AB DEPARTMENT RISK REGISTER

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Aim: describing how to fill the AB Dept. Risk Register Excel Spreadsheet.

- Columns A to G are used for coding; click on cell A1 for updating the codes.
- Columns H to K describe the Risk Breakdown Structure of the spreadsheet.
- Columns L to AA are used to describe risk items:
  - Col. L Label of the risk (can be entered on two lines)
  - Col. M Probability of failure of the equipment (**P**):
    - **1** **Rare**, i.e. less than once in 25 years ; probability less than 0.1
    - **2** **Possible**, i.e. one time in 5 to 10 years ; probability between 0.2 and 0.5
    - **3** **Likely**, i.e. one time in 2 to 5 years ; probability 0.6
    - **4** **Frequent**, i.e. about once a year ; probability 0.9
  - Col. N Impact on the CERN's scientific objectives in case of failure ($\mathbf{I_O}$):
    - **1** **Insignificant**, i.e. 1 day of **loss of physics** or less
    - **2** **Moderate**, i.e. between 1 day and 1 week of loss of physics
    - **3** **Major**, i.e. up to few (3 to 5) weeks, major impact on scientific objectives
    - **5** **Catastrophic**, i.e. no more run, failure to meet scientific objectives for the year
  - Col. O Impact on CERN's / AB Department's reputation ($\mathbf{I_R}$)
    - **1** **Insignificant**
    - **2** **Moderate**, problem dealt at Department Management level
    - **3** **Major**, problem reported to Executive Board, Governing Bodies…
  - Col. P Financial impact in case of failure ($\mathbf{I_F}$):
    - **1** **Insignificant**, i.e. less that <0.5% of the AB Department's annual budget or in the noise of the group management reserve (i.e. <100 kCHF)
    - **2** **Moderate**, i.e. between 0.5% and 4% of the AB Department's annual budget i.e. within the AB Department's management reserve (i.e. [0.1 , 1.0] MCHF)
    - **3** **Major**, i.e. additional budget needed to repair
    - **5** **Catastrophic**, i.e. report to FC, CC and Council ; CERN future jeopardized.
  - Col. Q Safety impact in case of failure ($\mathbf{I_S}$):
    - **1** **Insignificant**, i.e. no injury, no environmental consequence
    - **2** **Moderate**, i.e. injury requiring medical attention, no loss of working day
    - **3** **Major**, i.e. extensive injury, loss of working days
    - **4** New or mandatory **safety or regulatory requirement** not yet satisfied
    - **5** **Catastrophic**, i.e. loss of life
  - Col. R and S (that are calculated fields updated when the cell A1 button is clicked):
    Risk score calculated as follow: $\mathbf{RS} = \mathbf{P} \times \max(\mathbf{I_O} ; \mathbf{I_R} ; \mathbf{I_F} ; \mathbf{I_S})$

    if $\mathbf{RS} \in [1,2]$ **low**

    if $\mathbf{RS} \in [3,8]$ **medium**

    if $\mathbf{RS} \in [9,20]$ **high**

- Col. T Name of the risk owner (most of the time the group leader)
- Col. U Name of the risk manager: physicist, project engineer, project manager…
- Col. V Control body that decides what to do in case of occurrence of the risk
  e.g. the ABMB…
- Col. X The type of risk:
  T = Technical Risk
  F = Financial Risk
  C = Commercial Risk (linked with the reliability of a Contractor/Supplier)
  S = Safety Risk (incl. Radiological).

- Columns Z and AA: Responses & Contingency Plans:
  - Col. Z There are three types of response possible:
    Acceptation. CERN's Governing Bodies, Executive Management and/or Department Head accept the risk.
    In such a case a Contingency Plan (*Plan B*) may exist
    Avoidance or reduction or mitigation. A program/project is on-going to avoid, reduce or mitigate the effect of the risk in case of occurrence.
    Transfer: This risk is transferred (to Insurance Company for instance) to afford for the (financial) consequence in case of failure.
  - Col. AA Contingency Plan(s) or *Plan B* if any. Answer = Yes / No.

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v. 0.1 draft

#	Risk	Proba. P	Impact I_O	I_R	I_F	I_S	Score RS	Risk Category	Risk Owner	Risk Manager	Control Body	Type of Risk	Response	Contingency Plan(s)
ABP.1	**ABP - Accelerators & Beam Physics Group**													
ABP.1.1	**PS Complex & Exp. Areas**													
ABP.1.1.1	**PS & PSB**													
Risk item ABP.01	[enter risk description]								AB-ABP-GL					
#REF!	**Linacs**													
Risk item ABP.02	[enter risk description]								AB-ABP-GL					
#REF!	**Hadron Sources**													
Risk item ABP.03	[enter risk description]								AB-ABP-GL					
#REF!	**PS Consolidation Project**													
Risk item ABP.04	[enter risk description]								AB-ABP-GL					
#REF!	**I-LHC / LEIR Project**													
Risk item ABP.05	[enter risk description]								AB-ABP-GL					
#REF!	**CTF3 Project**													
Risk item ABP.06	[enter risk description]								AB-ABP-GL					
#REF!	**CLIC Design Study**													
Risk item ABP.07	[enter risk description]								AB-ABP-GL					
#REF!	**SPS & Exp. Areas**													
#REF!	**SPS Machine**													
Risk item ABP.08	[enter risk description]								AB-ABP-GL			T	ACCEPTATION	
#REF!	**SPS Transfer Lines**													
Risk item ABP.09	[enter risk description]								AB-ABP-GL			T	ACCEPTATION	
Risk item ABP.10	[enter risk description]								AB-ABP-GL			T	ACCEPTATION	

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#REF!	**SPS Consolidation Project**													
Risk item ABP.11	[enter risk description]								AB-ABP-GL					
#REF!	**CNGS Projet**													
Risk item ABP.12	[enter risk description]								AB-ABP-GL					
#REF!	**LHC Project**													
#REF!	**R&D & LHC Collective Effects**													
Risk item ABP.13	[enter risk description]								AB-ABP-GL					
#REF!	**LHC Optics & Commissioning**													
Risk item ABP.14	Beam parameter specification	2	5	3	5	1	10	High	AB-ABP-GL	AB-ABP-GL	LTC	T	accept	none
Risk item ABP.15	Hardware parameter specification: magnets	2	5	3	5	1	10	High	AB-ABP-GL	AB-ABP-GL	MEB	T	accept	none
Risk item ABP.16	Hardware parameter specification: collimation	2	5	3	5	1	10	High	Coll PL	Coll PL	. Collimation Pl	T	accept	Phase II system
Risk item ABP.17	Hardware parameter specification: beam instrumentaion	2	5	3	5	1	10	High	AB-BDI-GL	AB-BDI-GL	BIspec; LTC	T	accept	none
Risk item ABP.18	LHC commissioning preparation	2	3	3	1	1	6	Medium	AB-DL	AB-DL	LHCOP	T	accept	none
Risk item ABP.19	LHC data base	1	2	2	1	1	2	Low	AB-ABP-GL	AB-ABP-GL		T	accept	none
Risk item ABP.20	software support	1	5	2	1	1	5	Medium	AB-ABP-GL	AB-ABP-GL		T	accept	none