

# Shaping sustainable futures for smart cities



RASHESH MODY: AVEVA

AVEVA's unified insights offer urban policymakers the opportunity to embed resilience into their smart cities, thanks to cloud computing and predictive intelligence tools



AVEVA is helping Nava Raipur to become a beacon for smart city planning, development and operation worldwide

**D**igital transformation equips smart cities to deal with tomorrow's urban challenges, setting a template for resilience in the post-pandemic world. This kind of resilience against urban threats has become a priority for governments around the world in the wake of the coronavirus pandemic. If cities are to ensure continuity in the face of disaster, to rebuild quickly and thrive after the event, they must possess high levels of urban resilience.

By linking together smart infrastructure, interconnected communities, and good governance, cities can cope with and bounce back

quickly from even the most challenging crisis. Each of these aspects is brought together within cloud computing, which will provide the digital infrastructure of these smart cities. Owing to its agile and flexible nature, the cloud becomes the repository for all a smart city's data and provides the computing power necessary to operate the increasing number of systems. It also connects individuals and business units in varied locations.

AVEVA's cloud-first approach, deployed in partnership with Microsoft Azure, has proved particularly valuable over the past year, as Covid-19

## VIEWPOINT

reinforces the importance of cloud computing as a platform that can deliver true business outcomes in the face of ever-evolving challenges.

Nava Raipur Atal Nagar, the capital of the Indian state of Chhattisgarh, is working with AVEVA to become the country's first metropolitan greenfield smart city and a beacon for smart city planning, development and operation worldwide. In the city, every aspect of urban governance is bridged in a single, integrated command and control centre (ICCC). Powered by AVEVA Unified Operation Center, the platform safeguards urban well-being in real time.

For Nava Raipur's administrative authorities, the ICCC acts as a hub of real-time system information, situational awareness, and response, including water, power, street lighting, public transport, traffic management, CCTV, contact centres, and e-governance. Such a combined

**“A combined smart city solution enhances sustainability and operational efficiency”**

smart city solution enhances sustainability and operational efficiency, delivering civic services to citizens, communities, businesses and other stakeholders. This integrated, single-window approach paid off during the recent coronavirus crisis, improving decision-making in emergency situations.

With real-time insight into all of the city's critical infrastructure systems, Nava Raipur was able to match supply and demand with greater accuracy, and respond to emergencies as they arose, cutting response times by an average of 60 per cent, according to N. N. Ekka, CEO of Nava Raipur. As the area went into lockdown, the ICCC, together with the smart city portal and app, made it easier for municipal authorities to communicate with the general population and respond to the needs of affected citizens, supporting the containment process. Over the course of the pandemic, AVEVA systems kept India's civic services running, a role that has seen Nava Raipur designated as a lighthouse for the Indian Government around its keystone smart cities development initiative.



The pandemic has accelerated demands for digital transformation in every sector. Smart cities can leverage these connected layers to build resilience. As more aspects of a city are connected into an internet of things network, data is collected from smart devices of all kinds. Microsoft Azure joins these dots to accelerate results together with AVEVA, delivering spatially aware solutions in real-world contexts. With an ICCC or a digital twin, artificial intelligence technology can be used





to analyse this data against multiple historical, socio-economic and other factors to generate actionable insights and predict imminent events. This allows decision makers the opportunity to identify effective ways to embed resilience across the board with anticipatory planning.

But unified, data-driven approaches deliver in other ways too. Resilience can help shape a more sustainable future. Bringing the most advanced technology into a unified data

environment enables teams to maximise performance, minimise costs and delays, and build out efficient operations. Consequently, energy is used more efficiently, and emissions are minimised, both outright through smart models and as a by-product of reducing the need for emergency alerts and rework. ■

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AVEVA's technology enables municipal authorities to monitor systems across a smart city in real time so they can rapidly respond to issues and keep things running smoothly