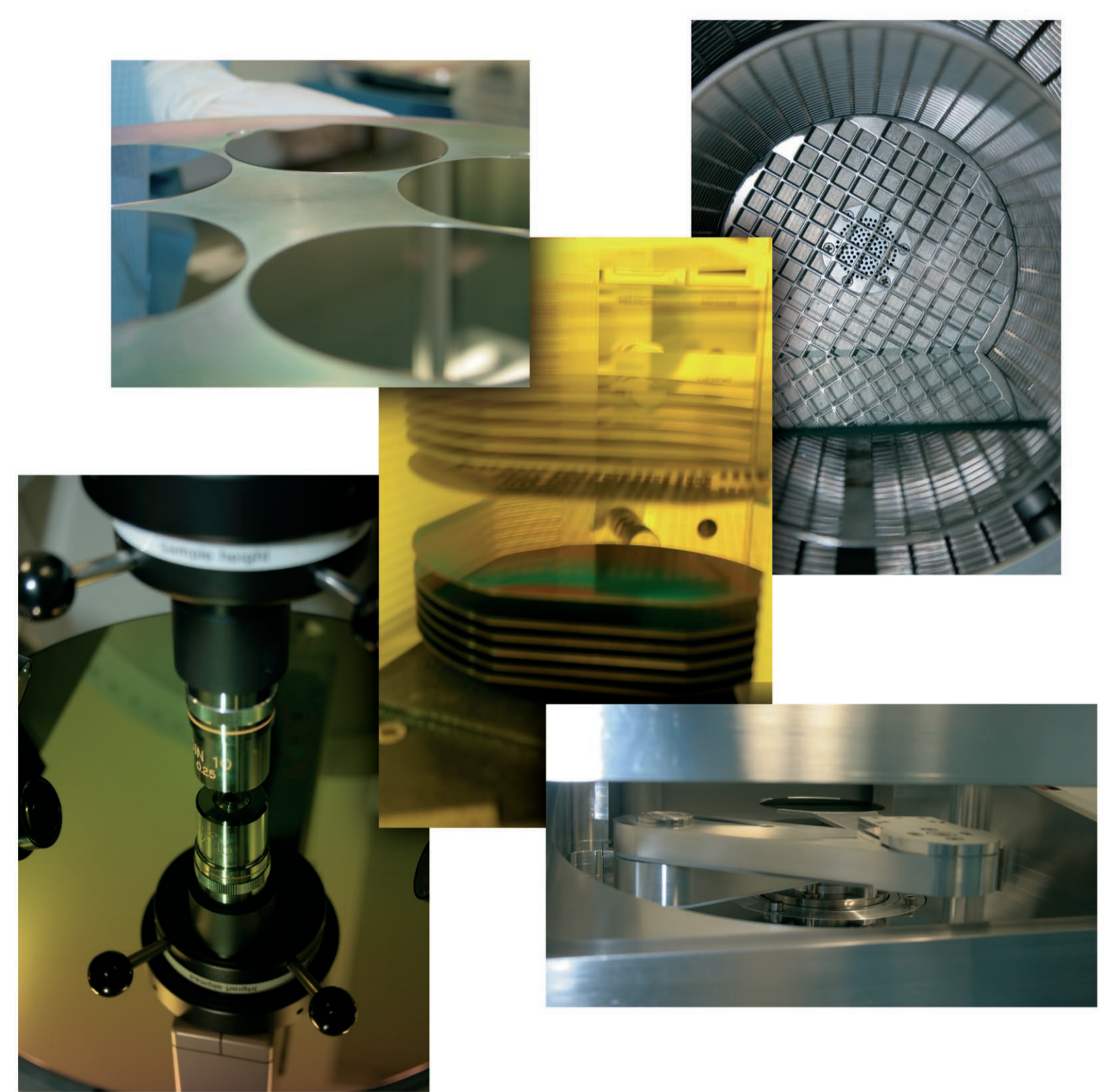
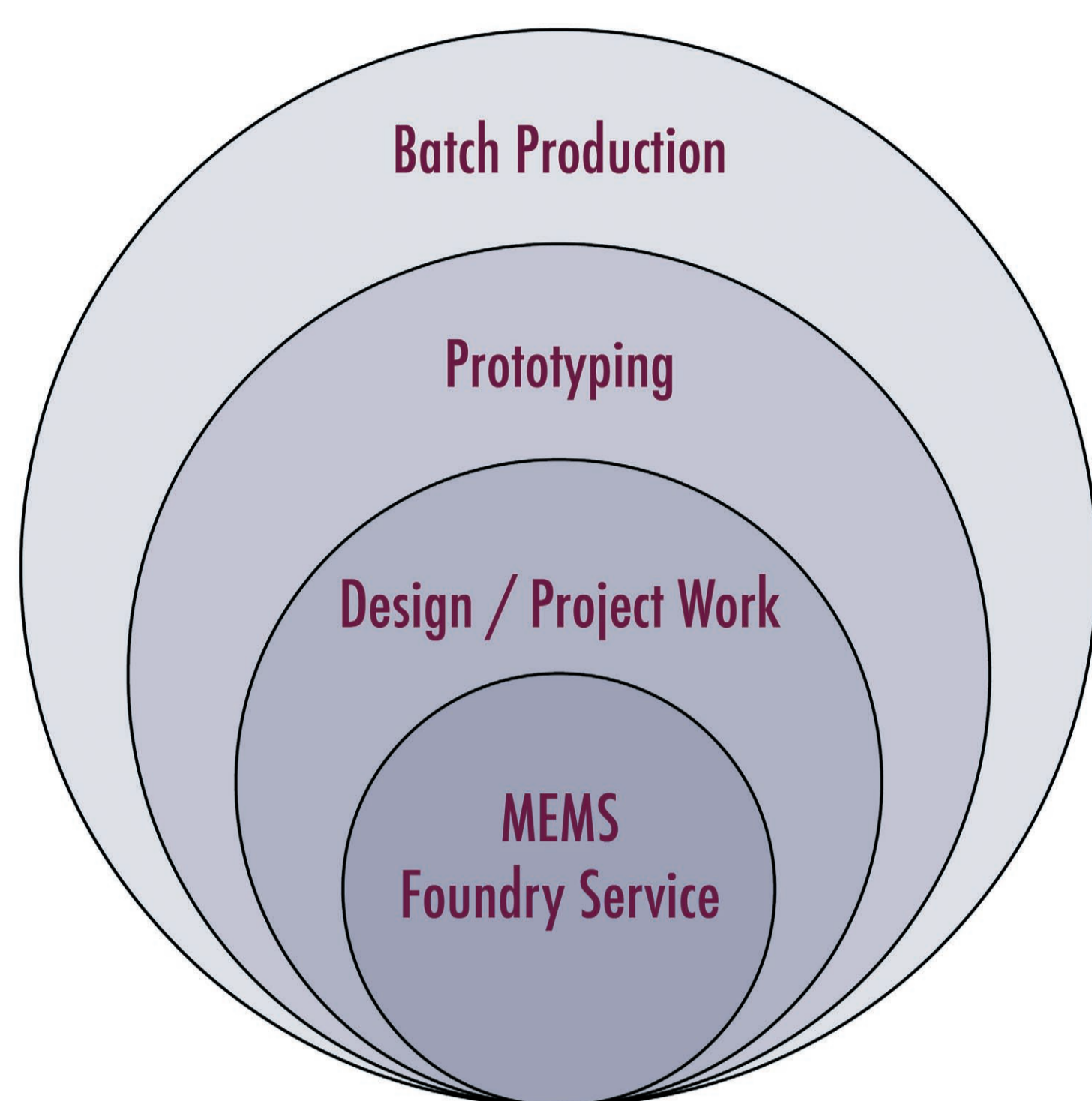


# Our technology and possibility



## Expertise

- DRIE, Bosch process for silicon
- DRIE for glass
- Dielectrics (oxide, nitride, etc.)
- Polysilicon
- Metals etching
- Powder blasting

## Wet Etching

- Anisotropic silicon etching (KOH, TMAH)
- Wet etching of different oxides and nitrides
- Wet cleaning process
- Isotropic etching of metals
- Vapour HF

## Lithography

- Maskaligner/bondaligner
- Photoresist coater
- Access to spray coating
- Double-side lithography
- Polymers like BCB or SU-8
- Lift-off technology

## Wafer Bonding

- Silicon fusion bonding
- Eutectic bonding
- Anodic bonding (silicon-glass, SOI-glass)
- Triple stack bonding
- Thermocompression bonding
- Glass-glass bonding up to 21 layers
- Adhesive bonding

## Plasma Deposition

- PECVD oxide (LF/HF)
- PECVD nitride (LF/HF)

## Metallization

- Sputter deposition (e.g. Ag, Al, Au, Cr, Ni, Ti, TiW)
- Evaporation (e.g. Ag, Au, Cr, Ni, Pt, Si, Ti)
- Access to electroplating (e.g. Au, Ni)

## Furnace Processes

- Wet oxidation
- Dry oxidation
- Annealing processes
- Doping processes
- Low-stress LPCVD nitride
- LPCVD oxides (LTO, PSG, TEOS)
- LPCVD polysilicon

## Metrology

- SEM with CD-tool
- Ellipsometer
- Interferometer
- Inspection microscopes
- CD microscope
- White light interferometer
- Surface profiler
- Film stress measurement
- Sheet resistance (four-point probe)
- Access to EDX, TEM, X-ray, ...

## Back End

- Automated or semi automated dicing of wafers and wafer stacks
- CMP process
- Access to wire bonding
- Access to lapping for wafer thinning/polishing

## Applications

Customers are using iX-factory products in a broad range of applications, for example.

- sensors
- integrated circuits
- micro reactors
- lab-on-the-chip
- BioMEMS
- integrated optics

## Markets

- Biotechnology
- chemical/ pharmaceutical industry
- data- and telecommunication
- R&D
- aerospace industry
- medical engineering
- optical industry
- sensor-/measuring and control systems industry
- process engineering

