



OPEN TECHNOLOGIES, OPEN MARKETS: THE VALUE OF STANDARDS PARTICIPATION

Embedded Tech Trends 2019

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SDO CHALLENGES AND PARTICIPATION

- Embedded systems provide flexible design opportunities and drive bleeding edge technologies.
- The need for embedded systems and standards is greater than ever before.
- SDOs (Standard Development Organizations) facilitate the development of embedded standards.
- Active participation is key both for individual companies and the embedded industry.
- This presentation will discuss both the challenges facing standard development and the benefits of overcoming them.
- *Without participation, no benefit.* Our focus is on Standard participation and completion.
- We all know what open Standards are, but there is a difference between observing and participating.



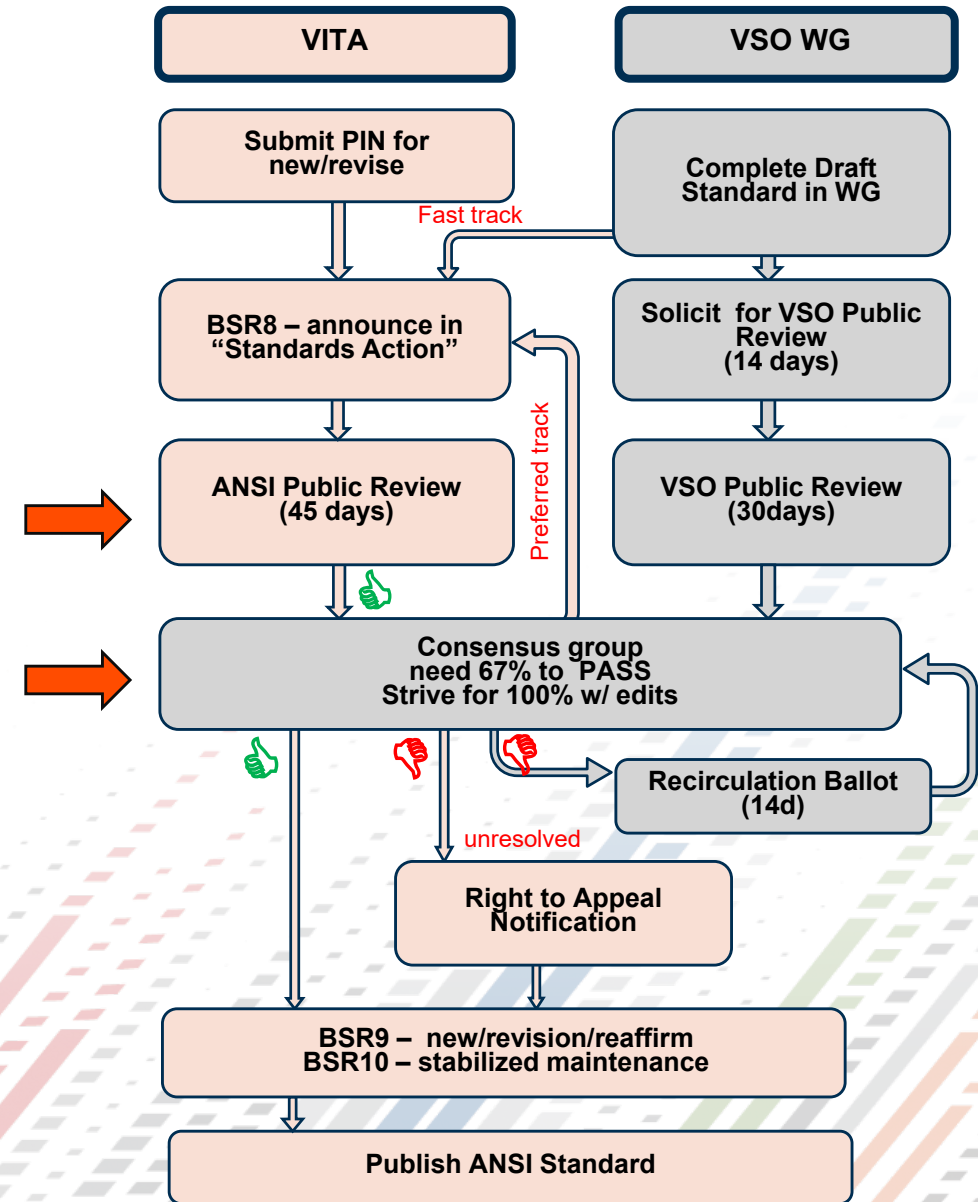
1. NOT A MEMBER OF AN SDO

- Problem:
 - Desire to participate, but not a member
 - Most common problem in standards working group participation
 - The interest is there, non-membership creates obstacles
- Results:
 - Can't actively participate, can't share drafts, can't vote
 - Becomes difficult to actively monitor progress
 - Voice gets lost in the crowd
- Solution:
 - Join



2. LATE TO THE PARTY

- Problem:
 - Members involved too late (ANSI phase)
 - See Problem 1, many aren't members, leads to late/external participation
- Results:
 - Present valid concerns but ultimately delays the standard
- Solution:
 - Get involved early!
 - Many standards often start as work groups.



3. BUILDING A SOLID TEAM

- Problem:
 - No team dedicated to developing the Standard
- Result:
 - Standard left incomplete or delayed
 - Interest lost, get frustrated, give up on process
 - People start using it, but not really “compliant”
 - Standard falls asleep (z-VITA)
 - Standard is shutdown
- Solution:
 - Many active work groups consist of systems, mechanical, and electrical engineers
 - Marketing and component expertise are also desired.
 - Advertise what kind of expertise is needed for your group. Think before you start!



ORGANIZATION

Curtiss-Wright (28)
Defense Solutions
www.curtisswrightds.com

Mercury Systems, Inc. (45)
www.mrcy.com

Abaco Systems (53)
www.abaco.com

Acromag, Inc. (10)
www.acromag.com

ADLINK Technology Inc. (20)
www.adlinktech.com

AirBorn Inc. (6)
www.airborn.com

Airbus Defence and Space (6)
<https://www.airbus.com/>

Aitech Defense Systems, Inc. (9)
www.rugged.com

LOGO



COMPANY DESCRIPTION

An industry-leading supplier of sophisticated electronics products for harsh conditions.

A leading commercial provider of secure processing subsystems designed and made in the U.S.A

DSP and multiprocessing solutions

A leading designer of analog and digital control products for the industrial I/O market.

A leading provider of building blocks and intelligent platforms for edge computing.

AirBorn manufactures mission-critical interconnects for OEMs

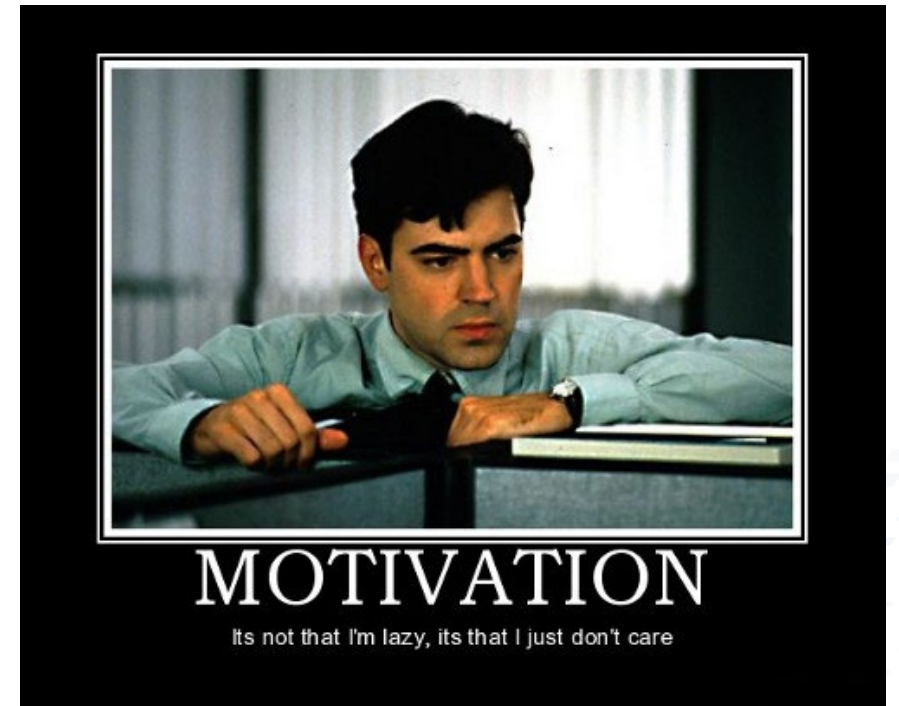
Airbus Defence and Space

Aitech offers military and space-qualified, commercial off-the-shelf (COTS) embedded computing products for rugged defense, aerospace and astronautics (space) applications.



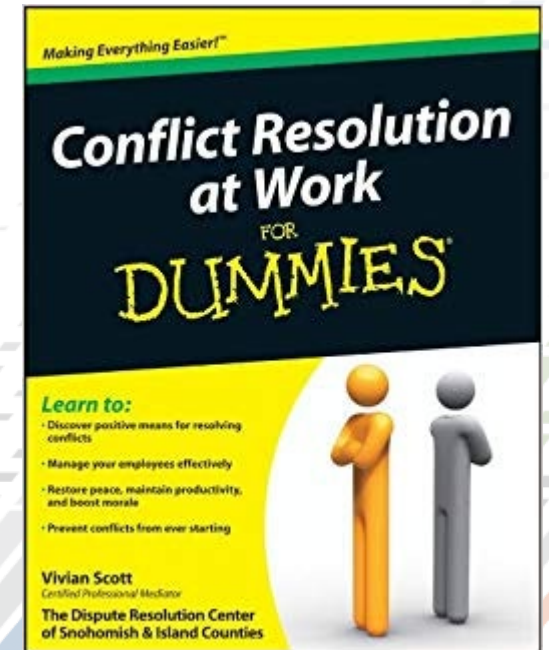
4. LACK OF INTEREST

- Problem:
 - Just not interested.
 - People may want to see changes but don't have the bandwidth
- Results:
 - Quick decisions and group dissention
 - Lacks balance
 - Especially difficult for new Standards, get shutdown
- Solution:
 - Take action: yes or no?
 - Use ballots as a tool to gauge interest.
 - Many times, the market isn't ready, may be better to wait/close



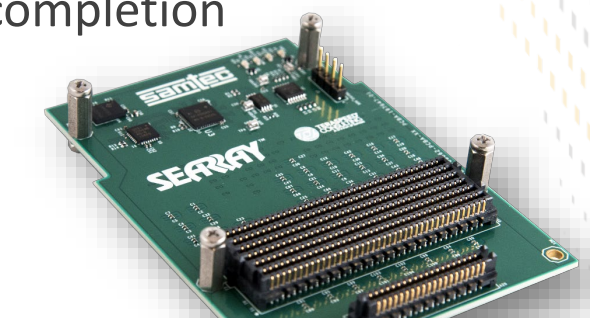
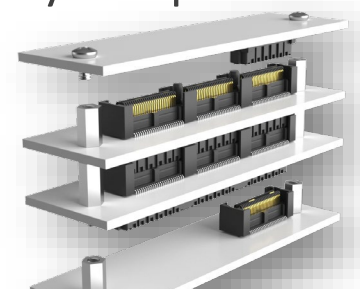
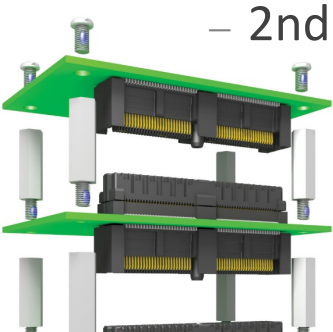
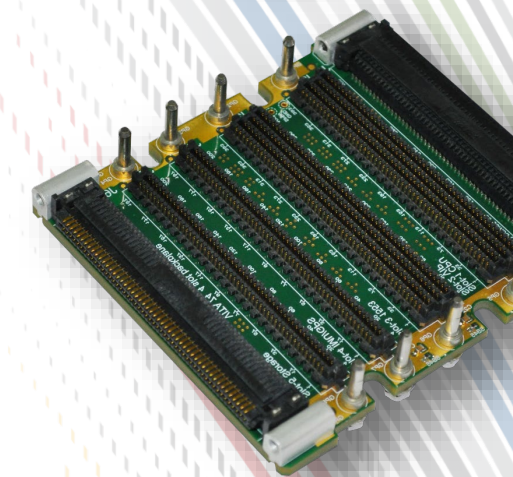
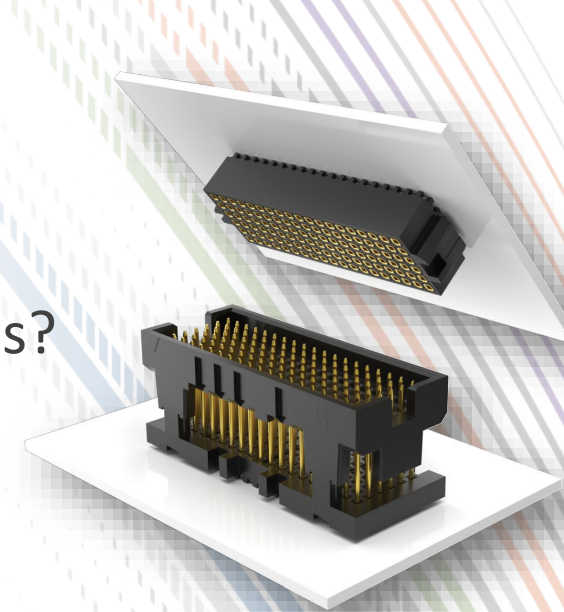
5. CONFLICT

- Problem:
 - Can't "standardize"
 - Goes from productive to destructive
- Results:
 - Can lead to resolution (this is a good thing!)
 - If unresolved, creates problems
 - Many different wants/needs, no one agrees
 - Efforts abandoned or shut down
- Solution:
 - Chairman may need to address concerns through conflict resolution



THE MORTAR BETWEEN THE BRICKS – CONNECTORS IN STANDARDS

- Why are connectors important to the Standards participation process?
- Connector history has changed...
- Many standards are designed around the connector (VPX, VMEbus, VNX, FMC) (happens in PICMG, PC/104)
- System designers + connector companies complete Standards
- We benefit from a balanced approach:
 - Not dominated by single interest category, individual, or organization
 - Allows for diverse approach, considering more angles than normal etc.
 - 2nd sources allow for healthy competition and drive Standard completion



FOSTERING INTERNAL GROWTH

- Standard participation leads to further standards/study groups
 - VITA 57.5 (study group)
 - VITA 47 (expanding)
 - VITA 78 (expanding)
 - VITA 85.101 (study group)
 - VITA 46 and 65 are examples of how the process builds off itself
 - Now up to VITA 46.30 (solid participation yields results!)
 - Leads to growth in other Standards organizations



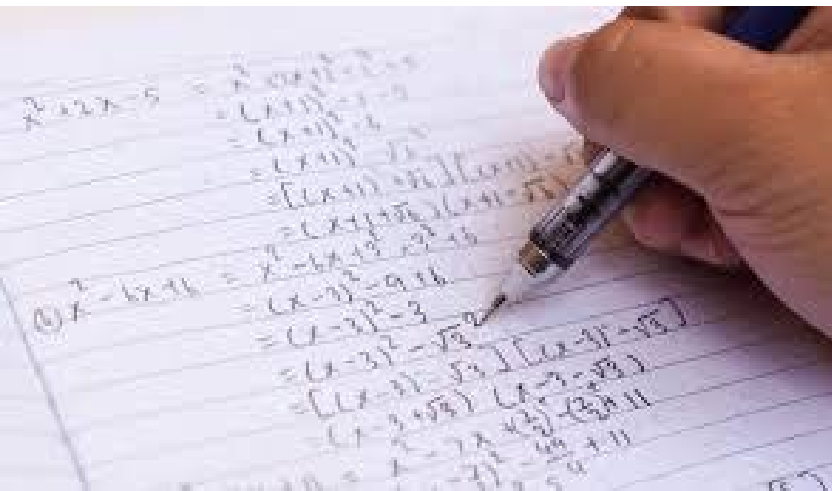
BOTTOM LINE

- Conclusion:
 - Open Standards are driving next-gen technologies
 - These can only work with your participation!
 - You don't have to be a EE to contribute or run a working group!
 - Many times, just need to generate interest
 - Benefits outweigh time/resources involved

Product listings in VITA web product directory with links	✓
Inclusion in membership and marketing alliance directories with links	✓
Listings in VITA's Front Page "Industry News"	✓
Permission to use VITA technology logos in product and marketing materials	✓
Eligible to post white papers on VITA web site	✓
Participation in VITA's Marketing Alliances	✓
Participation in VITA sponsored conferences (\$)	✓
Access to advertisement space on VITA's web site (\$)	✓
Full participation in the VITA Standards Organization	✓
Free standards documents for member company internal use	✓
Access to VITA's "Members Only" web pages and information	✓

HOMEWORK

- Good Participant
 - Actively Participates!
 - Gets involved early
 - Represents company and industry interests
 - Offers constructive criticism
 - Sees it through to the end
- Poor Participant or Observer
 - Observes/"Monitors" without contributing!
 - Gets involved late or not at all
 - Represents only company interests
 - Argues for personal preference
 - Involved at the end or leaves early





THANK YOU...ANY QUESTIONS?



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