Consortium meeting
"InfoCities" in Antwerpen & Liège on 19th to 21 October 1998

Technical Reference Model

of

WP2

See full text as download:

http://www.infocities.eu.int/download/wp2taxo.zip

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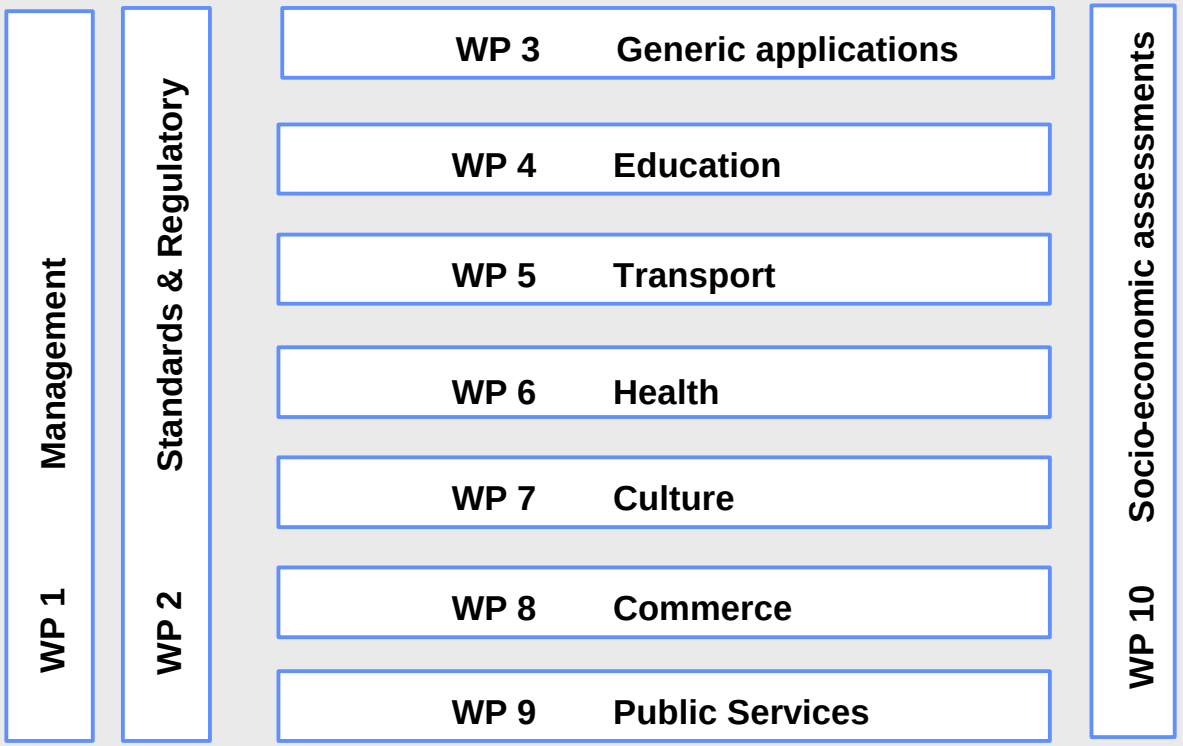


General Work Package structure of the InfoCities project

(feasibility phase)

The approaches of the Entrepreneur's

- **Business Oriented**
  - Supply oriented
  - Market oriented
  - Customer oriented
- **Resource Oriented**
  - Collaborations
  - Existing base
  - Domains
  - Patents & Intellectual properties
- **Technical & Technological oriented**
  - Life Cycle Stage of Products & services
  - Technology breakthrough & innovative assembly's
  - Standards, contexts, spread of means, …

The approaches of the Users / Citizens

(The Masslow pyramid)

- **Needs Oriented**
- **Pleasure Oriented**
- **Realization Oriented**
- **Social reconnaissance Oriented**
- **Image & Ego Oriented**

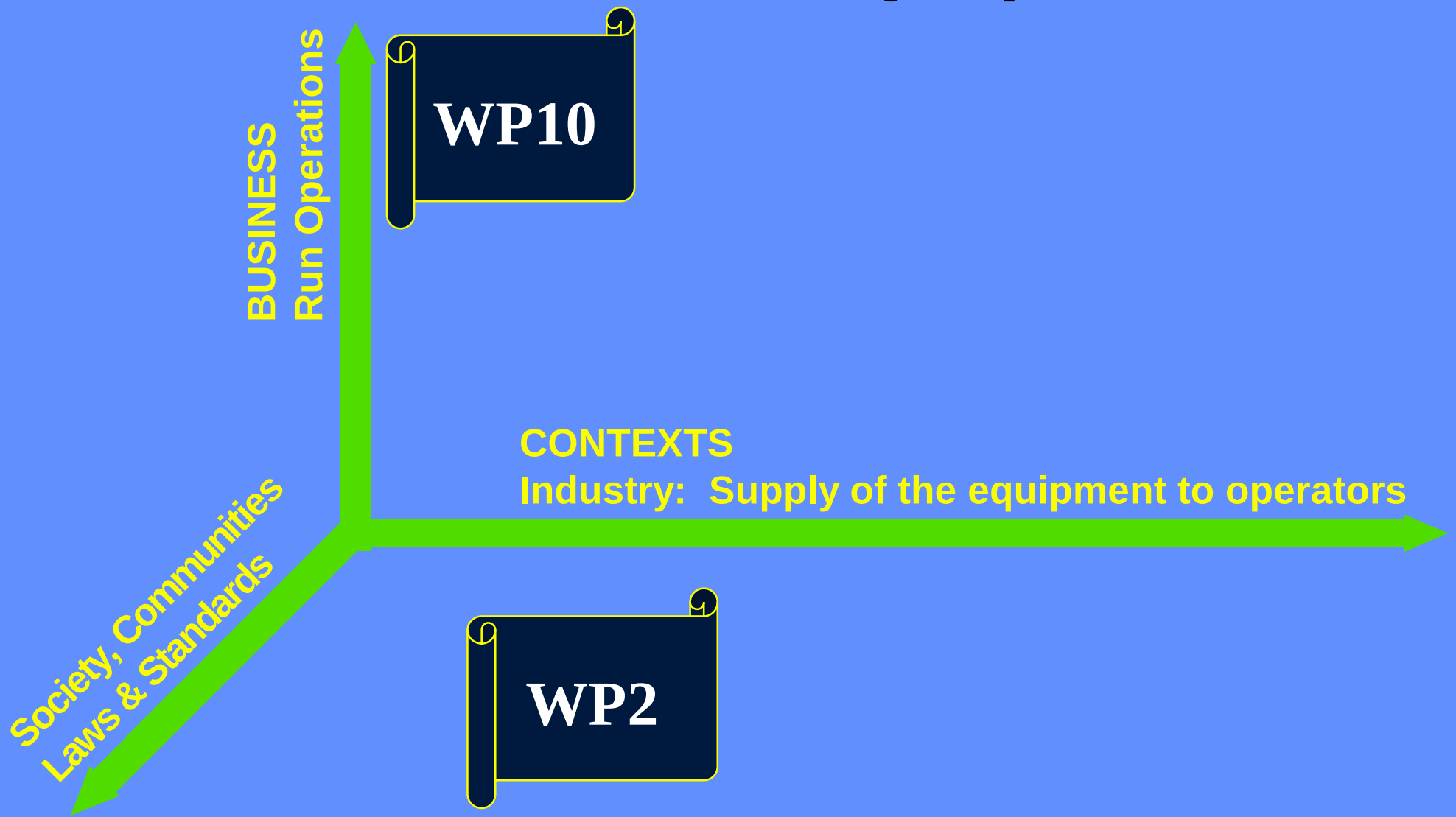
The approach of the Communities

- **The intention to provide products & services**
  - Accessing the customer
  - Human perception
  - Cultural & Community's contexts
  - Meeting regulatory requirements
  - Gathering collaboration, resources, tools, means, know-how, ...

- **Compatibility's**
  - Of access from one City to the Other
  - Of migration from one City to the Other
  - Of access through several paths or means
  - Of one generation of products & services with the following ones

- **Inter-operating with other products & services**
  - Life Cycle Stage
  - Standards, contexts, spread of means, ...
  - Ancillaries
  - ...

The Information Society Space



The long Term View

- **The emergence of the Information Society :**
  - On the bases on the Industrial Society
  - It's a revolution but should be managed as an evolution
  - Destabilization, challenges & opportunities
  - Regulatory, standards, … emerging maturity of the technology

- **The place of the TOOLS in the evolution of MANKIND**
  - To DO is to DO : Homo habilis: the hewed stone
  - To Do is to TELL : Homo sapiens-sapiens: the symbol painting
  - To Tell is to TELL : Homo sapiens: the language
  - To Tell is to Do : Homo sapiens-sapiens: the information technologies

The long Term View

- **Assets :**
  - The Information as main future asset (understanding the world & principle of action on the world)
  - The Information Technologies as support to data & information
  - Identified automatic means, under the control of a physical or moral person
  - The Contents is *prime*; but the Conduct is required
- **Representation of the world :**
  - Expression of the meaning
  - Search for sense
  - Modeling
- **Action in & onto the world :**
  - The model becomes action through the technologies
- **Universal capability :**
  - Separation of the logical from the physical
  - Covers all Organizations, Cultures, Politics, Social & Economic communities
- **The novelties of the Information Society**
  - It can model & control all the elements of the Industrial Society and of the humans
  - It's the convergence of all the modes of human expression & interaction
  - It's independence of places, moments & formats
  - Its production costs the price of the carrier, its sharing do not impoverish

Definitions

- **INFORMATION :**

  The meaning that human assigns by means of conventions (formats) applied to the data.

- **DATA :**

  A representation of facts, concepts or instructions in a formalized (§) manner suitable for communication, interpretation or processing by human, or by automatic means.

- **DOCUMENT :**

  Data represented on a spatial (§) storage medium.

- **MESSAGE :**

  Data represented on a temporal (§) storage medium. By extension, a Document transmitted (possibly with replication) from a sender to an addressee.

- **EVIDENT Document :**

  Document that human could acquire its information without any use of non-genuine tools

- **DEMATERIALIZED Document :**

  A document that human could acquire its information only though use of non-genuine tools

- **AUTO-CONCLUSIVE Document :**

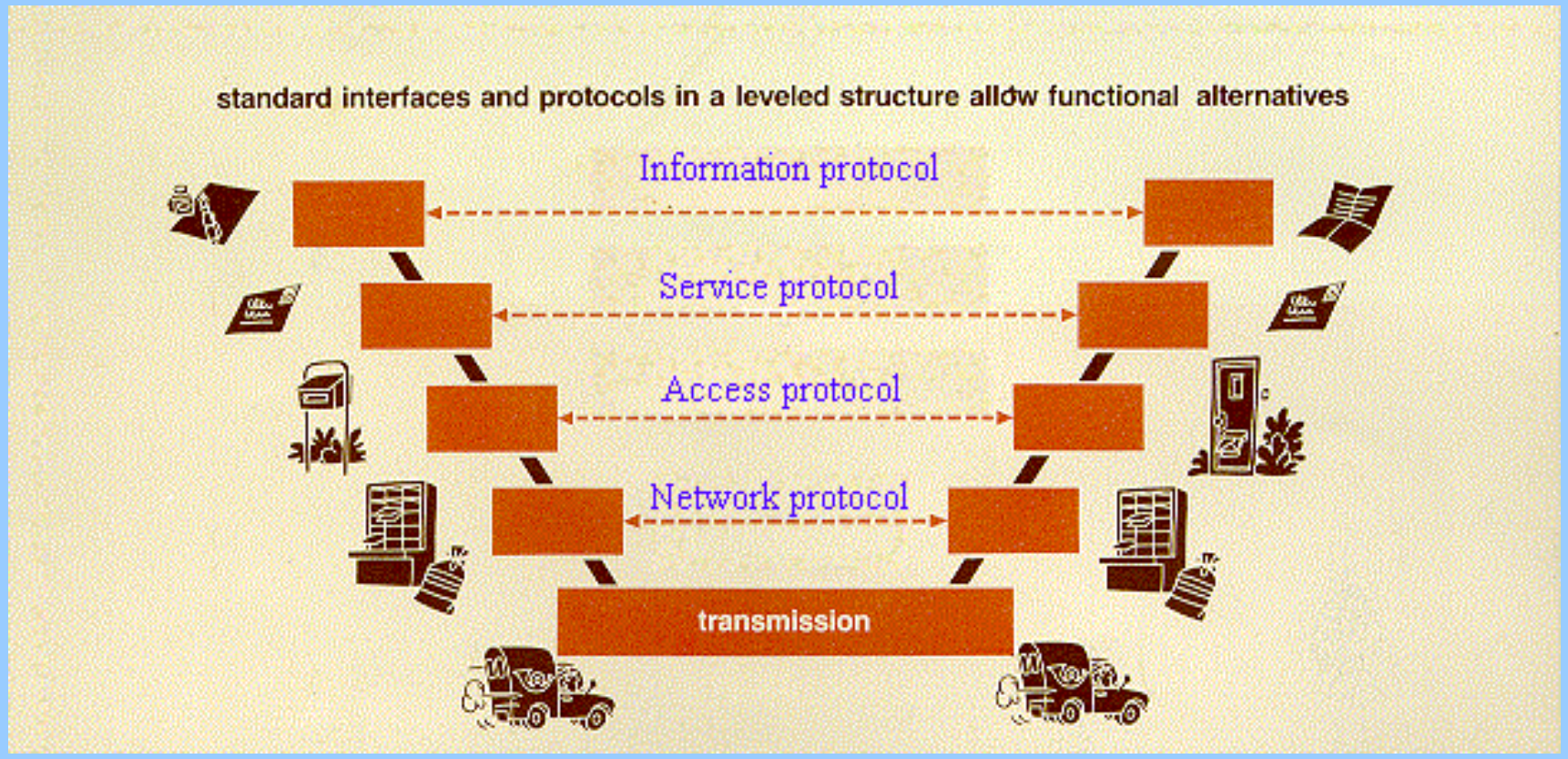
  A document that human could be convinced of its integrity from its included data.

- **ORIGINAL Document :**

  A document in which the data are bind on the carrier on which they have been created.

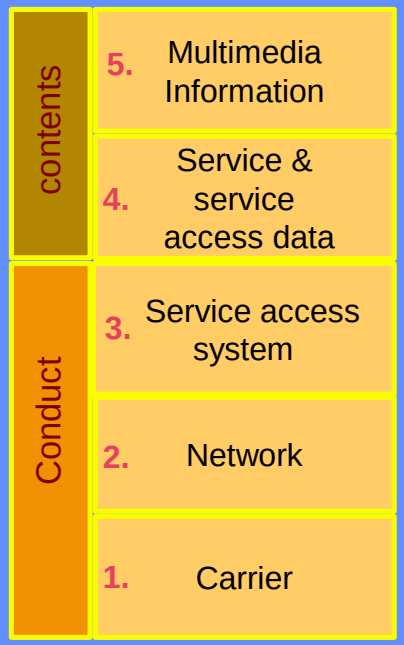
(§) Format; Place & Moments

Flexibility of the layered approach



The entities of the Reference Frame

- The **partners** playing the **roles**
- The **interfaces & protocols** of the Information Space
- The **layers**



Customer & Media providers (Walt Disney, ..)

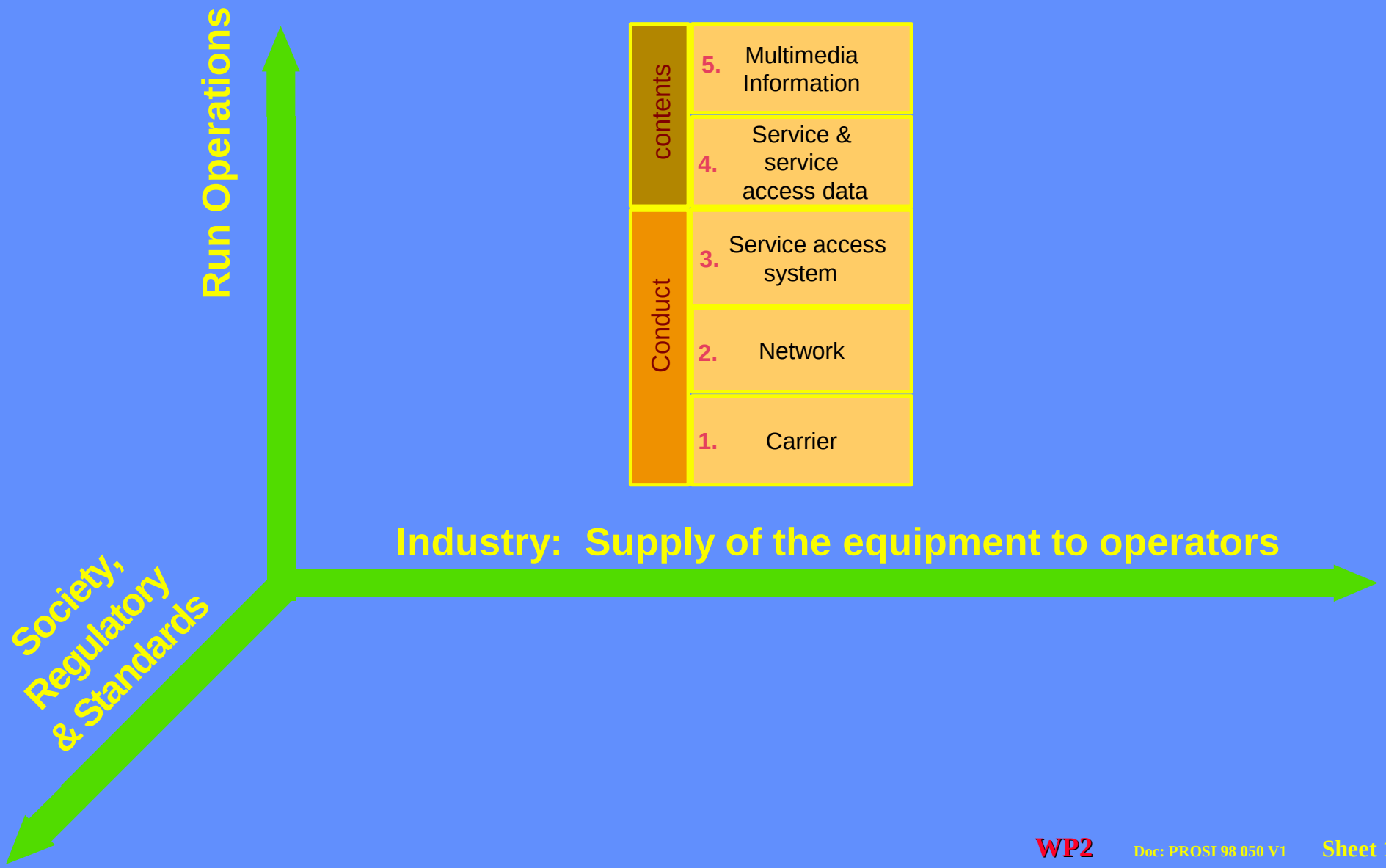
Service provider (RTBF, BRTN, Canal+, WWW<site>, Le Soir ..)

Access providers (Skynet, Library, ..)

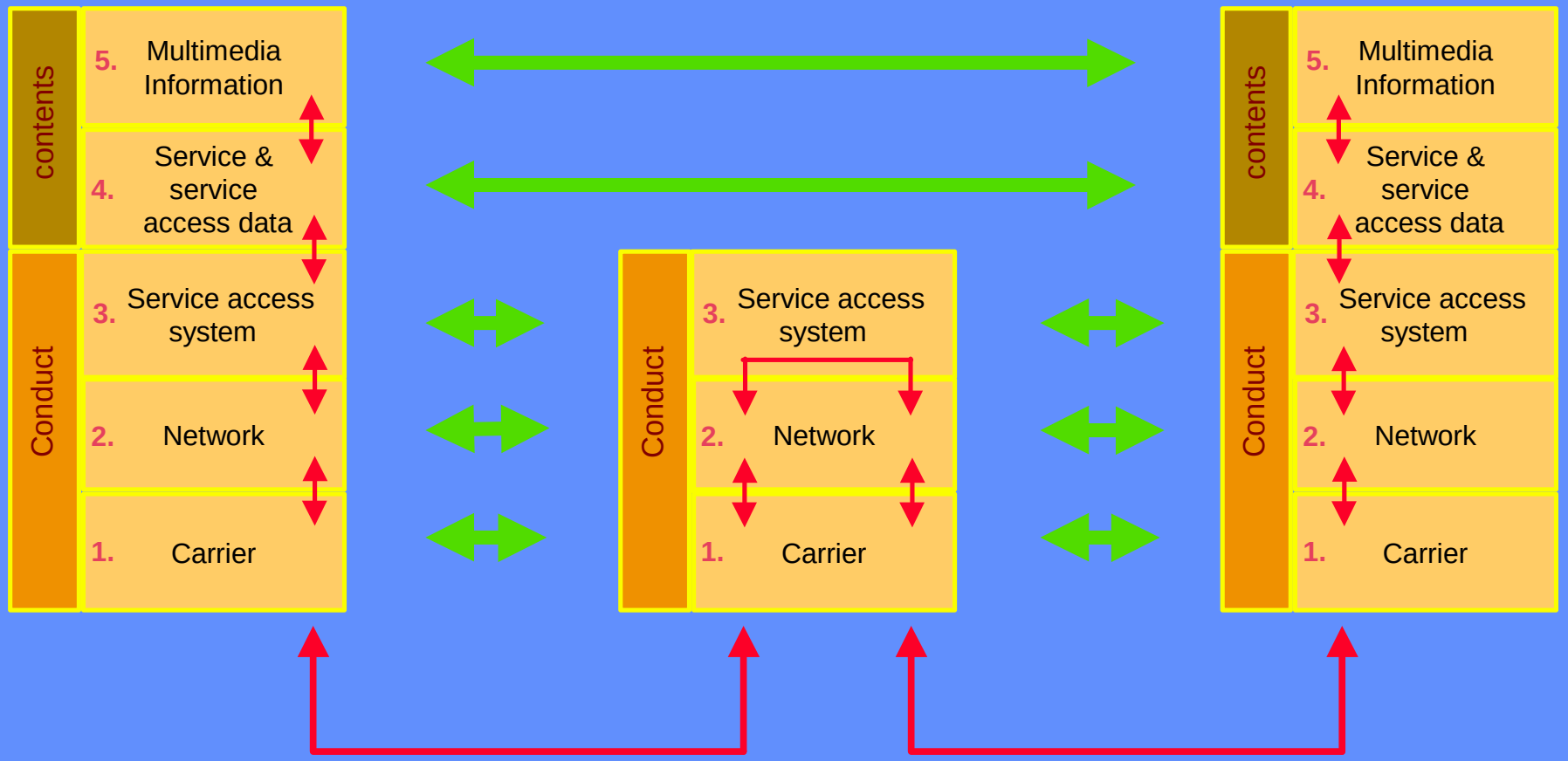
Network provider (Belgacom, Telenet, ..)

Carrier provider (Cable, Satellite, CD-ROM, DVD, Paper, ..)

The Information Society Space



The Protocols
The Data flows

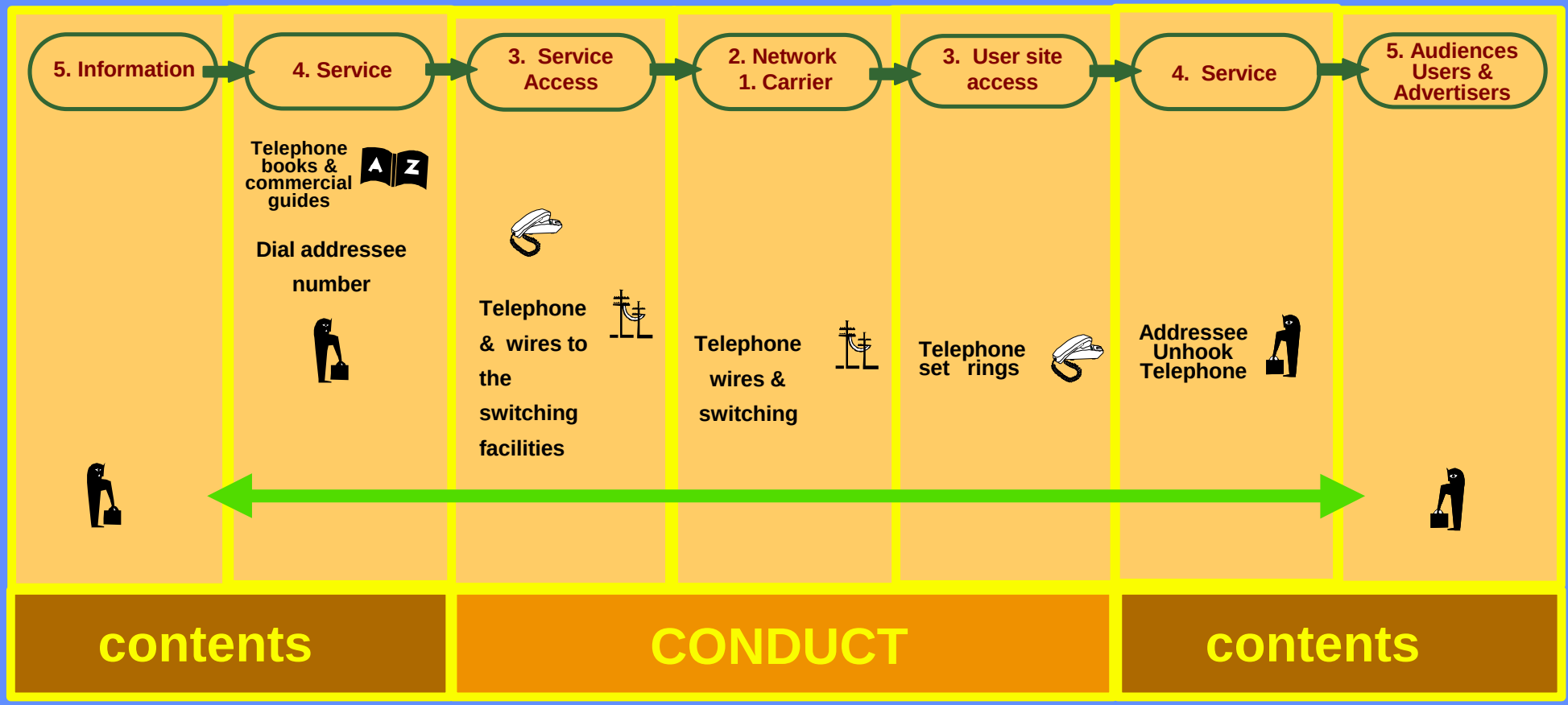


Overview of regulatory issues

	Layers	Main issues	
contents	5. Multimedia Information	• Copyright, piracy • Licensing • Censorship, indecency • Authentication, data security	• Local contents requirements • Advertising restrictions • Database protection • IPR harmonization
contents	4. Service & service access data	• Liberalization • Privacy • Personal data protection • Liability	• Quality of service • Interoperability • Foreign participation
Conduct	3. Service access system	• Standardization • Universal service • Open access • National security	• Number allocation • Conditional access • Encryption
Conduct	2. Network	• Liberalization • Deregulation • Separation of regulators and operators • Privatization • Must carry • Rights of way • Mutual recognition	• Interconnection • Standardization • Frequency allocation • Cross-ownership • Foreign ownership • Licensing procedures • Competition law
Conduct	1. Carrier		

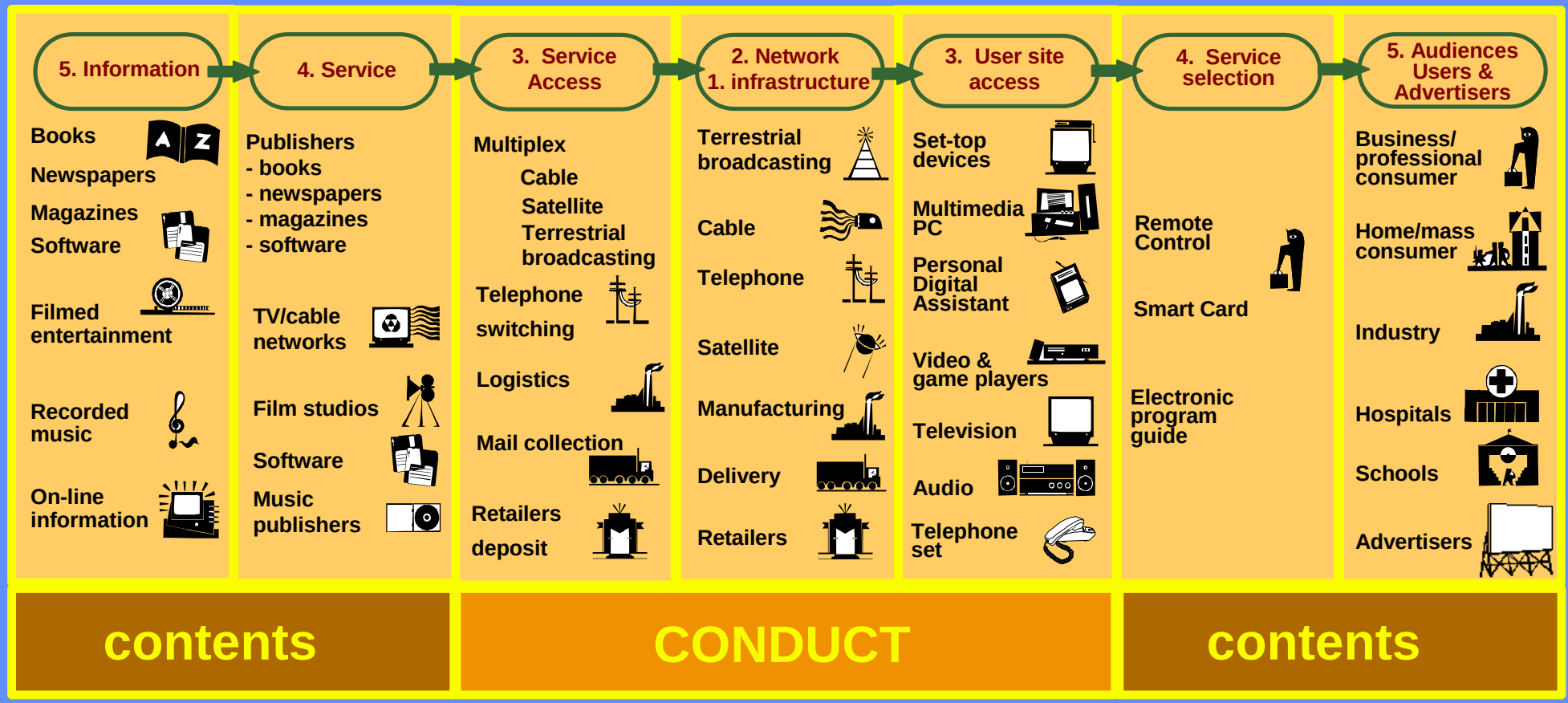
Information value chains in "multimedia"

A sequence of roles ! The Telephone example:



Information value chains in "multimedia"

A sequence of roles performed in various ways!

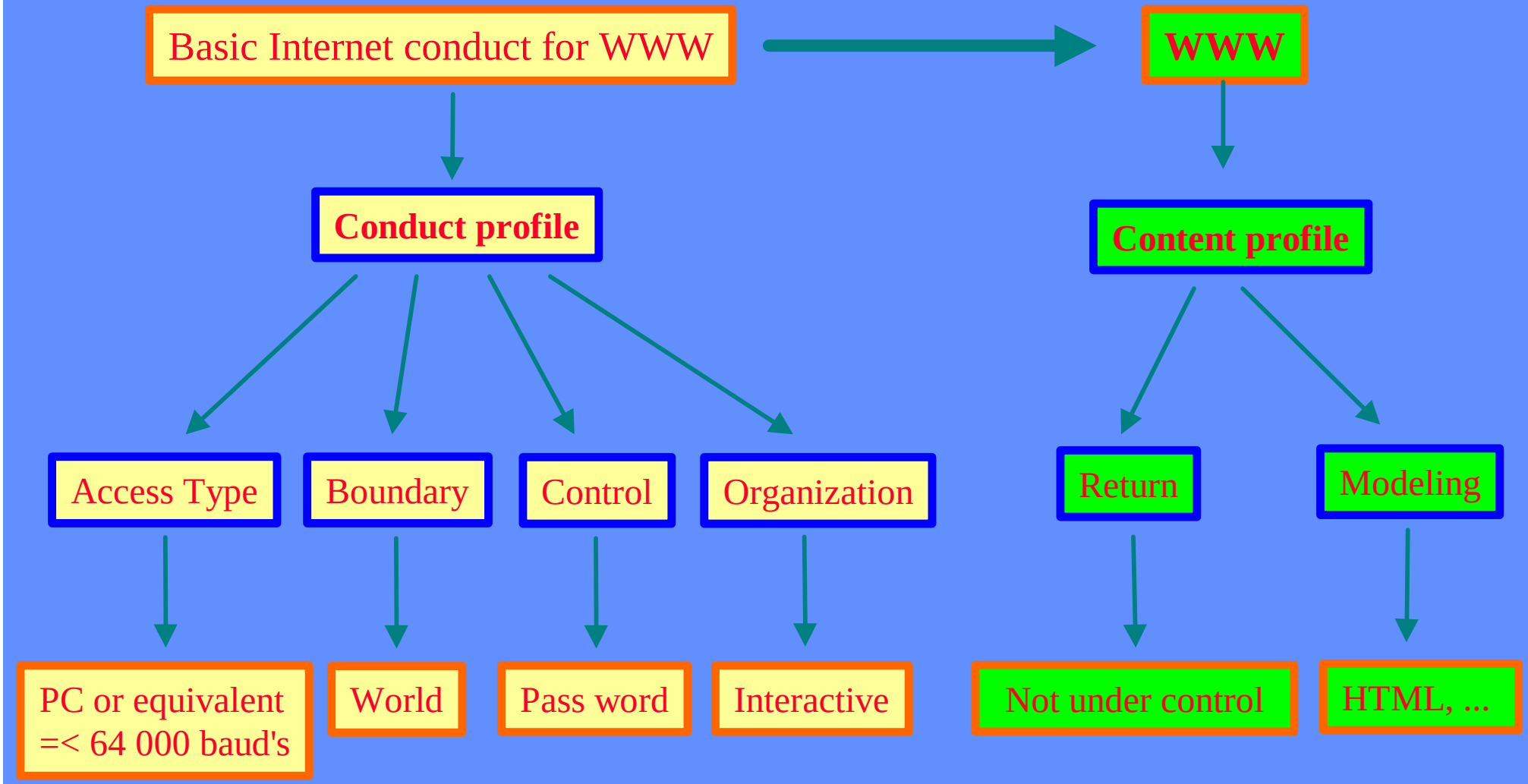


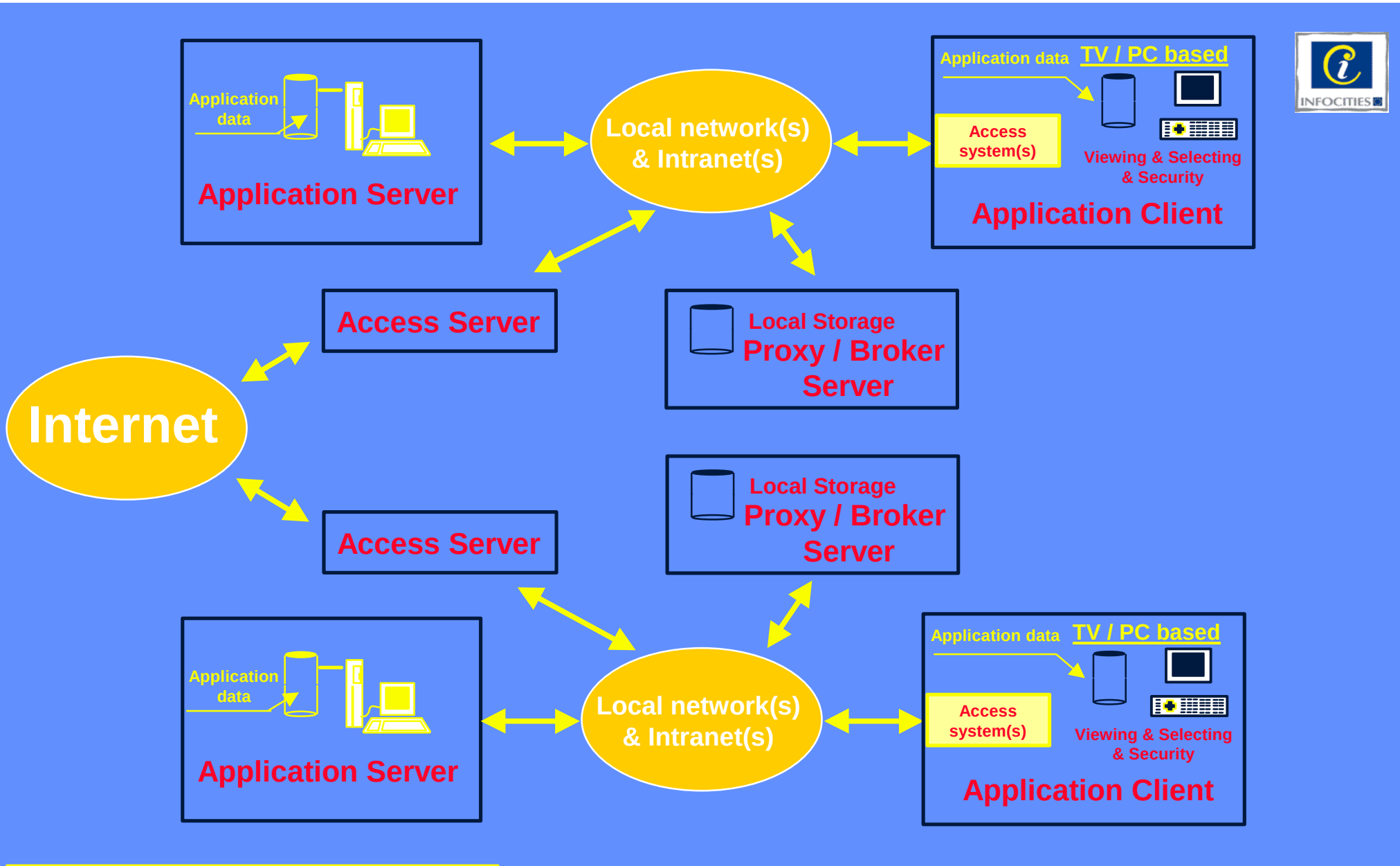
The Coding

- **The coding approaches for representing Information by Data :**
  - Anthropic coding
  - Entropic coding
    - Negentropy
    - Zero-entropy
    - Entropy
  - Steganography

- **The coding techniques & standards**
  - Layer 5 (Content data): MPEG-1; MPEG-2; MPEG-4; JPEG
  - Layer 4 (Service & access data): HTML; MHEG; MPEG-7
  - Layer 3 (Access system): Internet addressing scheme; DVB-TS
  - Layer 2 (Network): TCP-IP
  - Layer 1 (Carrier): PSTN; ISDN; SDH; ATM

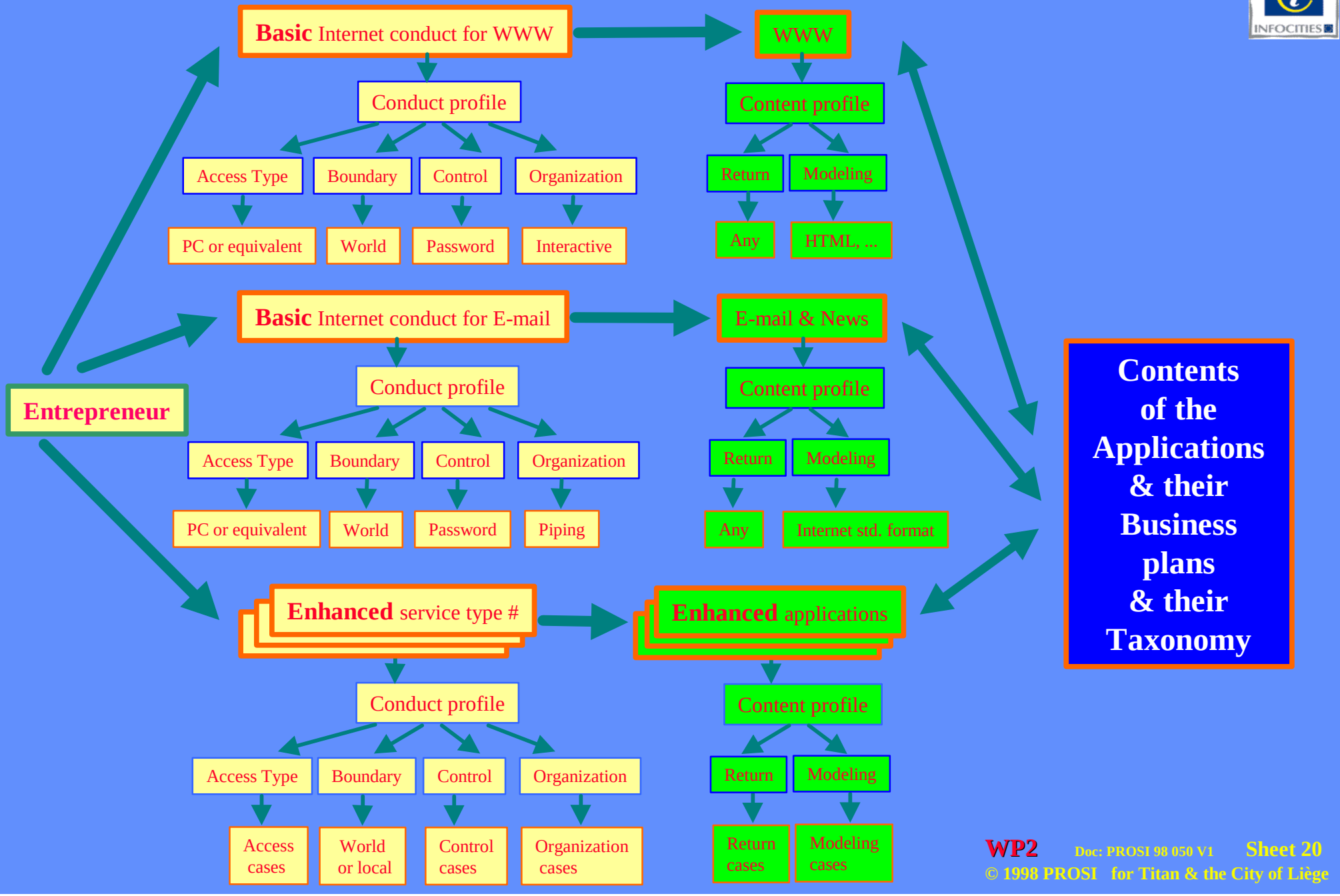
Technical profile for BASIC INTERNET





General CONFIGURATION
for Internet on Hybrid networks
(Many cases, in particular Case §§)

General Technical Taxonomy



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