Innovation, technology and sustainability. Who cares!

Construct Innovate 2024

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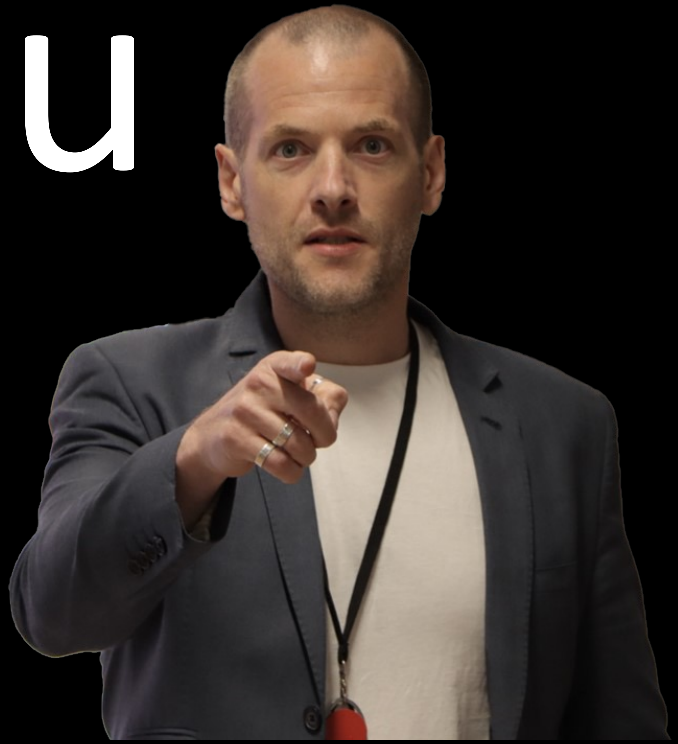
Innovation
Technology
Sustainability

Who cares???

Do you?

How about you on the left?



Do you care?

So why are we here today?

Questions Questions…

? Perhaps it is because we want to improve our industry?

? Perhaps it is because we want to transition our business?

? Perhaps it is because we want to help save our planet?

Questions Questions…

Most probably it is because of this

Value & worth

As Individuals:

We want to ensure we will still be relevant and employable in the future.

1

As Leaders:

We want to ensure our organisation will be relevant in the future.

2

As Businesses:

We want to ensure we will be desirable, efficient and able to compete with the competition in the future

3

As Government:

We want to ensure our industry is attractive to foreign investment, as well as foreign markets.

We want to compete on a global level with any other country.

4

Innovation
Technology
Sustainability

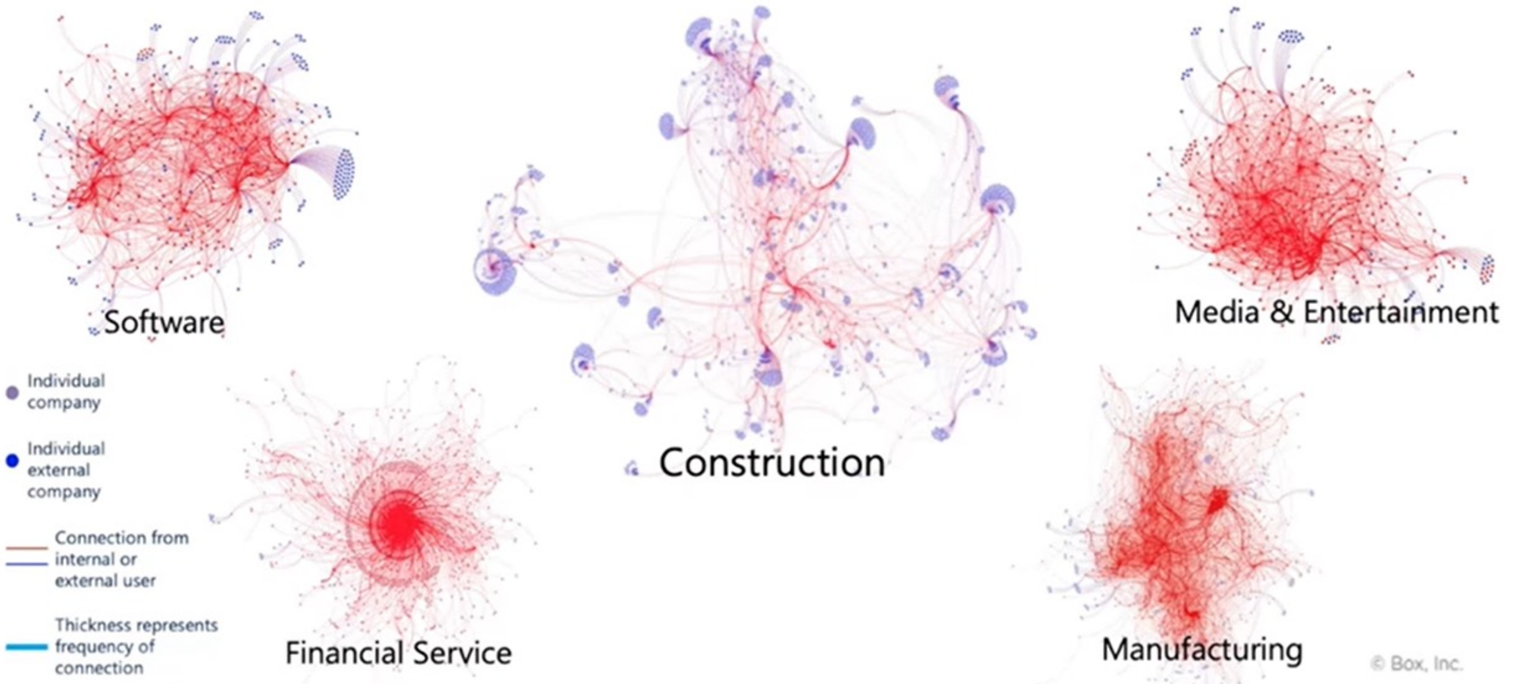
So why should we care?

Changing Industry

Traditional methods, processes and management is slow, inaccurate, and most of the time, outdated.

Because we are coming from a very low base

Patterns of the construction industry in comparison to other industries



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There is an ever growing skills shortage

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CWMF Requirement on BIM, LCA, ICMS

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CWMF Requirement on BIM, LCA, ICMS

New requirement on ESG, CSRD,...

The only thing we can be certain of is change,

The only thing we can be certain of is change, nothing stays the same

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Why are we not already immersed?

Let's ask ChatGPT?

Innovation - Top 4 Blockers

Cultural Resistance to Change:

Risk aversion and fear of failure prevent experimentation. Success can breed complacency, limiting the desire to innovate

1

Lack of Leadership Support:

Without leadership backing and a focus on long-term goals, innovation efforts are often deprioritized or controlled too tightly

2

Resource Constraints:

Insufficient funding, time, or dedicated teams make it hard to invest in innovation alongside regular business operations.

3

Siloed Structures:

Poor collaboration and departmental silos block the flow of ideas, while a lack of diverse perspectives limits creativity

4

Technology Adoption - Top 4 Blockers

Cultural Resistance to Change:

Employees and management may resist new technologies due to fear of job displacement, discomfort with learning new tools, or a preference for familiar processes

1

High Costs:

The upfront costs of purchasing, implementing, and maintaining new technology can be prohibitive, especially for smaller organizations with limited budgets

2

Lack of Technical Skills:

A workforce lacking the skills to implement or use new technologies effectively can slow down adoption, requiring additional training or hiring of specialized staff.

3

Security and Privacy Concerns

Fear of data breaches, cyberattacks, or privacy violations can prevent organizations from adopting new technologies, particularly those involving cloud computing or data management

4

Sustainability - Top 4 Blockers

High Initial Costs:

Sustainable materials and technologies often have higher upfront costs, making companies hesitant to invest, especially when short-term profitability is prioritized over long-term saving

1

Lack of Awareness and Knowledge:

Many construction professionals lack understanding of sustainable practices, materials, or certifications, limiting their ability to adopt eco-friendly methods effectively

2

Regulatory and Policy Gaps:

Inconsistent or weak regulations on sustainability can slow adoption, as companies may not feel pressured to comply with green standards or invest in sustainable initiatives without clear incentives or mandates

3

Resistance to Change and Industry Norms:

Traditional construction practices are deeply ingrained, and there is often reluctance to change established processes, especially if the perceived benefits of sustainability aren't immediate or well understood

4

Resistance to change

Lack of investment

Culture

High Costs

Lack of Leadership

Lack of expertise

Siloed organisations

Innovation
Technology
Sustainability

So what can we do?

In everything we do in our daily professional environment we need to be thinking about…

Innovation
Technology
Sustainability

These need to become business as usual for everyone in your organisation, not just the IT or Sustainability specialist

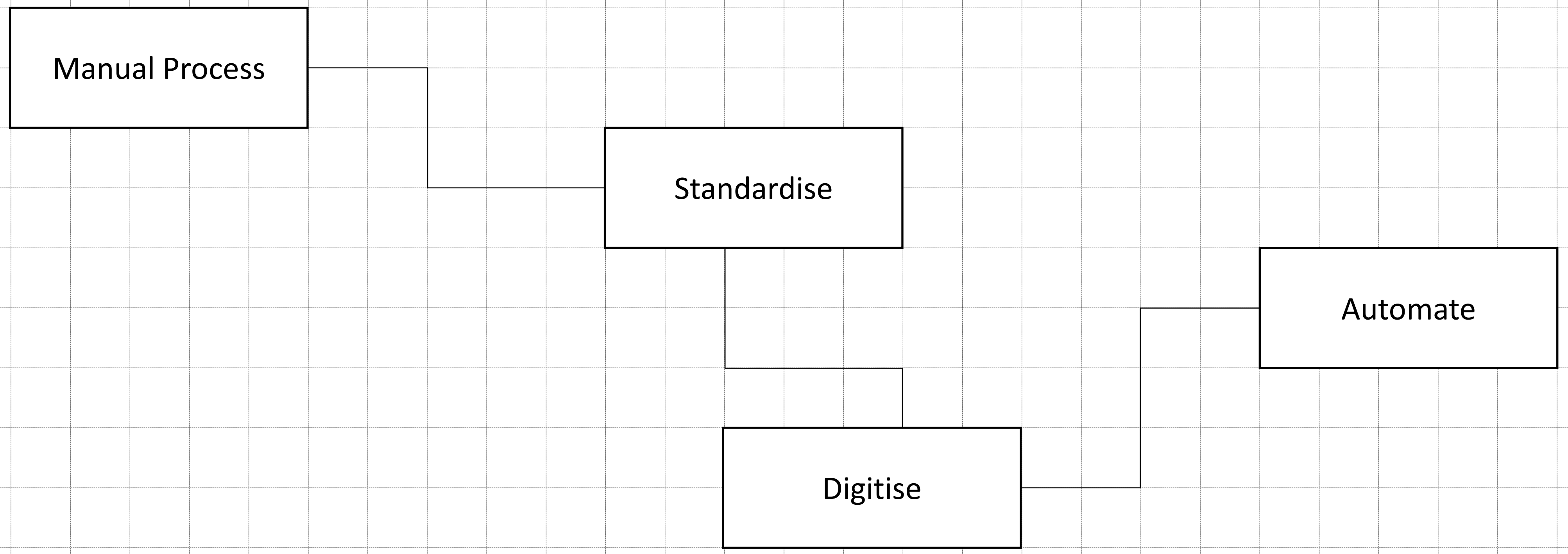
If they become business as usual principles, cultural and mindset change will be organic

In everything we do in our daily environment we need to be asking ourselves these three questions…

Can I do this more efficiently?

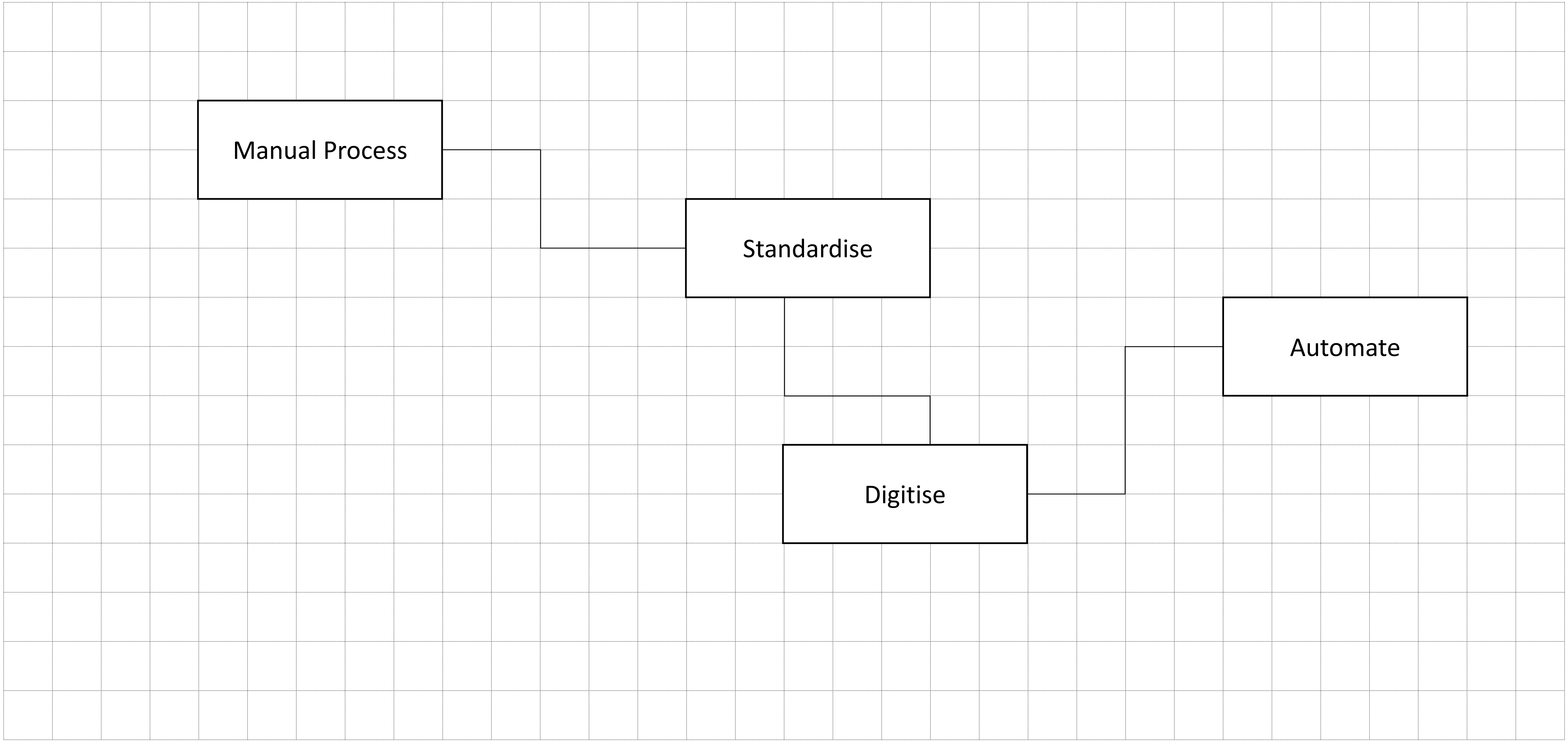
Can I digitise or automate this task/process?

Can I be more sustainable?


Manual Process
Standardise
Digitise
Automate

ICMS – International Cost Management Standard

ICMS is used to classify the building elements and extract the quantities into a common work breakdown structure for both cost and carbon.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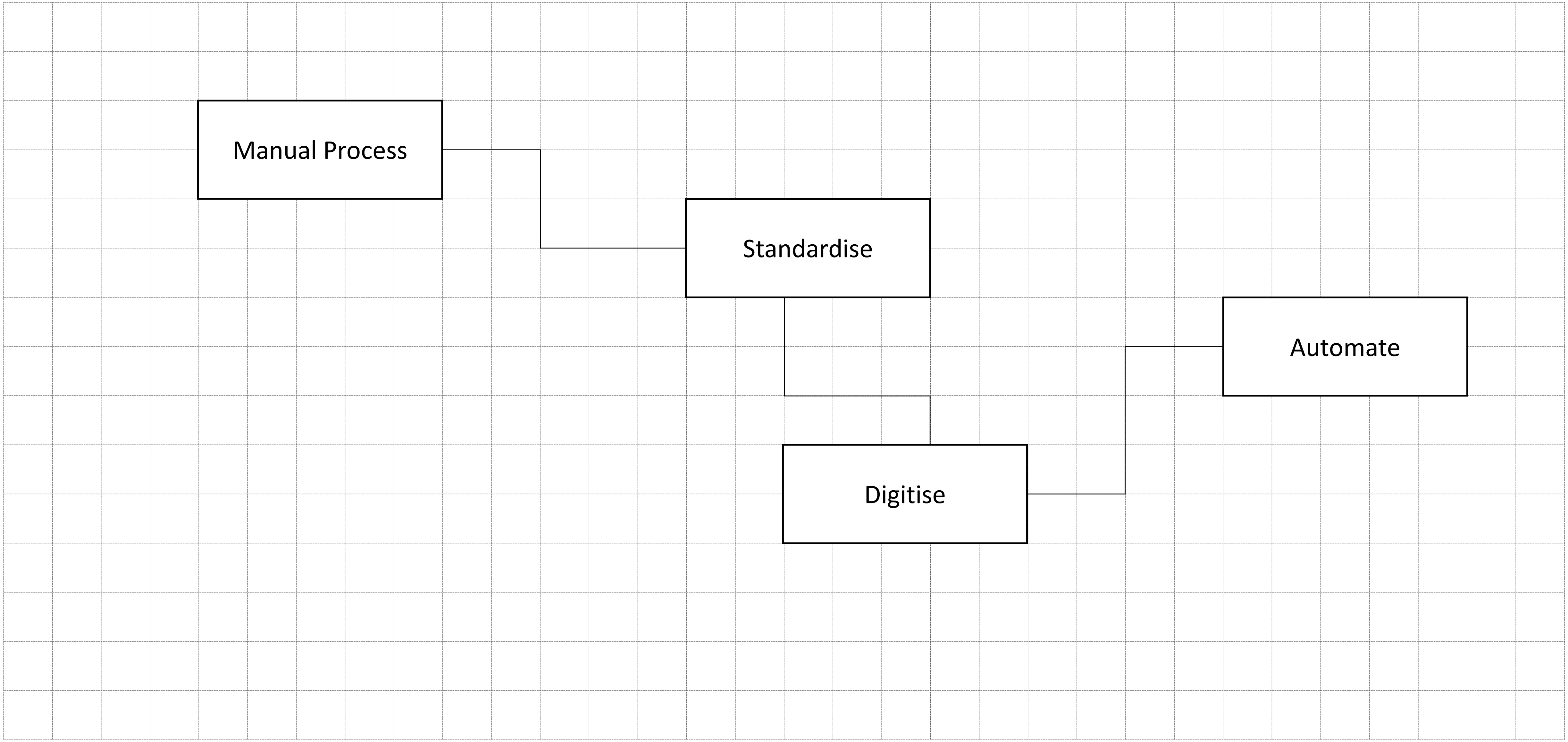
Pricing Database

The 5D is the database and analytics tool we use to capture, track, and share commercial and carbon intelligence throughout the building lifecycle.

All our cost and carbon data, collected from a range of sources (KOSMOS estimates/contractor returns/final accounts), is structured in a format that allows it to be rebased on projects globally for benchmarking and to inform our estimates.


Manual Process
Standardise
Digitise
Automate

Quality

Accuracy

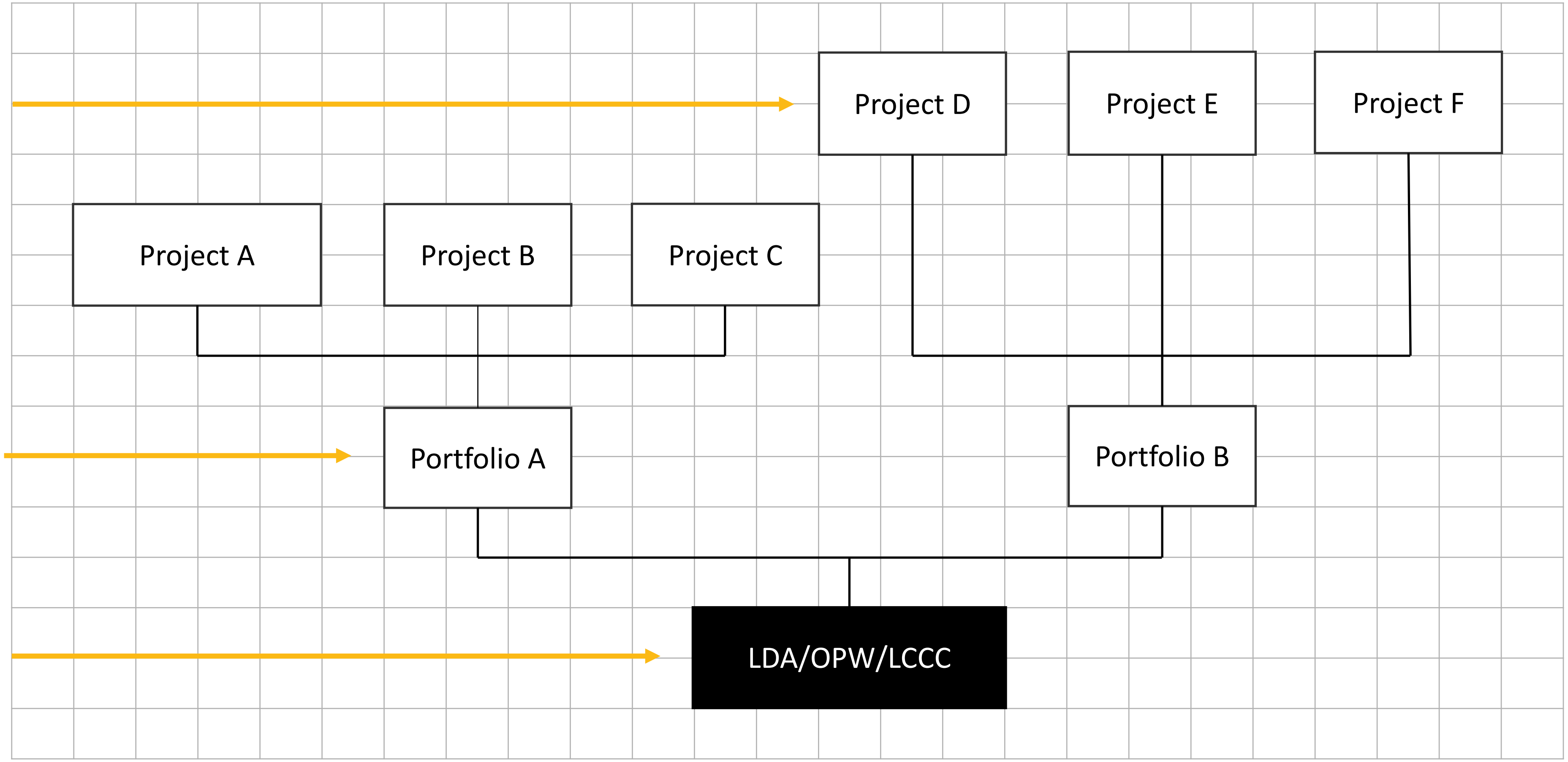
Clarity

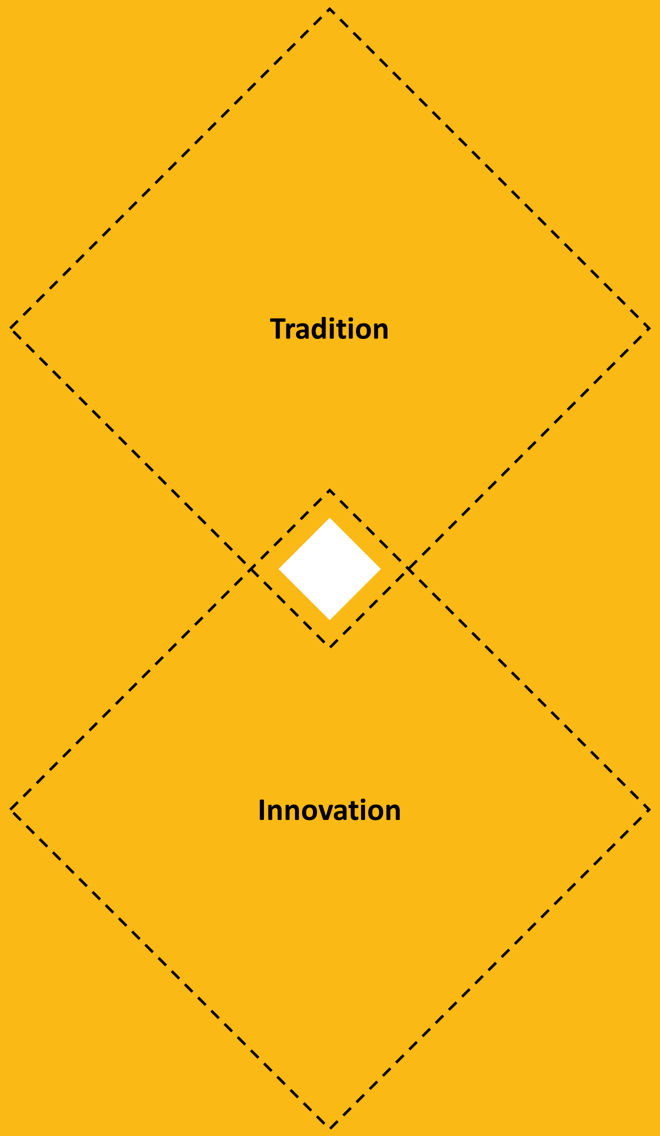
Opportunity: Cost & Carbon data

1. Same cost break down structure on all projects (ICMS)

2. Cost information rolled up and collected for future use

3. Cost information collected in central data base for future development decision making (m2 prices, cost per Unit)





Because change is a mindset?

This needs to be a top-down approach.

If it isn’t happening it is because of leadership’s appetite.

Future Outlook

Industry is now demanding that we innovate so we can keep up with increasing outputs

The aging workforce and lack of skilled people entering the industry means we need to look at alternative approaches to achieving the same results, this is only achieved through optimisation

The new CWMF requirements on BIM, LCA & ICMS will mean that we will all be effected by change

The requirements around ESG, CSRD, etc requires us to think “sustainability” in everything thing we do

The industry and technology will continue to move extremely fast, so lets not get left behind

Conclusion: 4 Takeaways

1. We need to think about innovation, technology and sustainability in everything we do

2. Transition is happening whether we like it or not, so lets drive forward together

3. Culture and mindset are the key criteria, if leadership does not have it it will not succeed, it needs to be top down

4. Either you write your future, or it will be written for you

Use your network for help and advice. Write to us here in KOSMOS, we are more than happy to help

Save our contact on your phone

Ross Griffin

Founder of KOSMOS - Providing commercial control to your project

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