

Two cents from SMU

At SMU.Physics, we've experienced this change.

- For ASICs and optical modules for LAr phase-1 upgrade, because of the stringent requirements on transmission latency and on mechanical dimension of the optical module, we opted develop the components ourselves, in the meantime collaborating with CERN and other groups.
- For LAr-2 we rely on the developments from the common projects (lpGBT and VL+) to give us the components. We participate in these common projects and we will concentrate on board level design for our specific needs.
- As the common projects will need to meet a wide range of requirements, we will no longer have a system that's highly optimized to our specific application. This is acceptable in the ph-2 upgrade. And this also the only option we have under the current funding situation.

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As much help we need to get from our EE collaborators, we need to develop and maintain the expertise that is specific to the needs in HEP. Otherwise this is no different to buying COTS from a catalog. We do that (buy COTS), but we also know that's not enough and that's why we have our own ASIC efforts.

ASIC designs need critical mass of a group and that's why we need to have centers in the labs. On the other hand it is equally important to keep university groups active so that we promote innovation and have access to students. This has become increasingly difficult because of the funding situation. If we have to treat each every one of the ASIC development as a construction project, we will suffocate creativity and eventually lose out on innovation.