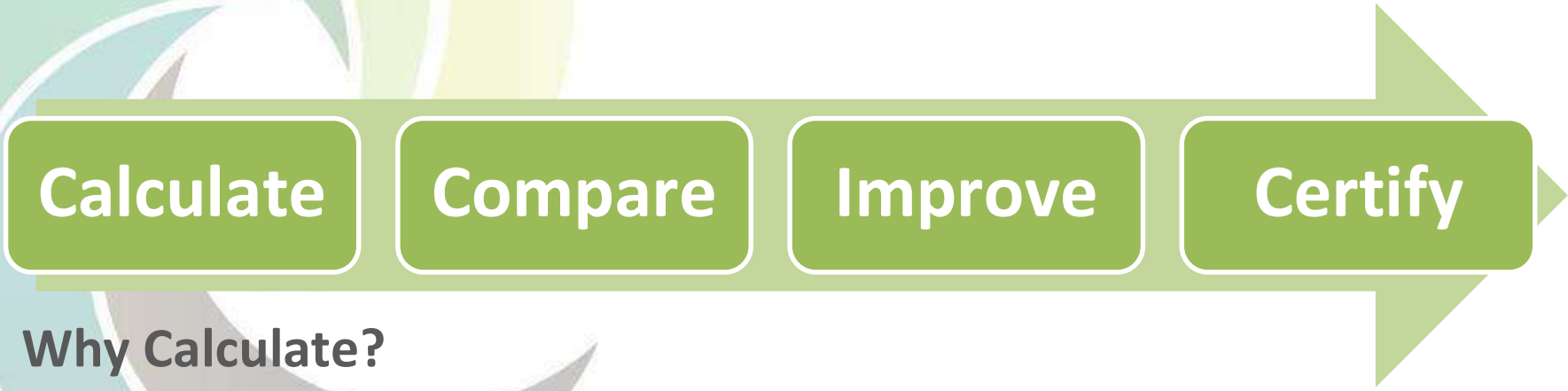
eTool PTY LTD

MODULE 2
BASIC SOFTWARE TRAINING

In This Module:

- Goals of eToolLCD
- eToolLCD Navigation
- Project hierarchy explained
- Software demonstrations and practice
- LCA Example

Goals of an eToolLCD Model



Why Calculate?

A problem well stated is a problem half solved

(Charles Ketting)

The aim is to be accurate enough to *compare* design options and drive the right design choices.

I would rather be vaguely right than precisely wrong

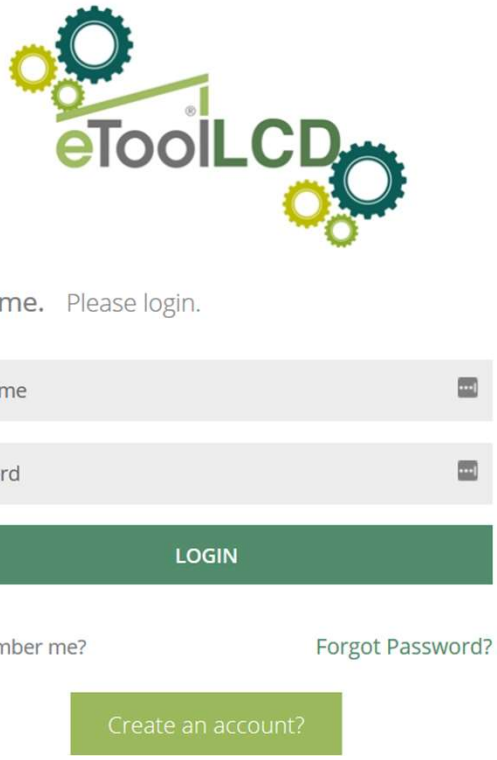
(John Meynard Keynes)

eToolLCD Software

- eToolLCD software is 100% web-based
- Works best on Chrome, Safari & Firefox
- Troubleshooting tips:
  - Refresh browser (fixes 90% of issues)
  - Clear cache
  - Get in touch with eTool

eToolLCD Software

In your browser go to:
etoollcd.com



eTool

eToolLCD Navigation

GREEN RIBBON

- **Home:** Dash, projects, reports
- **Library:** templates, EPDs, benchmarks, recommendations
- **Dialogue:** Notifications, tasks
- **Organisation**: dash, manage users
- **My Profile:** my info, my plan, settings
- **Help:** eToolLCD help site

eToolLCD Symbols

Symbol	Applies to	Meaning
	Design	Favorite: For precinct wide assessments, this is the favorite design for a particular structure
	Design	Certified: The design has been certified (user inputs checked etc) and is now locked for editing. Reports can be run from this design without watermarks.
	Design	Benchmark: This design is suitable for running comparisons against. A well documented common measuring stick representing “business as usual”
	Library items	Global: This item can be viewed and used by everybody in designs. Locked for most users, can be cloned though for customization.
	Templates	Validated: Inputs have been checked and users can use these with confidence.
	Templates & Designs	Archived: Hidden for view unless the user wants to access archived items. Won’t be deleted.
	Projects	Project Level
	Structure	Structure Level
	Design	Design Level
	Templates	Template Level

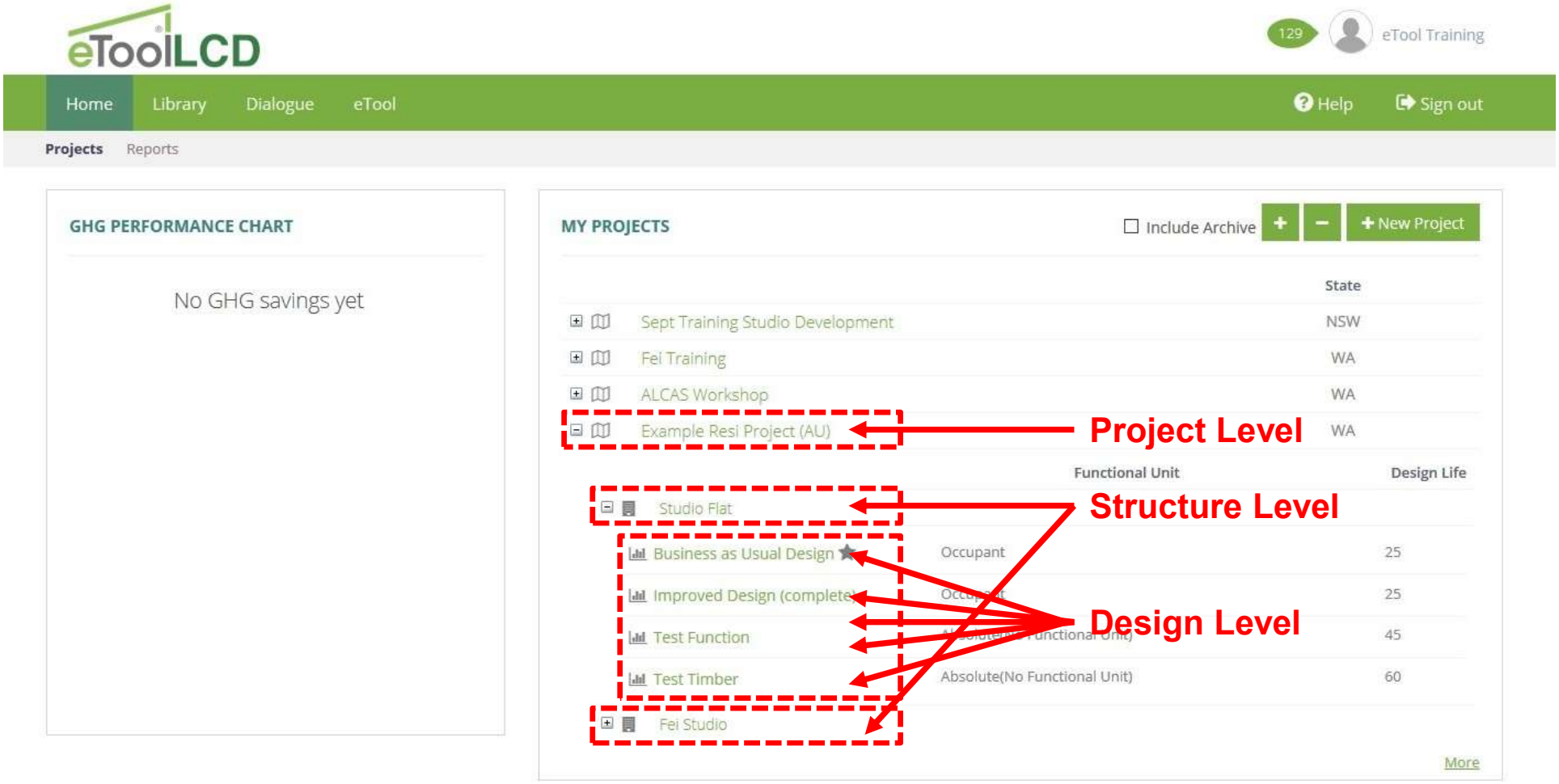
eToolLCD Project Hierarchy

The first thing to understand is that there is a Project hierarchy in eToolLCD. At the very top level is your Project Level which acts a lot like a big folder that holds everything else inside (or below) it.

The second level down is the Structure Level. You can have multiple structures in this level within the same Project. Much like a precinct that would have different types of structures within (i.e. apartment blocks, office buildings, infrastructure etc.).

The next level is the Design Level. As you can see above, this level is where you can create multiple variations of the building design (i.e. business-as-usual, proposed, improved, scenario).

eToolLCD Project Hierarchy

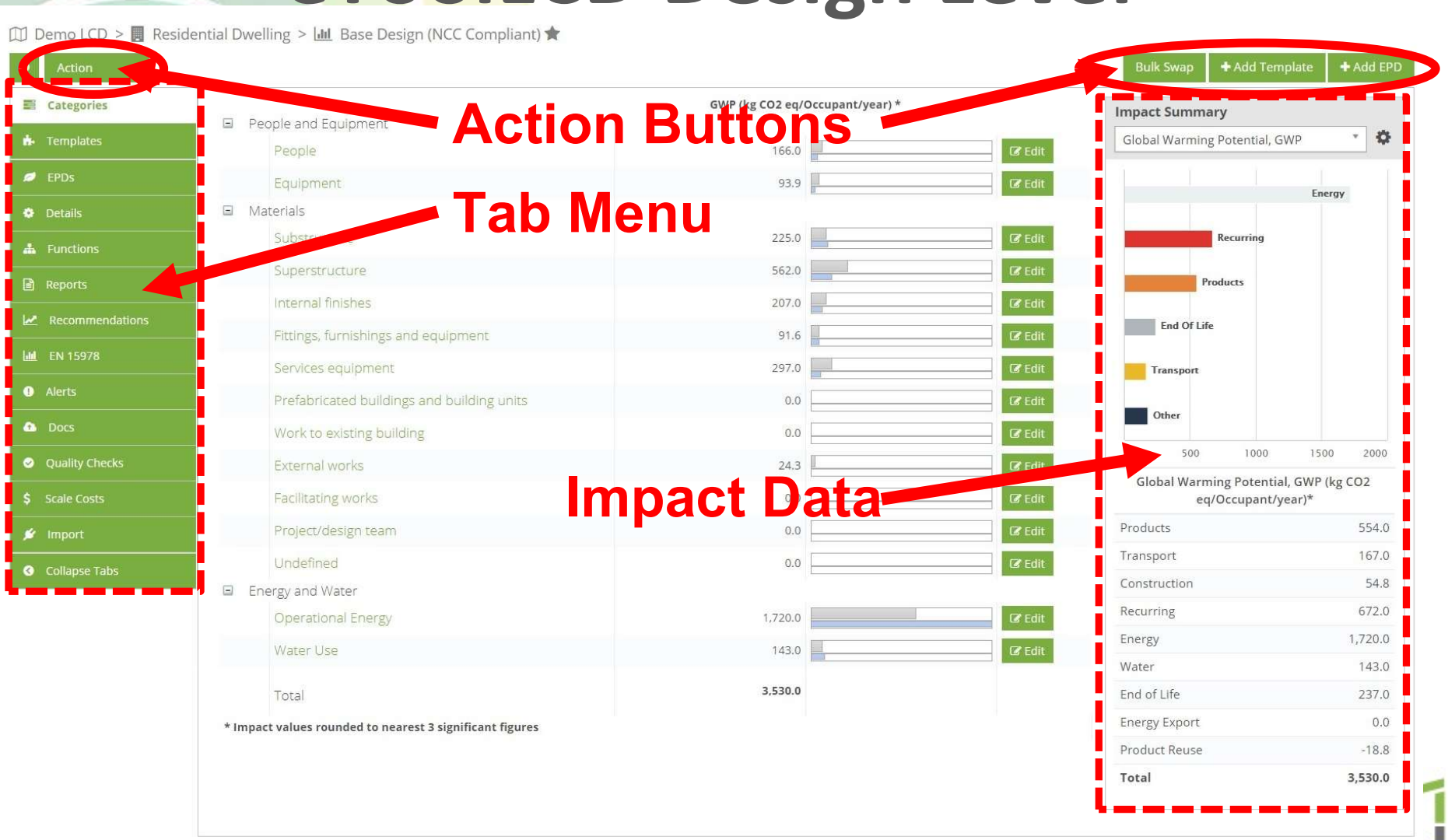


eTool

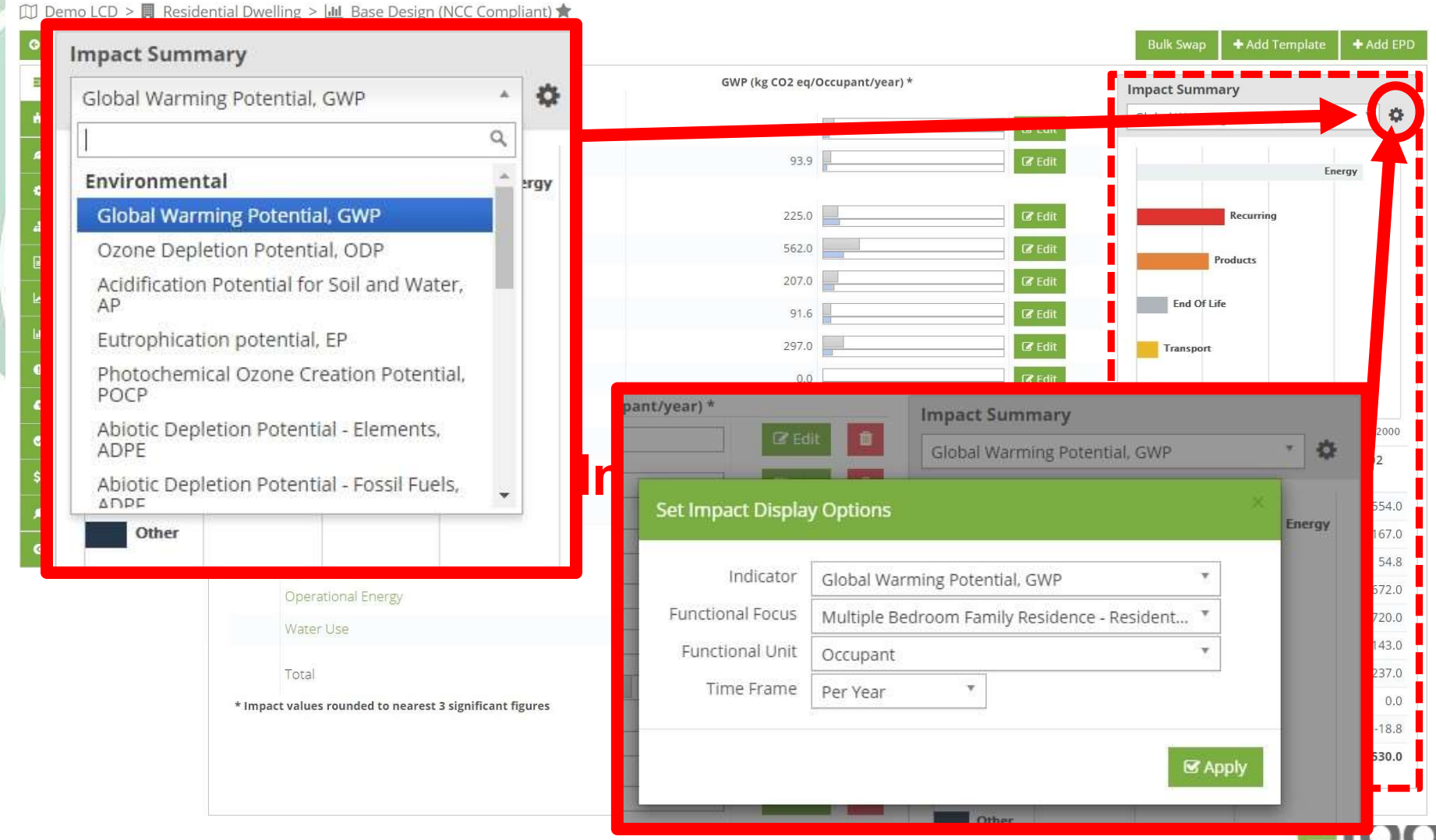
eToolLCD Project Hierarchy

- Like a filing system
- Enables flexibility but also guides the user appropriately
- Covers all the items that need to be considered for the inventory collection part of the LCA

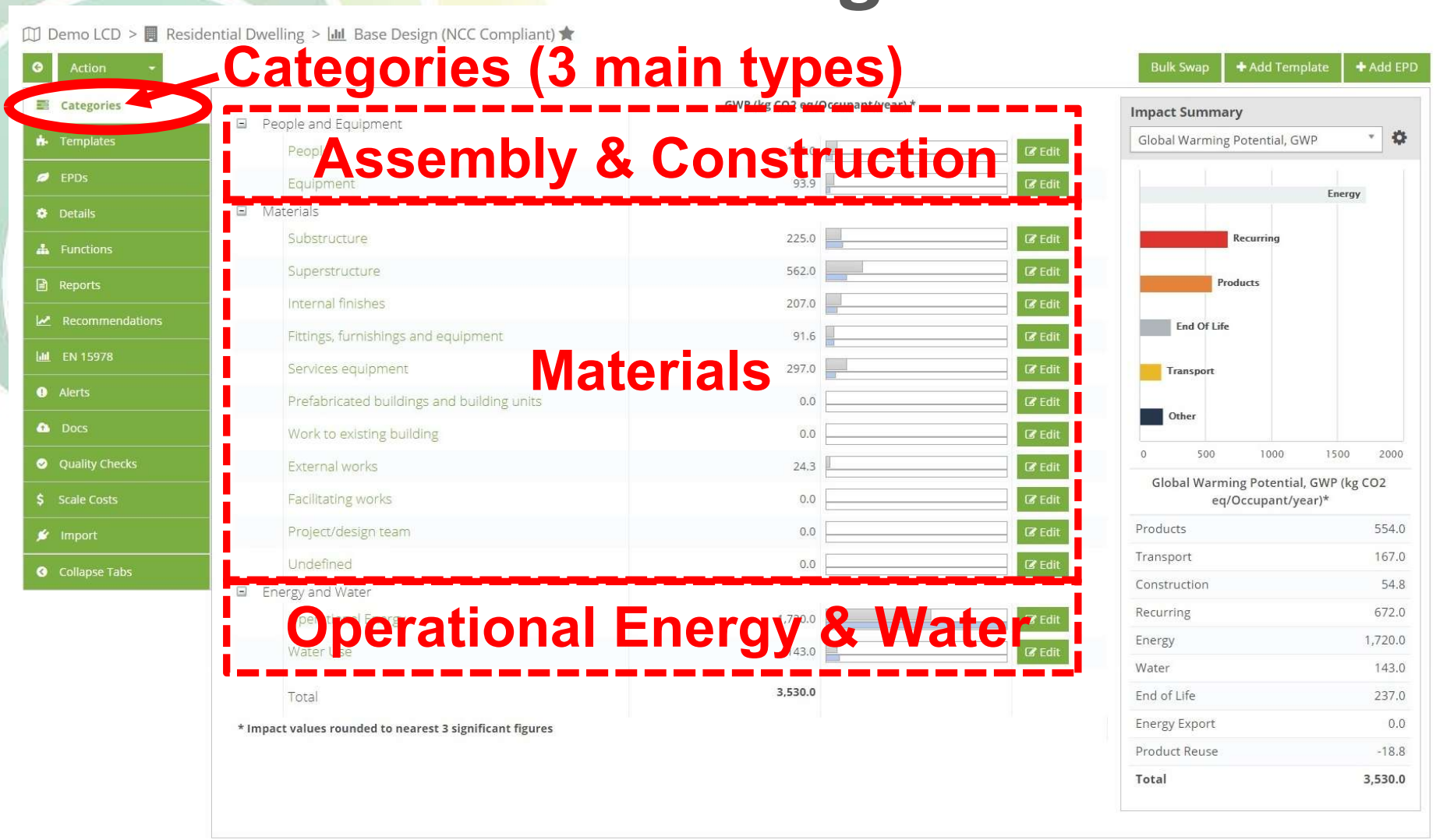
eToolLCD Design Level



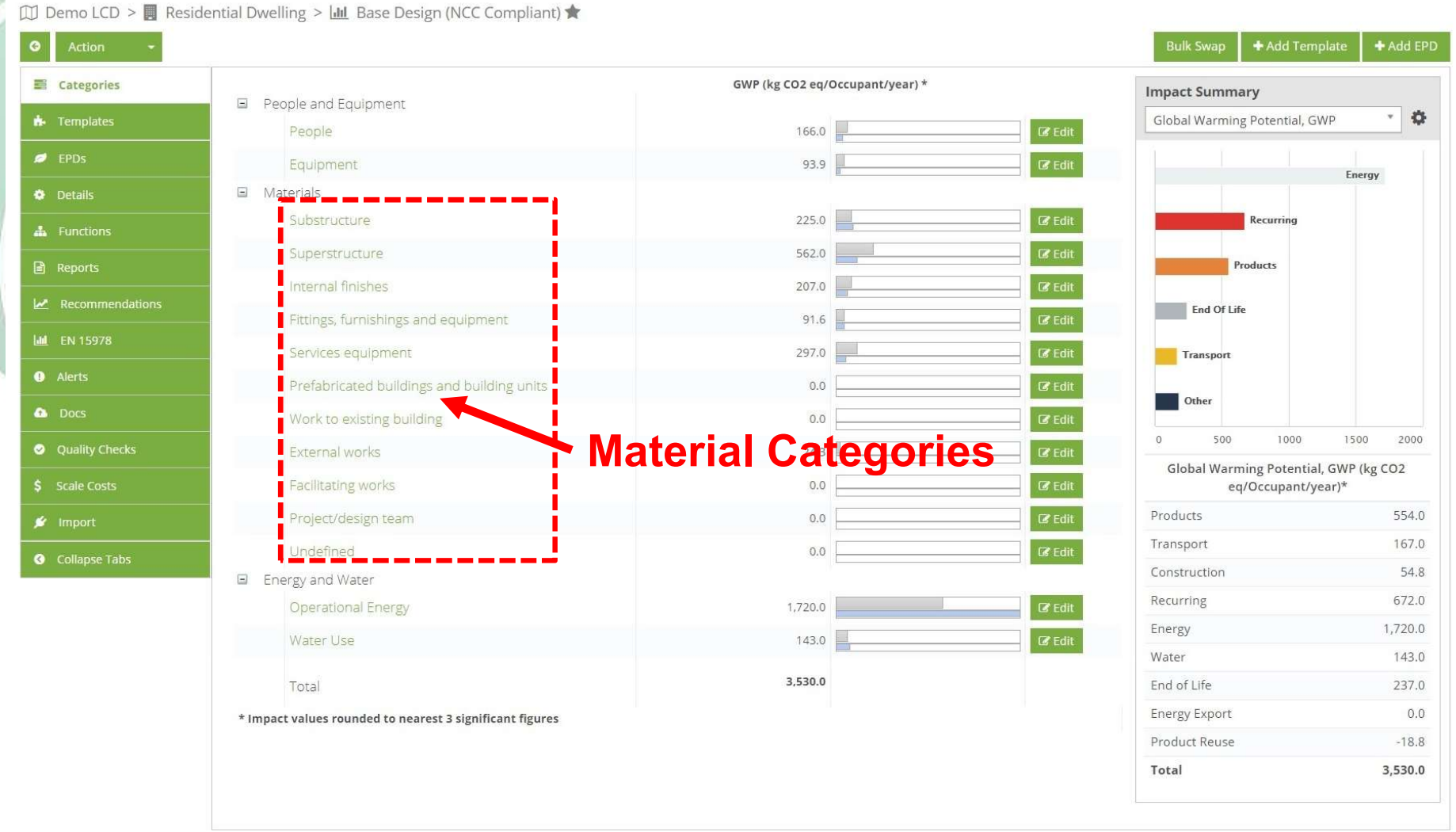
eToolLCD Design Level



eToolLCD Design Level



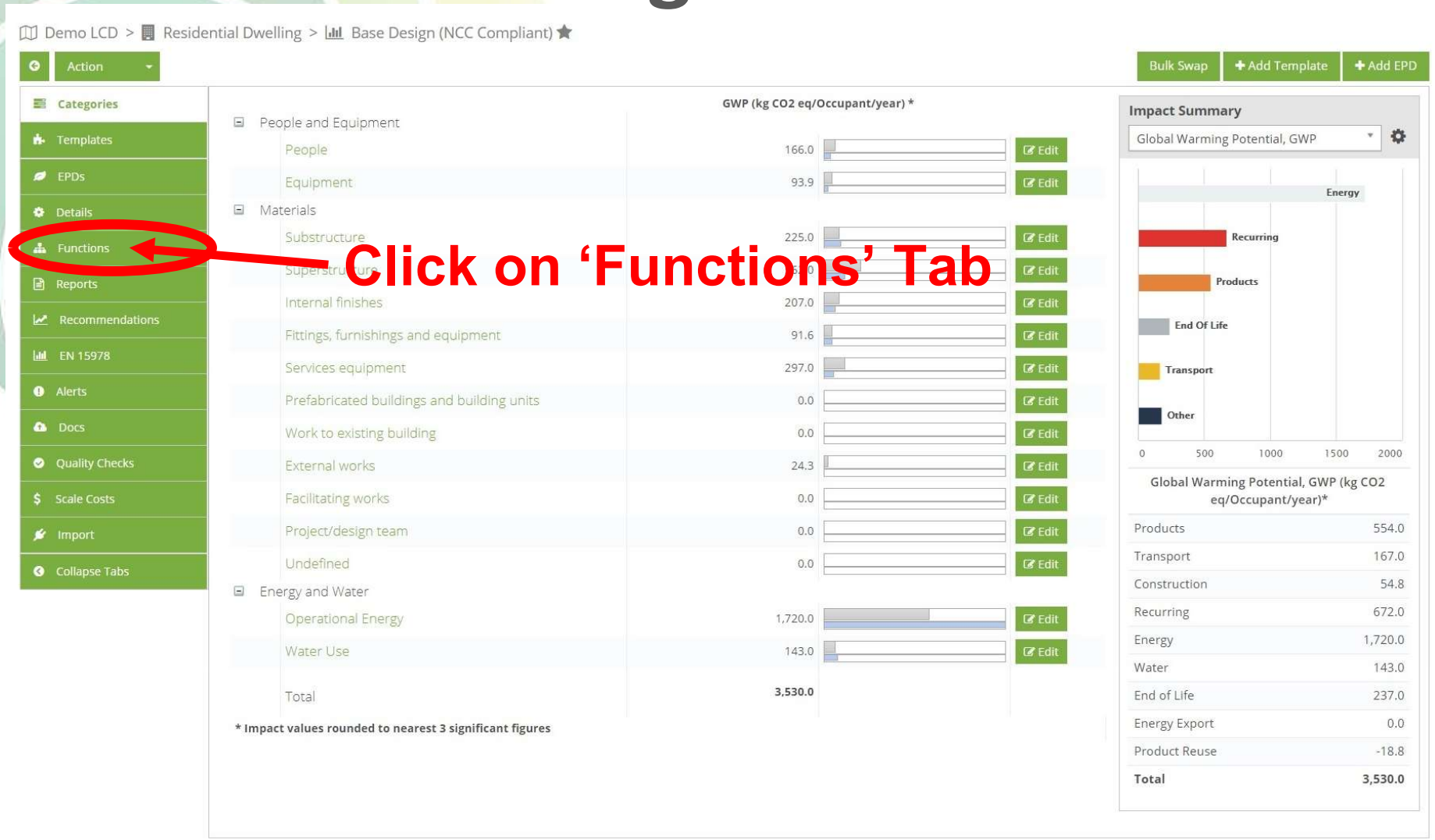
eToolLCD Design Level



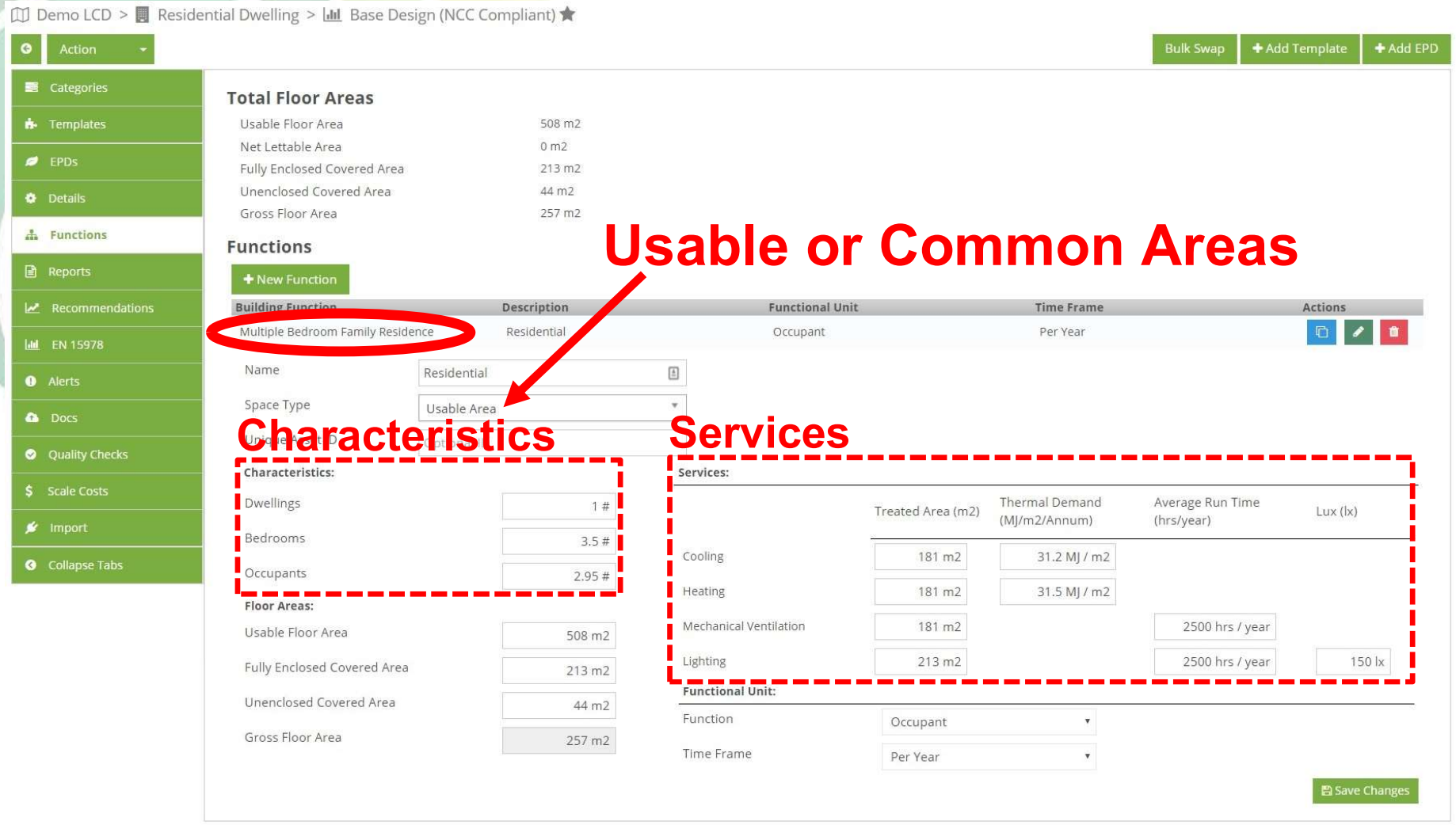
eToolLCD Design Level: Function

- A part of the design with unique characteristics that may want to be modeled / quantified separately.
- A function has it's own functional unit.
- Functions are either “Useable” areas or “Common” areas

eToolLCD Design Level: Function



eToolLCD Design Level: Function



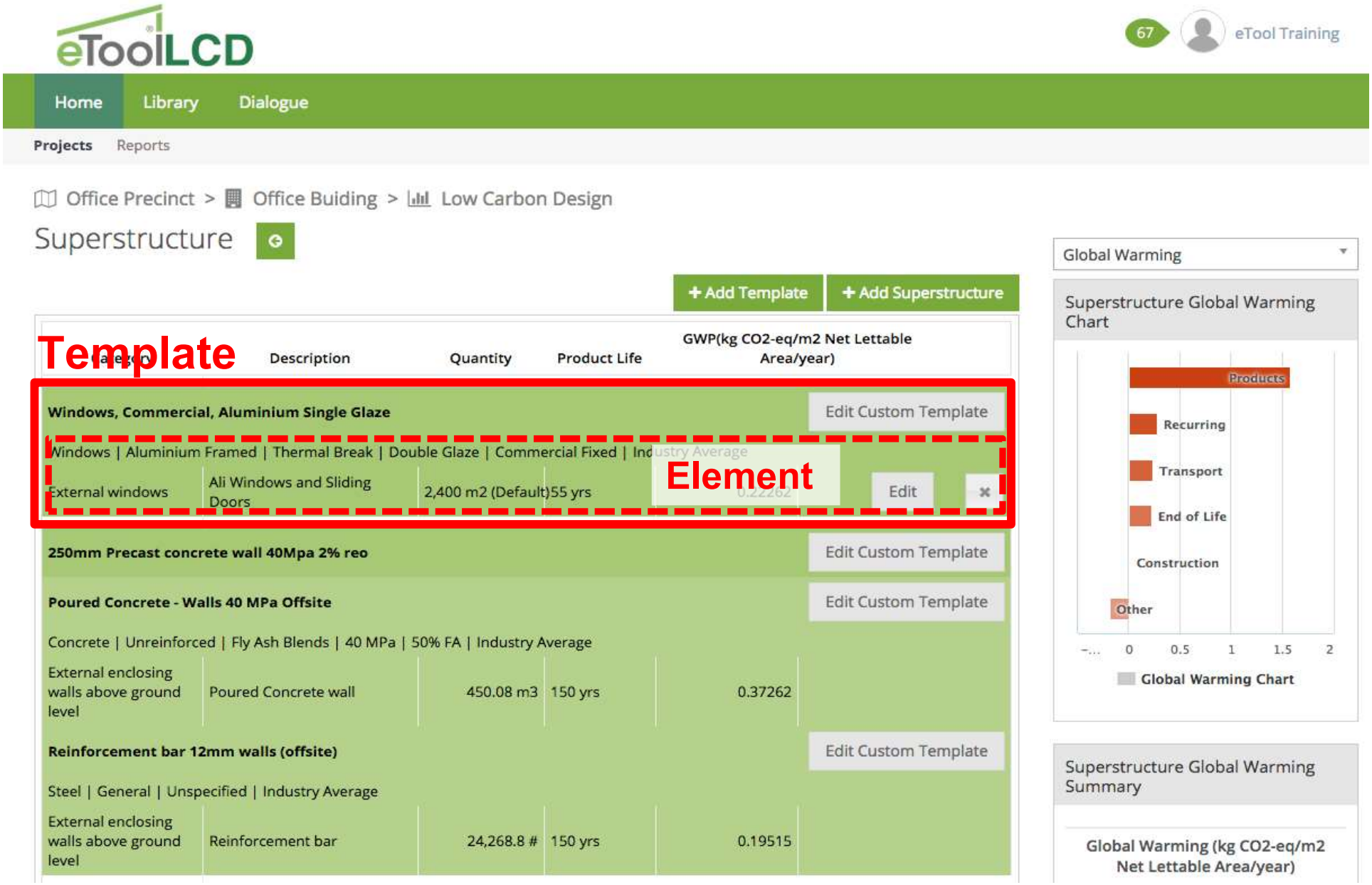
eToolLCD Hierarchy: Element

- Element: The smallest entity in the inventory in eTool.
- From this point on the LCIA is based on background data.
- Can be material, people, equipment, operational energy or operational water.
- Elements must relate to a function within the design.

eToolLCD Hierarchy: Template

- Template is a collection of elements.
- Templates are created and stored in the library so they can be reused in other designs
- Highly recommended that templates be used in preference to entering data manually into each design.

eToolLCD Hierarchy: Element/Template



eToolLCD Hierarchy: Element/Template

Individual elements manually entered

Template

150mm Tilt Up Concrete Wall (CFC/PB/Aircell)

Superstructure

+ Add Superstructure

Category	Description	Quantity	Product Life	GWP(kg CO2 eq)		
Aluminium | General | Industry Average						
External enclosing walls above ground level	Flashing	.195 kg	175 yrs	2	Edit	×
Concrete | Reinforced | Prefabricated Concrete Panels | Unspecified | Industry Average						
External enclosing walls above ground level	150mm Concrete Tilt Up Wall	1 #	175 yrs	90	Edit	×
Fibre Board | Fibre Cement | Compressed 1750kg/m3 | Industry Average						
External enclosing walls above ground level	8mm Compressed Fibre cement sheeting	1 #	50 yrs	52	Edit	×
Paints and Finishes | Unspecified | 2 Coats | Industry Average						
External Paint, Textures and Renders	External Paint	1 m2 (Default)	20 yrs	3	Edit	×
Plastics | High Density Polyethylene (HDPE) | Unspecified | Industry Average						
External enclosing walls above ground level	Waterproof membrane	1 #	0 yr	1	Edit	×
Insulation - Foil Sisalation (wall)						
Aluminium | General | Industry Average						
Insulation	Foil in laminate	1 #	75 yrs	3		
Insulation | Blankets and Batts | Glass Fibre Batts | Unspecified | Industry Average						
Insulation	Fibre reinforcing in laminate	1 #	75 yrs	0		
Plant Based Products (non Timber) | Paper | General | Industry Average						
Insulation	Paper in laminate	2.5 m2 (Default)	15 yrs	0		
Resins and Adhesives | Urea Formaldehyde | Industry Average						
Insulation	Glue in laminate	.25 kg	50 yrs	2		
EPDs				**0**		
Total				**153**		

Software Training

- Creating a new project
- Creating a new building (design life)
- Creating a new design
- Creating a function within the design
- Choosing a benchmark (if applicable)
- Entering design elements
- Entering templates
- Library Templates
- Creating Simple Custom Templates
- Creating Complex Custom Templates

LCA Example

- Data Collection and Entry – See this knowledgebase article for some detail that should get you started on your first model
- Import feature demo to populate a design in eToolLCD
- Demo of manually entering templates
- Checking the completion of your model
- Running reports

LCD Example

- Analyze the design for environmental hot spots
- Model Design Strategies using "Recommendations" tab
    - Recommendation Templates
    - Custom Recommendations
- Run LCD Report
    - Benchmark v Base v Improved
    - Base v Improved (no benchmark available)