

SEMICON Southwest e-Diagnostics Seminar

# e-Diagnostics

## *International SEMATECH Project Origins*

Randy Goodall - International SeMaTech

randy.goodall@sematech.org, 512.356.7622

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INTERNATIONAL  
**SEMATECH**

# Background

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- **The Internet is a revolutionary productivity enhancer**
- **Semiconductor fabs have not yet broadly incorporated its advantages**
  - Concern for security, lack of standards, and diverse and inadequate supplier support
- **Many ad hoc implementations are being initiated**
- **Equipment and Fab Productivity are critical enablers of continuing Moore's Law**

# Beginnings

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- **Call to Arms**

- Industry Executive Forum – April 2000
- e-Diagnostics was identified as a critical need for the industry a call for swift action *≡ internet speed*

## Since then...

- **Incorporated into the ITRS**

- Basis for international action

- **ISMT formed e-Diagnostics Working Group**

- Drive commercialization of open, secure, internet-based access methods for suppliers to monitor their equipment
- IC companies and suppliers are engaged

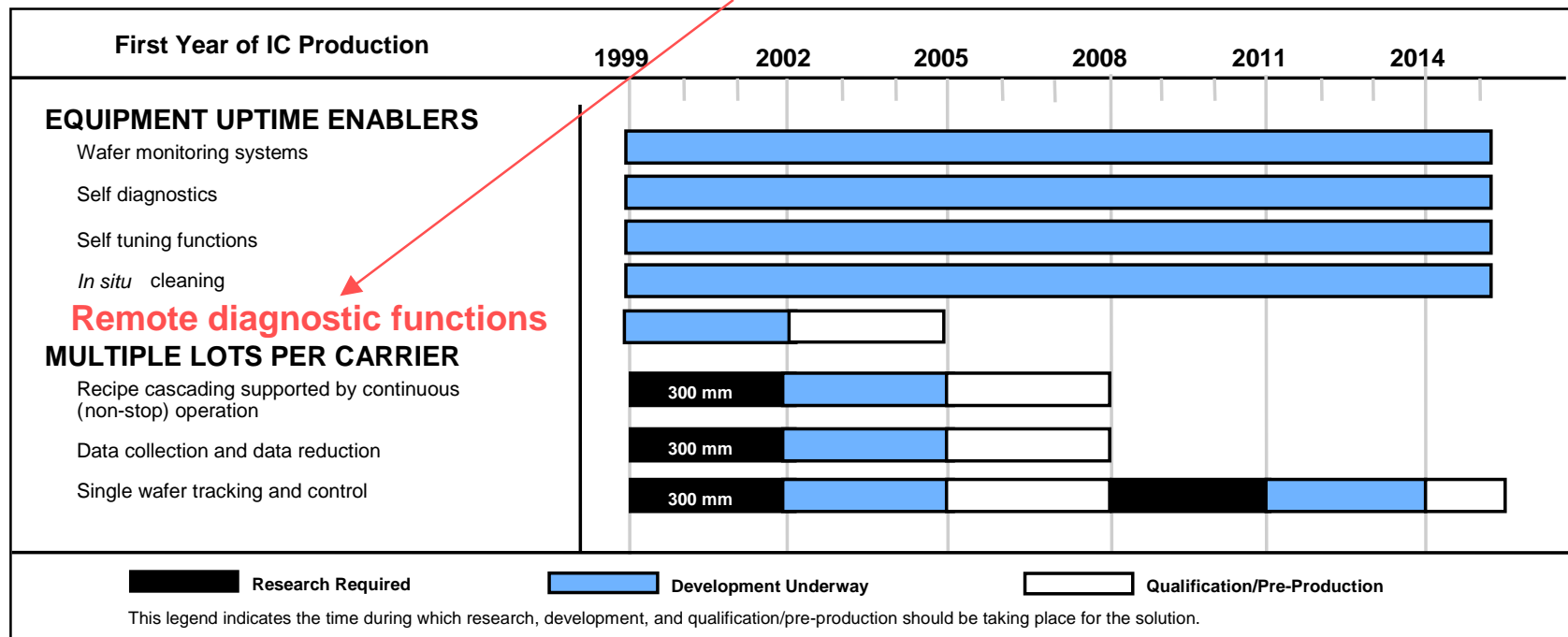


- **Technology Requirements tables:**

- Equipment support cost and MTTR reduction targets for 2001 roadmap

- **Potential Solutions tables:**

- In Production Equipment, add Remote Diagnostics



# Semiconductor Manufacturers *IT Security Council*

- **May 2000 Kick-Off meeting:**
  - AMD**
  - Motorola**
  - Intel**
  - TI**
  - IBM**
  - STMicroelectronics**
  - Lucent**
- **e-Diagnostics unanimously voted first priority**
  - Must be involved early in the process
    - Security cannot be a roadblock
  - Serve in an enabling role
  - Work closely with the e-Diagnostic team
  - First security guidelines provided
    - Systemic security issues
    - Fab-level policies

# Summary

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- **A critical, high-visibility program: project designed and approved (off-budget cycle) within a few weeks of the IEF meeting**
  - A new model for ISMT
- **First guidelines (1 page) within 30 days of project start**
  - First meeting with suppliers within 2 months of IEF directive
- **Weekly telecons**
  - Hundreds of people working around the world
  - Hundred(s) of pages of guidelines in development

# Summary

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- **Globalization in process**
- **Loose ends? – Yes**
  - But a firm foundation and great expectations
- **The hardest work is yet to come**
- **New era of opportunity and productivity**