Risk matrix

CERN Procurement Rules

- Art. 6.4 Technical auditing:

"In cases of invitations to tender exceeding 750 000CHF, the user shall prepare a risk matrix to be submitted for discussion to the specification committee and which shall be sent by the chairman to the director concerned."

Example: IT-3577/EN for the provision of electrical installation

	RISK	LIKELIHOOD	IMPACT	DECISION	HOW TO MITIGATE IT
1	Unforeseen high workload	Possible (has already happened)	Major	Mitigation	Discuss with Contractor for staff availability. If no availability (rare), put in place FSU (delay 3 months).
2	Premature termination of contract as a result of >5% penalties	Rare (never happens)	Major	Acceptance	Negotiate with local company to take over the contract. In parallel, prepare for new contract (delay 6 months).
3	Change of shut-down activities scheduling	Likely (50% probability)	Major	Mitigation	Careful management of priorities to reduce impact. Discuss with Contractor for more (reduce) staff possibilities.
4	Contractor can not supply qualified staff	Possible (has already happened)	Moderate	Mitigation	Apply penalties (section 7.6.2 of ST)
5	Contractor does not respect delays	Possible (has already happened)	Moderate	Mitigation	Apply penalties (section 7.1, 7.2 of ST)
6	Double invoicing of hourly and unit price activities	Possible (has already happened)	Moderate	Mitigation	Apply penalties (section 7.4 of ST)

CERN Procurement Rules

- Art. 12. Contract follow-up:

"Before the contract starts, technical, financial, commercial and safety risks shall be addressed by the user, who shall, in collaboration with the Procurement Service, update the risk matrix as defined in section 6.4 according to the specificity of the selected firm."

Example: S133/TE for the provision of vacuum services

	RISK	LIKELIHOOD	IMPACT	DECISION	HOW TO MITIGATE IT
1	Unforeseen high workload	Possible (has already happened)	Major	Mitigation	1 - Discuss staff availablity at 2-monthly meetings (sec. 4.1.6) 2 - Review VAC priorities. 3 - Deploy VAC staff as required 4 - Put in place FSU (>3 months)
2	Unforeseen low workload	Possible (has already happened)	Moderate	Mitigation	1 - Reduce personnel 2 - Transfer personnel to other activities (e.g.maintenance)
3	Premature termination of contract as a result of >5% penalties	Rare (never happens)	Major	Acceptance	(Contract too small to split) 1 - Put in place FSU (> 3 months) 2 - Prepare for new contract (>6 months)
4	Change of shut-down activities scheduling	Likely (50% probability)	Major	Mitigation	1 - Careful management of priorities to reduce impact. 2 - Deploy VAC staff as required 3 - Put in place FSU (>3 months)
5	Contractor can not supply qualified staff	Possible (has already happened)	Moderate	Mitigation	1 - Assistance from and training by CERN staff. 2 - Penalties (section 7) as incentive to try harder. 3 - Prepare for new contract (>6 months)
6	Contractor does not respect delays	Possible (has already happened)	Moderate	Mitigation	1 - Careful management of priorities to reduce impact. 2 - Penalties (section 7)
7	Double invoicing of hourly and unit price activities	Possible (has already happened)	Moderate	Mitigation	1 - Agree with contractor on control mechanisms before contract placement. 2 - Close contract follow-up.
8	Professional fault by contractor personnel (e.g. accidental venting of beam vacuum)	Possible (has already happened)	Major	Mitigation	1 - Particular attention to the writing and correct execution of work procedures. 2 - Incentive for use of experienced (shut-down) personnel. 3 - Delicate operations accompanied by VAC staff.