**Mr Sunil Kumar Singhal**
**Advisor (B&CS)**
**Telecom Authority of India**
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Dear Mr Singhal,

SmarDTV, a Kudelski Group company, is the international leader for the design and the manufacturing of modules enabling the reception of Pay Television. SmarDTV Conditional Access Modules (CAM) are currently used by millions of Pay Television subscribers worldwide.

As a founder member of CIPlus LLP and active member of DVB CIPlus WG, we are convinced that the adoption of the DVB CI-Plus standard is key for the development of the Pay TV ecosystem from which TV industry players and the subscribers will benefit.

As a result, regulators should mandate the support of CI-Plus technology for the commercialization of the Integrated Digital TVs (iDTV) in the same way it was put in place in Europe.

In response to your "Pre-consultation Paper on Set Top Box Interoperability" dated 4th April 2016, we would like to give you the following comments:

- *Chapter 3, Paragraph 3.8*:
  - **Cost of hardware**: today due to economy of scale (450 million of CIPlus devices have been deployed), it is very much more competitive than a classic Set Top Box
  - **One active CA/DRM only for broadcast content**: hardware can indeed embed multi CAS/DRM and are not limited to the support of broadcast content: last release of the Standard (issued last year as Version 1.4) goes beyond the linear channels by adding support of IPTV and Over-The-Top (OTT) contents; in conjunction with HbbTV, the Standard addresses Multiscreen and smart devices scenarios as well

- *Chapter 4, Paragraphs 4.3.2/3*: **concern about different modulation standards and compression**: Conditional Access Modules (CAM) are future proof against change in the modulation or codecs since the TVs are in charge of the demodulation and decoding while the CAM are in charge of CAS/DRM descrambling.

- *Chapter 4, Paragraph 4.4*: **concern about DVB-CSA**: current CAM supports either DVB-CSA or AES

- *Chapter 4, Paragraph 4.6*: **CI Slot in DTH STB mandate**: as highlighted the effort has not been fruitful and the main reason being the lack of added value of STB+CAM compared to a proprietary STB; this will not apply to an iDTV+CAM bundle where the CAM becomes a simple and cost effective device enabling PayTV content on the generic and universal TV set that is acquired by the subscriber.

In conclusion, we strongly believe Government regulatory Authority mandating CIPlus technology in all IDTVs to be sold in their country, is the best approach to enable a market quickly without additional cost for PayTV operators, thus for population. This will as well avoid the waste of devices lying idle or unused as mentioned in your document for a capital expenditure of $750 million!

In addition, the technology is clearly accelerating the overall Energy Efficiency: CAM is consuming 10 times less than STB resulting into a drastic power saving (up to 15W * 85Mio = 1.275 Gigawatts reduction!)

The success in Europe and Russia shows the benefit of such technology.

We believe that PayTV Operators will support government Regulatory Authority through a specification or a logo program to quickly reach market adoption for TV vendors and their retailers distributing their services.

And finally, TV vendors are willing to differentiate from their competition. Promotional activities easily get organized with PayTV operators and retailers for sharing cost of marketing information to end users, and attractive joint offers can be made at Retail places for selling PayTV services at the same time population purchase a new TV set.

Yours faithfully,

Erik Gazzoni
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**PS: Attached presentation "Mandating CIPlus Technology in India"**

# SMARDTV

# Mandating CIPlus Technology in India

AUTHOR : **SMARDTV**
STATUS : **EXTERNAL**
CLASSIFICATION :

DATE : **2016-04-19**

VERSION : **3.0.0**

# AGENDA

What is a Conditional Access Module

Why regulation is necessary

How to proceed

# Conditional Access Module

- **Conditional Access Module: a TV plug-in module enabling Pay-TV for any content (SD, HD, HEVC and 4K) removing the use of a decoder (STB)**



- **TV + Module is equivalent to a STB + TV but with no electronics redundancy**

# CAM offer benefits both to end-users …

**Easy to install**
No new wires

**Easy to use:**
No additional
Remote control

**Economic:**
Reduced energy
consumption

**Aesthetic:**
No box below
the TV screen

**Cost Effective:**
Lower customer
acquisition costs

**Fast to Deploy**

# … and to the Pay TV operator

- **Reduce CAPEX** – decrease customer acquisition cost

- **Increase subscriber base** – leveraging retail channels of TV sets

- **Access Premium content** – content remains highly protected

- **Low maintenance** – simple components vs complex STB product

- **Open Standard** – initiated by CI Plus, now handled in DVB

- **Time to Market** – Module product launch can be done in less than 4 months by an operator vs a typical 12 months for a STB
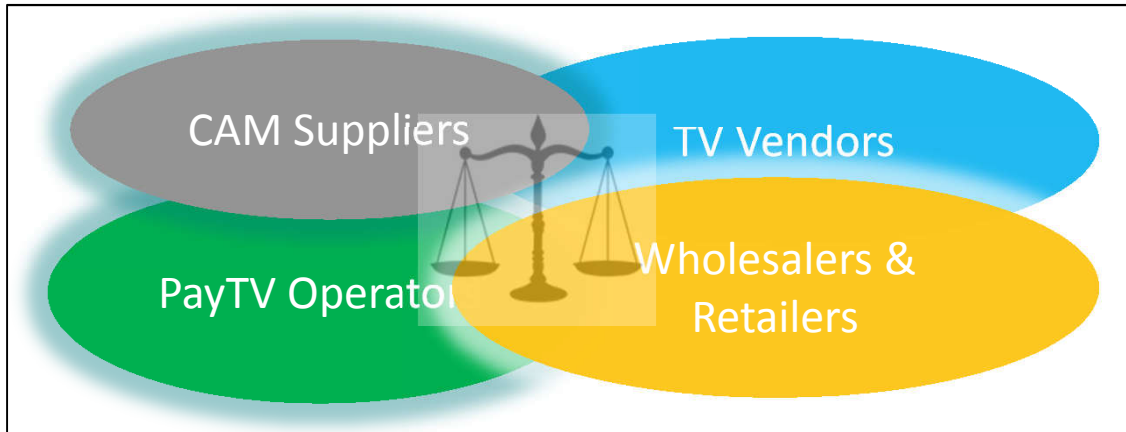
# AGENDA

What is a Conditional Access CAM

Why regulation is necessary

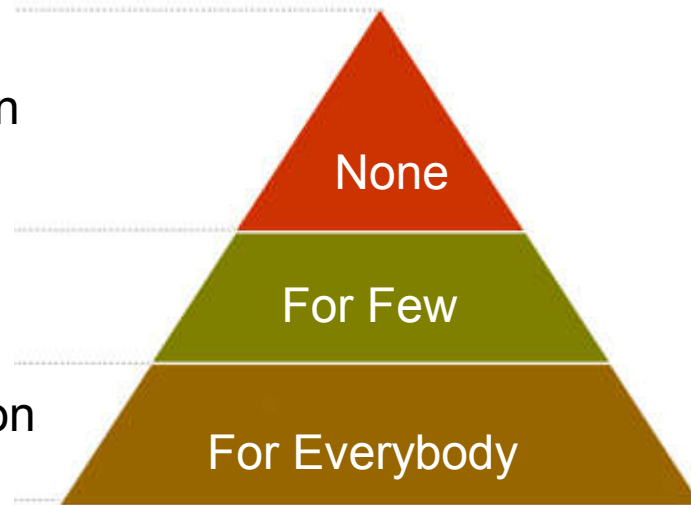How to proceed

# REQUIREMENT: ECOSYSTEM SHALL BE IN PLACE

CAM Suppliers

TV Vendors

PayTV Operator

Wholesalers & Retailers

Ecosystem is identified but all parties have their own agenda

No Regulation

Business Opportunities

Full Regulation

None

For Few

For Everybody

**Regulation, can make Everybody benefit of Technology**

# TV + MODULE : A NATURAL FRAGMENTATION

❑ TV manufacturers distribute the same TV models all over a continent.

❑ PayTV operators require dedicated HW security to protect their premium local contents from Piracy and redistribution.

❑ Embedding the security in TV sets is problematic because of market fragmentation.

❑ The module is the natural upgradable TV add-on to be in charge of the local specificities and **shall be mandated by Local Regulator**

# REGULATION BENEFITS FOR ALL STAKE HOLDERS

## ANALOG SWITCH OFF
If **CI+ is mandatory** from day1, alongside others technology as MPEG4, DVB-T2, all iDTV are compliant without the need of financing decoder ( STB)

## TV VENDOR
**Ease models selection :**
The cost of adding a CI slot is the same for all vendors and it makes sense for all players to educate end users about CI+ technology and get revenues from PayTV operators initiatives

## PAY TV OPERATOR
**CAPEX reduction**:
  CAM cheaper than STB
  CAM is more Robust leading to nearly no product return.
**Maximize Addressable market:**
CI+ CAM works with any CI+ iDTV
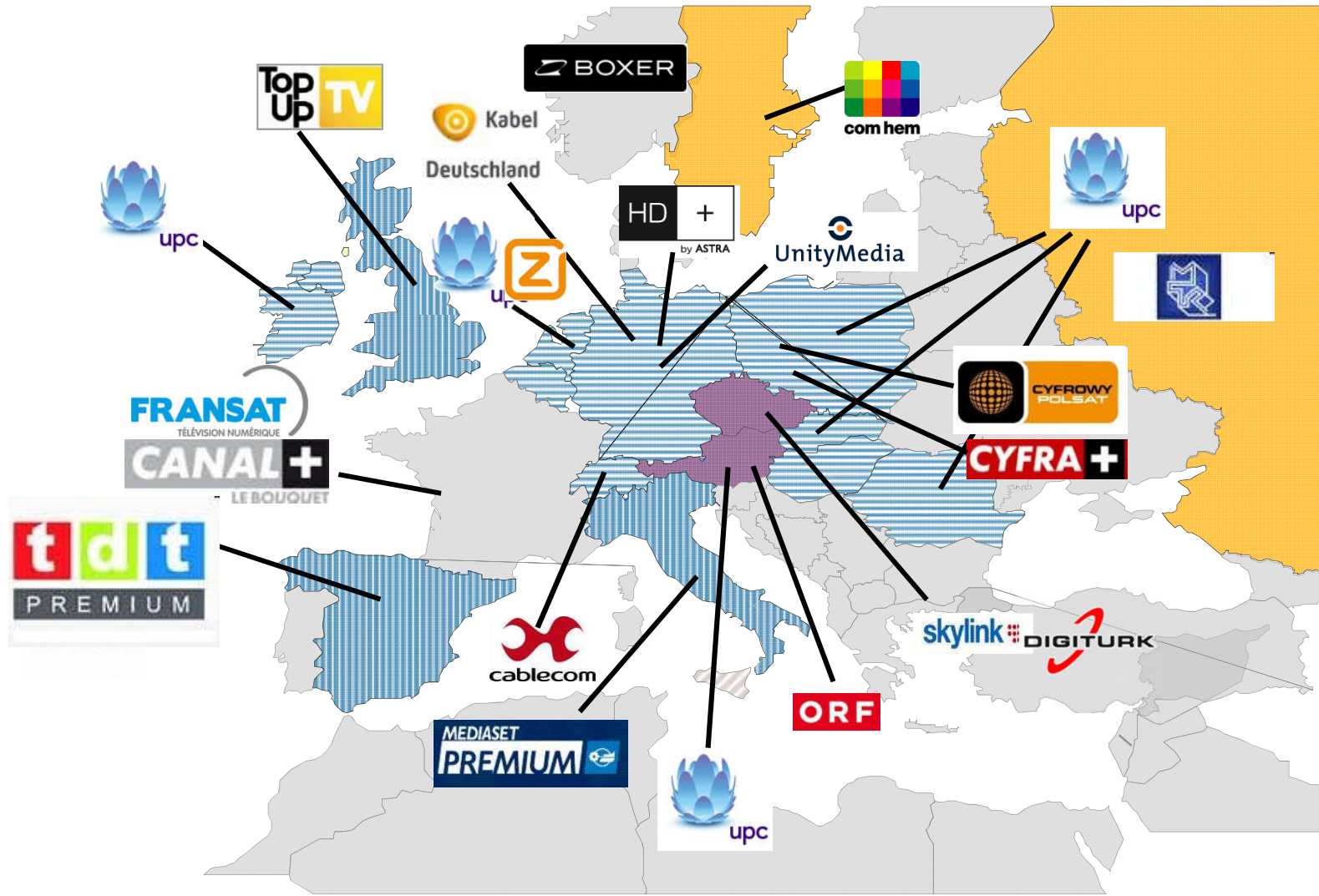
## CONSUMER
**INTEROPERABILY OF EQUIPMENTS**:
  Guarantee for any CI+ TV models.
**Offering Choice**:
  Can purchase any TV model, any size, based on wishes and wealth and using a cheap module for premium Contents

# EUROPE CASE STUDY:

# EUROPE CASE STUDY:



- All European IDTV are CIPlus compliant since 2010
- 450 million CI Plus device certificates delivered as of Dec-2015
- More than 90 Operators and 40 countries are using CI Plus CAMs
  http://www.ci-plus.com/index.php?page=other_operators

Happened thanks to **DIRECTIVE 2002/22/EC OF THE EUROPEAN Union in 2002** while preparing the Terrestrial Analog Switch Off that triggers TV replacement for users in most countries to let population the freedom to switch between operators and services without having to replace their equipment.

# AGENDA

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# REGULATION FIRST, EDUCATION AND ADVERTISING NEXT

**Regulators**

**2-Activities**
Ensure products performance, End user education
Marketing and promotions

**TV OPERATORS**

**PUBLISH REQUIRMENTS**
« All iDTV, from DD/MM/YYYY, are mandatory to include CI+, MPEG4 or HEVC, Dolby, DVB-T2/DVB-S2 tuners, Parental Control support to protect children, IP connectivity etc….. »

**RETAIL**

**CONFORMITY LABEL**

- Similar to DVB-T2 labeling, informing end user of the technology
- Helping TV Vendors with Conformity Logo on TV
- Appoint Lab for conformity of Equipment with their signalization

**MARKETING**

- Inform End Users of Products availability
- Bundling of TV sets and PayTV services at the point of sales with Promotional offers

**1-Regulation**
CI+ Mandatory on iDTV at the same time than others technology

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# WHAT IS NEXT ON CIPLUS STANDARD ?

❑ **CIPlus version 1.4  for IDTV sold in 2017/2018**

  ❑ MultiStream PVR

    ❑ **Watch one program while recording another**

  ❑ Hybrid OTT services

    ❑ **VOD contents through IP**

  ❑ Virtual Channel

    ❑ **Operator environment with a Key press from TV Remote Control**

  ❑ HBBTV 2.0/HTML5 Applications Launch
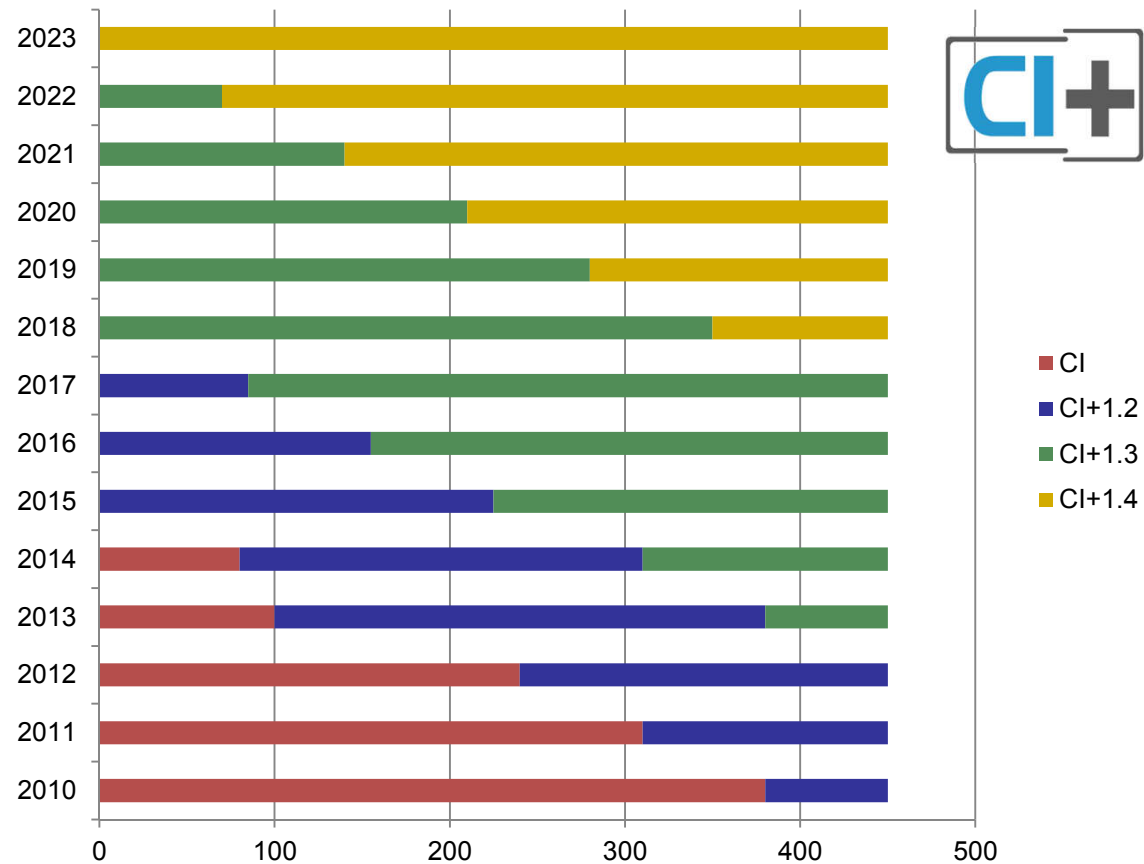
    ❑ **PayTV operators User Interface in the TV**


❑ **CIPlus 2.0 standard on going**

  ❑ Main objective to support USB form Factor for modules using USB3.0 interface of IDTV removing Common Interface from the TV set

# How long to create a total addressable Market ?

It took 5 years in Europe before CI+ IDTV were present in nearly all Household

100% addressable market for CI+ CAM reached in Europe since 2015

Analog Switch Off often initiates equipment renewal for people



Legend:
- CI
- CI+1.2
- CI+1.3
- CI+1.4

# TAKE AWAY AND CONCLUSION

❑ Population <u>should not be forced </u>to change technology but be willing to get access to new technologies at an affordable cost

❑ <u>TV is the main equipment </u>that population acquire and has to be sold locally with the right technologies mandated by the country to ease local services deployment for population

❑ It took 5 years in Europe to Install a 100% addressable Market for CI+ Modules : the sooner it starts, the faster solutions get offered to the largest number of people

❑ TV is a worldwide market bringing first the new <u>technologies that are evolving very quickly </u>( DVB-T to DVB-T2, MPEG4 to HEVC, 4K to 8K UHD….). Modules limit Local Operators investments.

# THANK YOU !

For more details, please contact Philippe Guitteny at philippe.guitteny@SmarDTV.com