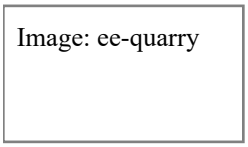
# EE-QUARRY PROJECT

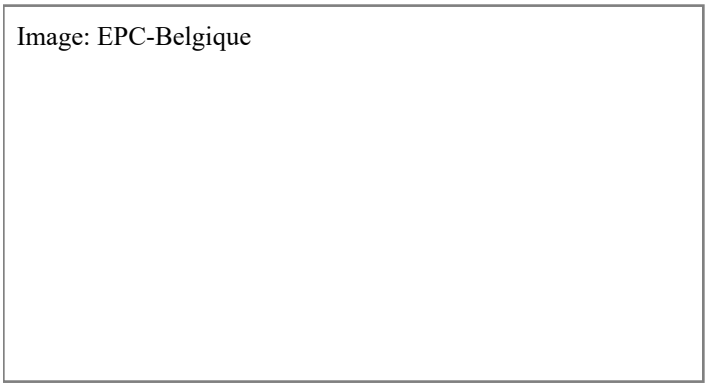
## EPC-France is committed to sustainable development

The issue of green house gas emissions affects all industrial activities. Thus, in order to assist our clients in their CO2 emissions reduction efforts, we are committed to the European project of research and development EE-QUARRY. It aims to quantify and reduce the carbon footprint of production activities in massive rock quarries.


Image: ee-quarry

**In this context, a model for calculating CO2 emissions has been developed for detonation of the explosives. It takes into account the contribution of different activities related to mining :**

- Production and transportation of raw materials for the manufacture of explosives (including ammonium nitrate)
- Manufacturing plant explosives
- Transportation of explosives (from the factory to the depots and then to operating sites)
- Drilling
- Detonation emissions


Image: EPC-Belgique

Embedded in our **EXPERTIR blast design software**, we can instantly calculate for each blast its carbon emission ton blasted.

But our approach does not stop here. The overall reduction in CO2 emissions for open pit mining consists of finding the righ balance between the level of fragmentation after blasting and energy consumption of downstream operations. Thas is why we have linked the design of the blast to a simulation tool for CO2 emission from loading and carrying operations.

Image: ee-blast

**The energy consumption** will depend on the resulting grain size obtained after blasting. This tool allows the optimization the chain by choosing the appropriate fragmentation energy level, which reduces the energy consumption of the whole operation. We were able to demonstrate that energy optimization and reduction of the carbon footprint are associated with productivity.

For further information concerning the CO2 emissions quantifiation tools, please contact us.