

Closing Comments

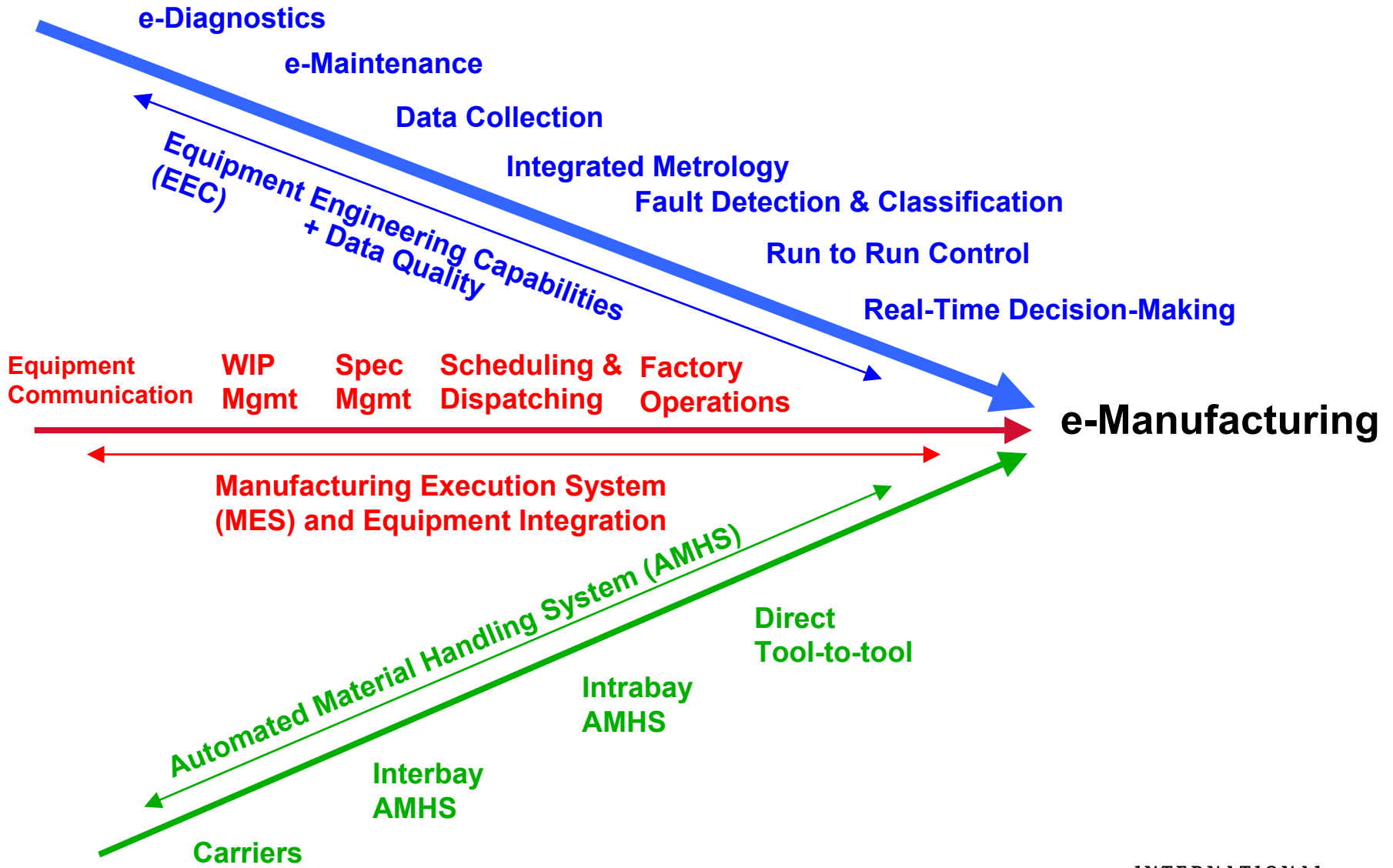
www.sematech.org/public/resources/ediag/index.htm

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Industry Path to e-Manufacturing



“e” Deployment Path

- **Chip maker and supplier consensus on directions and needs to meet productivity goals of the ITRS**
- **Identification of the interface, format, and communication standards required**
- **Development of standards and the prototypes required to verify the correctness of the standards**
- **Alpha and beta test version of commercial solutions that embody these standards**
- **Test scenarios, test methods, and commercial test software to verify compliance to the standards**
- **Implementation, implementation, implementation**

“e” Deliverables

Priority for MCs is **access to equipment data**, Interface A.
Several SEMI standards are required to support this.

Standard

E120 Common Equipment Model

E121 XML Style Guide

3569 XML Messaging

3570 XML Core Components

3507 Authorization and Authentication

3509 Data Acquisition Management

3510 Equipment Self Description

PR8 (3563) Interim Equipment Data Acquisition

Status

Approved

Approved

Approved

Ballot for West

Ballot for West

Ballot for West

Approved

Approved

e-Manufacturing Capabilities

- **Access to equipment data**
- **Improved quality and timeliness of this data**
- **Standardized equipment and software interfaces to reduce the cost and time of equipment integration**
- **Faster integration of applications**
 - **Benefit from e-Diagnostics assistance from suppliers**
 - **Run-to-Run control for Litho, Etch, CVD, CMP, etc.**
 - **Fault Detection and Interdiction to reduce scrap as well as early detection of yield excursions**
 - **Improved Cpk on critical tools (e.g., gate etch, litho)**
 - **Early detection of tools drifting out of specification**
 - **Faster new equipment ramp-up**

Key SEMATECH Member Company Messages

- 1. 300mm standards implementations is and remains the highest priority**
- 2. Interface A (access to data from equipment) is the SEMATECH Member Company current focus - standardized, open, & with accurate data**
- 3. Leading OEMs are deploying e-Diag. solutions (100s of tools) and reporting significant benefit**
- 4. Prototype solutions are underway at SEMATECH, including Interface A and e-Diagnostics**
- 5. ISMT MCs are cooperating with suppliers early to assure mutual success**
- 6. Implementation, implementation, implementation**