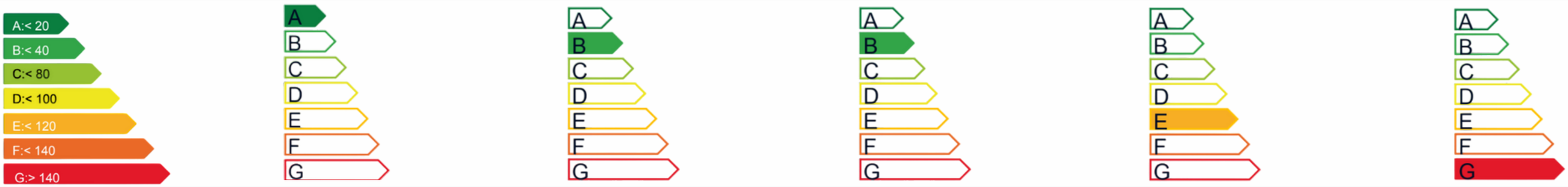
Surveillance

Ultra light fixed-wing drone with electric engine	Ultra-light rotary-wing drone with piston engine	Very light aircraft with piston engine	Very light helicopter with piston engine	Light helicopter with single turbine
				
1 kg CO2	*82 kg CO2*	*84 kg CO2*	*327 kg CO2*	*1217 kg CO2*



In kg of CO2 / flight hour

CO2 emissions multiplied by 1000

Under equal flight conditions * :

3H | **1000 ft** | **Low speed** | **3 kg payload**

*** Each aircraft is capable of carrying the necessary sensors and performing the expected trajectories to record the data with the required accuracy.**

Freight transportation

Mission: 300 km range | Payload: 1 ton or 6 tons

	Very light, soft wing drone with single piston engine	Twin turbine medium-sized aircraft	Twin-turbine heavy aircraft	Single turbine light helicopter	Twin turbine heavy helicopter
					
6 T	*2072 kg CO2 / 16 shifts*	*2604 kg CO2 / 3 shifts*	*3019 kg CO2 / 1 shift*	*6500 kg CO2 / 10 shifts*	*7266 kg CO2 / 2 shifts*
	CO2 emissions multiplied by 3				
1 T	388 kg CO2 / 3 shifts	868 kg CO2 / 1 shift	*3019 kg CO2 / 1 shift*	1300 kg CO2 / 2 shifts	*3633 kg CO2 / 1 shift*
	CO2 emissions multiplied by 10				

In kg of CO2 / ton transported / 100km

Airplanes or drones with vertical and short take-off and landing capability are often less energy-efficient than conventional aircrafts, but enable freight to be brought as close as possible to the final destination when the destination is not an airport. This operational capacity shall be taken into account in the overall calculation of CO2 emissions.

Association du Drone de l'Industrie Française