

Notes from FPF7, March 1, 2024, Letter to be produced by May-June of 2024. Signed by all, communicated by US University partners.

Forward physics facility and its constituent experiments are ready for a well coordinated and well considered conceptual design with an excellent world leading science program. Along with a science plan, the enterprise needs a business plan.

Here are some items that should be covered in the draft letter for US and NSF funding agencies. Communication needs to start with the key funding sponsors.

CERN, US-DOE, US-NSF, Japan, STFC, INFN,

1) Opening of the letter should define what this is about. There are individuals at the agencies who still think we are talking about forward scattering and diffractive physics, etc. We have to quickly explain that this is not what we want.

2) Give a 4 sentence summary that there is a program and community already with the pathfinder experiments. And that it is becoming successful with pathfinder experiments. But also add that a much bigger program is needed. This requires some evidence that the science is good and will remain excellent for the HL-LHC.

— A simple explanation of the HL-LHC potential needs to be provided here. Nothing complicated, but rather comparative to all the LHC running so far. Lot of people do not know the top line numbers.

3) A paragraph about search for a location and how it was assisted from CERN. This should just be statements that this has been done very well. Degree of engagement and investment from CERN should be emphasized.

— State that a PBC document is in progress.

4) A path forward at CERN. The path that has been laid out before us. This needs to be clearly stated.

5) Simple statement that P5 has recognized the importance of the physics and has assigned the small experiment category to this effort from the US. Just accept the verdict and encourage the DOE to provide us a path.

— Hint that facility investment is also needed.

— Explain what is the US leadership in this program