



# Presentation of the Green Rating Initiative

*September 2009*

# Introduction

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**Existing buildings = 96-98% of building stock**

- ▶ Improving environmental performance of **building stock** is commonly recognised today as a priority to meet climate change challenges
- ▶ **Now, to improve the environmental performance of existing buildings, we must first measure it**
- ▶ However, so far, there is **no appropriate measuring tool** for building owners

# What is a “Green Building?”

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Is this a “green building”?



or may be that one?

and how much green?

or this one?



... no clear definition nor adapted tool today!

# The Green Rating Initiative

- ▶ The **Green Rating initiative** was launched in 2008 by Bureau Veritas with AEW Europe, AXA REIM, ING REIM and GE RE Europe to assess the environmental performance of **Existing Buildings**



- ▶ Consistent methodology developed, tested and readjusted on **real cases**
- ▶ At least **120 buildings** will be assessed in 2009 in Europe\*



\* France, Germany, Italy, Spain, The Netherlands, United Kingdom + Nordic & Central Europe

# Key Principles

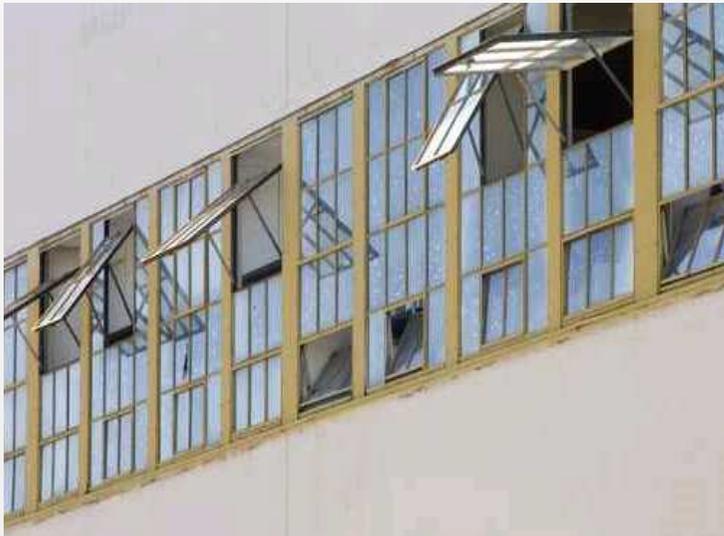
- ▶ The overall environmental performance of an asset rests on two main factors

## 1/ Building “intrinsic” characteristics (envelop, equipment installed)

- With some investments (renovation, retrofits, equipment replacement or installation), the intrinsic characteristics can be enhanced

## 2/ Building use and operations

- With some behavioural improvements and equipment adjustments, the operational performance can be improved



# 4 levels of performance

Based on actual use of the building



Based on building intrinsic features upon Conventional use of the building (Modeling)

# A concrete example (on Energy)

## Office building used for TV broadcasting activity:



- ▶ Tenants' activity and conditions of use can significantly change the "intrinsic performance" of a building
- ▶ The intrinsic performance allows a consistent benchmark between buildings, under the same "normalised" (or "conventional") conditions of use.

# 6 objective and tangible indicators

## Energy



**In kWh / m<sup>2</sup> per year**  
in final energy

Energy needs of the building,  
calculated with dynamic modelling

## Carbon



**In kg CO<sub>2</sub> eq/ m<sup>2</sup>**

Greenhouse gas emissions related to  
the building energy use

## Water



**In cubic meters /m<sup>2</sup> per year**

Consumption of water, calibrated with  
modeling of uses

## Transport



**1 to 9 score**

Mainly based on the access to public  
transport and provisions within the  
building

## Wellbeing



**1 to 9 score**

Based on the quality of indoor  
environment  
(air quality, noise, natural light,  
comfort)

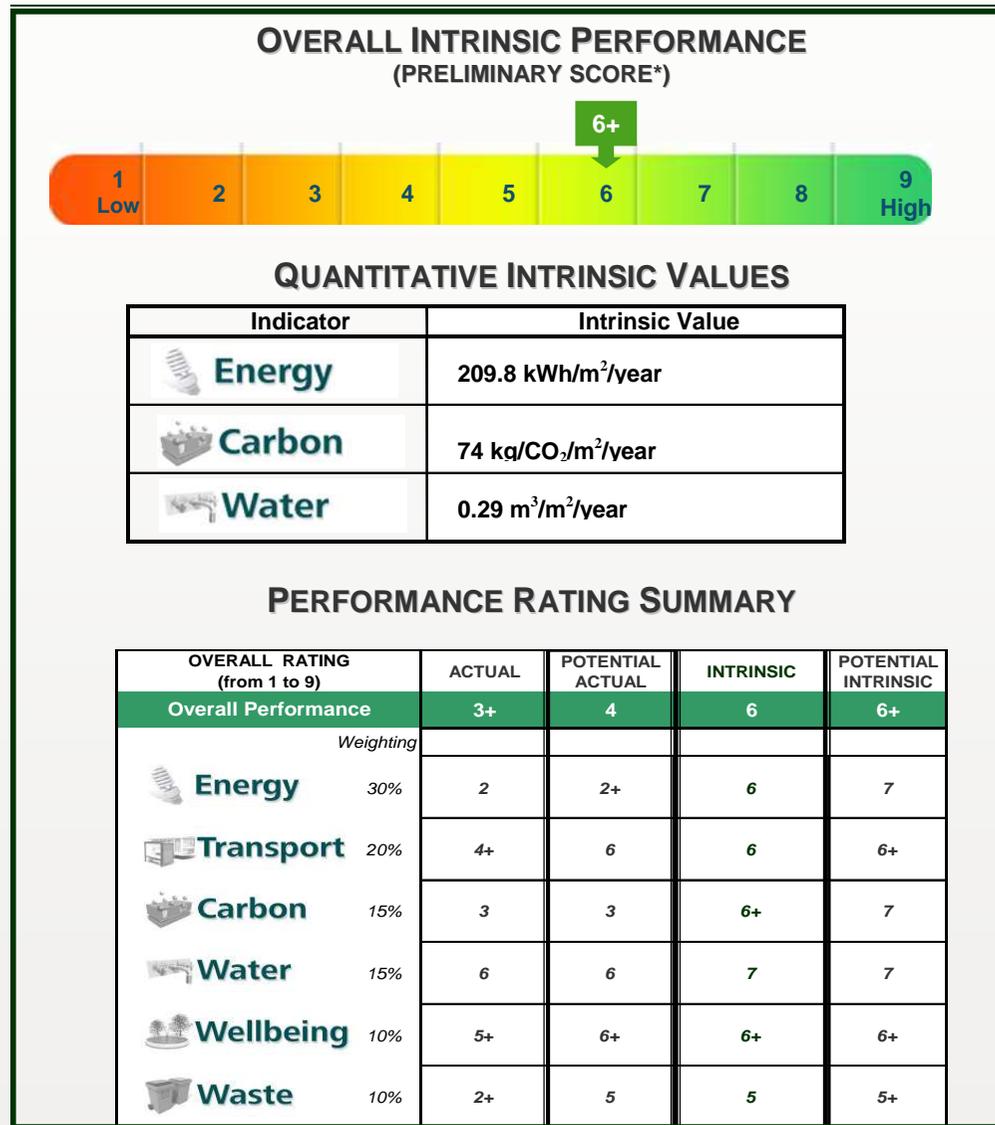
## Waste



**1 to 9 score**

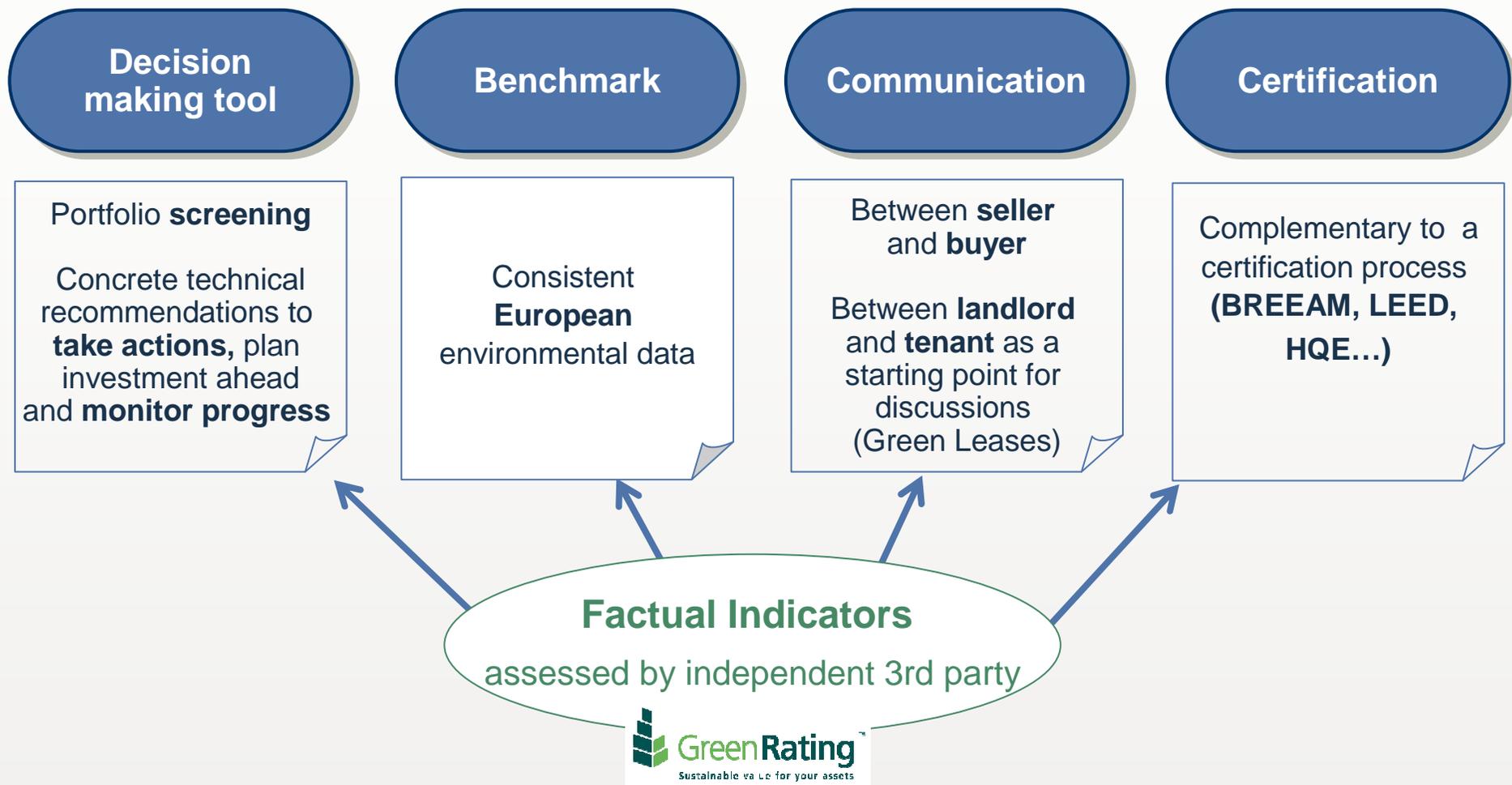
Based on the building capacity for  
waste sorting and operational practices

# A clear synthesis



\* The rating score is likely to be reviewed at the end of 2009 when the databank of first results is analysed.

# Reference data for different uses



**A consistent European approach, to bring concrete answers on sustainability stakes in the property sector**

## Ambition of the initiative

- ▶ Build a consistent European scheme
- ▶ Cover different assets (office, retail, logistic, ...)



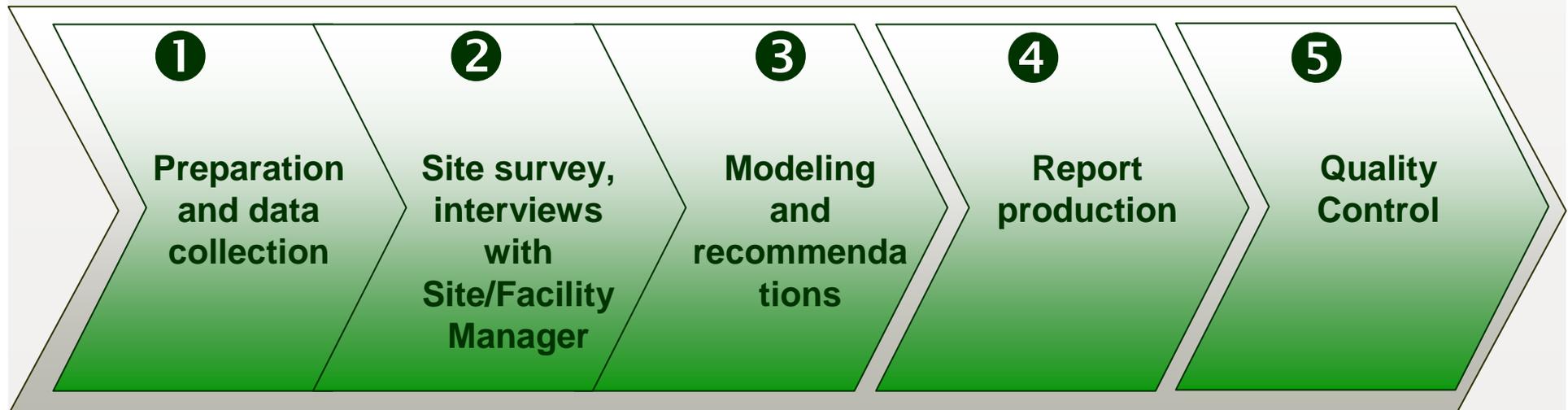
Open the Initiative to property professionals  
and join forces to tackle sustainability challenges  
on existing buildings



# Appendix

# Assessment Process

- ▶ A five step process with robust methodology and assessment guidelines
  - Including **detailed survey of the site**
  - Including **energy and water modeling**
  - Including **identification of recommendations**
- ▶ **Cost effective** and **quick to deploy**, at an asset or at a portfolio level



# Intrinsic Value - Building Thermal Dynamic Simulation

