

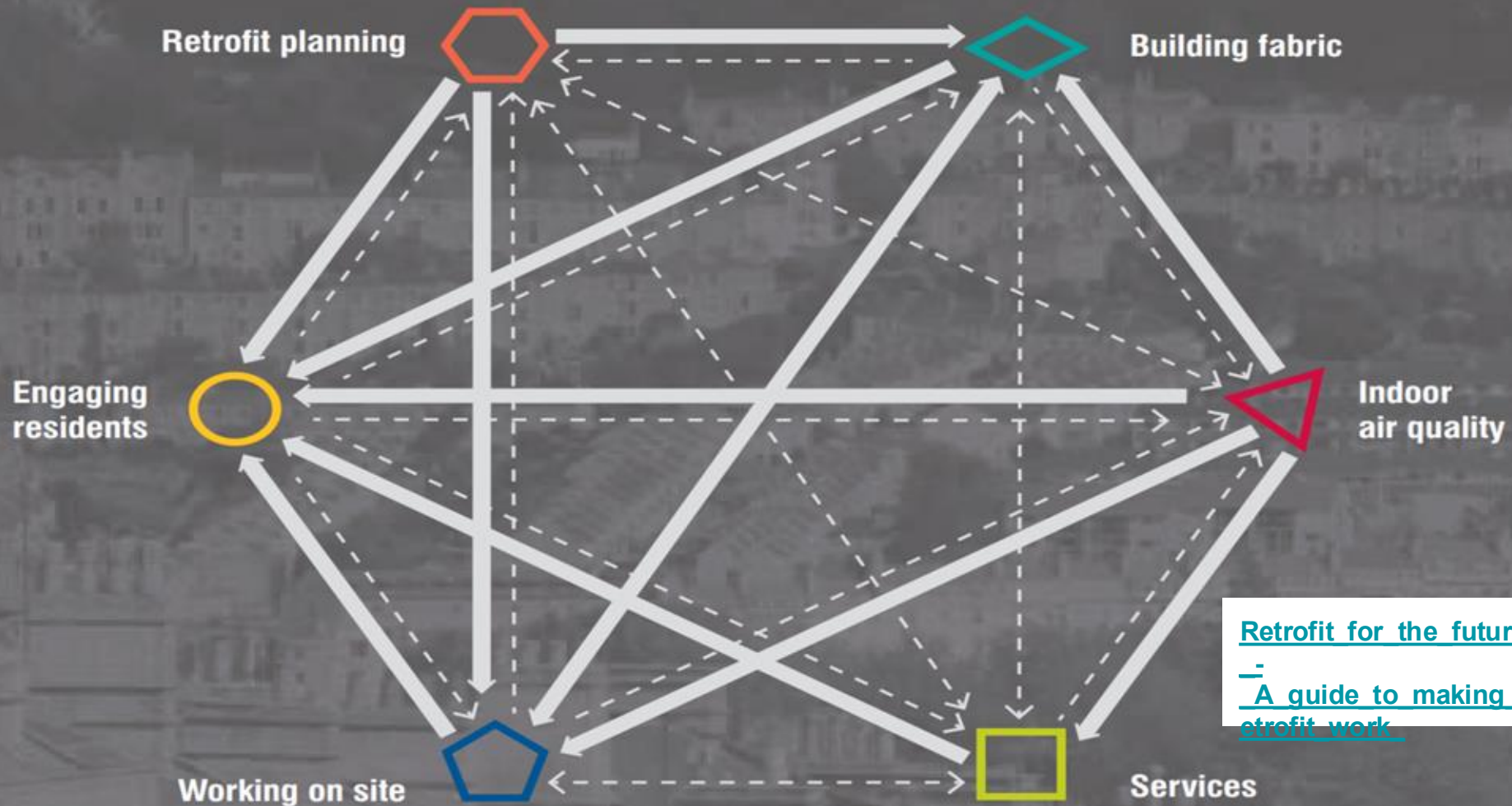
Contemporary Retrofit: connected systems, digital tools and live learning



Who is in the room?

Every retrofit project has a different hierarchy of decisions, risks and dependencies.

Skills are not only about knowing how to install something; they are also about understanding the wider system around the work.



[Retrofit for the future](#)
- [A guide to making retrofit work](#)



Retrofit as a system

- ❑ building fabric
- ❑ heating and energy systems
- ❑ ventilation and moisture
- ❑ residents, users or facilities teams
- ❑ sequencing and order of works

- ❑ trades and subcontractors
- ❑ materials out / materials in
- ❑ planning, heritage and compliance
- ❑ aftercare, controls and handover
- ❑ monitoring, feedback and learning



Where does the region already have experience? Where are the gaps?

- What kind of retrofit work are you seeing most demand for?
- Where are clients, residents or building owners most confused?
- Which roles or trades are missing from the conversation?
- Where do we need better visibility of skilled supply chains?



Where does the region already have experience? Where are the gaps?

- ☐ domestic retrofit
- ☐ commercial and public buildings
- ☐ high street and vacant/underused buildings
- ☐ identifying, salvaging and reusing materials & components
- ☐ community-led or social retrofit
- ☐ retrofit coordination, advice and assessment
- ☐ practical delivery and installation
- ☐ building operation, maintenance and aftercare...



What comes first?

-priorities differ by context

- ☐ fabric first
- ☐ comfort and health
- ☐ insulation and ventilation
- ☐ energy systems
- ☐ affordability
- ☐ carbon reduction

- ☐ building performance
- ☐ resident/user confidence
- ☐ skills and workforce confidence
- ☐ materials, waste and reuse
- ☐ heritage and planning constraints
- ☐ maintenance and aftercare

Answers will differ – Retrofit training needs to prepare people to understand context, not just apply a fixed solution.



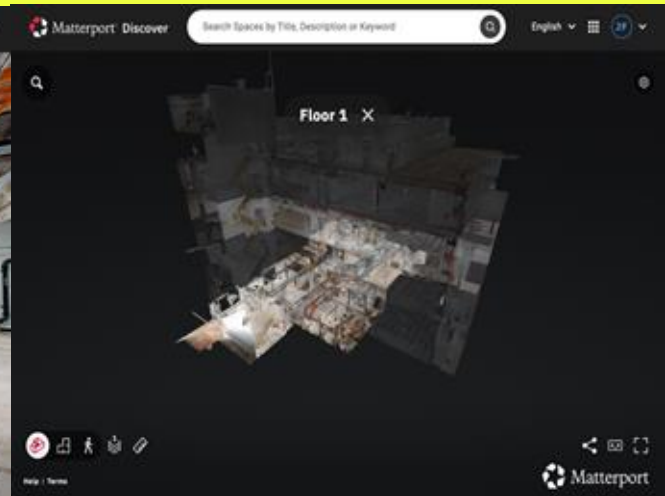
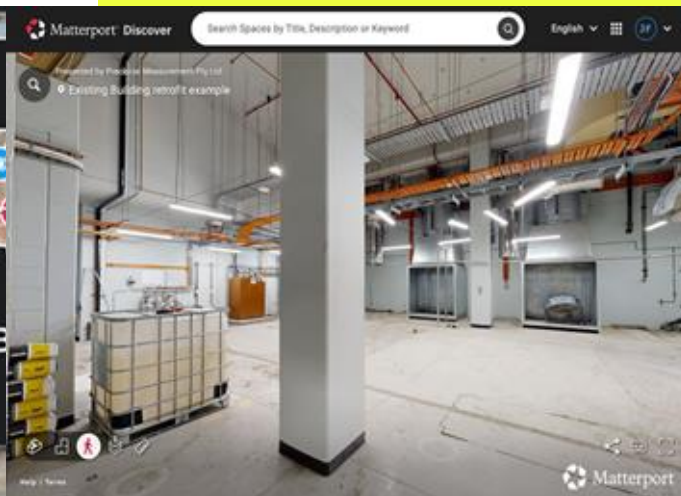
Digital tools, visibility and retrofit learning

What digital tools have you used in retrofit or building projects, and what actually helped?

- ★ Stock Modeling & Planning Tools
- ★ Commercial & Lifecycle Analysis Platforms
- ★ Smart Retrofit & Data Management



Digital Twins



3999 Tarsus Rd Crawl Space



Homeowners Hurricane Documentation



Retrofit 25



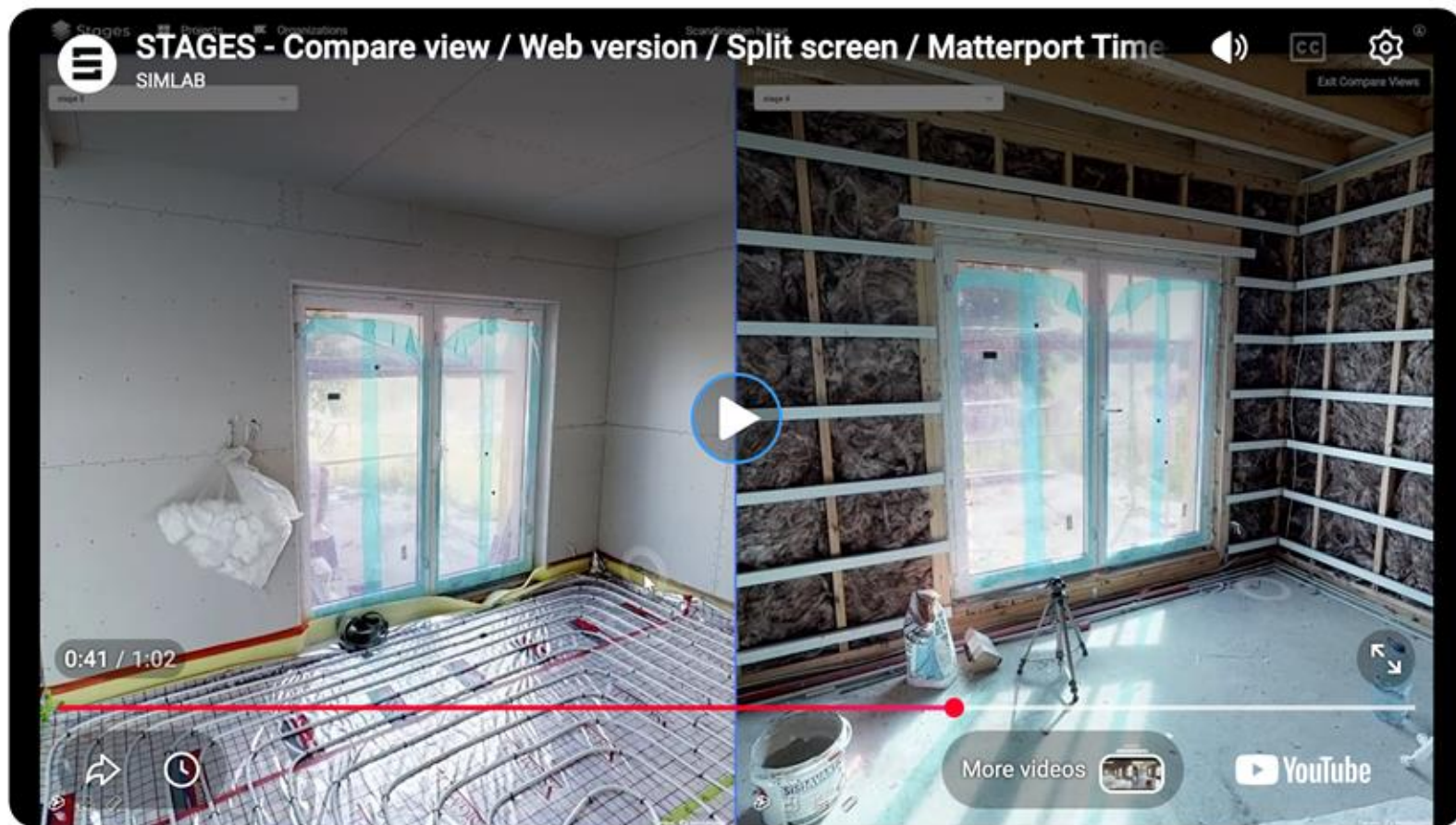
Tour Virtual Reconstrução, Restauração e Retrofit....

Digital Twins

Compare view / Web version / Split screen / Matterport ...

YouTube · SIMLAB · 3 Dec 2022

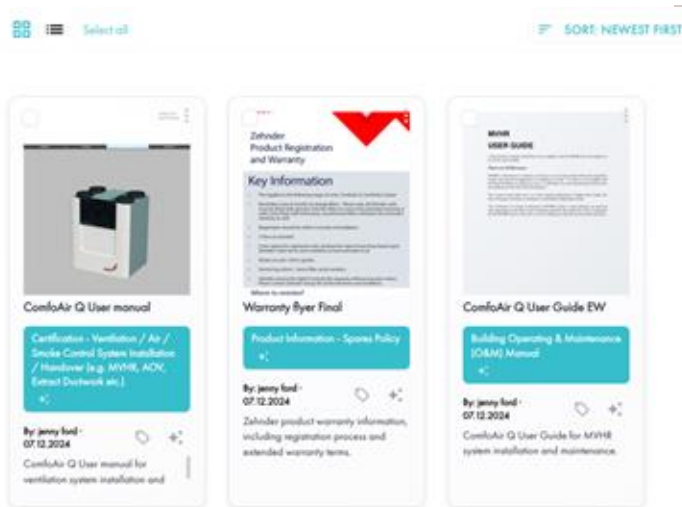
YouTube





Digital tools, visibility and retrofit learning

The skills question is not “do we need more tech?”
but “who needs to understand the building, when, and in what format?”





Learning in a developing sector: Green Skills Pipeline

Which skills or roles need better visibility or support?

What is one collaboration, placement, project visit, digital tool, supply chain connection or learning opportunity that would help strengthen retrofit delivery in this region?



Learning in a developing sector: Teacher-Industry exchange & experiences of work

Colleges and trainers need regular exposure to live practice: site visits, short placements, employer-led sessions, curriculum co-design, digital project walk-throughs and practical case studies.

What could you offer?



What makes a successful retrofit in a learning industry?

A successful retrofit is not just one that installs the right measures. It is one where the people, building, materials, sequencing, information and aftercare work together.

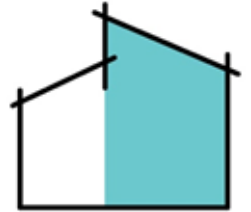
- These are skills that need to be integrated into all retrofit training

Speak to me about..

- digital twins for retrofit
- teacher-industry exchange / site learning
- circular materials
- high street/community retrofit
- skilled supply chain visibility

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 insight-space

FACTORY 