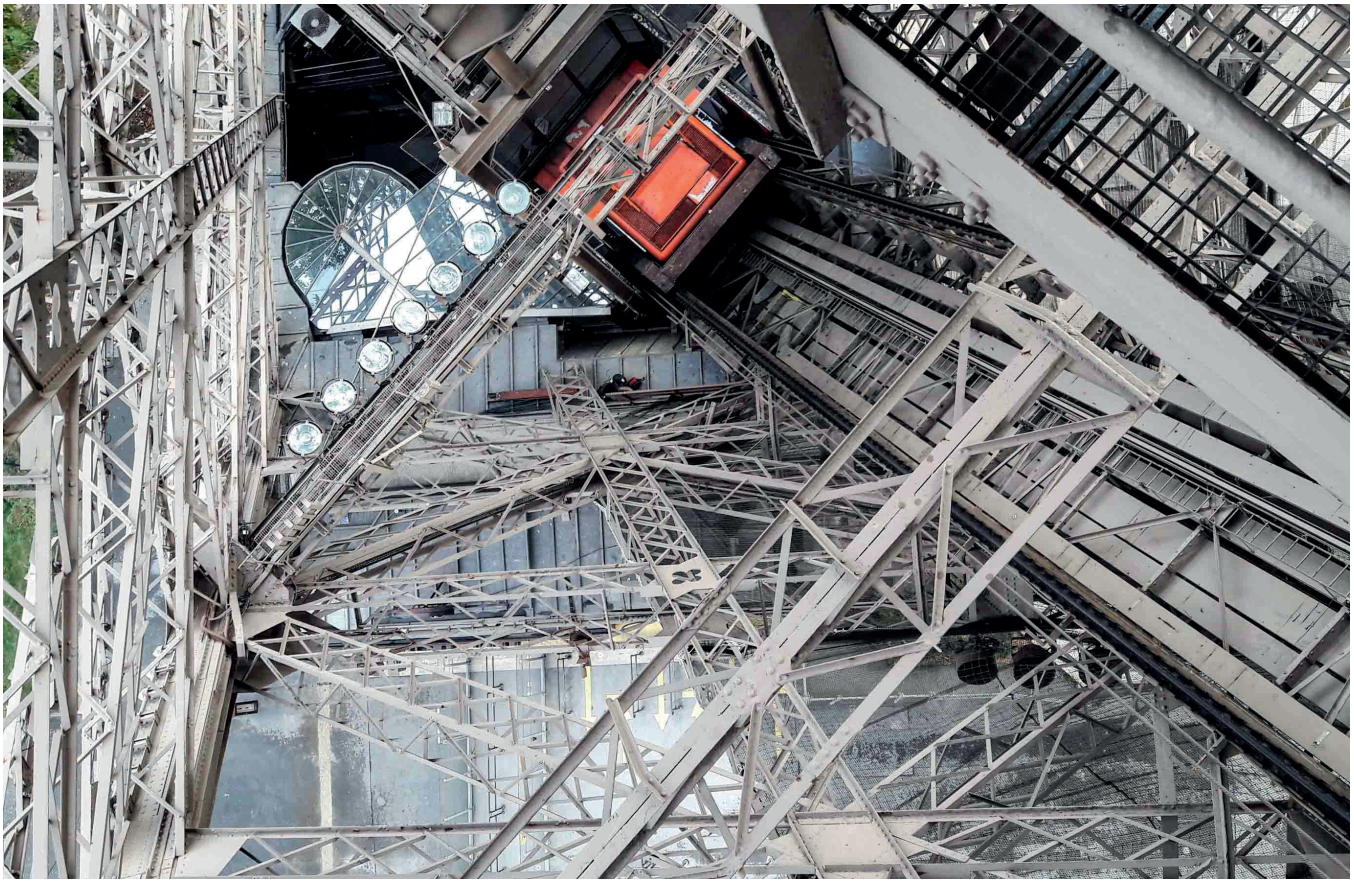
Eiffel Tower - Renovation of the north lift

Champ de Mars, 5 Avenue Anatole France, Paris (FR)

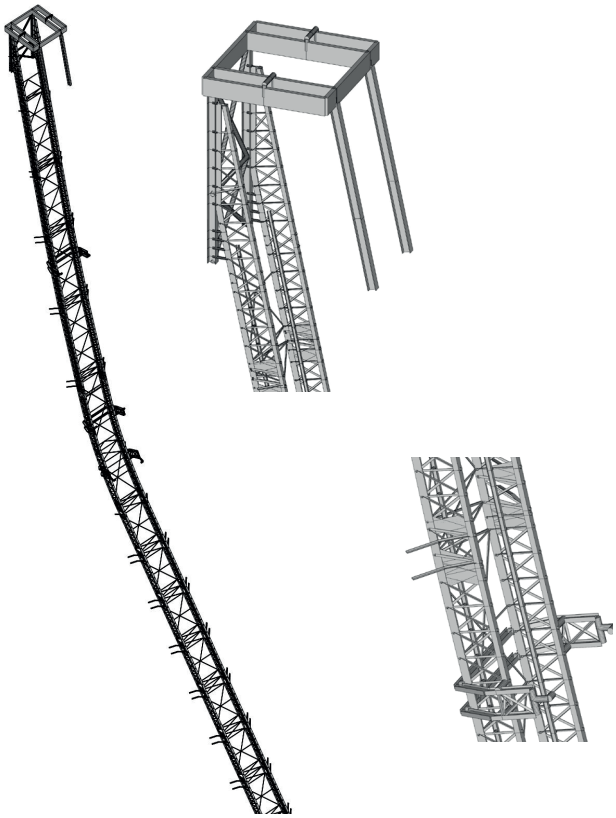
Verification mission of the impact of the modernisation of the north lift on the existing structure

Owner	Cost of the works	Studies	Execution
Société d'Exploitation de la Tour Eiffel (SETE)	€ 25,4 M excl. vat of which € 11,3 M for the works studied	2017 - 2021	2018 - 2025

CM



The north lift at the Eiffel Tower, designed and built in the early 1960s, needs to be modernised to comply with the new standards in force. Bureau greisch is studying the impact of this renovation on the existing structure on behalf of Eiffage Métal.

The project involves replacing the cab, the counterweight track and reinforcing the cab track. While the operating load of the new cab to be installed remains virtually the same, the mechanism will be significantly heavier. Specific fatigue checks are therefore being carried out to measure the new load stresses on the tower.

The track is modelled entirely using FinelG - the calculation programme made in greisch and developed in collaboration with the University of Liège. The particularly complex geometry of the existing structure is also modelled, with all the specific points of attention generated by its history, by previous renovations, by its current state of fatigue and by the material of which it is made. The structure of the North lift is essentially made of puddled iron, the predecessor of steel, which has fallen into disuse, and whose specific properties require particular attention.