

Setting Standards



A Simulation Exercise on Strategy and Cooperation in
Standardization

Standards Workshop EPA / NIST

Washington D.C. June 3rd 2010

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Contents of this Slideshow



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About Standardization Processes



About Mind Motion Technology

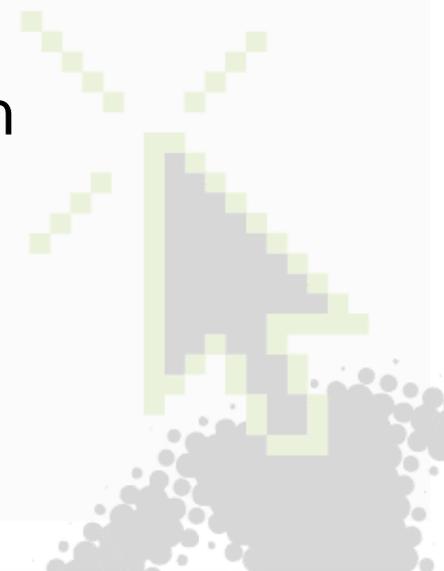
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Learning by Doing...



- You will participate in a fictional standardization process
- A new formal standard may or may not emerge before lunch...
- We will examine what happened, and why
- We will draw lessons for real life standardization
 - The Politics of Standards Processes
 - Negotiation & Leadership
 - The Roles of Government



Why a simulation?

- **Safe environment for trial and error**
- **Action and Reflection, Practice & Theory**
- **Experiencing the Difficulties of Competitive Collaboration**



Simulation = Simplification



Simulations are a *simplification* of the reality

- it's not about the technology
- it's not about a specific process
- it's about the essence of the process

Patents are an important issue, but

- are not the topic of this simulation



Learning Goals



- Develop an Understanding of the Stakes, Strategies and Dilemmas in Standardization Processes
- Identify Stakeholder's Interests and Public Interests
- Become Familiar with the Role of Procedures in Standardization
- Develop Analytical and Practical Skills for Successful Engagement in the 'Politics' of Standard-Setting

Standardization

A standard is a document established by consensus (...) that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, (...)

ISO/IEC 2004



Standardization

A standard is a document that establishes uniform engineering or technical specifications, criteria, methods, processes, or practices.

Wikipedia, 2009



Why Standardization?

Reasons for Standardization include:

- Safeguarding Consumer Interests
- Promoting and Protecting Producer Interests
- Securing Public Interests
- Enabling Economic Competition
- Stimulating Innovation
- And more...



Standardization

At Least Three Kinds of Processes:

- Through Competition: 'uncoordinated market'
- Through Coercion: 'state control'
- Through Co-operation: 'negotiated agreement'



Standardization through Co-operation

- **Creating Conditions** for
- **Voluntary Compliance** to a
- **New Standard** through a
- **Negotiation Process** Guided by
- Negotiated **Formal Procedures**
- Enforced by a Neutral **Standards Organisation**



Phases of the Process

- Advocacy for a New Standard
- Deciding on a Process with a Standards Organization
- Formal Process
- Follow-up Process (Implementation)



Phases of the Process

- Advocacy for a New Standard
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- **Formal Process**
- Follow-up Process (Implementation)



Setting Standards for



Mind-Motion Technology

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Mind-Motion



- Mind Motion Technology allows PC users to operate certain functions of their computers hands free – with their minds
- By concentrating on a symbol from a standard table, users emit brain waves that are detected by the Mind Motion receiver that is connected to their computer equipment

M.I.S.T.



**TechnoPlug has introduced the de facto standard for
Mind-Motion Tecnology:**

- Mind Interface Symbol Table (MIST) with 300 symbols
- Mind Motion Receiver Frequency: 8 MiMo



M.I.S.T.



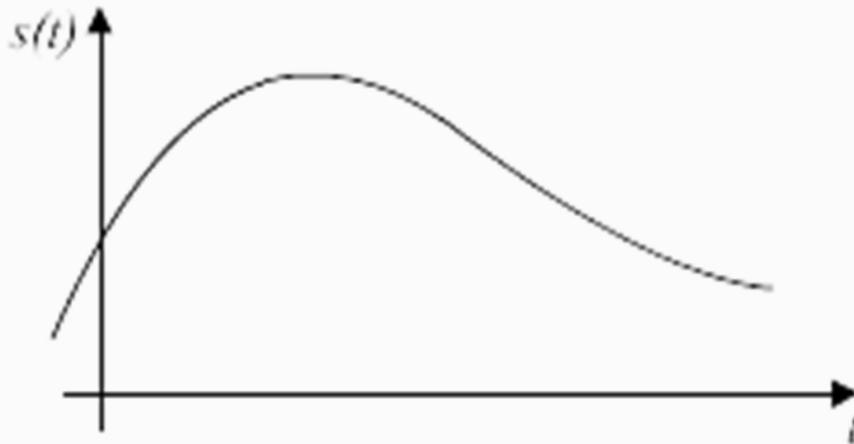
COMPONENT DIRECTION ORIENTATION AND ORIGIN LOCATION				BRIDGE		CP		CPZ	
<p>ALL SYMBOL NAMES ARE SUFFIXED WITH THE DIRECTION INDICATOR.</p>									
				CAC		CRPH1		CRPH2	
AHP1				CRPH3		CRTE			
AHP2				CRTU		CRU			
AHP3				CV		L		GND1 GND2 GND3	
AHP4				LA		LAPP		LC	
AHP5				LMPF		LMP1		LMP2	
ANTEN				MCP		ONOSF			
ARW ARW1 ARW2				ONFET		ONQUN1			
BALL				ONPH2		ONPH3		ONPH	
BAT1				ONQUN2		ONPET			
BAT2				ONQUN3		ONPH			
BELL				ONQUN4		ONQUN5			
BRKR				ONQUN6		ONQUN7			
FUSE				ONQUN8		ONQUN9			
BUZZ				ONQUN9		ONQUN10			
C				ONQUN11		ONQUN12			
CON1				ONQUN13		ONQUN14			
CON2				ONQUN15		ONQUN16			
CON3				ONQUN17		ONQUN18			
CON4				ONQUN19		ONQUN20			
CON5				ONQUN21		ONQUN22			
CON6				ONQUN23		ONQUN24			
CON7				ONQUN25		ONQUN26			
CON8				ONQUN27		ONQUN28			
CON9				ONQUN29		ONQUN30			
CON10				ONQUN31		ONQUN32			
CON11				ONQUN33		ONQUN34			
CON12				ONQUN35		ONQUN36			
CON13				ONQUN37		ONQUN38			
CON14				ONQUN39		ONQUN40			
CON15				ONQUN41		ONQUN42			
CON16				ONQUN43		ONQUN44			
CON17				ONQUN45		ONQUN46			
CON18				ONQUN47		ONQUN48			
CON19				ONQUN49		ONQUN50			
CON20				ONQUN51		ONQUN52			
CON21				ONQUN53		ONQUN54			
CON22				ONQUN55		ONQUN56			
CON23				ONQUN57		ONQUN58			
CON24				ONQUN59		ONQUN60			
CON25				ONQUN61		ONQUN62			
CON26				ONQUN63		ONQUN64			
CON27				ONQUN65		ONQUN66			
CON28				ONQUN67		ONQUN68			
CON29				ONQUN69		ONQUN70			
CON30				ONQUN71		ONQUN72			
CON31				ONQUN73		ONQUN74			
CON32				ONQUN75		ONQUN76			
CON33				ONQUN77		ONQUN78			
CON34				ONQUN79		ONQUN80			
CON35				ONQUN81		ONQUN82			
CON36				ONQUN83		ONQUN84			
CON37				ONQUN85		ONQUN86			
CON38				ONQUN87		ONQUN88			
CON39				ONQUN89		ONQUN90			
CON40				ONQUN91		ONQUN92			
CON41				ONQUN93		ONQUN94			
CON42				ONQUN95		ONQUN96			
CON43				ONQUN97		ONQUN98			
CON44				ONQUN99		ONQUN100			

PRODUCT #3010
SCHEM-ANSI - INDEX PAGE 1 OF 2

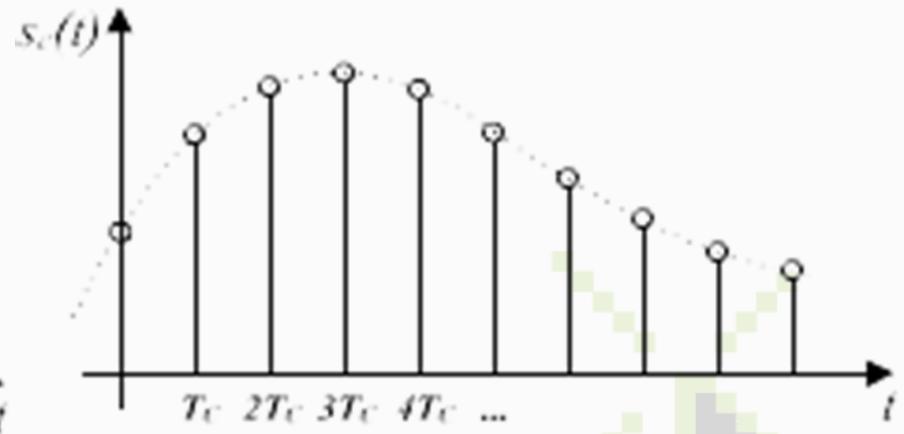
Sheet with
standardized
component symbols



M.I.S.T.



Actual thought



Thought Sample

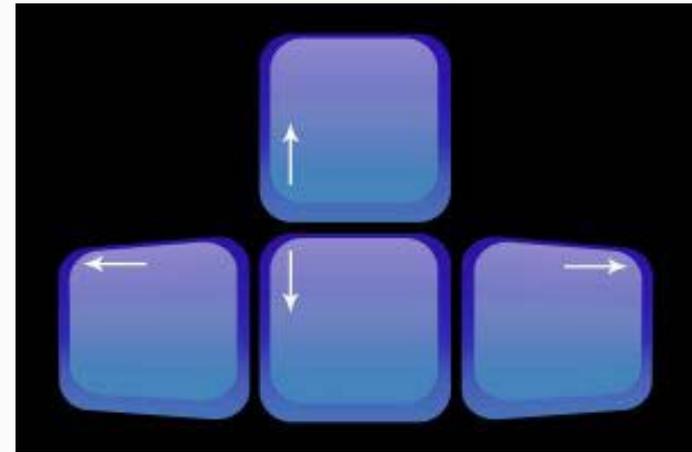
frequency: 8 samples per second, 8 MiMo



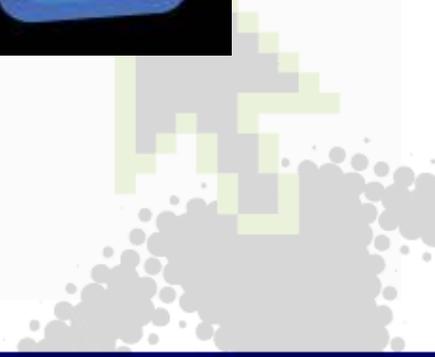
Short History



***TECHNO
PLUG***

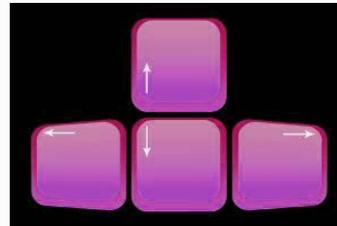
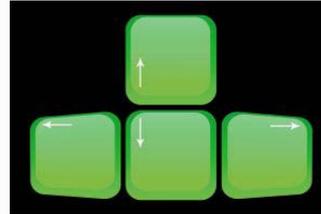


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Short History

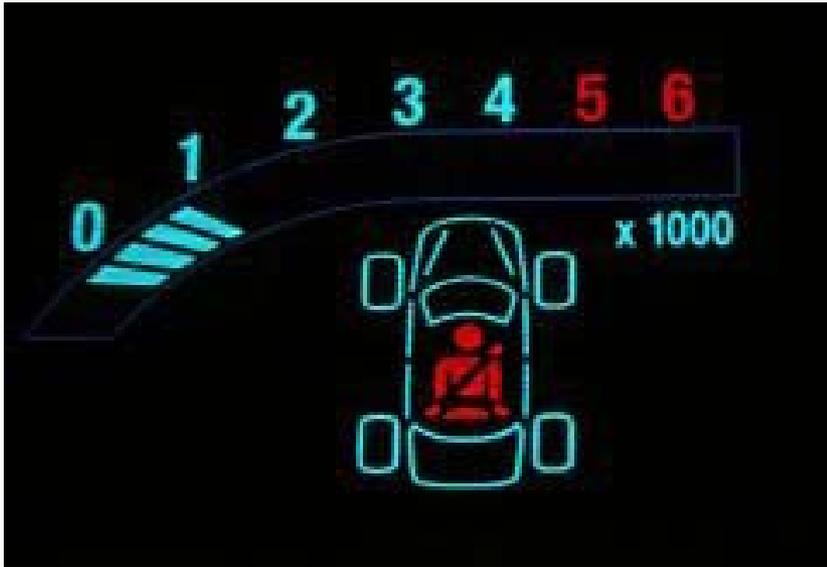


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Short History



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Short History



Standard organization SuperStand

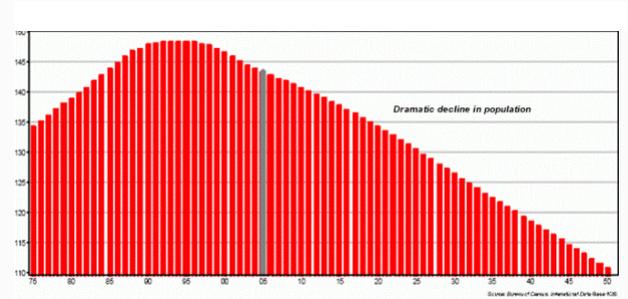


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Short History





Short History





The

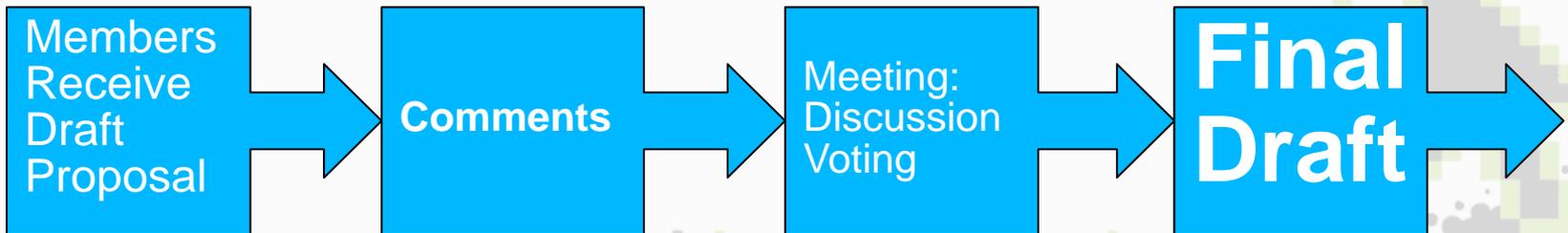
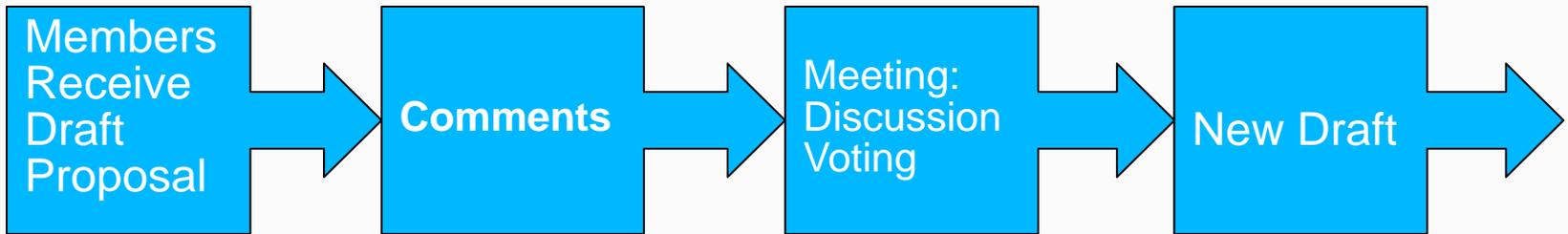
DAILY STANDARD

Reports...

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The Process



Time

Action

Result

9.00	Introduction	
9:30	Read role description	Sense of direction
9:45	Strategy Meeting per Actor about First Draft Proposal	Internal Strategy, Comments
10:15	First Plenary Meeting	Accepted Comments Rejected Comments
11:00	Strategy meeting per Actor about Second Draft Proposal	Internal Strategy Comments
11:45	Final plenary meeting	Accepted Comments Rejected Comments FINAL PROPOSAL
12:30	Lunch	
13:30	What Happened and Why?	Descriptive evaluation
14:30	Break	
15:00	How to deal with that in practice?	Prescriptive Evaluation
16:00	End	

Debriefing



What happened?

Why did it happen?

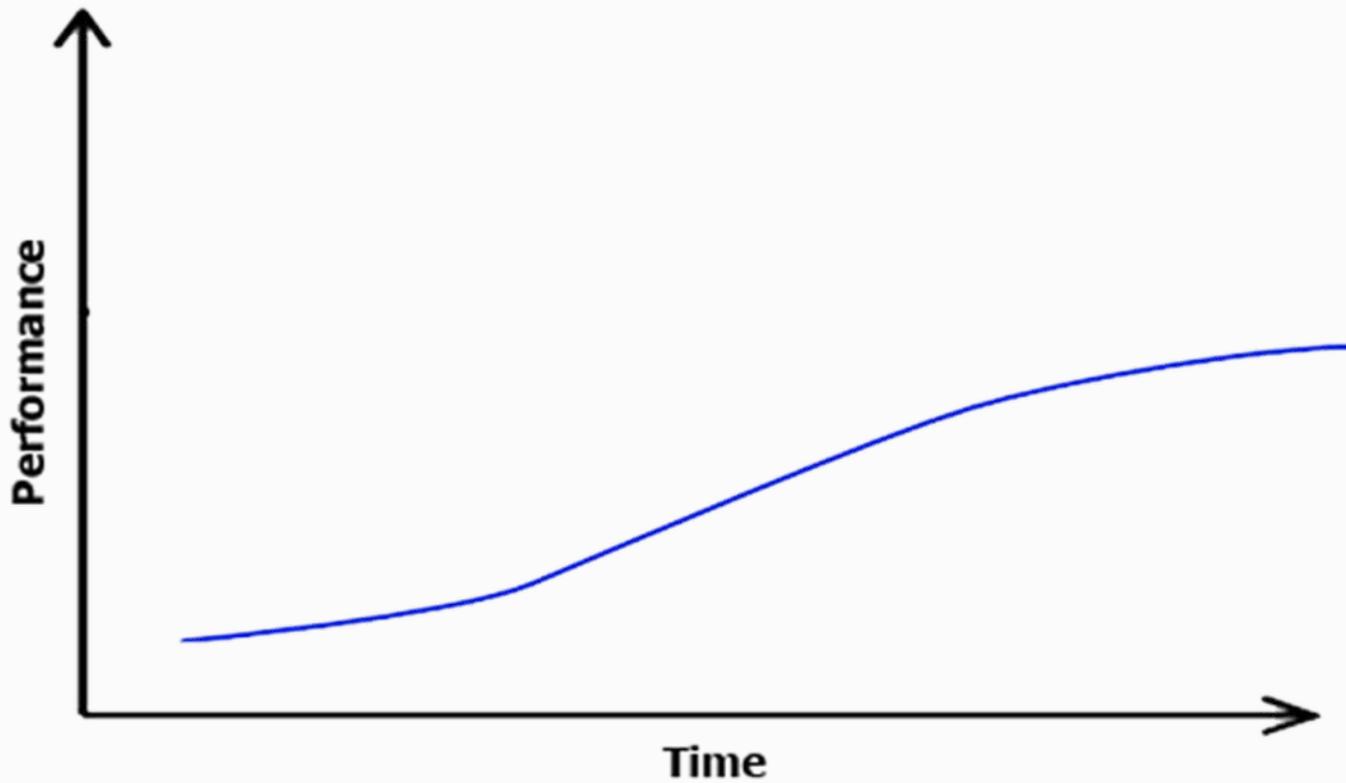
What can we learn from today?

What does this mean for practice?

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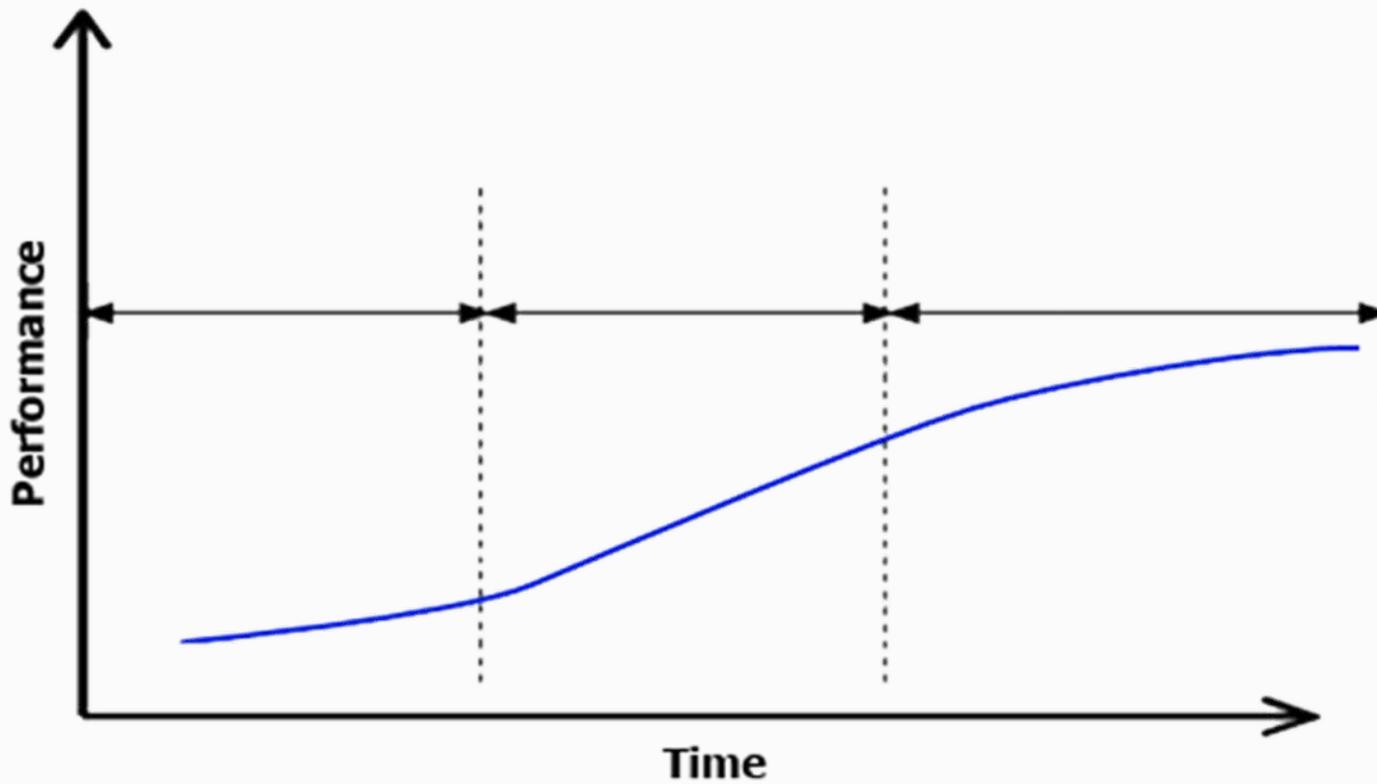


Technology maturity life cycle



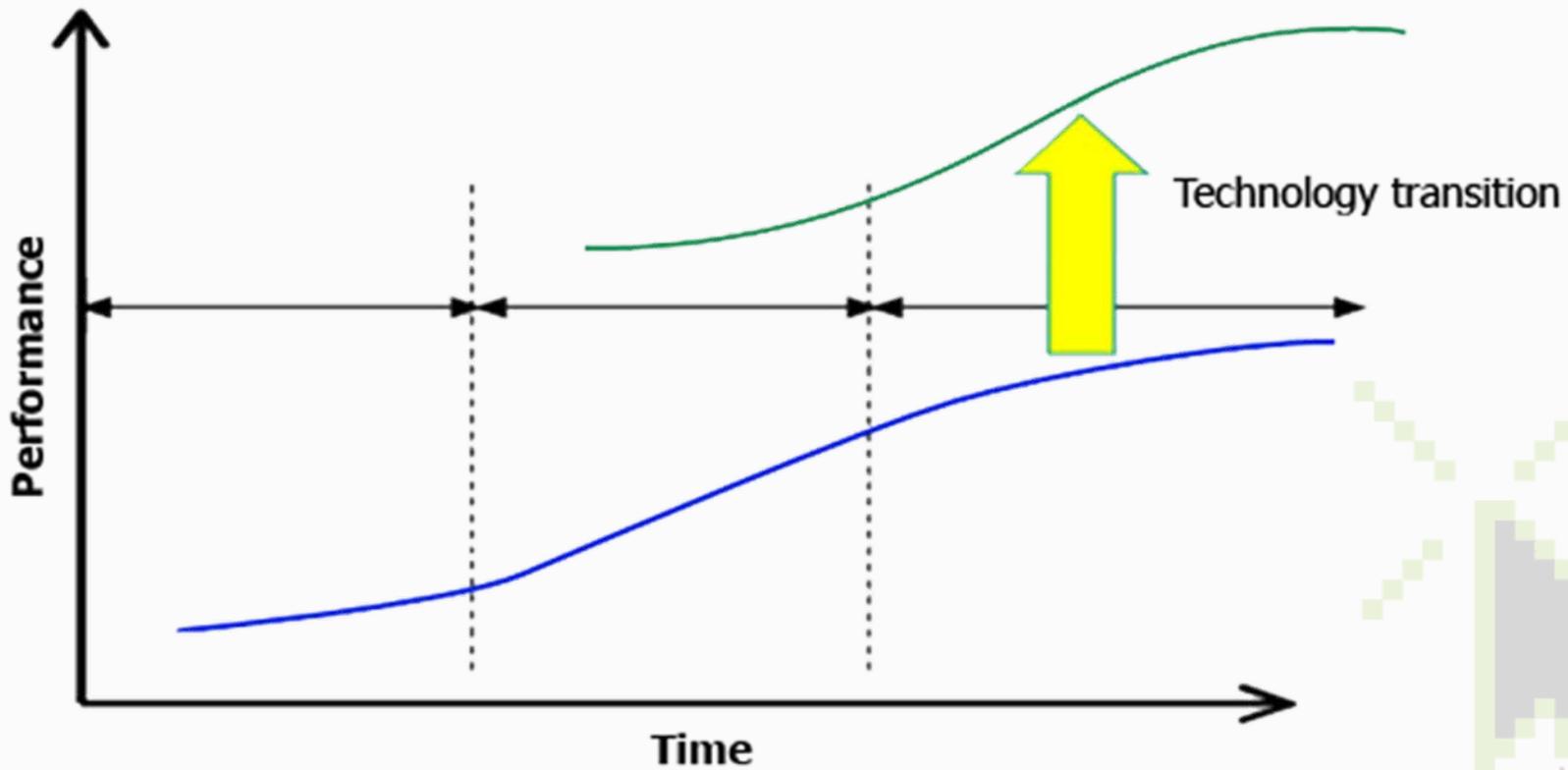
Standardization and the technology S-curve (Egyedi & Sherif, 2008)

Technology life cycle



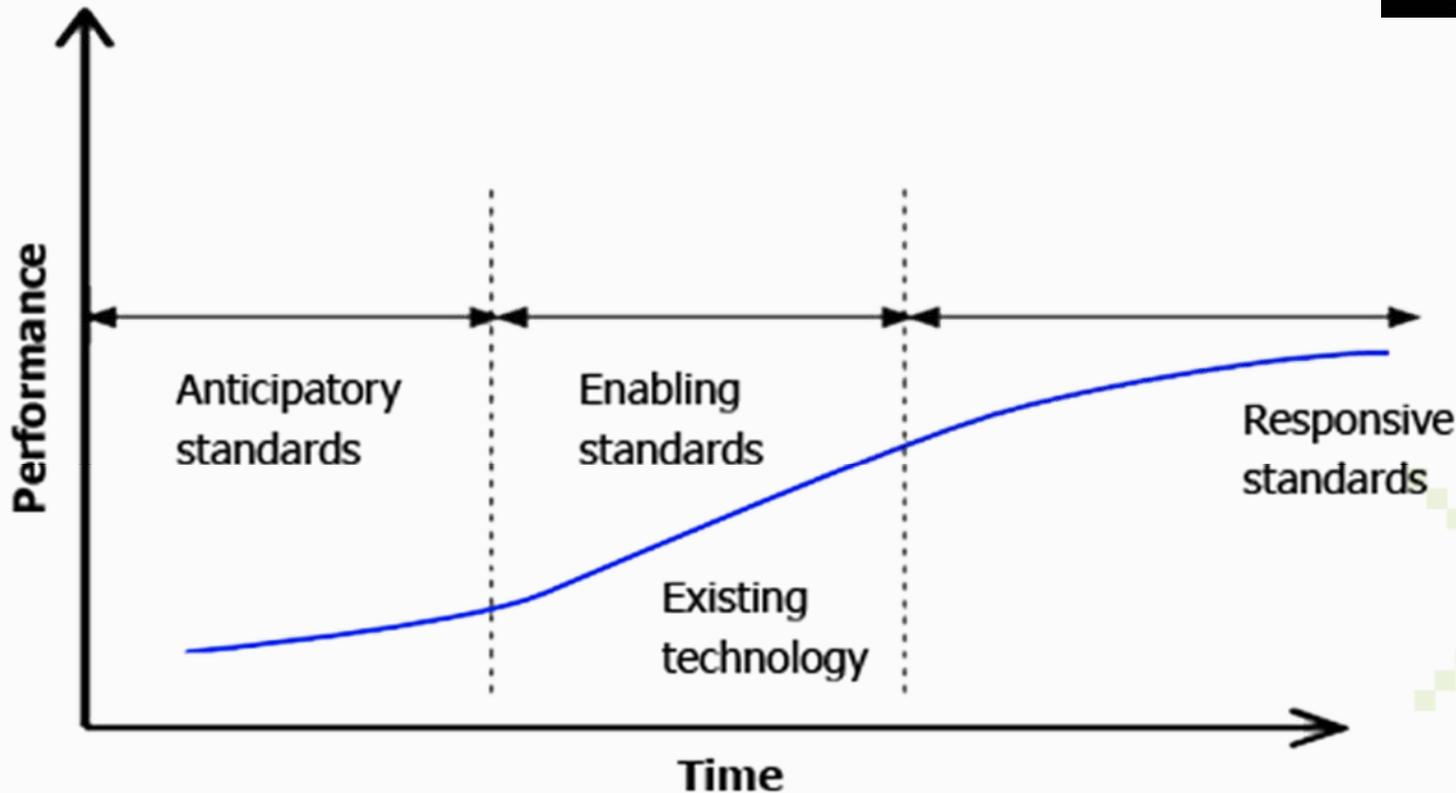
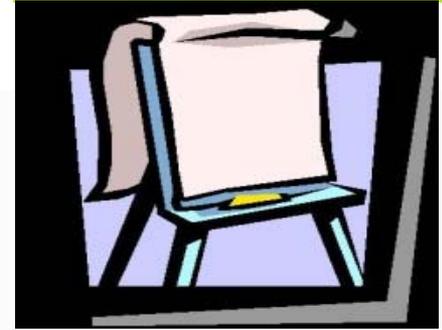
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Technology life cycle



Standardization and the technology S-curve (Egyedi & Sherif, 2008)

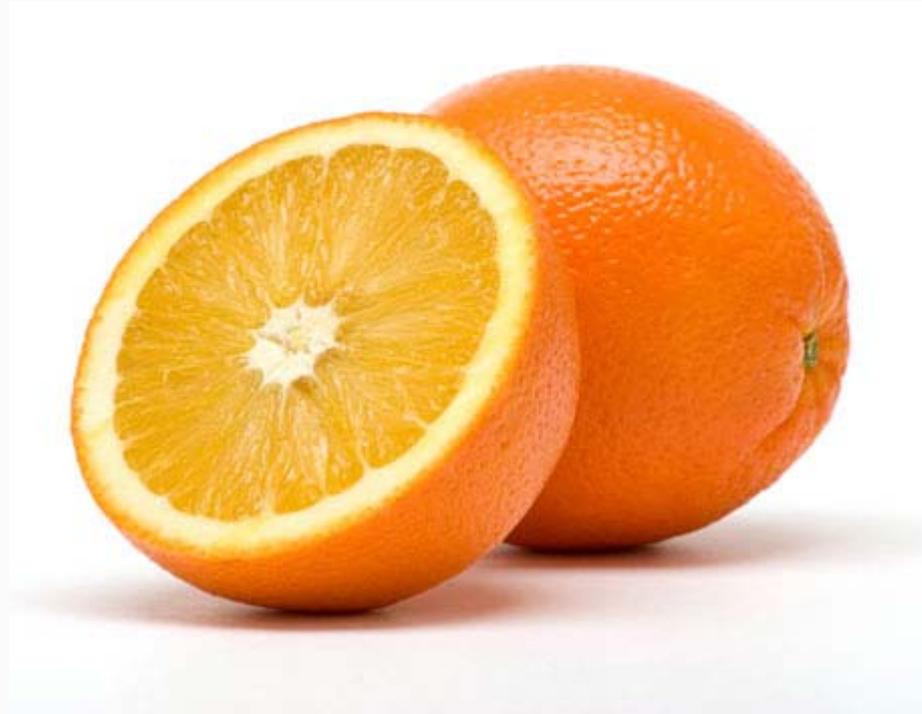
Technology life cycle



Standardization and the technology S-curve (Egyedi & Sherif, 2008)



Negotiation theory



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Negotiation theory

Focus on



Short Term

Long Term

Interests	Accomodate	Integrative Negotiation
Positions	Fight	Distributive Negotiation

Focus on





The Roles of Government



- User of Standards: Beneficiary
- Co-creator of Standards: Participant
- Initiator of Standards:
 - Certifier
 - Regulator
 - ...



Leadership for Standardization

What can or should governments do?



**Leave it
to the
Market**

ROOM FOR NEGOTIATION

- Convene parties
- Set Agenda
- Frame the Debate
- Facilitate Negotiation
- A Kind Word and a Stick

**Impose
a
Standard**

Leadership for Standardization



How to Determine the Role of Government?

What is the nature of the technology?

How mature is the technology?

Why would we want a standard?

What does the market situation look like?

What are the interests and positions?

What are feasible goals for negotiation?

How best to achieve those goals?

Leadership Styles

Power
wielding

Exchange

Persuasion

Authoritarian

Transactional

Transformational

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Source: McGregor, Blum, Belletz, Linsky, Williams et al.





Final questions

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