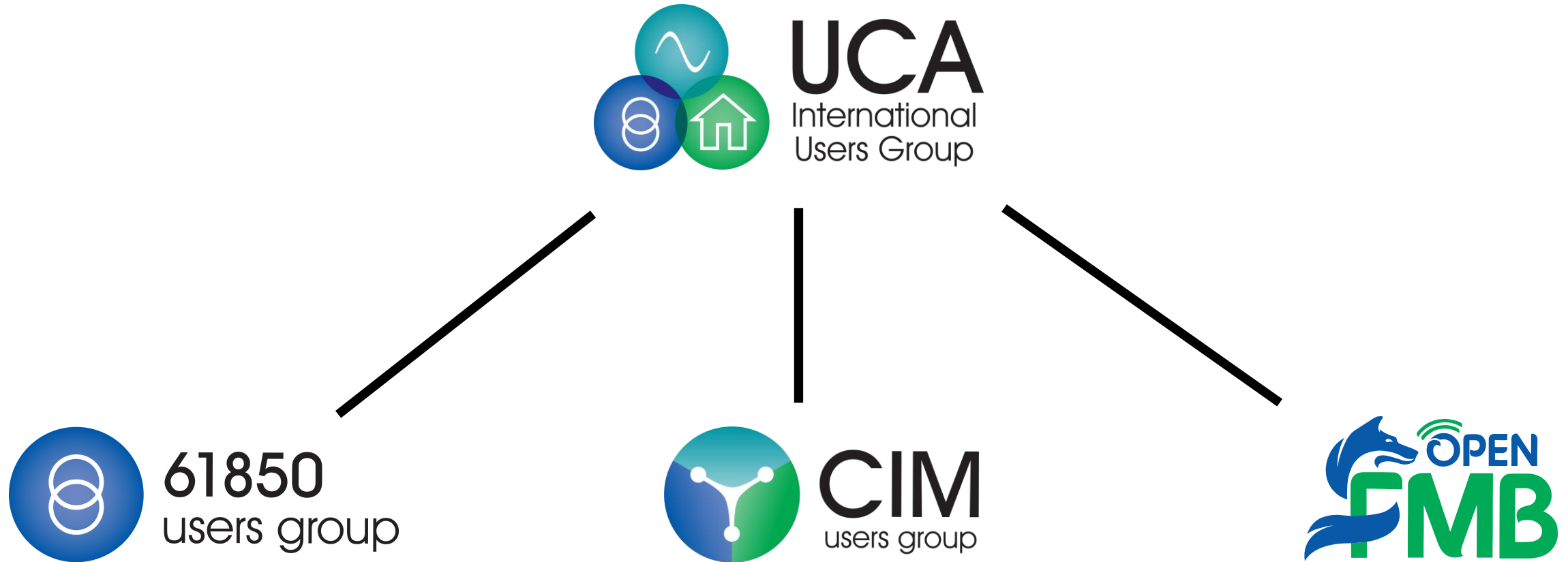# UCA International Users Group Intro and Benefits

Presented by
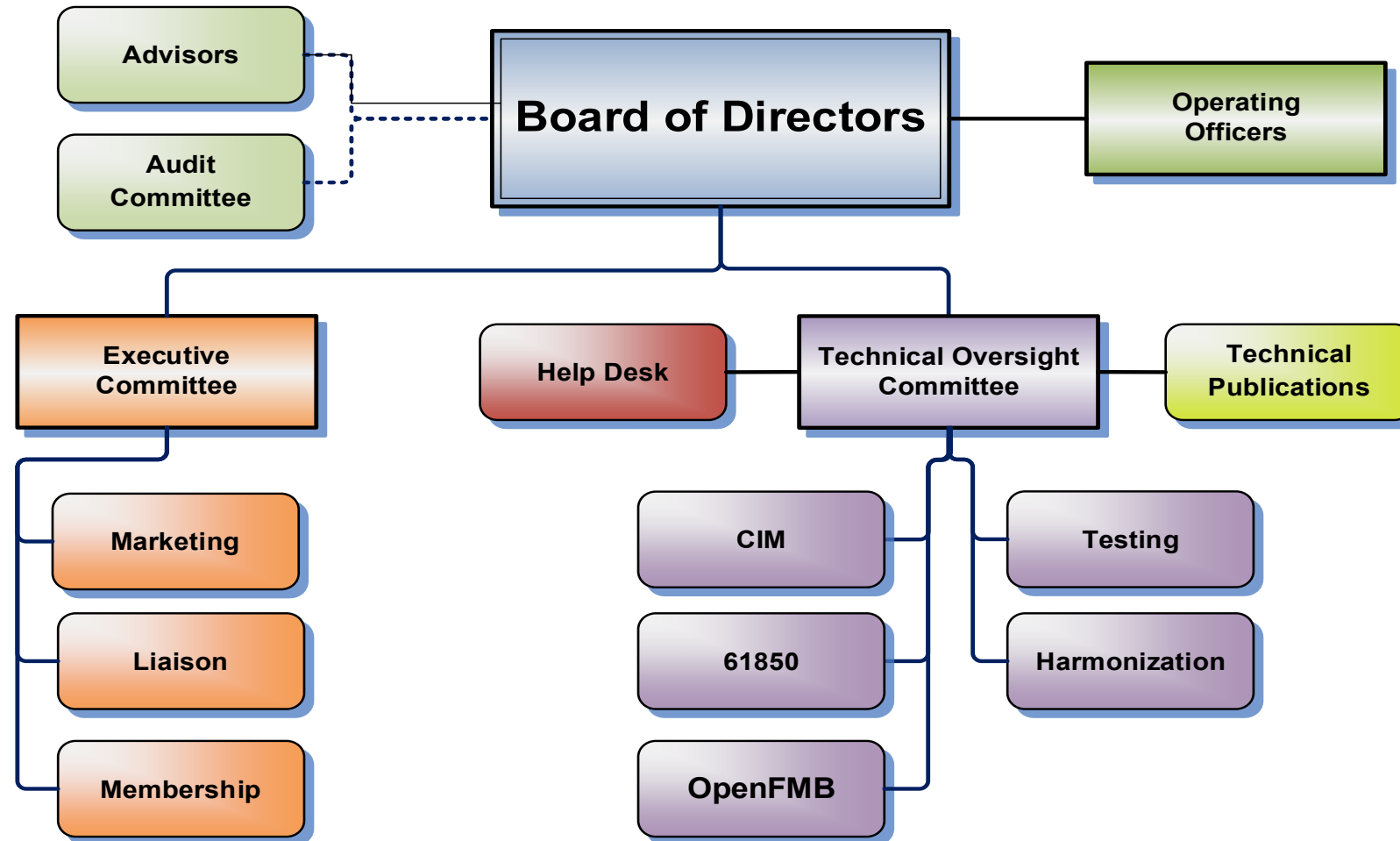
Ryan A. Willcockson, PhD - President

UCAIug is an Organization of User Groups

UCAIug Organizational Chart

UCA International Users Group

UCAIug's Mission

To accelerate the adoption and deployment of interoperability standards by providing a global forum of energy industry stakeholders to promote development and use of electric utility standards.

UCAIug Member Services

- Draft standards access via Liaison C Agreements with SDOs
- Govern artifacts, such as data models & test procedures
- Marketing support for Corporate members and Vendors
- Accreditation of Labs and Conformance Product Certification
- Issue Certificates for Conformance and IOP Testing
- Interoperability (IOP) testing of all standards using Test Procedures, Witness Reports and final Test Reports.
- Liaison to Sparx for Enterprise Architect and ProCloud Server licenses & support
  - For working on Standards only – no commercial products
- Interactive website and repositories
- Microsoft Teams meeting accounts for working groups and task forces
- Membership collaboration and bulk email distribution list capability

UCAIug Public Services

Public Services do not require UCAIug Membership

- Apache 2.0 Open-Source licenses for all Public Domain artifacts
- Hosting of all Open Source UCAIug artifacts
- Providing issue tracking tools, available to the public
- Active Help Desk support via Redmine tool

UCAIug Corporate Services

Provide Teams Accounts and Web services for UCAIug Activities

- Facilitate technical requirements discussions for development of UML Data Models, Profiles, Use Cases, and other artifacts
- Assist in the scheduling and planning of UCA meetings
- Hosting of ProCloud Server and Prolaborate for joint development activities
- Support and Training for all UCA provided tools as needed.

UCAIug Activities

- Provide liaison between standards groups

- Provide a central repository for issues, models, messages, and expertise

- Promote industry standards (IEEE & IEC TC57)

- Provide Interoperability Testing Certification Authority (ITCA) Umbrella for Conformance and Interoperability (IOP) Testing

- Provide a single point of contact for Model Management and issue resolution.

- Provide awareness of products that implement the standards

- Provide standards training

- Provide Marketing Support for Corporate Members

Benefits of Membership

- Shorter learning curve with access to educational materials and experts

- Timely access to information on standards activities

- Obtain valuable insight from peers and benefit from sharing/accessing common solutions

- Make your company's leadership visible in the industry

- Member benefits are enjoyed equally if your focus is one technical area or all technical areas

- Transparent and Market-Neutral Community Environment

Member IP Privileges

FREE tools and IP for all User Groups:

- Test Plans & Procedures
- IOP Reports
- Test Instance Files
- All Training Materials (Testing and Standards)
- Open-source artifacts for:
  - Use-cases
  - Data models and files
    - UML
    - XSD
    - RDF
    - Protobuf

UCAIug – User Groups

- **Enterprise Interoperability (CIM UG)**
  - Common Information Model (CIM) 61970 (Grid Operations), 61968 (Grid Support) and 62325 (Markets)

- **Substation Automation (61850 UG)**
  - 61850 – Secure Substation Communications
  - 61850-based extensions for wind, hydro, distributed generation, etc.
  - 62351 - Cybersecurity

- **Grid Edge Interoperability (OpenFMB UG)**
  - NAESB Standard for communication between field devices and the utility and substations
  - Open Field Message Bus: Information/data models, reference designs and interoperability guidelines.

ONE MEMBERSHIP ACCESSES ALL GROUPS

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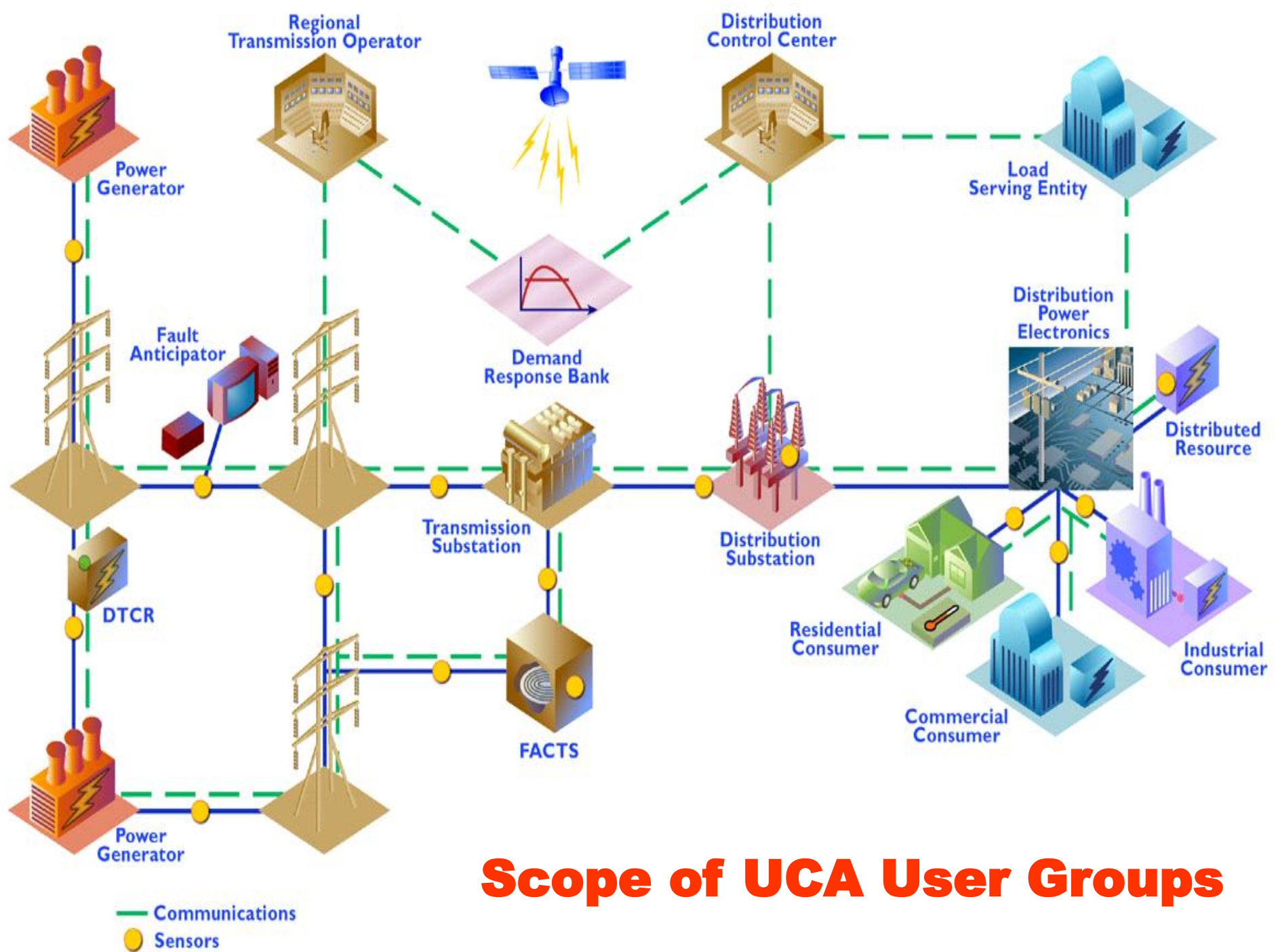
Scope of UCA User Groups

Key Organization Interactions

UCAIug Users Groups:

- Provides training, plug-fests, & marketing
- Governs Open-Source artifacts (use-cases, data models)

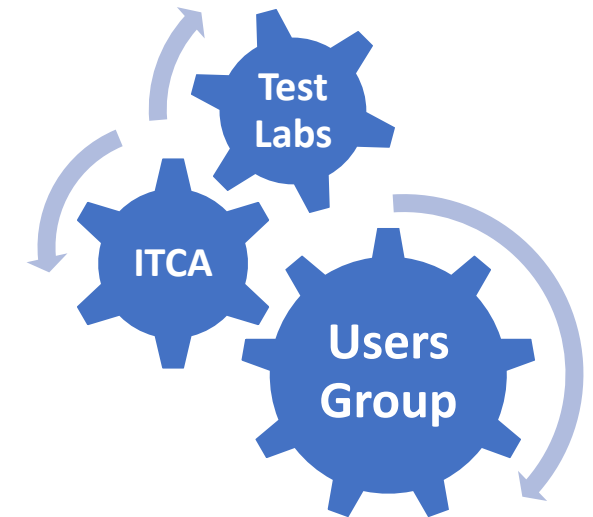**UCAIug Interoperability Testing & Certification Authority (ITCA)**

- Coordinates with Accredited Test Labs (ISO 17025) and Accreditation & Certification bodies (ISO 17065)

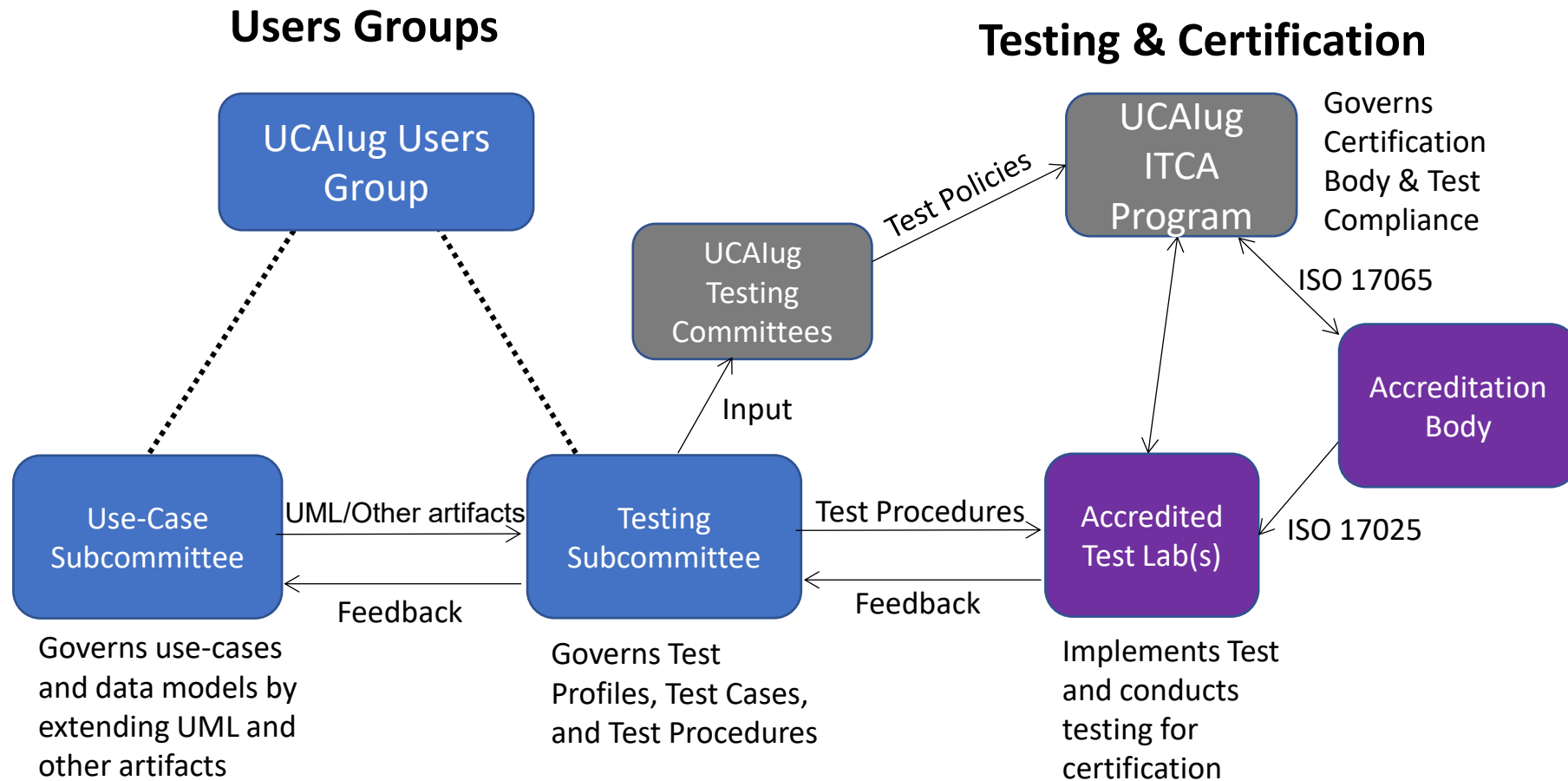**Standards Development Organization (SDO)**:

- *IEC TC57*
- *IEEE*
- *North American Energy Standards Board (NAESB)*

Accredited Test Labs:

- 61850 has 12 Test Labs
- OpenFMB and CIM each have 1 Test Lab in 2022

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User Group and ITCA Interactions

Users Groups

Testing & Certification

UCAIug Users Group

UCAIug Testing Committees

UCAIug ITCA Program

Governs Certification Body & Test Compliance

Test Policies

ISO 17065

Accreditation Body

Input

Use-Case Subcommittee

UML/Other artifacts

Testing Subcommittee

Test Procedures

Accredited Test Lab(s)

ISO 17025

Feedback

Feedback

Governs use-cases and data models by extending UML and other artifacts

Governs Test Profiles, Test Cases, and Test Procedures

Implements Test and conducts testing for certification

UCA International Users Group

UCAIug Testing Mission

Advancing Interoperability for the Utility Enterprise via support for international standards:

- Educational Activities
- Improvement Process for International Standards
- Testing and Certification
- Promotional Activities

UCAIug Testing and Certification

	Certification Status	Interoperability (IOP) /Plugfest
61850 users group	Well established	Every odd year since 2011 Next IOP in 2026
OPEN FMB	Live in 2022	September 2019 Begin Annual IOP in 2022
CIM users group	Live in 2026	September 2019 Next IOP in 2026

- UCAIug corporate members receive a discount to attend IOP Tests
- UCAIug corporate members receive a discount for Certification – scheduled in 2026
- UCAIug corporate members can participate and vote on test procedure artifacts
- UCAIug has strengthened the quality of all Conformance Testing Processes

UCAIug Testing Benefits

Corporate Members Only
- Influence Test Procedure Artifacts
- Access to Draft Conformance Test Plans
- Access to Interoperability Test Reports
- Discounted IOP Test Fees

Public Repositories
- List of Accredited Labs
- List of Vendor Certificates
- List of IOP Participants and Witnesses

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61850ug Mission

The 61850 Users Group is dedicated to providing a collaborative environment for the industry and assist in obtaining knowledge, testing, and experience in utilizing the IEC 61850 Standards.

Objectives & Scope of the 61850ug

- Forum for the IEC 61850 standards community - utilities, vendors, consultants, universities, others
- Education
  - Training
  - Interoperability Testing
- Networking of 61850 Users and sharing of 61850 user experiences
  - Annual meetings – to being in 2026
- Testing
  - Provides accreditation/audits for laboratories testing IEC 61850
  - Provides access to repository of conformance test certificates
- Clearinghouse for IEC 61850 Standards questions
- Access to UCAIug FREE tools

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Interoperability Testing

- Provide opportunity to observe and test in a multi vendor environment.
- Allows users to bring their concerns and develop test cases that investigate those concerns.
- Allows feedback to improve standards.

Next IOP scheduled for 2026

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CIMug Mission

The CIM Users Group is dedicated to managing and communicating issues concerning the IEC 61970 and 61968 standards and to serve as the primary means for developing consensus and consistency across the industry.

Objectives & Scope of the CIMug

- Central point for access to all things related to the CIM
- Forum for CIM users - utilities, vendors, consultants, universities, others
- Education
  - CIM University and WordPress site (Provide Certificate of Training for 6 PDH's for attending CIM U)
  - Webinars
- Networking of CIM Users and sharing of CIM user experiences
  - Annual meetings – North America and Europe
  - Oceania/Australian chapter potential for other global chapters
- Promote use of the CIM standards as interoperability solutions

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CIM Reference Material

For Corporate Members
- Discounts for
  - Testing events
  - Sponsorships
  - Meetings
- Full access to all CIM materials
  - Presentations from previous CIMug meetings
  - CIM Educational Materials

Some Materials are available on the UCAIug Public Site (Standards Artifacts page)

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OpenFMB Users Group Mission

Enabling utility service providers to simply deploy interoperable grid-edge operational systems by procuring and implementing certified commercial OpenFMB solutions from a variety of vendors, supported by an active Users Group.

Securely Federated Data Exchanges with Flexible Protocol Interfaces

Solar PV

Battery Storage

Electric Vehicle

Behind-the-Meter

3rd Party Aggregator

Modbus

Modbus / DNP3

OCPP

OpenADR / SEP2.0

Open Field Message Bus (OpenFMB)

DNP3

DNP3 / GOOSE

C12.22 / Other

DNP3 / ICCP

Cap-bank / Regulator

Breaker / Switch / Recloser

Meter

D-SCADA/DMS/EMS

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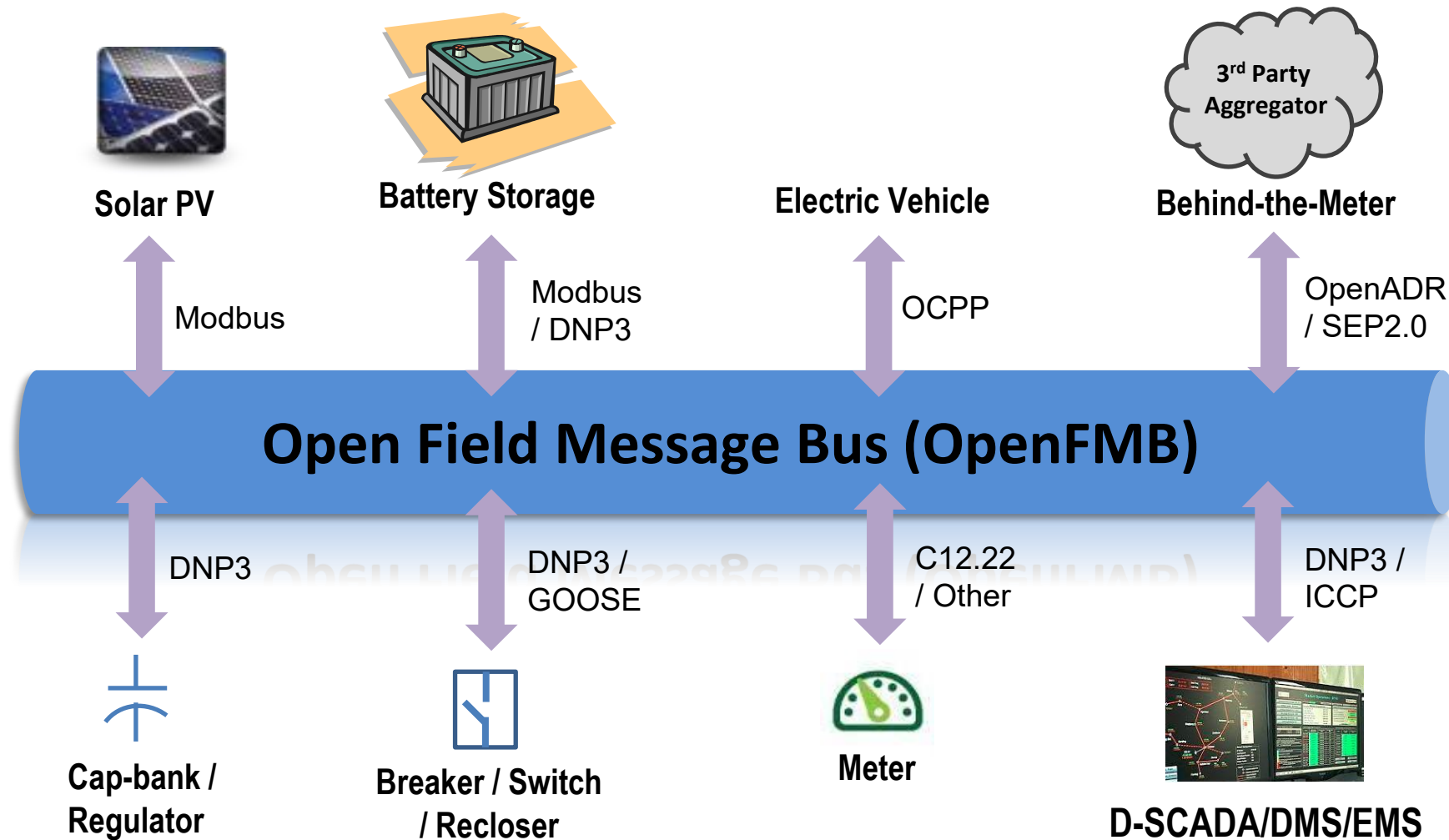
OpenFMB Life Cycle Framework

UCA OpenFMB Governed Artifacts (Apache 2 Open-Source License)

- Main and extension scenarios

- Platform Specific Models (e.g. IDL and Protobuf)

Business Case
- Business-driven solutions

Use Case

UML Modeling
- Platform Independent Model (e.g. IEC CIM and 61850)

Message Profiles

User Supported / 3rd-party Apps (UCA OpenFMB Certified Solutions)

- Field Implementation

Develop
- Application and Adapter Configuration (e.g. DNP3, Modbus, and GOOSE)

Deploy

Manage
- Health and lifecycle management

Who Should Join?

Every individual consultant should have an individual membership for access to information.

Every utility, supplier or large consulting firm should be a corporate member to maximize benefits and obtain voting and full participation privileges.

WWW.UCAIUG.ORG/JOIN

UCAIug Corporate Member Benefits

- Lower cost for
  - Test & certification activities
  - Meeting attendance
  - Access to IEC draft standards
- Member-only access to:
  - Industry experts via Working Group and Task Force meetings
  - Technical documents and best practices
  - Test procedure documents
  - IOP test reports
- Sponsorship opportunities for market branding
- UCAIug website market branding

Intangible Corporate Membership Benefits

- Bring your views and concerns regarding
  - Strategic planning
  - Meeting planning
  - Collaboration tools
  - Test Procedures
- Priority for selection of presentations
- All corporate members are shareholders of UCA with corporate voting rights
- Create a new Focus Community, Project, or Group

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Membership Options

Revenue in USD1	Annual Membership Dues (in USD)	# of User Accounts
Tier1: < $1Mil	$1,375	5
Tier2: $1 to $10 Mil	$2,750	10
Tier3: $10 to $100 Mil	$4,125	15
Tier4: $100 to $1 Bil	$5,500	20
Tier5: $1 Bil to $10 Bil	$6,875	50
Tier6: $10 Bil to $50 Bil	$10,450	100
Tier7: $50 Bil to $100 Bil	$16,000	150
Tier8: > $100 Bil	$20,000	Unlimited
Additional Brand/Email Domain/User Accounts	$2,000	Each
Qualified University/PUC	$1	As needed
Qualified Individuals	$375	1

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THANK YOU!

Questions?

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