

# NETWORK MANAGEMENT: STANDARDS

## INTERNET

- INTERNET ENGINEERING TASK FORCE (IETF)
  - OPERATIONS AND MANAGEMENT AREA
    - SNMP

## ISO

- ISO-IEC/JTC 1/WG 4
  - OSI
  - CMIP-CMIS

## ITU-T

- SG IV
- TMN

## OTHERS

- DMTF
- TM FORUM
- OASIS
- IEEE
- ...

# CHARACTERISTICS

## IETF

- MANAGEMENT SHOULD BE SIMPLE
- VARIABLE ORIENTED APPROACH
- MANAGEMENT INFORMATION EXCHANGES MAY BE UNRELIABLE

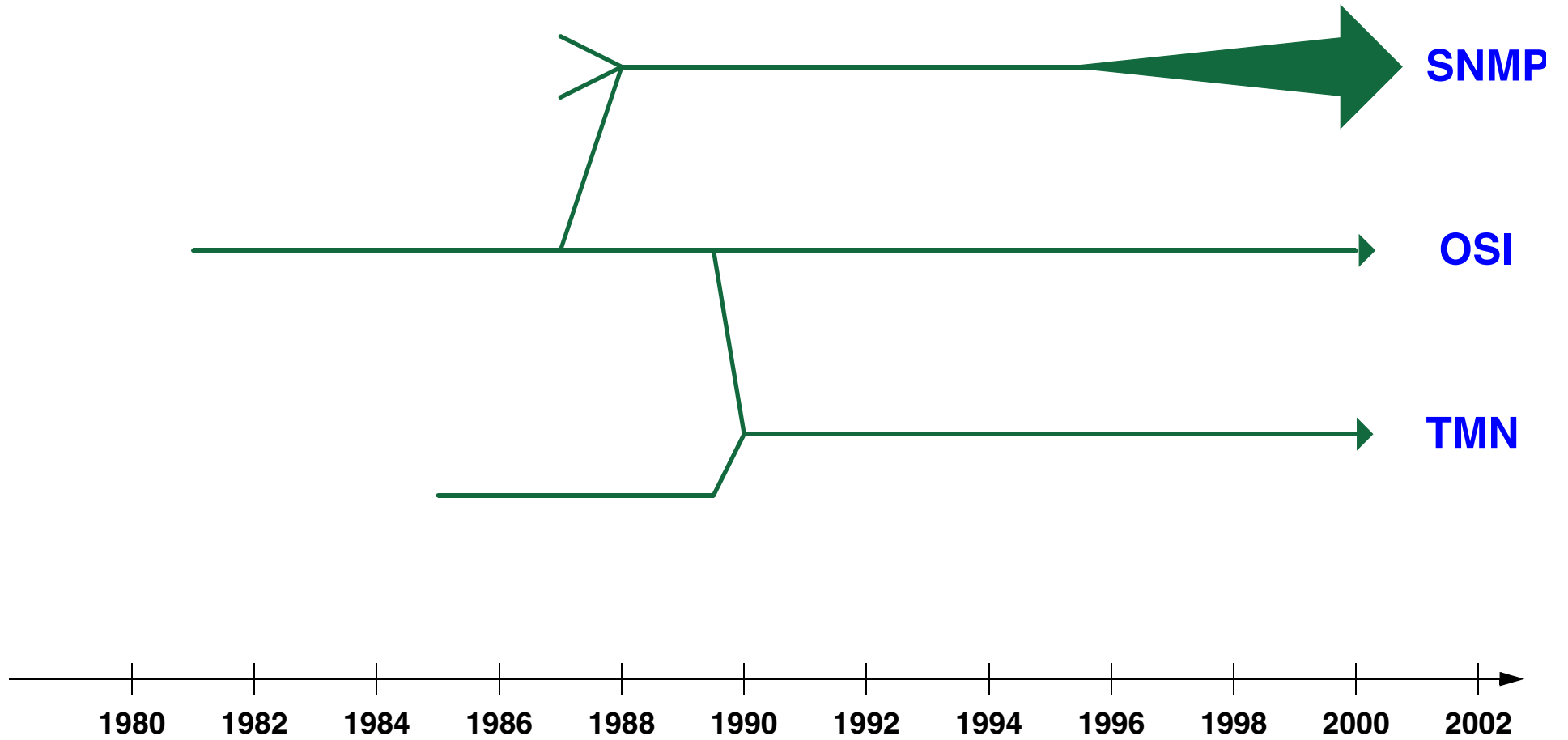
## ISO

- MANAGEMENT SHOULD BE POWERFUL
- OBJECT ORIENTED APPROACH
- MANAGEMENT INFORMATION MUST BE EXCHANGED IN A RELIABLE FASHION

## TMN

- DEFINES ONLY A MANAGEMENT *ARCHITECTURE*
- THE ACTUAL PROTOCOLS ARE THOSE OF ISO
- OUT-OF-BAND MANAGEMENT

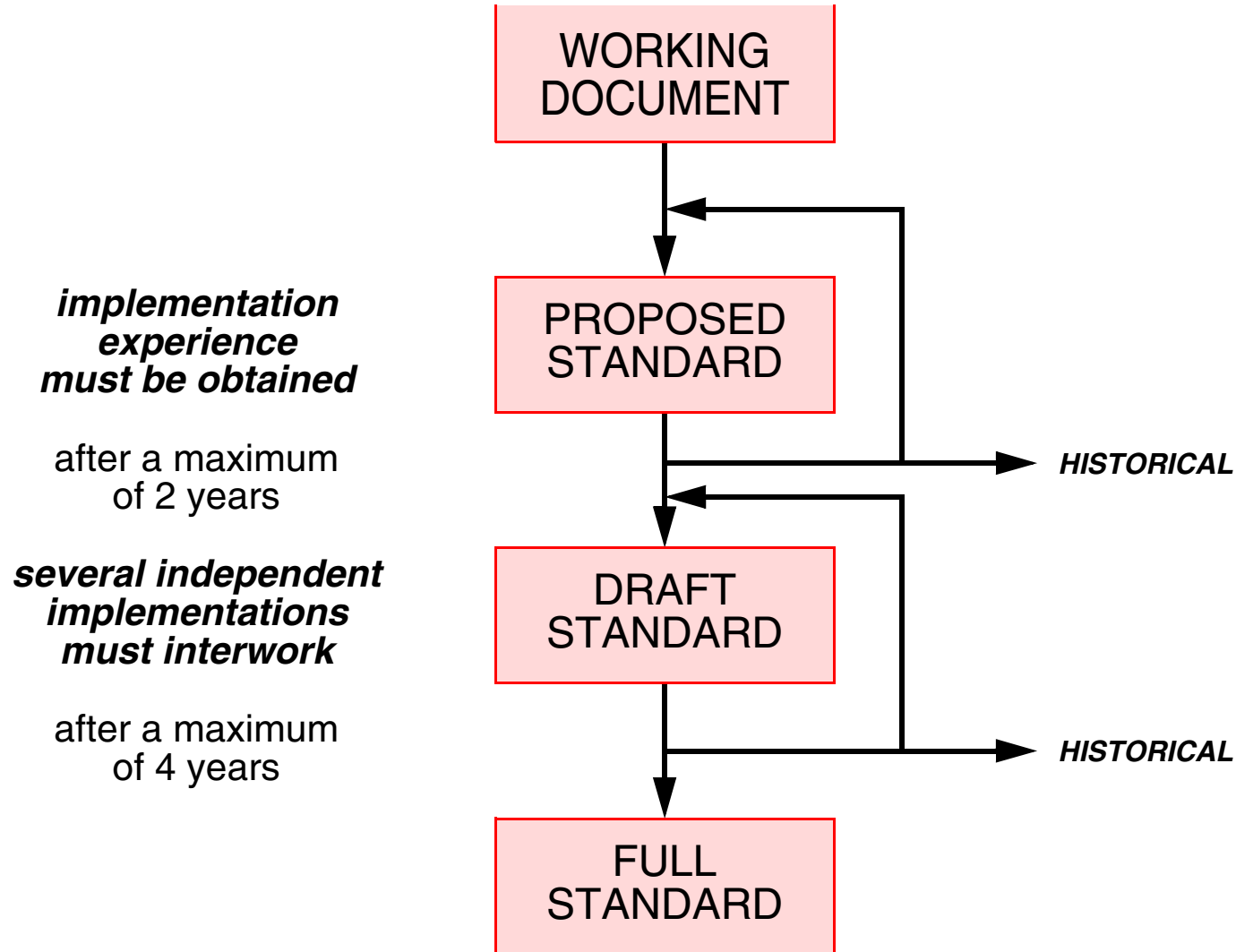
# HISTORY



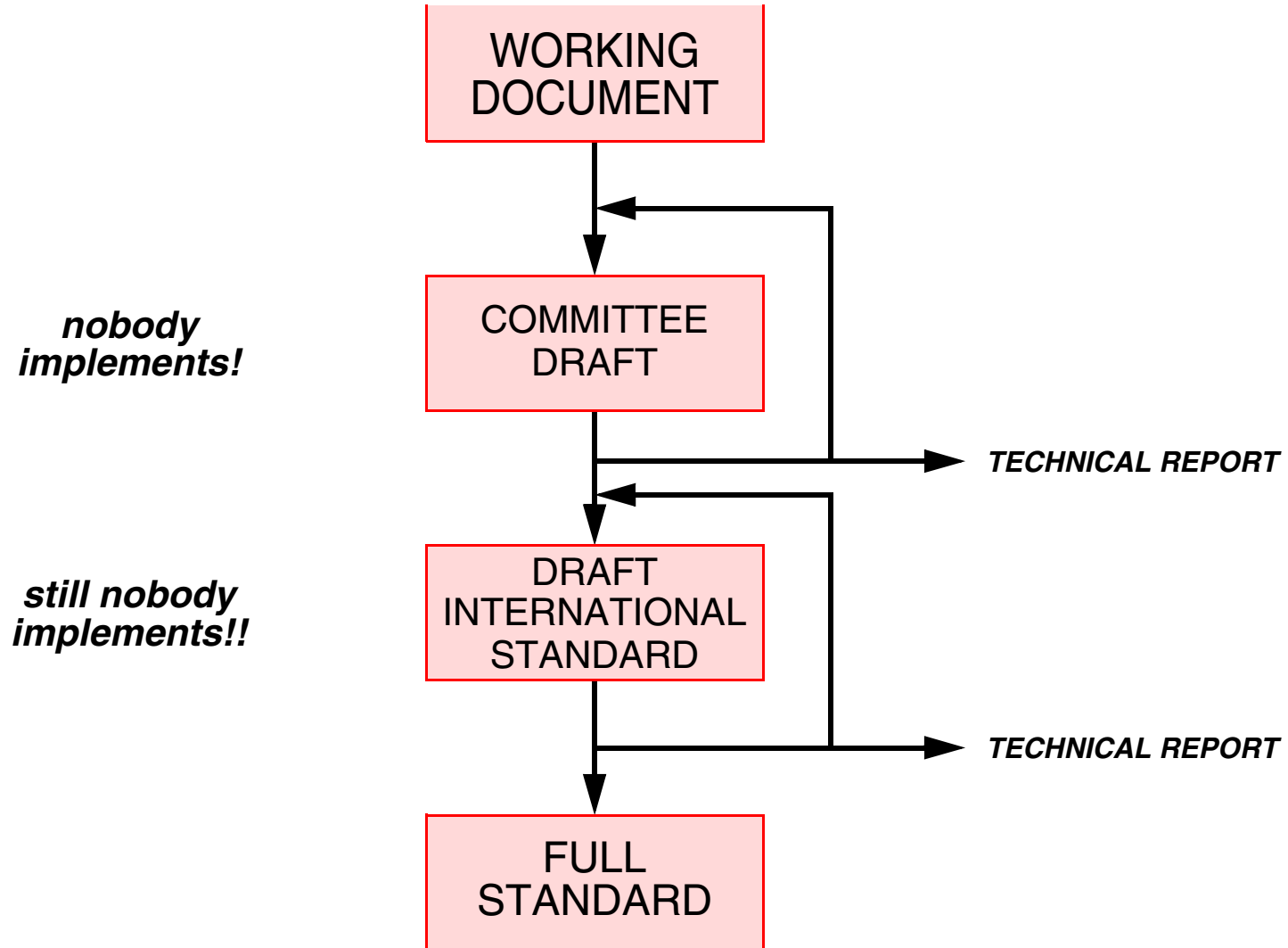
# WHY DID SNMP SUCCEED?

- STANDARDS CAN BE OBTAINED FOR FREE
- STANDARDS ARE AVAILABLE FROM FTP & WWW SERVERS  
IN AN ELECTRONIC FORM
- RAPID DEVELOPMENT OF STANDARDS
- PROTOTYPES MUST DEMONSTRATE THE NEED FOR,  
AND THE FEASIBILITY OF STANDARDS
- STANDARD FOR THE INTERNET

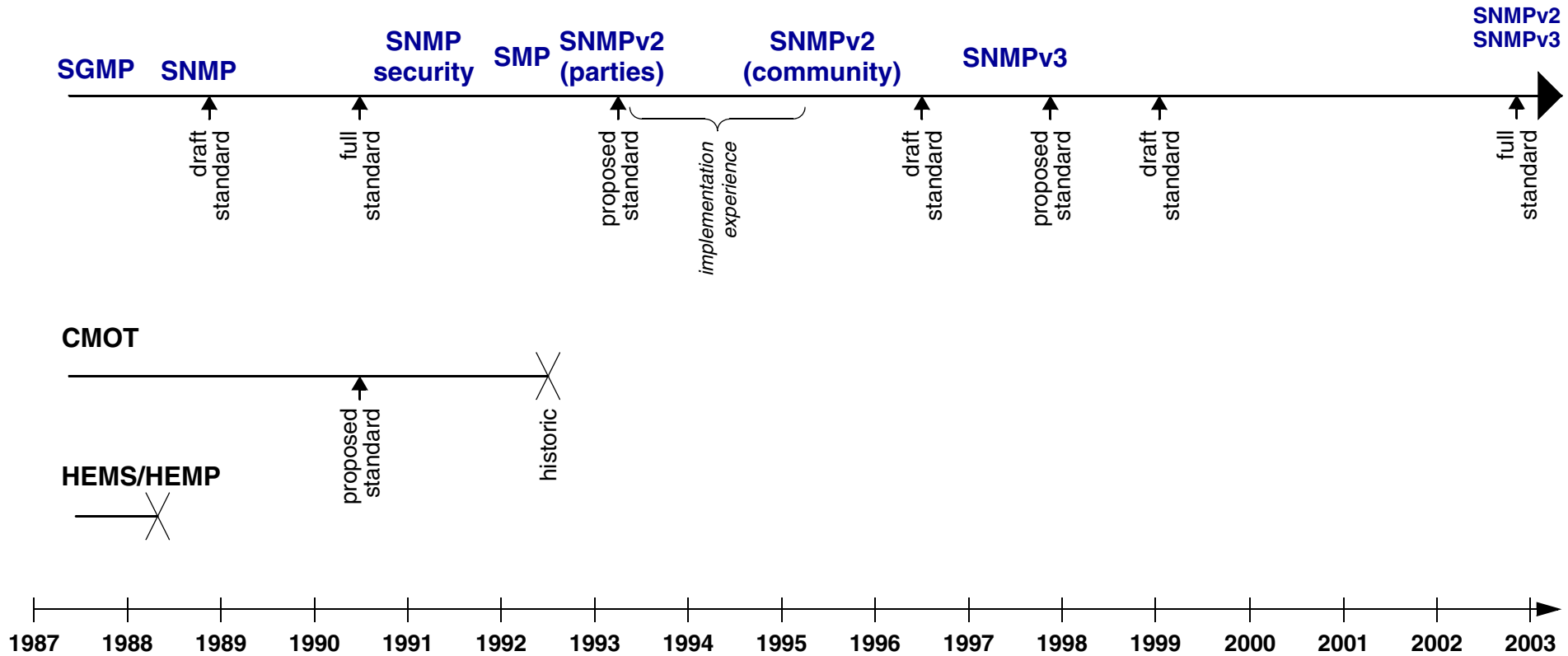
# IETF STANDARDIZATION



# ISO STANDARDIZATION



# SNMP HISTORY



# OSI HISTORY

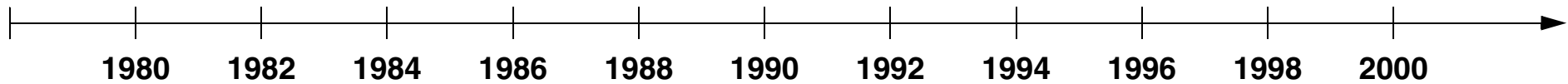
**SC21/WG4  
ESTABLISHED**

← MANAGEMENT  
FRAMEWORK →

← CMIS/CMIP →

← SYSTEMS MGT.  
OVERVIEW →

← MANAGEMENT FUNCTIONS →





# TMN HISTORY

WORK ON TMN  
STARTED BY SGIV



M30

IDEAS FROM OSI MGT.  
WORK STARTED ON DERIVED STANDARDS  
RESPONSIBILITY MODEL BECAME ANNEX



M3010

RESPONSIBILITY MODEL PART OF MAIN TEXT



M3010 (rev.)

