

Quantitative key used for the criterion *Overall potential*

In order to set up a quantitative procedure for evaluating the Overall potential of a technology, three main implementation factors (with corresponding criteria) have to be considered:

- Energy efficiency performance (Criterion: Energy efficiency potential throughout fleet)
- Benefits and constraints (Criteria: Benefits (other than environmental), Barriers)
- Economic factors (Criteria: Vehicle - fix costs, Vehicle - running costs, Infrastructure - fix costs)

This selection does not cover the whole range of criteria used in the evaluation tool. However the criteria were chosen in such a way that a comprehensive view of the technology is guaranteed:

- The main key factors are included.
- Some of the criteria considered have in itself an accumulative character such as *Benefits* or *Barriers* and therefore cover a variety of issues.

For a given technology an overall potential is derived from these criteria as follows:

Step 1: Values assigned to each criterion

The possible values of the individual criteria are represented by numbers from 1 to 4 according to the following key:

Criterion	Numbers assigned to the individual values
Benefits (other than environmental)	None = 1
	Small = 2
	Medium = 3
	Big = 4
Barriers	None = 4
	Low = 3
	Medium = 2
	High = 1
Energy efficiency potential throughout fleet	< 1 % = 1
	1 – 2 % = 2
	2 – 5 % = 3
	> 5 % = 4
Vehicle - fix costs	None = 4
	low = 3
	medium = 2
	high = 1
Vehicle - running costs	Significant reduction = 4
	Minor reduction = 2
Infrastructure - fix costs	None = 4
	Low = 3
	Medium = 2
	High = 1

Step 2: Point score

For each technology the total number of points is calculated by adding up the points of the individual criteria (*Energy efficiency* is accounted for with a weighting factor of 2):

$$\text{Total score} = \text{Benefits} + \text{Barriers} + 2 \times \text{Energy efficiency potential} + \text{Vehicle fix costs} + \text{Vehicle running costs} + \text{Infrastructure fix costs}$$

Step 3: Overall potential

Step 2 yields a number between 8 and 28. From this total score an overall potential is derived according to the following key:

< 14	→	Not promising
14 - 16	→	Interesting
17 - 19	→	Promising
> 19	→	Very promising

Step 4: Plausibility check

The result is checked for plausibility using the criteria not considered in the algorithm as a qualitative background. In a limited number of cases, this step will lead to a modification of the result from Step 3.

Note: The technology database contains a number of energy efficiency strategies that are concepts rather than technologies (e.g. LCC-oriented procurement). It is evident that for these database entries the above quantitative procedure involving such criteria as *Vehicle fix costs* is not applicable. In these cases the overall potential is evaluated in a more heuristic way.