SOCIAL INNOVATION REGIONAL FORUM - THEMATIC SESSION 2 SMART BUILDING: ACHIEVING SUSTAINABLE BUILDINGS

ARUP

Neuron – a data-driven approach to smart building operations

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Arup in numbers

- More than 16,000 staff
- 88 offices
- 33 countries
- East Asia HQ Hong Kong since 1976
- HK ~ 1,900 staff



Office Location



Advanced Digital Engineering







Mission

Connect people / things for data analysis and decision making



Neuron Vision: Empower Built Environment Digital Transformation through Digital Technologies

- Merit Award in Building Products & Technologies Category in the Green Building Award 2019 hosted by HKGBC
- 2019 Hong Kong Awards for Industries: Innovation and Creativity Award from HKGCC
- Finalist on 2020 Building Performance Awards by CIBSE.
- Silver Award on 2020 Hong Kong Green Innovation Award.
- Finalist on 2020 IDC Asia Pacific Smart Building Award







創意獎 INNOVATION AND CREATIVITY AWARD



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3D Digital Twins

We shape a better world

Neuron product categories









Neuron Smart FM Portal

- Asset Management
- Energy Management
- Heath and Wellness
- HVAC Optimization
- Works Order
- Inventory Management

Smart Building Digital Twins

- 3D Digital Twins Platform
- BIM Integration
- Building Big Data Platform
- AI-driven Decision Making
- Simulation and Design Data Integration
- IOT Integration

Neuron Enterprise and City Platform

- GIS Integration
- City Wide Asset & Utility Management
- Universal Data Convergence
- Building KPI Benchmarking
- Building Profile Management

- BIM360 Integration for construction
- programme management

Neuron Site

Management

- Construction Site AR Mobile APP
- BIM-based Inspection and T&C

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Neuron Modules

ARUP



BIM / Asset Management



Real-time Digital Twins





Energy Management



Wellness and Human Comfort



HVAC Optimization



Chiller Optimisation



AI Engine



Critical Equipment Predictive Maintenance



Corporate Sustainability Reports



Simulation



AR for FM

Neuron Digital Twins for Taikoo Place





Use of Big Data from Existing Buildings in Taikoo Place



• Estimated savings : 10%

Beijing Water Cube

- BIM-BMS Integration
- Asset Management
- Energy Management
- Works Order
- Inspection Management

设施管理综合平台

用户登录



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Health & Sustainability

Customized dashboard and analytic modules:

- Corporate Sustainability Reporting
- Energy Management
- Indoor Air Quality









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Neuron