**Photocatalytic technologies on urban pavements for reducing NOx pollution: From laboratory tests to in field compliance: LIFE-PHOTOSCALING project**

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**LIFE-PHOTOSCALING´s global objective** is **to demonstrate the validity** of the **photocatalytic technology** in urban agglomerations, establishing the instruments to scaling up from laboratory measurements to application in our cities, by developing **a decision support tool**, to assess the **sustainability of each particular solution in each particular environment** to encourage the **widespread use** of this technology.

Some attempts have been made in order to apply this technology in a real scale. However, in those cases important problems were encountered to monitor the **system from a global point of view** that **makes it very difficult or even impossible to evaluate** if the technique is really working. That is why there is still a **barrier that discourages public authorities** and most architects and engineers to promote the use of this technology, together with the fact that **there is not any compliance criterions’** concerning neither **activity** nor **durability** or possible **secondary effects**.

Therefore, LIFE-PHOTOSCALING intends to bridge the gap between research, policy and widespread implementation of the technology. **Their global objective will be met through the following partial objectives:**

1: Development of two demonstration platforms (same materials, different emplacements) on an intermediate pilot plant technical scale.

2: Technical development of a prototype for in-situ measuring the photocatalytic efficiency.

3: Development of performance indicators for evaluation of the: • Photocatalytic efficiency • Durability of the material itself concerning their intrinsic properties and • Evaluation of the possible unwanted deleterious effects.

4: Modelling of the photocatalytic processes coupled with the environmental actions.

5: Development of a decision support tool, to undertake the sustainability of each particular solution including a life cycle assessment (LCA).

6: Validation of the tool developed in real –full scale- conditions.

7: Breaking the barriers to the implementation of this technology after having probed safe for human health: communication of the lessons learnt and standardisation efforts.

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