

# SBML

Why it worked

Informing future standards  
development

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# Overview

- The essentials for standard development
  - Credibility
  - Roadmap
  - Products
  - Team
  - Community
  - Process
- Hard Stuff

# Credibility

- Institution
  - Reputation Blah Blah
  - Geography can be significant
- Funding
  - Ongoing
  - ***Visibly*** sustains team and process
- Endorsements
  - Developers of key platforms
  - Key Users
  - Leaders
- Technical Success - *Already*

# User Stories for a Roadmap

- What is the problem you are trying to solve?
- Where does the user get involved?
- Define success from the user's perspective
- What platforms will interact and how?
- If multiple users are involved what are their roles?

# Roadmap

- Short Term
- Realisable
- Essential
- Simple
- Platforms exist
- Market exists

- Long Term
- Visionary
- Optional
- Complex
  - Multiple User Roles
- Typically requires infrastructure
- Market does not exist yet
  - Created by Standard

# Products

- The Standard
  - Clearly identified
  - Formal
- Conformant Example Platforms
  - Should be the only conformant platform for a short period
- Interface Modules
- Conformance Test Infrastructure
- Infrastructure to support complex user stories
- Tutorial Documentation

# Team

- Editors
- Implementers
- Web
- Team Leader
- Host
- Community Liaison
- 'Curation'
  - Infrastructure maintenance

# Process

- Formal and Documented
- Important for credibility
- Should allow mechanism for correcting bugs and issuing new versions
- Should define who decides what and when

# Community

- Integrated into process
- Supported by meetings
- Ideally involves users
  - Too dry
- Benefits
  - Peer Review
  - Support to platform implementers
  - Users can influence development
  - Collective contribution to standard development

# Hard Stuff

- Standard Overlap
  - When you didn't get there first or at least that's what they think
- Community
  - It needs to change over time
- Platform Limitations
  - When platforms don't meet the vision
- Standards development cannot be research
  - Collaborative research is not efficient without standards

# Platform Limitations

- Balance current platform capabilities against long term vision
  - Compromise is part of the process
- Explain carefully to platform implementers what you are trying to achieve
- Move components of platform into interface modules so that implementers can be lazy
- Careful use of defaults and implicit but defined semantics
  - Example: Look no units, Look units are defined

# Standards development is not research

- Standards are for delivering interoperability using existing knowledge
  - Platforms exist or
  - Platforms conceivable with engineering effort
    - Note Plural
    - Semantics are well defined
- Standards create a solid foundation on which research can proceed
- Development of a straw man standard for incomplete or non-existent platform can be a research project but be prepared to be disappointed

# Conclusion

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  - Standards development cannot be research