

# Andrew Rippon: Smart City & Sustainable Mobility Leader

## Contact Information

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## Introduction

A highly accomplished and results-driven leader with over 30 years of experience specializing in smart city development, digital transformation, and the integration of cutting-edge technologies in the construction industry. Possesses a strong track record in leading multi-stakeholder projects and delivering large-scale initiatives across Europe, the Middle East, and Asia. Expertise lies in leveraging AI, IoT, Blockchain, and Digital Twin technologies to enhance urban efficiency, sustainability, and innovation within the built environment. Proven ability to develop and implement policies, frameworks, and operational standards that align with smart city and environmental goals, while driving successful project delivery across all RIBA stages.

## Key Strengths

- **Governance Expertise:** Strong track record in creating policy frameworks for technology-driven ecosystems.
- **Cross-Cultural Leadership:** Successfully managed diverse teams across 22 countries.
- **Standards Development:** Proficient in drafting and implementing technical and operational standards for IoT, blockchain, and AI.
- **Transformative Technology Expertise:** Proven ability to design and deploy innovative solutions, including AI, Blockchain and IoT infrastructure.
- **Smart City Visionary:** Comprehensive experience in integrating AI, IoT, and data analytics into transportation systems.
- **Expert in construction process efficiency**
- **Policy Leadership:** Skilled in crafting governance frameworks and operational standards for smart mobility.

## Key Skills and Technologies

AI Integration | IoT | Digital Twin | Blockchain | Smart Mobility | Governance Frameworks | Stakeholder Engagement | Identity and Access Management | Predictive Analytics | Digital Construction

## Highlights:

- Designed and implemented AI Agents for the architecture, construction, and operations of infrastructure and vertical asset developments.
- Delivered the first autonomous vehicle (AV) pilot in AIUla, transporting over 100,000 people.
- Developed frameworks for electric vehicle infrastructure and sustainable mobility in AIUla and Jeddah.
- Created governance frameworks for smart city initiatives and blockchain service interoperability across multiple countries.
- Authored smart city guidelines, technology blueprints, and policy frameworks for landmark projects like the European Blockchain Services Infrastructure, AIUla Smart City, and the Dubai Smart City Blueprint.

## Deliverables in the Last 10 Years

- **AI-Enabled Control Systems for Smart City Platforms:** Developed and implemented AI-driven control systems for real-time data insights and optimized operations of smart city platforms.
- **AIUla Autonomous Bus Pilot:** Successfully designed and delivered the first autonomous vehicle pilot program in AIUla, integrating electric vehicles into regional transit and transporting over 100,000 people.
- **Smart City Detailed Design for AIUla:** Authored the Smart City Detailed Design and 360 Mobility Smart Transport Plan for AIUla, focusing on integrated smart mobility and sustainable practices.
- **IoT Sensor Networks for Asset Operation Efficiency in AIUla:** Deployed IoT sensor networks throughout AIUla to improve asset operation efficiency and facilitate real-time monitoring.
- **City Operating Brain:** Developed the concept and detailed design for a city operating brain, a centralized platform for managing and controlling city functions using AI and data analytics.
- **AIUla Smart City Guidelines and Policy Framework:** Authored the comprehensive guidelines and policy framework for the development of AIUla Smart City, outlining governance models for county-wide digital transformation.
- **Governance Protocols for the European Blockchain Services Infrastructure:** Designed and implemented the governance framework for blockchain service interoperability across 14 EU Member States, aligning policy directives with technical standards to achieve decentralized service delivery.
- **Dubai Smart District Technology and Blockchain Guidelines:** Authored the technology and blockchain guidelines for Dubai Smart Districts, setting the blueprint for digital and blockchain ecosystems within the city.
- **Comprehensive Digital Twin and IoT Integration for AIUla Smart City:** Led the implementation of a comprehensive digital twin and IoT integration for AIUla Smart City, enabling real-time monitoring, analysis, and optimization of urban systems.

## **Experience**

### **Smart City Director**

Jeddah Central Development Company, Saudi Arabia

*January 2024 – November 2024*

- Directed the implementation of smart city services across four landmark urban projects, overseeing technology integration and infrastructure development.
- Delivered AI-powered solutions, including autonomous mobility frameworks and predictive maintenance systems.
- Revised and drove a comprehensive smart city roadmap, aligning project milestones with strategic goals.
- Spearheaded strategic planning for innovative systems and processes across landmark developments.
- Established partnerships with tech providers to enhance construction and operational efficiency and sustainability.
- Directed implementation of smart city control systems integrating AI and IoT for operational optimization.
- Developed governance frameworks for smart city initiatives across four high-profile projects.
- Revised smart city strategies, ensuring compliance with national policies and standards.
- Managed contractors and stakeholders for seamless integration of autonomous and IoT technologies.

### **Smart City Director**

Royal Commission for AIUla, Saudi Arabia

*2021 – 2024*

- Spearheaded AIUla's Smart City Strategy, contributing to Vision 2030 objectives by integrating AI and IoT technologies into urban and mobility systems.
- Implemented AIUla Smart City Platform, Digital Twin, and autonomous mobility solutions, enabling operational efficiency and enhanced visitor experience.
- Pioneered AI applications in security and infrastructure monitoring, as well as a predictive analytics framework for county-wide service optimization.
- Authored the Smart City Guidelines, ensuring alignment with international standards for sustainability and digital transformation.
- Authored AIUla's Smart City Guidelines, outlining governance models for county-wide digital transformation.
- Led policy formation for AI, IoT, and blockchain applications in urban development.
- Delivered standards for autonomous vehicle pilots and integrated mobility systems, facilitating the movement of over 100,000 people.

- Authored the Smart City Detailed Design and 360 Mobility Smart Transport Plan, focusing on integrated smart mobility and sustainable practices.
- Designed and implemented AIUla's autonomous bus pilot program, introducing electric vehicles to regional transit.
- Deployed AI- and IoT-driven systems for real-time monitoring and control of transportation networks.
- Delivered comprehensive mobility solutions, including autonomous pods, IoT sensors, and smart transit hubs.

## **Design and Delivery Authority, Infrastructure and Governance**

European Commission - European Blockchain Services Infrastructure (EBSI)

*2018 – 2021*

- Designed and delivered the European Blockchain Services Infrastructure, incorporating governance frameworks and Self-Sovereign Identity (SSI) solutions.
- Implemented AI-driven analytics to enhance system scalability and performance monitoring.
- Established multi-stakeholder governance mechanisms, enabling the network to expand to 20+ nodes across 14 countries.
- Created the governance framework for blockchain service interoperability across 14 EU Member States.
- Aligned policy directives with technical standards to achieve decentralized service delivery.
- Coordinated workshops to integrate standards across nodes in multiple countries.
- Designed and implemented SSI solutions for decentralized and secure identity management.
- Conducted identity governance workshops across EU Member States to align policies and technical standards.
- Integrated identity and access control protocols into the EU's blockchain infrastructure (20+ nodes in 14 countries).

## **Principal Smart City Consultant**

NXN Advisory Group (formerly Nexgen), Dubai, UAE

*2014 – 2017*

- Directed the delivery of Smart Dubai Architecture and Smart District Guidelines, emphasizing AI and IoT integration.
- Developed and implemented identity policies, including access control frameworks and blockchain-based authentication.
- Led strategic planning for smart utility and mobility projects, integrating predictive analytics and AI for operational excellence.

- Authored Dubai Smart City Technology Guidelines, setting the blueprint for digital and blockchain ecosystems.
- Implemented smart city operational standards for public-private partnerships.
- Directed compliance measures for IoT sensor networks and data governance protocols.
- Developed Smart City Guidelines for Dubai districts, integrating IoT and AI in development planning.
- Advised developers and government entities on smart strategies, with a focus on EV and AV implementation.
- Directed design and deployment of smart traffic control systems utilizing big data and predictive analytics.

**Experience from 2000 to 2014, including work for STC, Vodafone and Fox, available on LinkedIn Profile**

## Education

- **B.A. with Honors in Recreation Management (Economics, Business & Government Management)**
  - Staffordshire University, UK

## Major Achievements

- **Delivered the AIUla Smart City Platform with Integrated AI for Real-Time Data Insights:** Successfully delivered the AIUla Smart City Platform, incorporating AI-driven analytics for real-time data insights and informed decision-making.
- **Implemented Autonomous Mobility Solutions in AIUla, Transporting Over 100,000 Residents and Visitors:** Pioneered the implementation of autonomous mobility solutions in AIUla, including autonomous pods and smart transit hubs, providing efficient and sustainable transportation options for residents and visitors.
- **Designed the European Blockchain Services Infrastructure (EBSI) with a Focus on SSI and AI-Based Scalability:** Designed the European Blockchain Services Infrastructure (EBSI), incorporating Self-Sovereign Identity (SSI) solutions and AI-driven analytics to enhance system scalability and performance monitoring.
- **Authored Smart City Guidelines for AIUla, Dubai, and Saudi Arabia's National Digitization Unit:** Authored key smart city guidelines for major projects and initiatives in AIUla, Dubai, and Saudi Arabia's National Digitization Unit, shaping the development and implementation of smart city strategies and policies.
- **Led the Creation of Dubai's Smart City Technology Blueprint, Facilitating Paperless Government Services:** Played a pivotal role in the creation of Dubai's Smart City Technology Blueprint, establishing a foundation for digital and blockchain ecosystems and facilitating the transition towards paperless government services.

**Interests:** Sailing, Cycling, New Technology, Rugby, Italy