

# ARIA Technologies SA

## From planet to street

Jacques Moussafir



- French High-Tech Company founded in 1990 by meteorological and fluid dynamics experts
- Headquartered near Paris
- Several offices worldwide (USA, China, Singapore, Italy & Brazil)

**One single concern:**  
**Modeling the atmospheric environment**

- Software / systems / consulting
- R&D collaboration with large universities (CNRS, ParisTech...) and research centers (US-NCAR)

- ▶ Founder & CEO of ARIA Technologies
- ▶ Delegate général for enterprises of Club ADEME International (French EPA)

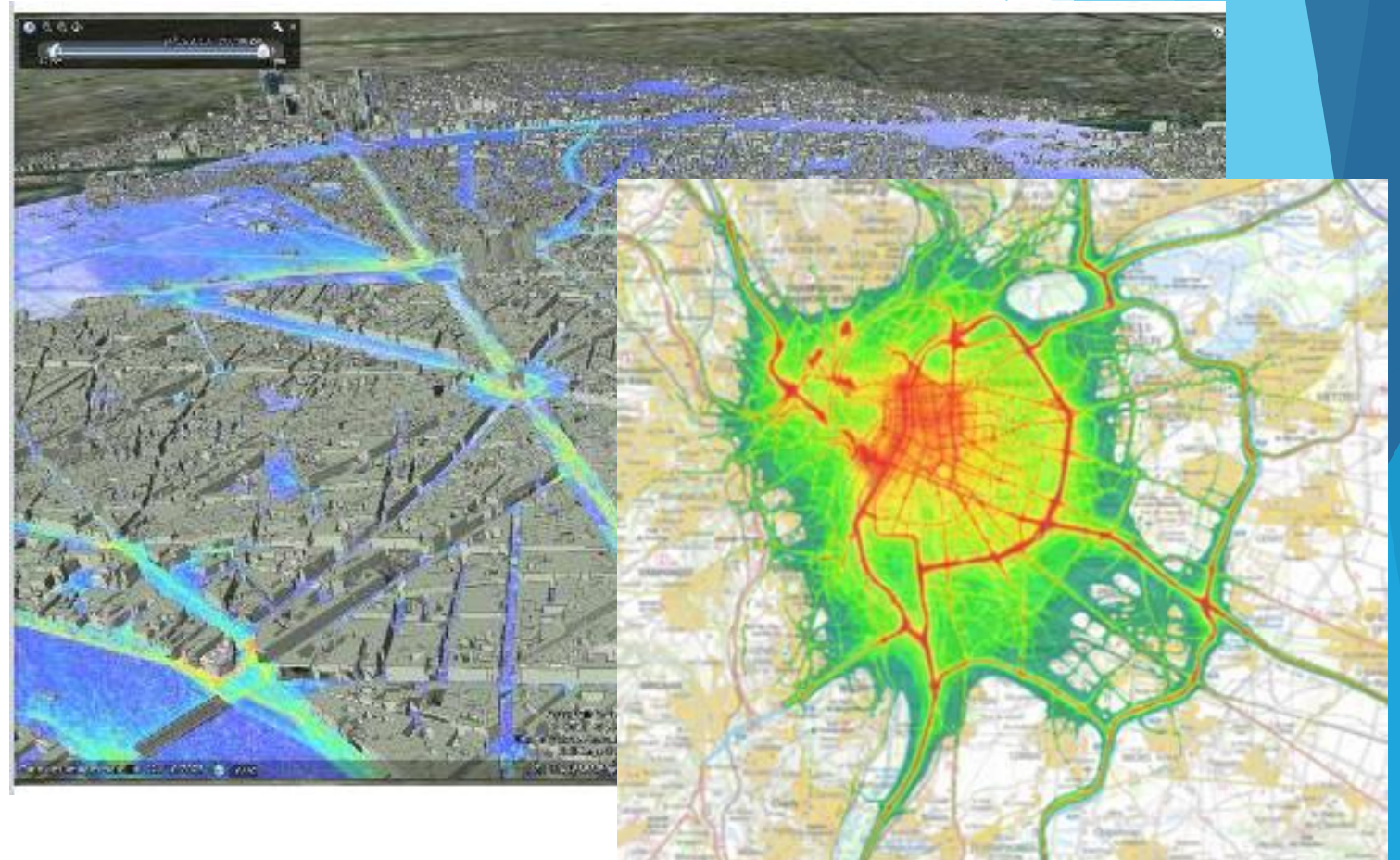
# FAIRCITY Platform

## HIGH RESOLUTION 3D URBAN SIMULATIONS



**FAIRCITY** : a unique solution developed in Paris and Lyons, by ARIA Technologies partnering with local AQ Boards

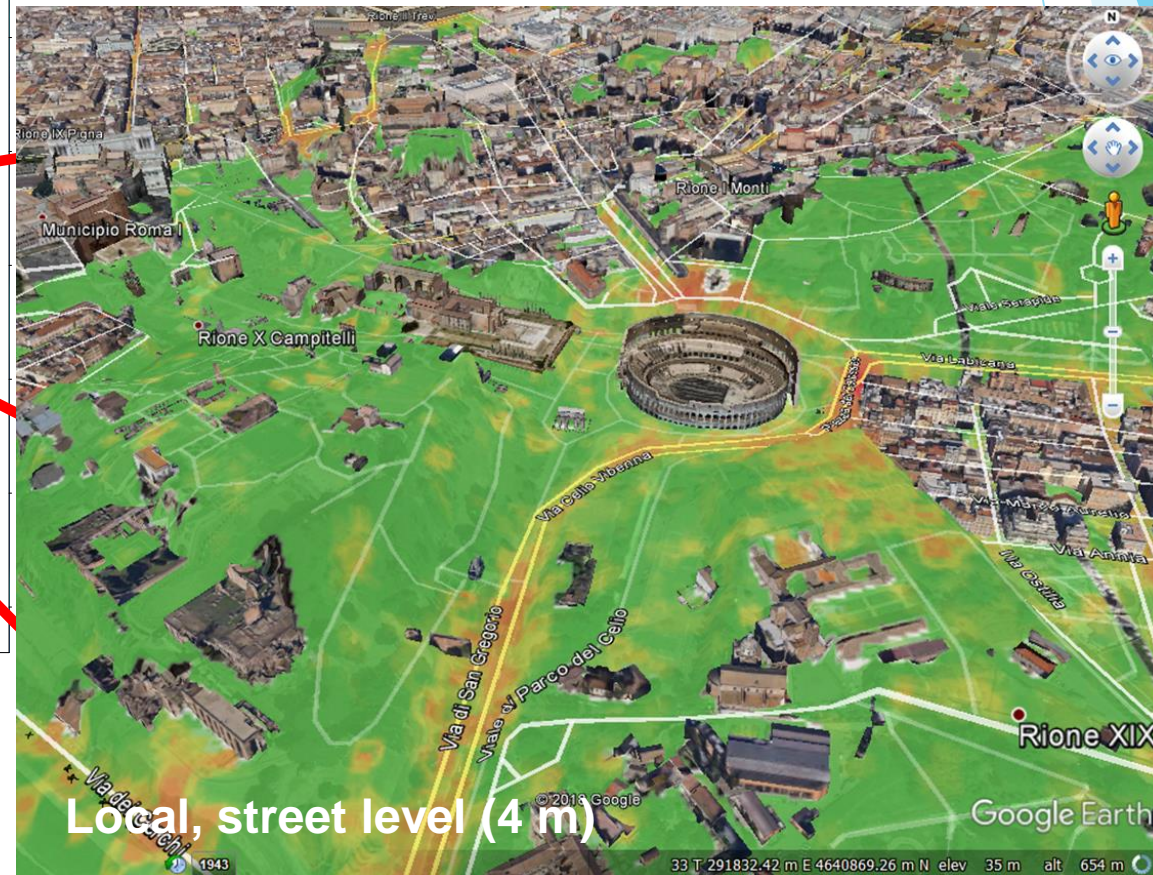
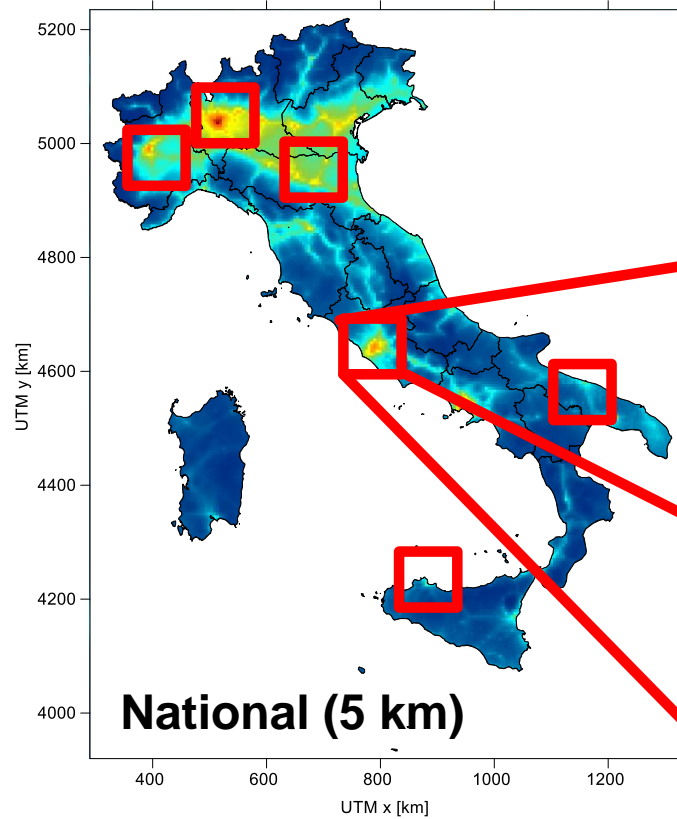
- From planet to street (3m cells)
- 3D metric resolution for urban areas, real-time
- Independent of specific AQ sensor hardware
- **Analysis, Forecast, Scenarios**
- **Link with Indoor simulations for specific buildings**
- **Data assimilation from fixed and mobile sensors**
- **Ready to integrate mobile data as well as fixed reference AIRPARIF sensors**
- Tested in several cities worldwide  
*Paris, Milano, Torino, Roma, Wuhan, Hong-Kong, Beijing, Rio, Marseilles*





## Conceptual design

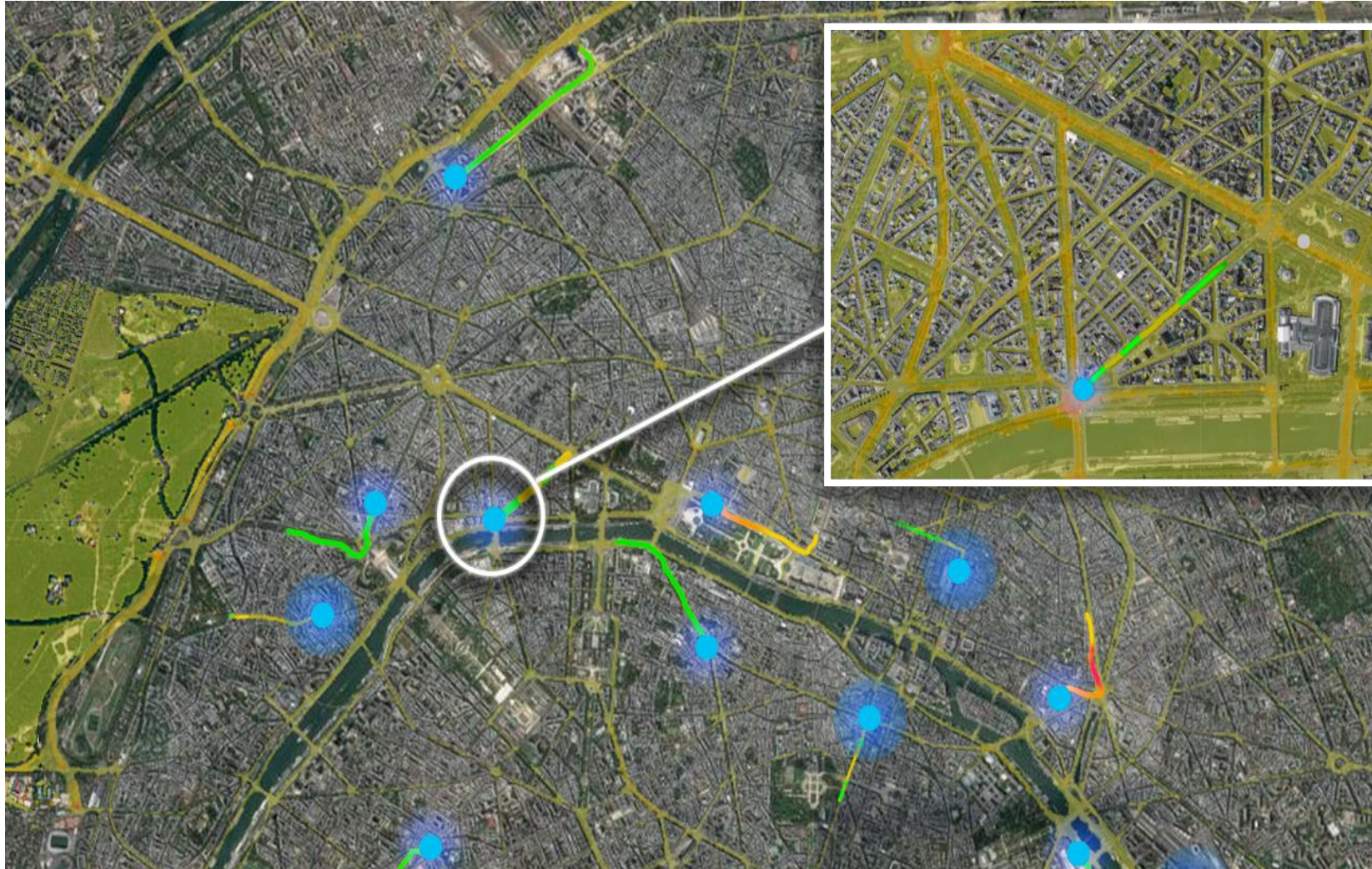
Risks of environmental exposures on health outcomes (mortality, hospital admissions, morbidity, road accidents, etc.) are estimated at progressively increasing resolution units from **national** to **urban** and **local** scales.





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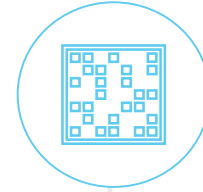


<https://d1hjcwvksvglh2.cloudfront.net/valeo/index.html>



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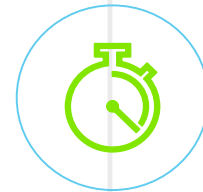
### High density grid

Several equipped vehicles



### Large coverage

Mobile sensors embedded on vehicles



### 3D / Real-time data

High quality & frequency data collection



### Low set-up constraints

Easy, and rapidly deployable



