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*social and environmental quality jeopardized*

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# Marketization of Refuse Collection in Denmark: Social and Environmental Quality Jeopardized

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## EXECUTIVE SUMMARY

Danish municipalities' outsourcing and contracting of refuse collection are framed by a complex set of ideologies and objectives, besides regulation. Both at EU-level and at national level extreme demands for marketization of the public sector are counter-weighed by demands for social and environmental considerations associated with the superior goal of sustainable development. In the EU regulative complex developments in normative and legal regulation of social and environmental requirements to member-states' performance have co-existed with tough requirements to ensure open competition in public authorities contracting. In the latest edition of the procurement directive it has been clarified that public authorities' commitment of private service-providers to social and environmental requirements by contracting is perfectly legitimate. At national level the municipalities when contracting are obliged to balance requirements to effectiveness with requirements to quality of the services and to consider social and environmental requirements. The municipalities consequently are left with considerable responsibility and competence when contracting a publicly financed service like refuse collection to a private provider.

Refuse collection has been the public service most outsourced in Denmark since the EU-guidelines on public procurement entered into force in 1993. In this respect Denmark is leading in Europe and among OECD-countries. A recent study of developments in the employees' working conditions, however, shows deterioration of the conditions associated with a decrease in the quality of the service with detrimental effects to environmental requirements. The study focused on identifying 'best practice' in respect of taking the work environment of binmen into account when entering and managing contracts, applying an iterative, qualitative methodology. Contract documents and adjoining materials were studied from an initial select of 30 municipalities displaying indications of good practice, and interviews conducted with all three parties involved: municipal officials, company managers and employees. Seven cases of relative 'best practice' were eventually found, whereas the study revealed a general decline in the safety and health standards, job qualifications and job security of binmen following increased outsourcing and competition.

A subsequent analysis of the main drivers and mechanisms in municipal contracting and the process of marketization to identify the causal factors in the deterioration of working conditions gave evidence to a close connection between social and environmental qualities of collection practices and a very narrow concept of quality service. Danish municipalities are praising themselves of a "pragmatic" attitude to outsourcing of public services, which in the technical sector appears to correspond to the use of contracting as a market-instrument rather than as a service-instrument. Assuming that private delivery of a public service not *per se* leads to deteriorated quality and recognizing that some companies in the business are perfectly capable of delivering qualified service the paper examines the institutional context of contracting. The study demonstrated a gap

between a ‘theoretical’ reality, displayed in norms, rules and policies, and an ‘actual’ reality, which is analysed in an institutional theoretical framework. Finally, identifying fallacies and shortcomings in the institutional context, possible means and ways to qualify the municipalities’ management of contracting and to improve the social and environmental quality of the present performance of refuse collection are presented.

## INTRODUCTION

Marketization and privatization of public services have been on the agenda in the EU and its member-countries ever since neoliberal main-streaming of economic strategy took over in the 80s. The modelling of the public sector after the private and opening for private companies to deliver the public services is prerogative for the development of competitiveness and dynamic in the community according to the Lisbon agenda. The EU, however, is also a political union giving priority to social and environmental objectives beside economic ones. EU’s “Strategy for sustainable development” includes among its main targets “environmental protection”, “a healthy and safe society”, and “high-quality employment” (EU 2005). Besides, EU has in both the environmental and the social field specific strategies and requirements to the performance of the member-countries. The requirements of the packaging directive to specific recycling-rates of different materials have particular relevance to refuse collection. In the social area a detailed regulation of occupational safety and health requirements exist as well as regulations concerning working conditions and employment more generally, e.g. the guideline on ‘Employees’ Rights in the Event of Transfers of Undertakings’ (The TUPE-directive, EU 2004b), which is of particular relevance to outsourcing and contracting.

The tendency to counter-weight issues of competition and efficiency with environmental and social considerations is evident in the EU-directive regulating the award of contracts to providers of public service (the public procurement directive, EU 2004a). Fundamentally, the directive states that it is up to the public body, e.g. the municipality, to decide whether it wants to outsource a service, but if it so does, the process of competitive tender must follow the provisions of the regulation to ensure free and fair competition. Nothing constrains the municipality; however, to take social and environmental considerations into account at the same time and lay down conditions of this kind in the contract. Two communications from the Commission (EU-Commission 2001 a & b) as well as the EU-Court’s verdict regarding “the buses of Helsinki” (2002) have made this clear.

At the national level economic demands in a similar way are balanced by other societal demands to the performance of services run by public finance. Denmark did never have a ‘compulsory competitive tender’-regime such as the UK of M. Thatcher, but institutions to clear the way for marketization have been established<sup>1</sup>. In 2002 a new Law on Service Strategy (Folketinget 2002) entered into force spurring the municipalities to outsource, and most recently by the annual agreement between the Ministry of Finance and the municipal sector the municipalities have been obliged to increase the rate of contracting of public services. Danish municipalities are characterized by a pragmatic approach to outsourcing and have in general chosen to only outsource ‘hard’, technical services, where the wishes to the quality of the delivered service is thought to be relatively simple to transfer to the contract and monitor (Ejersbo & Greve 2002).

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<sup>1</sup> The Danish ‘National Competition Authority’ as well as the ‘Board of complaints over awarding of contracts’ are zealously monitoring the follow-up of the EU provisions on competition, the ‘Council for Outsourcing’ is pushing for outsourcing, different economic ministries proliferate the advantages of it, and in the state sector special obligations to outsource services exist.

The term best capturing the strategy of Danish municipalities is 'Cost-effectiveness' or 'Value for money'. Effectiveness in public service is, however, a two-sided concept on the one hand meaning productivity, measurable in quantitative terms, on the other hand meaning quality, depending on how targets concerning performance and outcome of the service are being met (Christiansen 2002). Just as an increase in the effectiveness of public services is demanded by the central authorities - and implicitly expected to come about through outsourcing - an increase in quality including societal considerations is demanded, clearly stated in authoritative documents, e.g. Law on Service Strategy. The final interpretation of cost-effectiveness and the coining of quality requirements are, however, left to the single municipality to decide. When contracting, the municipalities are furthermore obliged to consider norms and regulations concerning the employees' working conditions and the environment. Refuse collection work has been specifically addressed in Danish legislation and since 2001 the municipalities by contracting must take the safety and health conditions into account in the contract documents and cooperate in the safeguarding of the working conditions. In the environmental field the municipalities are charged with the primary responsibility to ensure that the EU-requirements to recycling and environmentally safe handling of waste are carried out.

In this complex institutional framework outsourcing and contracting of refuse collection has developed in Denmark. Prior to 1993, when the procurement directives entered into force, a tradition for contracting the service existed, but on significantly different terms. The contract was negotiated with a local hauler excluding competition and a fair, open market. The directive spurred a massive marketization from the mid-90s till today. A survey carried out by 'Local Government Denmark' (LGDK, the National association of municipalities), shows that refuse collection through 1994-1999 was the operational area within the municipal technical sector that most often was contracted out, actually by 71 % of the municipalities. The motives of the municipalities to contract the technical services show from the table below.

Table 1: Motives of Danish municipalities to contract out technical services

MOTIVATION	SHARE OF CONTRACTS
Value for money	72,3 %
A private provider	23,8 %
Savings	17,2 %
More focus on quality and quality-development	3,3 %
Other	19,6 %

(Source LGDK 2001)

Concerning the experienced results from outsourcing and contracting refuse collection the survey shows that refuse collection is the service where most savings are realized.

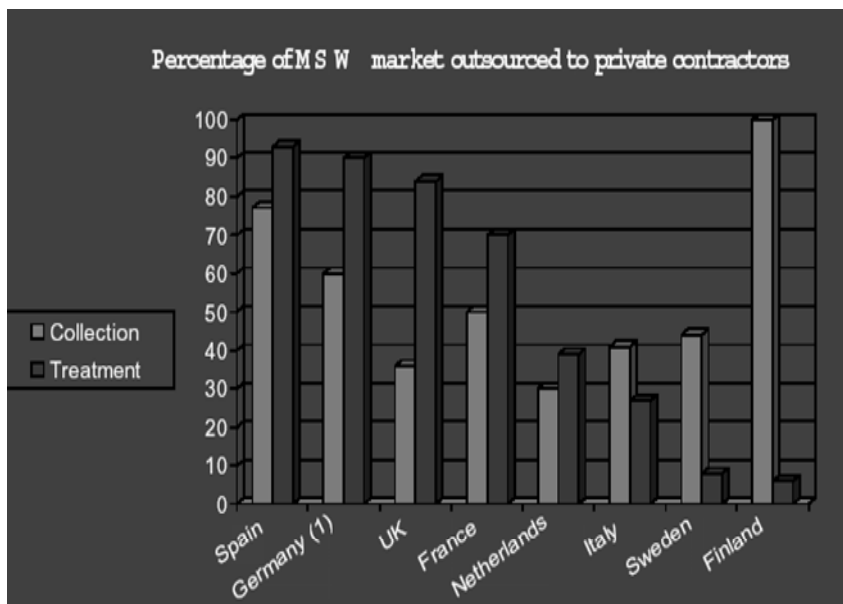
Table 2: Savings realized by contracting out technical services

TECHNICAL SERVICES WHERE MOST SAVINGS HAVE MATERIALIZED	SHARE OF CONTRACTS WHERE SAVINGS HAVE MATERIALIZED REALIZED
Refuse collection	65 %
Road maintenance	44 %
Operation of parks and green areas	54 %
Operation of water purification plant	48 %

(Source LGDK 2001)

Amazing 54 % of all competitive tenders resulted in a new provider. For the technical sector as a whole the survey shows that the municipalities “typically selected the cheapest offer” even if they had laid down conditions to the level of service and quality, (LGDK 2001).

The tendency to outsource and contract has continued in the technical sector, spurred by LGDK. When it comes to waste collection, Denmark is at a high international level of outsourcing, only comparable to that of the USA (Elmeskov & Lundsgaard 2003). D. Hall’s mapping of the level of privatization in the EU MSW market (2006) did not include Denmark, but the findings of the LGDK and later developments suggest that outsourcing in Denmark matches Finland in contrast to most other European countries, “where the public sector remains dominant” (Hall 2006:5).



(after D. Hall 2006)

Together with the institutional pressure to increase competition and market in the waste sector the pressure from private providers in the field has been constant. Companies have repeatedly used the different bodies monitoring competition to seek their interests. Large municipalities who used to have their own waste utilities have chosen to outsource totally or partly through the last years (Copenhagen, Aarhus, Odense, Aalborg). Interestingly, some of the big international players entering the Danish market in the first part of the 90s have left it again later. The reason for this is,

as Danish companies in the business see it, that competition through the process of marketization has become too sharp and prices fallen too much (Busck 2006).

Denmark, known for its relatively high interest in and capacity of ensuring social and environmental development, thus presents an extraordinary case to examine how such interest and capacity match an extreme process of outsourcing and contracting in the refuse collection sector.

## **DEVELOPMENTS IN WORKING CONDITIONS: METHOD OF STUDY AND RESULTS**

The social partners of the Danish transport sector in 2002 commissioned Aalborg University to carry out a study of the physical health and safety conditions of binmen. The purpose of the research was to identify and define 'best practice' in respect of ensuring safe working conditions by contracting. As the safety and health conditions of binmen are closely related to issues of qualification and competence building in the job as well as job security, the two issues were included in the research. Critical to the study was not only the contract documents but also the follow-up by the municipality in the form of monitoring the contract performance and cooperating with the provider. In the contract general requirements to the contractor as well as specific requirements to the performance of the service are laid down. Considerations of the working conditions may be addressed in both connections. Through the award criteria, further conditions to the quality of the service and the performance may be laid down. It is essential for the outcome that the contracts address the way in which quality issues, problem-solving and cooperation between the parties are handled in the contract period. If there is no monitoring of the contract provisions, however, and, most of all, if there is no assistance from the part of the municipality to solve problems and cooperate with the contractor and his staff, contract provisions will not suffice. The study built on the assumption, which was confirmed by the findings, that the working conditions of binmen are only partly determined by contract requirements and quality control or the policies and management of the private companies, but further by the conditions under which the actual collection work at the citizens is carried out, which are determined by the municipalities through the design and enforcement of municipal bylaws.

The investigation primarily built on qualitative material, which was established through an iterative process. By a survey of existing literature and interviews with all important actors in the field, including the local officials of the Labour Inspection, a 'gross list' of elements of 'best practice' was elaborated. In the same process the number of municipalities and inter-municipal companies responsible of refuse collection, where indications of such elements were found, was reduced to around 30. From this select of 30 bodies the contract documents and relevant adjoining material were scrutinized and systematic interviews carried out with representatives from all three involved parties in the actual service, including the municipalities' officers in charge and supervising staff, the providers' administrative and operational management, shop stewards and safety representatives of the binmen. As a combined result of the two methods seven cases of 'best practice' were found. In the final phase of the project local and national representatives of the three parties were asked to review case descriptions and comment on the general findings and conclusions. The comments were included in the final report, which was terminated in November 2005 to be published in 2006 (Busck 2006).

The results of the research showed for the municipalities as a whole a general deterioration of the working conditions of the binmen in all three parameters: physical hazards, job-qualifications and

job security, associated with the marketization of the sector and the municipalities' use of the contract-instrument. In the following, first an account of the results in the three aspects of working conditions is presented. Secondly, the results of an analysis of the underlying drivers and mechanisms in the marketization of refuse collection characterizing the functioning of the contract-instrument are outlined. Finally, the institutional context of contracting out is discussed, apparently falling short of realizing societal requirements to the performance of the service in relation to the market, and possible means to strengthen it presented, aimed at improving working conditions in the short run and sustainability in the long run.

### **Occupational Safety and Health**

The national regulation of the physical working conditions of binmen in Denmark is presumably the most progressive and detailed in the world. Due to a heavy pressure from the binmen's union supported by the employers in the sector specific requirements to insert wheeled containers and other technical equipment to eliminate the physical strain, including specifications to the access- and transport-roads at the waste collection sites were issued in 1993 (DWEA 1993). In general the specifications have been implemented; wheeled equipment is being used everywhere. The municipalities, however, only partially have complied with the requirements to ensure safe access-roads. Some have chosen the 'radical' solution to require of the citizens to place the site or move the container themselves close to the road, where the binmen easily can get to the waste, but most municipalities have kept the high level of service typical to Scandinavia and kept the waste collection site somewhere inside the premises of the citizens. Almost all municipalities, contrary to the recommendations of LGDK, have included DWEA's requirements to the access road in their internal bylaws regulating the citizens' waste practices, but in general the authorities refrain from enforcing them onto the citizens.

The employer, i.e. the service provider, basically is responsible for healthy working conditions for his employees. To this end he must plan the work properly. But he is cut off from this when the work is performed inside the premises of the citizens, in which case he and his employees are dependent on the municipality using its authority on the citizens. In this we touch upon a central and not only Danish problem in connection with the outsourcing of public services. The private employer who takes over the service also takes over the responsibility for the safety and health of his employees. However, as the job is performed under conditions, including physical frames, which are defined and set by the public authority - be it the outdoor premises, where refuse collection is performed or indoor premises, where cleaning jobs are done or be it the timetables that public transport is set to keep - and the authority does not accept any responsibility on its part, a 'vacuum of responsibility' results.

Although improvements had taken place in all municipalities the research showed that a certain number of 'problem-addresses' still exists, where the accessibility is not in order and consequently the work cannot be performed in a proper way. The service to the citizens in general was given priority to considerations of safe working conditions. In the contract documents the municipalities in general as recommended by LGDK (1999), jealously stated that the company alone bear the responsibility for the working conditions, and in the follow-up on contracts the municipalities clung to the paragraphs and were reluctant to cooperating on the issue

The statistics of DWEA on reported accidents and muscle-skeletal disorders for refuse collection workers in the period from 1993-2002 show a general reduction, close to a halving in both areas until 1998-99, where after stagnation and a tendency to an increase enters. This reflects that the

regulation from 1993 in the first instance has been effective, but that the positive effect at some point has stopped or has been counteracted by other tendencies (GWU 2004). In 2001 a new regulation from DWEA (2001) consequent to the negative safety and health experiences from different outsourced sectors like refuse collection, public transport and cleaning entered into force obliging authorities involved in contracting of public services to take the safety and health conditions into account in the contract documents and to cooperate in the safeguarding of the working conditions. The study showed, however, that the regulation had little influence on the practice of municipalities. By explicitly renouncing the responsibility for the safety and health conditions in the contract documents and referring to the formal existence of provisions regarding the access-roads in the bylaws, the municipalities meant to comply with the regulation. The LGDK even denies that the municipalities have any other option (the official website of LGDK & NAEC, 2006) and posit that an administrative legal flaw exists (Busck 2006). Until further, this position remains unchallenged by other authorities, although in practice it has been disproved by municipalities that have succeeded in enforcing citizens to improve access-roads.

### **Education and Competence-building**

Employers and employees in the waste collection sector have long been united in the interest of establishing education and training and enhancing staff qualifications to be able to meet increased environmental demands and qualify the service. In the first half of the 90s training programs were carried through in a number of companies and educational modules were institutionalized in the national vocational training system. Many actors involved saw a need for new qualifications and competence-building of the personnel in the sector (Busck 1991). The study shows that although continued interest among both companies and employees exist, the demand for educated personnel is almost totally lacking among the municipalities. The contract documents may address qualifications by the employees, e.g. “qualified manpower needed” or “staff must be ready for training”, but without effect as documentation of education is seldom required and follow-up training never demanded. Practice shows that a statement from the provider that “qualified personnel are at hand” suffices.

In connection with the modest interest for the qualifications of the personnel very little attention is given to an active use of the resources of the employees in ensuring more quality in the service, including the achievement of environmental objectives. A few municipalities acknowledge the potential of the binmen's direct contact with the waste producers and use them to control the quality of sorted recyclables at the households. Others see them as “ambassadors” of the municipality, but except from requiring clean appearance and uniforms, ability to communicate in Danish and acceptable behaviour, they do not address the qualifications and competencies of the personnel.

### **Job Security**

The binmen have experienced an increase in job insecurity during the period. Whenever their employer's contract with the municipality expires, they are in great a risk of getting fired. The municipalities, spurred by LGDK and the national competition authorities, prefer short contract periods (3-6 years) and let the market decide which company takes the next period resulting in a high turbulence in the sector. The new provider may decide if he wants to take over the personnel, only very seldom he is obliged to do so by stipulating in the contract that the TUPE-directive applies. Unfortunately, the directive does not automatically apply in the waste sector due to reservations concerning the field of coverage, when only staff and not equipment is taken over.



## DRIVERS AND MECHANISMS IN THE MARKETIZATION OF REFUSE COLLECTION IN DENMARK

The intensive process of contracting refuse collection in Denmark has been spurred and guided by the EU procurement directive, the primary aim of which is to create more competition and market, but at the same time carefully designed to ensure that private providers may be committed to social and environmental demands defined by the municipalities. An analysis of the general tendencies emerging from the study of municipal contracting and marketization of the sector shows, however, a series of drivers and mechanisms with detrimental effect to the binmen's working conditions. This is not an exclusive finding. Other Danish and international research have found similar tendencies, when studying outsourcing of public services like refuse collection, cleaning and transport (Greve 2005, Gustafsson & Saksvig 2005, Jensen 2002, Wiegmann et al 2004). The study did not include the environmental performance and results of collection practices, but associated negative effects appear inevitable.

### 1. *'Vacuum of responsibility and interest'*

When a company provides a service to a public authority implying that the work is performed under conditions that the authority directly or indirectly determines (e.g. by regulating the citizens' behaviour) that company is utterly dependent on the authority's formal and informal cooperation in the provision of safe working conditions and the solving of problems. If this cooperation does not exist, which is most often the case, the employer's possible interest in safeguarding his employees and thereby motivating them to perform correctly and do a better job disappears. On the other hand the authority, having outsourced the service, in most cases maintains that the responsibility for safe and healthy work is also outsourced and solely falls on the employer. Hence, in practice the binmen find themselves working in a kind of 'no man's land', where no one looks after them or takes any interest in them except from the simple fact if the bin has been emptied or not in time.

### 2. *Buyer's market*

In so far the condition of a well functioning market with competing tenders is fulfilled, which is the case in Danish refuse collection, the commissioner or buyer comes in an advantageous position. When, furthermore, quality requirements to the service, including the way in which it is being delivered, are not prioritized, defined and controlled, the market allows the commissioner to follow more short-sighted economic interests, and the bidding companies must fight to position themselves on the terms of the municipalities.

### 3. *Price beats quality. Contracts used as market-instrument not as service-instrument*

The price-focus of Danish municipalities when contracting refuse collection (cf. the LGDK-survey), has effectively excluded the quality-dimension, including social and environmental considerations. Other award criteria than price may be found in the contract documents but always with inferior priority, and seldom concerning the working conditions. Throughout the period the price for collecting a waste container has diminished by 20-30 % in average. The 'pragmatism' characterizing the practice of outsourcing and contracting in Danish municipalities thus implies that effectiveness, when it comes to the 'hard' services, is only a matter of cost-effectiveness or productivity. Requirements to quality or 'service-level' appear in the contracts, but come out as a question of constant service measured in the number of 'no-collects' or complaints from citizens. Refuse collection contracts in Denmark typically fall into the category of 'hard' contracts, generally described in research, characterized by output-control and low trust. The study clearly demonstrates that quality, including working conditions, is improved where the other main type of contract-

concept, 'the relational contract' is prevalent, characterized by process-control and dialogue (Ejersbo & Greve 2002).

#### 4. *'Discount-companies' beat responsible companies and innovation*

Waste collection companies inclined to human resource management, cooperation with the employees and realizing that quality in the service is based on motivated, qualified and content employees are losing market shares. They experience that even if municipalities include specifications to the working conditions in the contract documents, they are not willing to pay for it and do not control whether the requirements are fulfilled. It is usual to demand a 'quality assurance system' by the bidders, but the goals herein are primarily output-oriented, i.e. concern the quantitative requirements to collect and no-collects. If safety and health is mentioned in the systems, they are without effect, as there is no control or follow-up from the part of the municipality. Innovative companies investing in integrated technology to enhance work conditions as well as environmental efficiency in expectation of increased quality requirements have lost in comparison to companies creative in contract-riding or intensified exploitation of men and material.

#### 5. *Frequent shift of suppliers undermines building of trust and cooperation. Transaction costs rise*

The turbulent market, including turnover of personnel, has a negative influence on the quality of the service. The short time horizon reduces both managements' and employees' motivation to build up good relations and competences internally and towards the customers, to perform a bit better, take care of the equipment etc. What is left is cash settlement, strictly complying with the requirements of the contract and only the part which is controlled. The winners in the market have been consultants providing legal assistance and refined quality assurance systems to the municipalities, not paying off, and lawyers defending the companies' interests. Even measured by the narrow concept of quality prevalent in the municipalities a decrease in standard has resulted. The study showed a tendency to acknowledge this fact in municipalities that for a period had pursued cost savings.

#### 6. *The 'vicious' circle: the municipalities' price focus - 'dirty' fight for survival among providers - piecework-contracts with personnel - 'the binmen-culture'*

The refuse collection business has been "shaved to the bone" as the managers of Danish waste collection companies unanimously put it. Consequently, the companies' survival-mode has been intensified work arrangements such as two-shift arrangements and compressed overtime-work, which has both been conditioned by and has preserved the collectively bargained piecework-agreement, which encourages extra pay for fewer men and faster work. The employees and their union have clung to this un-sane agreement as the conditions in the business have developed not seeing or being offered any alternative. On this background, the so-called 'binmen-culture' has been institutionalized, meaning that the job is valued for its 'freedom'. You are 'free' to return home earlier or with some extra pay compared to other unskilled jobs, just you get your job done, refrain from safe but slow methods and keep up a high speed which in fact means running while collecting! You are also 'free' from anyone watching and rebuking you, no one actually cares about you. The culture is nurtured by the frequent change of employer and by the entrance of new workers attracted by the 'freedom', when binmen retire too worn out to match the speed. But first of all, it is kept alive by the fact that no other qualifications or competencies than muscles and speed are demanded. Some of the managers deplore it, but admit to depend on the culture. Except from a few cases, where other values are in play, the municipalities defend themselves by claiming that although trying to enforce their regulations on access-roads they experience an 'unholy alliance' between

providers seeking profit and binmen seeking spare time and extra pay. Reaction creates counter-reaction, a vicious circle is established!

## CONCLUDING ON THE INSTITUTIONAL CONTEXT OF CONTRACTING

Notwithstanding the fact that international research on outsourcing in general finds cost savings as the main purpose and deteriorated working conditions as the most probable consequence (Greve 2005), it is not a rule that quality in general and working conditions in specific must deteriorate when public services are outsourced and contracted. "The essence of research (in the interplay between the public and the private sector) is that both the content and the form of the contract must be assessed in relation to the institutional context of the contract", states C. Greve, a well-known Danish specialist (Ejersbo & Greve 2002:18). By the institutional context Greve conceives partly a formal, legal context, partly a more informal, normative context.

Interestingly, the refuse collection sector in Denmark evidently and recognized by its actors expresses 'two realities', comparable to the above two contexts. There is a 'theoretical' reality, addressed in objectives, declarations, quality-policies and in normative and legal regulations. But there is another less flattering and orderly 'real' reality, in which the service and the job is being performed. This actual reality is, as elicited, very much determined by the market. It seems that the institutions to ensure the realization of societal intentions are too weak or contradictory to tame the market forces' control of the form and content of the contracts. At the same time other institutions, rooted in culture and customs concerning waste, interact. Waste/refuse/rubbish is something that we do not want to know of and want to get rid of as fast as possible. Binmen better be fast and invisible. In reaction, the attitudes and perceptions of these actors associated with the 'binmen-culture' interplays. No municipality will openly declare that it does not care about the working conditions of the private employees providing service for it. Nevertheless, in practice they close their eyes when breach of norms and regulations by both citizens and binmen occur. This is not only about increased risk of physical wear-down of binmen, but also about setting aside solid knowledge on the consequences for the job contentedness and mental health of employees from lacking content and possibilities for development in the job.

To the same extent that the institutional setting is incapable of ensuring proper working conditions, it is incapable of ensuring the environmental results required by societal norms and regulations. Firstly, the found drivers and mechanisms in the marketization of refuse collection have similar repercussions on the environmental quality of collection practices. Secondly, insofar as the manual element is still a decisive variable in collection, the inferior value and importance given to the working conditions and motivation of the staff involved effectively obstruct accomplishments regarding increased recycling and careful handling of hazardous waste. In respect of environmental quality the two 'realities' are also found. Although the municipalities advocate sustainable development and bear the responsibility for recycling and safe waste handling, they close their eyes when citizens drop everything in the refuse container and refrain from using the person with the direct contact to guide the citizens into more sane practices, collect recyclables at the source and control the purity of waste fractions. A 'discount'-solution' has in fact replaced the capacities of companies and their employees to fulfil national and EU requirements to recycling. By placing recycling containers at shopping centres and maintaining scanty container-deposits the municipalities rely on the citizens' own transport means, i.e. cars and trailers. Over 50 million km are driven every year by citizens with the sole purpose of delivering paper, cardboard and bulk-waste to the collection points (Stefansen et al 1998). It is cheap - when fuel consumption and other

environmental externalities are excluded. At the same time only 12 % of refuse is being recycled in Denmark according to the Danish EPA.

To counteract the subordination of social and environmental demands to the market drivers and mechanisms the institutional context obviously has to be strengthened or rearranged in a manner that overcomes the gap between the 'two realities'. The quality of contracting and subsequent collection practices needs to be focused in a way where social and environmental improvements can reinforce each other. As the normative and legal regulations as well as the market are constructed the municipalities are in the key position to break the vicious circle, leading to deteriorating working conditions and loss of sustainability. For the citizens in any of the municipalities it costs less than two Euros a year to have their refuse collected. Would they decline to pay more for an improved practice? - Hardly, but they have never been informed or asked.

The first means to influence the institutional context comes out as *citizens' participation* in the policies and management of MSW. The municipalities in principle are the instrument of the citizens, but their practices seem more determined by cost considerations and market-thinking than considerations of the citizens' values and long-time economic interests. Research points to willingness of citizens to engage and even pay more for visible environmental initiatives (Thøgersen 1995). In some cities successful experiments with multi-fraction source separation by citizens in residential areas advised by binmen have been carried out (KMEK 2006). The elaboration of contract documents may be an internal process, but the guiding policies and objectives need more publicity, as the new Law on Service Strategy actually calls for.

A second institutional means would be to apply a *mechanism to make the municipalities accountable in respect of quality requirements in their contracting*. Quality assurance systems (QAS) are applied in contracting, but have not been effective in refuse collection due to low priority of social and environmental requirements and follow-up by the municipalities. Similar to the way in which the new, larger Danish municipalities are being made accountable to the national authorities of their regulation of the local environment by a national QAS (Miljøstyrelsen 2006) a system could be designed to ensure the inclusion of societal requirements when contracting. The state of New South Wales in Australia since 1998 has applied such a mechanism, where the local authorities are held accountable of ensuring private service providers' keeping of a 'code of practice', including working conditions. The Clinton administration's "Responsible Contractor" is another example (Johnstone et al 2002).

A third institutional means would be targeted *research and learning to enhance the authorities' capacities in contracting*. Decision-makers must be informed of the consequences from not pursuing quality in privately performed public service and need tools to improve policies and management of contracts. The social and environmental externalities or hidden costs, including transaction costs, of the present practice are not considered. The effects of accidents, injuries, tear-down and expulsion of binmen burden other parts of the municipal (or national) budget. Similarly, the effects and costs accruing from resource depletion, emissions and pollution associated with the present practice of recycling could be (life-cycle-) analysed and internalised in the prices of MSW management. Knowledge and tools of this kind could inform the public as well as municipal managers and pave the way to rearranging the practice towards more sustainable solutions.

Finally, institutional initiatives are needed to change the present irrational use of human resources. *Standards for qualification-building and job-security are needed* by legislation or social

agreements. Denmark has had historical success from social investment in a qualified workforce. Unless the perspective is to leave refuse collection to companies from other European countries with low paid employees in a service-liberalizing EU, the sector needs a lift in quality, which eventually depends on a more qualified and motivated workforce. The social partners of the refuse collection sector, accused of only seeking profits from the public sector, need to change the basis of their present relation; the piece-work agreement with the associated 'binmen-culture'. Where profits today are accrued at the expense of safe working conditions and sound, innovative business practices another collective pay-agreement based on acquired qualifications and performed quality in the job would change the scenario. Together with an agreed minimum-standard of working conditions, including job-security, among the companies a constructive alternative to the present 'race to the bottom' were at hand.

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