1. How can EPC affect local level (SEAPs and other energy plans) and National level energy efficiency targets?

Municipal energy consumption

The City of Antwerp is with 512.000 habitants the largest Belgian City. The yearly energy cost of the **municipal buildings & public domain** (sports buildings, culture, administration,…) amounted for instance in 2011 16,4 mio. €/year to be divided in:

- 5,4 mio €/year fuel, mainly natural gas (municipal buildings)
- 5,4 mio €/year electricity (municipal buildings)
- 4,6 mio €/year electricity ('public domain', i.e. public lighting, traffic lights,…)

The yearly fuel cost of **municipal cars, vehicles,…** is 3,3 mio. €/year in the same year.

Finally we mention the substantial, yet unknown, energy cost of the following autonomous municipal units:

- The **Autonomous Company for Municipal Education** (AGSO) that includes 180 educational buildings[1]
- The **municipal owned buildings of the care sector** (17 rest&care homes, 40 service centres, 2486 service flats,…)[1].
- The **social housing company** Woonhaven that owns 17.844 buildings at the end of 2012[2].
- The **Port of Antwerp** that manages the public domain of the harbor (about 37.500.000 m²) and is owner of logistic halls etc. with a total floor surface of of more than 300.000 m²[3]

Non-municipal energy consumption

The total energy cost of the organisations and companies located on the Antwerp is tens of times higher than the energy cost generated by the municipal activities. Unfortunately, there are now reliable energy consumption data on city level available.

Energy plan

The previous City Council signed already the Covenant of Mayors. The climate plan is/was very ambitious and included amongst others the following CO_2-emissie targets

- 50% less CO_2-emission in 2020 compared to 2005 for all municipal activities (e.g. buildings of the City)[1].
- 20% less CO_2-emission in 2020 compared to 2005 for all other activities in the Antwerp area

[1] City of Antwerp (Jan 2011), Climate plan 2010-2020, approved by the town council, Antwerp
[2] Woonhaven Antwerpen (dec 2012), Statistical data of social houses owned by Woonhaven, Antwerp
[3] http://nl.wikipedia.org/wiki/Gemeentelijk_Havenbedrijf_Antwerpen

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How EPC will affect the energy plan

EPC is an effective and proven approach for realising successfully energy saving in buildings. With the support of Factor4, the City is presently developing EPC-projects in most of the sectors mentioned above: in municipal buildings (e.g. pilot project Felix pakhuis), in companies (e.g. AWDC project in collaboration with Stadslab Antwerpen and ESCO-projects in industrial and logistic companies located in the Harbour in collaboration with Port of Antwerp) and in the residential sector (e.g. EPC in apartment buildings, in collaboration with Ecohuis Antwerpen). Once the effectiveness of the EPC-pilot projects is proven, EPC will become a more mature and accepted product and will most probably become a key instrument and thus will affect positively the Antwerp energy plan.

2. Discuss the most prevalent barriers you have experienced whilst implementing EPC in your region/city, organising your answers under the following headings:

Financial Barriers

As EPC creates the possibility of third party financing, investments via EPC should in principle not be hindered by major financial barriers.

However, on 7 August 2015, Eurostat published a guidance note (attached) titled "The impact of EPC´s on government accounts", which confirmed the interpretation of public accounting rules as regards EPC and public debt. The guidance note states that in order for a project to be considered a public-private partnership (PPP), capital expenditure for improving energy efficiency by private entities in the contract should reach at least 50% of the total value of the building after the energy efficiency renovation. This is almost never ther case in EPC-projects.

The possibility of 'off-balance financing' is technically spoken a relatively small advantage of EPC , but is perceived by decision makers as a major advantage (see further), and thus is a powerful argument for convincing officials and politicians to choose for EPC. Because of the Eurostat guideline, it will become more complicated/disputable to use the advantage of off-balance financing in EPC-projects as an argument to convince decision makers for choosing EPC.

Administrative Barriers

At the end, EPC is a more simple way of procuring energy saving measures compared with the traditional way of procuring measures. Indeed, in case of a traditional procurement procedure measures are typically procured separately, have to be described in detail, etc. which by definition is more complicated than a one stop performance based procurement of a group of measures in a pool of buildings. Yet, due to the fact that EPC is an innovative approach and due to lack of knowledge, officials perceive sometimes the procedure as administratively more complicated.

Policy/regulation Barriers

The major barrier is presently the more stringent Eurostat guidelines (see before)

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Knowledge Barriers

A major barrier for EPC development in Belgium is the lack of knowledge. Most Belgian decision makers consider EPC for instance as an alternative method of financing projects. They do not immediately understand that the guaranteed energy performance over the lifetime of the contract is a much more important advantage . Indeed, financing as a concept is easily and thus widely understood and is highly visible and quantifiable. The advantage of procuring more performance based is more difficult to understand.

This leads to stakeholder stressing too much on to the financing element of EPC and thus missing the real purpose of EPC. Experience of Factor4 shows that EPC-principles have to explained many times again before the stakeholders fully understand and 'get' the advantage of EPC.

3. In relation to the barriers outlined, please suggest your preferred solution or policy recommendation.

As explained before, a major barrier concerning EPC in Belgium is the fact that the innovative approach is perceived as administratively more complicated. The continued promotion of EPC and the continued support of EPC-project development are vital in order to promote EPC as a viable alternative to the traditional approach to energy conservation projects. Local examples of successfully completed EPC projects are necessary.

A new major barrier for EPC-development in Belgium, and the European Union, is the Eurostat guideline discussed above. Political initiatives are necessary to adapt this guideline. Factor4 took already several initiatives to bring more awareness and solve the issue, e.g.:

- Presentation of Johan Coolen on 28 January 2014 in an EESI 2020 webinar about "off balance financing Challenges created by ESA 95" to bring awareness about the issue within the EESI 2020 consortium.
- Formulation of a question, and an alternative solution, about the Eurostat guideline in the frame of a webinar in Brussels attended by M. Denis Besnard, the (formerly) responsible coordinator of the group at Eurostat who drafted the Note on EPC in July 2015
- Factor4 suggested on 30th October during a phone meeting with amongst other the two European ESCo-federations, i.e. eu.ESCo and EFIEES, to organize a survey about the impact of this guideline on EPC-market development in Europe. The market information collected via this procedure would indeed be very helpful in political lobby work towards European Institutions to adapt the guideline. This idea was well received and appreciated by the two federations, and consequently they launched a survey some days later. More information can be found here: http://www.transparense.eu/be/news/survey-be

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4. Discuss the most prevalent success factors you have experienced whilst implementing EPC in your region/city, organising your answers under the following headings:

Financial success factors

A major barrier for (off-balance) financing of EPC-projects is the Eurostat guideline. Factor4 as well as many other European stakeholders took in 2014-2015 several initiatives to remove this barrier. But as decisions on this guideline are high level political decision, it will most probably take some time before any successes can be reported on removing this barrier.

Administrative success factors

Several EPC-projects launched with support of Factor4 and other EPC-experts on the Belgian market show that the organisation of an EPC-project is from the administrative point of view not so complicated and thus will help to remove to (perceived) administrative barrier.

Policy/regulation success factors

The Flemish government launched via Vlaams Energiebedrijf its first EPC-project in an organisation that is part of the Flemish government. The fact that that an EPC-project is realised within the Flemish government that is responsible for EPC-policy and regulation in the Flemish region, is strategically and politically important and will most probably increase the overall political support of the Flemish government for EPC.

Knowledge success factors

The EESI2020 project as well as other EU supported EPC-projects such as Transparense, contributed via seminars, consultants, newsletters, etc. significantly to the further promotion of EPC and to the development of EPC-pilot projects. Further promotion of EPC and EPC pilot projects will be needed in the future.

One major knowledge success factor is the EPC-support by Stadslab2050 and Ecohuis, two organisations supported by the City of Antwerp. Via these platform several EPC-projects and initiatives were launched and this governmental support increased the confidence of the stakeholders in EPC.

5. In relation to the success factors outlined, please elaborate on why these factors were of particular importance.

Official political support by public authorities has a significant positive impact on the credibility of EPC as a good practice in the minds of governmental as well as private decision makers. This political support improved considerably during the last 1-2 years, amongst other via official support by the City of Antwerp (Ecohuis and Stdslab2050) and the Flemish government (Vlaams Energiebedrijf): see above.

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