

# FRONTIERS OF AIR QUALITY MODELLING SYSTEMS

Adani M., Briganti G., Cappelletti A., Cremona G., Ciancarella L., D'Isidoro M., D'Elia I., Mircea M., Piersanti A., Russo F., Villani M.G., Vitali L.

## INTRODUCTION:

- Air Pollution is a global problem
- WHO confirms that unsafe air pollution levels affect 9 in 10 people globally
- Air pollution affects human health
- Air pollution affects ecosystem health



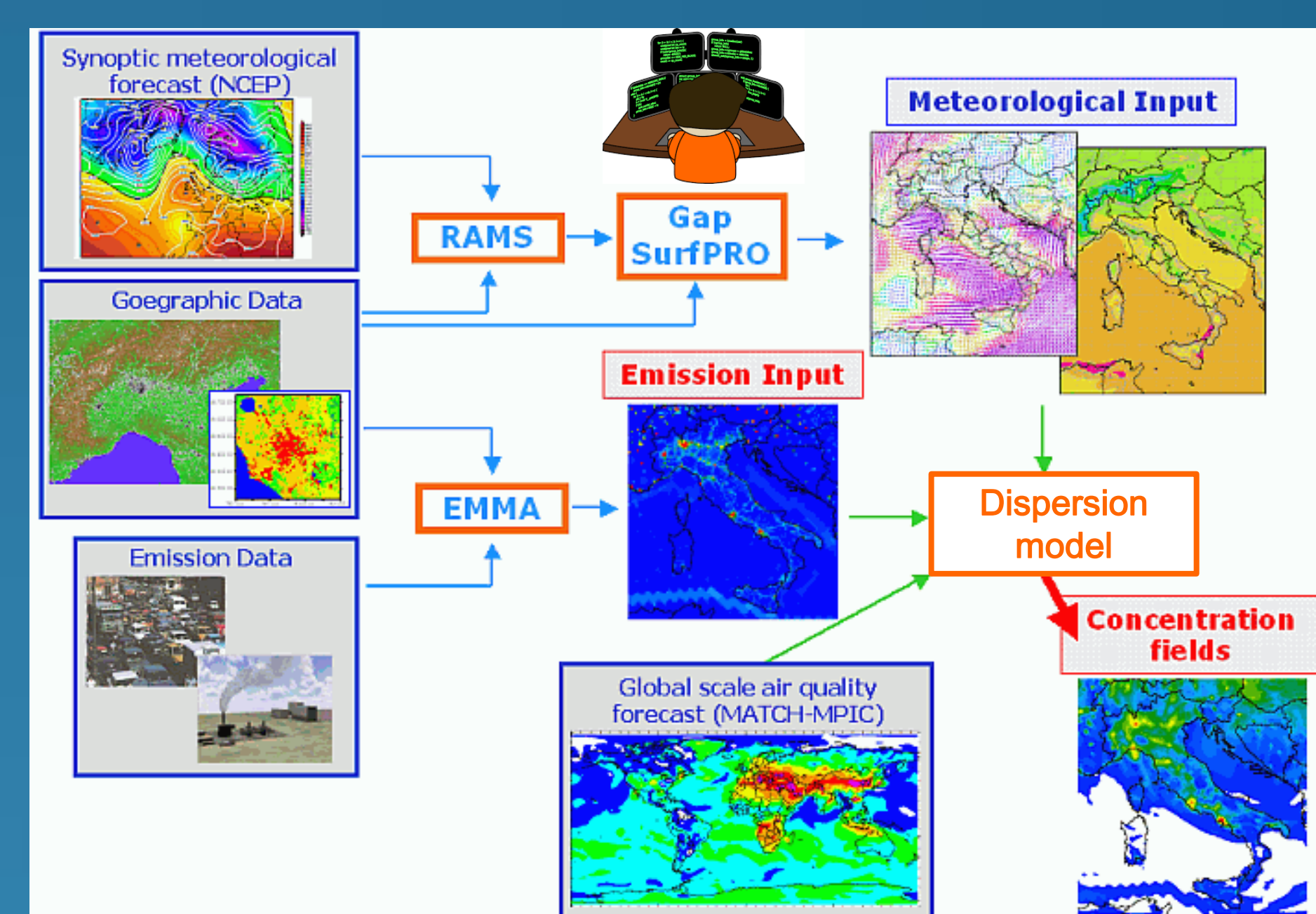
## OBJECTIVE:

- Support citizens and policy makers
- Develop scientific knowledge for mitigation and adaptation



## METHOD:

- Air Quality Modeling simulation



RESULTS: Scientific issues still remain but in principle 100m and 1m resolution over Italy would be possible



Cresco2: 20km resolution over Italy



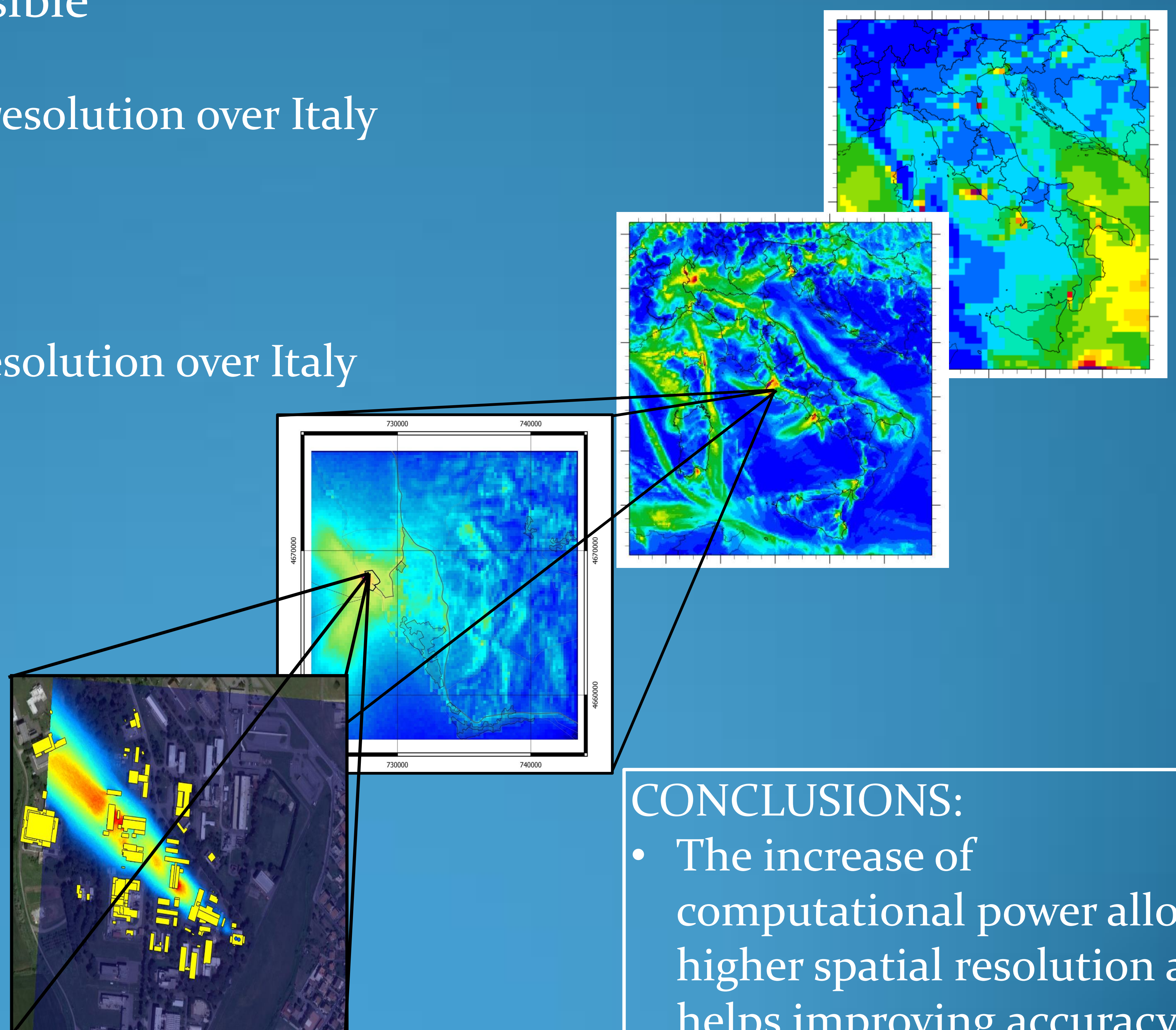
Cresco4: 4km resolution over Italy



Cresco6: 100m



Cresco8: 1m



## CONCLUSIONS:

- The increase of computational power allows higher spatial resolution and helps improving accuracy.