

A French-Chinese bilateral innovative cooperation project

AS3™

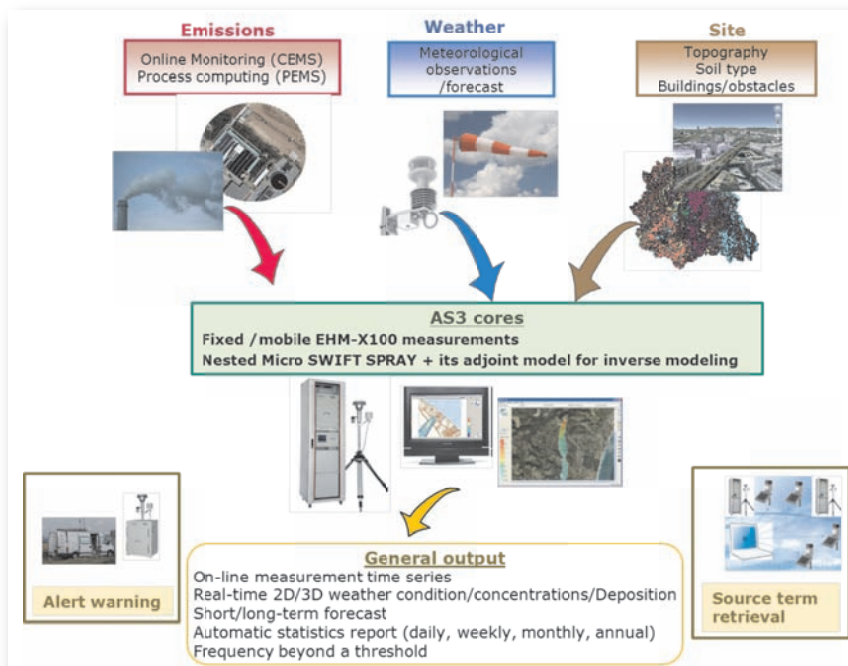
The new **Aria Skyray Supervision System:** an advanced on-line atmospheric monitoring and supervision system for **heavy metal**

A system dedicated to monitoring atmospheric heavy metals in particulate matter (PM10 and PM2.5) by using:

- X-ray fluorescence analyzer (from SKYRAY): EHM-X100
- Micro-scale meteorology and Lagrangian particle dispersion modeling tool (from ARIA Technologies): ARIA View software

Skyray Environmental Heavy Metal Analyzer

- Simultaneously analyzing more than 30 elements including Pb, Cu, Cd, Hg, As, Cr, Zn, Ni, Ba, Fe, Ag, Se, Br, Te, Sb, Sn, Ti, Co, Mn, Pd, Tl, Sc, Mo, V, Cs, Ga, Ca, K, Cs, Cl, etc.
- Limit of detection down to 10pg/m³ (Pb, 2 hr collection time, 16.7 l/min flow rate)
- Stability RSD < 1% of reading (Pb standard sample)
- Self check and calibration on key characteristics: flow rate, X-ray energy and intensity, elements quantification
- Automatically running 24x7



ARIA Technologies Modeling System

- Possible modeling with a very high resolution of ~m
- Access to model parameter configuration
- Indoor-outdoor exchange
- Online real-time data collection and treatment
- High-performance parallel computing for multiple pollutants
- Compatible with GIS (topography, roads, buildings, etc.)

Industrial applications

- Point-to-point online measurement
- Online 2D/3D monitoring pollution level from pollutant emissions
- Short /long-term forecast of pollution level
- Pollution alert in case of risk management

Governmental applications

- Real-time monitoring of industrial pollution
- Monitoring network design from scenario test
- Source term retrievals/prove for environmental taxes
- Public communication



Jiangsu Skyray Instrument Co., Ltd. is a Hi-tech corporation, specialized in the R&D, production and sales of analytical instruments in Spectroscopy, Chromatography and Mass Spectroscopy fields. It is a public listed company listed on Small and Medium Enterprise Board in Shenzhen Stock Exchange since 2011, with registered capital amounting to 153.92 million RMB. It is constantly providing professional solutions on analysis of heavy metal elements and organic compounds, in the filed of environment protection, food safety, industry process etc.

ARIA Technologies has a single concern, the atmospheric environment, through numerical simulation of the dispersion of pollutants in the atmosphere with a comprehensive team of engineers, research scientists, and environment specialists who bring together the knowledge of fluid dynamics, meteorology, atmospheric chemistry, applied computing, database management, and geographic information systems (GIS). Since its creation on 1990, it proposes design and development of computational-based systems; research studies and consulting services to its clients on all continents.

