



HOUSEFUL: Soluciones y servicios circulares innovadores para el sector de la vivienda

Licinio Alfaro. Jefe del Departamento de Construcción Sostenible. ITeC
#CONAMA2022

CONAMA2022



PALACIO MUNICIPAL
DE IFEMA, MADRID

CONAMA2022.ORG

Relevant R+D+i projects





HOUSEFUL

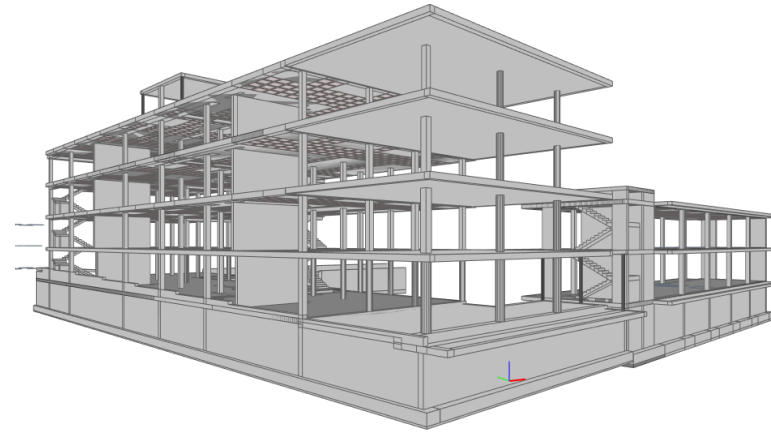
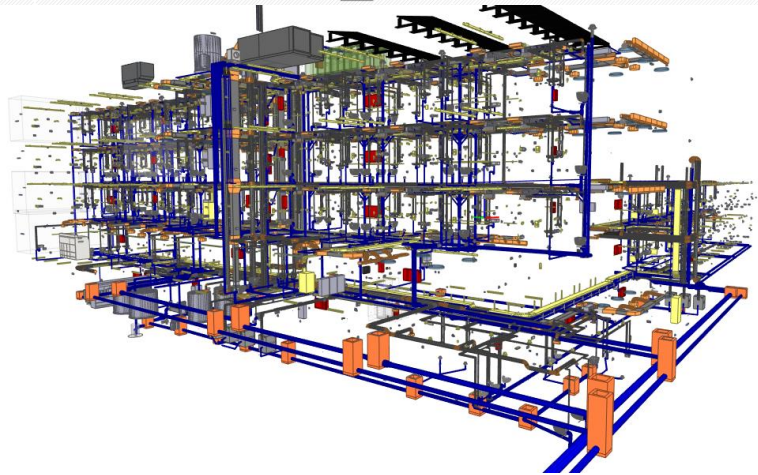
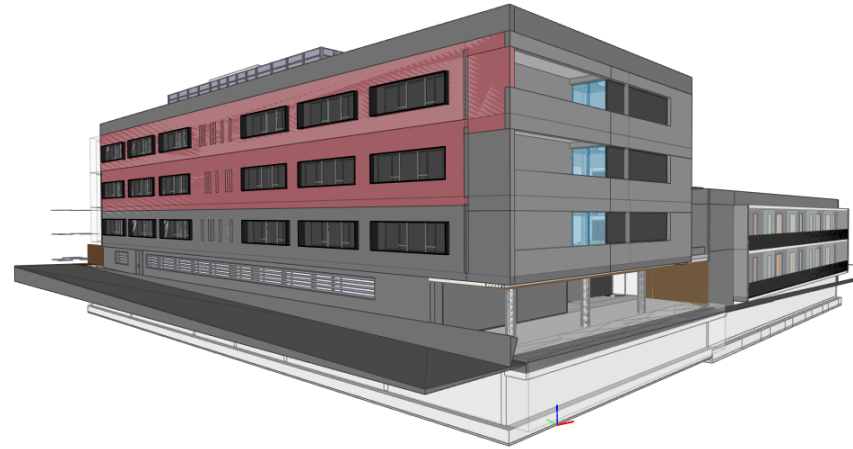
**D4.3: BIM Models and Material Passport
of the Spanish and Austrian demos:
Demo 1 and Demo 4**

Residencia Salut Empordà. Figueres, Girona.

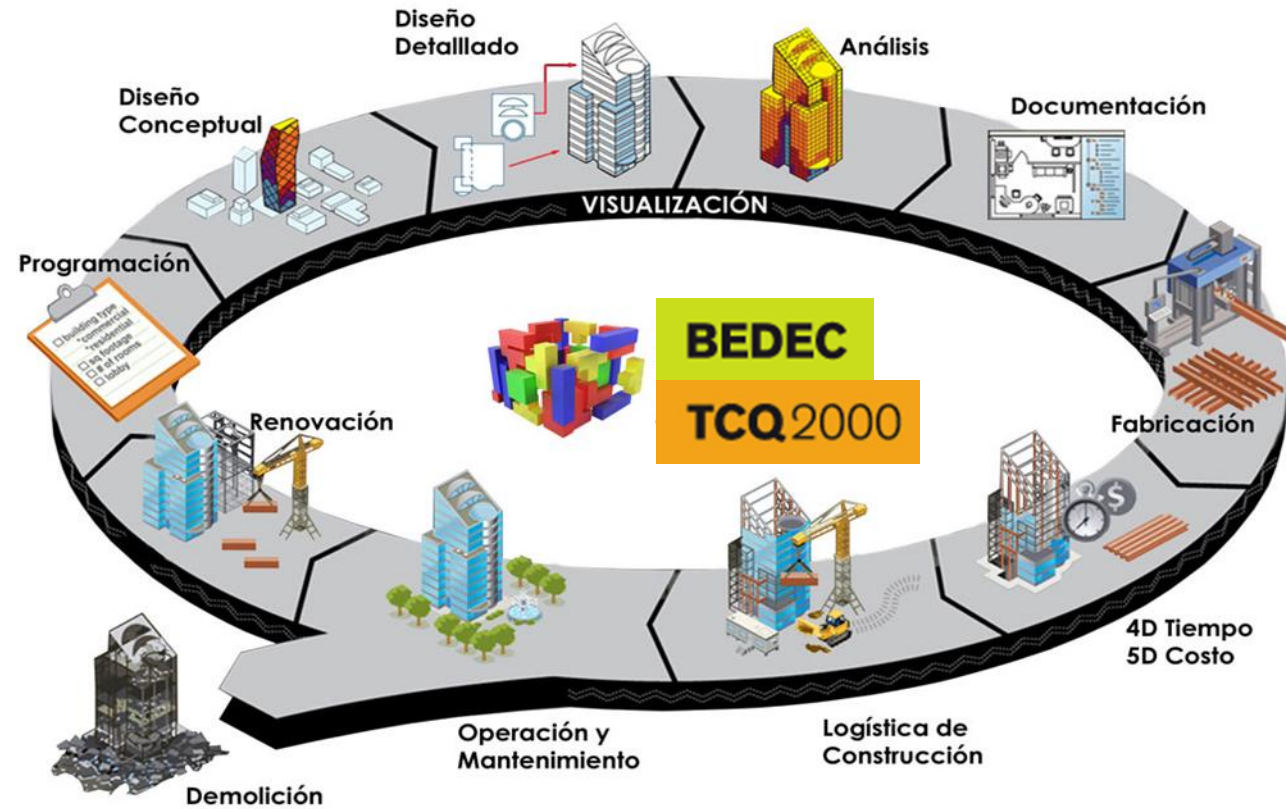
Promotor: Fundació Salut Empordà

Autor: Vitaller arquitectura

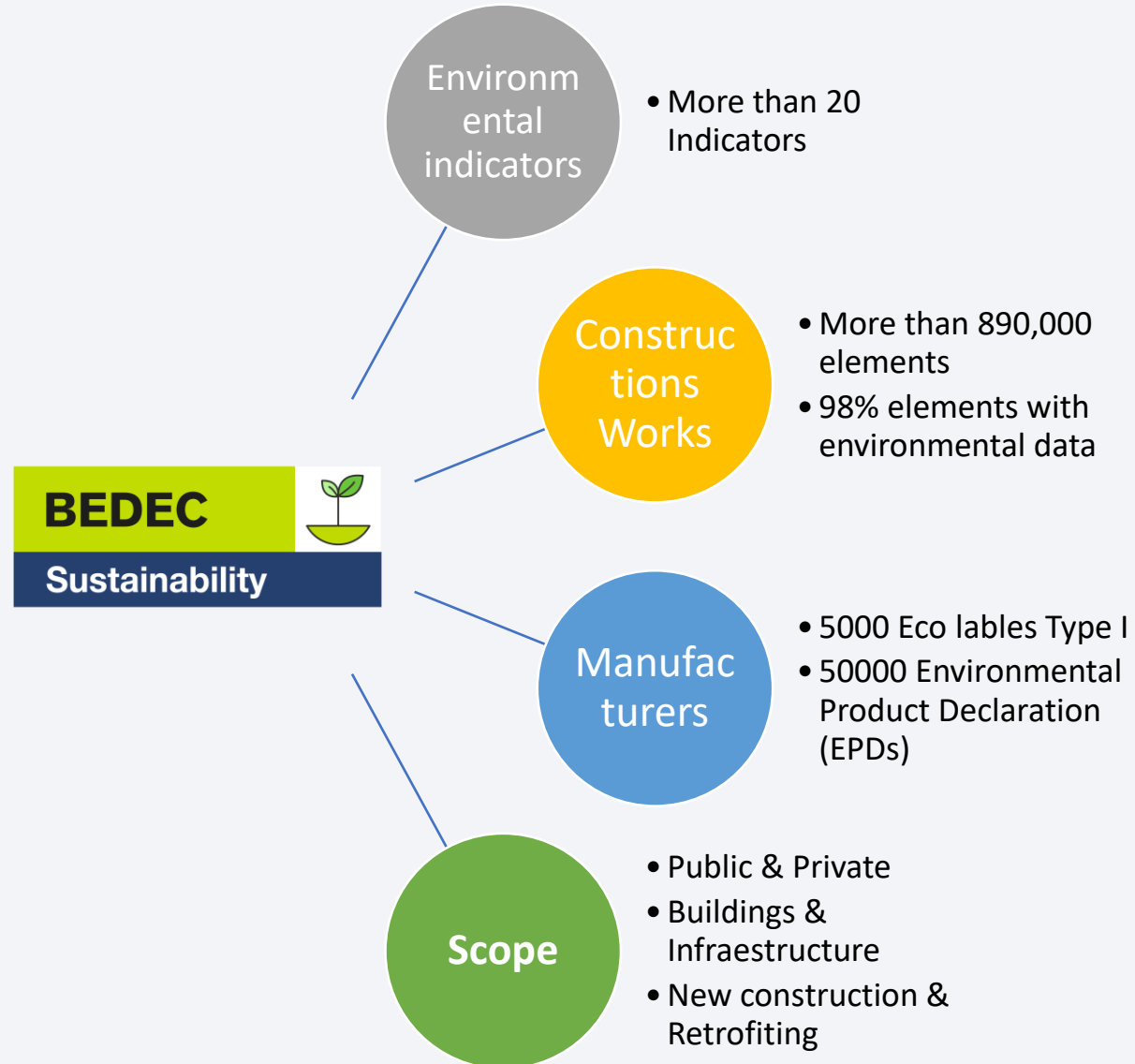
Colaboradores: BIS estructuras, INGHO Instalaciones



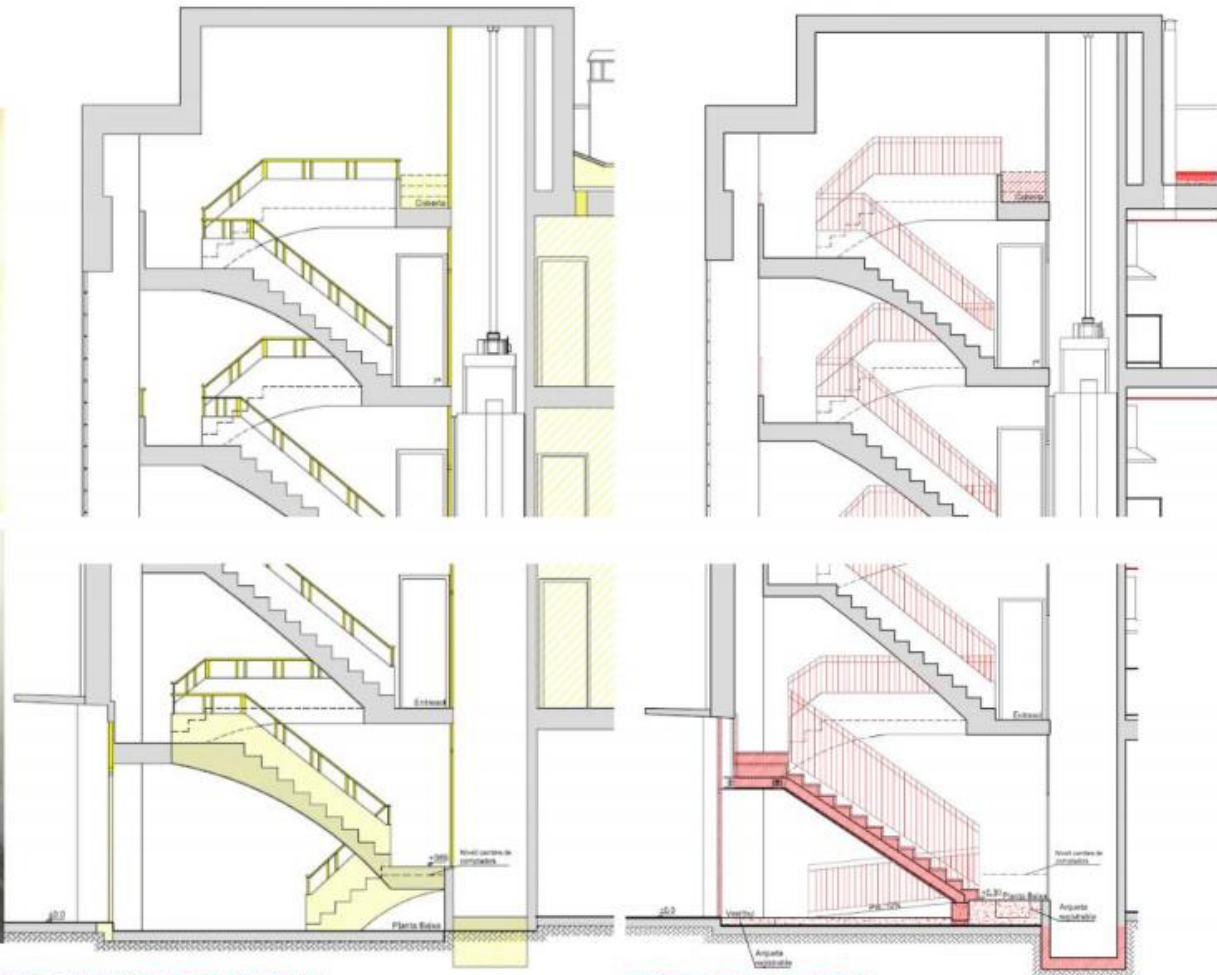
CICLO DE VIDA DE LA EDIFICACIÓN.



ITeC. Bases de datos de máxima confiabilidad



STAIRCASE



EXISTING SOLUTION

END SOLUTION

Figure 2.2: Analysis of the existing and end railing solution in the staircase.

STEP 2

The image shows a workflow between Revit and Excel. In Revit, a search for 'Cerámica blanca' is performed, and the results are shown in the 'Explorador de materiales' and 'Propiedades' panels. The 'Propiedades' panel shows the material name 'Tiles ceramic / porcelain' and its class 'Cerámica'. In Excel, a table lists materials with columns for 'Original_cas', 'Houseful_Materials', and 'Houseful_Types'. The row for 'BAZG_02_Acero_Manillas' is highlighted in red, and a red box is drawn around it. A red arrow points from this row to the Revit material properties panel, indicating the mapping of the material.

	A	D	E
	Original_cas	Houseful_Materials	Houseful_Types
1			
2	Acero	Steel	Hf_EntranceDoubleSwin
3	Aire	Air	Hf_CatalanRoof_Cerami
4	Aire	Air	Hf_30cmCavityWall_Bri
5	Aire	Air	Hf_30cmRoofTopMason
6	Aire	Brickwork	Hf_30cmRenderedCavity
7	Aire	Air	Hf_30cmRoofTopRender
8	Aislamiento - Poliestireno extruido	XPS Polystyrene	Hf_InvertedRoof_Gravel
9	BAMW_02_Acero_Pomos	Steel	Hf_DoubleSwingBalcony
10	BAZG_02_Acero_Manillas	Steel	Hf_SingleSwingDoors_V
11	BAZG_02_Acero_Manillas	Steel	Hf_SingleSwingDoors_P
12	Cerámica blanca	Tiles ceramic / porcelain	Hf_3cmBathFlooring_Ce
13	Cerámica blanca	Tiles ceramic / porcelain	Hf_StaircaseP6toP7_Rei
14	Cerámica blanca	Tiles ceramic / porcelain	Hf_StaircasePBtoP5_Rei
15	Cerámica blanca	Tiles ceramic / porcelain	Hf_StaircasePBtoP5_Rei
16	cerámica gris	Cement	Hf_3cmFlooring_Cemen
17	Cerámica roja	Tiles ceramic / porcelain	Hf_3cmBalconyFlooring
18	Cerámica roja)	Tiles ceramic / porcelain	Hf_NewBalconyFlooring
19	Cristal	Glass	Hf_EntranceDoubleSwin
20	Cubiertas - Geotextil de poliéster	Polyester	Hf_InvertedRoof_Gravel
21	Cubiertas, Membrana EPDM	EPDM	Hf_NewBalconyFlooring
22	Cubiertas, Membrana EPDM	EPDM	Hf_CatalanRoof_Cerami

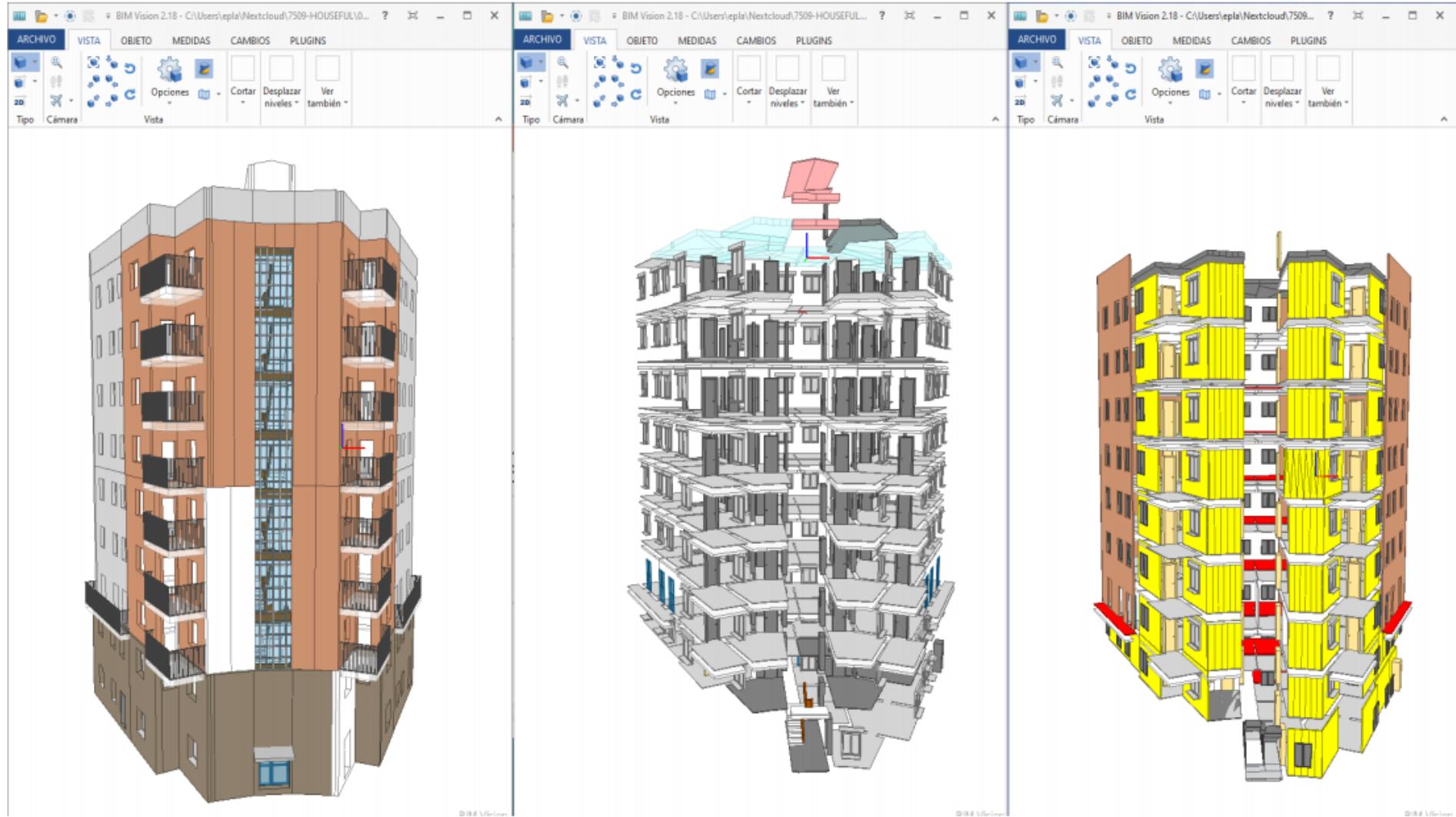


Figure 2.8: Casco (left), Demolition (centre) and New (right) models from Demo 1.

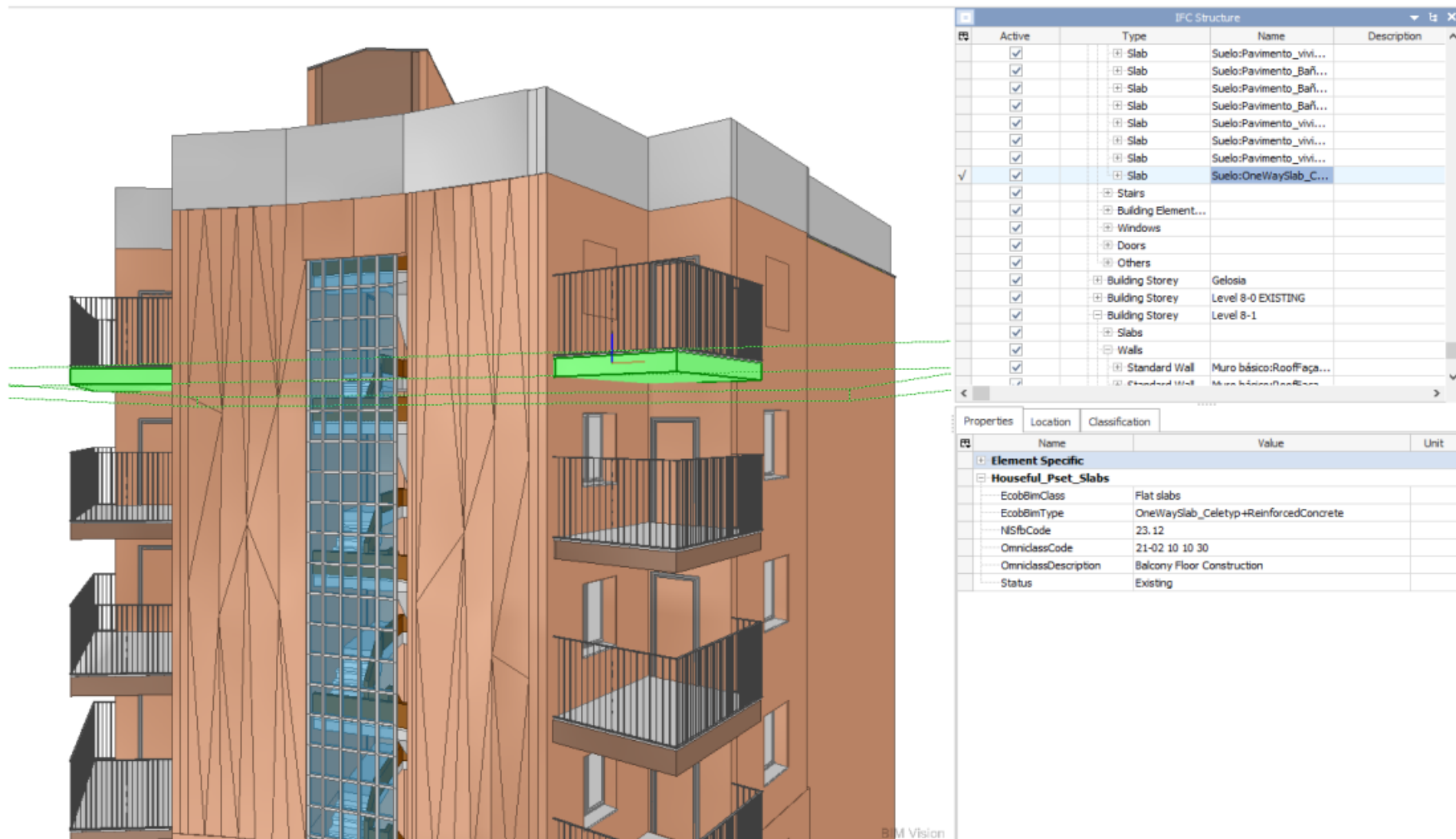


Figure 2.13: BIM element properties of a balcony slab in Demo 1.

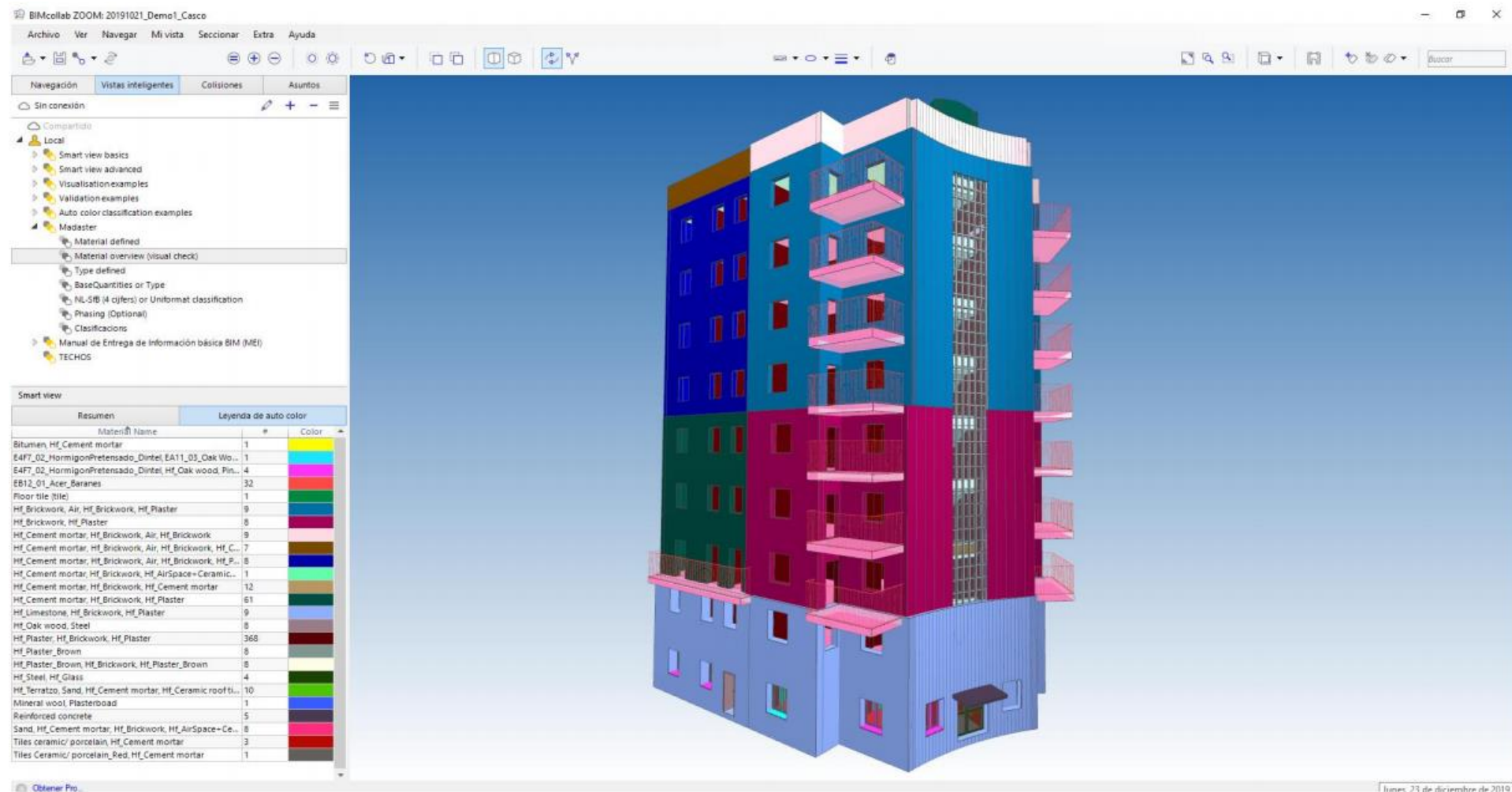


Figure 2.14: Validation of Materials in Casco model from Demo 1.

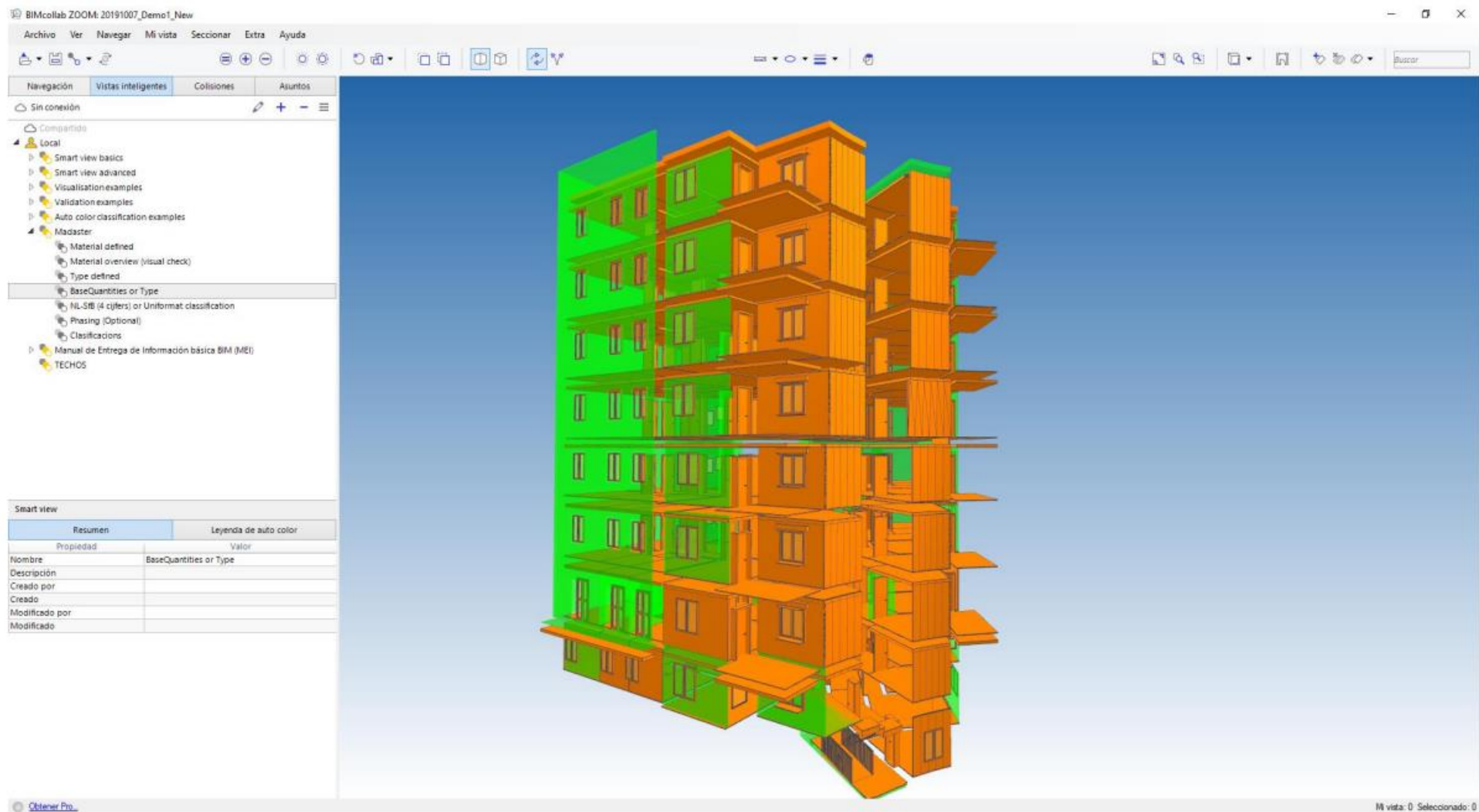
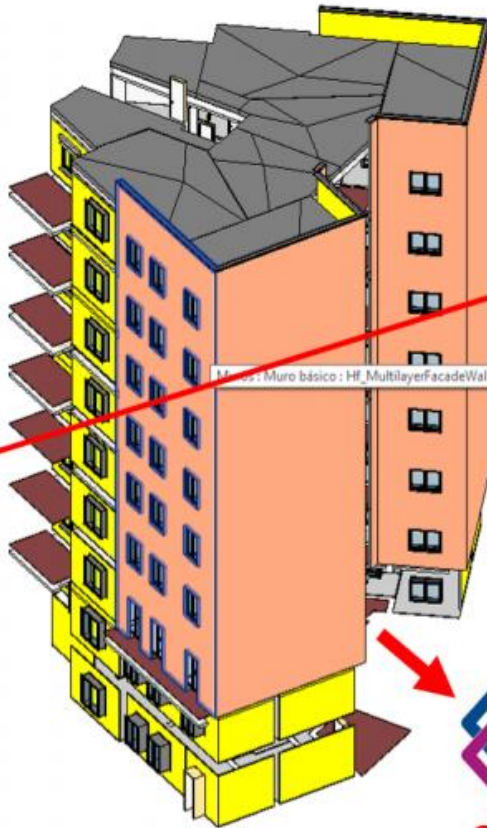
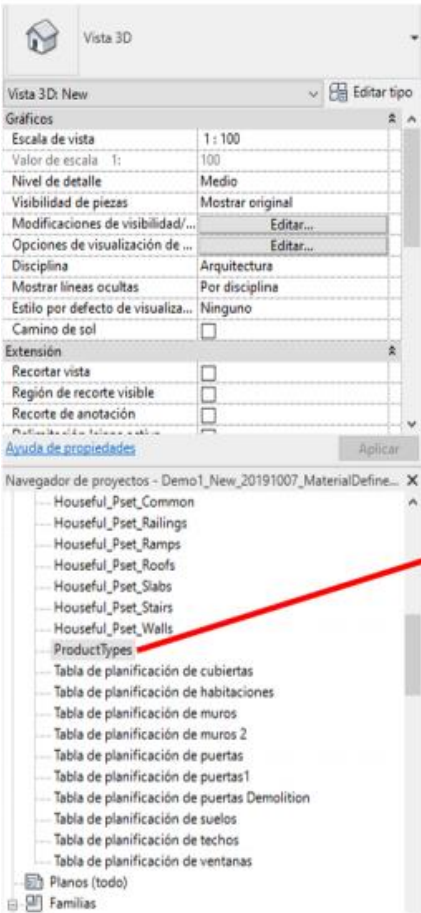


Figure 2.17: Validation of Base Quantities from elements of the same type in New model from Demo 1.



Muro básico: Hf_FacadeInteriorPaneling_Plasterboad	Plasterboad	0.061	4.816
Muro básico: Hf_FacadeInteriorPaneling_Plasterboad	acrylic	0.000	4.816
Muro básico: Hf_FacadeInteriorPaneling_Plasterboad	Mineral wool	0.291	4.816
Muro básico: Hf_FacadeInteriorPaneling_Plasterboad	Plasterboad	0.131	10.505
Muro básico: Hf_FacadeInteriorPaneling_Plasterboad	acrylic	0.000	10.505
Muro básico: Hf_FacadeInteriorPaneling_Plasterboad	Mineral wool	0.631	10.505
Muro básico: Hf_FacadeInteriorPaneling_Plasterboad	Plasterboad	0.065	5.156
Muro básico: Hf_FacadeInteriorPaneling_Plasterboad	acrylic	0.000	5.156
Muro básico: Hf_FacadeInteriorPaneling_Plasterboad	Mineral wool	0.311	5.156
Muro básico: Hf_FacadeInteriorPaneling_Plasterboad	Plasterboad	0.158	12.633
Muro básico: Hf_FacadeInteriorPaneling_Plasterboad	acrylic	0.000	12.633
Muro básico: Hf_FacadeInteriorPaneling_Plasterboad	Mineral wool	0.757	12.633
Muro básico: Hf_MultilayerFacadeWall_Etics	Hf_Cement mortar	0.762	190.450
Muro básico: Hf_MultilayerFacadeWall_Etics	ABS polymers	0.952	190.450
Muro básico: Hf_MultilayerFacadeWall_Etics	Mortar	0.000	190.450
Muro básico: Hf_MultilayerFacadeWall_Etics	Glass wool_Brown	1.143	190.450
Muro básico: Hf_MultilayerFacadeWall_Etics	Hf_Cork	15.236	190.450
Muro básico: Hf_MultilayerFacadeWall_Etics	Hf_Cement mortar	0.318	78.985
Muro básico: Hf_MultilayerFacadeWall_Etics	ABS polymers	0.395	79.019
Muro básico: Hf_MultilayerFacadeWall_Etics	Mortar	0.000	79.872
Muro básico: Hf_MultilayerFacadeWall_Etics	Glass wool_Brown	0.473	78.923
Muro básico: Hf_MultilayerFacadeWall_Etics	Hf_Cork	6.356	79.872
Muro básico: Hf_MultilayerFacadeWall_Etics	Hf_Cement mortar	0.759	189.744
Muro básico: Hf_MultilayerFacadeWall_Etics	ABS polymers	0.949	189.744
Muro básico: Hf_MultilayerFacadeWall_Etics	Mortar	0.000	189.744



Quantity take-offs



MaterialImport_Demo1

Material Passport



Product Types Compositions



Figure 2.27: Madaster Building tab for Demo 1.

TCQi GMA datos a nivel ciudad

GEH Arxiu Obra Crear obra Recàlcul Laura

NOM DE L'OBRA

INFORMACIÓ

- DISTRICTE
- SMART CITY
 - DISTRICTE
 - DISTRICTE
 - DISTRICTE
 - DISTRICTE
 - DISTRICTE

co₂ ↑

Stage	CO ₂ Emissions (approx.)
Product	2,600,000
Construction	400,000
Use	1,600,000
End of life	200,000

CESIUM Helsinki 3D+ Imprint | Data privacy

¡Gracias!

Licinio Alfaro
lalfaro@itec.cat

