

Intracting – A better alternative to performance contracting?

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1. SYNOPSIS

The paper discusses intracting as a new instrument for municipalities and other public agencies to organise energy saving investments.

2. ABSTRACT

The paper presents the findings of an empirical study and implementation campaign to promote "intracting" in Germany. Intracting – a kind of in-house third-party financing scheme – offers interesting opportunities especially for public authorities and comparable institutions. Different to performance contracting, in the case of intracting the financial and technical service is delivered not by an external agent but through a unit within the same organisation. Depending on the formal, institutional and budgetary setting this arrangement can offer particular benefits to all participants.

In Germany, some municipalities already prefer this approach to reduce energy costs and CO₂ emissions or combine intracting with contracting. Therefore the question emerges: Does intracting represent unwanted competition to contracting or is it a useful enlargement of the range of energy service options?

The paper investigates the relation between intracting and contracting and indicates possibilities to benefit from fruitful synergies, e.g. when using intracting as a door-opener for contracting. Further, the pros and cons of both instruments are discussed and criteria and conditions for an appropriate choice of approach analysed.

Finally, the paper points out steps for introducing intracting into public authorities most efficiently. By the help of a structured introductory model the paper gives recommendations how to proceed from the very first initiative over the choice of an appropriate version of an intracting scheme to the optimal adaptation of the instrument to the specific situation (including process evaluation and refinement).

3. INTRACTING – A WAY TO CUT ENERGY BILLS AND TO REDUCE GREENHOUSE GAS EMISSIONS IN PUBLIC AUTHORITIES

In many public authorities the same picture can be found: although significant opportunities to save energy costs exist these profitable potentials are not realised due to various reasons. Among the barriers, typical characteristics of public investment financing play a prominent role. Very often the funds for paying the variable costs such as the annual energy bill are strictly separated from the budget for investments. A typical lock-in situation of public authorities is the result: on the one hand administrations have to pay enormous energy bills due to the bad conditions of public buildings. On the other hand the departments are not able to re-finance the urgently needed saving measures by paying back the saved energy costs to the investment budget.

Energy services provide a solution to this situation, and during the last decade the related market for third party financing schemes such as performance contracting has grown. In recent years, a new approach called "intracting" was developed in Germany as an additional possibility to overcome these specific problems in administrations. Several German municipalities have already been using the instrument to implement energy saving measures which help both to reduce the energy cost burden of tight public budgets as well as to contribute to greenhouse gas mitigation. As seen below there are various reasons to prefer intracting against other third party financing schemes and/or to combine the different approaches. So the question is whether intracting represents a competition to existing energy service contracting. Can it serve as a useful enrichment of the instrumental mix?

After a short description of the concept of intracting, the paper discusses the relation between intracting and the performance contracting approach. It is shown, that both concepts can complement each other in a fruitful way, and a strategy for the implementation of intracting in public authorities are presented.

The paper draws on an empirical investigation undertaken for the federal state of North Rhine-Westphalia (MBW 1999, Kristof *et al.* 1998). It was the objective to identify ongoing intracting activities in municipalities and districts and to analyse current modes of implementation. The telephone inquiry covered all German cities with more than 100.000 inhabitants and provided a comprehensive overview. These insights were complemented by recent information gained within the frame of an analysis of formal aspects of intracting (Kristof, Wagner 2000).

4. THE CONCEPT OF INTRACTING

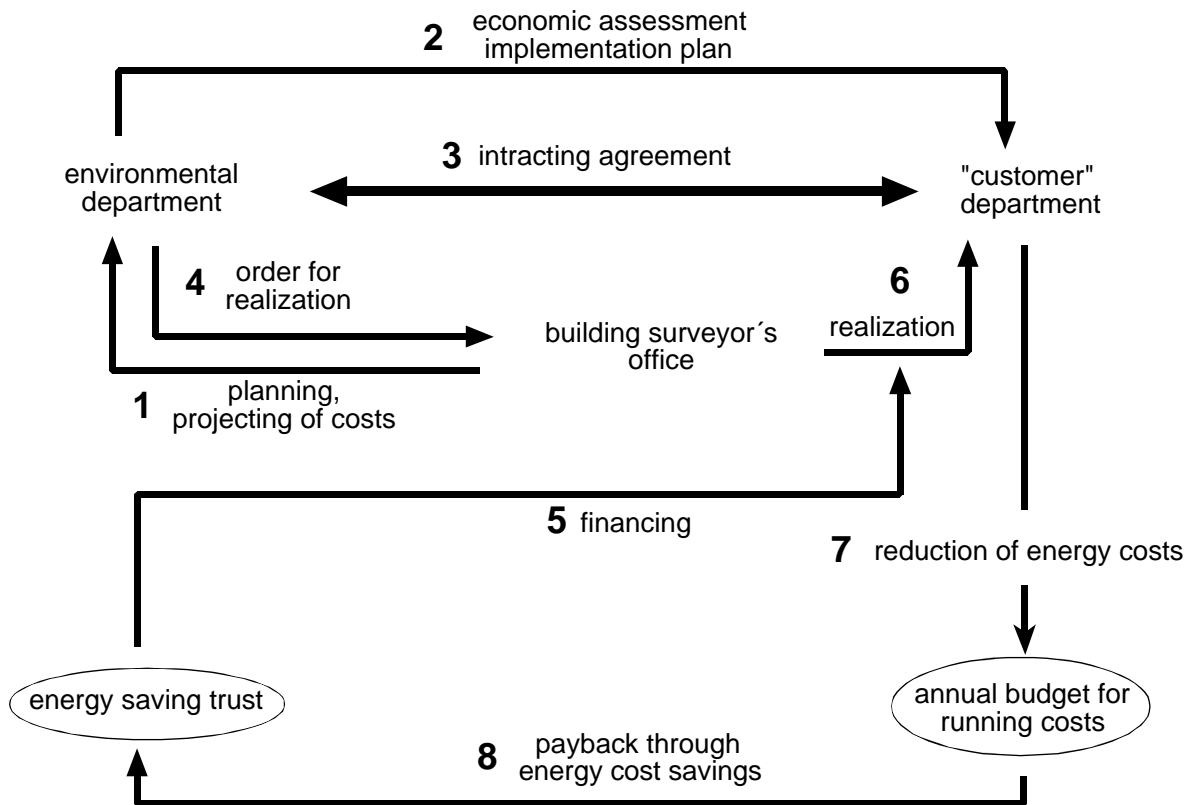
The basic idea

Very similar to performance contracting, intracting represents a way to enable energy efficiency investments through involvement of third parties:

- **Performance contracting:** An energy service company (Esco) undertakes the financing, planning, installation, operation and maintenance of energy saving equipment and renovation of supply equipment such as boilers, heating systems, HVAC, CHP units, etc. Remuneration of the performance contractor is through participation in energy costs saving resulting from efficiency measures.
- **Intracting:** The role of the Esco is taken by a unit of the customer itself, e.g. the technical department of a municipality. It acts like the Esco and the remuneration takes place through cross payments of budgets.

Different to conventional third party financing schemes, however, the intracting approach does not build on the engagement of an external actor such as an energy service company (Esco). The basic idea is to establish a co-operation between two separate organisational units of the same public administration. For example, the municipal department for the environment might serve as the contractor for the "customer department" without own investment funds such as the school authority. The concept of how to overcome the typical obstacle of separated budgets is quite simple and can be illustrated by the example of the "Stuttgart Modell" which was one of the first successful initiatives of this kind in Germany (Fig. 1).

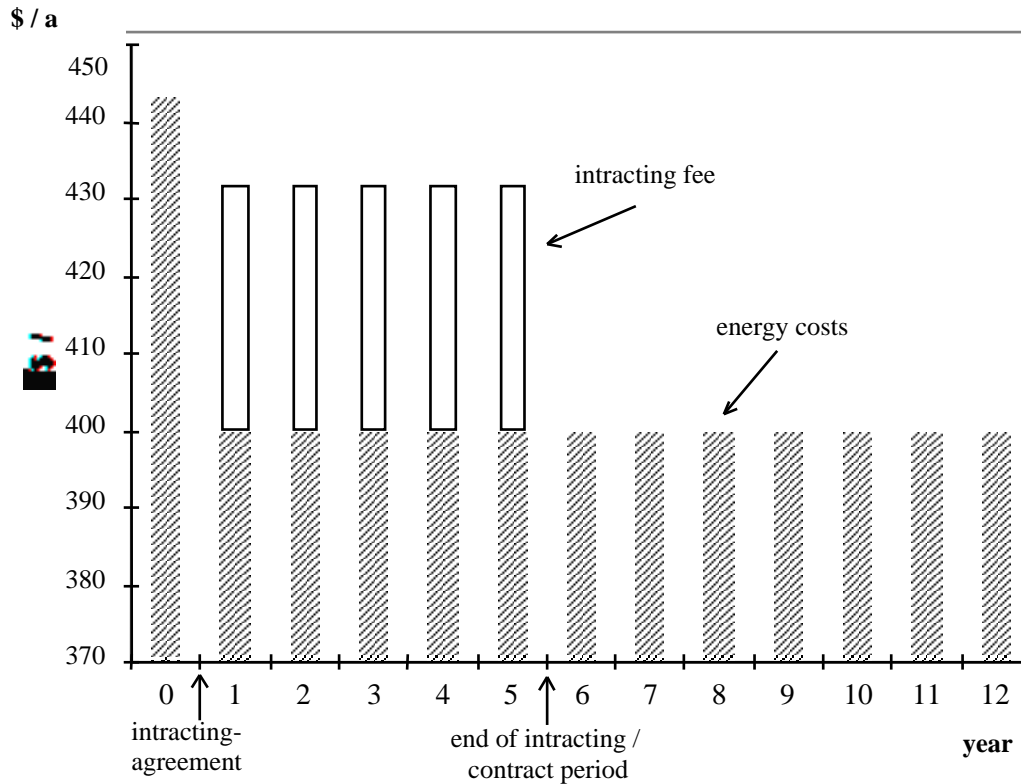
Figure 1: The Stuttgart Model of intracting within a public administration



Source: Kristof et al. 1998

In Stuttgart, the city's department for the environment takes the role of an internal Esco and offers energy services to other units of the municipal administration. The initial impulse came from a general evaluation of energy consumption that triggered a search for energy saving potentials in all kind public buildings. The internal offers draw on the technical know-how of the building surveyor's office and supplementary energy audits, and they are backed by economic cost/benefit calculations of the environmental department. This is the foundation of internal negotiations between the customer department and the environmental department, acting as an Esco. When an internal energy service agreement has been concluded, the environmental department undertakes an investment into energy saving measures that are realised by the building surveyor's office. Within the authority, a new internal energy saving trust has been established as an intermediate buffer for cash flows. First it provides the funds for the investment and afterwards it is refilled by the cash flow of energy cost savings, i.e. the customer department pays back the investment. Comparable to other third party financing schemes, the efficiency measures reduce the annual energy bill of the customer department which gives room to pay the intracting fee, e.g. under a shared-savings agreement (Fig. 2). Obviously, the participation of the customer department into cost savings from the very beginning has to be compensated by longer pay-back times and contractual obligations compared to the case where the investor, i.e. the environmental department, uses all savings for re-financing.

Figure 2: Exemplary illustration of cash flows under a shared-saving intracting arrangement



In times of tight public budgets, intracting offers the opportunity to enhance lasting energy efficiency actions through the temporary provision of seed money. For example through a non-recurring re-organisation of budgets, loans, etc, it is possible to stimulate a continuous flow of investments so that the resulting pay-back cash-flows in turn provide new funds for follow-up projects.

Modes of intracting

Apart from the basic version of intracting described above which has been implemented by the cities of Stuttgart, Kiel, Wuppertal and Dresden, three other modes of intracting can be found (Kristof, Lechtenböhmer 1999, Tab. 1):

- the profit center model (e.g. applied by the Schwalm-Eder district, Kellermann-Peter 1995),
- the "fake privatisation" model (e.g. applied by the Rheingau-Taunus district, Schäfer 1995),
- the hybrid system which joins intracting and energy service contracting (e.g. in Frankfurt/M., Stadt Frankfurt/M. 1996).

Table 1: Short overview on the four modes of intracting

intracting mode	basic model	profit centre	fake privatisation	hybrid system
example	Stuttgart	Schwalm-Eder district	Rheingau-Taunus district	Frankfurt/M
approach	environmental department takes the role of the energy service provider with the technical assistance of the building surveyor's office	responsibility for energy issues is transferred completely to an internal profit center with own budgets	responsibility for energy issues is transferred completely to a newly created energy service enterprise which is owned by the district	intracting and conventional third party financing are elements of an integrated concept

Who can benefit from intracting?

The appealing nature of intracting is illustrated by the progressing spread of the idea. Since the initial survey in 1998, new intracting initiatives can be found among municipalities and districts such as Oldenburg, Zwickau,

Nürnberg, Esslingen and the Ortenau district. However, the method of intracting does not only provide interesting possibilities to municipalities and districts but offers as well new opportunities to federal administrations and state institutions. Even larger enterprises can benefit from these kinds of internal arrangements.

At the moment, interesting activities can be observed especially at the federal state level (Kristof, Wagner 2000):

- Besides North Rhine-Westphalia (support of the basic model), the instrument is applied by the states of Sachsen-Anhalt, Schleswig-Holstein (fake privatisation by shifting the facility management to a federal state's bank subsidiary) and Hamburg. Sachsen-Anhalt especially supports the further diffusion of the model by information campaigns and related marketing actions.
- Moreover, in several other states the instrument is a topic of intense discussion, and it can be expected, for example, that the newly founded private management holding of public buildings in Rheinland-Pfalz will offer intracting services to public institutions in that state. The formal approval of this legal construction is still pending but, in the case of a positive decision, Hamburg, Bremen and Niedersachsen are very likely to adopt the model.
- The state of Brandenburg is undertaking preparatory efforts to launch a hybrid system.
- In Mecklenburg-Vorpommern, a profit centre solution is currently under discussion.
- The case of Berlin represents a unique case since a decree of 1994 was passed that requires that 3% of annual energy budgets are reserved for energy saving investments. In principle this would allow a revolving fund to be established under an intracting scheme. Such action, however, is not yet envisaged. Since 1996, the scope for energy saving activities has been further reduced because the dedicated funds have been partially eaten up by the compensation for the overall deficit of the public budgets in Berlin (Land Berlin 1999).
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5. INTRACTING AND ENERGY SERVICE CONTRACTING – ARE THESE TWO COMPETING APPROACHES?

Looking at the energy services delivered, the two approaches of intracting and performance contracting are very much alike so that it can be questioned what the relevant differences are: does intracting provide something substantially new, is there any value added?

The empirical evidence gained and the discussion with practitioners from the energy service business suggests that intracting can make a valuable contribution to the market. There is the common perception that each approach offers particular strengths in certain situations, i.e. they complement each other depending on the specific circumstances.

Performance contracting projects are characterised by the following advantages:

- the involvement of external actors offers the opportunity to open up new financial sources and/or to overcome liquidity bottlenecks;
- external experts provide specialised know-how and allow the design of "one-stop-solutions" with competent project management;
- the risks can be shared or even transferred to the service contractor, especially when a fixed saving is guaranteed;
- access to external know-how and qualification of own staff during the project, e.g. when new technologies are introduced;
- debottlenecking in terms of limited personnel resources, e.g. when outsourcing of maintenance service contracts is part of the contract;
- the chance to focus scarce resources – not just personnel capacities – on core activities.

Summing up, the decisive feature of performance contracts can be seen in transferring responsibilities from the customer to the external service provider. This shift of responsibility, however, at the same time constitutes a major barrier to performance contracting. Many clients hesitate to give away the control on energy equipment and the related financial transactions. Moreover, if training and qualification effects of own staff do not take place, the existing knowledge base can even deteriorate and vanish over time that might cause severe problems in the future.

For these reasons, intracting projects offer advantages in cases when

- the size of the energy saving measure is too little to cover the transaction costs of performance contracts;

- the acquisition of external know-how is not required, e.g. when simple technical solutions are concerned;
- an internal knowledge basis, e.g. with regard to the specificities of the facilities under consideration, can and should be used;
- own capacities allow the project to be handled internally so that risk and profit margins which otherwise would be transferred to the external Esco can be saved, improving the profitability of the measure;
- there is the risk of "cream-skimming" which does not meet the customers complete needs.

So if there is sufficient capability to begin with, intracting allows the organisation's own personnel capacities to be activated and strengthened and thus avoids a long-term drain of competence. Larger cities with their own facility management departments are most likely to be able to handle projects internally once the financial aspects of a measure are settled by an intracting arrangement.

Looking at the characteristics, it can be concluded that both approaches offer specific strengths and shortcomings. Any decision, therefore, can only be taken with regard to the context of the specific situation and has to consider the individual boundary conditions, objectives and constraints as well as the prevailing risk attitude, strategic prospects, etc. of the municipality or district.

It can be concluded that intracting can be seen as a complementary rather than as a substituting instrument to performance contracting. Both concepts draw on the similar concept that the service of a third party, either the external Esco or the internal acting department, is re-financed by the customer department's energy cost savings. Moreover, projects under both approaches incorporate comparable procedures and project management tasks so that competence from one field can be used for undertaking projects in the other, i.e. the different strengths and focal points of both approaches can be joined in the sense of a tool box.

As a mix, therefore, the combination of both approaches offers synergies, e.g. intracting can act as a door opener for performance contracting. Addressing a different range and size of energy saving measures than performance contracting, intracting provides the opportunity to gain experience in the field. Municipalities which have established a sufficient infrastructure and know-how to carry out intracting projects with limited risk and lower transaction costs are much better equipped to enter the market for professional, more demanding performance contracting projects.

6. INTRODUCTION OF INTRACTING INTO ADMINISTRATIONS

Compared to traditional routines of facility management and energy conservation investments, intracting represents a remarkable shift of paradigms to public authorities. Accordingly, new institutional arrangements of the administration have to be settled and appropriate procedures need to be established. It is evident that this cannot be achieved at one stroke but demands a stepwise approach. The path from the first initiative over the choice of the intracting model to the final implementation and evaluation of intracting is described in Fig. 3.

In this context, the empirical experience expressed by the practitioners strongly emphasise the critical nature of the first process stage. Whoever launches the idea of intracting for the first time – it is absolutely necessary to achieve a sufficient backing by local politics and administration. Any further step should only be taken if the idea is accepted by all relevant actors – this requires significant internal PR and marketing efforts.

Furthermore a sound decision preparation requires a comprehensive and objective evaluation of problems and deficiencies (delete 'but') as well as of the organisation's own strengths and available resources. Starting from this assessment, appropriate solutions have to be found concerning the organisational and financial aspects of the project with regard to the particular requirements of the four models of intracting:

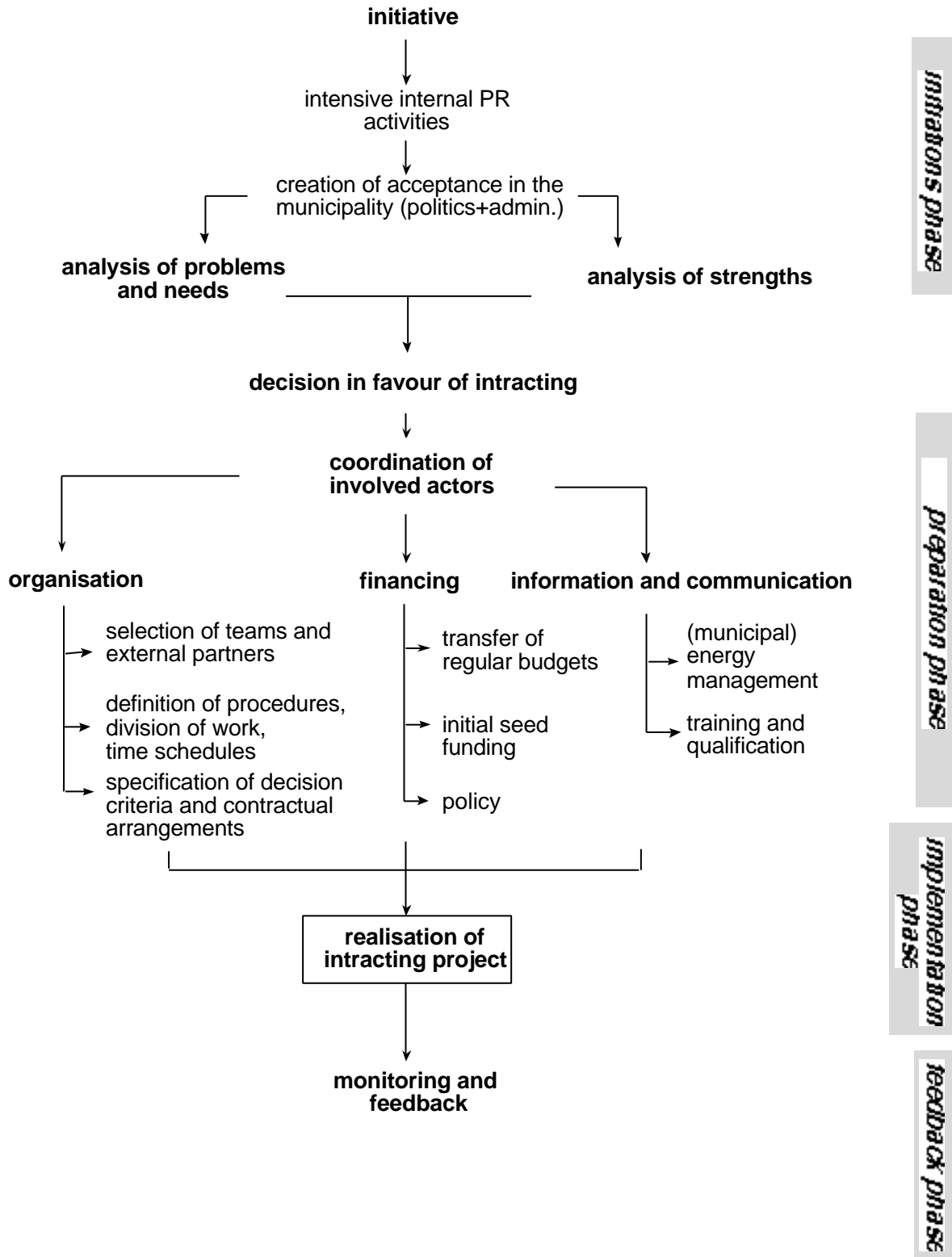
- Organisational aspects include the selection of the project team and their related external partners as well as the specification of tasks and procedures. Furthermore, the decision criteria (internal rate of return, pay-back times, etc.) and contractual arrangements such as time schedules need to be fixed.
- With regard to the financial aspects it has to be determined how the initial funding for the intracting scheme will be generated. This can be achieved either by energy cost savings from old projects or by fresh money provided through loans, subsidy programmes dedicated to municipalities, etc. In this context it is not necessarily required to provide the maximum budget from the very first year but it is possible, too, to build a capital stock by an accumulation of funds stemming from external sources. If it can be foreseen that additional funds will hardly be available in the future, however, it is recommended that parts of the project

cash flow are utilised for building up the needed capital stock. For example, one possibility would be the extension of pay back times. On the one hand this requires the customer department to wait longer before it can get hold of the full savings but on the other hand this additional charge can help to fill up the fund more quickly and thereby, to improve the possibility of all participants undertaking new projects.

In addition, the often neglected area of information and communication represents another decisive key to success. Intracting depends on reliable energy related information, as well as on the qualification of staff involved. Both streams of information and knowledge have to be activated and continuously updated. Therefore, additional efforts have to be undertaken to establish or to improve a (municipal) energy management scheme if necessary. The same holds for the preparation and qualification of involved staff who have to be empowered to take new roles and responsibilities.

Considering the administrative changes related to an intracting project it is quite obvious that the benefit of activities increases over time when several projects are consecutively realised. Due to learning effects and shared transaction costs, a stepwise renovation of facilities offers interesting opportunities to optimise the approach. A necessary precondition, however, is an explicit analysis of past achievements. Hence, experience and insights gained during the implementation of the intracting model should be systematically monitored and evaluated in order to improve the performance of the instrument.

Figure 3: Stepwise introduction and implementation of intracting schemes



7. FUTURE PROSPECTS AND POLICY RECOMMENDATIONS

This paper has presented German experience which illustrates that intracting is a promising addition to existing third party financing schemes. Due to focus on internal procedures it can help to overcome existing barriers to energy efficiency in public institutions. According to the empirical findings a further development and dissemination of this approach would be useful.

At the moment, the strongest momentum can be found on the federal state level. Among others, North Rhine-Westphalia has undertaken several activities to enhance the further implementation of the instrument. In other federal states where intracting is not directly supported the instrument might benefit at least in an indirect manner from initiatives aiming at pushing energy services in general. Moreover, reforms of municipal laws aiming at increased flexibility of public administrations offer new opportunities for intracting.

In spite of all these actions, however, any formal integration of intracting as an option within public budgetary codes is still missing due to the modest number of implementation cases. Intracting has not yet achieved the status of a broadly accepted practice, and therefore it still depends on additional policy support.

In order to accelerate the diffusion of intracting and, thereby, to stimulate the energy service market in general, the discussion with the experts revealed various opportunities at the different levels of action:

Concerted Action Intracting

As an overarching initiative, a concerted action "Intracting" could provide the platform for refining, developing and marketing the approach. More precisely, the following actions were proposed:

- generation of information material in order to provide target groups with specific information on the instrument intracting;
- assembly of all municipalities and districts within a federal state in order to launch an intracting initiative (kick-off meeting), where newcomers should get access to relevant information and already existing experience of advanced municipalities;
- accompanying PR and media campaigns;
- elaboration of an intracting seminar following the example of the Impulse programmes which can be disseminated by (regional) energy agencies;
- introduction of intracting within the federal state institutions in order to create pilot projects with high PR appeal;
- use of new media for information exchange; this includes the creation of an internet platform and the establishment of networks through linked user groups, dedicated chat rooms, etc.

Elimination of legal, administrative and financial barriers

In addition to the concerted action "Intracting" it is necessary to improve the instrument's compatibility with existing regulations. Examples are:

- clarification of formal and legal aspects of intracting, e.g. with regard to public debt management;
- elaboration of supportive codes which foster decisions in favour of intracting;
- generation of a common understanding of intracting among municipalities and supervising authorities, i.e. increasing the likelihood for a formal acceptance of intracting projects;
- use of (existing) policy programmes to ensure the initial funding of intracting schemes;
- support of municipal energy management systems as the nucleus of intracting activities.

Accompanying activities

Finally, as a social innovation the instrument of intracting has to diffuse into the various social and institutional structures before becoming a relevant option. Policy support should aim at:

- establishing the issue of intracting as a field of action of existing lobby groups and associations of municipalities and districts;
- integration of intracting into the energy related curricula of the relevant institutions for professional training and further qualification;
- making intracting a topic for (regional) energy agencies;
- linking intracting with subsidy schemes targeting municipal energy strategies;

- improving the availability and quality of energy data in municipalities and public institutions in order to gain better insights into the size and nature of energy costs;
- provision of information on options for municipal climate protection actions and energy efficiency measures.

8. CONCLUSIONS

The example of intracting represents a newly developing option in municipalities and districts to re-organise the facility management infrastructure and to improve the institutional background for energy conservation investments. The specific applicability, however, strongly depends on the individual legal and administrative framework. Accordingly the German experience discussed above can hardly be transferred one-to-one to other countries. Notwithstanding the national specificities, the basic problems and principles of energy service markets are the same all over Europe. It will be a promising task to investigate the prospects and limits of intracting as an additional energy service tool on the European level and the various member states respectively.

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