

Mtech Innovation Theatre
at Interbuild Specifier 2009

*Innovations & the Future for Washroom Fit-out
in the Commercial Environment*

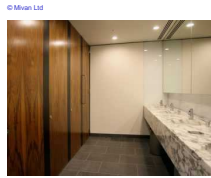
Presented by:
Simon Harris: Design Manager, Mivan Limited

Agenda

- Introduction to Mivan
- Commercial Washroom Evolution
- Current Innovations
- Off-Site & Modularity
- Key Challenges and Impact on Supply Chain
- Sustainability & Safety
- The Way Forward
- Summary

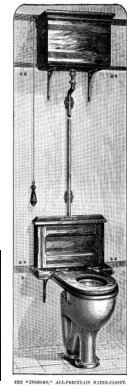
Introduction to Mivan

- Leading Interior Fit-out & Specialist Joinery Manufacturer
- Current Sectors:
 - Commercial Office
 - Luxury Residential
 - Museums & Galleries
 - Visitor Attractions & Stadia
 - Hotels
 - Public Buildings
- Over 320 employees
- Turnover in Excess of £70 Million
- Will celebrated 35 Years in Business in 2010
- Opened London Office St Dunstan's Hill, EC3R in 2007



Commercial Washroom Evolution

- Traditional Brick Blockwork Enclosures
- Timber Stud Construction (on-site)
- IPS (Interlocking Panel Systems)
- Off-Site Manufacture
- True Pods
- Hybrid systems
 - eg Mivan Modular



Current Innovations

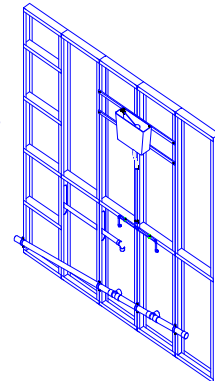
- Off-Site Manufacture
- Services Integration & BIM
- The Volumetric POD
- Materials
- Level of Finish That can be Supported
- The Panel (or Sub'Module') Based Approach to 'Offsite'



Modularity

The Basic Concepts:

- Recognising the Need to Increase Off-site Manufacture Reduce Costs and Contribute to Safer Working Practices
- A Kit of Parts That can be Manufactured 'Off Site' and Connected to Make A System
- Bottom up Design *'The Parts make the System'*



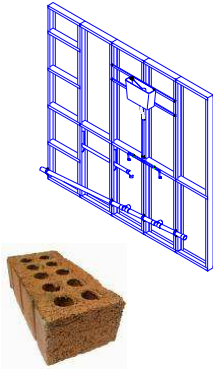
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•Modularity

The Reality:

Components can be delivered in many ways:

- As Single Flat Pack Parts
- As Assembled Sub-Frames
- As Complete Frame Walls
- As Pre Assembled Complete Walls
- Pre Installed Services to Wall Frames to Facilitate Site Connection

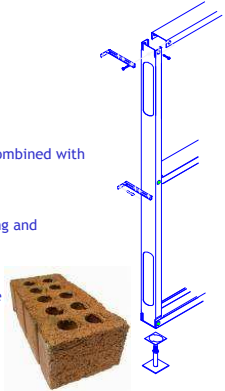


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Modularity

Key Benefits:

- All the Flexibility of Traditional Construction Combined with the Benefits of Off-Site Manufacture
- Bespoke Design Possible
- System Designed Early to Facilitate Programming and Procurement
- True Increase in Offsite Production
- Frames are 95% Recyclable at Close of Lifecycle
- Unit Sizes Designed to Suit Site Access



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Key Challenges & Impact on Supply Chain



- On-site Logistics
- Programme
- Architectural Design Vs Practical Construction
- Weight & Size of Materials & Modules
- Stone Procurement
- Your supply chain MUST buy into the level of quality that has to be achieved - a major challenge!

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Sustainability & Safety



- Life Cycle
- Sustainable and Responsible Sourcing
- Decommissioning & Recycling
- Off-site
 - Less Waste & Packaging
 - Fewer Trades on Site
- Stone & Natural Materials
- CDM & Site Safety

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The Way Forward

Drivers:

- Evolution Vs Revolution
- Social Trends & Norms
- Material Science
- Striving to be Different: Design & Architecture
- Necessity (and the mothers of invention)



Metropolis Film Lang

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Summary

- Where we have come from
- Washroom Evolution
- Current Innovations
- Module & Off-site
- Delivering Safety & Sustainability
- What Next?



Thank you

Any Questions?

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www.mivan.com