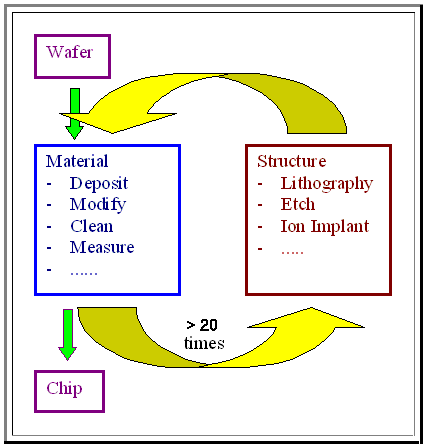
5.2.3 Summary to: Chips on Wafers



- Typical wafer size for new factories (**2007**) : **300 mm** diameter, **775 µm** thickness, flatness in lower **µm** region
  - Chip size a few **cm^2**, much smaller if possible
  - Yield ***Y*** = most important parameter in chip production = % of chips on a wafer that function (= can be sold).
  - ***Y* = 29 %** is a good value for starting production
- Chip making = running about **20** times (roughly!!) through "materials" - "structuring" loop.
  - About **400 - 600** individual processing steps (= in / out of special "machine") before chip is finished on wafer
  - More than **30** processing steps for packaging (after separation of chips by cutting)
  - Simple estimate: **99.9%** perfection for each processing step means ***Y* < 70 %.**

Questionaire

Multiple Choice Questions to 5.2