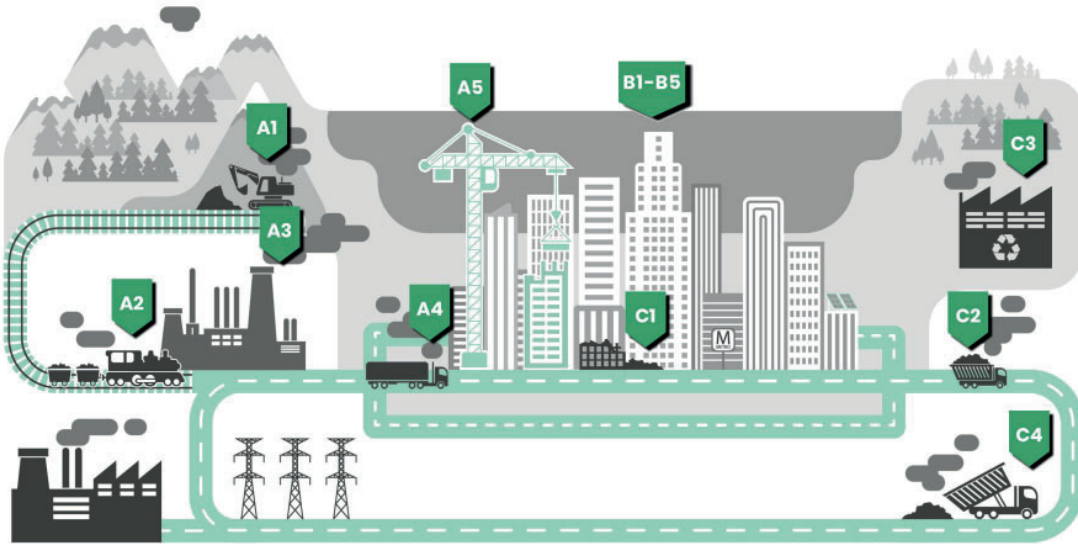


# A 01 CONFINI DELL'ANALISI



## A1- A3 Product stage

- A1 Raw material extraction
- A2 Transport to manufacturing site
- A3 Manufacturing

## A4 - A5 Construction stage

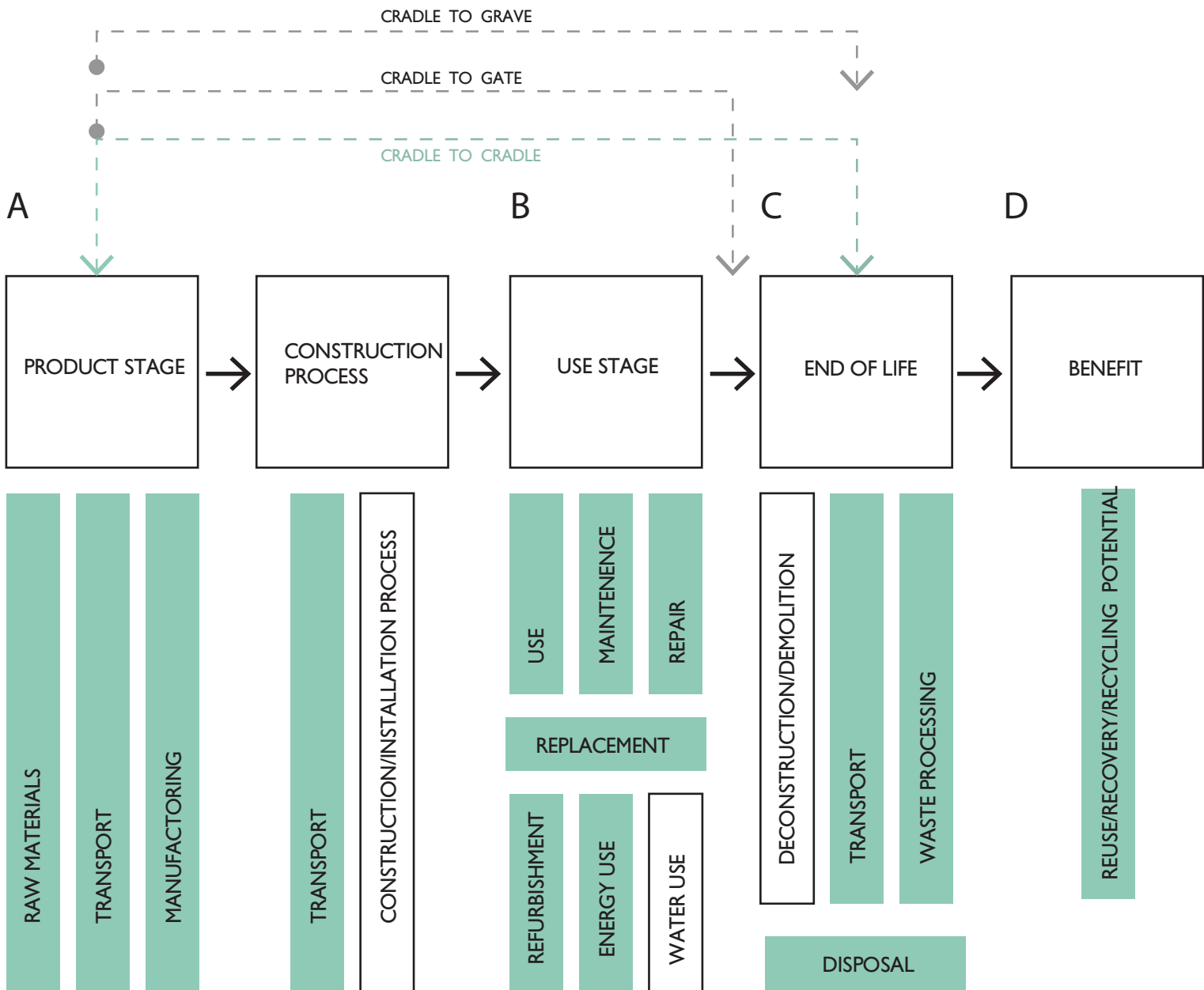
- A4 Transport to construction site
- A5 Installation / Assembly

## B1-B5 Use stage

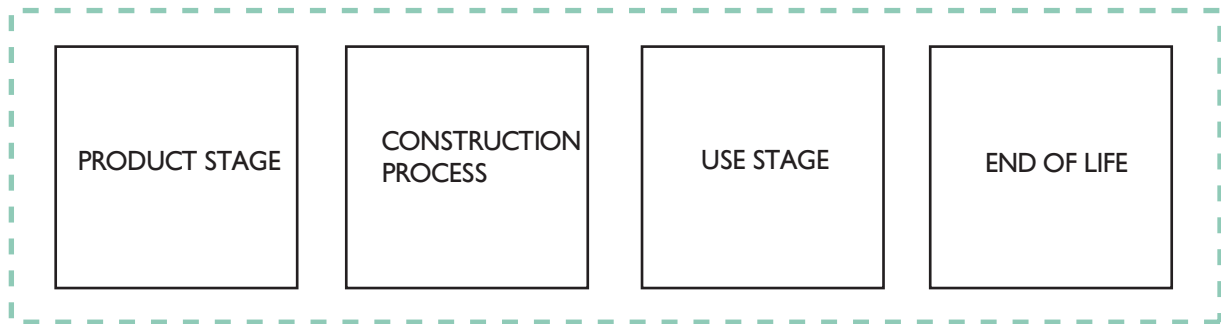
- B1 Use
- B2 Maintenance
- B3 Repair
- B4 Replacement
- B5 Refurbishment

## C1- C4 End of life stage

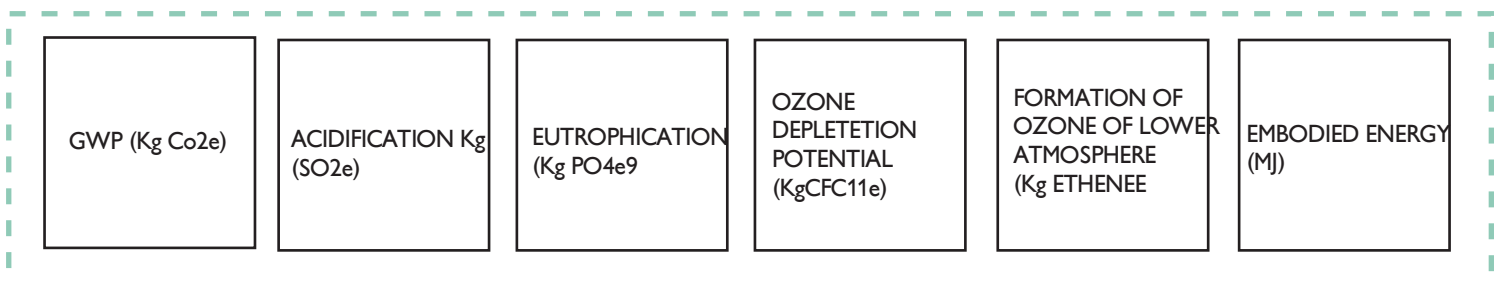
- C1 Deconstruction & demolition
- C2 Transport
- C3 Waste processing
- C4 Disposal




## INPUT

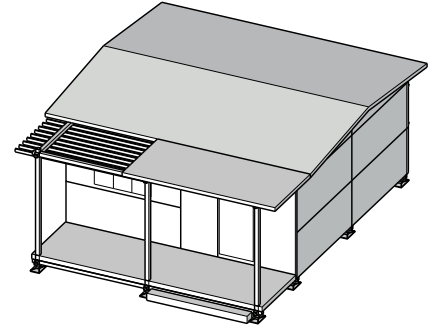


## OUTPUT



# A 03 LCA REVERSO

| Cradle to grave (A1-A4, B4-B5, C1-C4) | kg CO <sub>2</sub> e/m <sup>2</sup>                                               |
|---------------------------------------|-----------------------------------------------------------------------------------|
| (< 250) <b>A</b>                      |  |
| (250-340) <b>B</b>                    |                                                                                   |
| (340-430) <b>C</b>                    |                                                                                   |
| (430-520) <b>D</b>                    |                                                                                   |
| (520-610) <b>E</b>                    |                                                                                   |
| (610-700) <b>F</b>                    |                                                                                   |
| (> 700) <b>G</b>                      |                                                                                   |



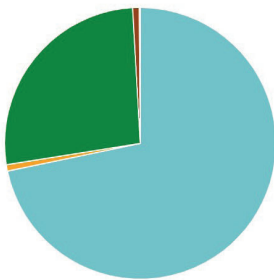
## Entity use Project n: Design n: Indicator name

Federico E Reverso 3 - Revers Life-cycle assessment, EN-15978

| Sezione    | Categoria   | Global wa | Acidificati | Eutrophic | Ozone de | Formator | Total use | Biogenic carbon storage | kg CO <sub>2</sub> e bio |
|------------|-------------|-----------|-------------|-----------|----------|----------|-----------|-------------------------|--------------------------|
| A1-A3      | Constructi  | 5824,45   | 50,51       | 11,96     | 44,02    | 248,81   | 125301,3  | 2188,62                 |                          |
| A4         | Transporta  | 60,21     | 0,28        | 0,06      | 0,000012 | 0,0034   | 1713,94   |                         |                          |
| A4         | Transporta  | 60,21     | 0,28        | 0,06      | 0,000012 | 0,0034   | 1713,94   |                         |                          |
| A4-leg2    | Transporta  |           |             |           |          |          |           |                         |                          |
| A5         | Constructi  |           |             |           |          |          |           |                         |                          |
| B1-B5      | Maintenan   |           |             |           |          |          |           |                         |                          |
| B6         | Energy use  | 2160,18   | 8,05        | 1,62      | 0,00017  | 0,33     | 37691,19  |                         |                          |
| B7         | Water use   |           |             |           |          |          |           |                         |                          |
| C1-C4      | End of life | 73,38     | 0,37        | 0,087     | 0,000014 | 0,0061   | 1953,36   |                         |                          |
| C1         | Deconstru   |           |             |           |          |          |           |                         |                          |
| C2         | Waste trar  | 65,48     | 0,3         | 0,066     | 0,000013 | 0,0037   | 1863,94   |                         |                          |
| C3         | Waste pro   | 7,04      | 0,061       | 0,02      | 5,6E-07  | 0,0022   | 76,89     |                         |                          |
| C4         | Waste dis   | 0,85      | 0,0063      | 0,0013    | 1,5E-07  | 0,00017  | 12,53     |                         |                          |
| D          | External in | -5391,54  | -51,28      | -11,82    | -51,37   | -289,91  | -120612   |                         |                          |
| A5m-bene   | Constructi  |           |             |           |          |          |           |                         |                          |
| A5-benefit | Constructi  | -337,1    | -3,51       | -0,86     | -7,35    | -41,37   | -10203,4  | -124,56                 |                          |
| D2         | Exported e  |           |             |           |          |          |           |                         |                          |
| D          | Installed M | -5054,44  | -47,77      | -10,96    | -44,02   | -248,55  | -110408   | -1373,3                 |                          |

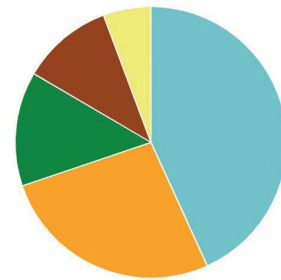
### Global warming kg CO<sub>2</sub>e - Fasi del Life-Cycle

- A1-A3 Materials - 71.7%
- B6 Energy - 26.6%
- C3 Waste processing - 0.1%
- A4 Transportation - 0.7%
- C2 Waste transportation - 0.8%
- C4 Waste disposal - 0.0%



### Global warming kg CO<sub>2</sub>e - Classificazioni

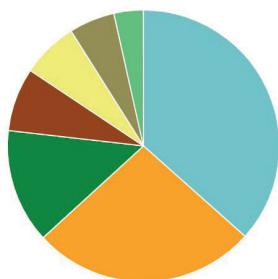
- Solai, soffitti, coperture, travi e tetti - 43.2%
- Uso di energia elettrica - 26.6%
- Finestre e porte - 13.6%
- Muri esterni e facciata - 10.9%
- Pilastrini e strutture verticali portanti - 5.7%



### Global warming kg CO<sub>2</sub>e - Tipi di risorsa

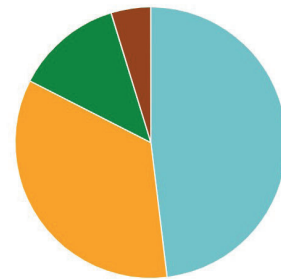
Questo è un grafico delle analisi svolte. Clicca sul grafico per visualizzare i dettagli

- metal - 36.6%
- doors/windows - 13.6%
- insulation - 6.7%
- flooring - 3.5%
- utilities - 26.6%
- wood - 7.6%
- gypsum/plaster/cement - 5.5%

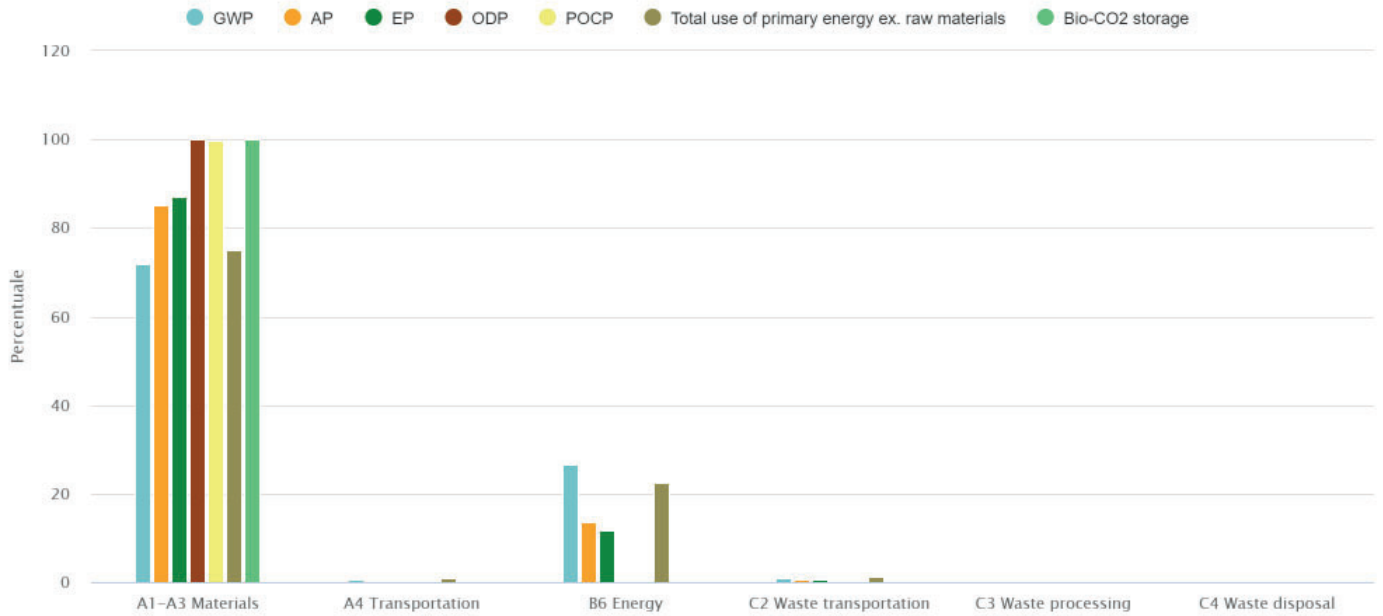


### Massa kg - Classificazioni

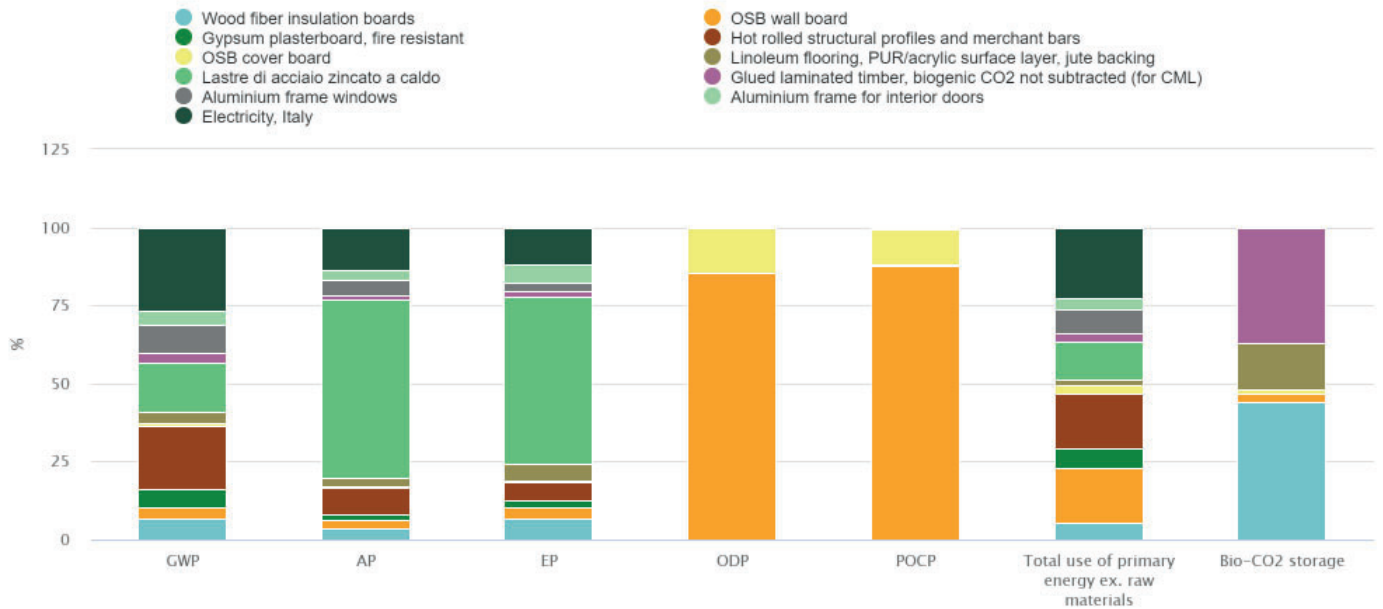
- Solai, soffitti, coperture, travi e tetti - 48.1%
- Muri esterni e facciata - 34.4%
- Finestre e porte - 12.8%
- Pilastrini e strutture verticali portanti - 4.7%



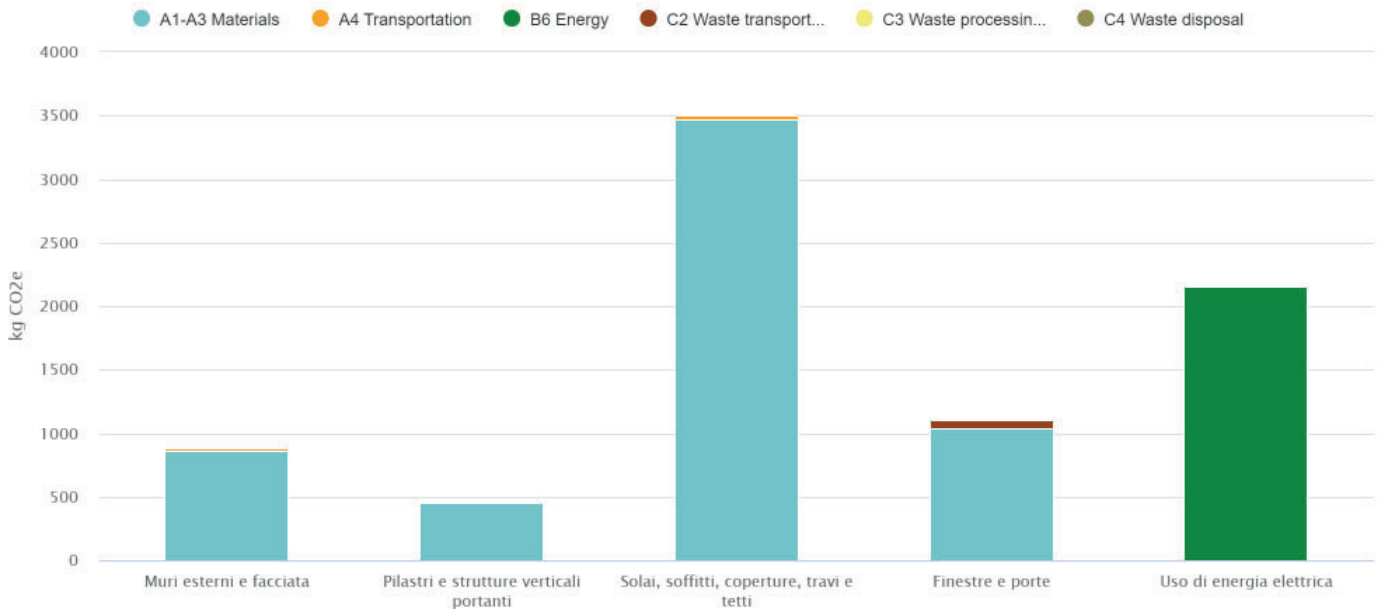
## Risultati per fase life-cycle



## Impatti del ciclo di vita di ogni materiale in colonne sovrapposte



## Global warming (GWP) raggruppa per classification ripartizione



Entity use Project n° Design na Indicator name

Federico E Reverso 3 - Revers Life-cycle assessment, EN-15978

| Sezione | Risorsa      | Input uter | Unità | Global wa      | Acidificati  | Eutrophic   | Ozone de        | Formatior     | Total use       | Biogenic       | Domanda             | Spessore |
|---------|--------------|------------|-------|----------------|--------------|-------------|-----------------|---------------|-----------------|----------------|---------------------|----------|
| B6      | Electricity, | 2137       | kWh   | 2160,18        | 8,05         | 1,62        | 0,00017         | 0,33          | 37691,19        |                | Uso di ene          |          |
|         |              |            |       | <b>2160,18</b> | <b>8,05</b>  | <b>1,62</b> | <b>0,00017</b>  | <b>0,33</b>   | <b>37691,19</b> |                | <b>Uso di ene</b>   |          |
| A1-A3   | Hot rolled : | 0,08       | m3    | 455,93         | 1,34         | 0,21        | 0,000042        | 0,085         | 8128,96         | 0              | Pilastr e s         |          |
| A4      | Hot rolled : | 0,08       | m3    | 4,57           | 0,021        | 0,0046      | 9E-07           | 0,00026       | 130,06          |                | Pilastr e s         |          |
|         |              |            |       | <b>460,5</b>   | <b>1,36</b>  | <b>0,21</b> | <b>0,000043</b> | <b>0,085</b>  | <b>8259,02</b>  |                | <b>Pilastr e s</b>  |          |
| A1-A3   | Wood fiber   | 12,82      | m2    | 23,44          | 0,088        | 0,041       | 1,9E-06         | 0,012         | 386,37          | 41,54          | Muri estern         | 40       |
| A1-A3   | OSB wall t   | 12,82      | m2    | 9,54           | 0,052        | 0,015       | 1,18            | 6,82          | 910,2           | 2,05           | Muri estern         | 12       |
| A1-A3   | Gypsum p     | 12,82      | m2    | 29,33          | 0,068        | 0,02        | 4,5E-07         | 0,0021        | 662,64          | 0              | Muri estern         | 13       |
| A1-A3   | Gypsum p     | 12,82      | m2    | 15,79          | 0,037        | 0,011       | 2,4E-07         | 0,0011        | 356,81          | 0              | Muri estern         | 7        |
| A1-A3   | Wood fiber   | 18,58      | m2    | 33,97          | 0,13         | 0,059       | 2,7E-06         | 0,018         | 559,97          | 60,2           | Muri estern         | 40       |
| A1-A3   | OSB wall t   | 18,58      | m2    | 13,83          | 0,075        | 0,022       | 1,71            | 9,89          | 1319,16         | 2,98           | Muri estern         | 12       |
| A1-A3   | Gypsum p     | 18,58      | m2    | 42,51          | 0,099        | 0,029       | 6,6E-07         | 0,0031        | 960,36          | 0              | Muri estern         | 13       |
| A1-A3   | Gypsum p     | 18,58      | m2    | 22,89          | 0,053        | 0,016       | 3,5E-07         | 0,0017        | 517,12          | 0              | Muri estern         | 7        |
| A1-A3   | Wood fiber   | 86,27      | m2    | 157,74         | 0,59         | 0,27        | 0,000013        | 0,083         | 2600,04         | 279,51         | Muri estern         | 40       |
| A1-A3   | Wood fiber   | 86,27      | m2    | 157,74         | 0,59         | 0,27        | 0,000013        | 0,083         | 2600,04         | 279,51         | Muri estern         | 40       |
| A1-A3   | Gypsum p     | 86,27      | m2    | 197,39         | 0,46         | 0,13        | 3,1E-06         | 0,014         | 4459,12         | 0              | Muri estern         | 13       |
| A1-A3   | OSB wall t   | 172,54     | m2    | 160,53         | 0,87         | 0,25        | 19,82           | 114,82        | 15312,65        | 34,55          | Muri estern         | 15       |
| A4      | Wood fiber   | 12,82      | m2    | 0,029          | 0,00014      | 0,00003     | 5,8E-09         | 1,7E-06       | 0,84            |                | Muri estern         | 40       |
| A4      | OSB wall t   | 12,82      | m2    | 0,19           | 0,00085      | 0,00019     | 3,7E-08         | 0,00001       | 5,28            |                | Muri estern         | 12       |
| A4      | Gypsum p     | 12,82      | m2    | 1,39           | 0,0064       | 0,0014      | 2,8E-07         | 0,000079      | 39,63           |                | Muri estern         | 13       |
| A4      | Gypsum p     | 12,82      | m2    | 0,75           | 0,0035       | 0,00075     | 1,5E-07         | 0,000042      | 21,34           |                | Muri estern         | 7        |
| A4      | Wood fiber   | 18,58      | m2    | 0,043          | 0,0002       | 0,000043    | 8,4E-09         | 2,4E-06       | 1,22            |                | Muri estern         | 40       |
| A4      | OSB wall t   | 18,58      | m2    | 0,27           | 0,0012       | 0,00027     | 5,3E-08         | 0,000015      | 7,66            |                | Muri estern         | 12       |
| A4      | Gypsum p     | 18,58      | m2    | 2,02           | 0,0093       | 0,002       | 4E-07           | 0,00011       | 57,44           |                | Muri estern         | 13       |
| A4      | Gypsum p     | 18,58      | m2    | 1,09           | 0,005        | 0,0011      | 2,1E-07         | 0,000061      | 30,93           |                | Muri estern         | 7        |
| A4      | Wood fiber   | 86,27      | m2    | 0,2            | 0,00091      | 0,0002      | 3,9E-08         | 0,000011      | 5,64            |                | Muri estern         | 40       |
| A4      | Wood fiber   | 86,27      | m2    | 0,2            | 0,00091      | 0,0002      | 3,9E-08         | 0,000011      | 5,64            |                | Muri estern         | 40       |
| A4      | Gypsum p     | 86,27      | m2    | 9,37           | 0,043        | 0,0094      | 1,9E-06         | 0,00053       | 266,69          |                | Muri estern         | 13       |
| A4      | OSB wall t   | 172,54     | m2    | 3,12           | 0,014        | 0,0031      | 6,2E-07         | 0,00018       | 88,86           |                | Muri estern         | 15       |
|         |              |            |       | <b>883,37</b>  | <b>3,21</b>  | <b>1,17</b> | <b>22,71</b>    | <b>131,75</b> | <b>31175,65</b> | <b>700,34</b>  | <b>Muri ester</b>   |          |
| A1-A3   | Hot rolled : | 0,02       | m3    | 113,98         | 0,34         | 0,052       | 0,00001         | 0,021         | 2032,24         | 0              | Solai, soffi        |          |
| A1-A3   | Hot rolled : | 0,19       | m3    | 1082,83        | 3,19         | 0,49        | 0,000099        | 0,2           | 19306,27        | 0              | Solai, soffi        |          |
| A1-A3   | Glued lam    | 1,09       | m3    | 230,29         | 0,58         | 0,2         | 1,2E-07         | 0,071         | 4109,3          | 815,32         | Solai, soffi        |          |
| A1-A3   | OSB cover    | 5,54       | m2    | 2,23           | 0,014        | 0,0039      | 0,25            | 1,14          | 152,47          | 1,19           | Solai, soffi        | 12       |
| A1-A3   | Gypsum p     | 5,54       | m2    | 11,7           | 0,027        | 0,008       | 1,8E-07         | 0,00085       | 264,32          | 0              | Solai, soffi        | 12       |
| A1-A3   | Lastre di a  | 5,54       | m2    | 142,09         | 3,72         | 0,81        | 0,000013        | 0,052         | 2179,67         | 0              | Solai, soffi        | 2        |
| A1-A3   | Linoleum f   | 10,38      | m2    | 50,82          | 0,29         | 0,13        | 1,9E-11         | 0,013         | 580,24          | 56,89          | Solai, soffi        | 2,5      |
| A1-A3   | OSB wall t   | 20,77      | m2    | 15,46          | 0,084        | 0,024       | 1,91            | 11,06         | 1474,64         | 3,33           | Solai, soffi        | 12       |
| A1-A3   | Wood fiber   | 44,96      | m2    | 82,21          | 0,31         | 0,14        | 6,5E-06         | 0,043         | 1355,02         | 145,67         | Solai, soffi        | 40       |
| A1-A3   | Gypsum p     | 44,96      | m2    | 102,87         | 0,24         | 0,07        | 1,6E-06         | 0,0075        | 2323,89         | 0              | Solai, soffi        | 13       |
| A1-A3   | Lastre di a  | 44,96      | m2    | 1153,17        | 30,16        | 6,56        | 0,00011         | 0,42          | 17689,15        | 0              | Solai, soffi        | 2        |
| A1-A3   | Wood fiber   | 47,47      | m2    | 86,8           | 0,33         | 0,15        | 6,9E-06         | 0,046         | 1430,67         | 153,8          | Solai, soffi        | 40       |
| A1-A3   | Linoleum f   | 47,47      | m2    | 232,41         | 1,31         | 0,58        | 8,8E-11         | 0,059         | 2653,57         | 260,18         | Solai, soffi        | 2,5      |
| A1-A3   | OSB cover    | 134,88     | m2    | 54,34          | 0,33         | 0,094       | 6,07            | 27,68         | 3712,16         | 29,07          | Solai, soffi        | 12       |
| A1-A3   | OSB wall t   | 142,42     | m2    | 106,01         | 0,58         | 0,17        | 13,09           | 75,82         | 10111,64        | 22,81          | Solai, soffi        | 12       |
| A4      | Hot rolled : | 0,02       | m3    | 1,14           | 0,0053       | 0,0011      | 2,3E-07         | 0,000064      | 32,51           |                | Solai, soffi        |          |
| A4      | Hot rolled : | 0,19       | m3    | 10,85          | 0,05         | 0,011       | 2,1E-06         | 0,00061       | 308,89          |                | Solai, soffi        |          |
| A4      | Glued lam    | 1,09       | m3    | 4,32           | 0,02         | 0,0043      | 8,5E-07         | 0,00024       | 122,85          |                | Solai, soffi        |          |
| A4      | OSB cover    | 5,54       | m2    | 0,08           | 0,00037      | 0,00008     | 1,6E-08         | 4,5E-06       | 2,28            |                | Solai, soffi        | 12       |
| A4      | Gypsum p     | 5,54       | m2    | 0,56           | 0,0026       | 0,00056     | 1,1E-07         | 0,000031      | 15,81           |                | Solai, soffi        | 12       |
| A4      | Lastre di a  | 5,54       | m2    | 0,67           | 0,0031       | 0,00067     | 1,3E-07         | 0,000038      | 18,96           |                | Solai, soffi        | 2        |
| A4      | Linoleum f   | 10,38      | m2    | 0,013          | 0,000058     | 0,000013    | 2,5E-09         | 7,1E-07       | 0,36            |                | Solai, soffi        | 2,5      |
| A4      | OSB wall t   | 20,77      | m2    | 0,3            | 0,0014       | 0,0003      | 5,9E-08         | 0,000017      | 8,56            |                | Solai, soffi        | 12       |
| A4      | Wood fiber   | 44,96      | m2    | 0,1            | 0,00048      | 0,0001      | 2E-08           | 5,8E-06       | 2,94            |                | Solai, soffi        | 40       |
| A4      | Gypsum p     | 44,96      | m2    | 4,88           | 0,022        | 0,0049      | 9,6E-07         | 0,00028       | 138,99          |                | Solai, soffi        | 13       |
| A4      | Lastre di a  | 44,96      | m2    | 5,41           | 0,025        | 0,0054      | 1,1E-06         | 0,0003        | 153,88          |                | Solai, soffi        | 2        |
| A4      | Wood fiber   | 47,47      | m2    | 0,11           | 0,0005       | 0,00011     | 2,2E-08         | 6,1E-06       | 3,1             |                | Solai, soffi        | 40       |
| A4      | Linoleum f   | 47,47      | m2    | 0,058          | 0,00027      | 0,000058    | 1,1E-08         | 3,3E-06       | 1,65            |                | Solai, soffi        | 2,5      |
| A4      | OSB cover    | 134,88     | m2    | 1,95           | 0,009        | 0,002       | 3,9E-07         | 0,00011       | 55,57           |                | Solai, soffi        | 12       |
| A4      | OSB wall t   | 142,42     | m2    | 2,06           | 0,0095       | 0,0021      | 4,1E-07         | 0,00012       | 58,68           |                | Solai, soffi        | 12       |
|         |              |            |       | <b>3499,7</b>  | <b>41,65</b> | <b>9,51</b> | <b>21,31</b>    | <b>116,63</b> | <b>70300,32</b> | <b>1488,28</b> | <b>Solai, soffi</b> |          |

# A 04 LCA SAE EULERO

| Cradle to grave (A1-A4, B4-B5, C1-C4) | kg CO <sub>2e</sub> /m <sup>2</sup> |
|---------------------------------------|-------------------------------------|
| (< 250) A                             |                                     |
| (250-340) B                           |                                     |
| (340-430) C                           |                                     |
| (430-520) D                           |                                     |
| (520-610) E                           |                                     |
| (610-700) F                           | 635                                 |
| (> 700) G                             |                                     |



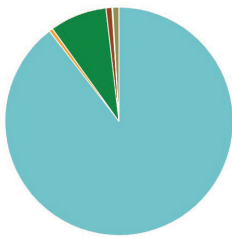
## Entity use Project naDesign naIndicator name

Federico EReverso 7 - SAE E Life-cycle assessment, EN-15978

| Sezione    | Categoria   | Global wa | Acidificati | Eutrophic | Ozone de | Formator | Total use | Biogenic carbon storage kg CQe bio |
|------------|-------------|-----------|-------------|-----------|----------|----------|-----------|------------------------------------|
| A1-A3      | Constructi  | 24348,94  | 93,46       | 18,98     | 0,025    | 10,64    | 373364,6  | 1596,48                            |
| A4         | Transporta  | 144,77    | 0,67        | 0,15      | 0,000029 | 0,0082   | 4120,89   |                                    |
| A4         | Transporta  | 144,77    | 0,67        | 0,15      | 0,000029 | 0,0082   | 4120,89   |                                    |
| A4-leg2    | Transporta  |           |             |           |          |          |           |                                    |
| A5         | Constructi  |           |             |           |          |          |           |                                    |
| B1-B5      | Maintenan   |           |             |           |          |          |           |                                    |
| B6         | Energy use  | 2196,57   | 8,18        | 1,65      | 0,00017  | 0,34     | 38326,14  |                                    |
| B7         | Water use   |           |             |           |          |          |           |                                    |
| C1-C4      | End of life | 500,09    | 1,43        | 0,33      | 0,00005  | 0,03     | 15187,97  |                                    |
| C1         | Deconstru   |           |             |           |          |          |           |                                    |
| C2         | Waste trar  | 232,32    | 1,06        | 0,23      | 0,000046 | 0,014    | 10624,18  |                                    |
| C3         | Waste proi  | 29,66     | 0,24        | 0,068     | 2,9E-06  | 0,0095   | 473,21    |                                    |
| C4         | Waste dis   | 238,11    | 0,13        | 0,029     | 9,8E-07  | 0,0068   | 4090,58   |                                    |
| D          | External in | -10480,8  | -42,06      | -6,15     | -0,00058 | -5,27    | -150182   |                                    |
| A5m-bene   | Constructi  |           |             |           |          |          |           |                                    |
| A5-benefit | Constructi  | -619,15   | -2,36       | -0,33     | -3,5E-05 | -0,24    | -8489,99  | 0                                  |
| D2         | Exported e  |           |             |           |          |          |           |                                    |
| D          | Installed M | -9861,6   | -39,7       | -5,82     | -0,00054 | -5,03    | -141692   | 0                                  |

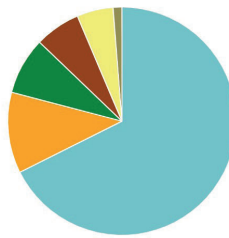
Global warming kg CO<sub>2e</sub> - Fasi del Life-Cycle

- A1-A3 Materials - 89.5%
- B6 Energy - 8.1%
- C3 Waste processing - 0.1%
- A4 Transportation - 0.5%
- C2 Waste transportation - 0.9%
- C4 Waste disposal - 0.9%



Global warming kg CO<sub>2e</sub> - Classificazioni

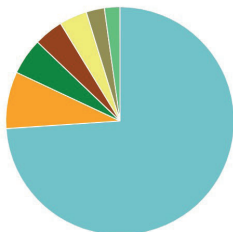
- Solai, soffitti, coperture, travi e tetti - 67.6%
- Muri esterni e facciata - 11.5%
- Uso di energia elettrica - 8.1%
- Pilastri e strutture verticali portanti - 6.4%
- Finestre e porte - 5.1%
- Muri interni e strutture non portanti - 1.2%



Global warming kg CO<sub>2e</sub> - Tipi di risorsa

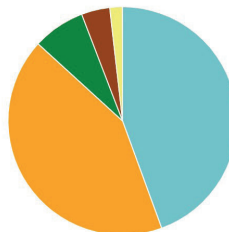
Questo è un grafico delle analisi svolte. Clicca sul grafico per visualizzare i dettagli

- metal - 73.9%
- doors/Windows - 5.1%
- insulation - 3.9%
- flooring - 2.2%
- utilities - 8.1%
- gypsum/Plaster/Cement - 4.1%
- wood - 2.6%

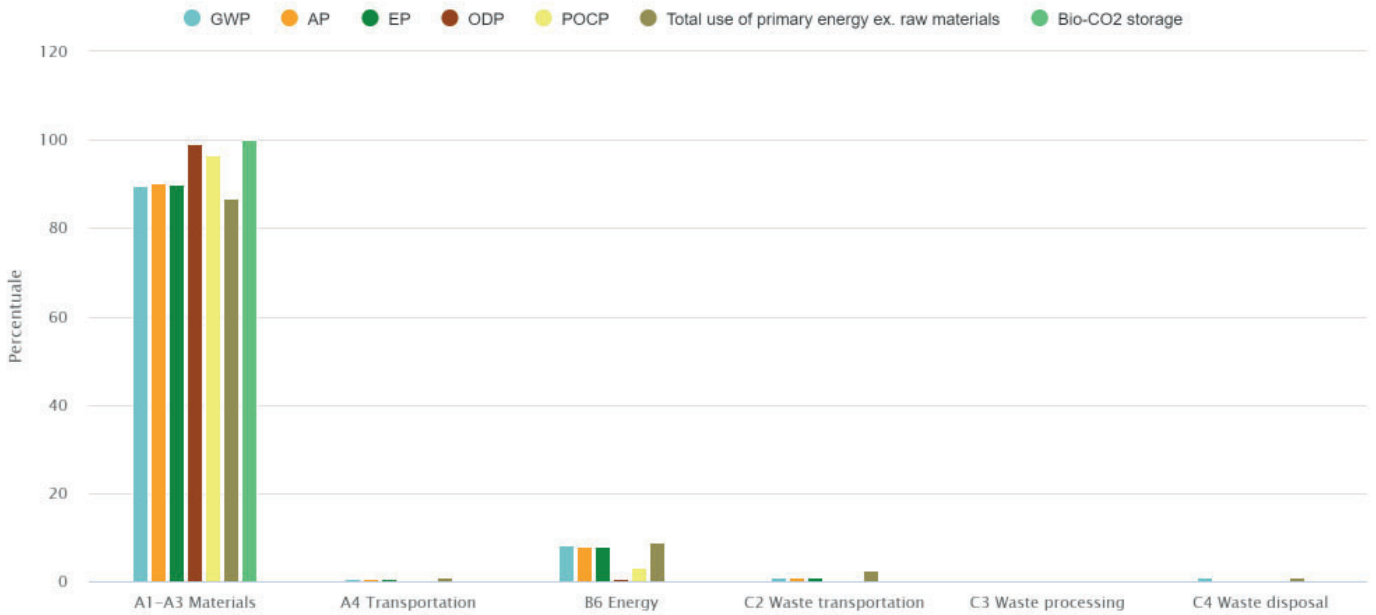


Massa kg - Classificazioni

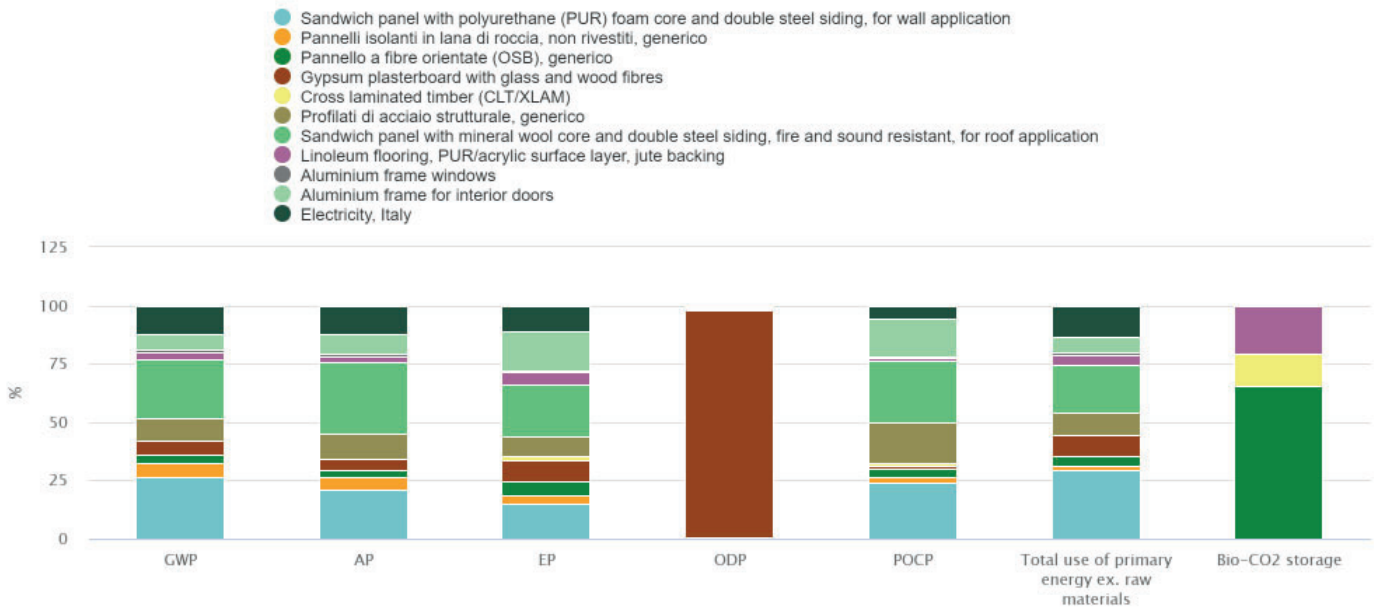
- Solai, soffitti, coperture, travi e tetti - 44.4%
- Muri esterni e facciata - 42.4%
- Muri interni e strutture non portanti - 7.4%
- Pilastri e strutture verticali portanti - 4.0%
- Finestre e porte - 1.8%



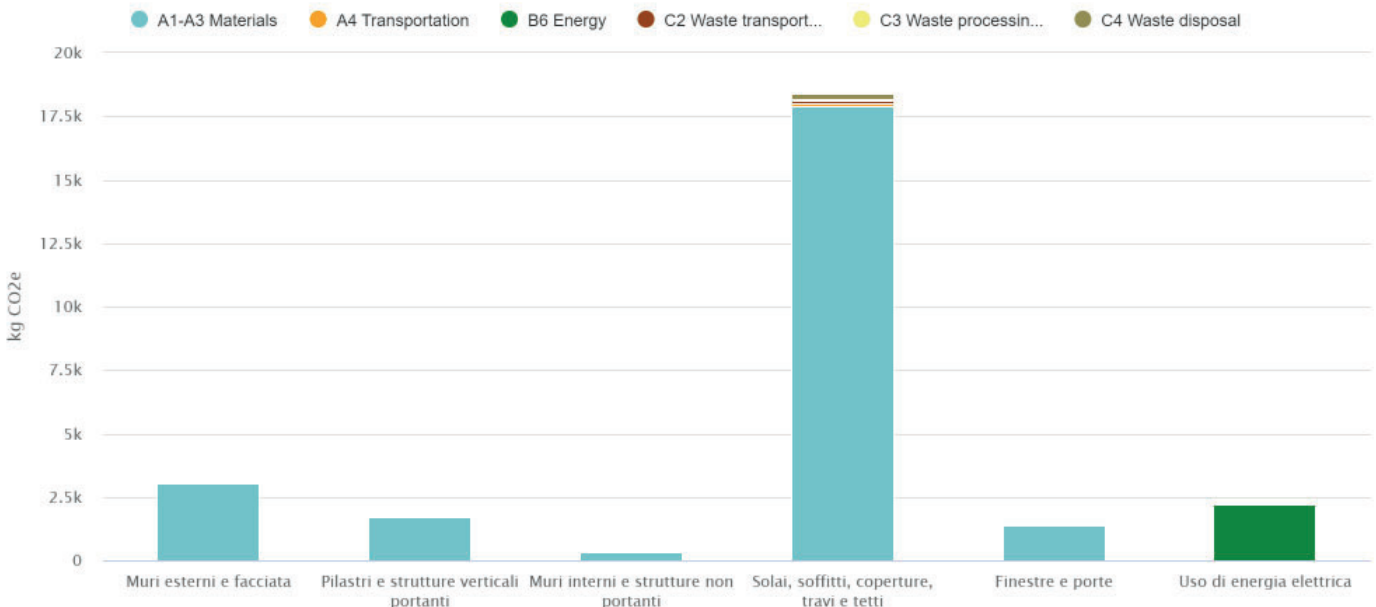
## Risultati per fase life-cycle



## Impatti del ciclo di vita di ogni materiale in colonne sovrapposte



## Global warming (GWP) raggruppata per classificazione ripartizione



Entity use Project n° Design n° Indicator name

Federico E Reverso 7 - SAE E1 Life-cycle assessment, EN-15978

| Sezione | Risorsa      | Input uter Unità | Global wa      | Acidificati  | Eutrophic    | Ozone de        | Formatio     | Total use       | Biogenic      | Domanda             | Spessore |
|---------|--------------|------------------|----------------|--------------|--------------|-----------------|--------------|-----------------|---------------|---------------------|----------|
| B6      | Electricity, | 2173 kWh         | 2196,57        | 8,18         | 1,65         | 0,00017         | 0,34         | 38326,14        |               | Uso di ene          |          |
|         |              |                  | <b>2196,57</b> | <b>8,18</b>  | <b>1,65</b>  | <b>0,00017</b>  | <b>0,34</b>  | <b>38326,14</b> |               | <b>Uso di ene</b>   |          |
| A1-A3   | Profilati di | 0,086 m3         | 1701,72        | 6,88         | 1,22         | 0,0001          | 1            | 26164,02        | 0             | Pilastr e s         |          |
| A1-A3   | Cross lami   | 0,1 m3           | 11,63          | 0,0097       | 0,064        | 1,5E-06         | 0,017        | 97,95           | 49,75         | Pilastr e s         | 200      |
| A4      | Profilati di | 0,086 m3         | 9,56           | 0,044        | 0,0096       | 1,9E-06         | 0,00054      | 272,27          |               | Pilastr e s         |          |
| A4      | Cross lami   | 0,1 m3           | 0,34           | 0,0016       | 0,00034      | 6,7E-08         | 0,000019     | 9,59            |               | Pilastr e s         | 200      |
|         |              |                  | <b>1723,26</b> | <b>6,94</b>  | <b>1,29</b>  | <b>0,0001</b>   | <b>1,02</b>  | <b>26543,83</b> | <b>49,75</b>  | <b>Pilastr e s</b>  |          |
| A1-A3   | Sandwich     | 28,47 m2         | 1141,65        | 3,39         | 0,53         | 0,000014        | 0,33         | 20116,9         | 0             | Muri esterr         | 150      |
| A1-A3   | Pannello a   | 28,47 m2         | 104,65         | 0,33         | 0,14         | 6,1E-06         | 0,033        | 1988,13         | 179,03        | Muri esterr         | 13       |
| A1-A3   | Pannelli is  | 143,87 m2        | 906,83         | 2,85         | 0,42         | 8,6E-06         | 0,13         | 5114,18         | 0             | Muri esterr         | 100      |
| A1-A3   | Gypsum p     | 255,55 m2        | 868,87         | 2,4          | 1,02         | 0,02            | 0,054        | 19166,25        | 0             | Muri esterr         | 12,5     |
| A4      | Sandwich     | 28,47 m2         | 6,33           | 0,029        | 0,0063       | 1,3E-06         | 0,00036      | 180,14          |               | Muri esterr         | 150      |
| A4      | Pannello a   | 28,47 m2         | 2,94           | 0,014        | 0,0029       | 5,8E-07         | 0,00017      | 83,67           |               | Muri esterr         | 13       |
| A4      | Pannelli is  | 143,87 m2        | 1,65           | 0,0076       | 0,0017       | 3,3E-07         | 0,000093     | 47,05           |               | Muri esterr         | 100      |
| A4      | Gypsum p     | 255,55 m2        | 7,1            | 0,033        | 0,0071       | 1,4E-06         | 0,0004       | 202,23          |               | Muri esterr         | 12,5     |
|         |              |                  | <b>3040,02</b> | <b>9,05</b>  | <b>2,13</b>  | <b>0,02</b>     | <b>0,55</b>  | <b>46898,54</b> | <b>179,03</b> | <b>Muri ester</b>   |          |
| A1-A3   | Cross lami   | 0,33 m3          | 38,39          | 0,032        | 0,21         | 4,8E-06         | 0,057        | 323,24          | 164,18        | Solai, soffi        | 200      |
| A1-A3   | Profilati di | 0,35 m3          | 8863,53        | 35,68        | 6,26         | 0,00053         | 5,18         | 137385,6        | 0             | Solai, soffi        |          |
| A1-A3   | Linoleum f   | 46,91 m2         | 356,61         | 1,67         | 0,74         | 1,1E-10         | 0,075        | 4010,81         | 333,67        | Solai, soffi        | 3,2      |
| A1-A3   | Sandwich     | 90,23 m2         | 3618,22        | 10,74        | 1,67         | 0,000045        | 1,06         | 63756,52        | 0             | Solai, soffi        | 150      |
| A1-A3   | Sandwich     | 111,57 m2        | 4518,59        | 20,53        | 3,21         | 0,00011         | 1,54         | 57815,57        | 0             | Solai, soffi        | 80       |
| A1-A3   | Pannello a   | 134,2 m2         | 508,48         | 1,59         | 0,68         | 0,00003         | 0,16         | 9659,85         | 869,85        | Solai, soffi        | 13,4     |
| A4      | Cross lami   | 0,33 m3          | 1,11           | 0,0051       | 0,0011       | 2,2E-07         | 0,000063     | 31,65           |               | Solai, soffi        | 200      |
| A4      | Profilati di | 0,35 m3          | 38,93          | 0,18         | 0,039        | 7,7E-06         | 0,0022       | 1108,07         |               | Solai, soffi        |          |
| A4      | Linoleum f   | 46,91 m2         | 3,19           | 0,015        | 0,0032       | 6,3E-07         | 0,00018      | 90,81           |               | Solai, soffi        | 3,2      |
| A4      | Sandwich     | 90,23 m2         | 20,06          | 0,092        | 0,02         | 0,000004        | 0,0011       | 570,93          |               | Solai, soffi        | 150      |
| A4      | Sandwich     | 111,57 m2        | 34,72          | 0,16         | 0,035        | 6,9E-06         | 0,002        | 988,34          |               | Solai, soffi        | 80       |
| A4      | Pannello a   | 134,2 m2         | 14,28          | 0,066        | 0,014        | 2,8E-06         | 0,00081      | 406,53          |               | Solai, soffi        | 13,4     |
|         |              |                  | <b>18016,1</b> | <b>70,74</b> | <b>12,88</b> | <b>0,00075</b>  | <b>8,08</b>  | <b>276147,9</b> | <b>1367,7</b> | <b>Solai, soffi</b> |          |
| A1-A3   | Pannelli is  | 24,57 m2         | 154,87         | 0,49         | 0,072        | 1,5E-06         | 0,022        | 873,4           | 0             | Muri intern         | 100      |
| A1-A3   | Gypsum p     | 49,14 m2         | 167,08         | 0,46         | 0,2          | 0,0039          | 0,01         | 3685,5          | 0             | Muri intern         | 12,5     |
| A4      | Pannelli is  | 24,57 m2         | 0,28           | 0,0013       | 0,00028      | 5,6E-08         | 0,000016     | 8,03            |               | Muri intern         | 100      |
| A4      | Gypsum p     | 49,14 m2         | 1,37           | 0,0063       | 0,0014       | 2,7E-07         | 0,000077     | 38,89           |               | Muri intern         | 12,5     |
|         |              |                  | <b>323,59</b>  | <b>0,96</b>  | <b>0,27</b>  | <b>0,0039</b>   | <b>0,033</b> | <b>4605,82</b>  |               | <b>Muri inter</b>   |          |
| A1-A3   | Aluminium    | 1,3 m2           | 202,8          | 0,82         | 0,096        | 2,2E-10         | 0,02         | 3541,2          | 0             | Finestre e          |          |
| A1-A3   | Aluminium    | 6,3 unit         | 1185,03        | 5,61         | 2,46         | 0,000076        | 0,94         | 19665,45        | 0             | Finestre e          |          |
| A4      | Aluminium    | 1,3 m2           | 1,48           | 0,0068       | 0,0015       | 2,9E-07         | 0,000083     | 42,07           |               | Finestre e          |          |
| A4      | Aluminium    | 6,3 unit         | 1,43           | 0,0066       | 0,0014       | 2,8E-07         | 0,00008      | 40,62           |               | Finestre e          |          |
|         |              |                  | <b>1390,73</b> | <b>6,44</b>  | <b>2,56</b>  | <b>0,000076</b> | <b>0,97</b>  | <b>23289,34</b> |               | <b>Finestre e</b>   |          |



# A 05 CONFRONTO

