Interview of Olivier Gouëdard-Comte

CERIS has been mandated to create the European Buildings Energy Data Book for HOMES programme. Interview of Olivier Gouëdard-Comte who is managing director of Ceris Consulting.

CERIS

CERIS Consulting, founded in 1989, provides strategic advice and operational support and is focused on innovation projects.

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Could you briefly explain the objectives of this project?

HOMES needed data to understand the european building stock in terms of usages, surfaces and energy consumption. Our firm was able to conduct this project based on a tailor - made consulting approach and focused on a major innovation topic:Energy Efficiency in the building sector, knowing that buildings account for 40% of global energy consumption and 30% of greenhouse emissions

in Europe. The deliverables, produced by our team, are a contribution to build a first chapter of the European Buildings Energy Data Book.

Active energy efficiency solutions are applicable in new and renovated buildings; nevertheless, only 1% or 2% of building stock is yearly renewed in Europe. Consequently, energy consumption of buildings in the next ten years can be significantly reduced by renovating the existing stock. In this context, we need to assess the building stock and to characterize it. The main objective is so to produce relevant and reliable data enabling to understand how the building stock looks like.

The scope of the project

> 5 countries: France, UK, Germany, Spain and Czech Republic

> 5 major segments of tertiary: hotels, health, education, trade, offices and residential homes and flats.

Expected data concerned:

> The building stock (the total floor area, the number of buildings, the number of buildings by year built, the number of building by size)

> The energy consumptions: for each country and each market segment are the total and average consumptions, by energy source, by end use.

Which methodology was built by CERIS consulting?

Our firm has built a methodology based on 6 steps:

Step 1: Elaborate an analytical framework and identify experts.

Step 2: Interview experts (first round) and market research to identify data and surveys available in each country. Clearly, we can observe a difference of maturity between countries in terms of available data. UK is probably the most advanced country with a lot of information and data available since many years.

Step 3: On the basis of collected sources and a second round of interviews, selecting via a multi criteria analysis the best sources (Odyssée and Basic as examples).

Step4: Modelling for estimating the missing data.

Step 5: Filling in with the format target the data base.

Step6: Checking the set of key figures through a quality process, based on various tests.

Which are the key results ?

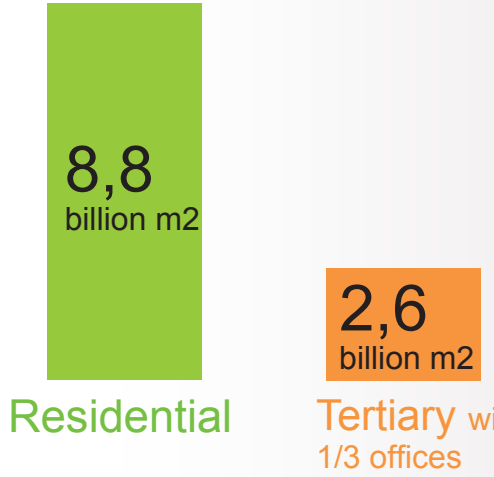
Concerning the building stocks, we identified that for the five targeted countries, residential sector represents more than 8.8 billion of m² to be compared with the 2.6 billion of m² of tertiary surfaces on the same area. For tertiary sector, offices take the lead of surfaces amount with 850 million of m2, representing from 28% to 48% of the tertiary surfaces depending on the country. With more than 500 million of m2, education and wholesale / retail take the second and third place.

The age of the tertiary building stock is not very well known. Against by and thanks to population census, the residential stock is better known: more than 80% of residential buildings (flats or individual homes) have been built before 1990. The ratio of surfaces between individual houses and flats is very different from a country to another: in UK, almost 90% of residential surfaces are individual houses. At the opposite, in Spain, almost 70% of residential surfaces are flats.

Perimeter:
Czech republic, France
Germany, Spain, United Kindoms

261 895 000 capita

= 53 %
of european population



homes

Concerning the energy consumption, interesting figures are related to the weight of buildings energy consumption in the national economic balances, the most "energy consumer" market segment and the type of final energy responsible for the largest energy consumption. Examples: buildings energy consumption represents a stable ratio of almost 40% of total energy consumption, excepted Spain which announces a weight of 28%. Residential is always the major concern in terms of energy consumptions with a relative weight of appreciatively 70% of building consumptions. The type of final energy is very variable depending on the country. However, electricity is always a major energy: for example, 62% of energy consumptions of Spain tertiary buildings use electricity.

Could you precise how these data will be used?

By crossing, comparing and analyzing data produced in the book, you can assess the target market at a european scale, rank the market segments attractiveness globally and on a country scale. You can also define the core targets in each local market. All these tasks are critical for designing a realistic business strategy and elaborating efficient marketing policies. In other words, the European Buildings Energy Data Book is a tool to capture true business opportunities within the energy efficiency market and to create value.