

Interoperability Standards

Summit on Implementing Wireless Communications

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- **Objectives for 2008:** Public safety interests, rather than vendors, drive communications and interoperability solutions and standards.

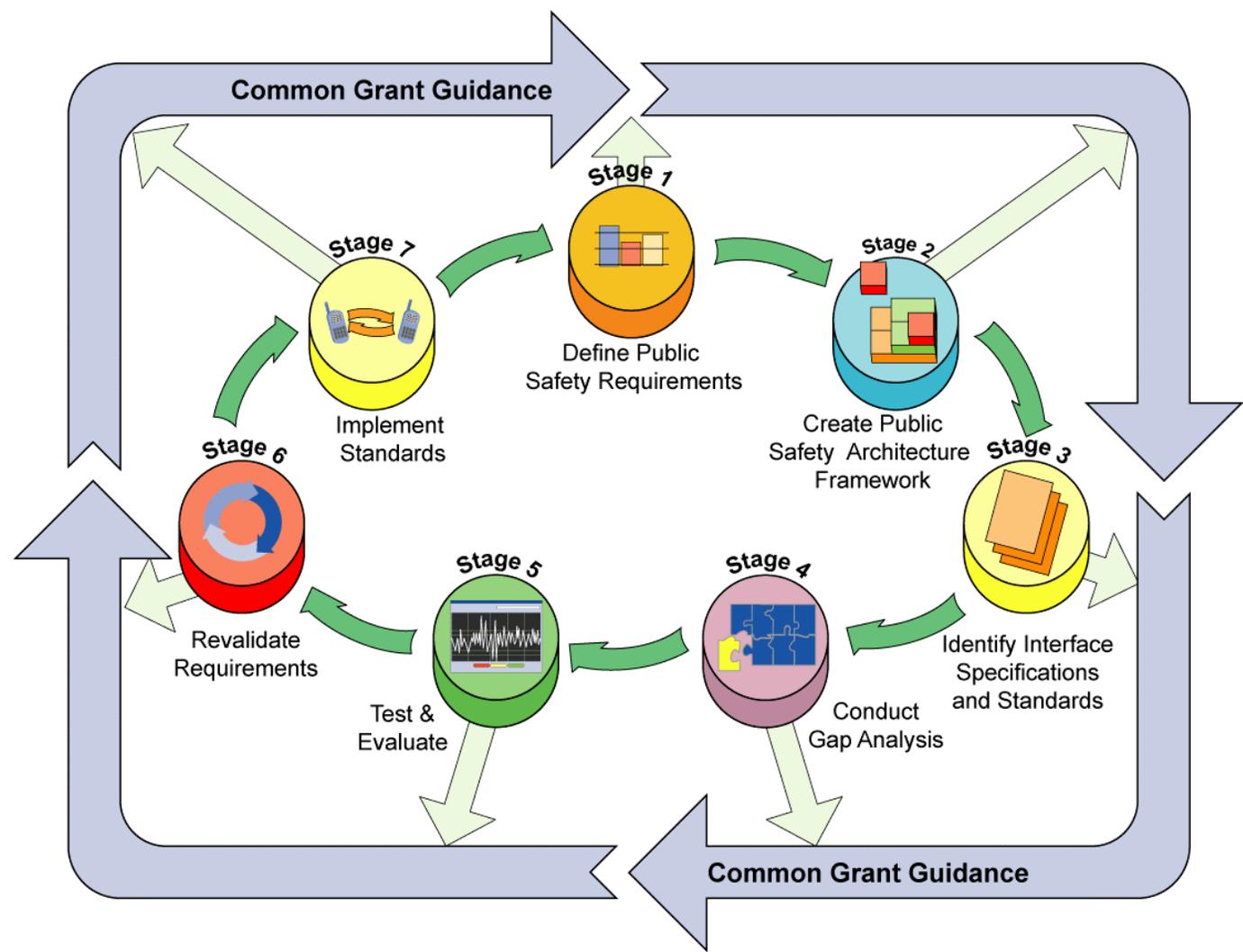
Implications and Assumptions (2008): A disciplined, structured process will be required to ensure that public safety's interests drive the development of solutions and interface standards (specifications).

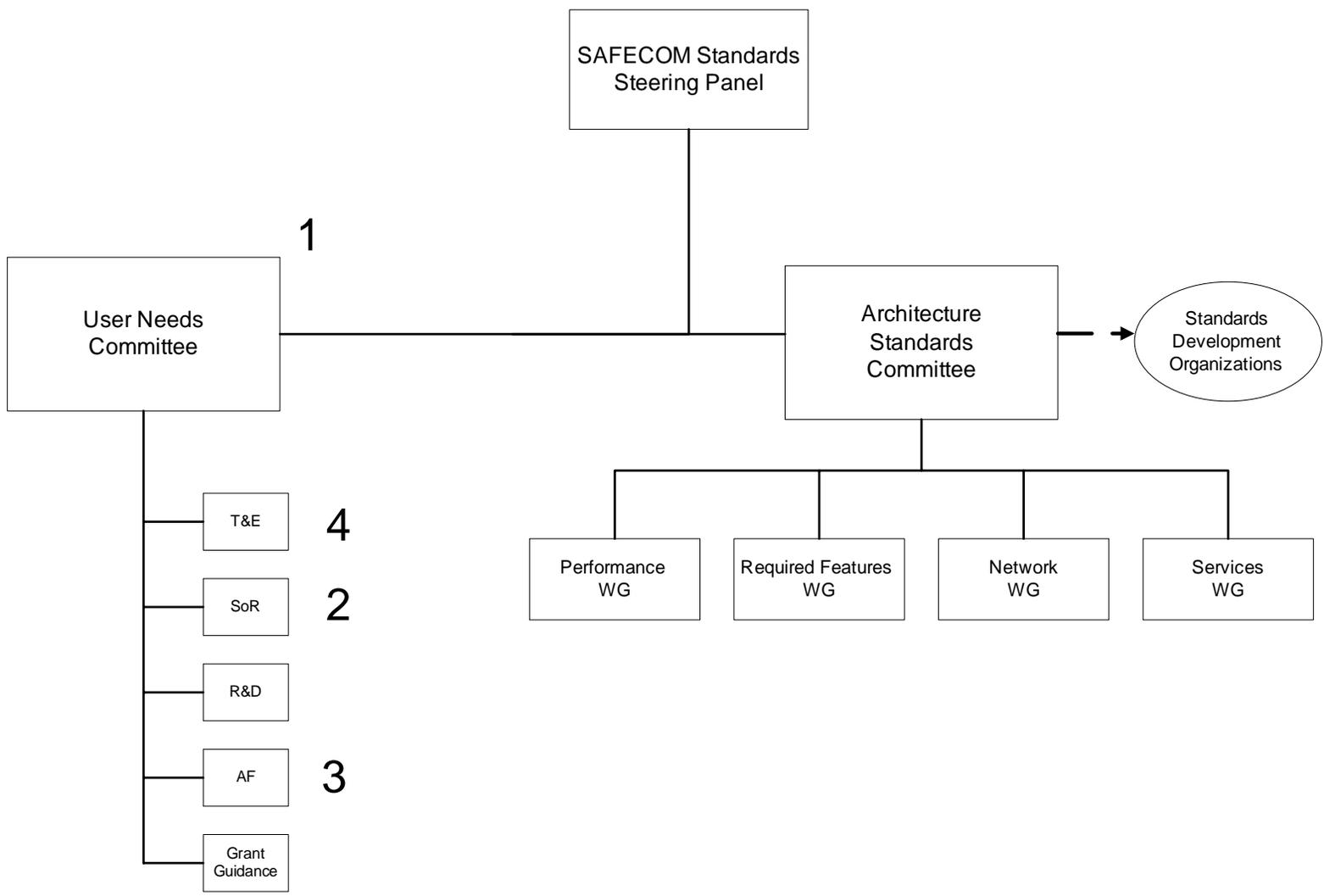
- **Objectives for 2023:** There is an integrated system-of-systems, in regular use, that allows public safety personnel to communicate (voice, data and video) with whom they need on demand, in real time, as authorized.

Implications and Assumptions (2023): An integrated "system-of-systems" in the year 2023 implies the widespread acceptance and use of interface standards by industry, and the widespread procurement and deployment of these systems by public safety.



A Lifecycle Approach to Standards Development



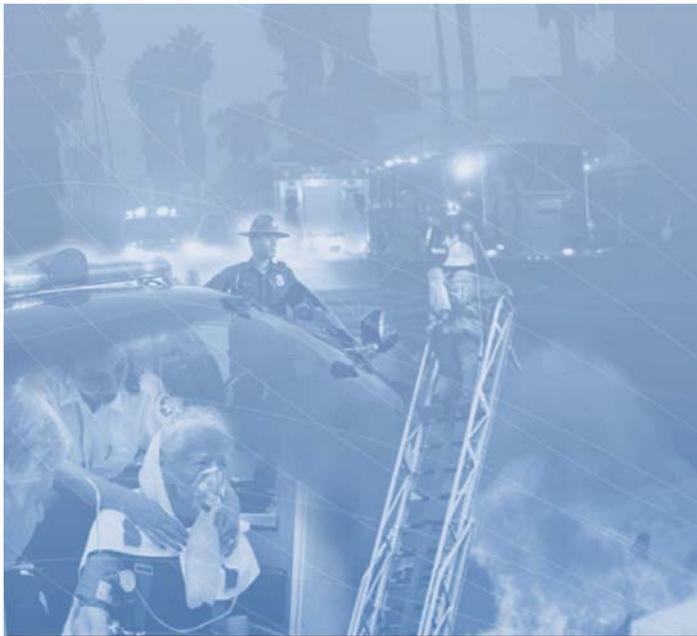




Public Safety Statement of Requirements (SoR)

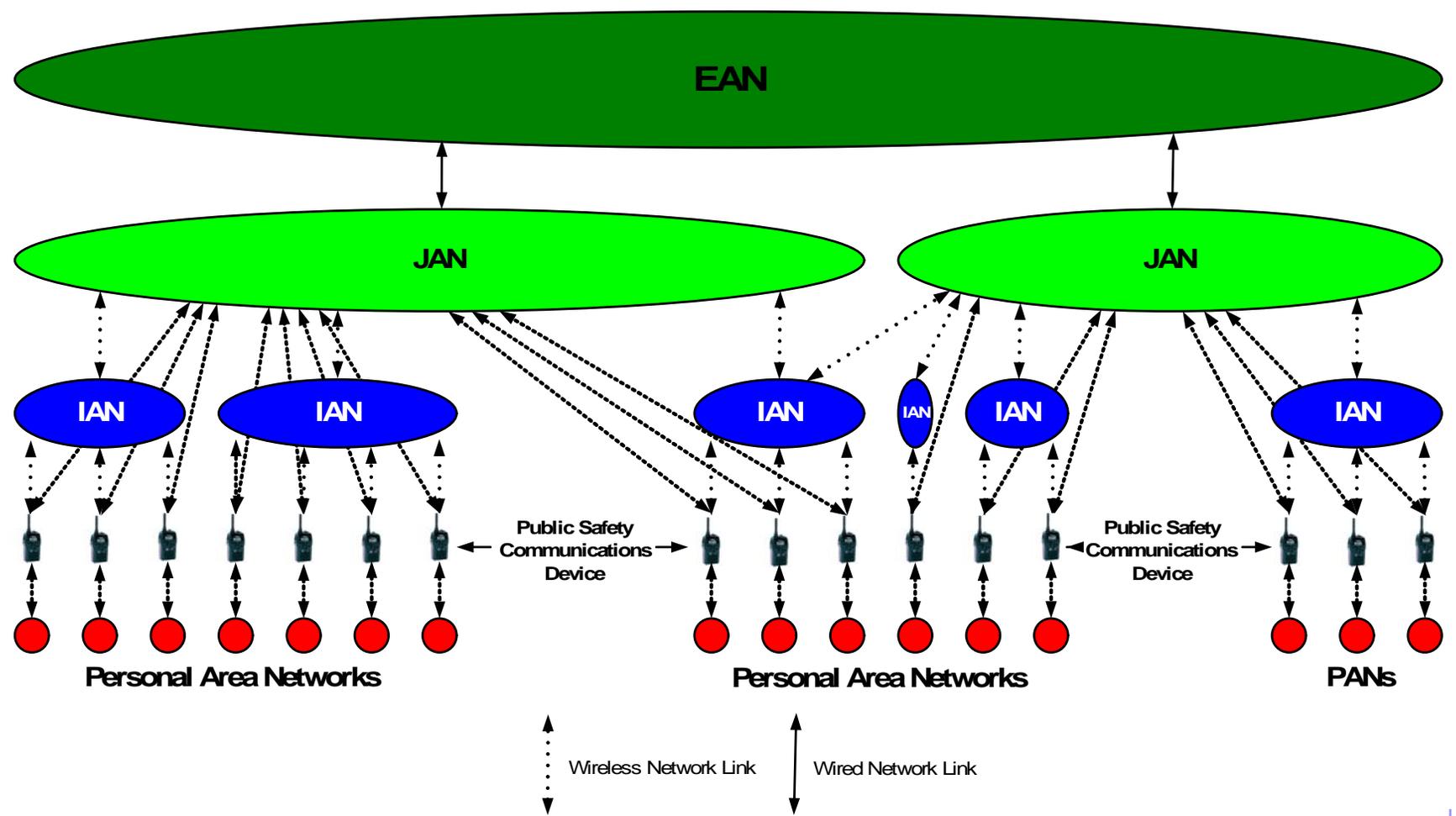


- The SoR is a practitioner created set of communications requirements
 - It is a living document



- Version 1.0
 - Released in March 2004
- Version 1.1
 - Draft is complete; being vetted through Public Safety/NPSTC
- Version 2.0
 - Will begin to focus on quantitative requirements
 - Work is underway

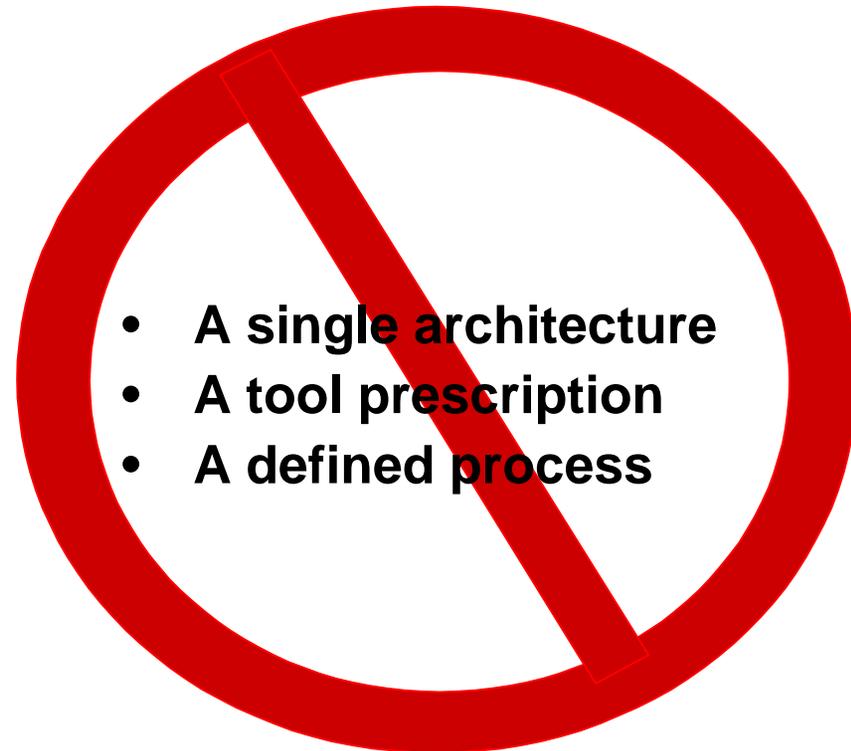




The Framework is...

- A discipline for examining processes and system alternatives in context with operations and the information required
- Common, pragmatic guidelines for describing architectures to enable comparisons and dovetailing
- Tailor-able and modifiable to suit requirements

The Framework is not...





- The Architecture Framework will comprehensively describe **WHAT** the overall structured approach is to achieve a system-of-systems for nationwide interoperability
- Interface Standards define **HOW** the elements of the Architecture Framework will work together. That is, **HOW** interoperability through a system-of-systems approach will be achieved.



- Public safety must have confidence that the P25 equipment being purchased does what the standard requires!
- The government programs requiring P25 acquisition through federal grants must have confidence that the equipment required operates to the standard!
- There is currently no mechanism to ensure compliance



- NIST/OLES tests performed on P25 subscriber units found the following:
 - Conventional Voice Interoperability Testing
 - Identified numerous deficiencies with radios lacking required features or incorrectly implementing them
 - One radio while in talkaround mode transmits on the wrong frequency when an emergency call is placed



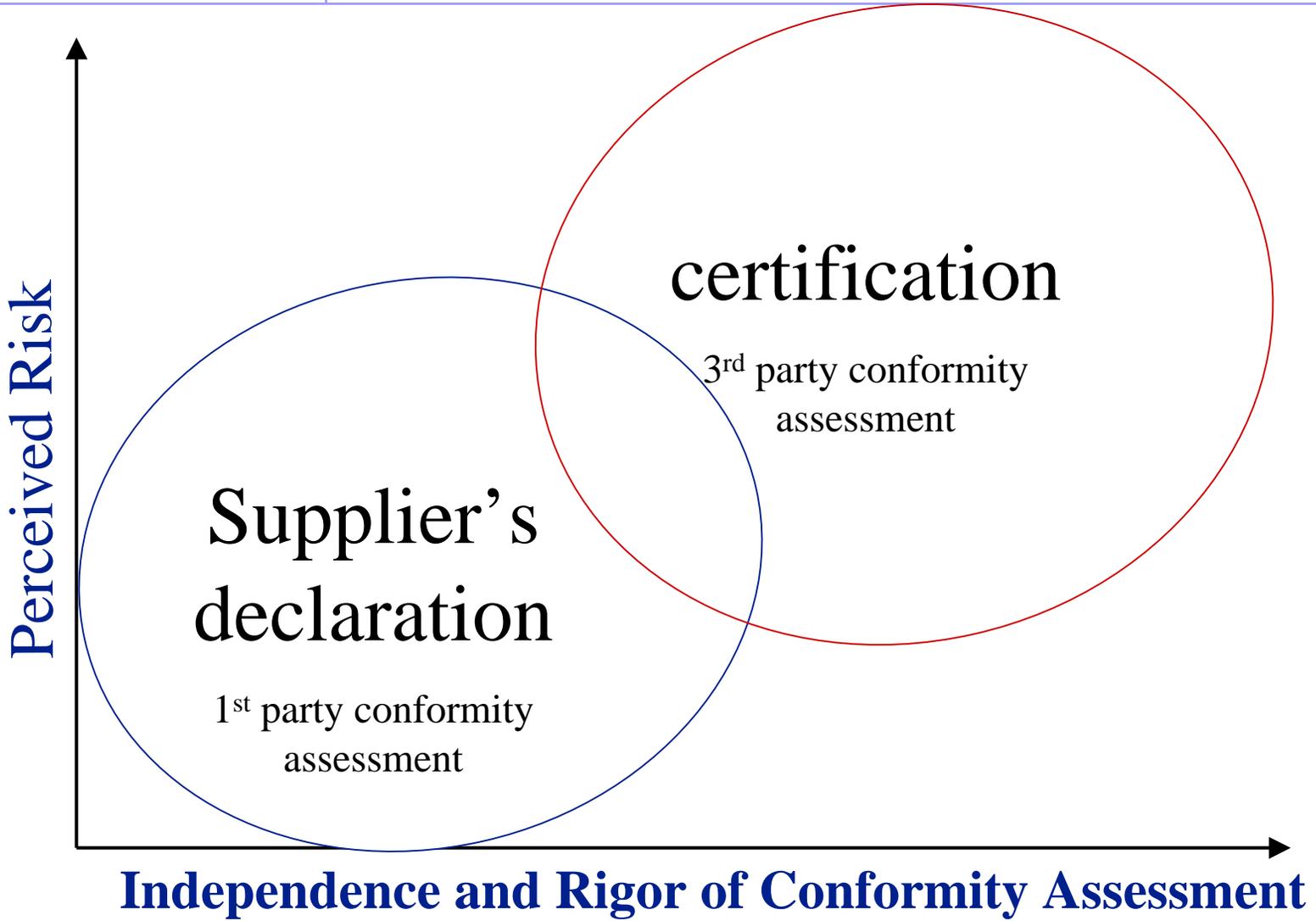
– Performance Testing

- Identified radios in the federal inventory certified by the vendor as TIA-102 compliant which are not compliant
- Discovered widespread differences in quality of receivers—especially in the wideband analog mode
 - Two models of radio operating in wideband analog mode subject to the same levels of adjacent-channel interference

» **Radio #1**

Radio #2







P25 Conformity Assessment Program



- Components:
 - Grant guidance requiring P25 products purchased with federal funds meet the requirements of the conformity assessment program
 - 3rd party type testing to evaluate compliance to requirements of the P25 Standard by accredited independent laboratories
 - Formal suppliers declaration of conformity to P25 requirements with results made available to public safety



Questions?



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