

Standards Development for 3D Imaging Systems NIST – March 2, 2006 Pat Picariello, Director, Developmental Operations



ASTM's primary objective

...is to be the foremost developer and provider of consensus standards, related technical information, and services having globally recognized quality and market relevance.

Why ASTM?

- A proven and practical system
 - Established in 1898
 - 138 Committees & 12,000+ Standards
 - 30,000 members
 - **5**,500+ International Members from 125 Countries
 - 'Audited Designator' accreditation by American National Standards Institute (ANSI)
 - Process complies with WTO principles: Annex 4 of WTO/TBT Agreement
 - <u>All</u> stakeholders involved (Public & Private Sector Cooperation)
 - Neutral forum
 - Consensus-based procedures
- Development and delivery of information made uncomplicated
- A common sense approach driven by industry
- Market relevant globally
- No project costs





ASTM's Balloting Process



1

<u>Work Item Registration</u> -New ides discussed & agreed upon -New standard or revision -Registration provides an e-copy

Document Construction -Revisions: Word copy provided -New: Templates -Assistance: Up-front & backend editorial services

3

Collaboration Tools / Authoring -Conference calls -Virtual Meetings -Interactive Forums -Email

4

<u>Ballot Submittal</u> -Deadline dates from Staff -On-line submittal form -Provide cover letter

5

<u>Electronic Balloting</u> -Automatic generation by staff upon receipt of a ballot item -Email notification of ballot -Platform independent, web-based system / write-in & uploaded input -Electronic reporting & feedback

6

<u>Negative Resolution</u> -Electronic receipt of feedback -Done at a meeting or Virtual Meeting -Use of persuasive & withdrawal options -Future improvements

a

<u>Important Information-</u> <u>Going into the Meeting</u> -Minutes & agendas -Items, reports, & materials -Schedules & logistics

7k

Important Information-<u>Tools and Forms</u> -Tools page -"My ASTM" -Standards Tracker -Committee Page

8

<u>Production & Distribution</u>
Back-end editorial support
Proofing / Editorial services
Set in SGML & global distribution
Product types (CD, HC, VV)



Time Frame - Development

- Complexity of the job
- Urgency of needs
- Time devoted by members
- Utilization of new informational technologies





INTERNATIONAL 138 Technical Committees

Examples

- A1 on Steel, Stainless Steel, and Related Alloys
- B1 on Electrical Conductors
- D1 on Paint
- D2 on Petroleum Products and Lubricants
- D4 on Road and Paving Systems
- E28 on Mechanical Testing
- E17 on Vehicle Pavement Systems
- E29 on Particle Size Characterization
- **E30 on Forensic Science**
- E50 on Environmental Assessment
- **E**54 on Homeland Security Applications
- E55 on Pharmaceutical Application of PAT
- E56 on Nanotechnology
- F1 on Electronics
- F4 on Medical & Surgical Materials & Devices
- **F5** on Business Imaging Products
- F8 on Sports Equipment and Facilities
- F15 on Consumer Products
- F24 on Amusement Rides and Devices
- F25 on Ships and Marine Technology
- **F29 on Anesthetic & Respiratory Equipment**
- F37 on Light Sport Aircraft
- F38 on Unmanned Air Vehicle Systems
- **F40 on Declarable Substances in Materials**
- F41 on Unmanned Undersea Vehicle Systems



ASTM's Business Model

Annual Budget of \$35 Million Revenue Sources 2005



■ Publications = 75%

- Interest = 8%
- \Box Administrative Fees = 7%

 \square Proficiency Test Program = 4%

■Training = 4%

■ Miscellaneous = 2%

Related ASTM Activity

Computer Assisted Orthopedic Surgery Computed Tomographic (CT) Examination and Imaging Systems

- Digital Imaging and Communication in Nondestructive Evaluation (DICONDE)
- Interferometric Laser Imaging Nondestructive Inspection Systems





Foundation ASTM Activity

Construction

- Engineering & Dimensional Analysis
- Reverse Engineering
- Manufacturing
 - Process Control
 - Tooling Verification
- Design/Prototyping
- Animation
- Industrial Metrology
- Forensics/Anthropology
- Wear Analysis



Organization Process: New Activity

- Mirrors Standards Development Process
- Industry Driven

3-Stage

- Exploratory
 - Post initial request, due diligence, market research
- Planning*
 - Live meeting of <u>key stakeholders</u>, education, formal agreement to proceed
- Organizational
 - Live meeting of <u>all interested stakeholders</u>, agreement on title, scope, structure, formal agreement to organize within ASTM International
 - *Standards development should have commenced by this point







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