1.- Synchrotron Radiation Rate:

- Occupancy studies of the PXD with different machine configurations
- Where to put the PXD+SVD modules? 0º or 180º?
- FE-I4 based modules will be operated in standard mode (single chip modules), and some pixels will be operated with the TDC mode (energy measurements).
- What is the detection efficiency in the 5-100 keV range for the FE-I4 modules? How do we scale the rates?
- Where to put the devices? Expected rates? Any feedback from simulation? Number of modules still to be defined.
- How to distinguish X-rays from charged particles? Any combined measurements with the other detectors in the chamber?
- We can measure the position dependency of the backgrounds.
- How to disentangle the different types? What is the machine group approach (proposed steps)?

2.- Synchrotron Radiation Spectrum

- Use the TDC on the FE-I4.
- Switch on certain pixels, in different locations to see the position dependency of the SR spectra.
- Any other method? pin diodes for example? I would like to still put some of Cinabro's diodes here and there, specially if we suspect to have some hot spot in a specific location.

3.- Gated Mode. Injection noise

- How to determine the VETO width in the PXD?
- First just make it long enough (~1 us) based on expectations and determine it coarsely by the occupancy on the fast sensors around?
- Any CIVIDEC (diamonds and fast readout) attached to the machine around the Belle II detector? Is this planned by the machine (I know they are used on LHC)?

4.- Belle II Abort System

- How to determine the thresholds (radiation, temperature, humidity)?
- At the beginning we have to accept large dose rates. Can we just say that 20 Mrads in 10 years --> ~0.1 rads/second (if we run 240 days a year)? What about starting with a factor 10 higher than this for the Phase II (namely, 1 rads/second)? We have to accept that the detectors will be damaged anyway.
- Concerning temperature: Maximum should be around 30 degrees, although the ASICs could run ok up to 60 degrees or high.
- Concerning humidity: Maximum to be defined depending on the temperature (dew point) on the PXD cooling blocks. I would say this should stay below 10 % or so.

5.- Temperature and humidity measurements . Beam pipe vibrations.

- How to ensure a tight VXD volume (fill the space with pieces of the final cables to mimic the final scenario)?
- How many measurement points additional to the standard ones (is this finally decided?) do we need? I would like to attach one of the FOS to the beam pipe and measure the temperature of the BP as a function of the accelerator current in different locations. Try to find 'hot' spots in the BP and the investigate the BP cooling performance. Can we freely glue one of the fibres on the straight part of the beam pipe?
- Humidity: Additional sensors filling the chamber or just the expected ones for the final VXD? How to define cold/warm dry volumes? Sniffing pipes going out of each volume or humidity sensors? Can we just use commercial ones knowing that they will be damaged after a certain time by radiation?

- How to measure beam pipe vibrations? FOS? Capacitive detectors don't work in magnetic field!

6.- Region Of Interest. Alignment. Tracking.

- Metrology after mounting. Input for alignment.
- Alignment constants update rate? Stability of the primary vertex? Define number of tracks needed over our devices to start iterating the alignment compared to perfect alignment.
- Do we need a L-shape profile with a FOS to measure vibrations?
- ROI and data reduction factor. Efficiency and purity.
- Magnetic field variation and impact (tracking and backgrounds)?

7.- Other Systems

- BGO crystals. I know very little of this system, so I'm not sure what to do with it. How do we know the luminosity (geometrical acceptance compensation) if we just look at a certain angles?
- PLUME and plastic scintillators with SiPM readout.

- Something else missing?