Cost & Manufacturing:
Real Case Scenario FSF 2026

FORMULA STUDENT FRANCE

23/07/2026

V1.0

Cost & Manufacturing — Part 3 “Real Case” *(25 points)*

1. Title

Supply shock on a critical component of your CCBOM system: a 1,000-unit-per-year series production under constraint.

2. Context

Your team is no longer building a prototype. Your vehicle has entered series production at a fixed volume of 1,000 units per year, with firm delivery commitments already contracted for the next 24 months. Your cost structure, your supplier base and your manufacturing routing are those described in your submitted Cost Report Documents.

At T0, an exporting country introduces an export licensing regime on a family of critical materials and components. The measure is not directed at your company: it applies to an entire commodity class, and it hits every manufacturer using that class simultaneously.

Affected scope: the restriction applies to the 2026 CCBOM system perimeter of your vehicle — Tractive System. Specifically, it covers permanent-magnet material and magnet assemblies (EV), together with any part in your BOM whose primary material belongs to those families.

3. Your mandate

You are the Cost & Manufacturing function of the company. The Executive Committee asks you to handle the issue and, in particular, to tell them how exposed the company is, what realistic options are available, and what each one costs in terms of cost, quality and delivery. What do you recommend? The Executive Committee also wants to be better prepared for this kind of geopolitical disruption in the future.

Assumptions beyond the table in section 4 are yours to make.

4. Scenario assumptions

These figures are given. Do not replace them with your own estimates.

Parameter	Value
Supply availability	0% of pre-crisis volume for months 1–4; 50% from month 5 to month 12; full recovery not guaranteed
Spot price of affected material	+180% at T0, stabilizing at +90% from month 6 onward
Freight on the alternative corridor	+35% cost, +18 days transit time
Production volume	1,000 units/year, unchanged; contractual penalties of 4% per week apply on late delivery