SOS Interop 3
ETSI

Regulation, Conformance, Interoperability:
« Dangerous Liaisons ».
The NGN case.

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Disclamer: *The views expressed in this presentation are those of the author, and do not necessarily represent the views of the ARCEP, the Chairman, any Executive Board Member (Commissioners).*

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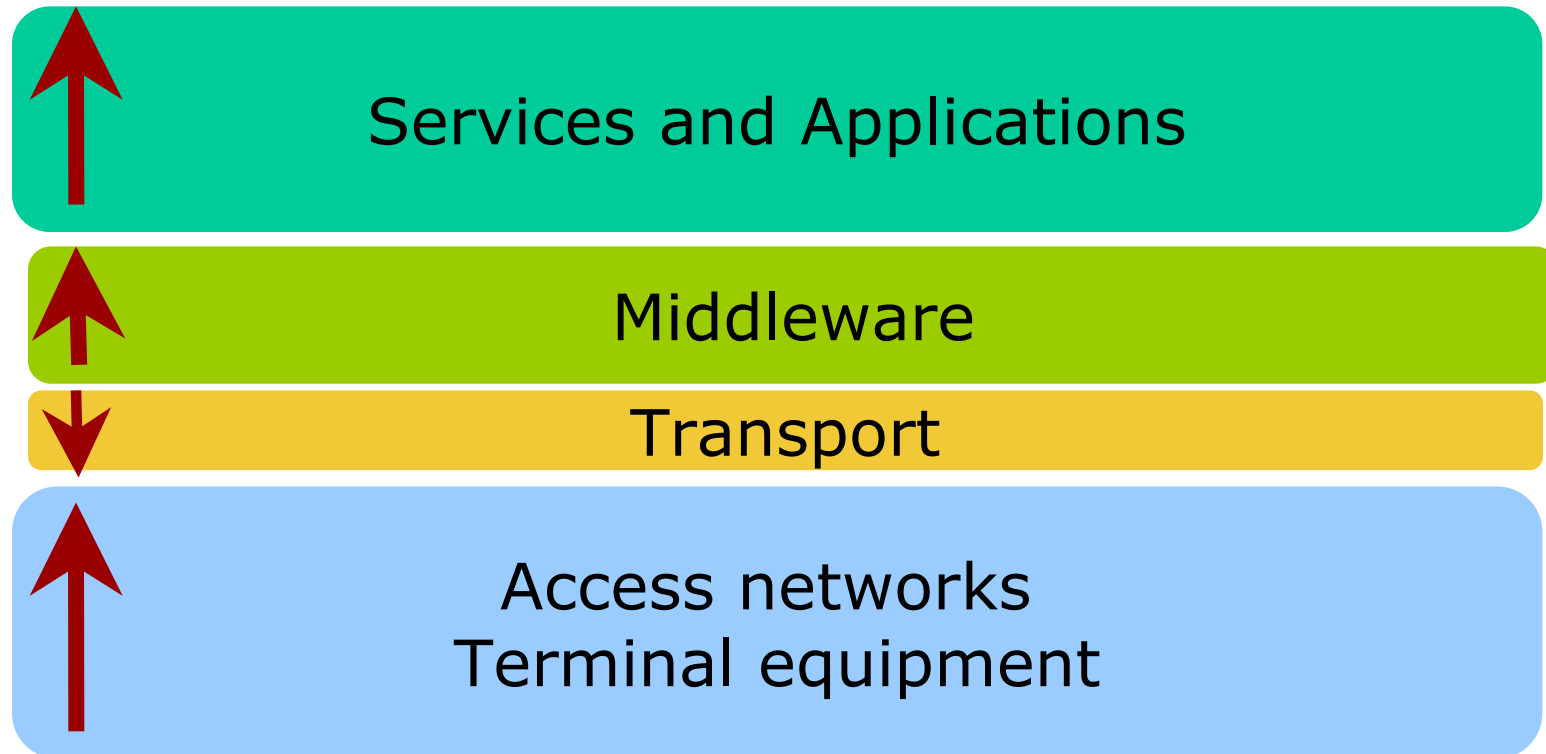SOS interop - 20 - 21 February 2006

Few words about ARCEP

- **ART, as a French telecoms regulators, is an independent administrative Authority, set up by law on January 5, 1997. ART became ARCEP by mid 2006 to manage Electronic Communications and Posts regulations.**

- **ARCEP's main responsibilities:**

  - **to foster "real and fair competition to the benefit of users".**

  - **to monitor "provision and funding of the components making up the public telecommunications sector";**

  - **to take into account "the interests of regions and users in terms of access to services and equipment".**

  - **to monitor "development of employment, innovation and competitiveness in the telecommunications sector".**

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The French market :
the road to NGN.

- **Competition has lead to a rapid development of fixed broadband market: Low retail tariffs, innovation, diversity of the offers :**
  - More than 9 millions of Broadband access (mainly DSL) (penetration rate 32%).
  - Voice over Broadband is a driver for unlimited national calls :
    - 30% of the DSL users are also VoB users (more than 2 millions of the DSL users),
    - VoB represents already 15% of the fixed residential traffic.
  - Internet access offers towards higher bit rates :
    - DSL national coverage: 98% of population is planned by end 2006,
    - ADSL 2+ (up to 20 Mbps) roll out is already planned. VDSL, FTTx trials under process.
  - Triple play enablers :
    - Home gateways market is moving on: more than 2 million of home gateways in the French market,
    - Pay TV on DSL offers with various ISPs,
    - Video on demand will drive higher bit rates offers and will benefit of a new media chronology agreement.

- **Very high broadband initiatives** on residential market: France Telecom, local authorities, new players : Cité Fibre, Erenis

- **TV is becoming mobile:** Mobile TV is provided with EDGE - 3G networks; DVB-H and DMB T trials are under process.

- More than 5 k WiFi hotspots are already available and **new access infrastructures** will be rolled out : Wireless local loop licensing under process, PLT. Cable is back further to merger last years.

NGN : Where is the value ?
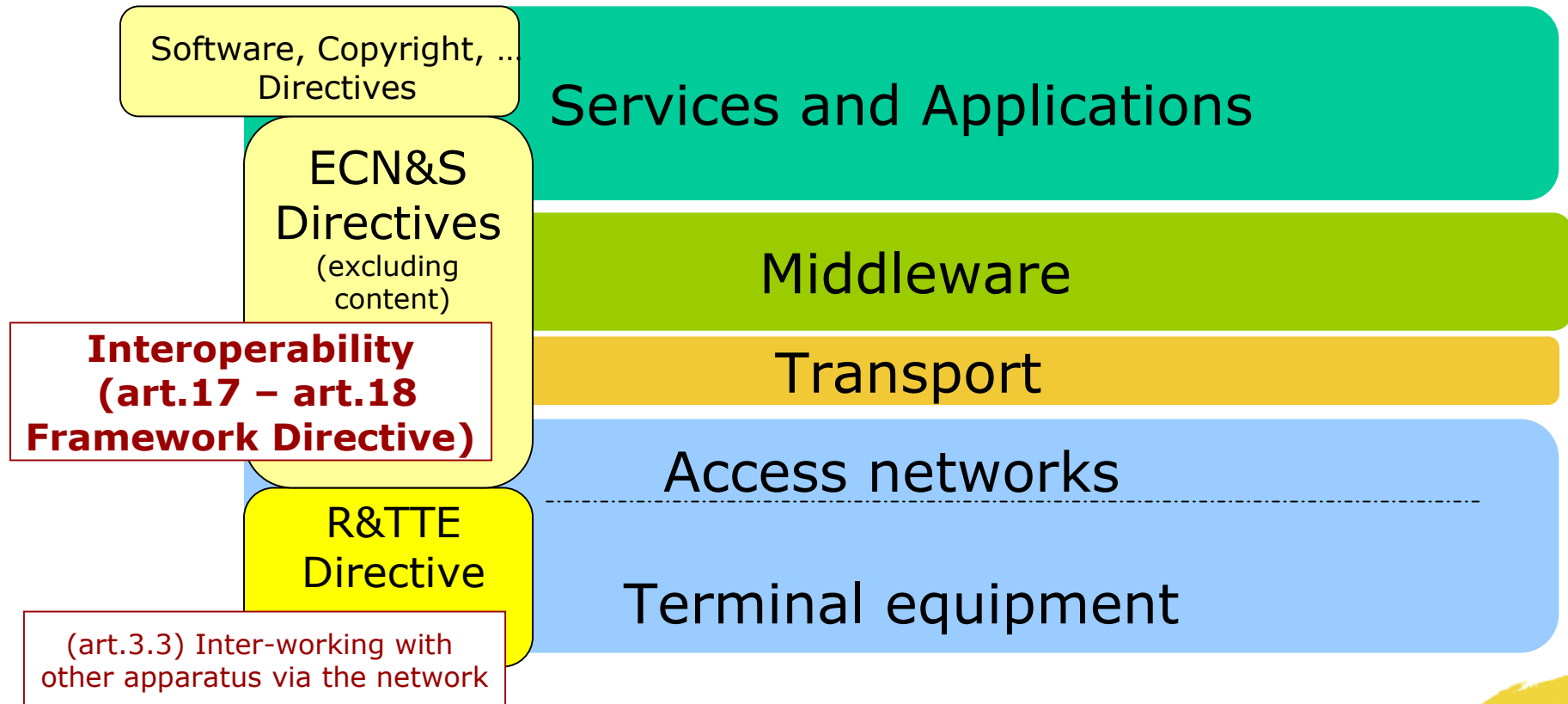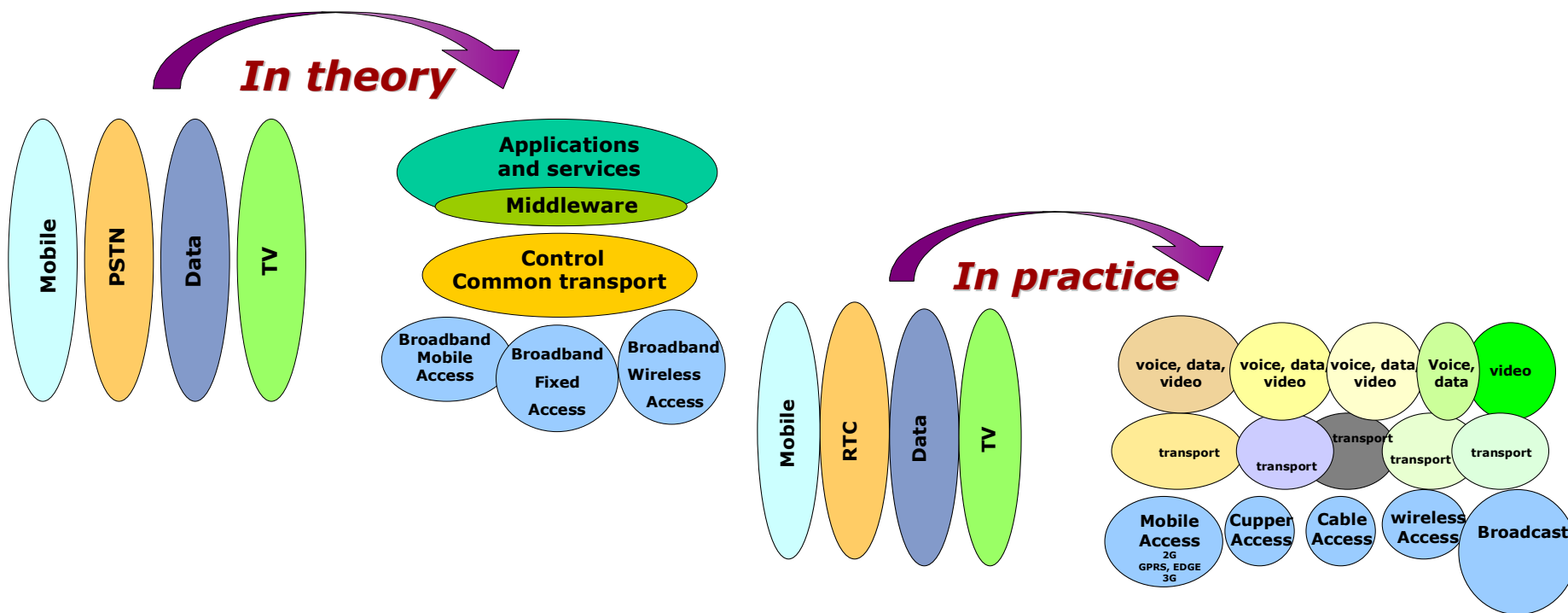

Services and Applications

Middleware

Transport

Access networks
Terminal equipment

❑ **Industry faces to new challenges.**

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NGN : Where is the current regulation ?

Software, Copyright, … Directives

ECN&S Directives (excluding content)

Interoperability (art.17 – art.18 Framework Directive)

R&TTE Directive

(art.3.3) Inter-working with other apparatus via the network

Services and Applications

Middleware

Transport

Access networks

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❑ **Regulators face to new challenges.**

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NGN : In theory ... and in practice

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R&TTE Directive
A regulation to support innovation

- **R TTE Directive enters into force the 8 April 2000 <u>replacing more than 1000 national approval regulations;</u>**

- **R TTE Directive covers marketing, free circulation and use and all equipment which uses radio frequency spectrum and all terminal equipment attached to public telecommunications;**

- **As a new approach Directive, RTTE defines essential requirements;**

- **Regulation identifies the network termination point (NTP);**

- **Network operators of public telecommunications services needs to publish the characteristics of their interfaces at NTP;**

- **Standardisation is producing harmonised standards to support implementation of essential requirements by the industry;**

- **Interoperability is currently managed by the industry (no application of article 3.3) with support of conformance testing. Thanks to test suites and reduction of options within a standard.**

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ECN&S and R&TTE Directives

The « Framework» Tool box (art.17)
(among others)

The « RTTE » Tool box (3.3)
(among others)

R&TTE Directive

NTP

Framework Directive

- **Inter-working with other apparatus via the network**

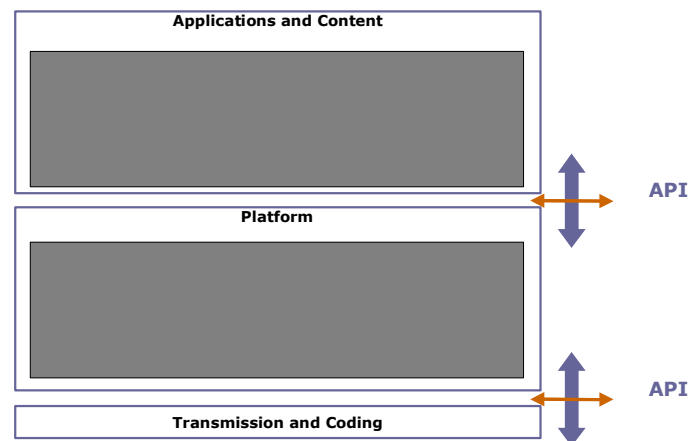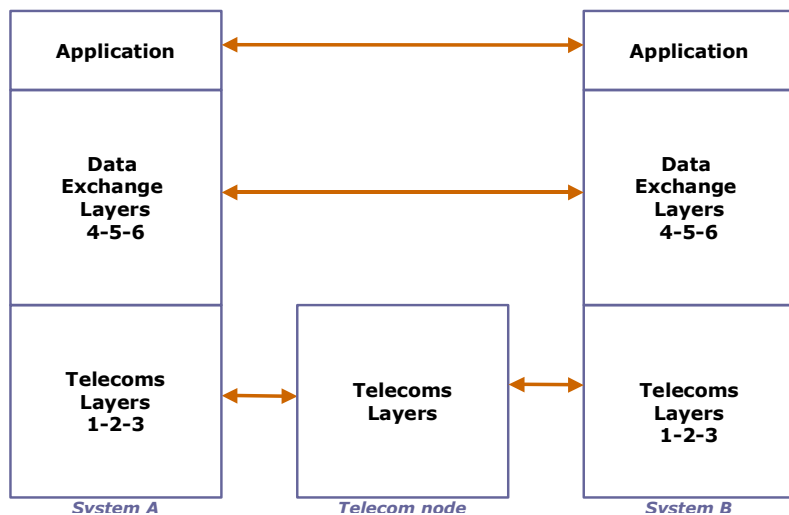| R&TTE Directive	NTP	Framework Directive
Covers all Telecom Terminal Equipment		Covers all networks and services aspects ("outside scope of R&TTE")

Services and Facilities

R&TTE covers all Radio Equipment
(R TTE 3.2)

Low Voltage and EMC Directives
(R TTE 3.1 a, b)

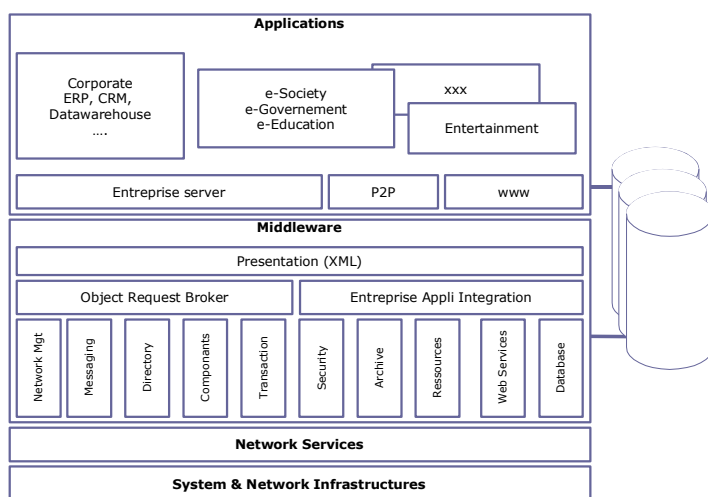*NTP: network termination point*

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ECN&S and interoperability
Feedbacks from the art.17 process and next steps

Application ⟷ **Application**

Data Exchange Layers 4-5-6 ⟷ **Data Exchange Layers 4-5-6**

Telecoms Layers 1-2-3 ⟷ **Telecoms Layers** ⟷ **Telecoms Layers 1-2-3**

System A *Telecom node* *System B*

Applications and Content

API

Platform

API

Transmission and Coding

ITEMS International - 2005

Applications

Corporate ERP, CRM, Datawarehouse ....

e-Society e-Governement e-Education

xxx

Entertainment

Entreprise server | P2P | www

Middleware

Presentation (XML)

Object Request Broker | Entreprise Appli Integration

Network Mgt | Messaging | Directory | Componants | Transaction | Security | Archive | Ressources | Web Services | Database

Network Services

System & Network Infrastructures

ITEMS International - 2004

- **Interoperability could refer to various type of interfaces : the telco world, the broadcasting world, the software world.**
- **Article 18 (FWK Directive) refers to broadcasting issues : the MHP case.**

Future regulation attached to interoperability should combine objectives of the 3 worlds and the 3 cultures.

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ECN&S and interoperability
Feedback from the art.17 process and next steps

- **Standardisation is de facto driven by the market.**

- **Interoperability could refer to various type of interfaces within a converging environment.**

- **Commission, regulators, standardisation experts should cooperate:**
  - **to adopt a common language,**
  - **to better understand the various objectives of regulation and standardisation,**
  - **to contribute to the definition of interoperability in a standardisation world which supports regulation objectives,**
  - **to produce list of standards, if needed.**

- **Interoperability is at the core of the standardisation process and at the top of the agenda of the standardisation. Thanks to ETSI;**

- **However, regulation faces to NGN :**
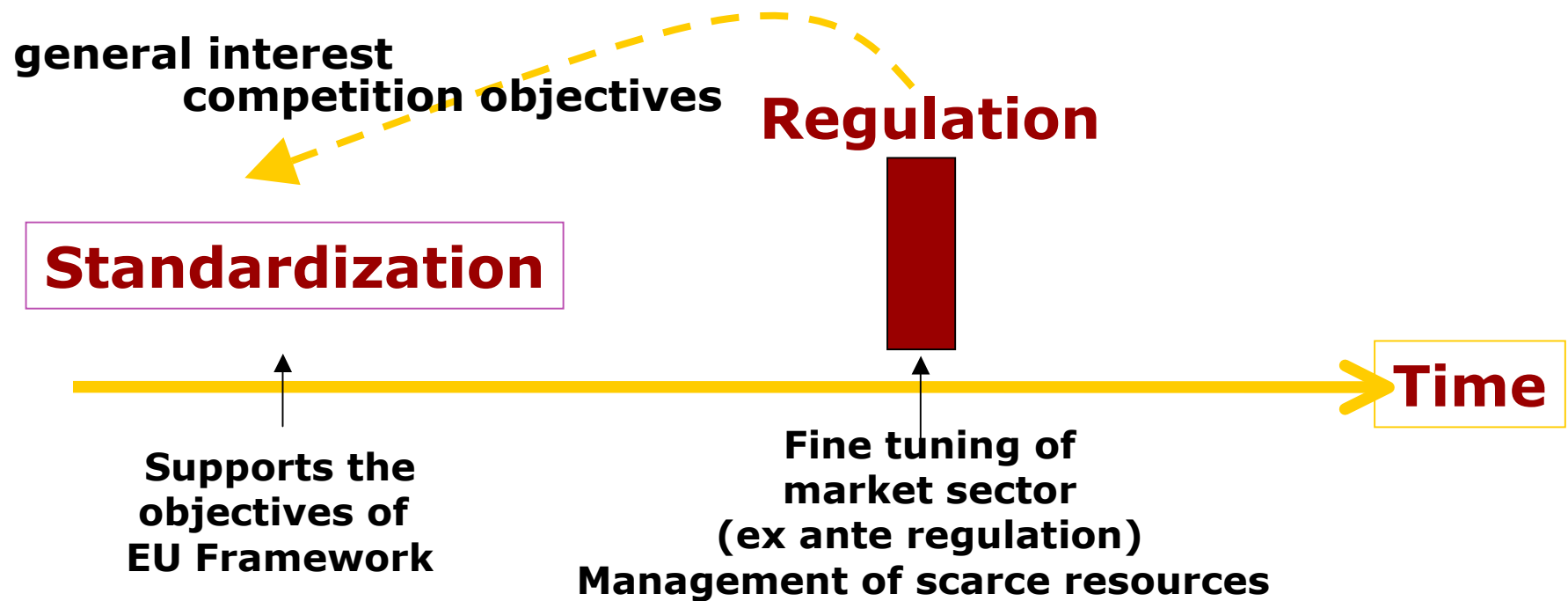 - **Interoperability by ex post or by ex ante?**

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ECN&S and interoperability
Feedback from the art.17 process and next steps

- **Interoperability by ex post :**
  - Interoperability is the current driver of the industry in the standardisation process.
  - Standardisation, market players manage by themselves the objective by embedding the regulation objectives.
  - Regulation stays as a passive customer of the standardisation process and could correct if needed failures of the market (control and sanction).
  - ex post regulatory pressure does not mean no dialogue with the standardisation process in the early phase: standardisation needs to co-opt the objectives.

- **Interoperability by ex ante ?**
  - Regulation could be pro active by identifying ex ante relevant services where interoperability needs to be achieved.
  - Regulation could publish guidelines (see e-adm feedback) with support of standardisation to guide the market.
  - An European approach is needed to support harmonization.

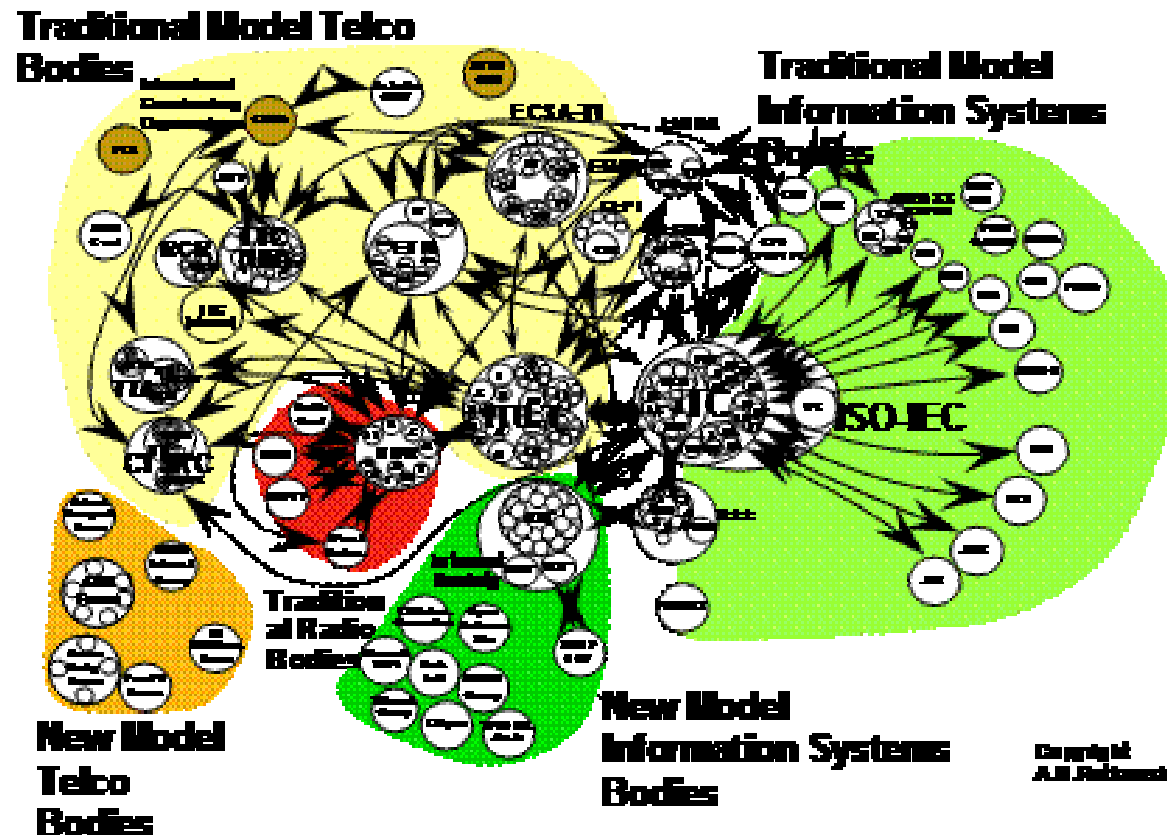*Whatever the approach, a collaboration between regulation and standardization players within an NGN migration context is needed.*

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Standardisation and regulation : « dangerous relations »?

standards : you are "in" or "out"...

general interest
competition objectives

Regulation

Standardization

Supports the
objectives of
EU Framework

Time

Fine tuning of
market sector
(ex ante regulation)
Management of scarce resources

Standards and regulation are interlinked by default,
Standards should take into account general interest objectives
standards also need to support competition objectives,
lack of standardisation will delay introduction

of competition on retail markets.

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Regulators and the standardisation «maelström »

is there a standardisation « lighthouse » for a regulator ?

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NGN:
Innovation, investment, competition,.. standardisation and regulation.

Thanks a lot for your attention

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