ggH: some short term open points from CMS

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MC generators

- We have to test new generator setups wrt what we used in Run 1 (mainly powheg+pythia6):
  - Candidates generators for CMS in run 2: at least powheg(+minlo)+pythia8 and aMC@NLO+pythia8, plus others for systematics (e.g sherpa, herwig++).
  - Need to understand features and limitations of different codes, what tunings to use (e.g. hfact parameter) and what extra corrections to apply after generation (e.g. $p_T(H)$ re-weighting)
  - UE: which tunes and how to estimate uncertainties?
  - Important to understand across ATLAS and CMS what we use for the central values

Questions on theory predictions

- For the central value of the cross section, should we use some approximate N^3LO result, while waiting for the full computation?
  - With the aim of reducing the bias, if not yet the uncertainty, on the prediction.
- Jet counting uncertainties:
  - we will need a comparison of the state-of-the-art calculations with what will be our MC setup, and understand if to apply further corrections
  - We should discuss to what extent correlate uncertainties on jet counting with uncertainties on the higgs p_T spectrum.