4th EUropean Failure Analysis NETwork EUFANET workshop

Submicron 3D imaging

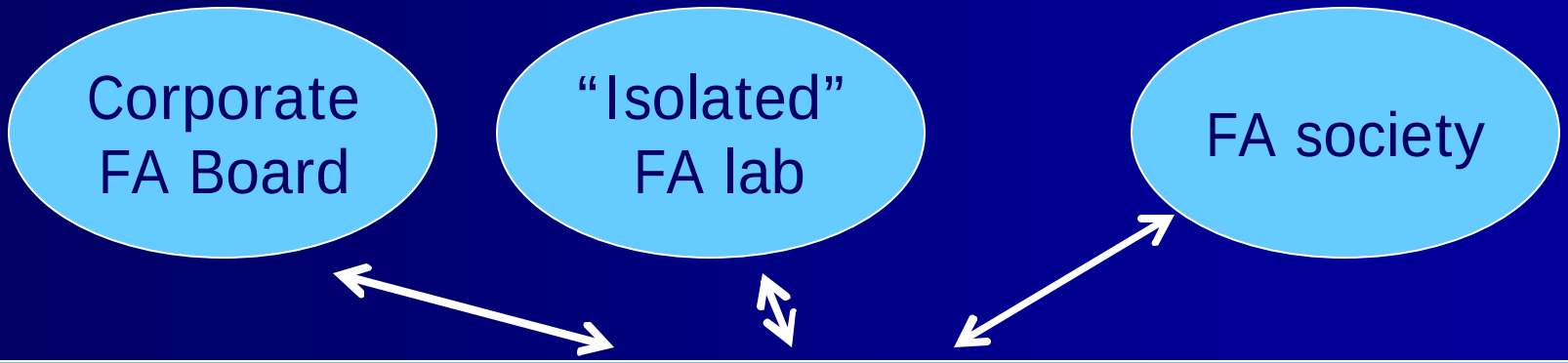
“What we must see vs. what we can see”

October 6, EUFANET Workshop at ESREF 2004

Workshop program

- 18h10 Welcome and EUFANET status update (Philippe Perdu, CNES and Christian Boit, TU Berlin)
- 18h20 TEM analysis of gate oxide breakdown damage (Joachim Reiner, EMPA)
- 18h30 3-D TEM Tomography - An Evaluation of a Commercially Available System (Thomas Schweinboeck Infineon)
- 18h40 In-situ sample preparation and high- resolution SEM-STEM analysis (Francis Morrissey, FEI Company)
- 19h05 3D (360 degres) failure characterization in semiconductor devices using Hitachi's FIB/STEM system FB-2100/HD-2300 (Dr. Roland Schmidt, Hitachi)
- 19h30 Debate on 3D imaging
- 19h50 Closing remarks

EUFANET key points



EUFANET do not coordinate European FA but help people to Keep in touch and to boost technical exchanges between them

- EUFANET kick off (Q4 2001)
- Email Forum (2002)
- Web site (Q4 2003)
- EUFANET board definition (Q2 2004)
- EUFANET legal status (Q1 2005)

EUFANET needs you

- Is EUFANET useful?
  - EUFANET is free of charge (“light” association)
  - EUFANET is only made of your contributions
- EUFANET annual workshop focus on hot topic
- Email Forum: your questions, advices? ...
- Web site
  - 6 months internship in 2005
  - We need your contributions on technical stuff
    - Educational (short tutorial...)
    - FA lab description (who are you? What do you do?)
    - Equipement manufacturer (new key tools description ...)

- WEB site www.eufanet.org
- To subscribe just send an email to subscribe@eufanet.org, subject "subscription“
- Would you like to join the board? Just send an email to EUFANET board (board@eufanet.org)

EUFANET2004 3D-TEM Question list

- What can we see today by conventional TEM (contrast, resolution)?
- What can we see today by 3D-TEM (contrast, resolution)?
- What can we see today by 3D-X-ray (contrast, resolution)?
- What do we need to see for failure analysis today and tomorrow (contrast, resolution)?