New Soruces for Opto-packges

- **Honeywell.**

  - Common development with CMS (Peter Denes). CMS ECAL requires 80,000 VCSELs.

  - Based on surface mount VCSEL package(==> Figure)

  - Use angle cut and polished fibre to couple light from VCSEL into fibre.

  - Use 3013 PIN diode in similar package. Already tested for radiation hardness.

  - First prototype of VCSEL only will be common development with CMS (==> Figure).

  - Next stage would be ATLAS SCT prototype

  (2 VCSELs and one PIN).

- **Ohio State University**
  - simple package based on machined ceramic.
  - VCSELs mounted on end of ceramic.
  - fibres in separate ceramic using tapered holes.
  - Passive alignment of two parts (==> Figure).
  - First tests with packages in March.
  - Produce VCSEL/PIN package.
  - Production in-house or in industry ?

- **Truelight**
  - Interested in off-detector arrays.
  - Possible interest in on-detector packages.