

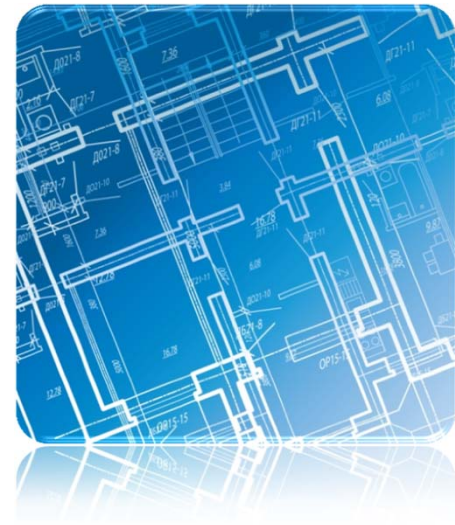
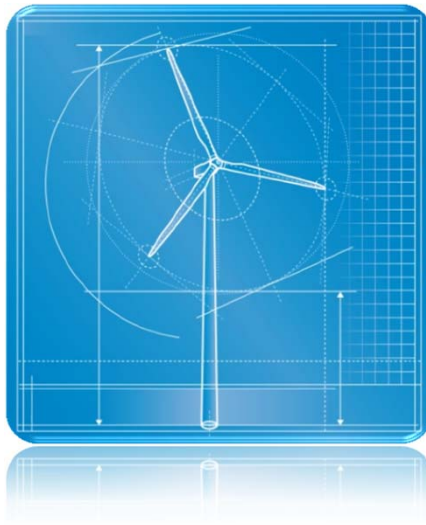
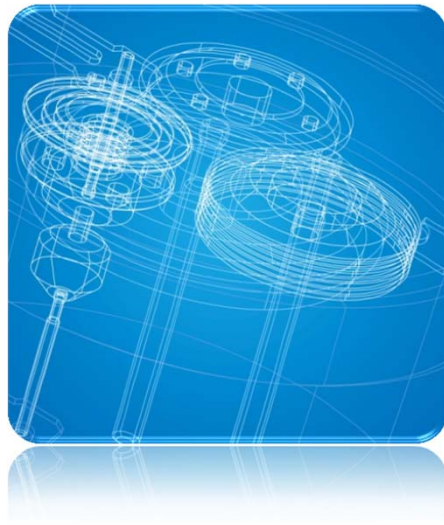
oneM2M Steering Committee Meeting IEEE Standards Association Overview

Cherry Tom
Emerging Technologies Initiatives Manager
Bellevue, Washington, USA
24-26 July 2012



IEEE Standards Association (IEEE-SA)

- Globally recognized standards
- Over 900 active standards
- More than 500 standards under development
- 7,000 individual members
- 200 corporate members
- Over 20,000 standards developers worldwide

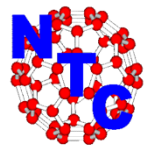


IEEE Standards Are Pervasive

Addresses a broad spectrum of technologies

- Aerospace Electronics
- Broadband Over Power Lines
- Broadcast Technology
- Cognitive Radio
- Design Automation
- Electromagnetic Compatibility
- Green Technology
- LAN/MAN
- Medical Device Communications
- Nanotechnology
- National Electrical Safety Code
- Organic Components
- Portable Battery Technology
- Power Electronics
- Power & Energy
- Radiation/Nuclear
- Reliability
- Transportation Technology
- Test Technology

**IEEE
802™**



**IEEE
Nanotechnology
Council**



National Electrical Safety Code®



Power & Energy Society™

IEEE STANDARDS ASSOCIATION



Highlights of IEEE M2M and IoT standards activities

Smart Grid	•(100+ standards), especially IEEE 2030 series, P2030.1 for EV infrastructure (collaboration with SAE)
Vehicle-Vehicle communication	•IEEE 802.11p DSRC (dedicated short range communication) and IEEE 1609 series for WAVE (wireless access for vehicular environments)
Ubiquitous community networks	•IEEE 1888 series
Medical device communications	•IEEE/ISO 11073 series
RFID	•IEEE/ISO 21451-7, IEEE 802.15f, IEEE 1902.1
Sensors	•IEEE/ISO 21450 and ISO IEEE 21451 series
Networking	•IEEE 802 (especially IEEE 802.11, IEEE 802.15.4, IEEE 802.15.1, IEEE 802.16)
Cognitive Radio	•IEEE 1900.x series, IEEE 802.22 series
Precision clock synchronization protocol	•IEEE 1588

IEEE's Role in Smart Grid

IEEE utilizes the global expertise and synergy of the 44 IEEE societies and technical councils in technical development, education, publication, and standards community

IEEE baseline standards in diverse fields uniquely position IEEE-SA to integrate these technologies into a forward-looking platform

- power, communications
- digital information management controls technology
- networking
- security
- reliability assessment
- interconnection of distributed resources including
 - renewable energy sources to the grid
 - sensors, electric metering
 - broadband over power line
 - systems engineering



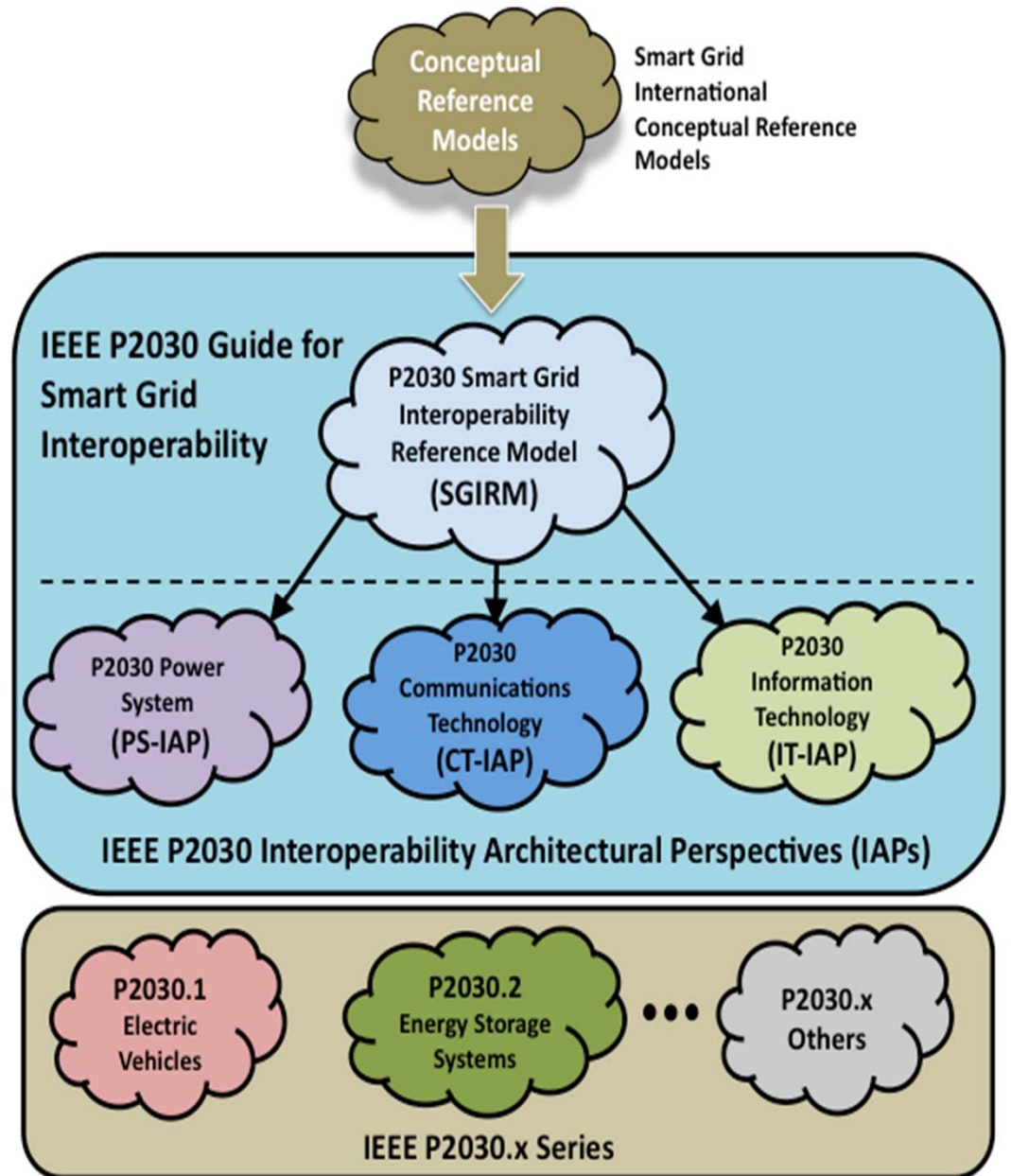
IEEE 2030 Smart Grid Generic Framework

Methodological
Interoperability
Framework composed of:

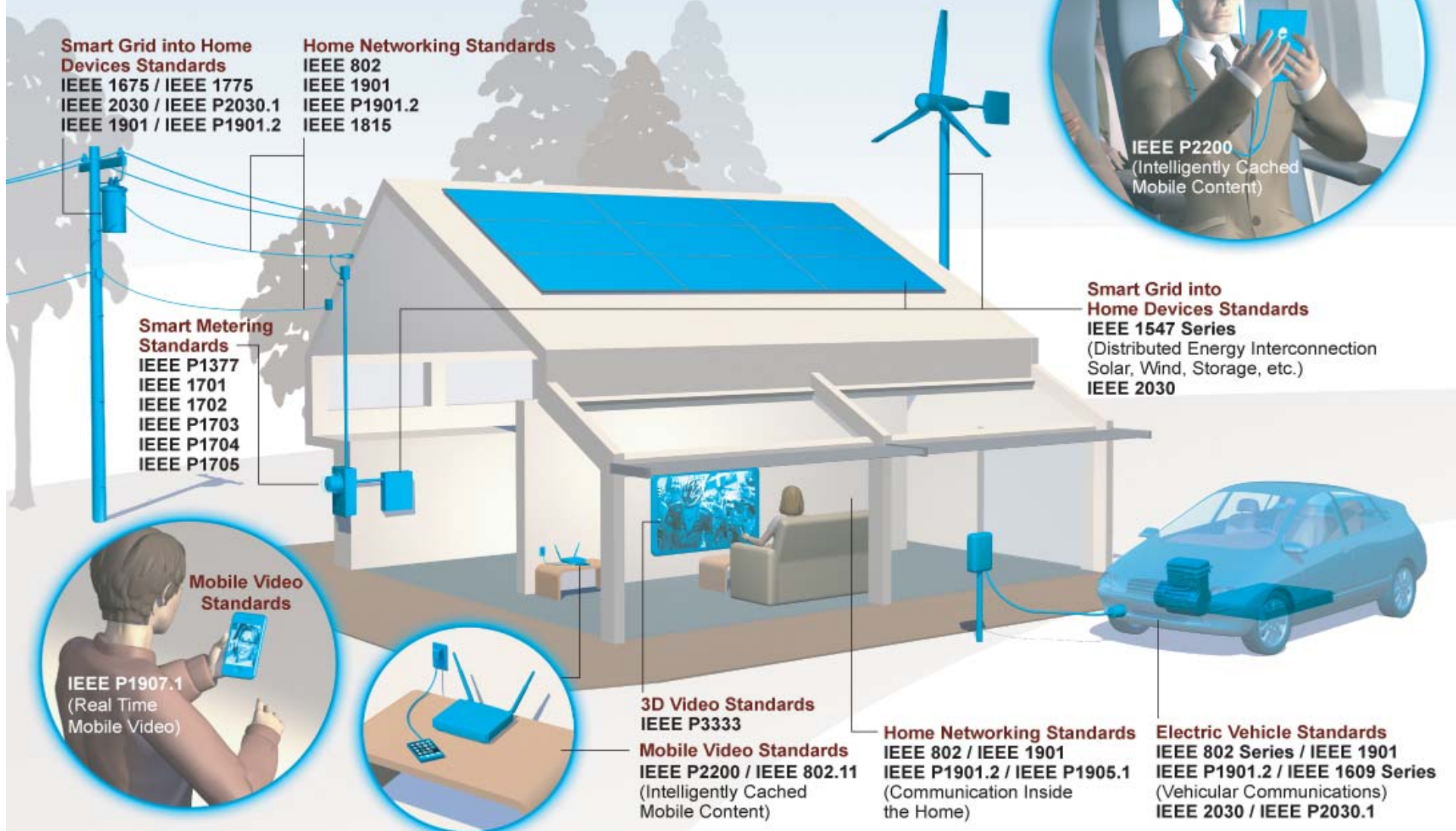
- **Three Interoperability Architecture Perspectives (IAP):**

- Power System (PS)
- Communications Technology (CT)
- Information Technology (IT)

- **IAPs Interoperability Tables**



Enabling Consumer Connectivity Through Consensus Building



IEEE STANDARDS ASSOCIATION



E-health

IEEE-SA personal health device standards to provide for increased quality of care and patient safety

- IEEE P11073-10103 provides greater access to critical patient information
- IEEE P11073-00103 defines information communication profiles
- IEEE P11073-10419 controls information exchange across devices



Addressing Challenges Through Collaboration in E-health



INTEGRATED CLINICAL
ENVIRONMENT ICE



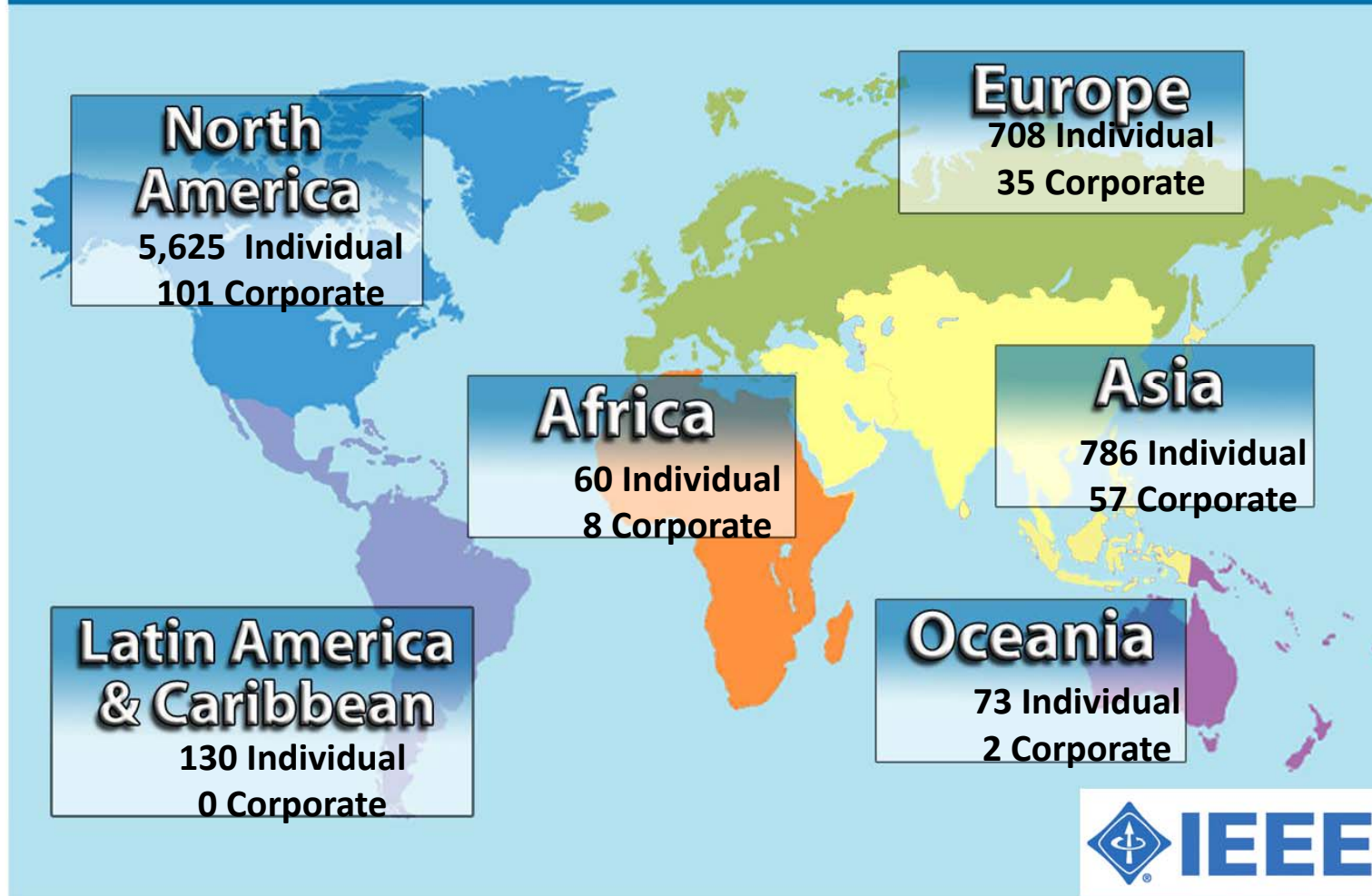
INTERNATIONAL HEALTH TERMINOLOGY
STANDARDS DEVELOPMENT ORGANISATION



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IEEE-SA Members (December 2011)



Individuals and Corporations



- **Individual Membership**
 - Persons representing themselves
 - Each individual – one vote
 - Ballot groups of up to 10 IEEE-SA members

- **Corporate Membership**
 - Entities include companies, universities and government bodies
 - Each entity – one vote
 - Initiation of a development project requires three entities
 - Entity representatives participate in standards-development meetings

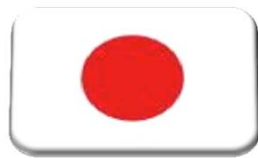
Corporate Program



IEEE STANDARDS ASSOCIATION



Strong International Collaboration



Asia

Middle East/
North Africa



Europe

South Africa



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Thank You!

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<http://standards.ieee.org/>