



Partnership models for providing public infrastructure and services in Denmark an overview of the agenda 2002-2009

Lindholst, Andrej Christian

Publication date:
2012

Document version
Publisher's PDF, also known as Version of record

Citation for published version (APA):
Lindholst, A. C. (2012). *Partnership models for providing public infrastructure and services in Denmark: an overview of the agenda 2002-2009*. Forest & Landscape, University of Copenhagen. Forest & Landscape Working Papers, Vol.. 71



Partnership models for providing public infrastructure and services in Denmark



An overview of the agenda 2002-2009

By Andrej Christian Lindholst



Title

Partnership models for providing public infrastructure and services in Denmark – An overview of the agenda 2002-2009

Author

Andrej Christian Lindholst

Series – title and No.

Forest & Landscape Working Paper 71-2012
Published only on www.sl.life.ku.dk

Citation

Andrej Christian Lindholst (2012): Partnership models for providing public infrastructure and services in Denmark – An overview of the agenda 2002-2009. Working Paper 71-2012. Forest & Landscape, University og Copenhagen, Frederiksberg, 17 p.

ISBN

978-87-7903-587-4

Layout

Jette Alsing Larsen

Publisher

Forest & Landscape Denmark
University og Copenhagen
Rolighedsvej 23
DK-1958 Frederiksberg C
Tel. +45 3533 15 00
E-post sl@life.ku.dk

Citation allowed with clear source indication

Written permission is required if you wish to use Forest & Landscape's name and/or part of this report for sales and advertising purposes.

Introduction

The term ‘partnership’ has since early 2000 been introduced and adapted in the political and administrative agenda in the public sector in Denmark. This work paper provides an overview of current models of partnerships for providing public infrastructure and services in Denmark with a special view toward the adoption of the term for management and maintenance of parks and open spaces. It is reviewed how so-called ‘public-private partnerships’, ‘partnerships’, and ‘partnering’ have evolved and been implemented as both policy and practice in the period 2002-9. The reviewed material consists of publicly available reports and documents that refer to ‘partnerships’ (or ‘partnering’) as either a formal policy and/or a practice.

It is investigated firstly how the Danish Government’s policies and the public-private partnership agenda has evolved regarding content and instruments. Secondly, it is investigated how public authorities and agencies at different levels in the state and within different policy areas have adopted and implemented public-private partnerships and the broader agenda of partnerships as collaborative practices. Finally, four models of public-private partnerships are identified that have been in play in the Danish public sector in the period 2002-9. It is concluded that partnerships has been on the rise as a new term at the policy level, but this development has still only had minor impact on practice within the observed period.

Contents

Introduction.....	3
Contents	4
Government Policies on Public-Private Partnerships	5
A new agenda.....	5
A wider agenda	7
Partnering in construction	7
Public-private partnership consortiums	8
Partnerships in the Transport Sector	8
Partnerships in Local Government Services	8
Partnerships in Nature Management	9
Partnerships in Park Management.....	10
Partnerships in Urban and Rural Regeneration.....	11
Four Partnership Models.....	13
Discussions	13
Literature.....	15

Government Policies on Public-Private Partnerships

A new agenda

Consecutive Danish neoliberal governments have since 2002 adopted and promoted public-private partnerships as an alternative way of providing public services and infrastructure. The partnership agenda in the government's policies was initially confined to large infrastructure investments, but has been extended into a broader range of public services. Just after taking office in 2001, a new neo-liberal Government initiated an economic growth program that addressed partnerships as a new public policy instrument. In a 2002 policy document outlining how the Government will promote growth in the society (Regeringen, 2002), partnerships were framed in a pro-market discourse as a part of an overarching economic growth program. The policy document briefly mentioned 'new collaborative forms' as a way of promoting the general growth agenda. Partnerships were one policy instrument among others to achieve 'more and better' competition in both private and public markets. Competition was seen as key in meeting consumer demands and delivering cost-efficiency in production of public and private goods. Under the heading 'new partnerships between the public and private sector' the government aimed to increase procurement of public services and goods (and hereby increase competition). The key phrase in the government's policies on contracting out and procurement policies was the requirement to produce services and goods where it would be 'best and cheapest'. Initial policy instruments were limited to more sturdy procurement guidelines and greater attention to fair competition between public and private bidders.

In a subsequent policy document "Vækst, viden og investeringer – de næste skridt [Growth, knowledge and investments – the next steps]" (Regeringen, 2003b), public-private partnerships were specified further as having relevance for sustaining public investments. Partnerships were framed as a policy instrument for promoting 'growth through investments' with relevance for large scale public investments such as infrastructure projects. Partnerships were believed to have two dimensions. One dimension regarded (improved) integration of built (design and construction), operation and finance of public infrastructure projects such as roads, IT-development and public services such as child care. The second dimension regarded finance of larger business development projects such as urban development. In the government's long term investment plan (Regeringen, 2003a) a range of more specific objectives and initiatives were described. Congruently with earlier policy documents the overall purpose of using partnerships was a part of the agenda of ensuring that public services were provided 'best and cheapest'.

In the government's first action plan for public-private partnerships from 2004 (Regeringen, 2004) ten initiatives were enlisted for promoting public-private partnerships. Amongst other, the initiatives comprised a set of (very)

small pilot projects, project consultancy and advisory support, requirements for feasibility analysis of a public-private partnership in all state infrastructure investment decisions and changes in financial regulations for municipalities. The stated objective was to ensure that the complementary competencies of the private and public to sector could promote innovation and efficiency in public services provisions.

Congruently with the action plan all state agencies and state financed projects became obliged by law in 2004 to consider the viability of either a public-private partnership or partnering in construction projects. The legal announcement concerned (Økonomi- og Erhvervsministeriet, 2004), made it compulsory for state agencies and projects financed with more than 50 % state subsidies to consider both the viability of these approaches and estimate and document the price differences against traditionally organized construction projects. The requirements also comprised a range of non-economic key performance indicators. The legal requirements for using key performance indicators were extended in 2008 to cover client satisfaction, time frames, quality, work accidents, prices and budget certainty (Økonomi- og Erhvervsministeriet, 2008).

The Danish government's approach to public-private partnerships has been sustained and developed further in subsequent policies (Regeringen, 2007) and strategic work (Økonomi- og Erhvervsministeriet, 2009) where partnerships have become framed as one alternative public-private constellation amongst other. Whereas the early agenda emphasized large infrastructure projects, the later agenda has subsequently also placed focus on other public services such as employment and labour market policies, sustainable energy supply and promotion of health.

A wider agenda

In addition to the government's introduction of public-private partnerships for promoting use of market and large scale investments projects, a wider partnership agenda has been adopted to cover new and existing collaborative practices in the Danish public sector at both state and local levels. The central administration has in line with government policies promoted a conceptual framework that sees partnerships as alternatives within the overall range of alternatives for using the private markets in the public sector (Erhvervs- og Byggestyrelsen, 2007). Subsequently, more 'loose' conceptualizations have been employed that focus on various collaborative forms as expressions of partnerships at the level of local government (Indenrigs- og Socialministeriet, 2009). Today, a 'partnership' may also denote formal and informal collaborations between various public and private partners as well as the integration of project development, design, construction, maintenance/operation and finance in a 30 years' perspective. In the conceptualization centred upon 'collaboration', many existing policies and practices at all levels of government can be labelled as 'partnerships'. Whether a specific collaborative arrangement should be labelled as a 'partnership' may depend on the eyes of the beholder or the adopted language employed by involved actors. However, according to the conceptualization of public-private partnerships centred upon large infrastructure projects only very few partnerships have been initiated in Denmark. By the end of 2008, less than ten public-private partnerships have been initiated in the Danish public sector (Greve, 2008).

Partnering in construction

Since early 2000s, the Danish Enterprise and Construction Authority (DECA) have played a central role in promoting and evaluating the use of 'partnering' in the construction sector. Partnering denotes a formal collaborative arrangement of the project organization in a construction project in which a client and contractors engage in the process under a shared vision, joint activities and mutual economic incentives (Byggeriets Evalueringscenter, 2004; Høgsted, 2004). Partnering is focused on efficient use of competencies and resources measured against a range of key performance indicators. In contrast to a full-fledged public-private partnership where design, construction, operation and finance are integrated in an independent project, adoption of partnering in a construction project does not consider project finance or subsequent maintenance/operation. Partnering has become widespread in the Danish construction sector and to a minor degree among public project owners (Gøth, 2005). Compared to more traditional forms of project organizations the use of partnering has been evaluated as relatively successful (Gøth and Jensen, 2005). The partnering model has also been adopted for maintenance contracts by some public authorities as well (Høgsted and Olsen, 2006).

Public-private partnership consortiums

Palaces and Properties Agency (PAPA) is a state property company under the auspices of the Ministry of Finance. PAPA runs the state's castles and gardens for use by the royal family, government institutions and museums – and for the pleasure of the general public. PAPA also provides the state with offices and maintains them. The agency has become responsible for the government's first three construction projects based on a full-fledged public-private partnership approach. In June 2007, PAPA signed a contract with a public-private partnership consortium to build and then run joint repositories for the Danish National Archives and the Provincial Archives for Zealand. The public-private partnership (PPP) supplier finished the construction work in 2008 and the repositories are now in operation. In December 2007, PAPA signed a contract with another PPP consortium (OPP Hobro Tinglysningsret A/S) for the construction and operation of a new building for the Land Registration Court in the town of Hobro. The building was opened in spring 2009. The third PPP project – a new tax centre in the Port of Haderslev – was initiated in 2008. In 2008, PAPA was also initiating a PPP contract for four city courts and a contract for a police station. Based on the experience PAPA has gained with assessment of the viability of public-private partnerships and partnering for larger projects, the Agency has also started to consider these models for smaller projects. Based on their experience PAPA has drafted guidelines for construction projects (Slots- og Ejendomsstyrelsen, 2008a) and a standard contract (Slots- og Ejendomsstyrelsen, 2008b) for use with public-private partnership consortiums.

Partnerships in the Transport Sector

The Danish Road Directorate (DRD) is endowed with responsibilities for the Danish national road grid, overall planning and development of the road sector, and providing associated professional expertise and knowledge. In 2004, the total value of the agency's assets was estimated to be in the range of app. 5.8 billion € and the total annual budget was in the range of app. 280 million €. With inspiration from the construction business, DRD has since 2002 implemented partnering in their maintenance contracts in the form of a formal agreement for organizing contractual collaboration (Simonsen and Høgsted, 2003; Vejdirektoratet, 2003; Høgsted, 2005). DRD has in 2009, as the first public authority in Denmark, procured a new transport infrastructure project with the inclusion of a 30-year public-private partnership model. The project delivers a new highway in the southern part of Denmark. The highway is estimated to be operational in 2013.

Partnerships in Local Government Services

The partnership agenda for local governments has been promoted by central initiatives. The Danish Enterprise and Construction Authority (Erhvervs- og Byggestyrelsen, 2007) has stressed implementation of five models for public-private relations in the public sector that range from standard procure-

ment and contracting out to the setup of public-private enterprises. The five models are: 1) standard procurement of either a construction project or maintenance service, 2) partnering or service partnerships, 3) setting up a public-private company, 4) integrated procurement of a built and operate project (PPP-light models) and 5) a full-fledged public-private partnership that integrates development, design, building, maintenance and finance in a infrastructure project. The association of local governments in Denmark has tried to identify the more practical challenges of public-private partnerships (Kommunernes Landsforening, 2008). The challenges were specified in a comprehensive guidance document to assist the work with public-private partnerships in construction projects and public services such as schools, new roads and transport infrastructures, as well as for commercial development. One major challenge for local governments is to manage the regulatory demands and substantial administrative costs of implementing full-fledged public-private partnerships, which seems excessive for smaller projects typically undertaken by local governments. Local governments have therefore sought to implement less ambitious partnership models for smaller projects that exclude financial parts from the arrangement, but still engage a highly collaborative approach. These are commonly referred to as 'PPP-light models' (Erhvervs- og Byggestyrelsen, 2005).

Partnerships in Nature Management

The Danish Forest and Nature Agency (DFNA) has the responsibility for managing state owned forest and nature and has over the years worked collaboratively with a wide range of public authorities, private landowners and interest groups. The partnership term has been adopted by DFNA to cover some types of collaboration. In their action report on the use of public-private partnerships from 2006 (Skov - og Naturstyrelsen, 2006) DFNA presents an overview on the different types of partnerships they have worked with and planned to work with. Based on references to international experiences (mainly from England and the Netherlands) public-private partnerships are identified as potential drivers for successful project delivery. A need to redefine traditional public-private roles and objectives is also acknowledged. In addition to the leading pro-market conceptualization of public-private partnerships, DFNA prompts the opportunities for other types of partnerships with different constellations of objectives, participants and project organizations. This includes various constellations of public-private, public-public, public-semi-public, and multi-partner projects. Among a longer list, the projects include a 20 million € project between different public and private stakeholders for turning Copenhagen's historical fortifications into a tourist attraction and a project with interest organizations and local communities for improving endangered birds' habitats. The two examples demonstrate the diversity in the range of projects that might be labelled as 'partnerships'.

Partnerships in Park Management

Within public green-space management, a model of so-called ‘Integrated Park Management’ (IPM) was developed in 2004 (Randrup, et al., 2004). The IPM model was the outcome of a collaborative project between a consultancy, research institution, local authority and a private contractor. Part of the outcome included a list of salient items and tools perceived as necessary for delivering good landscape maintenance. The list can be seen as a set of tools whereupon public park managers may draw inspiration for setting up and developing a partnership approach. The tools are shortly presented in table 1 below.

Table 1 – Tools in the Integrated Park Management Model

Ethical rules	To support adaptation of a partnership ‘ethos’, the parties should clarify ‘good behaviour’ in a set of common agreed rules.
Park policy	Landscape maintenance has to take place within a formulated park policy which includes values, visions and objectives. The park policy must be acknowledged and supported at the political level.
Business plan	The private contractor must formulate a business plan. The business plan should elaborate the contractor’s competencies and resources.
Task differentiation	To secure competitive pricing as well as renewal and development, tasks should be divided into ‘basic’ and ‘additional’ tasks (with competitively fixed prices), and ‘development’ tasks (dedicated a fixed sum of money). As an incentive for the horticultural minded contractor, any efficiency gains regarding basis tasks could be canalised into more challenging development tasks.
Area description	Alongside maintenance plans, the physical condition, functions and objectives should be formulated in a description for specific areas. Action plans for current use, renewal and development should be included as well.
Provider’s role	The contractor’s capabilities should be used to its full extent. This may happen through joint planning of tasks and the use of economic incentives for promoting improved performance. Due to their daily contact with users and operations in the areas ground staff should play an active role in decision processes as well.
The public	The public should participate at multiple levels. Citizens and politicians should be involved at the level of park policy. At the level of area description, daily users and nearby residents should be involved. This includes both organized as un-organized user groups.
Bonus system	The IPM concept includes a bonus system were economic incentives are attached to the level of compliance to service targets. The bonus system aims at minimizing user complaints, (de)faults, and facilitating overall cooperation.
Rationalization	To support regeneration and efficiency thinking through daily maintenance routines any economic gains should be reinvested or shared through pre-defined incentive schemes e.g. a split of rationalization gains or reinvestments.
Solution ladder	All internal problems are handled at the lowest level as possible, if not; problems are taken to the next organisational level, potentially to the highest level in each organisation (e.g. CEO).

The IPM model was originally conceived to be a full-bodied holistic model for park management and ground maintenance. Although the project group initially was fairly optimistic about the potentials of the IPM model, by 2010 it still needs to be seen implemented in public green-space management in Denmark. While the IPM model hasn’t been implemented at full scale, it has still inspired some Danish local authorities to engage parts of the model in their management and maintenance practices (Lindholst,

2008). Notably, the third largest city has adopted the concept and worked systematically with implementing a slightly downgraded version. Similar models to the IPM model has been operational in England at least since 2000 (Lindholst and Sullivan, 2009).

Partnerships in Urban and Rural Regeneration

Urban regeneration

Local authorities have since 1997 been required by law to manage urban regeneration in Danish cities. In an early report about partnerships and citizen involvement in urban regeneration projects (Christensen, 2003), a need was identified to develop tools to bridge between the challenge of partnerships and the challenge of citizen involvement. In this early phase, partnerships were conceptualized as collaboration between public authorities and private actors for providing funding and implementing urban renewal projects. Partnerships in this sense have increasingly been employed in urban planning and policies since the 1990s (Andersen, 2006). However, the public part has in these cases normally have had the overall lead role and responsibility for project implementation.

In 2005, the central administration published a set of recommendations for the use of partnerships in urban regeneration in Denmark (Socialministeriet and Erhvervs- og Byggestyrelsen, 2005). The definition of partnership was again based on an alternative conceptualization of the term compared to that embedded in the government's policies. The set of recommendations was based on a series of case studies of urban renewal/regeneration projects embarking on partnership approaches from France, the Netherlands and England. The report reviewed a range of formal public-private partnership models that would be complementary to the already prevailing planning practices, based on a large degree of stakeholder involvement, cross-sector collaboration, local ownership and requirements for involvement of private investment. At the same time, with the government's pro-market policies, a reform of the legal framework for urban regeneration in 2004 required an increased use of incentives for private investments and prompted the need to investigate further available models. The economic size and the long time frame of full-fledged public-private partnerships made such approaches unviable for most municipal urban regeneration projects. Local authorities have normally not been managing projects with timeframes up to 30 years. In a report from 2006 (Dansk Byplanslaboratorium, 2006) the possibilities and barriers for using public-private partnerships in urban regeneration projects were investigated further. The report also offered an alternative conceptualization of partnerships centred upon the presence of a degree of collaborative and cross-sectoral practices.

Rural regeneration

In a report on partnerships for regeneration in rural areas (Indenrigs- og Socialministeriet, 2009) partnerships are defined along the same lines as set out for partnerships in urban regeneration. Partnerships are described as 'mutual', 'trust-based' and 'committed cross-sectoral collaborations' between various actors in both formalized and more loosely connected networks and organizations. The report highlights four examples of rural development projects that comply with the partnership concept. The contents of the projects include attracting knowledge based jobs, business development as well as town and infrastructure development.

Four Partnership Models

The review presented above of Danish policies and practices on partnerships for provision of public infrastructure and services have identified four major partnership models. The four models are:

- Public-private partnerships for large scale infrastructure and investment projects.
- ‘PPP-light models’: Integrated procurement of a built and operate project without public transfer of financial responsibilities to the private part for the investment.
- Partnering as a formal collaborative approach in a construction project or a maintenance contract.
- Partnerships as collaborative and cross-sectoral practices.

The promotion and development of each model has been linked with the particular context that has embedded the models. While the government’s policies mainly have framed partnerships as a model for large scale infrastructure projects and increased private sector involvement/competition, lower levels in the public sector have adopted and widened the partnership agenda, especially by looking at partnerships as collaborative practices across traditional sector boundaries. As these collaborative practices had been well in place before the introduction of partnerships at the policy level, far from all instances of collaborations should be expected to be promoted explicitly under the heading of a ‘partnership’ or as a part of formal partnership policies.

Discussions

‘Public-private partnerships’ were formally introduced in the Danish public sector in 2002 as a part of a new neoliberal government’s agenda for increased use of private markets in public service provision. State agencies have in some degrees adopted various forms of partnerships and addressed formal requirement in their practices, while local authorities are still dealing with the partnership idea at an experimental level. Partnerships and partnering have mainly been used in the private and public construction sector with a focus on construction and providing traditional public services (e.g. transport infrastructure). Prevailing practices among public authorities are still based on traditional arrangements for involvement of private market actors (e.g. public tendering).

In Danish policies, partnerships have not been targeted explicitly and directly toward public parks and open spaces. Besides already existing practices there are little sign of adoption of new innovative and formalized partnership approaches for management and maintenance of such spaces. The

IPM model is the only clear example of a partnership approach targeted management of public parks and open spaces in a long term perspective. However, the IPM model still needs to be seen implemented in practice.

There is a strong tradition in Denmark for collaborative and integrative approaches in spatial planning and urban regeneration. Such practices may be labelled as 'partnerships' depending on the definition and language that are adopted. In urban and rural regeneration, these partnership approaches have been implemented to various degrees. However, the development can also be viewed more as an adaptation of a new term (policy) for already instituted collaborative practices than adaptation of a new set of practices.

The review of the policy agenda in government initiatives and parallel developments at various levels in the public sector in the period 2002-9 identifies a trend where policies, knowledge, tools and experience about partnerships have evolved and been enlarged. Still, and after having been on the Danish Government's agenda for more than eight years, public-private partnerships as practice are still by and large in an experimental phase only.

Literature

- Andersen, H. T., 2006. Bypolitik i Danmark efter 1960 - i historisk perspektiv. In: Christensen, S. B. (Eds.), Den Moderne By. Aarhus Universitetsforlag, Aarhus, pp. 353-383.
- Byggeriets Evalueringscenter, 2004. Partnering - erfaringer og fremtid. Byggeriets Evalueringscenter, København.
- Christensen, R., 2003. Byudvikling i 8 kommuner – partnerskaber og borgerinddragelse. Erhvervs- og Boligstyrelsen, København
- Dansk Byplanslaboratorium, 2006. Offentlig-private partnerskaber i byomdannelse - Et udviklingsprojekt om muligheder og barrierer. Socialministeriet, København.
- Erhvervs- og Byggestyrelsen, 2005. OPP-markedet i Danmark 2005-2010. Erhvervs- og Byggestyrelsen, København.
- Erhvervs- og Byggestyrelsen, 2007. Fem modeller for offentligt-privat samspil - en guide til kommunerne. Erhvervs- og Byggestyrelsen, København.
- Greve, C., 2008. Konkurrence og offentlig servicelevering. FTF, København.
- Gøth, S., 2005. Brug af partnering i Danmark - en dokumentation af byggeriets anvendelse af partnering. Byggeriets Evalueringscenter, København.
- Gøth, S. Jensen, H. H., 2005. Bygherrers tilfredshed med partnering. Byggeriets Evalueringscenter, København.
- Høgsted, M., 2004. Vejledning i partnering. Erhvervs- og Byggestyrelsen, København.
- Høgsted, M., 2005. Partnering ved vejdrift, toiletrenhold og beplantningspleje - metoder og resultater. Vejdirektoratet, København.
- Høgsted, M. Olsen, I. S., 2006. Partnering i byggeriet - erfaringer med partnering. Nyt Teknisk Forlag, København.
- Indenrigs- og Socialministeriet, 2009. Sammen står vi stærkere: Erfaringer fra partnerskaber i landdistrikterne. Indenrigs- og Socialministeriet, København.

- Kommunernes Landsforening, 2008. Kortlægning af udfordringer vedrørende offentlig-privat partnerskab (OPP). Kommunernes Landsforening, København.
- Lindholst, A. C., 2008. Partnerskaber i parkforvaltningen: Grøn drift på kontrakt. PhD. University of Copenhagen, Frederiksberg.
- Lindholst, A. C. Sullivan, S., 2009. Developing Partnership Contracting for Landscape Maintenance in Park Management. IFPRA WORLD - Refereed Section (December), pp. 8-11.
- Randrup, T. B., Nielsen, J. B., Bertelsen, B. U., Bender, J. C., Damgaard, C., Nuppenau, C., Østerbye, L. Sejr, K., 2004. Helhedsorienteret Parkforvaltning - præsentation af servicekonceptet HelPark. Center for Skov, Landskab og Planlægning, KVL, Frederiksberg.
- Regeringen, 2002. Vækst med vilje. Regeringen, København.
- Regeringen, 2003a. Investeringsplan - de næste 10 års offentlige investeringer. Regeringen, København.
- Regeringen, 2003b. Vækst, viden og investeringer - de næste skridt. Regeringen, København.
- Regeringen, 2004. Handlingsplan for Offentlig-Private Partnerskaber (OPP). Regeringen, København.
- Regeringen, 2007. Mulighedernes Samfund: Regeringsgrundlag for VK Regeringen III. Regeringen, København.
- Simonsen, P. Høgsted, M., 2003. Partnering ved vejdrift og beplantningspleje - Udvikling af samarbejdet, procesoptimering, resultater og perspektiver. Vejdirektoratet, København.
- Skov- og Naturstyrelsen, 2006. Handlingsplan for Offentlig - Private Partnerskaber i Skov- og Naturstyrelsen. Skov- og Naturstyrelsen, København.
- Slots- og Ejendomsstyrelsen, 2008a. Notat - vejledning om OPP-aftaler. Slots- og Ejendomsstyrelsen, København.
- Slots- og Ejendomsstyrelsen, 2008b. OPP-kontraktparadigme. Slots- og Ejendomsstyrelsen, København.
- Socialministeriet Erhvervs- og Byggestyrelsen, 2005. Indsamling og analyse af udenlandske erfaringer med OPP i byomdannelse. Erhvervs- og Byggestyrelsen, København.

Vejdirektoratet, 2003. Partnering ved vejdrift og beplantningspleje - Udbud, partnering og kontrahering. Vejdirektoratet, København.

Økonomi- og Erhvervsministeriet, 2004. Bekendtgørelse nr. 1394 af 17/12/2004 (bekendtgørelse om anvendelse af offentlig-privat partnerskab (OPP), partnering og oplysninger svarende til nøgletal).

Økonomi- og Erhvervsministeriet, 2008. Bekendtgørelse nr. 241 af 11/04/2008 (bekendtgørelse om nøgletal for byggeri m.v.).

Økonomi- og Erhvervsministeriet, 2009. OPS 09. <http://www.ops09.dk>. Accessed at: December 15, 2009.



Forest & Landscape Denmark
University of Copenhagen
Rolighedsvej 23
1958 Fredriksberg C
Tel. +45 3533 1500
sl@life.ku.dk
www.sl.life.ku.dk
