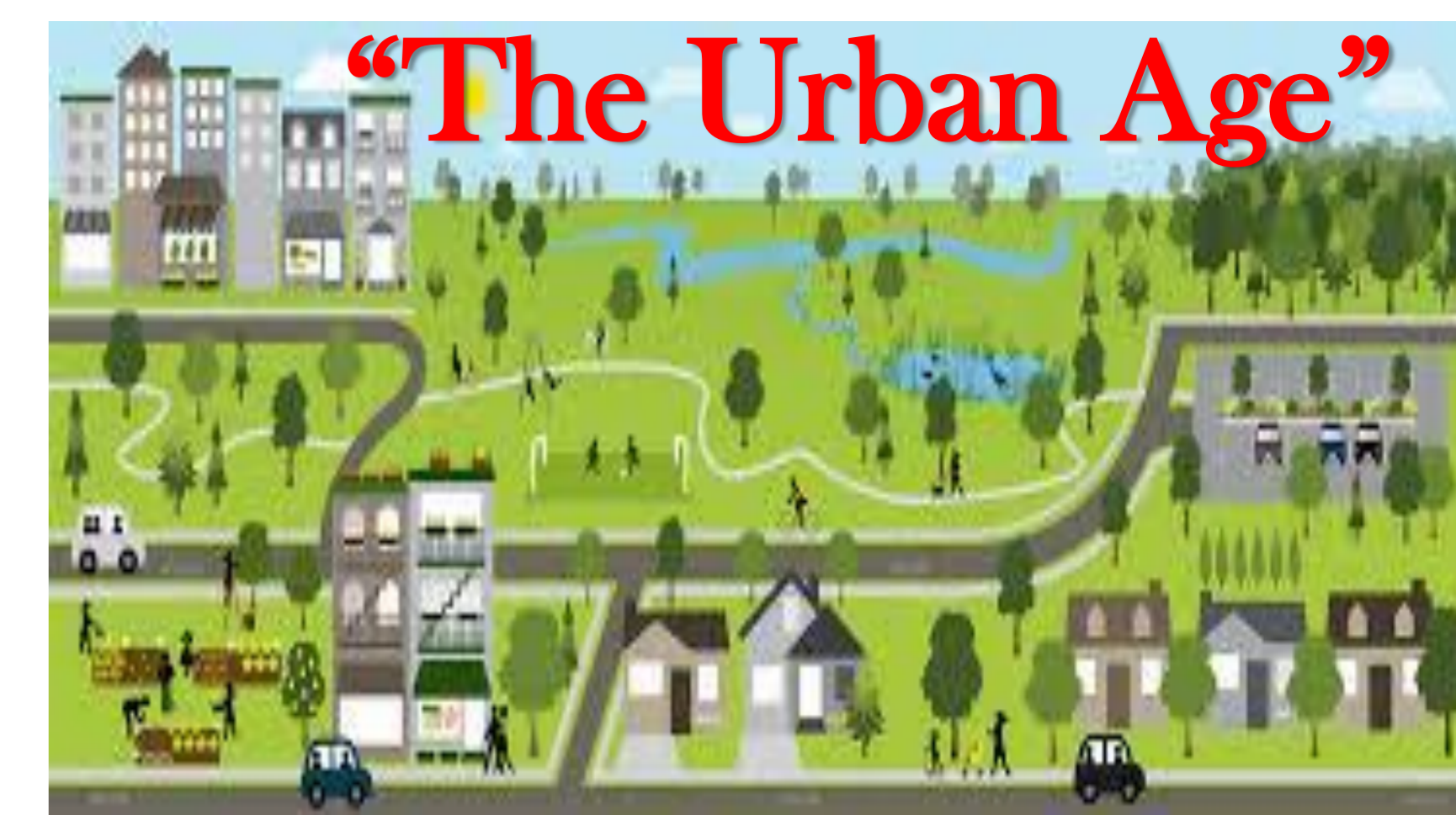


INTRODUCTION

Trees can be considered a *"natural capital"* for human well-being. Among the others, these benefits depend on the **extension and spatial distribution of greenspaces in built-up areas (GSB)**



AIM: large scale monitoring of the abundance, coverage and average size of GSB in Italy, including small-size patches, lawns, gardens and other greenspaces dominated by grasslands instead of only urban forests as defined by the FAO classification system

Key point
urban areas : urban greenspaces = built-up areas : GSB

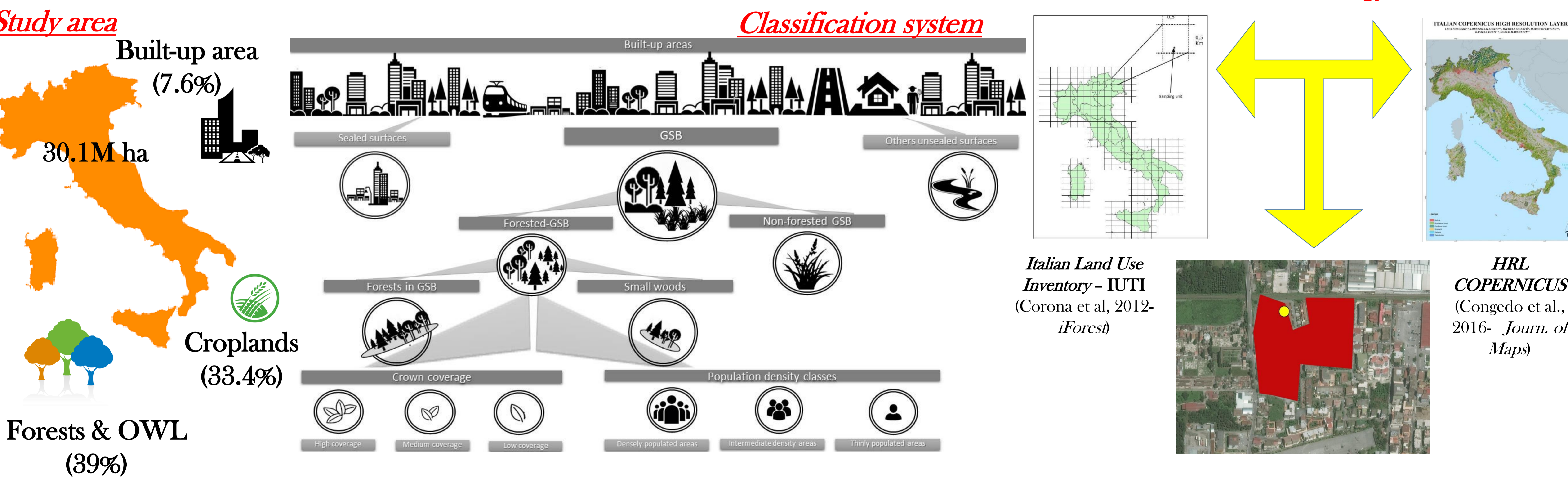
WHY? **Italy**
Highly scattered and fragmented urban mosaic (sprawl and sprinkling)

WHY? **Non-forested and small patches**
They contribute to enhance human wellbeing in urban areas and offer the opportunity to implement NBS

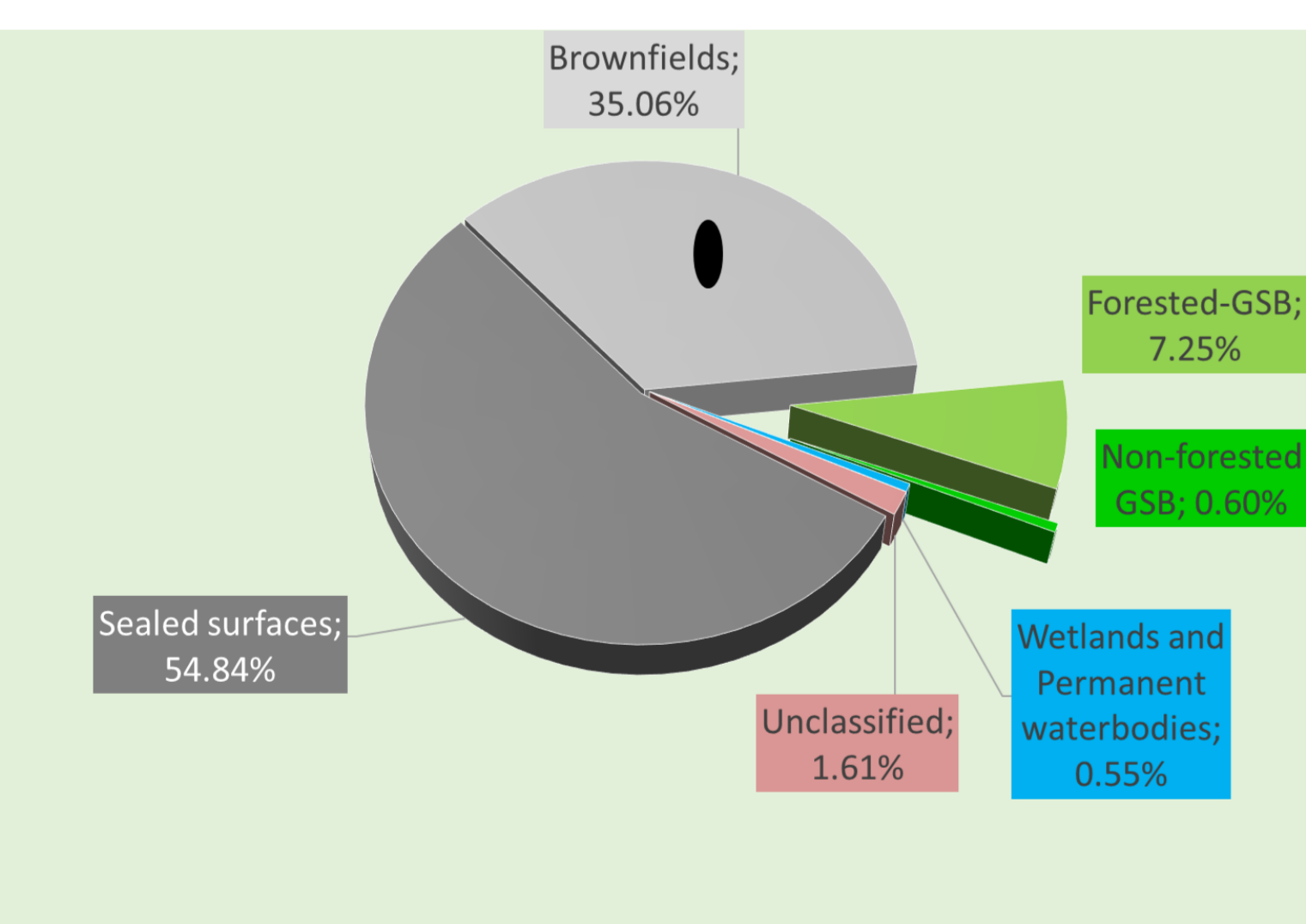
WHY? **Statistical approach**
Accuracy, reliability, reduced times and costs, comparison with other studies

WHY? **GSB in relation to population density**
The contribution of GSB in offering ecosystem services is related to the local beneficiaries (*serviceshed*)

MATERIALS AND METHODS



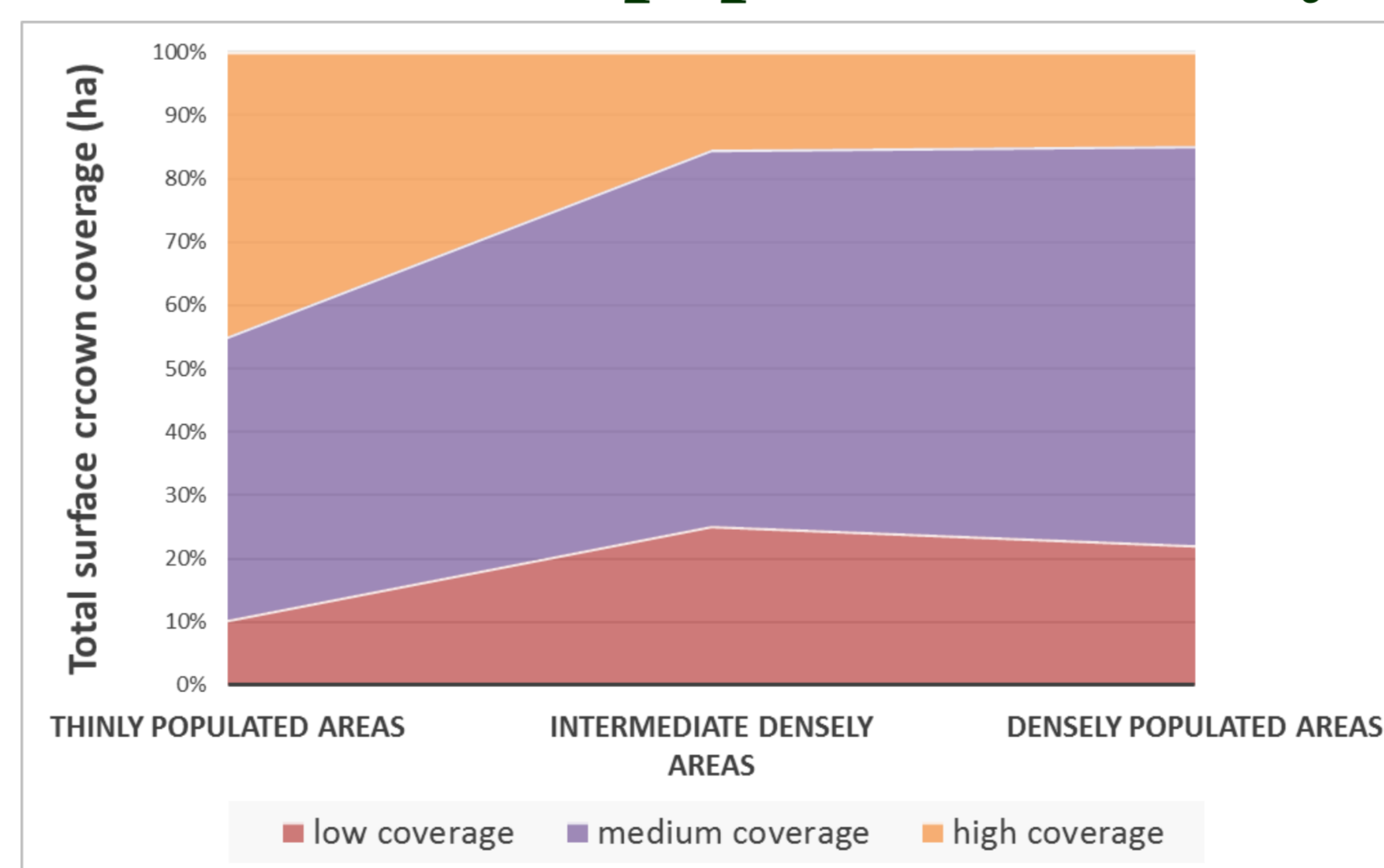
RESULTS



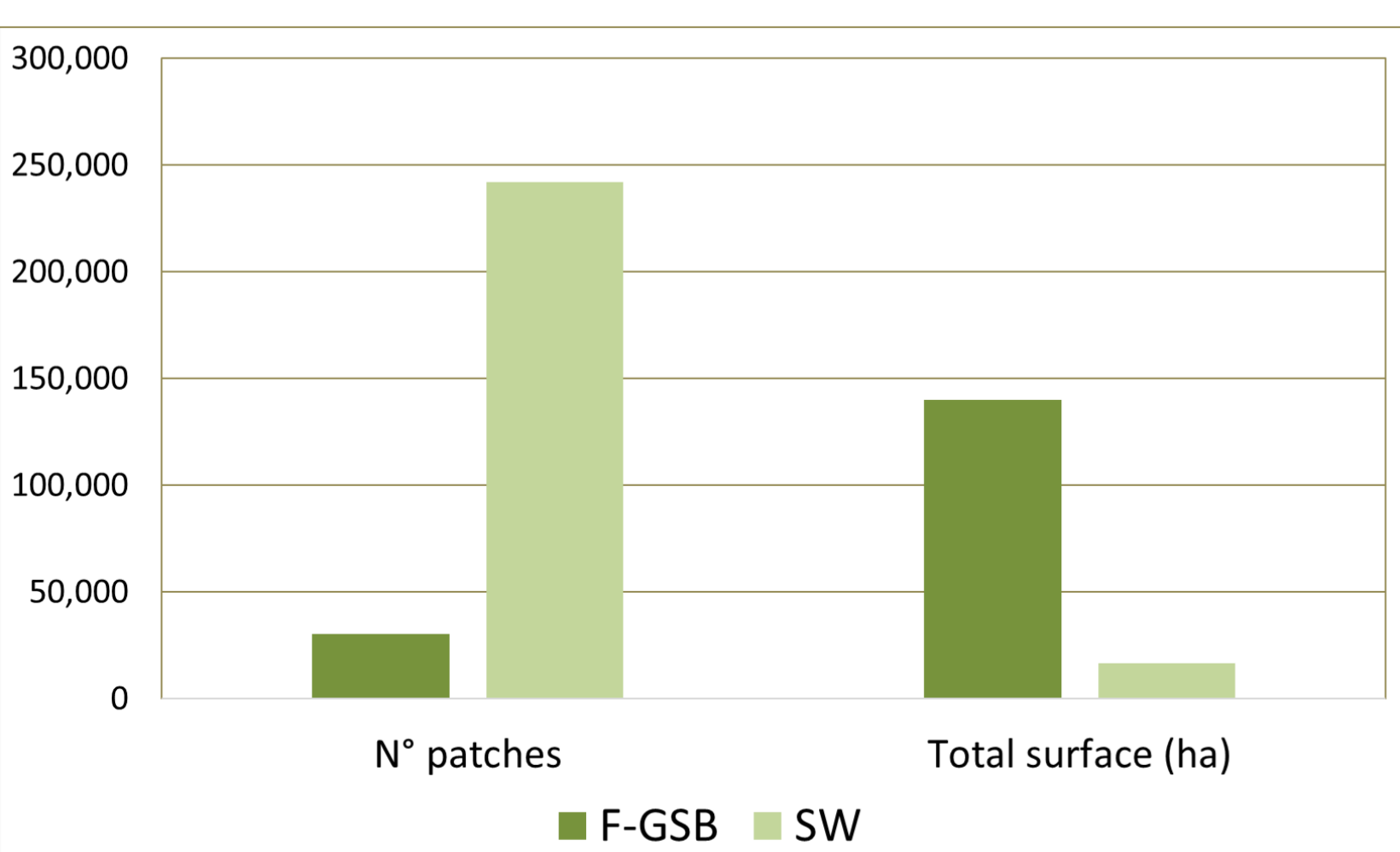
1 Unsealed: 890k ha
GSB: 170k ha (92% forested)

2 89% of the forested GSB > 0.5 ha, with average patch size of 4.6 ha (±2.5)

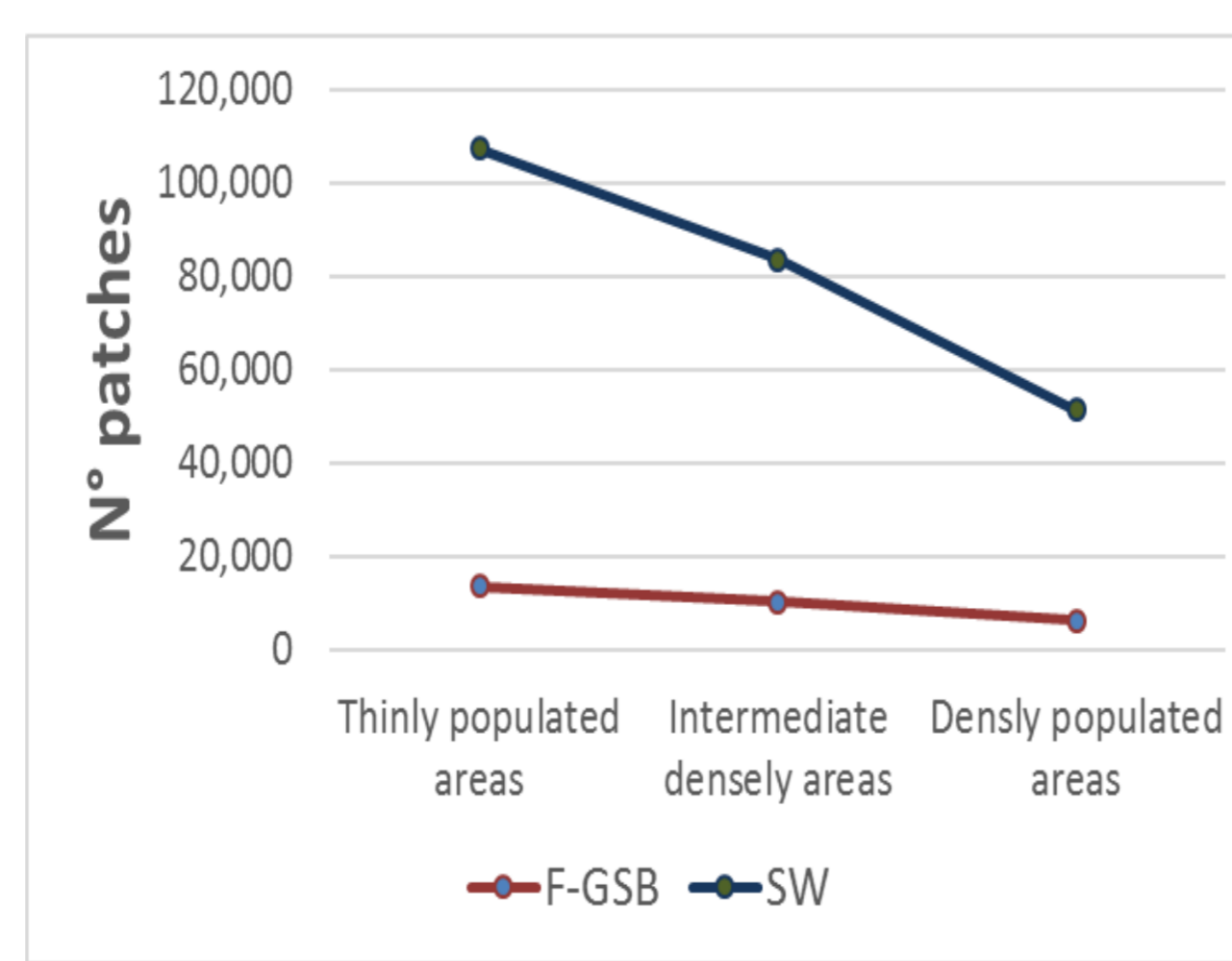
6 Crown coverage decreases with the increase of population density



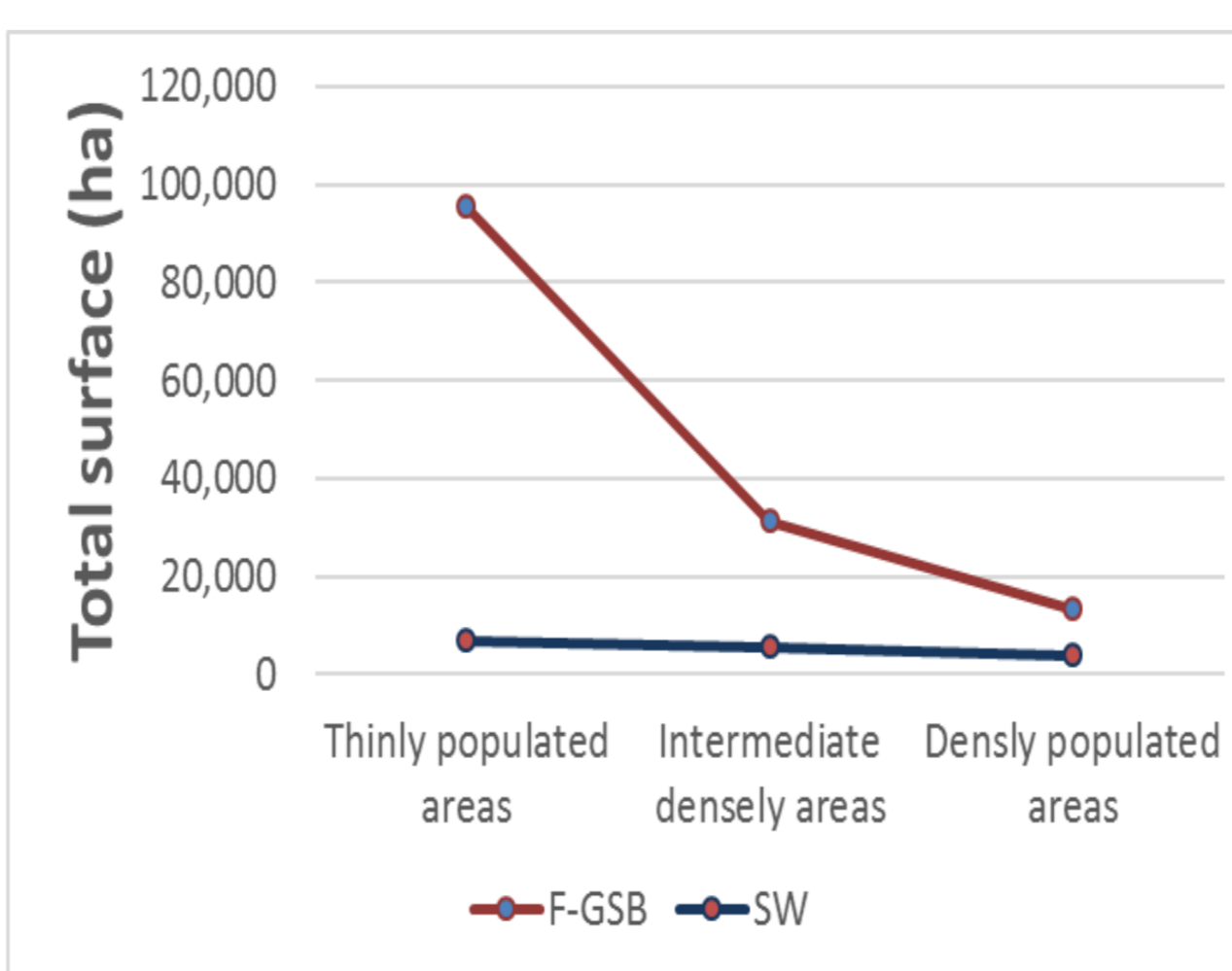
4 Average (27.2 m² GSB/inh) (vs 9-11 m²/inh WHO threshold)



3 F-GSB have less patches but occupy a higher surface than SW

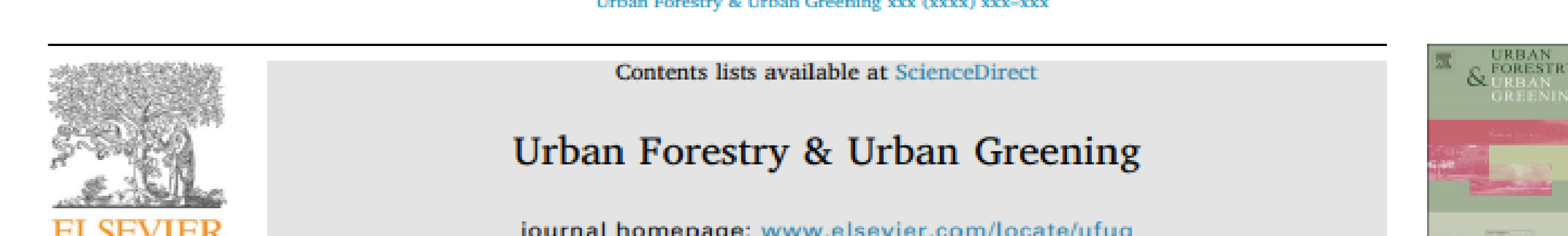


5 Forested GSB follow a distribution gradient of population density



KEY FINDINGS & IMPLICATIONS

- ✓ Greenspaces occupy 7.9% of built-up areas (170k ha) and are mainly dominated by forested GSB
- ✓ GSB availability decreases moving from densely to thinly populated areas → shift from an intensive to an extensive urban pattern (suburbanization)
- ✓ Urban densification (e.g. more compact settlements) is a good strategy to hamper urban sprawl → urban densification vs greenspaces availability



Original article
The green side of the grey: Assessing greenspaces in built-up areas of Italy
L. Sallustio^{a,b}, A. Perone^{a,c}, M. Vizzarri^a, P. Corona^a, S. Fares^a, C. Coccozza^a, R. Tognetti^{a,d}, B. Lasserre^a, M. Marchetti^a