## ASSESSING THE POTENTIAL HEALTH BENEFITS OF CYCLING AT THE CITY OF VIANA DO CASTELO

Paulo Ribeiro<sup>1</sup>
Elisabete Arsenio<sup>2</sup>
José F. G. Mendes<sup>3</sup>

183 CTAC – Territory, Environment and Construction Research Centre, Universidade do Minho, Campus de Gualtar, 4710-057 Braga

pauloribeiro@civil.uminho.pt; jfgmendes@civil.uminho.pt

<sup>2</sup> LNEC, Department of Transport, Av. do Brasil 101, 1700-066 Lisbon, Portugal elisabete.arsenio@Inec.pt

## **ABSTRACT**

Mobility has an important impact on the overall functioning of cities and quality of life of citizens. On the other hand, motorized road traffic is associated with high levels of noise and air pollutant emissions along with congestion and other externalities, leading to considerable social and environmental costs and degradation of human health. Following the World Health Organization, physical inactivity is one of the leading risks in Europe, associated with nearly 1 million deaths per year. In Portugal around 69% of the adult population do not reach the minimum recommended level of physical activity and 31% were considered sufficiently and highly active. Therefore, more sustainable transport modes such as walking and cycling are envisaged.

This paper is built upon the contracted work with the city of Viana do Castelo, located in the North of Portugal, conducted for the World Health Organization (WHO) by the University of Minho and LNEC. The work integrates a research roadmap (case study plan for the application of the Health Economic Assessment Tool) for the appraisal of health benefits of specific walking and cycling investments in the city. The work presented here focus on the former part of the study which involved joint team work with the city officers for defining the target policy scenarios for using the WHO Economic Assessment Tool, the exchange of experiences and practices with other European cities regarding the use of this tool for health benefits assessment, the characterisation of the mobility patterns at the reference and alternative policy scenarios set for the cost-benefit analysis, the data collection plan and the expected impacts from the early consideration of health benefits of those non-motorized investments. Results from the evaluation study can help the City elected officials to demonstrate the health benefits of walking and cycling investments. Individuals' awareness and perceptions of the health benefits of cycling and walking are important to encourage people to uptake active mobility styles.

**Keywords:** Health Economic Assessment; World Health Organisation; Walking and Cycling; Cost-Benefit Analysis; Sustainable Mobility; City of Viana do Castelo.