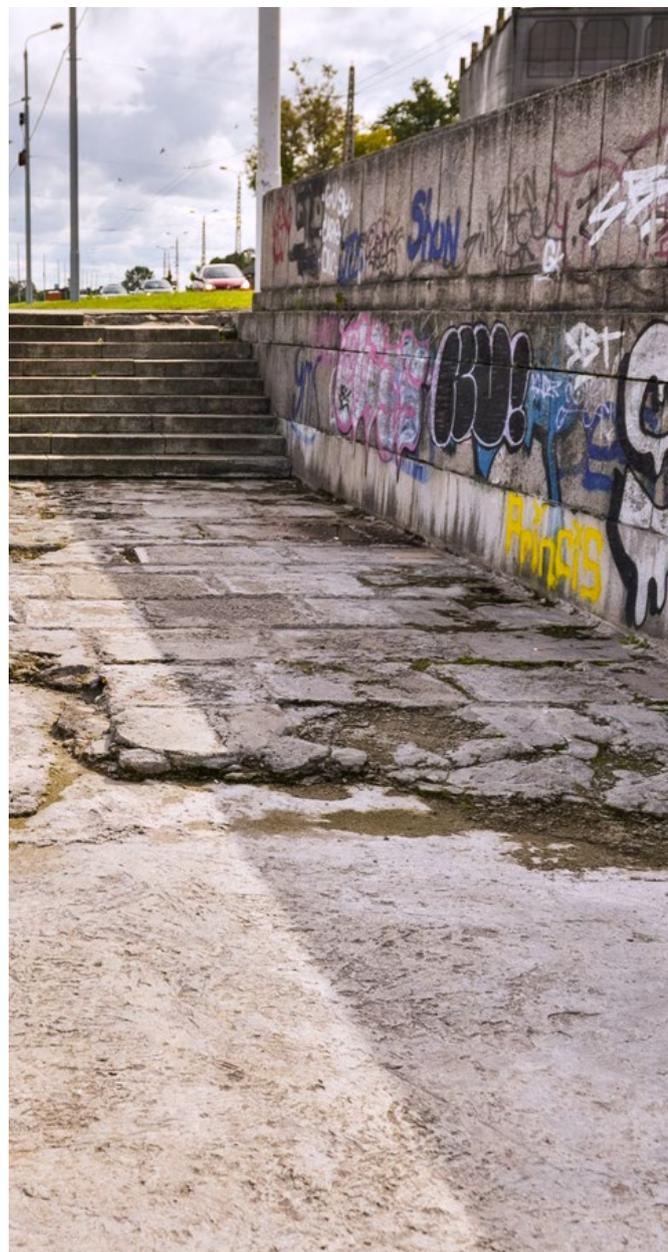


Planning Systems and Legislation

for Brownfield Development
in the Central Baltic Countries



EUROPEAN UNION
European Regional Development Fund



Planning Systems and Legislation for Brownfield Development in the Central Baltic Countries

Writers: Liisa Perjo, Christian Fredricsson and Sandra Oliveira e Costa (Nordregio)

Layout: Laura Sarlin (UBC Sustainable Cities Commission)

Cover photos: City of Tallinn, City of Riga and Norrköping Municipality

Published: April 2017



Table of contents

Introduction	4
Spatial Planning and Brownfields in Estonia	5
Brownfield redevelopment on the Estonian Baltic Urban Lab pilot site	6
Planning system and actors in Estonia	7
Support for brownfield redevelopment in Estonia	10
Spatial Planning and Brownfields in Finland	11
Brownfield redevelopment on the Finnish Baltic Urban Lab pilot site	12
Planning system and actors in Finland	13
Support for brownfield redevelopment in Finland	15
Spatial Planning and Brownfields in Latvia	17
Brownfield redevelopment on the Latvian Baltic Urban Lab pilot site	18
Planning system and actors in Latvia	19
Support for brownfield redevelopment in Latvia	22
Spatial Planning and Brownfields in Sweden	24
Planning system and actors in Sweden	24
Brownfield redevelopment on the Swedish Baltic Urban Lab pilot site	26
Support for brownfield redevelopment in Sweden	28
Summary	30
National policy approaches	30
Land ownership structures	30
Cooperation between public actors, landowners and developers	31
Financing	31
Final remarks	31
References	32

Introduction

Brownfield redevelopment is an important topic in Europe, where many countries and cities are experiencing rapid urbanisation. It is predicted that by 2020 approximately 80 per cent of Europeans will be living in urban areas, which means that more land in and around urban areas will need to be developed for housing and other purposes. There is no common European definition of 'brownfield', but this term is used to describe abandoned or underused areas that have previously been used by industry, the military, as harbours or for similar activities that may have contaminated the land. The European Environment Agency (EEA) estimates that there are three million urban brownfield sites in Europe (EC, 2013).

There are several reasons behind the interest in redeveloping brownfield land. Utilising brownfield sites is a means of avoiding urban sprawl and ensuring access to green space as it provides an alternative to urban development on greenfield sites and countryside. As brownfield land is decontaminated as part of its redevelopment, health and environmental risks are reduced (EC, 2013). The EU supports brownfield redevelopment, in particular through its European Regional Development Fund (ERDF), both through national ERDF programmes and the INTERREG and URBACT programmes. For example, the Central Baltic INTERREG programme funds projects including those that "regenerate and decontaminate brownfield sites". The EU Roadmap to a Resource Efficient Europe also states that by 2050 there should be no net land take.

The issues of land ownership and the technical and financial difficulties of remediating contaminated land are some of the main challenges involved in brownfield redevelopment. The fact that brownfields are often situated in attractive urban areas close to a city centre and existing residential areas increases the range

of actors with an interest in developing these areas. Public-private partnerships, involving cooperation between municipalities, landowners and developers, are often considered to be particularly useful in brownfield regeneration projects because limitations in public finances encourage the public sector to involve private actors in various arrangements.

The aim of this brochure is to enable experiences of brownfield redevelopment to be exchanged between the Central Baltic countries (Latvia, Estonia, Finland and Sweden) by providing knowledge about the conditions for brownfield redevelopment in each country. The brochure presents the planning systems and principal legislation and policies related to brownfield redevelopment. It specifically highlights the aforementioned key challenges of cooperation between actors and the remediation of contaminated land, and looks at how domestic legislation and policies promote or hinder meeting those challenges.

This brochure is published as part of the Baltic Urban Lab project, which involves four partner cities (Riga, Tallinn, Turku and Norrköping) developing and testing new integrated planning and partnership models for brownfield redevelopment. The partners are aiming to find ways to tackle the various challenges brought about by the development of sites that are often privately owned or have fragmented ownership structures and where the soil is often severely contaminated and thereby requires significant resources for remediation. The planning reviews in the brochure are drafted by Nordregio with valuable expert input from, in particular, the city partners and the associated partner, the Swedish National Board for Housing, Building and Planning.

Spatial Planning and Brownfields in Estonia

Several major brownfield redevelopment projects have taken place in Estonia in recent years, especially in bigger cities. There are several examples of brownfield redevelopment in Tallinn, for example Rottermann City, Ülemiste City, the Noblessner Harbour area, the Volta Factory area and Telliskivi Creative City. Estonia's second and third largest cities, Tartu and Narva, are also developing old industrial areas, while redevelopment projects in rural areas include finding new uses for former oil shale strip mines.

Brownfield redevelopment is an emerging issue in Estonia, although several challenges remain, not least because land is predominantly privately owned. In Estonia, brownfields are often discussed using the concepts of spoiled or polluted areas, industrial areas or underused or abandoned urban areas. The Estonian word 'tühermaa' is used, which translates as bare or empty plot (Tintera et al., 2014), but the Estonian word 'pruunalad' (brownfield) is also used. Researchers (e.g. Tintera et al., 2014; Klamp, 2015) have emphasised the need for a clearer definition of the brownfield concept in Estonia in order to promote brownfield redevelopment.



The Telliskivi area has been transformed into one of the largest hubs of creative industry in Estonia
Photo: City of Tallinn



Tallinn's pilot site, the Skoone-Bastion area, is located along an old tramway line
Photo: Henri Saarinen

Brownfield redevelopment on the Estonian Baltic Urban Lab pilot site

The City of Tallinn has several brownfield sites. In the Baltic Urban Lab, the Tallinn Urban Planning Department is working on the Skoone-Bastion area. This area is located in the city centre, surrounded by the medieval old town, the Kalamaja district with its wooden architectural milieu, the central railway station, the passenger harbour and Telliskivi Creative City. The site is situated in an attractive and crucial position in the middle of many vital areas of the city, it is thus attracting a great deal of public interest.

In the Baltic Urban Lab, the Tallinn Urban Planning Department is working to involve private landowners, residents and NGOs in developing an early vision for the site. They will also be testing new digital engagement tools such as smart apps and interactive maps.

The overall goal is to create better links between the pilot site and the surrounding urban structure and introduce new activities using an integrated

(public-private-people partnership) planning approach, as well as to develop strategies which will take into account the various characteristics of the site.

Read more about the pilot site at

www.balticurbanlab.eu/sites/skoone-bastion-area

(in English) or at www.tallinn.ee/baltic-urban-lab

(in Estonian)

Estonia

- Population: 1 315 944 (Statistics Estonia)
- Population density: approx. 30/km² (Statistics Estonia)
- Urban population share: **1960:** 58% - **1990:** 71% - **2015:** 68% (World Bank)

No official data are available on the number or size of brownfield or contaminated sites. An estimate is 1 000 urban brownfield sites, up to 1 600 ha, but it is noted that the actual figures are likely to be higher (Tintera et al., 2014).

Planning system and actors in Estonia

The Estonian planning system consists of hierarchical legally binding plans at the national, county and municipal levels. Estonia got its first Planning and Building Act in 1995, which was then divided into a Building Act and a separate Planning Act in 2003. The Planning Act was revised in 2009, with this new legislation emphasising the importance of public participation. The Planning Act was revised further in 2015 with the aim of making the building and planning system more flexible and efficient.

At the national level, the **national spatial plan** defines long-term development goals and implementation programmes. It is not a land use plan as such; instead it is a strategic document with a high level of generalisation (Holvandus, 2014). A national spatial plan is prepared in respect of the entire territory and exclusive economic zone of Estonia and may also be prepared as a thematic spatial plan that extends to areas of the sea and adjacent coastal areas.

The new Planning Act also makes it possible to establish **national designated spatial plans** for types of constructions that have a significant spatial impact and whose chosen location or function elicits significant national or international interest. Designated spatial plans are prepared primarily for issues that transcend county boundaries in the fields of national defence and security, energy supply, road or railway construction and waste management.

The Ministry of the Finance is the main national-level actor in national, regional and urban development and planning. A range of sectoral agencies (e.g. the Road Administration, the Environmental Board and the Land Board) are also involved and have to approve plans that fall within the scope of their remit. For example, any construction within 50 metres of a main road or 30 metres of a minor road is an issue that has to be handled by the Road Administration.

Level	Planning instruments	Main responsible actor
NATIONAL	National spatial plan (National designated spatial plan)	Ministry of Finance
REGIONAL	County plans	County governor (state-representative)
LOCAL	Comprehensive plans (Local government designated plans) (Thematic plans) Detailed plans Building permits	Municipality

Table 1: Planning instruments and the main actors responsible for planning in Estonia.
Plans that are not obligatory in all cases are in brackets.

In the field of brownfield redevelopment, the most relevant state actors include the Ministry of the Interior, the Ministry of the Environment, the Ministry of Finance, and the Environmental Investment Centre. The Ministry of the Interior and the Ministry of Finance are important actors because of their responsibilities in the field of regional development, while the Ministry of the Environment and the Environmental Investment Centre have a role in supporting the decontamination of spoilt land and the demolition of old buildings on brownfield sites. Fund KredEx, under the Ministry of Economic Affairs and Communications, and the Environmental Investment Centre, under the Ministry of Finance, are also important because these institutions finance the demolition of old buildings.

There is no one actor that is responsible for coordinating brownfield redevelopment activities at the national level. The lack of clarity in terms of responsibility for brownfield redevelopment in Estonia has been identified as a challenge for brownfield redevelopment as no actor has been willing to take a clear lead on the issue (Tintera et al., 2014).

In Estonia, there is no regional level elected government. However, there are county governors who are state representatives that work in each county and are also responsible for developing **county plans**. County plans at the regional level present the main elements of infrastructure and land use, but they remain at a more strategic level. Nevertheless, they do also set out general land use regulations that are to be adhered to by the comprehensive plans at the municipal level. The county plans have to be consistent with the national spatial plan (Holvandus, 2014). The aim of a county plan is to define the principles of and directions for the spatial development of the entire county or a part of the county. A county plan is prepared primarily in order to express interests that transcend the boundaries of individual local authorities and in order to balance national and local needs and interests regarding spatial development. The counties have a coordinating role and they both prepare county plans and approve local comprehensive plans and local detail plans in the event that these conflict with existing comprehensive plans.

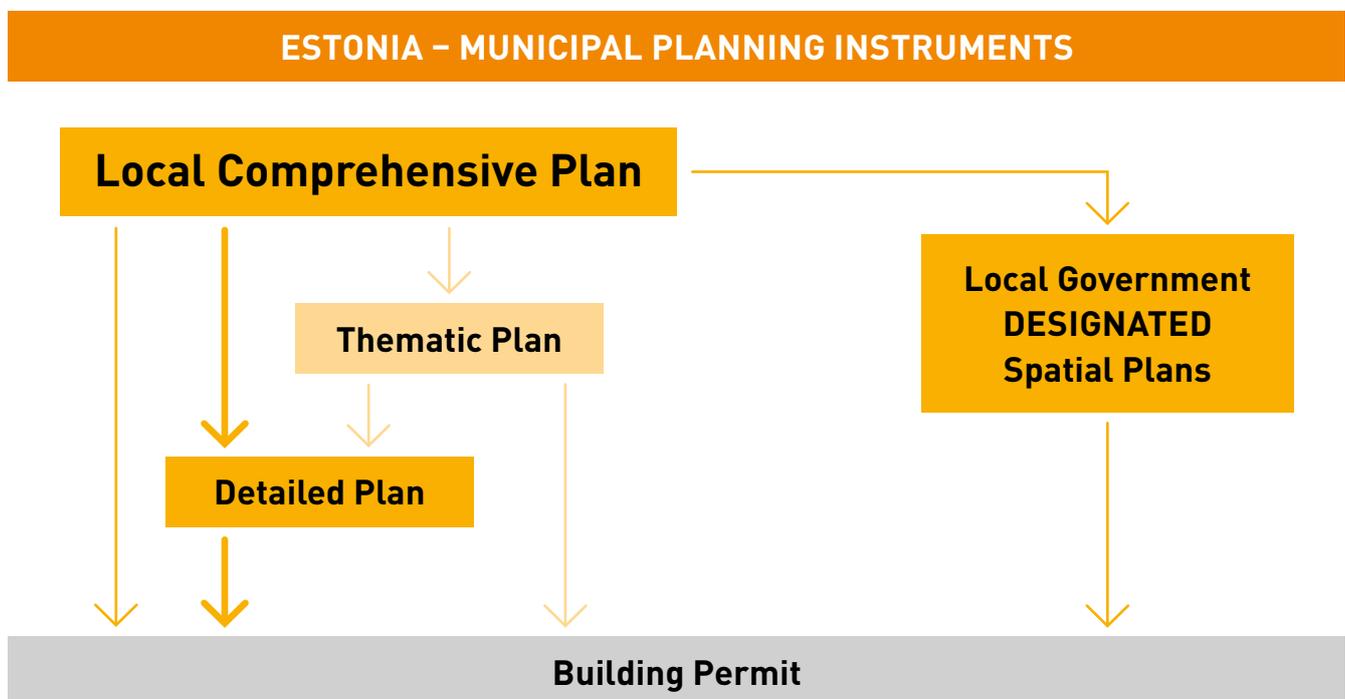


Figure 1. Planning instruments at the local level in Estonia

At the municipal level, local authorities are responsible for **comprehensive plans** that define the land use of an entire municipality or parts of it. The comprehensive plans need to adhere to the priorities defined in national and county plans. The actual preparation of the plans is often outsourced to private consultants or is led by the municipal authority itself. The comprehensive plans are land use plans that set out the regulations for land use and construction. Strategic environmental assessment is mandatory when preparing a comprehensive plan. Comprehensive plans are the basis for the preparation of local government designated **spatial plans** and **detailed plans** and, in cases where the preparation of a detailed spatial plan is not mandatory, for the issuing of design specifications. **Thematic plans** concerning specific issues such as high-rise constructions can also be developed. At the lowest level, detailed plans define land use and construction regulations on a map and include, for example, the planned housing, green space and specific traffic arrangements (Holvandus, 2014). Municipalities also issue **building permits** to developers.

The new Planning Act also includes local government designated spatial plans that can be established for types of construction that have “significant spatial impact” and that are not included in the comprehensive

plan. The Estonian Government decides what types of construction are considered to have significant spatial impact.

Prior to 2015, it was necessary to have a detailed plan in place before starting construction. However, the revised and more flexible Planning Act from 2015 has made it possible to start construction without a detailed plan if the planned building fits into the existing environment in terms of its height and proposition and adequate regulations are set out in the comprehensive plan.

Municipal authorities, together with the private sector, are the main actors in brownfield redevelopment. However, in some cases it has also been unclear whether the public authorities or the private landowners should be the bodies with principal responsibility for brownfield redevelopment. After the end of the Soviet Union in early 1990s, land ownership was largely privatised and brownfield sites are now mainly privately owned. In some cases, the municipal authority considers the redevelopment of brownfield sites to be the responsibility of the landowners; however, landowners are unlikely to redevelop a site if this is not economically beneficial. This leads to potential conflicts between private landowners and the municipality, and better cooperation between actors is called for (Tintera et al., 2014).



There are currently over 200 businesses, companies and NGOs operating in the Telliskivi area
Photo: City of Tallinn

Support for brownfield redevelopment in Estonia

In recent years, awareness of the need for brownfield redevelopment has increased and the topic has been raised in several policies, but there is still no legislation or policies that explicitly steer brownfield redevelopment in Estonia in a coordinated manner. Since 2015, the Planning Act has stated that, where possible, the use of previously used areas or insufficiently used areas must be promoted and it thereby steers all spatial planning towards redeveloping brownfield areas. Interview research conducted among local authorities has shown that there is a desire to establish national legal guidance on the demolition of old buildings in brownfield areas (Klamp, 2015).

In general, urban planning in Estonia is regulated primarily by the **Estonian Planning Act** (2015) and the **Environmental Impact and Environmental Management System Act** (on regulating the environmental impact assessments of plans). Also of relevance from a brownfield redevelopment perspective is the **Ownership Reform Act** (1991), which succeeded in its aim of privatising land, leading to a high level of private land ownership, which in turn presents further challenges to brownfield redevelopment.

The **National Environmental Action Plan of Estonia for 2007–2013** by the Ministry of the Environment states that there is a need to set up principles for financing and support concerning spoilt areas (Tintera et al., 2014), and the **Development Plan for Nature Protection** also sets out plans to clean up spoilt land and demolish abandoned buildings (VASAB, 2016).

The Estonian Regional Development Strategy 2014–2020 foresees financial support for revitalization and increasing the attractiveness of city centres and addresses the issues of urban neglected areas. More specifically, the strategy foresees financial support schemes for developing urban public spaces, sustainable mobility and

the social, economic and environmental revitalisation of underutilized areas (including brownfields) in the largest urban areas. The national spatial plan Estonia 2030+ also mentions densification of cities and towns by means of “restoring active use of any previously unexploited land”, which can be interpreted to also include brownfields. However, this plan does not specifically address the issue of the large number of brownfields in the country or present plans for how to redevelop these.

Owners of brownfield areas can apply for grants from the national Environmental Investment Centre (EIC) for the demolition of structures that are damaging to the landscape. These grants can only be used when the area is located outside urban areas or in their peripheries, but can be a tool for encouraging the remediation of small parts of brownfield areas. The funding regulations state that if the land is privately owned, there is a need for 50 per cent co-funding or 10 per cent co-funding is needed if it is publicly owned (Tintera et al., 2014; VASAB, 2016). The KredEx foundation also grants funding to municipalities, but only for the demolition of abandoned buildings (VASAB, 2016).

The state offers specific support for brownfield redevelopments in the formerly heavily industrialised county of Ida-Viru in north-eastern Estonia in the form of revitalisation grants that take into account physical, social and economic urban development (VASAB, 2016). These grants target sustainable and integrated development in general, with brownfield redevelopment being one of the eligible activities.

There is also funding from the European Regional Development Fund for “strengthening the competitiveness of regions”. This provides support for the modernisation of public space in city centres and can thus also be used for brownfield redevelopment.

Spatial Planning and Brownfields in Finland

Several major brownfield redevelopment projects have taken place in Finland in recent years. Especially in bigger cities, brownfield redevelopment is an issue of increasing interest to policy-makers and developers and is also a means by which to achieve the goal of making cities denser. In Helsinki, the redevelopment of the old harbour area in Kalasatama is renowned as one of the largest current brownfield redevelopment projects in Europe.

There is no clear Finnish word for brownfields as such, but the English term brownfield is used in some cases. According to the NICOLE Brownfield Working Group (2011), Finland has adapted the EU CABERNET¹

definition, which states that “brownfields are sites that: have been affected by the former uses of the site and surrounding land; are derelict and underused; may have real or perceived contamination problems; are mainly in developed urban areas; and require intervention to bring them back to beneficial use”. The Finnish word for contaminated land is ‘pilaantunut maa-alue’, and this is commonly used in policy documents and in practice to describe areas where the environment is, for various reasons, contaminated and in need of remediation. The concept focuses on the environmental aspects of decontaminating the area and does not, as such, include issues of redevelopment.



The development of the Turku campus and science park area (including the Itäharju brownfield area) is one of the city's spearhead projects
Photo: Jaska Poikonen

¹The Concerted Action on Brownfield and Economic Regeneration Network (CABERNET) is a multidisciplinary network that consists of 8 expert stakeholder groups and aims to facilitate new practical solutions for urban brownfields.



The Itäharju area was chosen as Turku's pilot site in the Baltic Urban Lab project
Photo: Suomen Ilmakuva Oy

Brownfield redevelopment on the Finnish Baltic Urban Lab pilot site

The City of Turku is the Finnish partner in the Baltic Urban Lab project. A circle of brownfield areas surround the centre of Turku, and the City Administration's ambition is to redevelop these areas in a sustainable manner. In the Baltic Urban Lab, the City of Turku is focusing on redeveloping the Itäharju-Kupittaa area, which is just outside the centre and next to several universities and a science park. The area is also located next to a major transport node that includes a railway station, which further increases its development potential.

The Baltic Urban Lab project will involve Turku developing and testing innovative partnership approaches and participation models, particularly for the early involvement of the private sector. In addition, new ways to involve inhabitants will be tested. The ownership structure in the area is slightly fragmented, with the City of Turku being the biggest landowner. One of the challenges is the long-term rental contract the City of Turku has with actors in the area.

The first stage of the process is to develop an early strategy or vision for the site together with stakeholders and to gather ideas for implementation in close cooperation with the stakeholder groups. This serves as strategic document that steers planning in the later stages and sets out the vision for the development.

Read more about the pilot site at www.balticurbanlab.eu/sites/itäharju-kupittaa-area

Finland

- Population: 5 487 000 (Statistics Finland)
- Population density: approx. 17.64/km² (Statistics Finland)
- Urban population share: **1960:** 55% - **1990:** 79% - **2015:** 84% (World Bank)

No data are available about the number and size of brownfield areas. 25 000 land areas are classified as "contaminated land", but no information is available about their size (Ministry of the Environment, 2015).

Planning system and actors in Finland

The Finnish planning system has three levels: national, regional and local. The principles of the Finnish planning system are set out in the Land Use and Planning Act. The planning system is hierarchical, which means that lower level plans need to be consistent with plans and guidelines at higher administrative levels. At the local level, the local masterplans also steer local detailed plans.

At the national level, the Ministry of the Environment is responsible for preparing the **national land use guidelines** document. This is not a spatial plan as such, but sets out the general principles of spatial planning in Finland. There is no physical land use plan for the whole of Finland, but the national land use guidelines emphasise the need to develop more coherent urban structures that decrease the need for car use. This means that redevelopment of brownfield areas within urban structures can be a key means by which to contribute to the national goals.

The responsibility for brownfield redevelopment at the national level is divided between two ministries which, according to a report from Ramboll (2015), have slightly different focuses in their work with brownfields. The Ministry of the Employment and the Economy sees brownfield redevelopment from a regional economic perspective and focuses on brownfields as a way to promote regional growth. The Ministry of the Environment, in turn, considers brownfield redevelopment more as a way to promote more coherent and dense urban structures and the utilisation of areas in good locations (Ramboll, 2015). The Ministry of the Environment is also responsible for issues related to the remediation of contaminated land. The Finnish Environment Institute, which is subordinate to the Ministry of the Environment, administers a database of polluted land that authorities responsible for environmental issues, land use and construction can use when investigating the brownfield area before the start of the redevelopment process.

Level	Planning instruments	Main responsible actor
NATIONAL	National land use guidelines	Ministry of the Environment
REGIONAL	Regional land use plans (Phased regional land use plans)	Regional councils
LOCAL	Local master plans (Partial master plans) (Shared local master plans) (Local detailed plans) (Local detailed shore plans) Building ordinances Building permits	Municipalities

Table 2: Planning instruments and the main actors responsible for planning in Finland. Plans that are not obligatory in all cases are in brackets.

At the regional level, the regional councils prepare **regional land use plans**, which present the region's planned land use and structure on a map. The regional councils can also prepare phased regional land use plans that focus on specific issues such as wind power or green infrastructure. The regional plans need to be consistent with the national land use guidelines.

Municipalities are in turn responsible for local planning. The **local master plans** define land use in the municipality and set out, for example, the location of residential areas, employment or traffic. Municipalities can also prepare **partial master plans** that are more detailed than local masterplans and cover specific areas such as shores. Municipalities can also collaborate to create **shared local master plans**, but few municipalities have utilised this opportunity.

Local detailed plans need to be consistent with the area's local masterplan. These are the lowest level and most detailed plans and define, for example, the location, size and purpose of buildings. For shore areas, it is possible to prepare detailed shore plans. **Building**

ordinances issued by municipalities regulate and instruct construction. **Building permits** are granted on the basis of local detailed plans or, in specific cases, on the basis of local master plans.

As municipalities are responsible for planning at the local level, they are the main actors involved in brownfield redevelopment. Areas in need of remediation or decontamination can be defined in the master plans. For example, a master plan can state that the condition of an area of land needs to be investigated in connection with the detailed planning process and needs to be remediated before construction starts (Häme Centre for Economic Development, Transport and the Environment, 2011). In most cases, detailed plans for brownfield areas define that the condition of the land needs to be investigated before construction begins and that necessary risk management measures need to be implemented in case the land is contaminated. However, the need for remediation may be investigated as early as during the planning process, especially when a larger brownfield redevelopment process is taking place on municipally owned land.

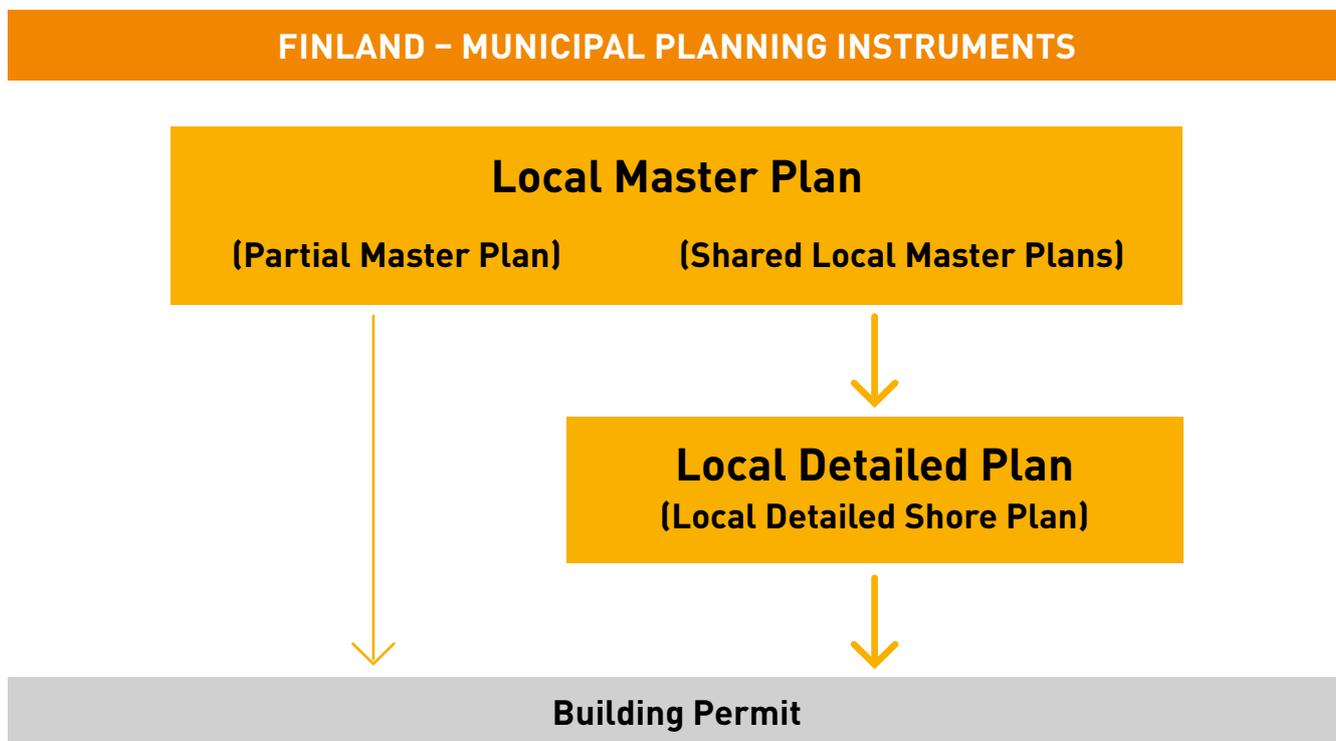


Figure 2. Planning instruments at the local level in Finland

Support for brownfield redevelopment in Finland

At the national level, the Land Use and Planning Act and the Environmental Protection Act are the most important pieces of legislation relating to brownfield redevelopment and the remediation of contaminated land in brownfield areas. According to Ramboll (2015), there are no legislative challenges hindering the remediation and redevelopment of brownfield areas in Finland, but there is also no joint national policy approach to brownfield redevelopment.

The Environmental Protection Act stipulates that the actor responsible for contaminating the land is also responsible for its decontamination. In the event that it is not possible for the actor responsible to decontaminate the land, it becomes the responsibility of the holder of the land. Finally, if neither of those actors can be expected to decontaminate the area, it becomes the responsibility of the municipality. The responsible supervisory body must always be informed about planned remediation activities. The Ministry of the Environment is able to give the municipal environment authority responsibility for the supervision of issues related to contaminated land and water areas. In Finland, the municipalities of Turku and Helsinki have been granted this mandate. In Turku, this is considered to have made the processes more efficient and to have clarified the division of roles and responsibilities between municipal and state-level environmental administrators.

Concerning the remediation of contaminated land, the Ministry of the Environment published a national risk management strategy for contaminated land in 2015. Its objectives include the systematic identification, investigation and remediation of high-risk sites and ensuring that risk management and land use support each other. It also emphasises the need to ensure that actors' responsibilities as regards remediation procedures are clearly set out. In terms of the development of land use in brownfield areas, the strategy states that more training and better cooperation between municipalities, landowners and developers is needed and that the risks stemming from contaminated land should be given greater consideration at an early stage of the process.

The Land Use and Planning Act provides methods for enabling cooperation between municipalities and landowners, which is often a necessity, particularly in brownfield redevelopment. This act describes a form of agreement in which a municipality and a landowner decide to start a detailed planning process for privately owned land. After the detailed plan proposal has been presented to the public, the municipality and the landowner draw up a land use agreement concerning how the landowner will compensate the municipality for the investments the municipality makes that increase the land's value. (Ministry of the Environment, 2014; Finnish Association of Local and Regional Authorities, 2012)

Another method included in the Land Use and Planning Act is the designation of "special development areas" in locations where there is a particular need for renewal or a change of land use. The planning of special development areas is conducted in close cooperation between the landowner and the municipality, who negotiate concerning the development goals. Implementation of the project can be undertaken by a development company that is established specifically for the project. However, this method has not been widely used, with municipalities mainly using land use agreements when negotiating with landowners (Newsec, 2016).

Municipalities can get expert support from the Ministry of Employment and the Economy if their brownfield project has a clear economic perspective and from the Ministry of the Environment if the goal of the brownfield development is densifying the urban structure (Ramboll, 2015). The Centres for Economic Development, Transport and the Environment also provide support to brownfield projects from a business perspective. In addition, many municipalities have municipal development companies that can take active roles in attracting the investors needed to redevelop brownfield areas (Ramboll, 2015).

There are also two national programmes that provide financial support to municipalities for the remediation of contaminated land from an environmental perspective.

These focus primarily on removing the risks that contaminated land pose to the environment and health and are less focussed on redevelopment and changing land use.

There are no specific programmes or support measures for the actual spatial redevelopment and reuse of brownfield areas, but municipalities and companies can receive support from other programmes that are not brownfield-specific. For example, the Ministry of Employment and the Economy provides support to areas

of abrupt structural change where changes in production structures pose severe threats to employment and regional development (Ministry of Employment and the Economy, 2016). Tekes – the Finnish Funding Agency for Innovation also has programmes for supporting smart cities, with brownfield redevelopment having been supported as part of its Witty City programme. Investment support from the Housing Finance and Development Centre of Finland (ARA) can also be relevant for brownfield redevelopment projects (Ramboll, 2015).



**A vision for the Itäharju brownfield area will be developed in cooperation with stakeholders
Photo: City of Turku**

Spatial Planning and Brownfields in Latvia

Brownfield areas are a problematic and widespread issue in Latvia. Brownfield areas are defined under the broader term of land with contamination and/or “degraded territory”. The Law of Land Management defines degraded territory as an area with a destroyed or damaged land surface, as well as abandoned built-up areas, sites of mineral deposits or land previously used for some commercial, industrial or military purpose. In

spatial planning, the term degraded territory is used in a broader sense, encompassing sites (land, buildings and surroundings) which have previously been used or built-up, but are currently abandoned or underused. This can refer to a neglected or contaminated, abandoned or partly inhabited place that has a detrimental impact on the surrounding area, nature, landscape and people (Law of Land Management, 2015).



Riga's Baltic Urban Lab pilot site has historically been used for industrial purposes and is located between the Kileveina Ditch and the Daugava River
Photo: City of Riga



Riga's Pilot site is located next to river Daugava and is part of the protection zone of the historic Centre of Riga that is included in the UNESCO World Heritage list

Photo: City of Riga

Brownfield redevelopment on the Latvian Baltic Urban Lab pilot site

The pilot site – an area between Mūkusalas Street, Bieķensalas Street, Jelgavas Street and Railway Bridge is part of the Torņakalns neighbourhood. It is located on the left bank of the Daugava River with a view towards the city centre (Old Riga) and is situated between two bridges – Railway Bridge and the Salu Bridge. The site is located in the protection zone of the Historic Centre of Riga which is a UNESCO World Heritage Site. Torņakalns used to be an early peripheral area of Riga, consisting of gardens and mansions. From 1868 to 1972 there was a harbour. In the Soviet period, the Riga radio factory “Radiotehnika” was located there, but the factory is now abandoned.

The pilot site has direct access to green spaces surrounded by the Kīleveina Ditch and the Daugava River. Despite the current conditions of Kīleveina Ditch, it has the potential to become an appealing recreational spot as the area around it is changing. Former industrial areas are now slowly turning into office and services clusters. In the neighbouring area, there is a science and innovation centre. For people who work, live and in future will study in the area, the Kīleveina Ditch can serve as a place to stop and rest for a moment. It can also be turned into a unique example of a sustainable rainwater

management system. The remediation of the Kīleveina Ditch and the development of a shared vision for the area that aims to create a high-quality working environment with green spaces are enabling the current actors to expand their business activities in the area.

Read more about the pilot site at

www.balticurbanlab.eu/sites/mukusalas-street

Latvia

- Population: 1 968 957 (Central Statistical Bureau -CSB)
- Population density: approx. 30/km² (Central Statistical Bureau -CSB)
- Urban population share: **1960:** 53% **1990:** 69% **2015:** 67% (World Bank)

According to the register of contaminated and potentially contaminated sites kept by the Latvian Environmental Agency, Latvia currently has 3 573 contaminated and potentially contaminated sites, 238 of which are classified as contaminated sites and 2 620 as potentially contaminated sites (Noviks et al., 2015). However, this register does not include objects that are degraded in a wider sense.

Planning system and actors in Latvia

Spatial planning in Latvia is regulated by the Spatial Development Planning Law. The first law relating to spatial planning was introduced in 1991, following independence from the Soviet Union. The Law on City Local Government (1991) and the Law on Parish Local Government (1991) were subsequently replaced by the Law on Local Government (1994) and tasked local government with responsibility for spatial planning and building control. The first Law on Spatial Development Planning was issued in 1998 and was then followed by the Law on Territorial Planning (2002) and the Law on Regional Development (2002). Later in 2008, the Development Planning System Law was launched and set out the guiding principles of development planning, the types of development planning documents, the levels of development planning documents (national, regional

and local) and the hierarchy of these development planning documents. This law was then merged into the new Spatial Development Planning Law in 2011. Small amendments to this law were also made in 2014. This law sets out the principles of spatial development planning, the requirements for public participation in spatial planning and the spatial development planning levels and documents. It also establishes several principles that must be addressed during planning processes and incorporates provisions for all levels of the spatial planning system, including spatial planning instruments at the national, regional and local levels, as presented in the table below (Spatial Development Planning Law, 2011; Ministry of Environmental Protection and Regional Development, 2016).

Level	Planning instruments	Main responsible actor
NATIONAL	Sustainable Development Strategy of Latvia (Latvia2030) National Development Plan (NDP2020)	Ministry of Environmental Protection and Regional Development
REGIONAL	Planning regions' sustainable development strategies Planning regions' development programmes	Planning regions' development councils
LOCAL	Local government sustainable development strategies Local government development programmes Local government spatial plans Local plans Detailed plans Thematic plans Building permits	Municipalities

Table 3: Planning instruments and the main actors responsible for planning in Latvia

One of the key policy instruments in national spatial planning is the **Sustainable Development Strategy of Latvia** (Latvia2030). When it was approved by the Latvian Parliament in 2010, it became the overarching spatial planning document at the national level. In practice, this means that all subordinate spatial planning documents and policy guidelines should be consistent with the policy goals in Latvia2030. In any kind of spatial development, the State Regional Policy Guidelines, the National Spatial Plan and sectoral development programmes are to be taken into account (Sustainable Development Strategy of Latvia).

The Ministry of Environmental Protection and Regional Development is the main state institution responsible for the implementation of national policies and legislation concerning urban and regional planning. The ministry is also responsible for environmental protection, regional development and information and communication technologies. The ministry is responsible for the evaluation of planning regions. At the national level, the Cabinet of Ministers has an important role as it functions as the country's highest executive body. In relation to spatial planning, the Cabinet of Ministers considers policy planning documents, external and internal legal

acts and orders of the Cabinet of Ministers. A key issue is the approval of objects of national interest, which are prepared by the ministry responsible. Normally, the Ministry of Environmental Protection and Regional Development issues decisions to the state administrative institutions subordinate to it. The ministry responsible prepares draft laws and regulations and submits them for adoption to the Parliament and the Cabinet of Ministers. Ministries are directly subordinate to their respective member of the Cabinet of Ministers. The ministries are the top-level direct administrative institutions that develop state policies. There are currently 13 ministries in Latvia (Politics of Latvia, 2017).

At the regional level, a **planning region's sustainable development strategy** is the key spatial planning document and this is adopted by the planning region's administration. The document is a strategic plan that defines the development possibilities, directions and restrictions of the area encompassed by the planning region. The regional council is formed from the all municipal councils within the planning region and is a decision-making authority consisting of the heads of all the local municipalities. The functions of a planning region are determined by the Law on Regional Development (Municipality of Riga, 2014).



Figure 3. Planning instruments at the local level in Latvia (Source: Ministry of Environmental Protection and Regional Development)

At the local level, municipalities are responsible for elaborating and implementing local development documents within their remit. **The sustainable development strategy** is a planning document for long-term spatial development. This includes a vision, strategic objectives, a spatial development perspective and development priorities for the municipality's long-term development. **The development programme** is a medium-term development planning document setting out medium-term priorities and the measures used to implement the long-term strategic goals specified in the local government development strategy. The local **government spatial plan** covers the whole territory of the municipality and establishes "[...] detailed requirements, sites and objects specified in higher level spatial plans". The planning document defines the requirements for land use and building, including functional zoning, public infrastructure and regulations regarding land use and building, as well as other conditions for land use. This document is developed for the whole or

part of an administrative territory. **A thematic plan** is a spatial development planning document that solves specific issues related to the development of separate sectors (e.g. transport infrastructure) or specific themes (e.g. valuable landscape areas and high-risk sites) according to the planning level. The local plan is developed by a municipality for a part of its administrative territory (e.g. for a part of a town, village or rural area) in order to accomplish a planning task or to detail or amend a spatial plan. A **detailed plan** is developed in order to specify the requirements for the use of specific land units and building parameters, as well as to adjust the boundaries of land units and restrictions. A detailed plan may be prepared if the local government spatial plan does not cover the spatial utilisation and building conditions of specific land areas. Both plans should take into account spatial plans from neighbouring municipalities (Spatial Development Planning Law, 2011; Ministry of Environmental Protection and Regional Development, 2016).



Kīleveina ditch located in the Riga Pilot site is severely contaminated
Photo: City of Riga

Support for brownfield redevelopment in Latvia

There is no common regulation or policy governing brownfield redevelopment in Latvia, however there are a number of different pieces of legislation that have an impact on the redevelopment of brownfields. The central piece of legislation is the **Law of Land Management** and this uses the broad term “degraded territory”². This term encompasses brownfield sites, but also other concepts such as deprived areas and contaminated sites. The Law of Land Management also defines the principles for land use and protection, which regulates local government planning documents for building priorities in relation to brownfields (Law of Land Management, 2015; Noviks et al., 2015). For example, the binding regulation **Riga Territory Maintenance of Buildings Point No. 13** prescribes how building facades and other external structures are to be maintained. It also includes provisions to prevent the degradation of the environment and damage to the surrounding urban landscape. In this context, it is also possible to relate brownfields to the Spatial Development Planning Law through the **Regulations of Cabinet of Ministers No. 240 – Planning, Usage and Building Regulations of Territories**. This defines areas with special requirements, including “degraded territories”, which can be defined as areas with special requirements within a municipality’s spatial plan.

In addition to the **Law on Land Management**, there are also other pieces of legislation that can come into effect in the event a brownfield is redeveloped. Depending on what stage the redevelopment is at, each piece of legislation can have an impact in different ways. The main laws are: the **Law on Pollution**, the **Law on Environmental Impact Assessment**, the **Environmental Protection Law**, the **Waste Management Law**, the **Water Management Law**, the **Law on Subterranean Depths** and the **Natural Resources Tax Law**, as well a number of regulations issued by the Cabinet of Ministers. The

key pieces of legislation from among these are the **Law on Pollution**, the **Environmental Protection Law**, and **Cabinet of Ministers Regulation No. 483 Contaminated and Potentially Contaminated Sites Identification and Registration Procedures** (Ministry of Environmental Protection and Regional Development, 2016).

In terms of more general policy documents and programmes concerning brownfield development at the national and regional level, the Sustainable Development Strategy of Riga 2030 sets out targets that aim to support the implementation of a compact city model through the maximal use of unbuilt and degraded territories and the avoidance of urban sprawl. Furthermore, **Cabinet of Ministers Regulation No. 645 Implementing Rules of Operational Programme “Growth and Employment”** includes a specific objective concerning the “Revitalisation of territories through regeneration of degraded territories according to municipal integrated development programmes”. This regulation defines degraded territory as a place that has previously been used or built on, but is currently abandoned or not being utilised fully. It may be contaminated, uninhabited or semi-inhabited, but can also be an area with a detrimental cumulative impact on the surrounding area, the environment and the local population (Sustainable Development Strategy of Latvia).

At the local level, the Riga City Development Programme 2014–2020 includes tasks pertaining to degraded territories. With **Task 14.1 Revitalise Degraded Territories and Objects**, the municipality aims to support the construction of new residential buildings by using the existing potential (uninhabited constructions, degraded residential buildings). The tasks in the local development programme also include specific support to facilitate the growth of businesses in degraded areas (Municipality of Riga, 2014).

²“Area with a destroyed or damaged land surface, as well abandoned built-up areas, sites of mineral deposits, or land previously used for some commercial, industrial or military purpose; In spatial planning the term degraded territory is used in a broader sense, encompassing sites (land, buildings, surroundings) which have previously been used or built up, but are currently abandoned or underused. This can refer to a neglected or contaminated, abandoned or partly inhabited place that has a detrimental impact on the surrounding area, nature, landscape and people.”

There are very few possibilities in terms of national grants or programmes for brownfield redevelopment. However, financial support from Riga City Council is available for heritage conservation. Riga has binding regulations, with Riga City Council allocating funds for cultural heritage conservation and providing 50 per cent co-financing of the estimated total cost of maintenance for cultural monuments or objects. However, this co-financing is capped at EUR 14 000 for the restoration and conservation of cultural monuments and EUR 5 000 for the restoration of objects.

Furthermore, degraded objects are taxed at a higher rate. The Real Estate Tax Law stipulates that the real estate tax rate can be adjusted between 0.2 to 3 per cent of the real estate's cadastral value, and the municipality has the power to define this through local binding regulations. The law establishes a definition for constructions that are degrading the environment and stipulates that if an area is ruined or is endangering people's safety, it is to be taxed at a rate of 3 per cent. The Municipality of Riga applies the aforementioned 3 per cent tax rate (Ministry of Environmental Protection and Regional Development 2016). In cases where a property is a risk

to public safety or causes other risks and where the urban environment has been degraded for a long time, Riga City Council may decide to enforce compulsory revitalization of the property at the owner's expense.

Aside from local efforts, the municipality attracts EU funding for revitalization projects. Three important revitalization projects were realised in a previous EU planning period: the revitalization of derelict areas in the Maskavas, Krasta and Turgēņeva Street block, the revitalization of the Grizinkalns and Miera garden territory and the reclamation of Riga City Dumpsite No. 01944/675/PV on Augusta Deglava Street. In the new EU planning period 2014–2020, the main funding source for brownfield redevelopment is EU programmes. Riga has been granted EUR 10 million by Cabinet of Ministers Regulation No. 645 **Implementing Rules of Operational Programme "Growth and Employment"**, which includes the specific objective **"Revitalisation of territories through regeneration of degraded territories according to municipal integrated development programmes"** (Ministry of Environmental Protection and Regional Development, 2016).

Spatial Planning and Brownfields in Sweden

In Sweden, the term **contaminated land** (förorenade områden) is widely used by public authorities in policies and guiding documents. The term refers to land that has been used, for example, for petrol stations or industry, as well as to areas where the water is contaminated. Many of these areas are now considered attractive sites for development with new uses such as housing, offices and commercial activities (Swedish Environmental Protection Agency & National Board of Housing, Building and Planning, 2006), particularly due to their location in expanding cities.

Planning system and actors in Sweden

The Swedish law on planning and building, the **Planning and Building Act** steers land use and building in Sweden. It was revised in 2011 in order to make the planning process more efficient and make the legislation more comprehensible to the general public. At the national level, the Ministry for Enterprise and Innovation is responsible for preparing changes to the Building and Planning Act, together with the National Board of Housing, Building and Planning (Fredricsson

& Smas, 2013). The latter also works with the preparation and publication of guidelines, administration of national support and grants and the dissemination of knowledge about planning, housing and building.

The county administrative boards represent the state in the regions and ensure that local planning decisions are consistent with the pertinent legislation and national priorities and interest. They are to pay particular attention to a number of issues, **including environmental quality norms**, which currently exist for air, noise and water. They also have to ensure that planned changes to the physical environment do not harm or threaten human health and safety. The county administrative boards have the opportunity to cancel the municipalities' planning decision if there is legal justification to do so. If changes in land use affect more than one municipality, the county administrative boards are to ensure that land use plans have been coordinated satisfactorily. If the use of land concerns more than one municipality, a cross-municipal plan can be agreed on in order to deal with issues such as soil remediation (Swedish Environmental Protection Agency & National Board of Housing, Building and Planning, 2006).

Level	Planning instruments	Main responsible actor
NATIONAL	No national level spatial plan	
REGIONAL	(Regional land use plans)	Regional councils
LOCAL	Comprehensive plan (Detailed comprehensive plan) (Planning programme) (Area regulations) (Detailed development plan) Building permit	Municipalities

Table 4: Planning instruments and the main actors responsible for planning in Sweden.
Planning instruments that are not obligatory in all cases are in brackets.

The **Environmental Code** is the central piece of legislation for the Swedish Environmental Protection Agency (SEPA), which works to ensure this is complied with and put in practice. SEPA provides the government with analysis in order to assist in the development of environmental protection legislation and guide other authorities in matters pertaining to the Environmental Code. The basic premise of the Environmental Code is the protection of health, the environment and nature and this exists in parallel with the Planning and Building Act. This means that they do not dictate to each other and an action that is approved on the basis of the Planning and Building Act does not necessarily fulfil the requirements in the Environmental Code. The Planning and Building Act directs the planning of the area, whereas the Environmental Code needs to be complied with when implementing the physical change (excavation, building, laying foundations, etc.). For this reason, good cooperation between local authorities that are acting under these different laws is extremely desirable.

Responsibility for spatial planning in Sweden lies with the municipalities, and there is no spatial plan at the national level, which is reflected in Figure 4. Local planning is steered by the Planning and Building Act and the Environmental Code. The Planning and Building Act concerns the use of land and water, with the purpose being to foster appropriate physical development. There are a number of planning instruments that are the responsibility of the municipality and its political boards. The **comprehensive plan** and the **detailed development plan** are two key planning instruments, as is the **building permit**. These are explained briefly below, together with the **planning programme** and **detailed comprehensive plan**, both of which cover the scale between the comprehensive plan and the detailed development plan.

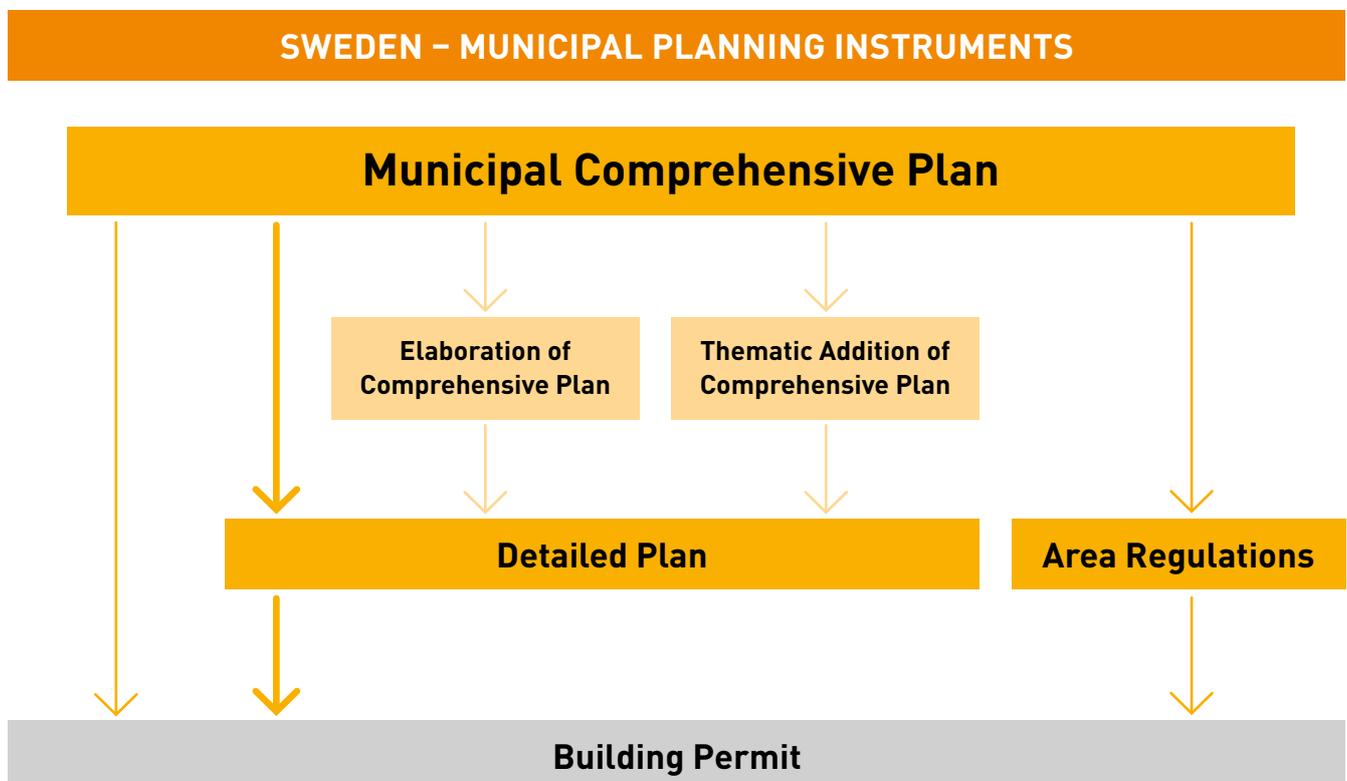


Figure 4. Planning instruments at the local level in Sweden



Norrköping's pilot site will be transformed into a waterfront "living room" for citizens
Photo: Norrköping Municipality

Brownfield redevelopment on the Swedish Baltic Urban Lab pilot site

Norrköping Municipality is a Baltic Urban Lab partner in the project to redevelop the Inner Harbour. The Inner Harbour used to be a harbour with various industrial activities, a gasworks and a wharf (1800–1970) and has subsequently served as an industrial site. Due to the gasworks, the Inner Harbour is the third most prioritized contaminated area in the county (County Administrative Board of Östergötland, a). It is situated relatively centrally in Norrköping, with good transport connections, though there are no inhabitants or public services in the area at this point in time.

With its waterfront location in front of Motala Ström, and its proximity to both the centre of town and a planned transport hub, Norrköping Municipality and private developers envision this area developing into an attractive part of the city. Norrköping Municipality is planning for about 2 000 inhabitants to live here in the future and for the area to accommodate workplaces, public and private services, a marina, new canals and a mixture of public and private housing.

In the Baltic Urban Lab project, Norrköping Municipality is testing innovative methods for collaboration with public and private actors and with the general public. One big challenge in the project is informing people about the soil remediation process that will cause disruption in the city over a period of years. Norrköping

Municipality is developing a 3D-visualization tool that allows it to explain the changes taking place and will use this as a tool for communicating with both public and private actors, as well as the city's inhabitants.

Read more about the pilot site at

www.balticurbanlab.eu/sites/inner-harbour

Sweden

- Population: 10 000 000 on January 20th 2017 (Statistics Sweden, 2016)
- Population density: 24.2/km² (Statistics Sweden)
- Urban population share: **1960:** 72.5% - **1990:** 83.1% - **2015:** 85.8% (World Bank, 2016)

Out of 24 500 objects or areas that have been risk evaluated, 1 000 objects are defined as severely contaminated (very high risk to people and nature), and 7 000 as containing a probable high risk (Swedish Environmental Protection Agency, 2016). Severely contaminated land is prioritized for soil remediation, but if a land area is envisioned for a new land use such as housing or offices, soil remediation might be pertinent, even if the area is not among the most contaminated. To be permitted to redevelop the land and prepare it to be residential area, it must fulfil certain criteria and the pollution there cannot exceed certain levels.

The **comprehensive plan** guides future land use development and describes long-term strategic developments within the municipality. It guides the detailed development plans, but there is no legal requirement to take the comprehensive plan into account when drafting detailed development plans. The comprehensive plan should be consistent with national and regional goals and should take into account national interests, such as national environmental quality goals (Fredricsson & Smas, 2013). Since 2004, there have been requirements that the **environmental impact assessment** of the comprehensive plan be carried out in accordance with the provisions in the Planning and Building Act and the Environmental Code (Swedish Environmental Protection Agency & National Board of Housing, Building and Planning, 2006). The municipal council is the local political board that decides whether to approve a new comprehensive plan or make any changes to it.

Since the comprehensive plan encompasses the entire municipality and sets the long-term vision for its land use, it is rather broad and does not go into detail about the development of a specific site. Instead, this is done in the detailed development plan, which sorts out various site-specific issues and will be explained further in next paragraph. In between the wide-ranging scale of the comprehensive plan and the smaller scale of the detailed development plan, other instruments can be used. There is often justification for creating either a **planning programme** or a **detailed comprehensive plan**. Detailed comprehensive plans can be set up either for thematic issues such as flooding or for larger geographical areas within a municipality. These function as updates to the comprehensive plan. Planning programmes can be used to decide on goals for the development of an area, often for areas that might contain more than one detailed development plan. This improves the coordination of detailed development plans, showing the larger context in the physical space. In larger municipalities, it is common for the municipal planning authority to have one department that is specifically dedicated to planning on the larger scale, while other department(s) work with the detailed development plans (see below).

The **detailed development plan** is legally binding and building permits are assessed in relation to it. It is within the process of drawing up a detailed development plan that a vast number of issues are investigated to test the suitability of the land use for the envisioned physical development and urban design. A detailed development plan can be drawn up if there has not been one previously and also if the land use is going to be changed and investigations concerning the new land use need to be carried out. The detailed development plan has to indicate on a map the boundaries for different uses such as public space, water areas and land on which to build. It also specifies the actors responsible for the various pieces of land. It is either the **municipal council** or the **local board on planning and building issues** that decide on plans and building permits. The civil servants working for the local board on planning and building issues create the detailed development plan in conjunction with other necessary municipal departments. In cases where there is contaminated land, the local environmental body contributes by providing its expertise and evidence on which to base a decision (National Board of Housing, Building and Planning, 2016a).

A number of issues are handled through different types of **building permits**. What should be allowed in a building permit is guided by the detailed development plan. If an area does not have a detailed development plan and it is not necessary to create one, a building permit can be approved with the comprehensive plan being used as a guide. Generally, building permits are required for new buildings and changes to existing buildings, as well as for changes in the use of existing buildings. Decisions concerning building permits are made by the local board on planning and building issues. However, different municipalities assign local responsibilities differently and make decisions in slightly different ways. The differences between the largest and the smallest municipalities are the most noticeable, with larger municipalities having more specialized departments and political boards, while those that are smaller normally have departments with responsibilities that are more mixed.

Support for brownfield redevelopment in Sweden

At the national level, Sweden has several policy documents setting priorities for and guiding the remediation and reuse of contaminated areas. Sixteen general **environmental objectives** (miljömål) function as national goals that guide policy on environmental issues. One of these, 'A Good Built Environment', is an important guide for building and planning in Sweden and a number of decisions, suggestions and financial supports have been provided by various local, regional and national administrative bodies to support its advancement. 'A Non-Toxic Environment' is particularly connected to the physical planning of contaminated land. This objective declares that contaminated land is to be dealt with in such a way that is no longer constitutes a threat to human health or the environment (Swedish Environmental Protection Agency, 2016c).

The national level has made efforts to increase knowledge about how contaminated land should be dealt with in physical planning as a result of the responsible national actors having identified that measures concerning contaminated land are often not dealt with sufficiently in physical planning processes (Swedish Environmental Protection Agency & National Board of Housing, Building and Planning, 2006). This is one of the reasons why the Swedish Environmental Protection Agency, together with the National Board of Housing, Building and Planning, produced a report in 2006 that set out guidelines concerning how to work when carrying out

physical planning pertaining to contaminated land. One of the aims of this report was to inspire civil servants whose work is subject to the Planning and Building Act and those whose work is subject to the Environmental Code to collaborate more on issues concerning the planning and redevelopment of contaminated areas. The two authorities subsequently published a flowchart showing the main steps involved when conducting planning pertaining to land that may be contaminated. This flowchart is also an effort to facilitate the work involved in these complex processes, which is mainly dealt with as part of the detailed planning process.

The Swedish Environmental Protection Agency financed an inventory of contaminated land that was completed in 2015. The inventory was conducted mainly by the county administrative boards and is the basis of a national database that holds information about the identified and inventoried areas³. The next step is to deal with the contaminated land. For those areas where the responsibility is not clear, the government has set aside funding for remediation (Swedish Environmental Protection Agency, 2011; 2016a; 2016b). Out of 24 500 objects or areas that were evaluated, 1 000 objects were classified as severely contaminated (very high risk to people and nature) and given a high priority, and 7 000 were classified as a probable high risk (Swedish Environmental Protection Agency, 2016).



Norrköping's pilot site, the Inner Harbour area, is located on a former gasworks site that was used to produce gas, tar and coke
Photo: Norrköping Municipality

³The identification in risk category is based on knowledge about what type of activity has been conducted at the area

In terms of collaboration between the various actors, this is an important part of planning any redevelopment of brownfield areas in Sweden. As soil remediation carries a substantial cost, exploitation and redevelopment is often the only way to obtain enough financial resources to decontaminate an area. For this reason there is a high level of dependency between the public actors and the private developers, as it is often the private developers who cover some of the costs. In 2012, the Swedish Environmental Protection Agency published a new guide to the Environmental Code which aimed to increase the number of soil decontamination projects that are funded by the private rather than the public sector. However, the urgent need for housing in Sweden has motivated the government to establish a fund to which municipalities can apply for support for the remediation of contaminated land when the purpose of this is to build housing. SEK 300 million is available annually in 2016 and 2017, and SEK 200 million per year thereafter (Swedish Environmental Protection Agency, 2017).

To make this process smooth, the Swedish Environmental Protection Agency and the National Board of Housing, Building and Planning recommend in their guidelines that the municipality – at an early stage in the planning of a brownfield area – collaborates with the authority responsible for supervision of the contaminated area (the county administrative board or the local environment board). This procedure provides a strong foundation on which the municipality and the private developer can agree on what kind of investigations and interventions that are needed in accordance with the Environmental Code. The interventions that are agreed are normally regulated in a civil agreement between the municipality and the private developer (Swedish Environmental Protection Agency & National Board of Housing, Building and Planning, 2006).

In cases where there is no actor responsible for a contaminated area, the county administrative board can apply for funding for remediation from the Swedish Environmental Protection Agency. To receive this type of funding, the area must be a 'highly prioritized area' (County Administrative Board of Östergötland). If an area is envisioned for a new land use such as housing or offices, it may be pertinent to carry out soil remediation, even if the area is not among those classified as most contaminated. In other cases, Sweden applies the **polluter pays principle**, which is steered by the Environmental Code. This means that anyone running a business is obliged to learn about its environmental impact as this principle states that the polluter is responsible for any risks and environmental impact (Swedish Environmental Protection Agency, 2016d). In accordance with the polluter pays principle, the developer is chiefly responsible for carrying out the remediation of the polluted land, provided they were the actor responsible for the polluting activities when these were carried out. If no actor is able to finance or carry out the remediation of the contaminated land, then all actors who have used the property since 1998, and who knew or should have known about the polluting activities, are to take part in the remediation (County Administrative Board of Östergötland, 2013).

At the regional level, some county administrative boards (e.g. the County Administrative Boards of Jönköping and Östergötland) have drawn up guides for the physical planning of brownfield areas. The County Administrative Board of Östergötland, to which the Baltic Urban Lab partner city Norrköping and its pilot area Inner Harbour belong, participated in the INTERREG Central Baltic project BECOSI, resulting in a comprehensive brochure and guidance for planning and building on contaminated land. There is also a memorandum concerning which legal paragraphs are to guide this work (County Administrative Board of Östergötland).

Summary

Brownfield redevelopment is a key topic for urban planning and development in all of the Central Baltic countries. The country overviews in this report reviewed planning systems and legislation from a brownfield redevelopment perspective with a specific focus on cooperation between actors and the remediation of contaminated land. Based on the country overviews, this concluding chapter summarises some of the main lessons learned.

National policy approaches

It is clear that there is no long tradition of national policy approaches to brownfield redevelopment in the Central Baltic region. The lack of a coordinated national policy approach has been seen as a challenge, at least in Estonia and Finland. In those countries, the lack of a national database on the number and scope of brownfields has also been considered a factor that hinders the development of a national approach to brownfield redevelopment. Although there is no specific national policy promoting integrated brownfield redevelopment in Sweden either, the country's national authorities have published various brownfield redevelopment guidelines for local authorities and have conducted brownfield inventories. In Latvia, the national Environmental Agency has created a register of contaminated and potentially contaminated sites. In Finland, there has also been an increased interest in brownfield redevelopment in recent years, with Finland having published a national risk management strategy for contaminated land in 2015. Although this focuses mainly on contaminated land from an environmental perspective, it also emphasises the need to ensure that risk management and land use planning support each other and highlights some urban development issues.

Land ownership structures

Land ownership structures can have a great influence on who has the opportunity to initiate and implement brownfield redevelopment projects. There is a major difference between the former Soviet countries of Estonia and Latvia and the Nordic countries of Finland and Sweden when it comes to land ownership as a factor that hinders or enables brownfield redevelopment.

In both Latvia and Estonia, large-scale land reforms took place in the early 1990s, with the majority of their land being privatised. The Nordic countries of Finland and Sweden, with their tradition of strong municipalities with high level of autonomy, have high proportions of land under municipal ownership, and land acquisition has been a central urban development tool for many growing municipalities in these countries. The land ownership situation and municipal autonomy in the Nordic countries enable municipalities to better steer land use policy and planning, and consequently brownfield redevelopment as well. Although the Nordic countries may also suffer from fragmented land ownership in many brownfield areas, it is clear that complex ownership structures are even more of a challenge in the Baltic countries, especially in many unused industrial area with a large number of landowners.



Archaeological excavation in the Inner Harbour area
Photo: Norrköping Municipality

Cooperation between public actors, landowners and developers

As stated in the introduction of this paper, the issue of cooperation between public authorities, landowners and developers is also central to brownfield redevelopment. This is because brownfield areas often have several small landowners and because remediating contaminated land usually carries a high cost that can be difficult for one actor to bear. The country overviews in this report show that in Estonia and Latvia, the roles and responsibilities of different actors are often unclear and there is a lack of methods to improve this cooperation. In Finland, the Land Use and Planning Act includes a description of methods for cooperation between the municipal planning authority and landowners early in the planning processes. There have also been several “partnership planning” methods developed and tested in order to increase the cooperation between the municipal planning authorities, landowners and developers. In Sweden, national authorities appear to have focused mostly on promoting collaboration between local actors working under the Planning and Building Act and those working under the Environmental Code. This is done in order to make planning processes more efficient and to avoid expensive surprises in the planning process in the event that the need for remediation of contaminated land is noticed at a late stage.

Financing

Financing, especially of the remediation of contaminated land, is another key issue because the costs are often high. Although none of the Central Baltic countries have major funding programmes targeting integrated brownfield redevelopment, there are different general funds available for both environmental and urban development purposes that have been used in brownfield redevelopment projects.

Especially in Estonia and Latvia, the European Regional Development Fund has been essential in enabling brownfield remediation and redevelopment. In these

countries, there is in general a lack of financial support for remediation of land and brownfield redevelopment. In Latvia, there is a lack of public funding at all levels of government and brownfield redevelopment projects are highly dependent on European funds or private contributions from landowners and developers. Estonia has some existing funding programmes, but this funding is very limited. One challenge in Estonia is also that it is not clear whether municipalities or private landowners are responsible for funding, which can stop redevelopment processes from happening. Sweden has also often experienced the complexity of clearing up responsibility for contaminated land, with such cases often being resolved in court.

In Finland, for example, municipalities can receive funding for remediation of land from two state programmes, as well as funding for the redevelopment of brownfield areas from various state programmes that focus on smart city development, for example. In Sweden, the county administrative boards can apply for funding for the remediation of contaminated land from the Swedish Environmental Protection Agency. In 2016, the Swedish government also established a fund to which municipalities can apply for remediation of contaminated land when the purpose of this is to build housing

Final remarks

We can see that although the domestic conditions and policy responses vary between Estonia, Finland, Latvia and Sweden, it is clear that what all of these countries share is that they still have some unresolved challenges in terms of finding the best means of promoting the remediation of contaminated land and redevelopment of brownfield areas. At the same time, awareness of the potential of brownfield redevelopment is increasing in many cases and there is the potential for these countries to learn from one another with regard to domestic policy approaches to the remediation of contaminated land and brownfield redevelopment.

⁴Read more about the involvement of the private sector in Nordic spatial planning in Smas, L., Fredricsson, C., Larsson, V. Perjo, L. (2015). Ansträngande partnerskap: näringslivet i nordisk stadsplanering. Nordregio Working Paper 2015:3. www.nordregio.se/en/Publications/Publications-2016/Anstrangande-partnerskap-naringslivet-i-nordisk-stadsplanering

References

Introduction

EC (2013) Science for Environment Policy. Thematic Issue: Brownfield Regeneration. May 2013. Issue 29.

Available at: http://ec.europa.eu/environment/integration/research/newsalert/pdf/39si_en.pdf. Accessed October 2016.

Estonia

Holvandus, J. (2014) Collaborative planning practice in Tallinn, Estonia: the role and viewpoint of neighbourhood associations. Master's Thesis in regional planning, University of Tartu.

Available at: http://cmus.ut.ee/wp-content/uploads/2014/07/Holvandus_magistrit%C3%B6%C3%B6_2014.pdf. Accessed October 2016.

Klamp, T.R. (2015) Kohaliku omavalitsuse tegevused pruunaladele linnaruumi kvaliteedi tõstmise eesmärgil kolme Eesti linna näitel. [Local government measures to brownfields for urban quality improvement, case study of three Estonian towns]. Tallinn College of Tallinn University of Technology. Available at: <https://digi.lib.ttu.ee/i/?3341>. Accessed October 2016.

Tintera, J., Ruus, A., Tohvri, E., Kotval, Z. (2014) Urban brownfields in Estonia: Scope, consequences and redevelopment barriers as perceived by local governments. Moravian Geographical Reports Vol 22, 4/2014.

Available at: <https://www.degruyter.com/view/j/mgr.2014.22.issue-4/mgr-2014-0021/mgr-2014-0021.xml>. Accessed October 2016.

VASAB (2016) Urban revitalization in the Baltic Sea Region. Brochure

Interviews

Sepp, Eedi (November 2016), Regional Development Department of the Ministry of Finance

Finland

Finnish Association of Municipalities and Regions (2012) Maankäyttösopimukset.

Website. http://www.kunnat.net/fi/asiantuntijapalvelut/mal/verkko-opaat/maapolitiikan_opas/Sivut/maankayttosopimukset.aspx

Häme Centre for Economic Development, Transport and the Environment (2011). Piuha. Pilaantuneiden teollisuusalueiden uudelleenkäyttöhankke. Hämeen ELY-keskuksen julkaisu 4/2011.

Available at: https://www.doria.fi/bitstream/handle/10024/94323/4_2011_PIUHA_osa1.pdf?sequence=2 Accessed 21/11/2016.

Ministry of Employment and the Economy (2016). Abrupt Structural Change. Website. <http://tem.fi/en/abrupt-structural-change-arm->

Ministry of the Environment (2014) Arviointi maankäyttö- ja rakennuslain toimivuudesta 2013. Suomen ympäristö 1/2014.

Ministry of the Environment (2015) Valtakunnallinen pilaantuneiden maa-alueiden riskienhallintastrategia. Suomen ympäristö 10/2015.

Available at: https://helda.helsinki.fi/bitstream/handle/10138/159058/SY_10_2015.pdf?sequence=3. Accessed 14/2/2017.

Newsec (2016). Kehittämisaalueen selvitys. Available at <http://www.kunnat.net/fi/tietopankit/uutisia/2016/>

Kehittämisaalueen selvitys/Kehitt%C3%A4misalueen selvitys%20selvitysty%C3%B6%20loppuraportti.pdf. Accessed 11/11/2016.

Ramboll (2015). Käytöstä poistuvien ja vajaa-käyttöisten teollisuusalueiden uusiokäyttöä koskeva esiselvitys.

Available at: <http://www.ramboll.fi/~media/Files/RFI/Reports/Kaytasto-poistuvien-ja-vajaakayttoisten-teollisuusalueiden-uisiokayttoa-koskeva-esiselvitys-09022015>. Accessed 11/11/2016.

Latvia

Ministry of Environmental Protection and Regional Development (2016). Ilma Valdmane Senior Officer, Spatial Planning Department, Ministry of Environmental Protection and Regional Development, December 2016.

Municipality of Riga (2014). Sustainable Development Strategy of Riga 2030, Riga, 2014.

Available from <http://www.rdpad.lv/wp-content/uploads/2014/11/ENG_STRATEGIJA.pdf> [24/01/2017].

Noviks, G., Teirumnieks, E., Lemešenoka, N., Matisovs, I., Teirumnieka, Ē., & Miklašēvičs, Z. (2015, August). Evaluation of brownfields in Latvia. In Environment Technology. Resources. Proceedings of the International Scientific and Practical Conference (Vol. 1, pp. 185-192).

Politics of Latvia (2017). Cabinet of Ministers, Politics of Latvia, 2017. Available from <<http://www.latvia.eu/key-facts/politics>> [24/01/2017].

Saeima - Parliament of Latvia (2010). Sustainable Development Strategy of Latvia until 2030, Saeima of the republic of Latvia, 2010.

Available from <https://www.cbs.nl/NR/rdonlyres/B7A5865F-0D1B-42AE-A838-FBA4CA31674D/0/Latvia_2010.pdf> [24/01/2017].

Spatial Development Planning Law (2011)., Saeima of the republic of Latvia 2014.

Law of Land Management (2015)., Saeima Parliament of Latvia 2015.

Sweden

County Administrative Board of Östergötland (2013) Förerenade områden I den fysiska planeringen – en vägledning ISBN 978-91-7488-334-3

County Administrative Board of Östergötland, a. Lista över de 20 mest förerenade områdena

<http://www.lansstyrelsen.se/Ostergotland/Sv/miljo-och-klimat/verksamheter-med-miljopaverkan/forerenade-omraden/Pages/index.aspx>
[Downloaded 23/01/2017 21:25]

County Administrative Board of Östergötland, b. Förerenade områden – vad görs? Länsstyrelsen Östergötland; INTERREG Central Baltic (2007-2013); European Regional Development Fund

Fredricsson, C. and Smas, L. (2013) En granskning av Norges planeringssystem Skandinavisk detaljplanering i ett internationellt perspektiv Nordregio Report 2013:1 ISBN 978-91-87295-14-0 ISSN 1403-2503

National Board of Housing, Building and Planning (2016a) Roller och ansvar

<http://www.boverket.se/sv/PBL-kunskapsbanken/detaljplan/roller-och-ansvar/>
Last updated 20160715 [Downloaded 21/12/2016 13:45]

National Board of Housing, Building and Planning (2016b) Detaljplaneinstrumentet

<http://www.boverket.se/sv/PBL-kunskapsbanken/detaljplan/detaljplaneinstrumentet/>
Last updated 15/07/2016 [Downloaded 21/12/2016 13:45]

Statistics Sweden Invånare per kvadratkilometer efter region, kön och år http://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START__BE__BE0101__BE0101C/BefArealTathetKon/table/tableViewLayout1/?rxid=f033d8c6-2cfc-4ac7-9756-403e6c02a907
[Downloaded 23/01/2017 14:10]

Statistics Sweden (2016) Nu är vi 10 miljoner invånare i Sverige

http://www.scb.se/sv/_Om-SCB/Nyheter-och-pessmeddelanden/Behallare-for-Nyheter-och-Pressmeddelanden/Nu-ar-vi-10-miljoner-invanare-i-Sverige/ [Downloaded 23/01/2017 14:10]

Swedish Environmental Protection Agency & National Board of Housing, Building and Planning (2006) Förerenade områden och fysisk planering Samarbetsprojekt mellan Naturvårdsverket och Boverket Rapport 5608 ISBN 91-620-5608-5

Swedish Environmental Protection Agency (2011) Branscher inom vilka objekten ska inventeras respektive endast identifieras i det efterbehandlingsarbete som utförs med bidrag från Naturvårdsverket

Swedish Environmental Protection Agency (2016a) Att inventera förerenade områden

<http://www.naturvardsverket.se/Stod-i-miljoarbetet/Vagledninga/Forerenade-omraden/Att-inventera-forerenade-omraden/>
Last updated 01/08/2016 [Downloaded 23/11/2016 14:00]

Swedish Environmental Protection Agency (2016b) Ungefär en tredjedel av de riskklassade förorenade områdena i Sverige, nära 8 000 av 24 000 objekt, medför mycket stor eller stor risk för människa och miljö och bör åtgärdas

<http://www.naturvardsverket.se/Sa-mar-miljon/Statistik-A-0/Foroenade-omraden-lan-i-urval/>

Last updated 30/08/2016 [Downloaded 23/11/2016 14:10]

Swedish Environmental Protection Agency (2016c) De flesta förorenade områdena är kända

<http://www.naturvardsverket.se/Sa-mar-miljon/Mark/Foroenade-omraden/>

Last updated 22/03/2016 [Downloaded 23/11/2016 14:45]

Swedish Environmental Protection Agency (2016d) The Swedish Environmental Code

<http://www.swedishepa.se/Guidance/Laws-and-regulations/The-Swedish-Environmental-Code/>

Last updated 20161012 [Downloaded 21/12/2016 12:00]

Swedish Environmental Protection Agency (2017) Bidrag av sanering av förorenade områden för att bygga bostäder

<http://www.naturvardsverket.se/efterbehandling-infor-bostadsbebyggelse>

Last updated 20170120 [Downloaded 10/02/2017 13:45]

World Bank (2016) Urban population (% of total)

http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?end=2015&locations=SE&name_desc=true&start=1960

[Downloaded 23/01/2016 14:20]