



# The Changing Face of Standards (at Sony)

**Open Forum for Standards Developers**

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cooperation  
collaboration  
harmonization

# Overview

## □ Agenda

- Item 1 Objective of Standardization at Sony
- Item 2 Evolution of Standards Development Organizations and Consortia
- Item 3 Interoperability and Hybrid Standards
- Item 4 The Four Freedoms

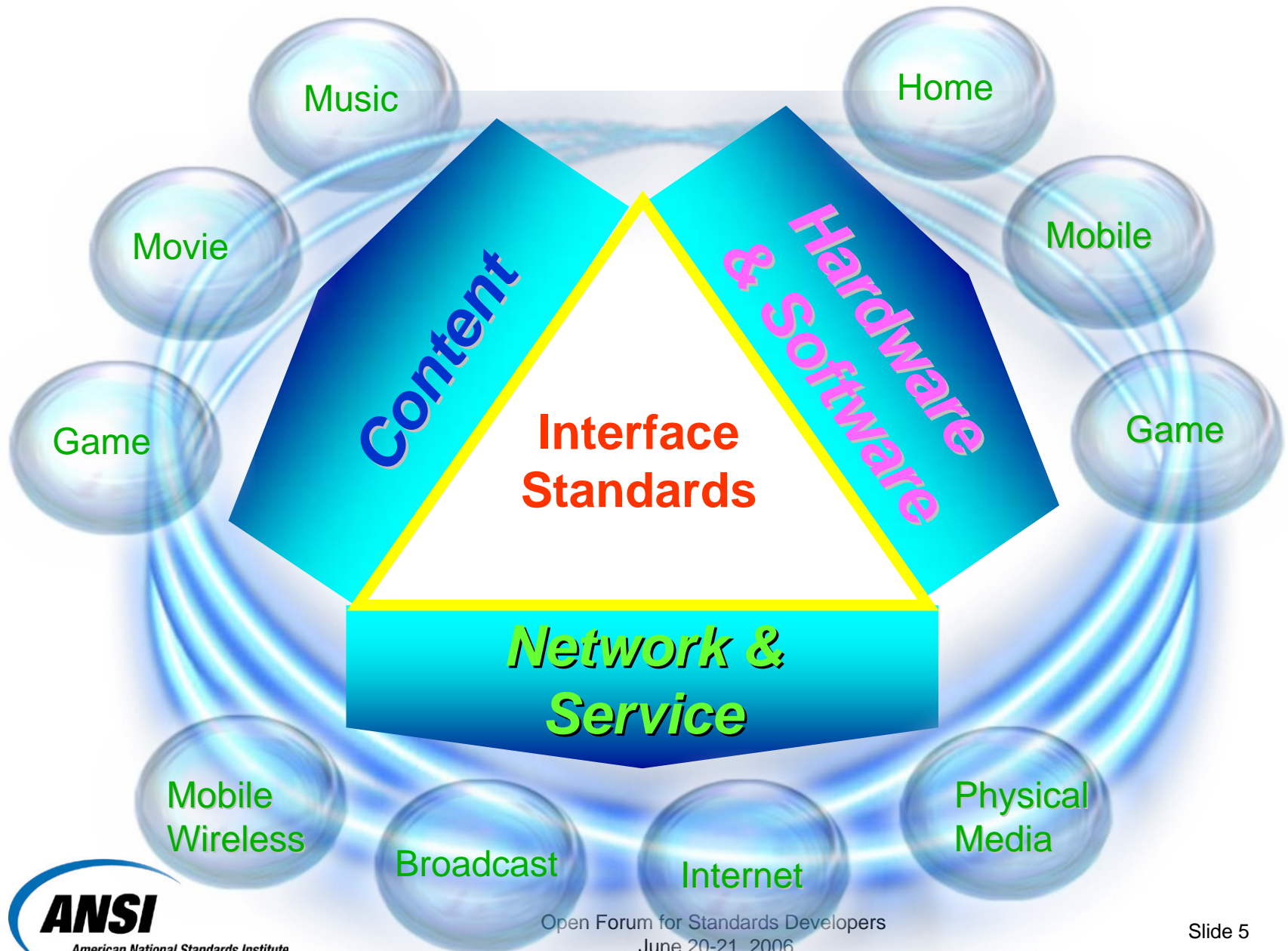
# Objective of Standardization for Sony

*To Provide The Richest, Easiest  
And Most Satisfying  
User Experience*

# User Experience

- ❑ *In The Days of Analog AV*
  - It was all about standalone hardware
  
- ❑ *In The Days of Digital AV*
  - Both Hardware and software played the major role
  
- ❑ *The Today of Connected (or Networked) AV*
  - User friendly *Interoperability in our Universe* is key

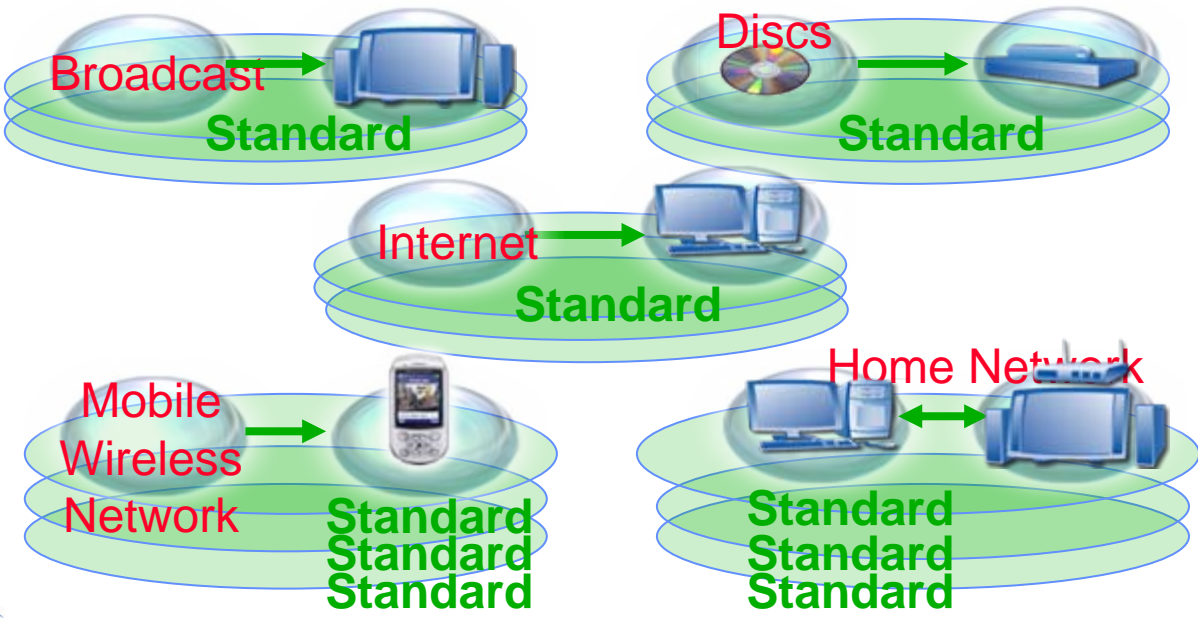
# Model Universe of Interoperability



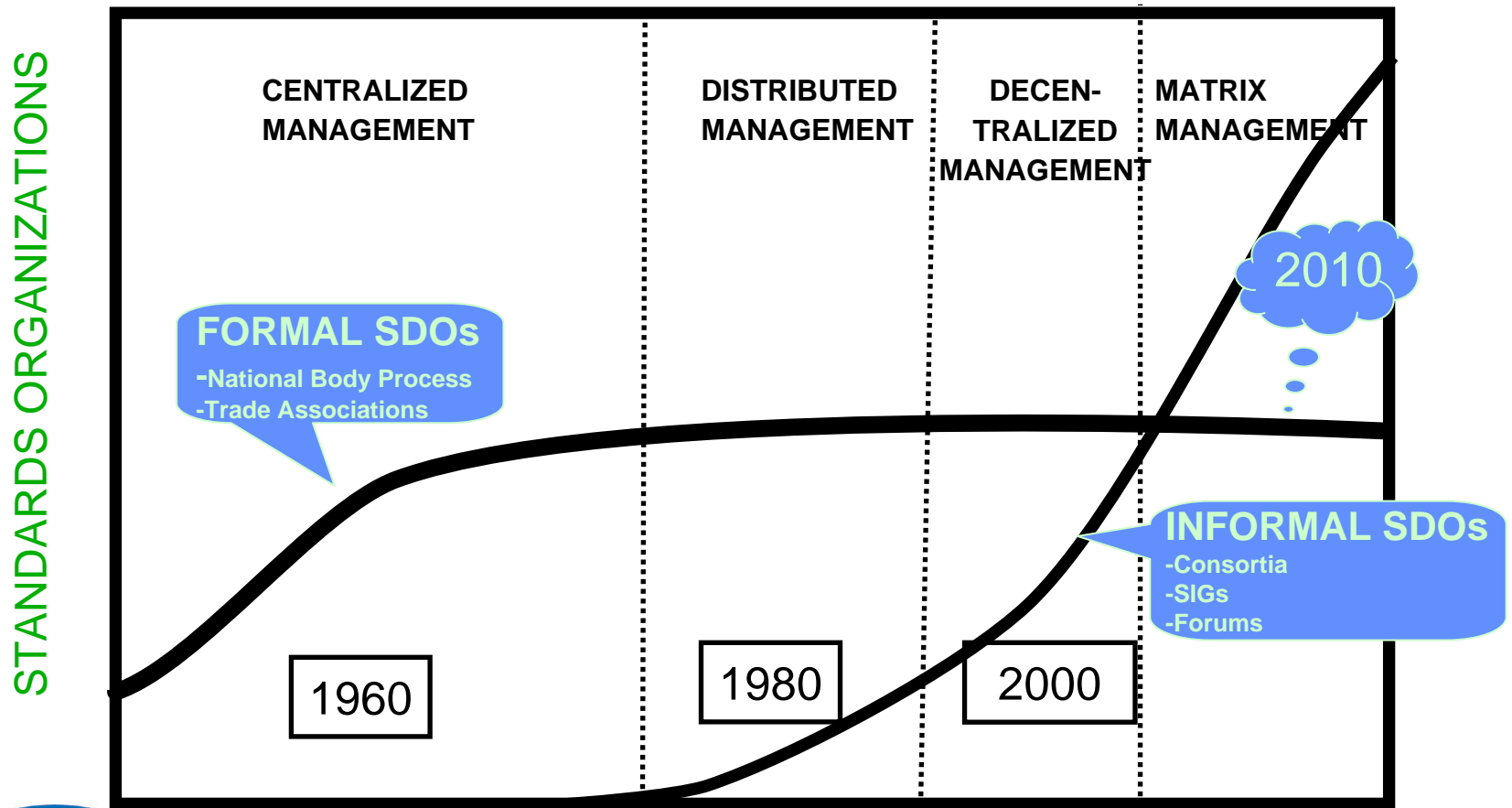
# The Real Universe of Today

Multiple Stacks of Standards  
are disturbing  
User Friendly Interoperability

## This is our challenge



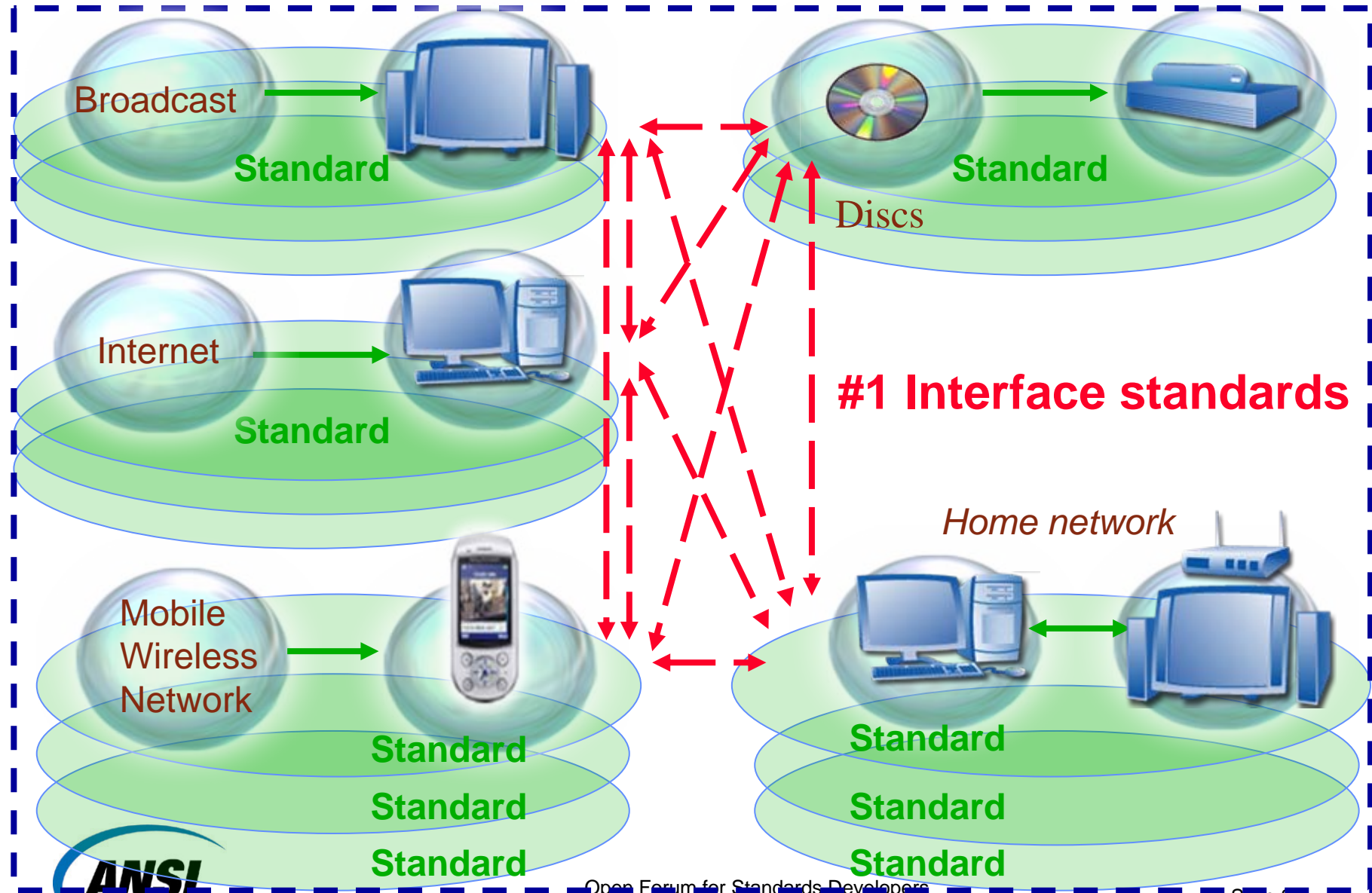
# Evolution of Standards Development Organizations and Consortia



Source: Gerry Lane, IBM

# Greater Demand for Inter-standard Interoperability

## #2 Overall standards w/common subsets



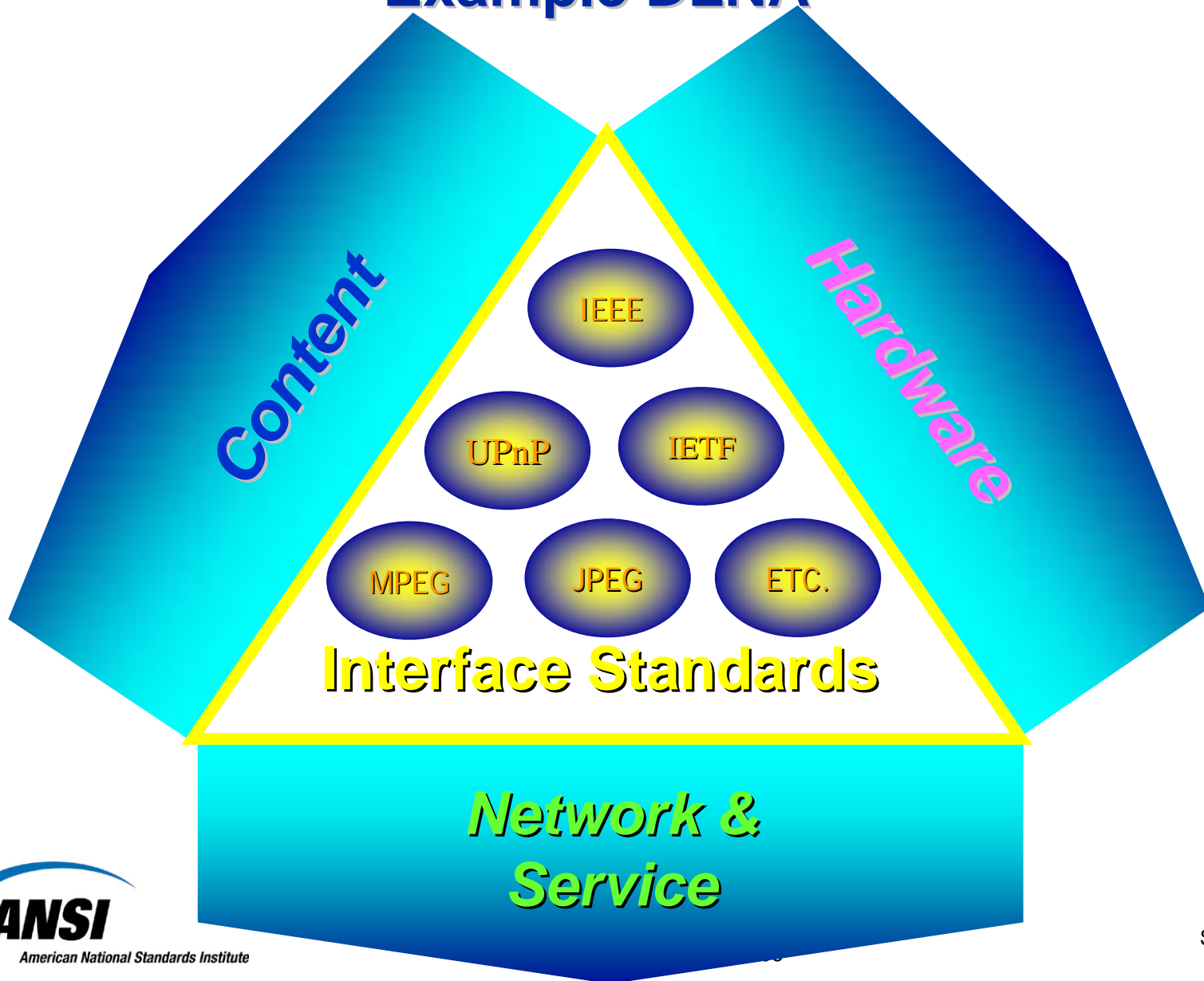


# Networked AV Standards Complexity

- ❑ The usefulness of the products on a network is equal to the cube of the number of products attached (so called network effect).
- ❑ However, the complexity of standardization of a network is larger than the cube of the number of standards involved for interoperability (for which I'll coin the term network standards effect)
  - Thus the need for Hybrid Standards

# Hybrid Formal/Consortia Process

## -Example DLNA



# Our Four Freedoms

- **Safeguard Consumer Choice, Competition & Investment**
  - **Avoid Monopolistic practices**
  - **Avoid Orphaning**
  - **Orderly transition plans for new technologies**
- **Establish Fair and Open Technical Standards**
  - **Freedom to choose where to do the work**
  - **Hybrid Standards where applicable**
- **Require a Level Playing Field**
  - **Net Neutrality**
  - **Home Net Neutrality**
- **Remove Barriers to Innovation**
  - **Freedom to manage IP**
  - **Freedom for self declaration of conformity**

# Global Open Standard



## DTV

デジタルテレビ  
情報化研究会



Blu-ray Disc  
Association

## DLNA

Digital Living Network Alliance



INFORMATION  
TECHNOLOGY  
INDUSTRY COUNCIL

# Open Standard



American National Standards Institute

## DRM

Copyright  
Forum



## CE Linux Forum

## CODEC



## IEEE



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**SONY**