The surrounding areas are largely characterised by functional separation and/or typological one-sidedness.

There is currently no-one living in Norra Kymlinge. There is a considerable variation in population density in the surrounding



areas. Within the Järva green wedge and in the enterprise zones, the population is less than 1,500 persons per square kilometre. In the most densely populated parts the figure is 18,000. The average for Västerort (in the Stockholm area) is around 3,100. By comparison, the average population density in the inner-city areas of Stockholm is around 8,800 persons per square kilometre. Kista has a daytime population of around 35,000 – almost three times as high as its nighttime population.

Large parts of the neighbouring areas are undergoing change. This includes the current development of Järvastaden and Ursvik, but also the densification that is taking place in Kista and Rissne. Ideas have been put forward for an extensive change process, including densification along the northern part of the Kymlinge Link Road and expansion of the Tvärbanan light railway.

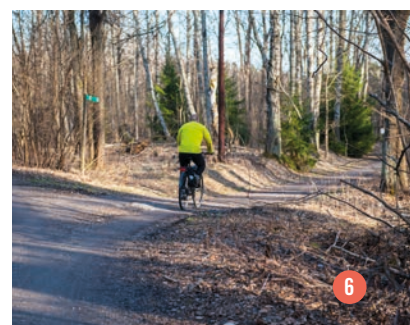
In the regional development plan for the County of Stockholm (RUF 2010), Norra Kymlinge is designated as a development area, although in the comprehensive plan for Sundbyberg it is designated as greenbelt. Kista-Sollentuna-Häggvik have been highlighted as one of the regional cores in RUF 2010 and in the consultation version of the upcoming RUF 2050 the same area is stated as being a “regional urban core with a specific supraregional function”.

Green city

Kymlinge is located in the Järva green wedge, one of the large green spaces in the Stockholm area. The Järva green wedge extends from Djurgården in central Stockholm via Hagaparken and Ulriksdal in Solna, Igelbäcken in Sundbyberg, Järvafältet, Hansta in Stockholm and on through Järfälla, Sollentuna, Upplands Väsby and Sigtuna. These green wedges function as the lungs in a dense urban environment and include both ecological and social values. A functioning ecosystem is necessary for our survival and the Järva green wedge is of major significance to networks that are ecologically functional.

At present, Norra Kymlinge comprises natural land that to a large extent allows infiltration by rainwater, which is then channelled into Igelbäcken via the groundwater system and via small ditches and pools of water contained in hollows. As the area is very hilly, with relatively large height differences, water collects at low points and valleys.

Igelbäcken is a watercourse that is of significant conservation value. It has its origin in Säbysjön, a lake in Järfälla, and its estuary is at Edsviken, beside the manor house at Ulriksdal. Surface water from the districts north-west of Norra Kymlinge is currently channelled through a culvert to Edsviken with the result that the water flow in Igelbäcken can at times be very low.



The patchwork landscape in Norra Kymlinge currently provides vital ecosystem services, including water regulation, water purification and biodiversity. Knowledge of the area-specific ecological structures and functions will make it possible to develop Norra Kymlinge in order to reinforce these structures and functions, including recreation and water retention capability.

The Ursvik recreation area extends from Lilla Ursvik in the south to the tip of the Kymlinge forest in the north. It is a regional focal point for outdoor life in the north Stockholm area. The area, which includes Kymlinge forest and Igelbäcken, has an extensive network of tracks and trails for various outdoor activities and offers potential for a multitude of experiences. Land use in the area and its history have produced a number of very tangible natural values, including extensive forest areas, wetlands and open land that attracts insects. The area is poorly linked to neighbouring districts as it is a long way to bus stops and stations.



According to an interview study conducted in surrounding districts, the majority of people who visit Norra Kymlinge do so to walk. Other common activities in the area are exercising and outdoor pursuits. For a number of those living close to Norra Kymlinge, it is an unknown area even if it is located close to their homes. Many would be happy to make greater use of Norra Kymlinge if they knew that it existed or they were aware of what they could do there. Many associate Norra Kymlinge with Igelbäcken and the nature reserve south of Norra Kymlinge. The majority of people who visit the nature reserve state that they have visited or may have visited Norra Kymlinge when they were out in the forest.

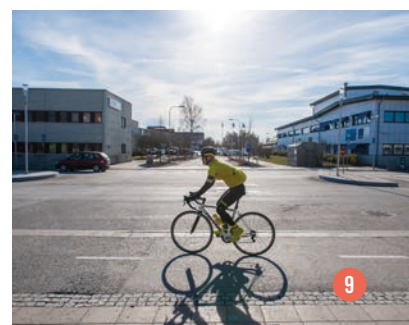
Healthy city

The term public health covers a whole series of other factors. Public health is fundamentally a promotional and preventative task, reinforcing conditions for people to lead as healthy a life as possible. This can be achieved, for example, through good accessibility and the potential for exercise and recreation. Water quality could also impact on public health.

Kymlinge is located at the intersection of the two most important motorways in the region, the E4 and the E18. Road traffic, as well as rail traffic along the East Coast Line and on the underground, have a direct and indirect impact on the area in terms of health, risks and barrier effects. Both motorway traffic and rail traffic on the East Coast Line reveal a year-on-year increase in volume. The underground line that operates above ground in the southern part of Kymlinge also affects the area in various ways – noise for example.

Road traffic and industrial enterprises have a direct and indirect effect on Kymlinge through emissions into the air. Particulate matter, PM10, and nitric dioxide, NO₂, are the air pollutants that have the highest levels in comparison with the mandatory environmental quality standards that are in place to safeguard human health.

Both the E18 and E4 motorways are primary transport routes for hazardous goods. These primary routes are used mainly for through traffic, where all types of hazardous goods are transported to their final destination. As regards new buildings, recommendations have been provided by the County Administrative Board governing the distance between transport routes for dangerous goods and buildings. The recommendations mean that in effect 25 m on either side of roads used for the transport of hazardous goods should be kept free of buildings. The distance to office buildings should be 40 m, whilst the distance to residential buildings should be 75 m.





Specification 0.7

We started our journey by asking ourselves if sustainable cities exist, and we come to the conclusion that the answer is 'no'. We then asked ourselves if there is an established set of objectives that could be used to achieve strongly sustainable city districts.

11

Specification 0.7 for a Norra Kymlinge that offers quality of life within planetary boundaries

We decided to test using the doughnut as a conceptual model for achieving strong sustainability on a global level, although if this is to function as a threshold value for a district it needs to be supplemented with more specific demands.

We examined a number of goals, Swedish and international, local and global, and found a whole host of inspiring formulations, although none proved sufficient to guarantee the creation of a strongly sustainable city district. This, in combination with the fact that sustainability always uses a specific site as a starting point, and the fact that in this project we make use of what is a unique site as an applied example, we needed to take things a step further and compose a set of project-specific goals – a specification for quality of life within planetary boundaries.

The specification has been largely formulated using several sources of inspiration, mainly the UN Global Goals for Sustainable Development, Citylab Action's 17 sustainable development goals, the Frihamnen Sustainability Manifesto, and the National Board of Housing, Building and Planning goals for sustainable physical planning. This specification describes what must be met by the prototypes that are produced during the workshop. The current specification, version 0.7, together with the planetary boundaries and the social foundations, will be used to evaluate the prototypes for Norra Kymlinge.

Interaction and democracy

» Spaces and places

The urban spaces must be designed for day-to-day encounters and should be multifunctional, secure, inclusive and flexible. They should also be adapted to the prevailing conditions in the area with regard to climate, topography and socioecology. Streets, squares, parks and other public places in the built and natural environment should be fully functional for everyone, regardless of background, gender, functional variation or age.

» Movement

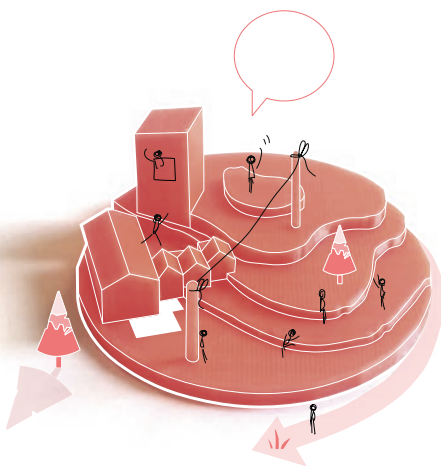
Norra Kymlinge must create availability and proximity to different functions and create conditions for the use of a variety of secure, safe, available and affordable alternative modes of transport (walking, cycling, public transport and deliveries). The street network should be well integrated internally and with the surroundings.

» Density

Norra Kymlinge must be planned and designed to provide a basis for a sufficient range of urban activities, including a population base that would be adequate to justify opening the underground station.

Comment:

The UN Habitat minimum requirement is 15,000 persons/sq. km. For SL to be willing to open the underground station, it would be recommendable for 10-20,000 people to live and work in this 55-hectare district in the future.



» **The whole city**

Norra Kymlinge must bring the city together by bridging barriers and linking up with surrounding districts and natural areas, both physically and psychologically. It will create smooth flows and pathways that will provide Norra Kymlinge access to the whole city and provide the whole city with access to Norra Kymlinge. Norra Kymlinge will promote development and act as a resource outside the district and vice versa.

» **Functions for everyone**

Norra Kymlinge must reflect multiculturalism – here there should be a place for everyone. Homes and basic services need to be adequate, safe, and economically viable and available to everyone. This includes access to non-commercial premises. Conditions for considerable diversity and variation in terms of design and process, combined with a functional mix (housing, service provision, culture and workplaces), should be created while at the same taking into account the neighbouring built environment.

» **Processes**

Norra Kymlinge must be developed within a framework of active openness by producing ideas and proposals together with those who will be affected by the area. This will ensure involvement, the adoption of a holistic view and innovative development of the area. There should be distinct and vibrant forms of co-creation and involvement in the management of the district by those who live and work in the area and other parties who are affected.

Pace and health

» Culture and history

The area's existing cultural values and its living cultural history must be utilised and maintained as a condition for development and the integration of new buildings.

» People, stages in life and lifestyles

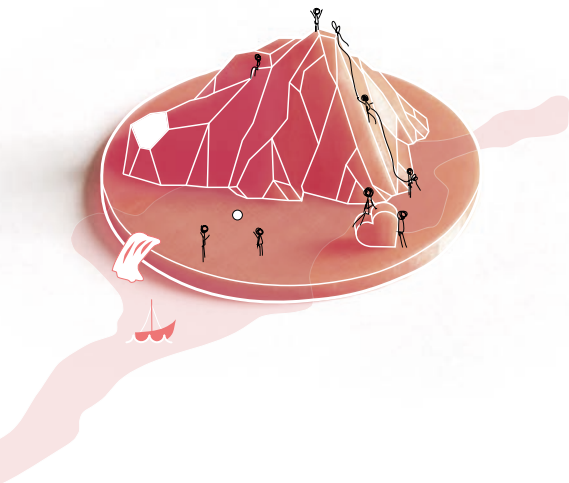
A good living environment that facilitates social activities must be prepared for those who live and work there and for visitors. This would take place on different scales and there will be a sense of social belonging in each individual building, on each block and in the district as a whole. Norra Kymlinge is designed to make it easier to do right rather than wrong in terms of sustainable lifestyles.

» Well-being

Norra Kymlinge will have indoor and outdoor environments that remain good and healthy throughout the whole of their life cycle. Spaces and places must be suitable from a noise, light and air quality point of view. There must be communal areas close to people's homes as well as generous open areas beside schools and other public services (healthcare/education/welfare).

» Safety and security

The location, design and construction of buildings, infrastructure and public spaces must prevent ill-health and accidents.



Regenerative city

» Energy

The district must provide a net surplus of energy each year and throughout its lifespan, including the energy used in construction. Renewable energy sources that have limited impact on the environment and health must be used and emissions of greenhouse gases from energy systems must be almost zero.

» Materials and resources

Use of resources must focus on biologically renewable resources, with retained recycling value of non-renewable resources.

Materials and systems for the construction of Norra Kymlinge would be selected in a way that the spread of substances that are harmful to the environment and human health into the air, water and land is avoided, ensuring good working conditions and good working environments.

Systems for using water and managing run-off water and wastewater will add value within and outside the area, including the Igelbäcken stream.

» Ecosystem services

The collective ecosystem services for the area (including food supply) will increase in terms of structure, function, benefit and value. Norra Kymlinge will add value to the Igelbäcken nature reserve and the interface/links between the two areas will be designed for recreation and other activities.

» Land use

Land (including prerequisites in the form of geology, topography and ecosystem services) will be used in a manner that is resource-efficient, adapted to local conditions and with the opportunity to satisfy changing needs in the future.



Economy and technology as instruments

» Economy

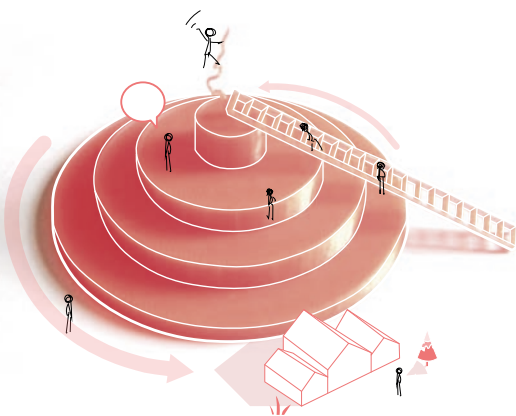
Norra Kymlinge will be built with and provide conditions for an economy that is embedded in society and the biosphere and which at the same time will capitalise on the numerous ways in which it can satisfy human needs and wishes. This is an economy based on dynamic complexity and is regenerative and distributive in its design.

» Technology

In Norra Kymlinge, technology will be an instrument that uses the needs of people as a starting point and it will contribute to satisfying those needs. Technology must be developed and used in a way that achieve sustainable societal development is achieved by influencing and being influenced by the need for more sustainable human-technology interaction.

Comment:

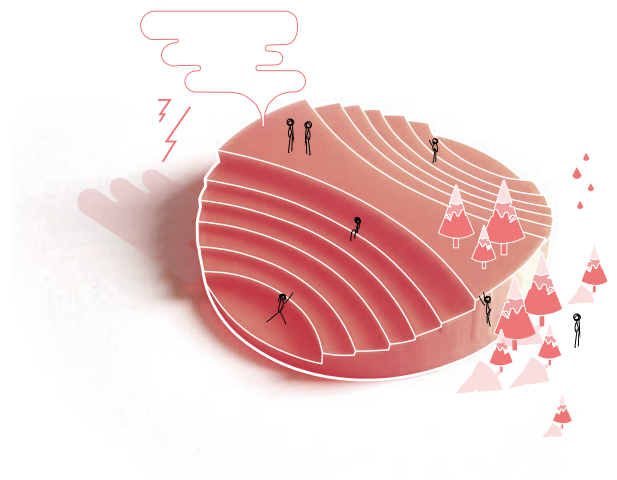
This could mean smart cities as well as machine-free buildings. It could also mean ensuring that information and communication technology (ICT) and the information that the city needs or generates, is integrated and used to develop the city. A digital infrastructure founded on standards plus value creation based on open data should be in place and be continuously developed.



Resilience

» Resilience

The urban structure should be resilient (resistant, durable) and flexible with regard to external and internal changes, including changes in ecosystem services (e.g. climate changes, water shortage) and social systems (e.g. demographic, economic and legal changes). The district must have systems that are sustainable and independent of the users, the principal and other parties.



Into the doughnut

In large areas of modern sustainability work, the basic premise is that sustainability is a process and not a condition. The project makes use of an understanding of sustainability that offers “safe and just space for humanity” in line with planetary boundaries and social foundations. This means a clearly defined span covering a range of alternative development pathways. On the other hand, sustainable development is understood to be movement within this span. When we maintain that something should be ‘sustainable’ it is not a perfect, static condition. There is a variety of stable/sustainable positions for the Earth as a socioecological system.

The doughnut describes the boundaries, but not the ‘filling in the doughnut’, i.e. the content between the planetary boundaries and the social foundations. This content, which serves as an analogy for our quality of life, could vary in appearance and ‘taste’ and is just as important as the boundaries. When we can guarantee that we will remain within planetary boundaries and social foundations, sustainable urban development must come down to ensuring that the ‘content’ offers the best conceivable conditions for good quality of life. The above requirements aim to provide this content.

The prototype during the workshop will be evaluated based on the demand specification for a Norra Kymlinge that offers quality of life within planetary boundaries and social foundations. No solution for a city can be deemed to be truly sustainable unless it falls within the safe and fair space for humanity.

Planetary boundaries

The nine planetary boundaries that must not be exceeded if global systems are to continue to function are: climate change; biodiversity (genetic and functional); ozone depletion; ocean acidification; biogeochemical cycles (nitrogen and phosphorus); land use; freshwater use; atmospheric aerosol loading; and chemical pollution.

Dimensions of the social foundations

The 12 dimensions of the social foundations that need to be achieved and which must not be exceeded are: health, food, water, energy, networks, housing, gender equality, social equity, political voice, peace and justice, income and work, and education.



*// Quality of life
(Interaction & democracy; Pace & health; Regenerative city; Technology & economy) which are contained within the doughnut. Planetary boundaries may not be exceeded, social foundations must be achieved and in between these quality of life is created. Do not, do not, donut. Bun intended.*



Practical information

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Arrangement

During the workshop, the teams will work together and individually to develop and apply their leading visionary expertise by preparing proposals (prototypes) for the urban development of Norra Kymlinge. They should be able to design a district that capitalises on the potential presented by the specific location in the region and the interface between the underground station, neighbouring districts and adjacent nature reserve. This should be achieved based on knowledge about how people move around within an urban space, how the city economy functions, and how socially and environmentally sustainable settings are represented. It is assumed that the teams will have the requisite expertise within sustainable urban development and urban construction. It is particularly important that the teams not only have the necessary know-how and expertise within all dimensions of sustainability, but also the capacity to utilise this expert knowledge to create settings that reflect astute interpretation and innovative design.

During the course of the workshop, the teams will present their ideas and questions each day and at a seminar on the final day of the workshop they will make a brief presentation of their proposal.

During the workshop, there will be an ongoing dialogue between the teams and between the arranger and the teams. Each team will have a visualiser to help them build up and test proposed structures in 3-D. The teams will also receive support from sustainability and urban planning experts and from the project group in the form of background knowledge about the area and the project.

At the start-up meeting, the arranger will specify its project aims in more detail and a working model for the workshop will be presented. There will be an opportunity to influence how the work will take place. At the start-up meeting, the team leaders will be expected to present their initial thoughts about “quality of life within planetary boundaries” and what they consider to be the key elements for this requirement to be put into practice in the form of a prototype for Norra Kymlinge.

Results

The final documentation will be specified in more detail in consultation with the teams during the workshop. It should be possible for the documentation to be compiled into a report in A3 format, comprising 10-20 pages, and be delivered digitally (PDF format).

Preliminarily, the final documentation must include:

- » **An illustration plan, scale 1:2000 (should also be provided as a separate file).**
- » **2–3 visualisations (should also be provided as separate files).**
- » **A 2-D base (dwg or equivalent) from which the arranger can produce a 3-D model.**
- » **Reasons for the proposed design, including a description of the thought processes leading up to the proposal.**

The outcome of the workshop and the proposals received will be evaluated by a special group of sustainability and urban development experts. The group will present a report containing their conclusions, which will then support future work at Vasakronan on developing know-how relating to sustainable urban development with Norra Kymlinge as an applied example.



Timetable

Sunday 7th 2017 – Optional gathering for drinks at 7 pm at the American bar at Haymarket by Scandic, Hötorget 13–15, Stockholm.

Monday 8th 2017 – Gathering at 8.30 am at the workshop venue, Färögatan 33, Kista.

Afternoon mini-seminar at 4.30 pm in the workshop venue.

Welcome dinner at 6.30 pm at Vasakronans main office, Mäster Samuelsgatan 56, Stockholm.

Tuesday 9th and Wednesday 10th 2017 – Morning inspiration at 9 am in the workshop venue. Afternoon mini-seminar at 4.30 pm in the workshop venue.

Thursday 11th 2017 – Morning inspiration at 9 am in the workshop venue.

Open seminar at 2 pm at Omegasalen, Kista Entré Konferens, Knarranäsgatan 7, Kista

The workshop will conclude with an informal gathering after the open seminar at 5 pm, followed by a farewell gettogether.

May 31st 2017 (before the end of the day) – Submission of workshop final documentation.

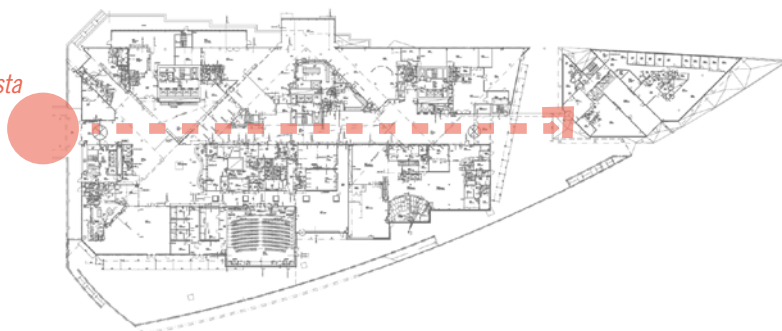
Workshop venue, meals and travel

The teams have access to the workshop venue between 8 am and 9 pm.

Lunch all workshop days as well as welcome dinner on the 8th and light snacks during the informal gathering on the 11th, will be arranged by Vasakronan.

The teams are responsible for arranging travel to Stockholm and accommodation.

Färögatan 33, Kista



References

- Enander, M., Kvarnäck, P., Lindmarker, J., Lindroos, P. (2016). Livskvalitet inom planetära gränser. PLAN nr. 5-6, 2017.
- Leach, M., Raworth, K., & Rockström, J. (2013). Between social and planetary boundaries: Navigating pathways in the safe and just space for humanity. World social science report, 2013, 84-89.
- Raworth, K. (2012). A safe and just space for humanity: can we live within the doughnut. Oxfam Policy and Practice: Climate Change and Resilience, 8(1), 1-26.
- Raworth, K. (2017). Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist. Chelsea Green Publishing, White River Junction.
- Rockström, Johan & Klum, Mattias (2017). Big world, small planet abundance within planetary boundaries. Johanneshov: MTM.
- Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., ... & Folke, C. (2015). Planetary boundaries: Guiding human development on a changing planet. Science, 347(6223), 1259855

Contact and questions

The main contact with the arranger during the workshop takes place through the external project leader Peter Lindroos at peter@urbanminds.se.

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