TIA FO-2.2.1
November 6, 2000 Update

Michael J. Hackert

Chair, TIA FO-2.2.1

Task Group on Modal Dependence of Bandwidth

HACKERTMJ@CORNING.COM

Next Generation 50 μm Fiber Development on Schedule

- Activity on track to deliver a recommendation consistent with IEEE 802.3ae timing
  - Validation experiment in progress:
    - Experiment approximately 50% complete
    - Analysis begun
  - Industry support is significant
- Conclusions anticipated before Working Group ballot

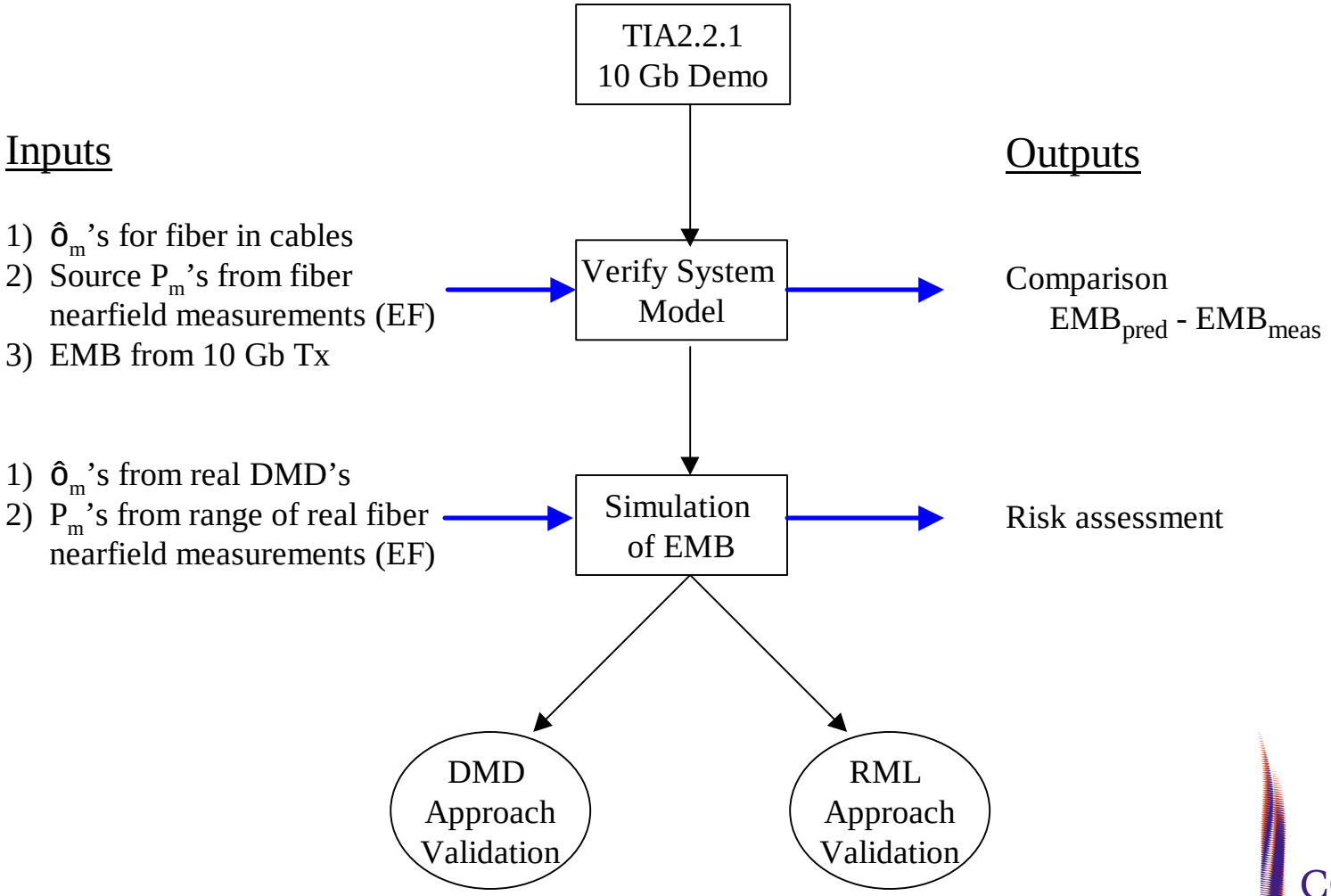
CORNING

TIA 10 Gb 50 μm Demonstration

- Fiber selected, cabled and testing in progress
  - Cable contains twelve 50 μm high bandwidth fiber
  - Fiber selected to explore limits of performance
- Lasers selected from more than 5 sources / manufacturers
- Measurements approximately 50% complete
  - 6 labs performing testing so far
- Analysis in progress
  - 2 fiber manufacturers supporting modeling
  - Modeling will support risk assessment

CORNING

Approach to 10 Gb Multimode Fiber Validation



CORNING

Approach to 10 Gb Multimode Fiber Specification

- Target - 2000 MHz-km effective modal bandwidth (EMB)
  - Input into the IEEE system model
- Two approaches currently under consideration
  - RML Bandwidth Approach
  - DMD Approach
- 10 Gb Demonstration Testing Objectives
  - Demonstrate ability to select fiber and transmitters to reliably deliver 10 Gb performance at 300 meters over 50 μm fiber
  - Determine optimum thresholds and specification methodologies
- 10 Gb Demonstration Testing Approach
  - Collect EMB using characterized fibers and 10 Gb transmitters
  - Utilize modeling and additional testing to assess risk

CORNING

Conclusion

TIA FO-2.2.1

is on track

to meet IEEE 802.3ae

timing!

CORNING