Indoor Air Quality (IAQ) – One-Page Implementation Checklist

A practical checklist for owners, engineers, consultants, and facility managers

Strategy & Objectives

- Define IAQ objectives (health, compliance, ESG, productivity)
- Identify applicable standards (ASHRAE, WELL, LEED, local codes)
- Align IAQ strategy with Net Zero / Vision 2030 / ESG goals
- Establish performance-based targets (not just prescriptive ventilation)

Building & Occupancy Assessment

- Building type (healthcare, hospitality, office, education, mixed-use)Occupancy density and peak usage patterns
- Climate factors (heat, humidity, dust, pollution levels)
- Existing HVAC system type and capacity
- Known IAQ risks (PM, VOCs, pathogens, odours)

Technology Selection

1. Select active vs passive purification approach
2. Confirm technology effectiveness across:

- Particulates (PM2.5 / PM10)
- VOCs
- Microbial contaminants
- Odours
- Verify third-party testing and validation
- Ensure ozone compliance and safety thresholds
- Confirm compatibility with existing HVAC systems

System Design & Engineering

- Integrate IAQ into HVAC design (not as a bolt-on)

- Confirm correct equipment sizing and placement

- Ensure coverage of occupied breathing zones

- Validate ion / treatment levels against design targets

- Coordinate with ventilation and filtration strategy

Measurement & Monitoring

Install real-time IAQ sensors (minimum):

- CO_2

- Temperature

- Relative Humidity

- PM2.5

- TVOCs

Define alert thresholds and performance benchmarks
Enable trend logging and historical data storage

Ensure data supports compliance and ESG reporting

BMS & Controls Integration

- Integrate IAQ systems with Building Management System (BMS)

- Enable automatic output modulation based on conditions

- Coordinate with ventilation and energy optimisation strategies

- Provide centralised dashboard visibility

Commissioning & Validation

- Verify installation against design intent

- Validate IAQ performance post-installation

- Establish baseline IAQ data

- Document commissioning results

Operations & Maintenance

- Define inspection and service intervals

- Confirm consumables and replacement schedules

- Train facilities teams on system operation

- Establish revalidation and performance review process

Reporting & Continuous Improvement

- Produce IAQ performance reports

- Align reporting with ESG, WELL, and LEED requirements

- Review data to optimise energy and performance

- Update strategy as building use evolves