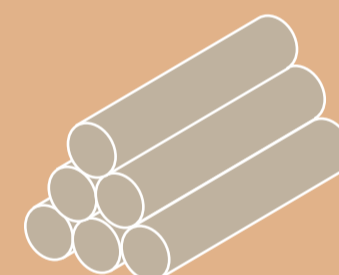
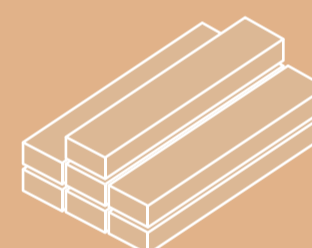
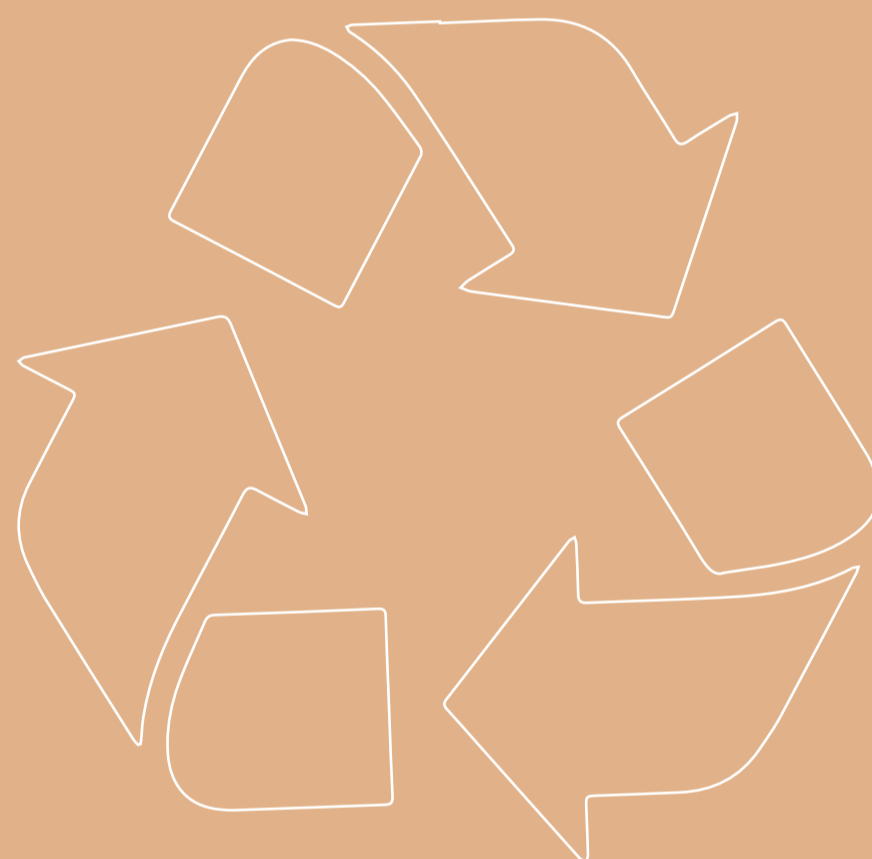
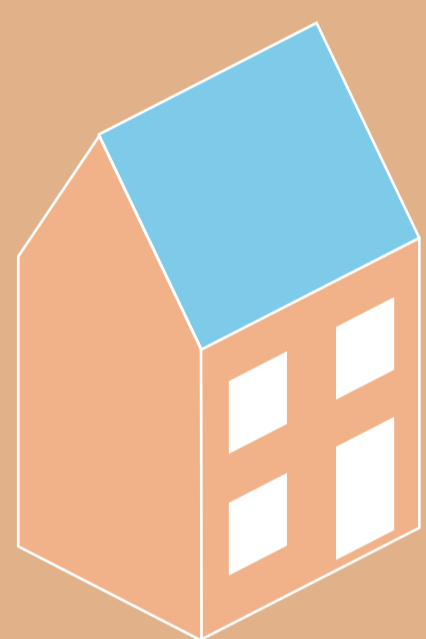


DESIGNING FOR MATERIALS RE-USE

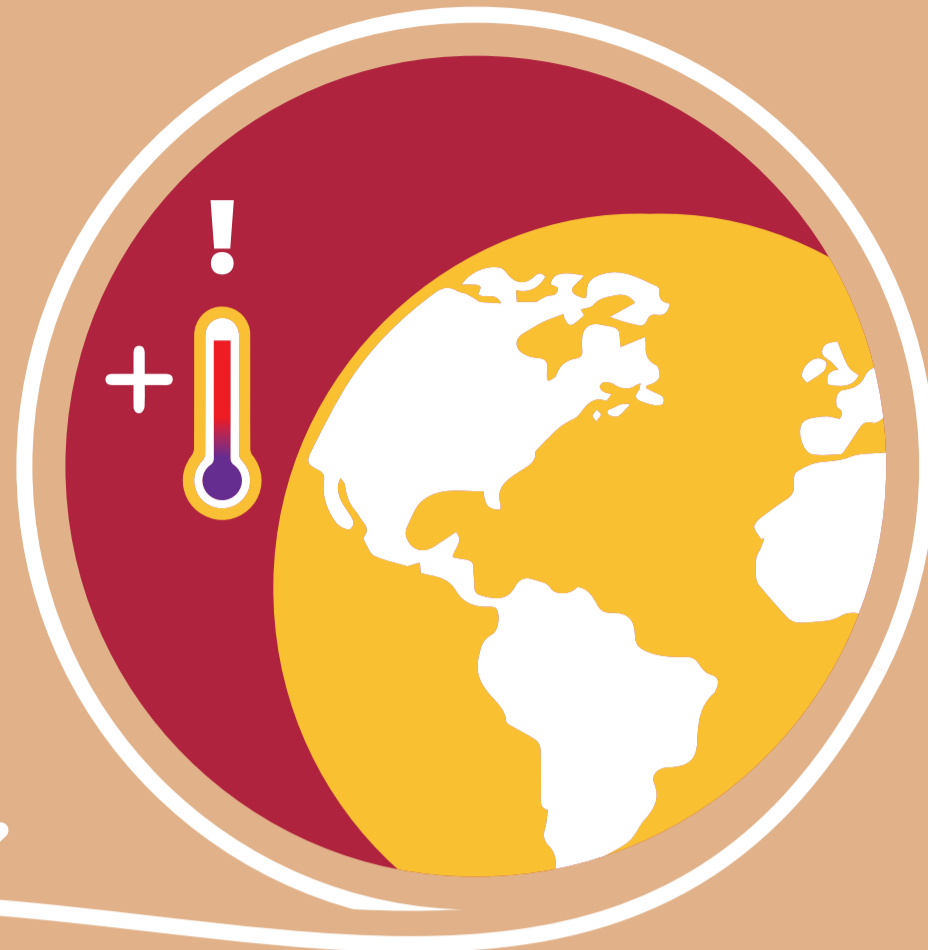
HOW ARCHITECTURE CAN RESPOND TO THE CLIMATE EMERGENCY



HOW CAN ARCHITECTURE RESPOND TO THE CLIMATE CRISIS?

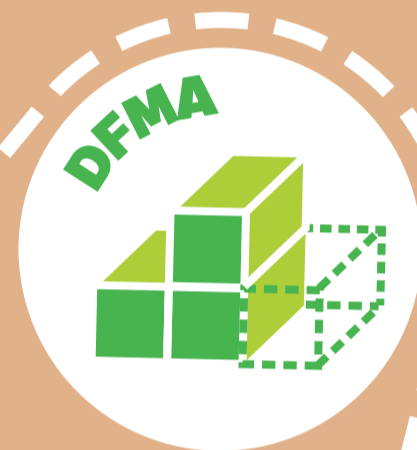
A Sustainable + Habitable Planet Goal

An overall stance & applied working method must be developed across all aspects of the built environment to define how we live now and most importantly, how we design for the future



The Construction Issue

The construction Industry has a direct Impact on the health of our global environment through Direct CO₂ production & Waste to landfill



Potential New Methods of Build

A Future Ecosystem of Designed for ease of Assembly & Disassembly (Designed For Manufacture & Assembly) - an ultimate future goal that can be incrementally developed and brought in as a progressively adopted standardised method



A Material Re-Use Solution

If we re-use existing materials for 'new' building projects we reduce the CO₂ that would be produced from manufacturing new materials and limit the amount of waste going to landfill or other down-cycling routes



The BAMB Roadmap

Gives a loose guide for the steps and phases needed for the application of materials re-use across the construction process - but those steps need fleshing out

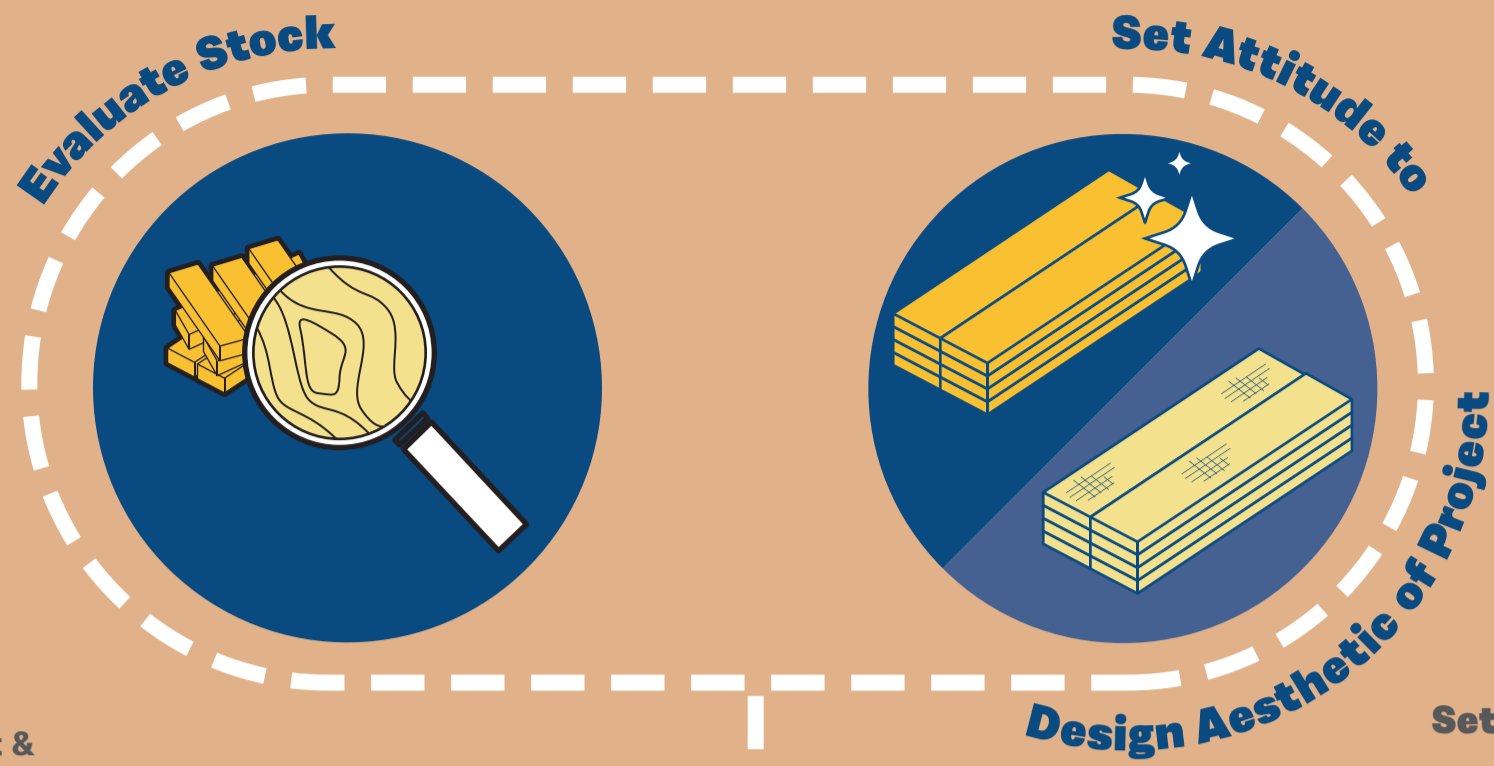


The Design Challenge

To understand what practical steps & methods need to be fleshed out, or approaches taken to allow uptake and standardise of the BAMB process within the overall construction working method

WHAT ARE THE STEPS?

Initial Considerations



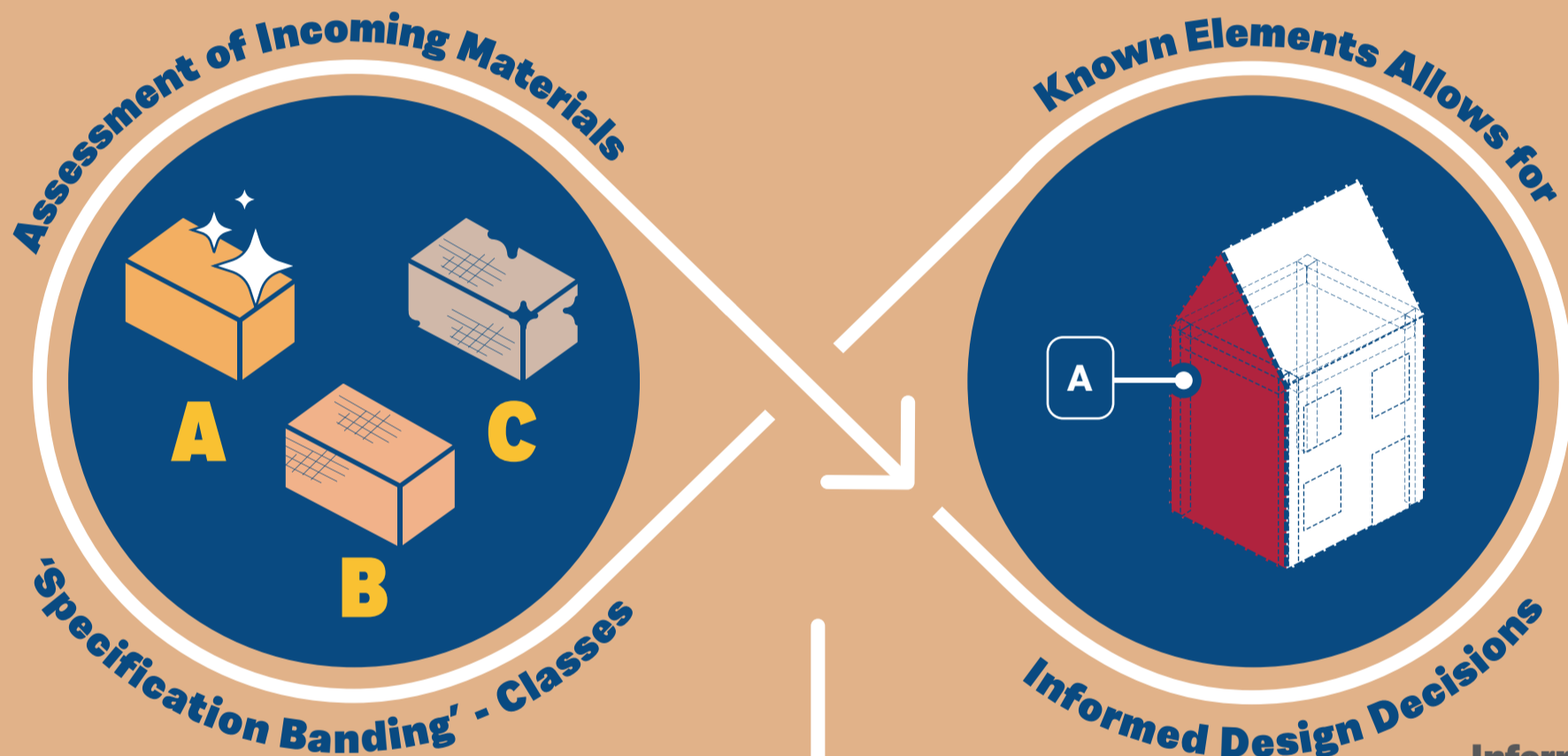
Evaluate Stock

Once any material has been certified as safe to use through regulatory & certification frameworks of assessment & sign-off, the subsequent evaluation of the stock needs to occur from a point of view of surface finish quality

Set Attitude to Design Aesthetic

An important initial consideration is to consider carefully what final quality outcome is desired/required by the project - as this has overarching consequence to many application decisions for the use of the variously categorised materials during the design process

A Quality Control + Application Process/Method



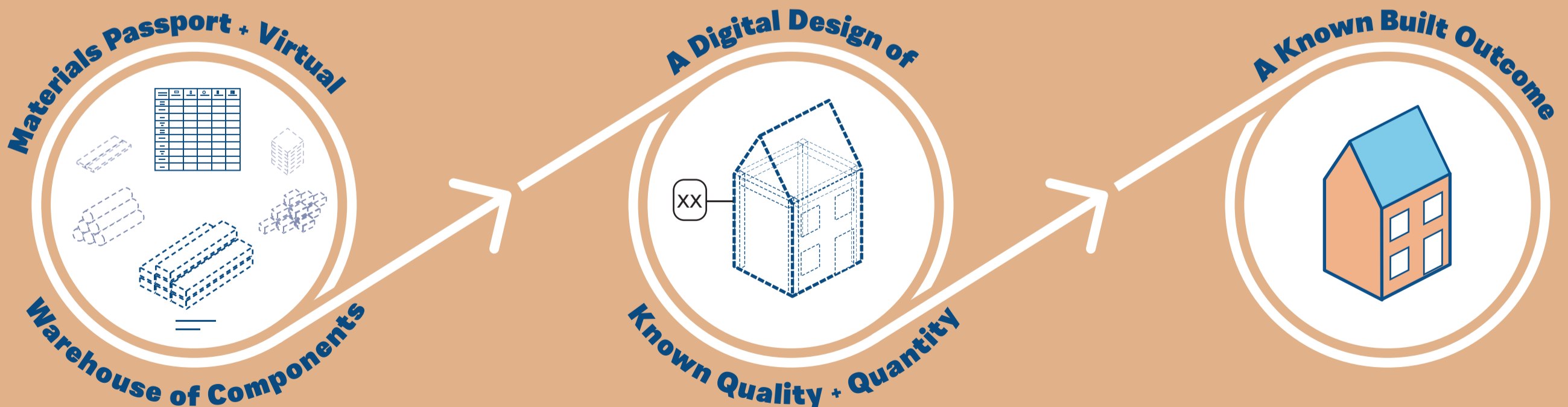
'Specification Banding'

The term that has been given for the process of setting to standardised 'Bands' set Quality Thresholds for materials. Thus if a material is in Band A - it is as good as a newly manufactured item for example

Informed Design Application

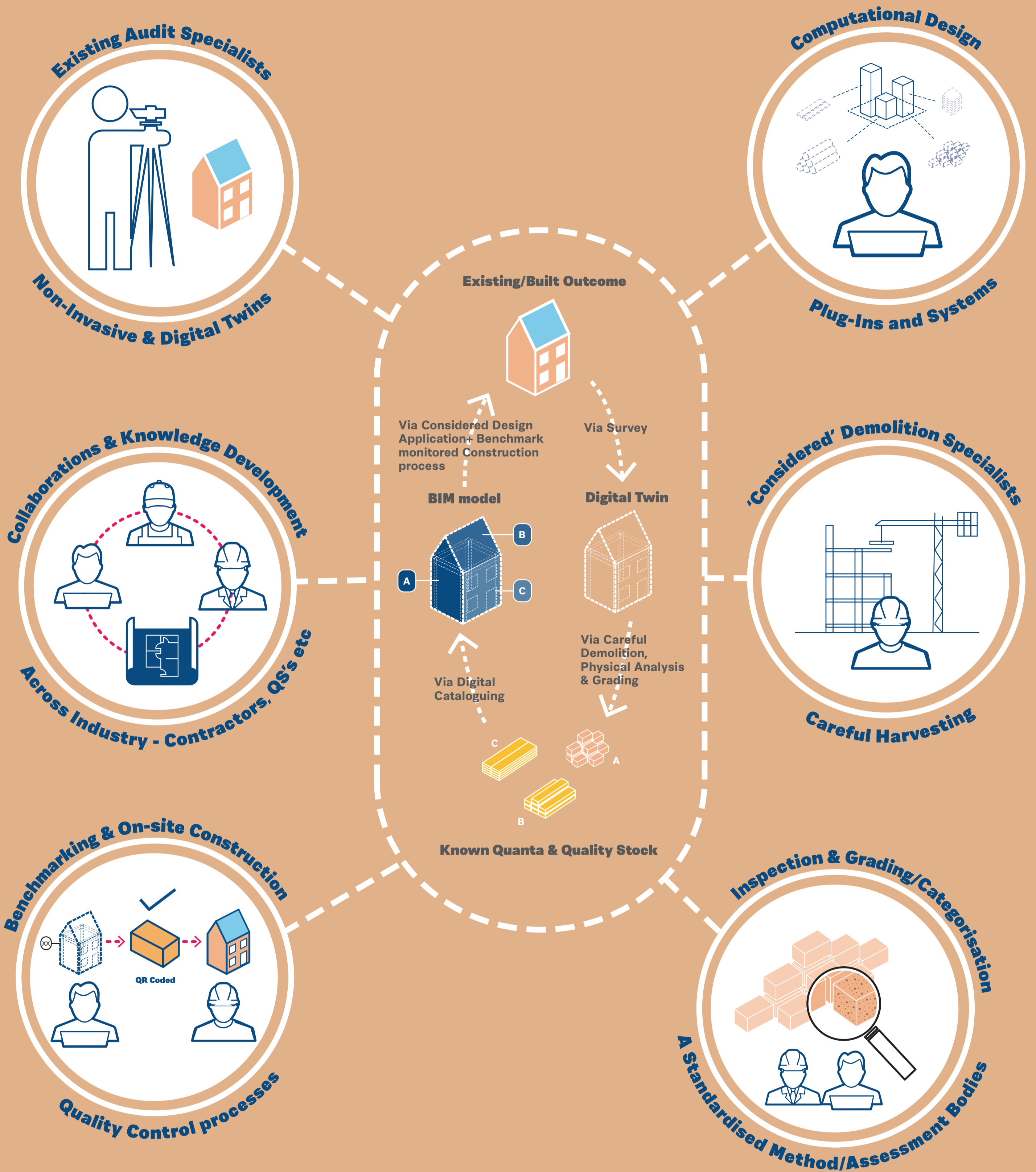
If Quanta & Quality are known, we can, if the system of grading and categorisation are encoded digitally from a mirrored physical tagging system (QR codes), ally to BIM modelling systems to remove the uncertainty of designing with re-claimed materials

A Digitally Enabled Design Process



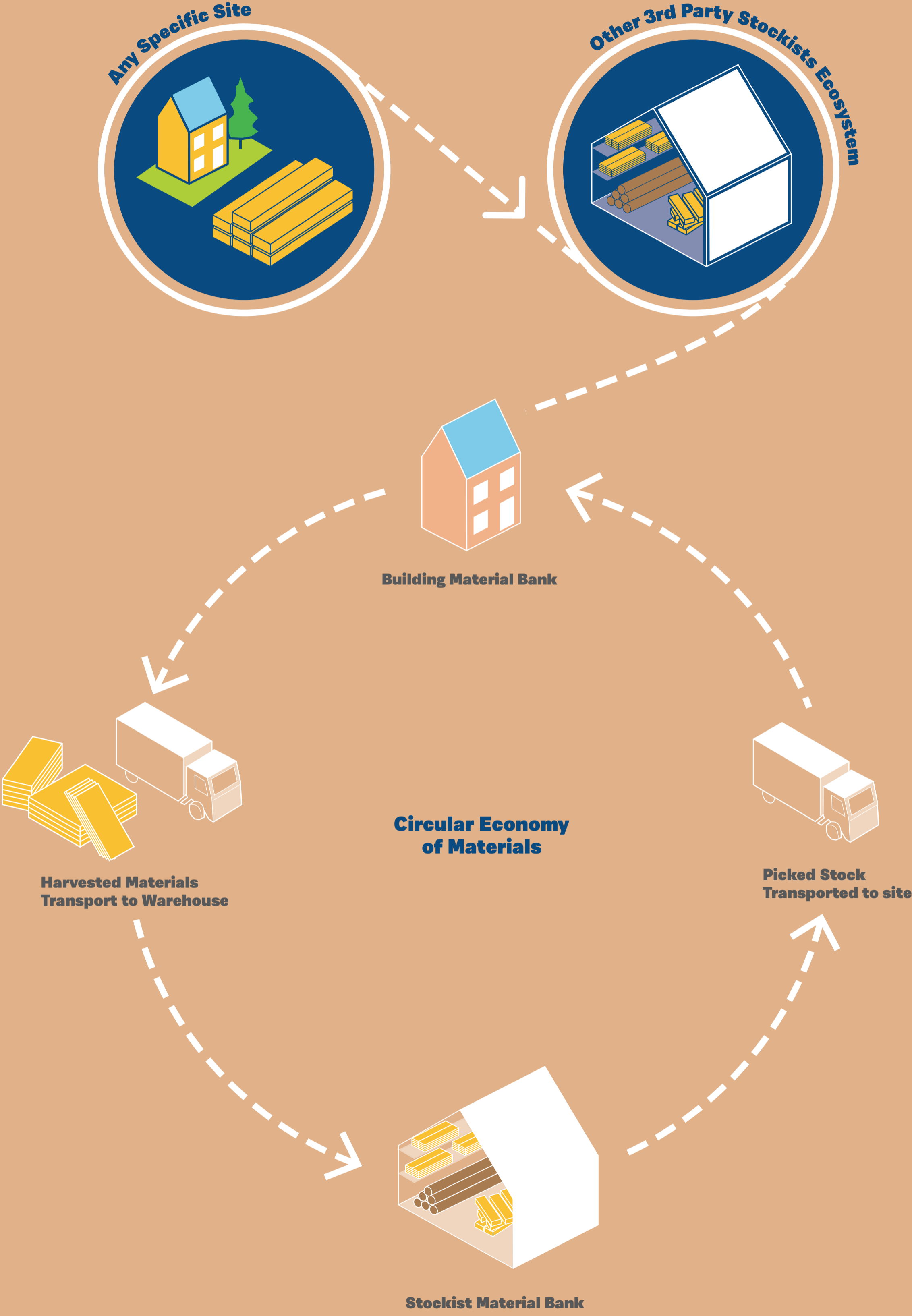
REMOVE THE 'LOOSE FIT' UNKNOWN/RISK BY DESIGNING WITH A KNOWN QUANTA & QUALITY SET

VARIOUS INDUSTRY SPECIALISMS ALL NEED TO CONTRIBUTE TO DEVELOPING THE STEPS OF THE PROCESS...



REMOVE THE 'BY PROJECT' DIFFICULTY OF THESE ITEMS VIA MAKING STANDARD PRACTICE

ULTIMATE GOAL IS TO CREATE AN ECOSYSTEM OF MATERIAL RE-USE



A STANDARD PRACTICE CIRCULAR ROUTE FOR MATERIAL RE-USE WITHIN THE CONSTRUCTION PROCESS

