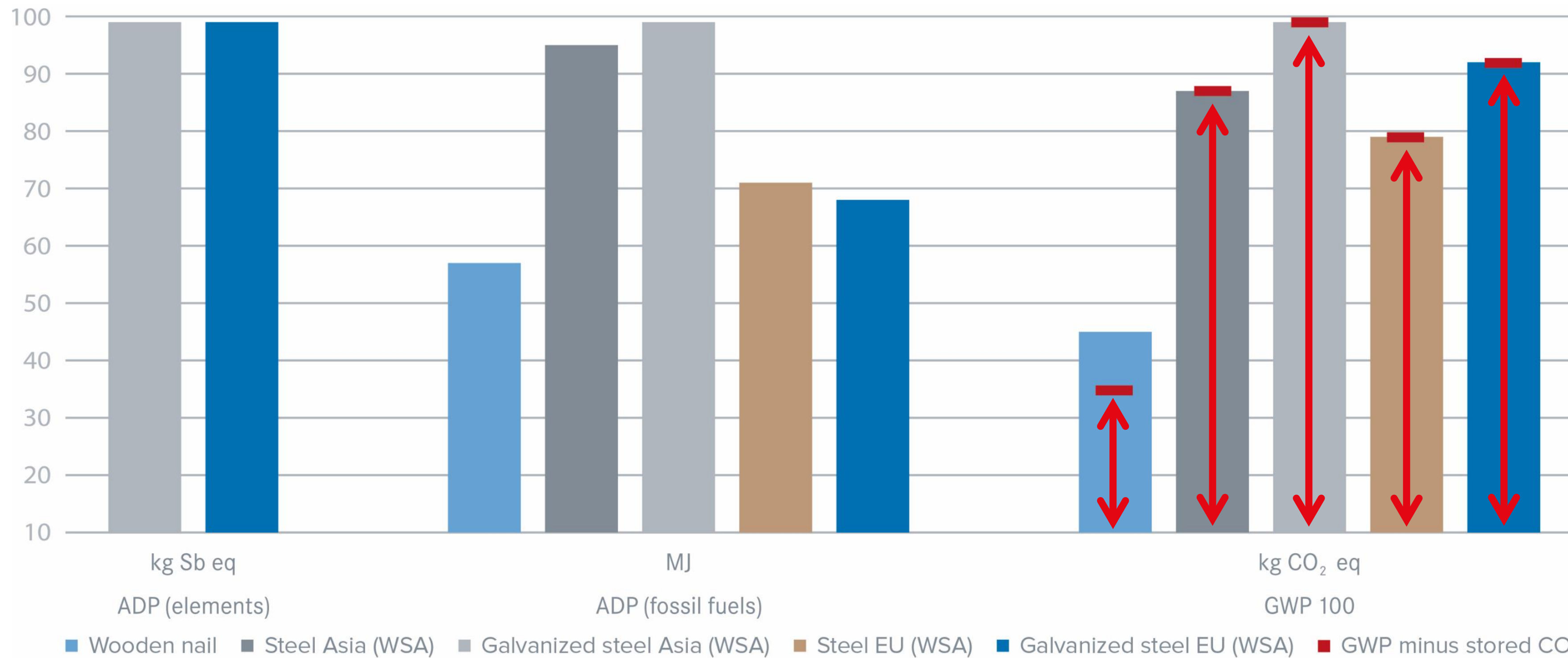


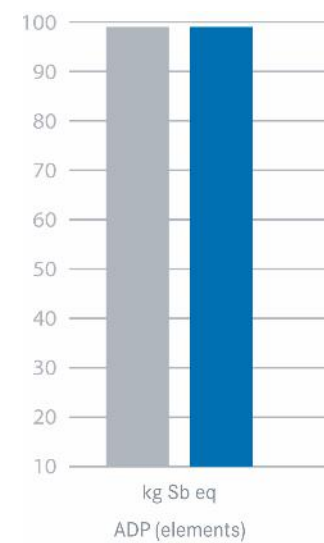
LIFE CYCLE ASSESSMENT (LCA)



Environmental impact of the 3,7 x 50 mm LIGNOLOC® wooden nail in comparison to 2,8 x 50 mm functionally similar steel nail variants from cradle-to-grave excluding use phase.

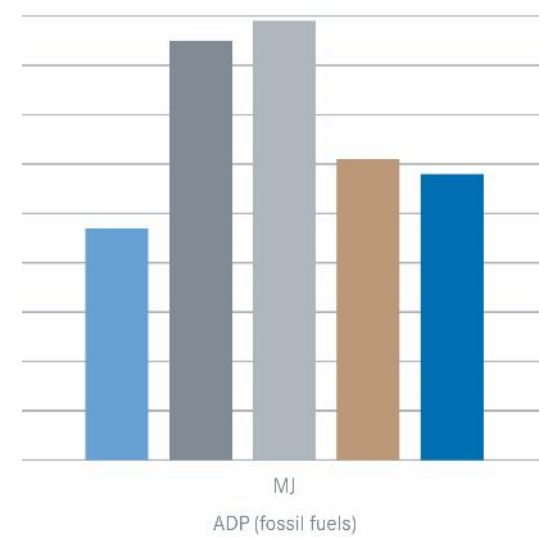
Source: Life Cycle Assessment (LCA) of the LIGNOLOC® wooden nail, April 2019

LIFE CYCLE ASSESSMENT (LCA)



ADP (ELEMENTS):

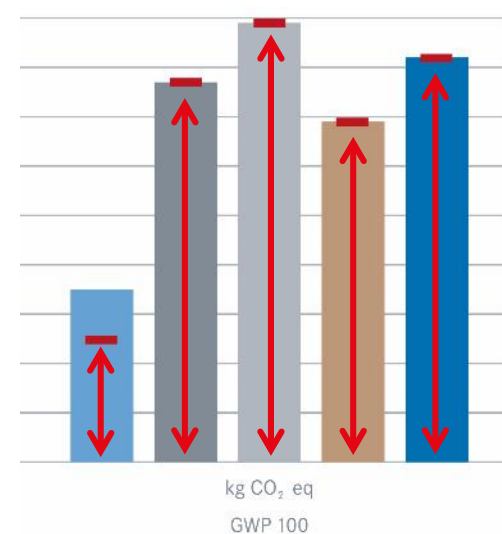
For the production of LIGNOLOC® nails almost no material has to be taken out of the earth crust for the nail production. Galvanized nails have a high impact due to the use of zinc.



ADP (FOSSIL FUELS):

The amount of fossil fuels for LIGNOLOC® is surprising. But the oil that is needed for LIGNOLOC® nails is bonded in the resin not burned for any production process.

The steel nails made of wire rod from Europe have the lowest impact in this category, but only by a small margin in comparison to wooden nails and to steel nails from Asia. Galvanization increases the impact.



GWP 100 (GLOBAL WARMING POTENTIAL OVER 100 YEARS):

Even though the energy demand for LIGNOLOC® is high, the GWP is lower than the GWP of steel nails due to the low amount of burned fossil fuels. The total GWP of LIGNOLOC® can be slashed by 50 % as the wooden nails store CO₂ inside.

WITH LIGNOLOC® THE CO₂ EMISSION CAN BE REDUCED BY 70 %.