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ICTs ELV in PROPTECH: Strategic Planning Before the First Brick

How Early Technology Integration Shapes Smarter, Future-Proof Developments

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The Big Picture

Buildings as an Ecosystem

Modern developments are complex interconnected systems where every component must work in harmony

Technology Defines Everything

From guest experience to operational efficiency, technology infrastructure determines success metrics and ROI

Early Integration Critical

ICT and ELV systems must be foundational elements, not expensive afterthoughts

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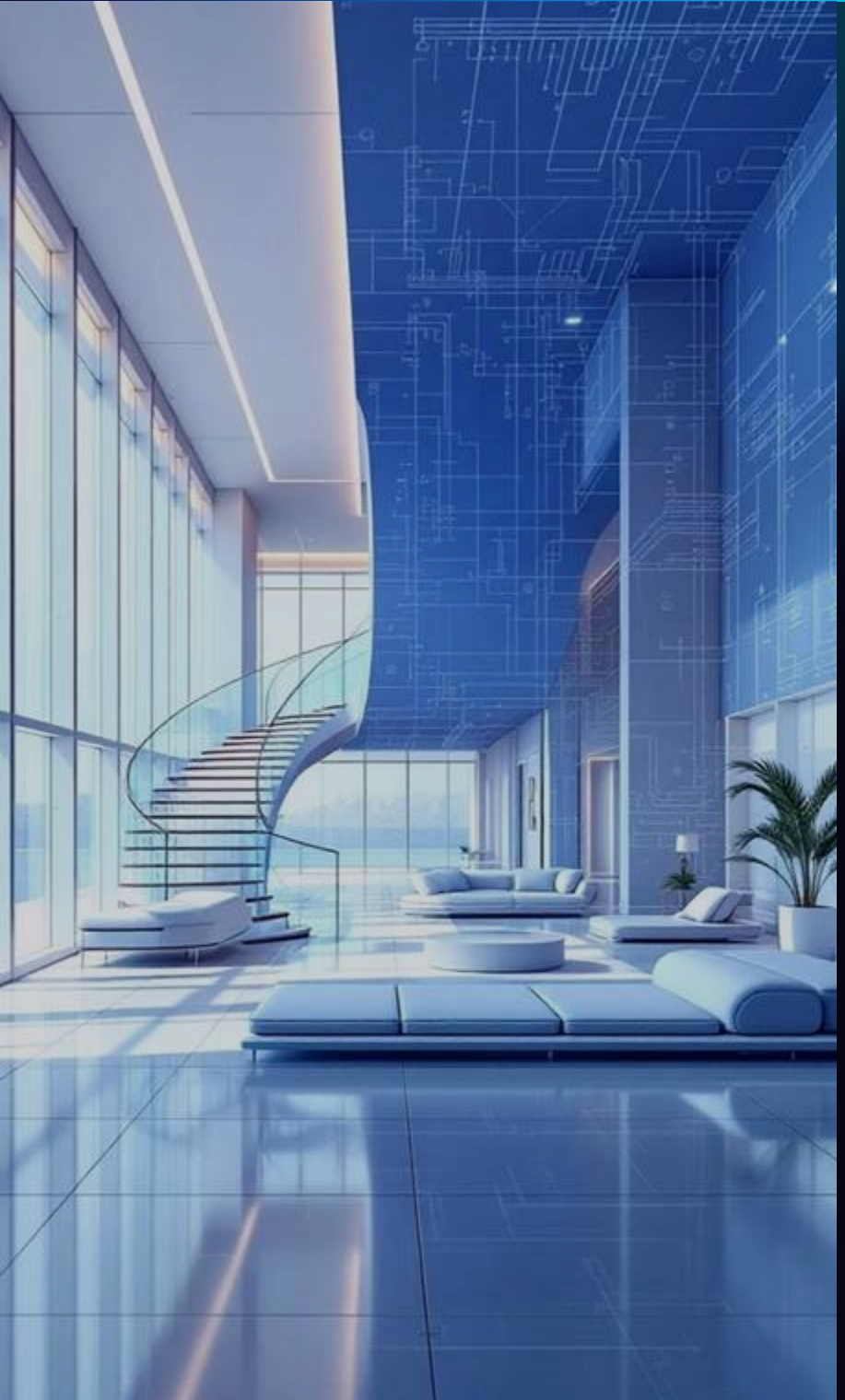
ADMEP

Architecture +Design +Mechanical +Electrical +Plumbing

The evolution of traditional MEP methodology into a comprehensive, technology-forward approach that prioritizes early integration and long-term adaptability.



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ADMEP Framework

In construction, MEP traditionally stands for Mechanical, Electrical, and Plumbing. However, expanding it to include the **Architect** emphasizes a holistic design approach where spatial planning, systems engineering, and building utilities are integrated from the start.

This integrated methodology ensures smarter coordination, reduces design clashes, and creates truly future-proof developments that adapt to evolving technology needs.

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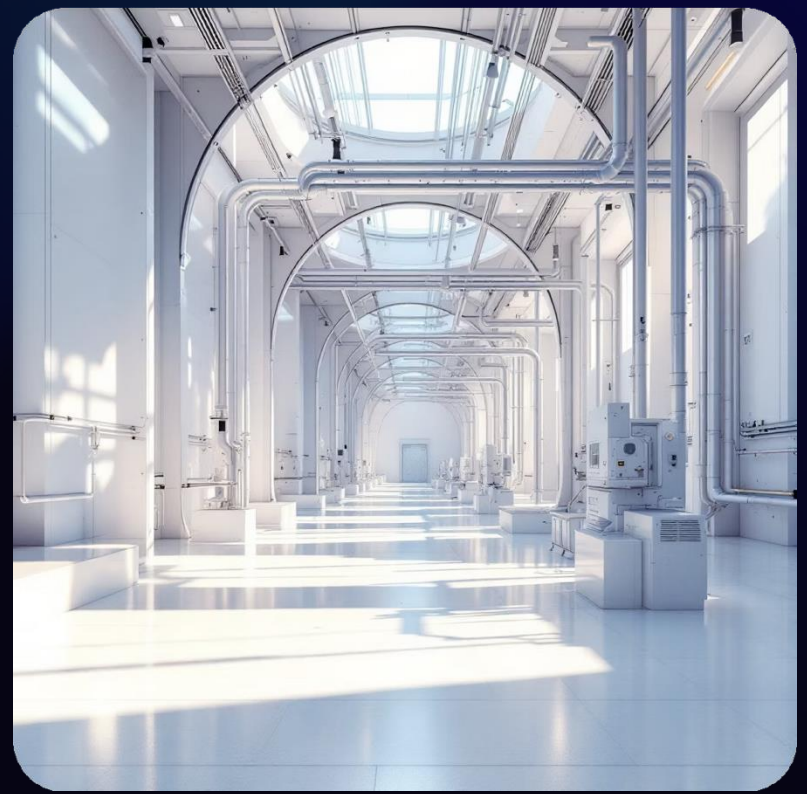
Bridge Between Architecture & MEP

The Design Stage serves as the critical bridge between Architecture and MEP by embedding ELV and ICT requirements early into the project lifecycle. This strategic integration ensures that technology becomes a fundamental utility, woven into the building's DNA rather than retrofitted as an expensive add-on.



Key Benefits:

- Seamless system coordination
- Optimized space utilization
- Reduced installation complexity
- Enhanced future scalability

Phases for Early Technology Integration

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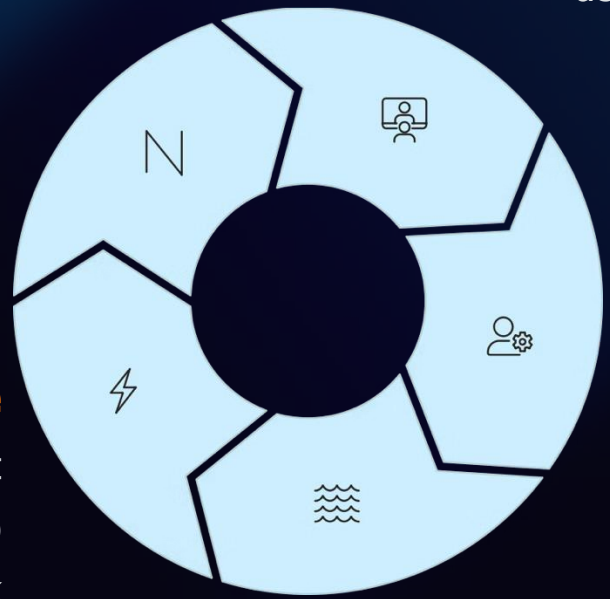
Architectural Stage

Establishes project DNA, embedding core design principles and spatial requirements for future technology integration

Design Stage

Critical bridge phase that embeds ELV/ICT requirements early, preventing costly retrofits and design conflicts



Plumbing Stage

Smart water and waste management systems integrated seamlessly into the overall project framework

Mechanical Stage

The operational muscle delivering comfort, safety, and efficiency through integrated HVAC and automation systems

Electrical Stage

Establishes reliable power distribution, intelligent lighting, and comprehensive safety infrastructure

Why Early Technology Integration Matters

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Strategic Benefits

Cost Optimization

Avoids expensive redesigns and retrofit installations

Brand Alignment

Ensures technology infrastructure meets brand standards from day one

Energy Efficiency

Integrates sustainable systems for optimal operational performance

Future Scalability

Creates foundation for seamless technology upgrades

Risks of Late Integration

- **Budget Overruns:** Costly reworks and change orders.
- **Aesthetic Compromises:** Visible conduits and poor cable management.
- **Timeline Delays:** Extended construction phases.
- **Limited Flexibility:** Restricted upgrade pathways.
- **Market Position:** Reduced competitiveness in tech-savvy markets.

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Survey Case : 200-Key International Hotel

The Challenge

ICT and MEP teams were brought in during late-stage construction, resulting in 12% budget overruns, delayed project timelines, and compromised aesthetic integration throughout the property.

The Solution

ICT and MEP teams were integrated early in the Architectural Design Stage for the next phase. Technology provisions were embedded from project inception, ensuring seamless coordination.

The Outcome

Project delivered within budget and timeline with enhanced future upgrade flexibility, improved guest comfort systems, and significantly boosted investor confidence in the development.

12%

Budget Savings

Avoided overruns through early integration

30%

Time Reduction

Faster project delivery timeline

95%

Investor Satisfaction

Confidence in future-proof infrastructure

Key Takeaways

Plan Early, Save Big

Early integration prevents costly reworks and eliminates project delays

Collaboration Builds Success

Aligned ADMEP teams create smooth project execution and superior outcomes

Design Today, Upgrade Tomorrow

Strategic upfront provisions enable seamless future technology upgrades

Smart Spaces, Happier Guests

Thoughtful technology integration delivers superior user experiences and operational efficiency

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