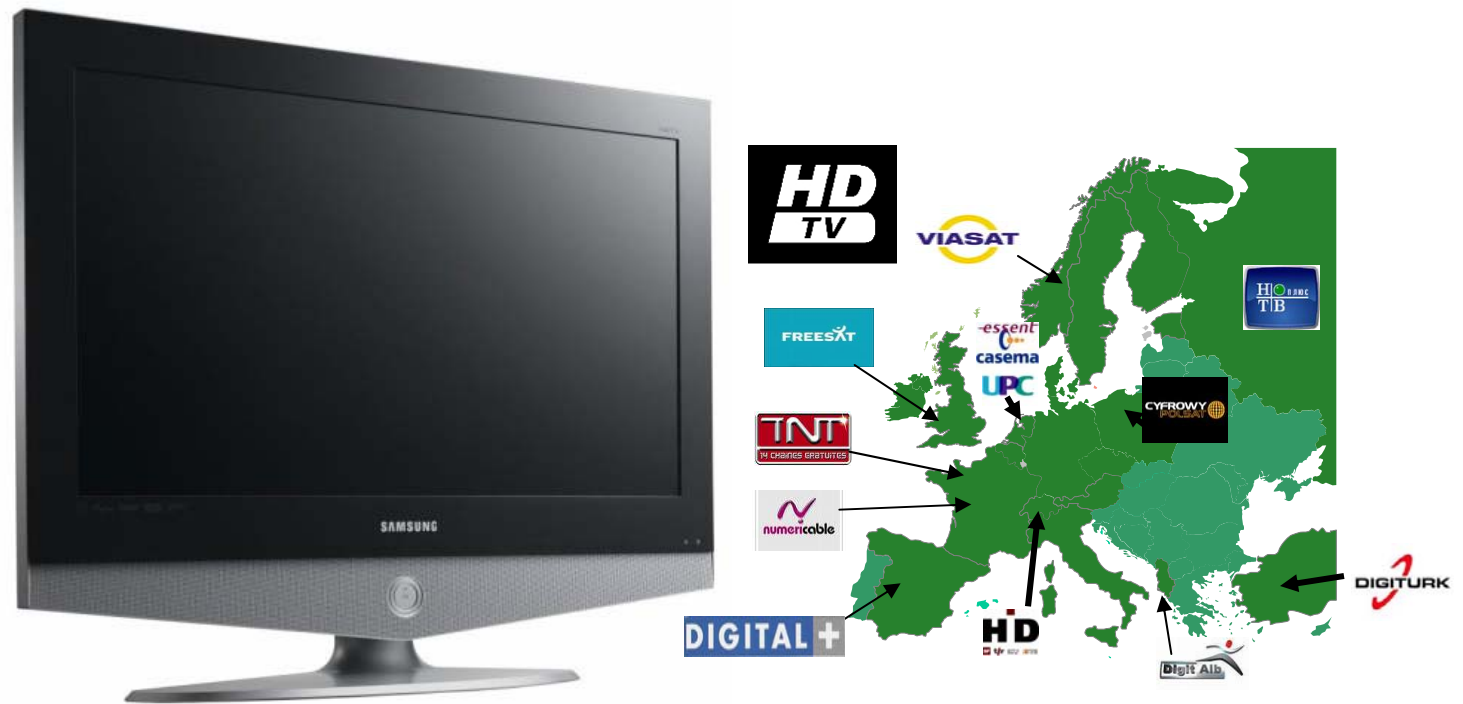


HDTV and DTT across Europe

By Vincent Létang, senior analyst, Screen Digest
DTG Summit 2008, 7 March 2008, BAFTA



HDTV 2008 by Screen Digest

- **HDTV trends in Europe**
- **Focus on French HD DTT**

HDTV 2008 by Screen Digest

- **HDTV trends in Europe**
- Focus on French HD DTT

HDTV trends in Europe

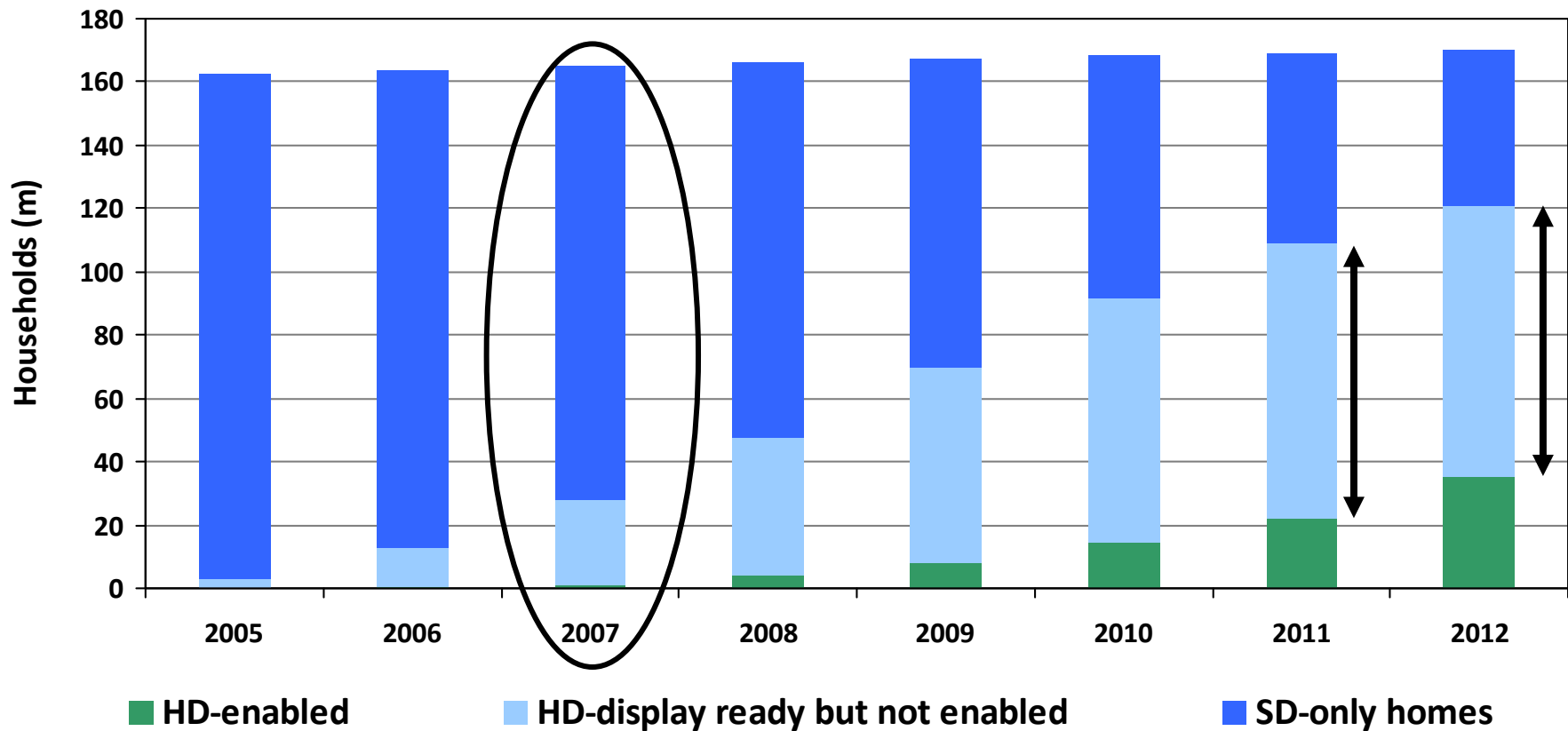
Key messages

- **1. HD broadcasts now** available in all major European markets, after two years.
- **2. Around 70 HD channels available in Europe at end-2007**
 - Movies, sports and documentary are the bulk of HD channels
 - Other theme channels and free channels are *lacking* so far
 - Pay TV channels are still the bulk of it
- **3. ‘Content gap’: of ca 30m ‘HD-ready’ homes in W. Europe at end-2007, only about 1m (5%) can actually watch HDTV.**
 - Those will grow to, respectively, 120m and 35m in 2012 unless major FTA development happen.

HDTV trends in Europe

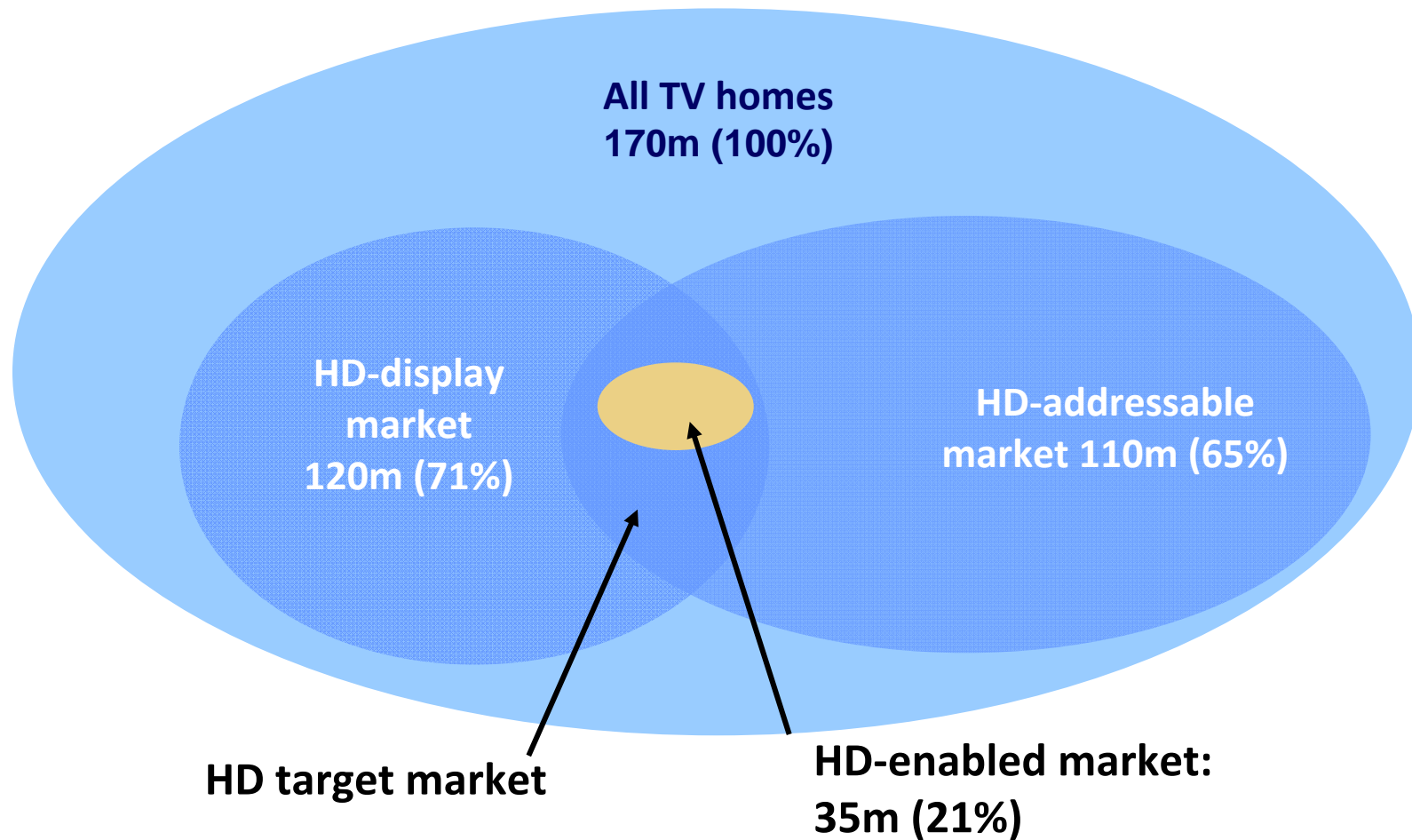
The 'content gap' is here to remain

HD-enabled homes v. HD-display readiness (WE17)



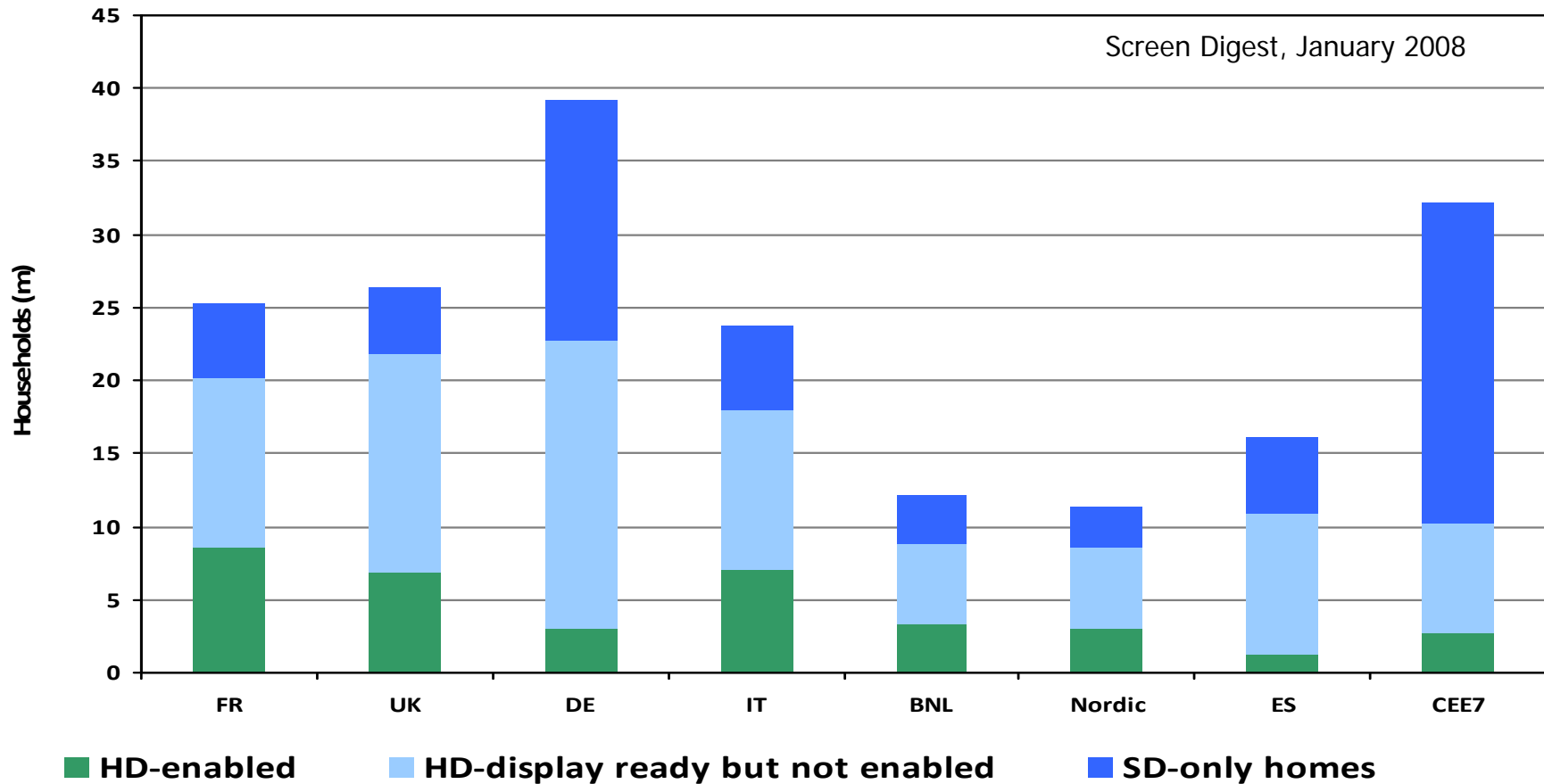
HDTV trends in Europe

35m HD homes by end-2012



HDTV trends in Europe

HD-enabled v. HD-display 2012

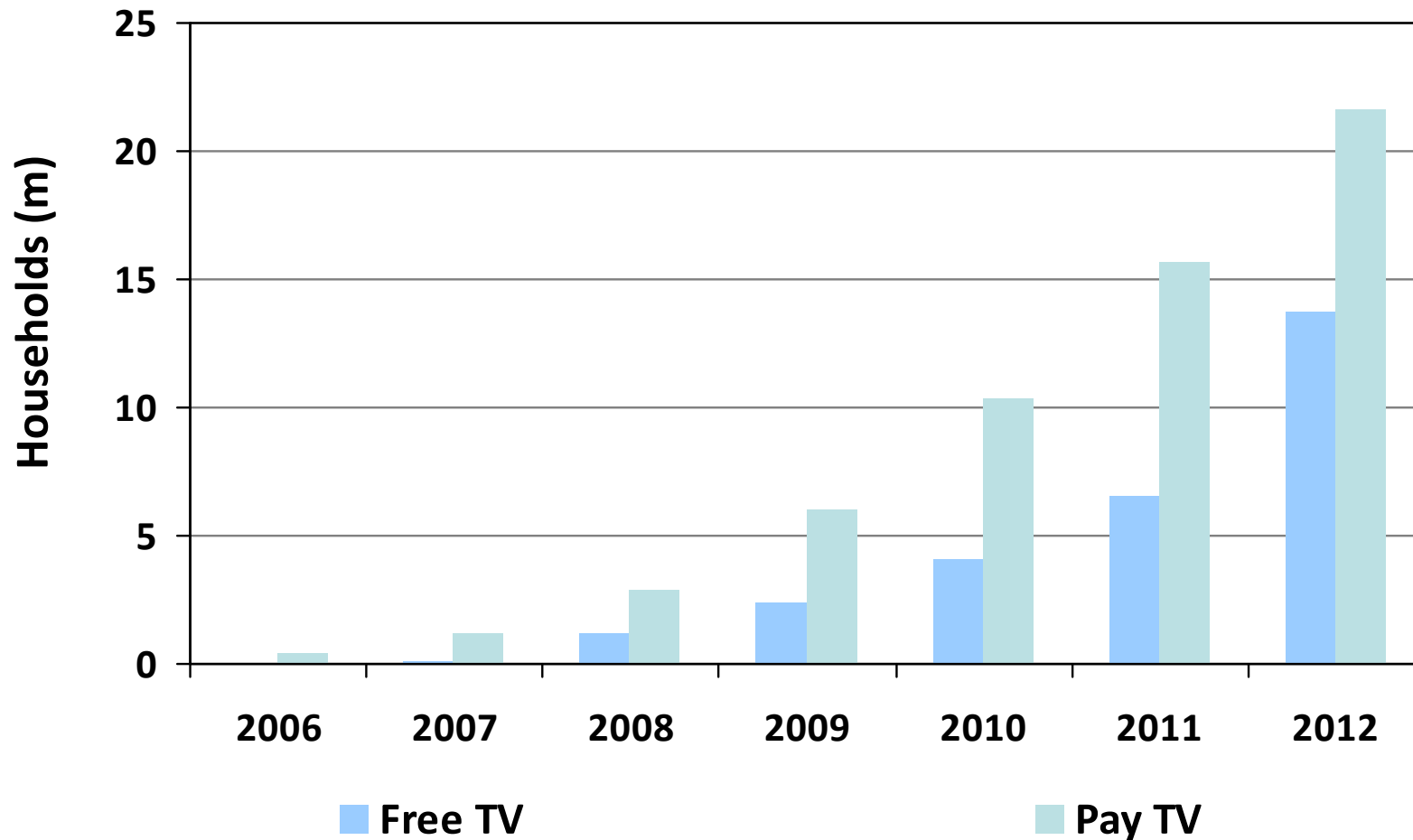


Reading: of 25m TV households in France at end-2012, about 20m will have HD ready displays, of which 8m will receive and watch HDTV, whilst 12m will not

HDTV trends in Europe

HDTV mainly driven/pushed by pay TV in first stage

- 22m of the 35m HD-enabled homes will watch it through pay TV in 2012



HDTV trends in Europe

Availability of HDTV by platform at end-2007

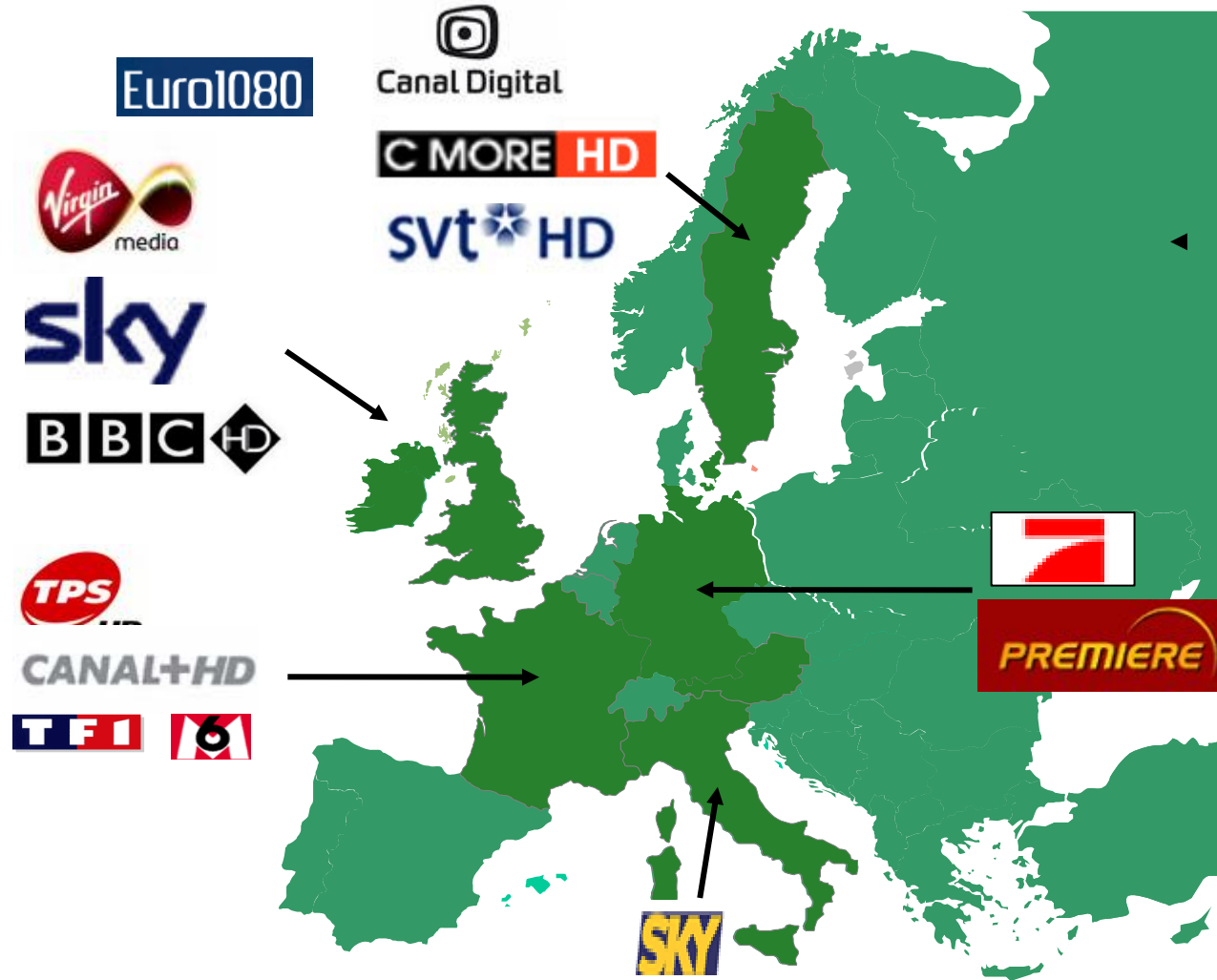
| | DTH pay | DTH free | Digital Cable | DTT pay | DTT free |
|---------|---------|----------|---------------|---------|----------|
| France | 2006 | 2008 | 2007 | 2008 | 2008 |
| Germany | 2006 | 2005 | 2006 | | |
| Italy | 2006 | | | | 2010 |
| Spain | 2008 | | 2009 | | 2012 |
| Nordic | 2005 | 2008 | 2006 | 2009 | 2007 |
| Benelux | 2008 | 2008 | 2006 | | |
| UK | 2006 | 2008 | 2007 | | 2009? |

BLACK=HD available BLUE= HD officially planned RED= SDL expectation

- HDTV available in every W. European country
- ...But so far a very limited free-to-air offer: only free DTH in Germany (not very successful)
- At last free DTT in France and Freesat in the UK (expected 2008-2009) should accelerate HD adoption
- France is the country with the largest choice of platforms offering HD: which explains the HD uptake (and manufacturers opportunities) will be higher in France

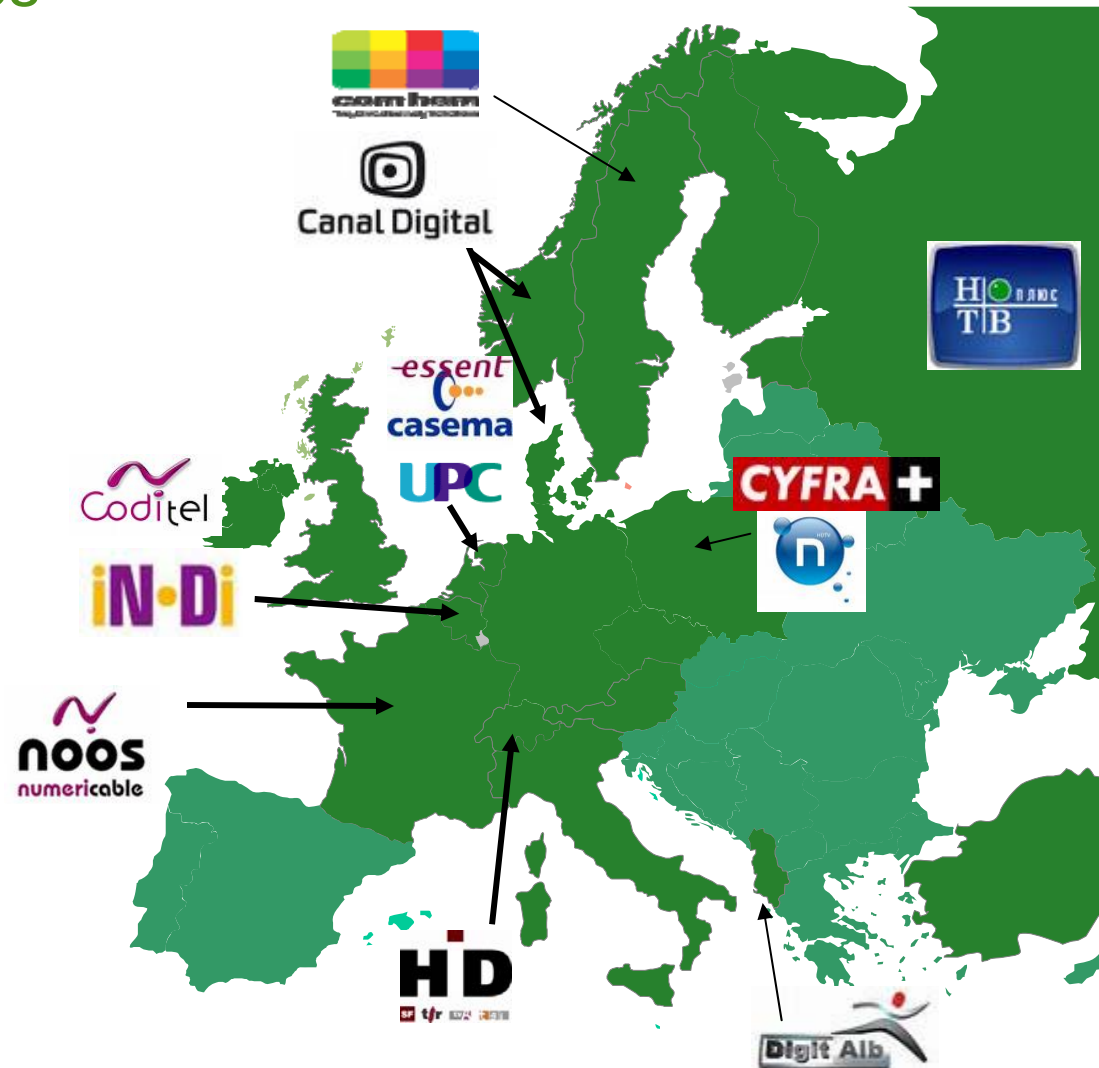
HDTV trends in Europe

2004-2006 launches



HDTV trends in Europe

2007 launches



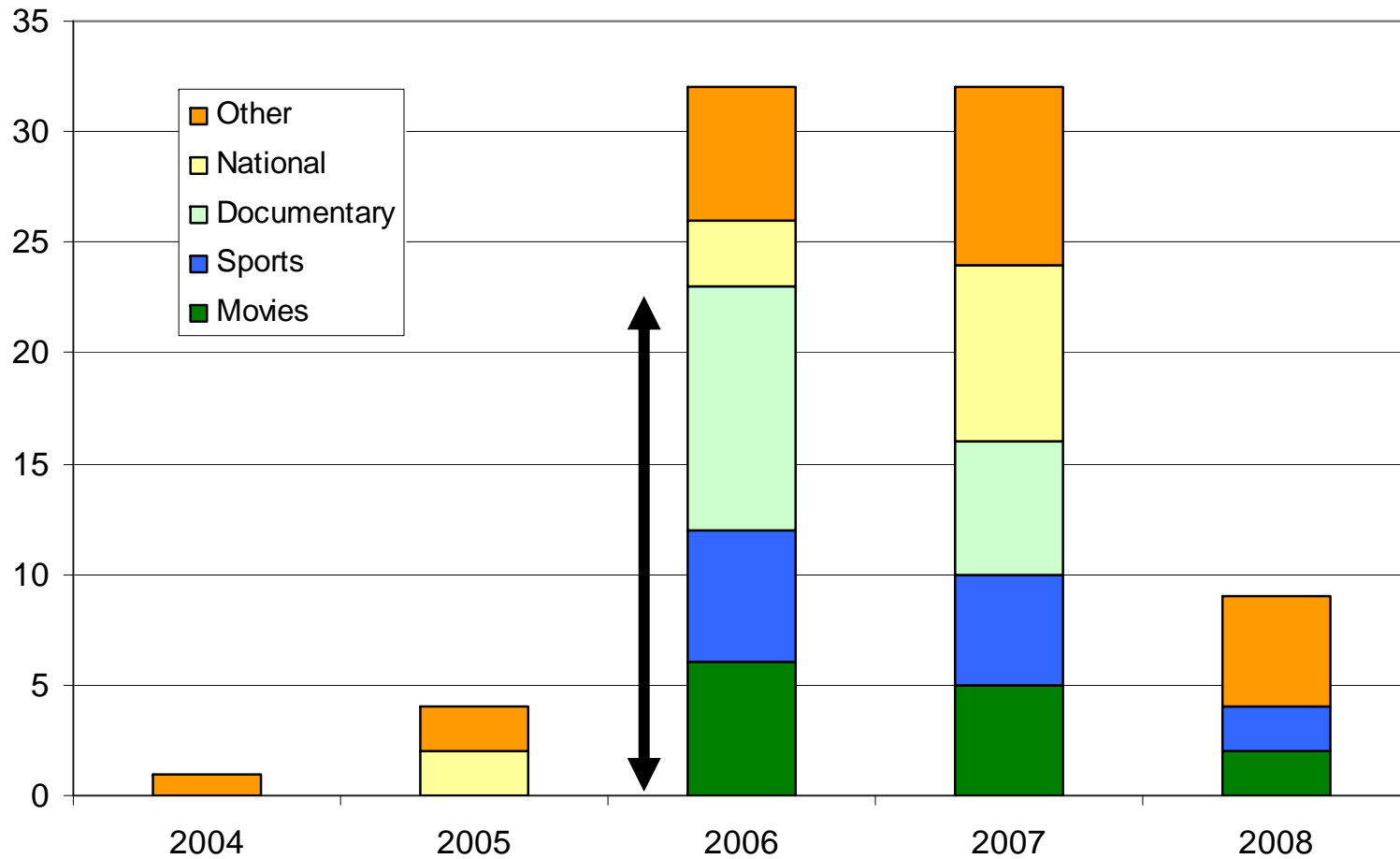
HDTV trends in Europe

2008 launches



HDTV trends in Europe

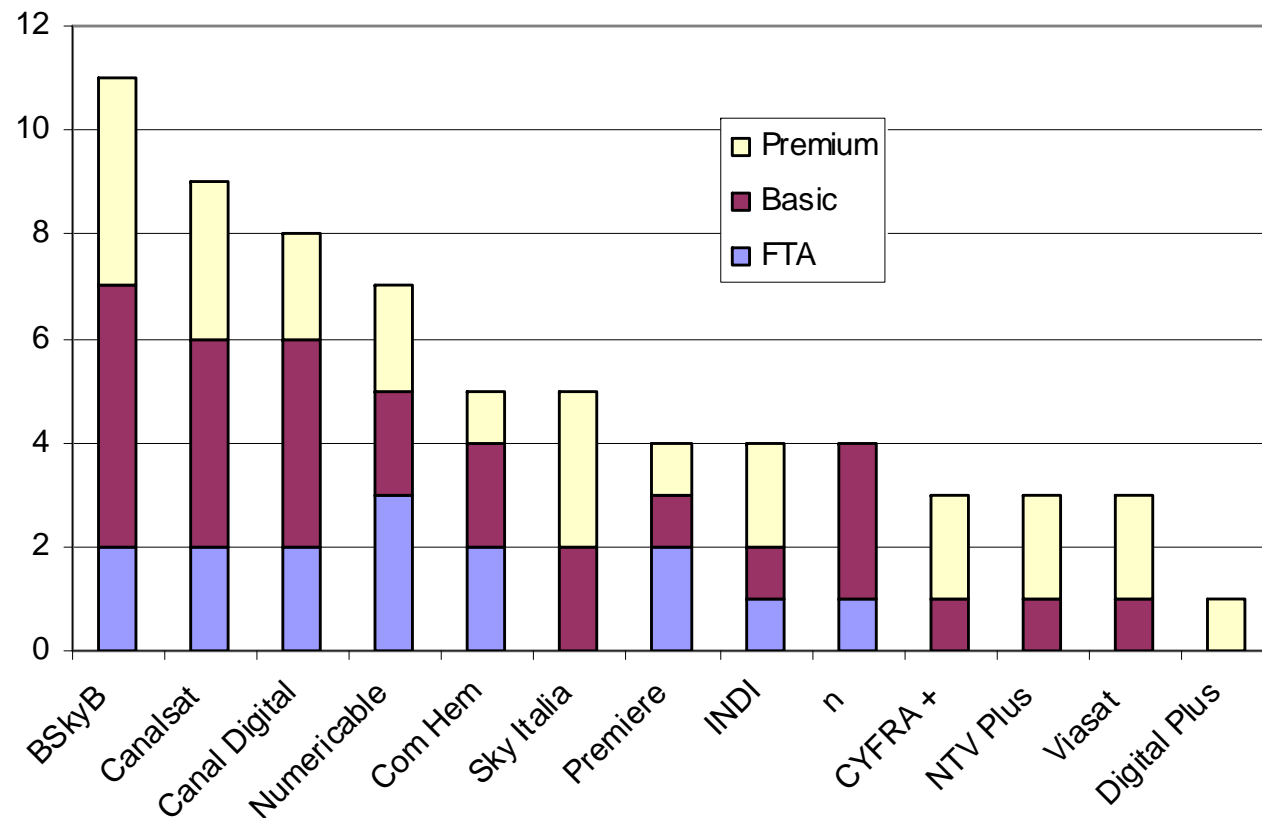
78 channels at end-2007



HDTV trends in Europe

Pay content still hugely dominant

- Digital TV platforms are offering 1 to 10 HD channels



HDTV 2008 by Screen Digest

- HDTV trends in Europe
- **Focus on French HD DTT**



French HD DTT

The 2008 launch

- Three free-to-air channels to be introduced on Mux R5 (previously not used), using DVB-T and MPEG-4
 - France 2 chosen by Gov.
 - TF1 HD and M6 HD selected by CSA after beauty contest
- One pay TV channel to be licensed by CSA
 - Beauty contest under way: Canal+ favourite
- One more HD channel likely to be fitted on Mux R4 after 'MPEG-4 dividend' is applied to existing SD channels
- Likely launch date: Q3
 - But R5 could be used to broadcast next summer's sports events



French HD DTT

The 2008 launch: how 5 HD channels will be introduced

| Mux R1 (France Televisions) | | MPEG 2 |
|-----------------------------|------------------|--------|
| France 2 | ARTE | |
| France 3 | LCP (Parliament) | |
| France 5 | Local channel | |

| Mux R2 (Indies) | | MPEG 2 |
|-----------------|-----------|--------|
| I Tele | Virgin 17 | |
| BFM TV | France 4 | |
| Direct 8 | Gulli | |

| Mux R6 (TF1) | | MPEG-2 MPEG-4 |
|--------------|--------|------------------|
| TF1 | NRJ 12 | |
| LCI | TMC | |
| Eurosport | | |

| | |
|--------------|------------|
| Free Channel | |
| Pay Channel | HD channel |

Shows TV channels only. Radio stations not listed.

| Mux R3 (Canal Plus) | | MPEG-2 MPEG-4 |
|---------------------|----------------------|------------------|
| Canal+ | Planete | |
| Canal+ Sport | Canal J | |
| Canal+ Cinema | HD channel (Canal+?) | |

| Mux R4 (M6) | | MPEG-2 MPEG-4 |
|-----------------------|----------------|------------------|
| M6 | Paris Premiere | |
| W9 | AB1 | |
| NT1 | TF6 | |
| HD CHANNEL (ARTE HD?) | | |

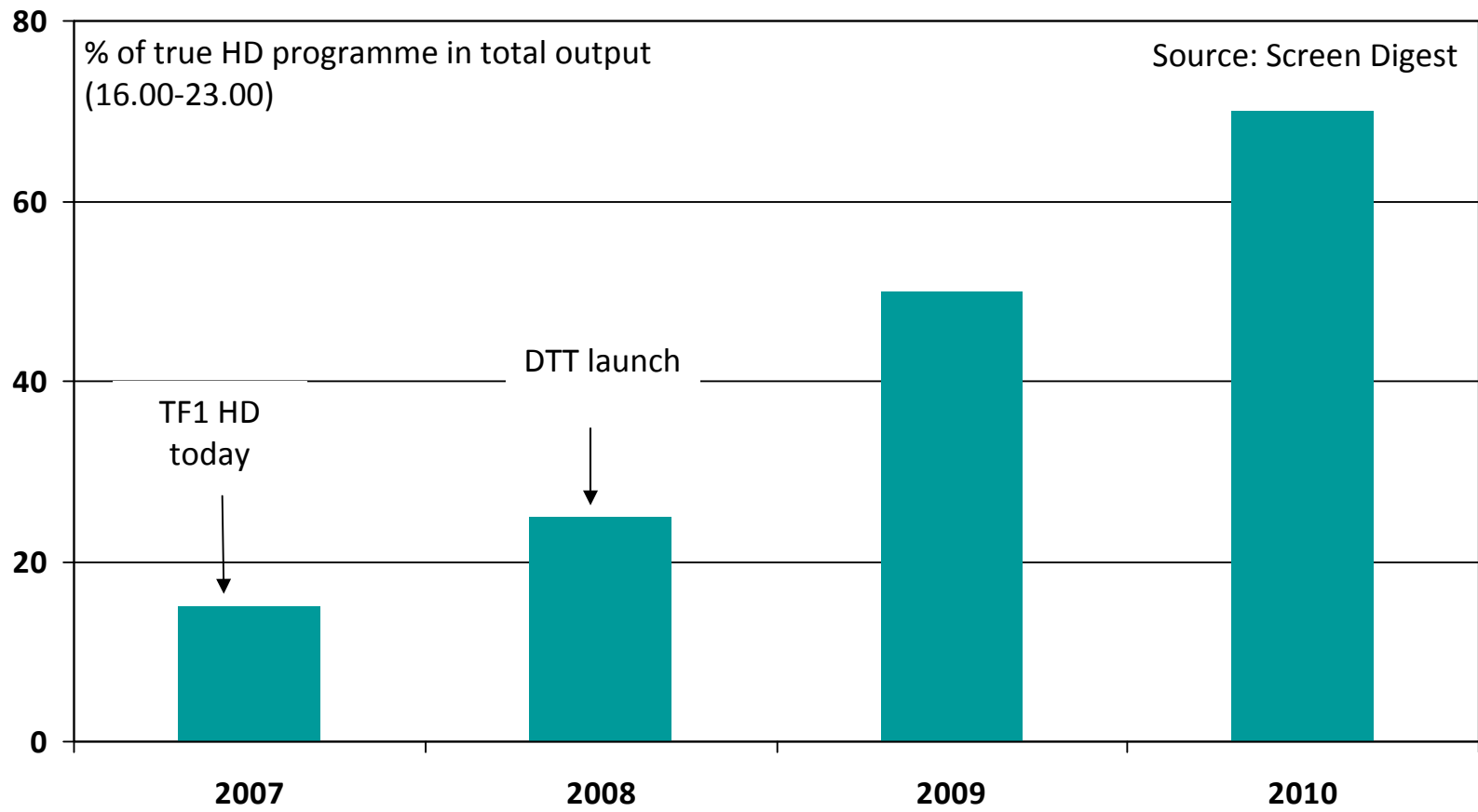
| R5: THE 'HD' MUX (H2 - 2008) | | MPEG-4 |
|------------------------------|-------------|--------|
| TF1 HD | France 2 HD | |
| M6 HD | | |



French HD DTT

Regulation: 'True HD' quotas

- TF1 commitment to increase 'true HD' output



French HD DTT

Regulation: 'True HD' quotas

- How TF1 is planning to meet the 'quota'

| | 2007 | 2008 | 2009 | 2010 |
|--|------------|------------|------------|------------|
| Movies and US drama | Dark Blue | Dark Blue | Dark Blue | Dark Blue |
| French Drama | Light Blue | Light Blue | Dark Blue | Dark Blue |
| Sports | Light Blue | Dark Blue | Dark Blue | Dark Blue |
| Primetime entertainment | White | Light Blue | Light Blue | Dark Blue |
| Other (children, talk shows, quizz shows, etc) | White | Light Blue | Light Blue | Light Blue |
| News | White | White | ? | ? |

| | |
|---------------------------------|------------|
| Standard Definition production | White |
| Partly produced/broadcast in HD | Light Blue |
| Entirely produced/broadcast HD | Dark Blue |



French HD DTT

Regulation: The hardware regulation

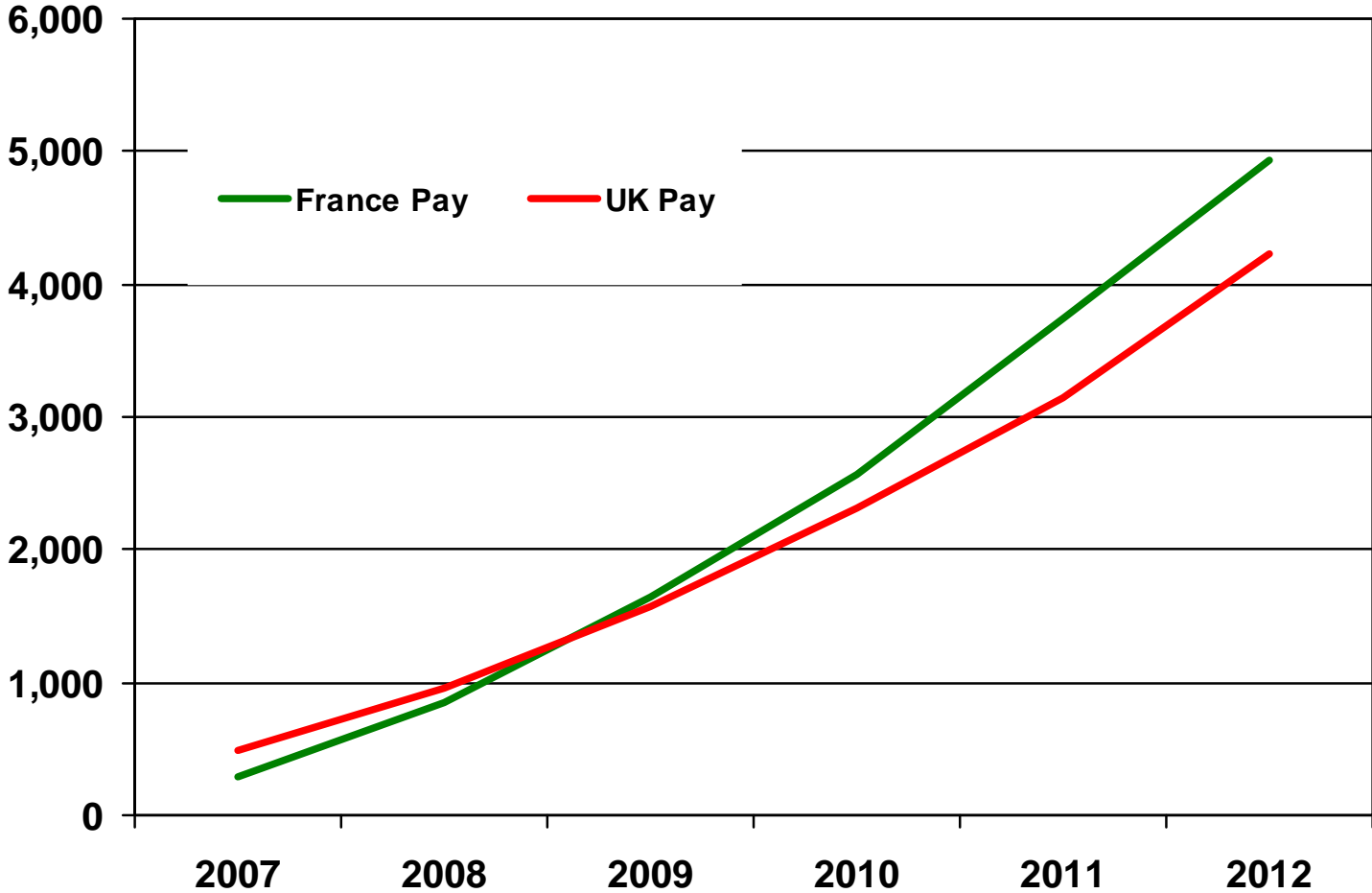
- From December 2008 all TV sets and retail set-top boxes must be
 - DVB-T ready
 - MPEG-4 ready
 - HD ready
- Retailers and manufacturers welcoming and even *anticipating* the move
 - Many sets in retail now are already complying
 - STB makers will quickly put affordable MPEG-4 boxes on the market
 - Cheap ‘modules’ to upgrade sets or STBs to MPEG-4 HD
- The ‘HD-ready’ logo replaced by two new logos for IDTVs and retail STBs:
 - ‘HDTV’ meaning HD-ready AND integrated MPEG-4 DTT tuner
 - ‘HDTV 1080’ – the full HD version of the same





French HD DTT

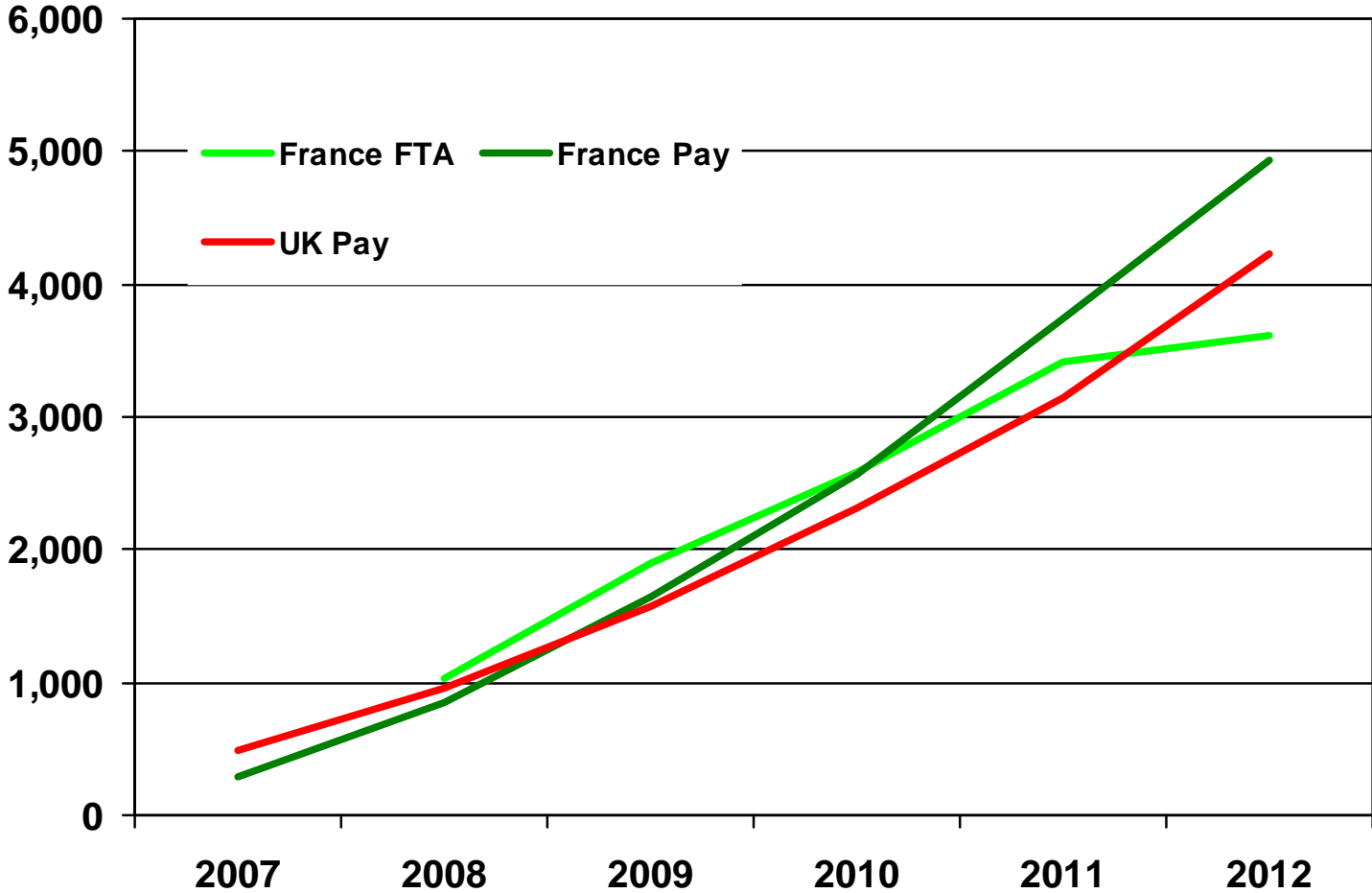
UK uptake v. France uptake





French HD DTT

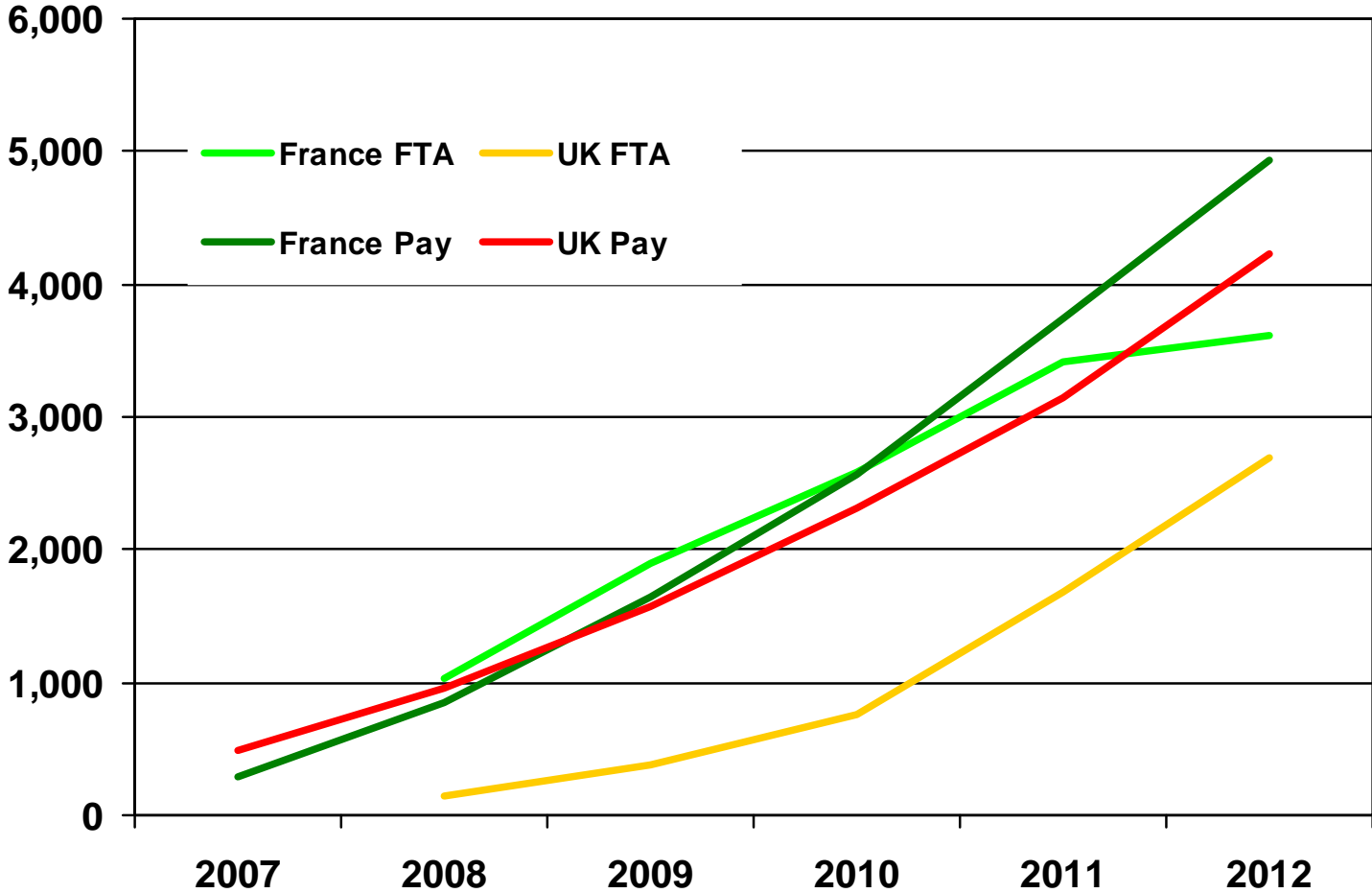
UK uptake v. France uptake





French HD DTT

UK uptake v. France uptake

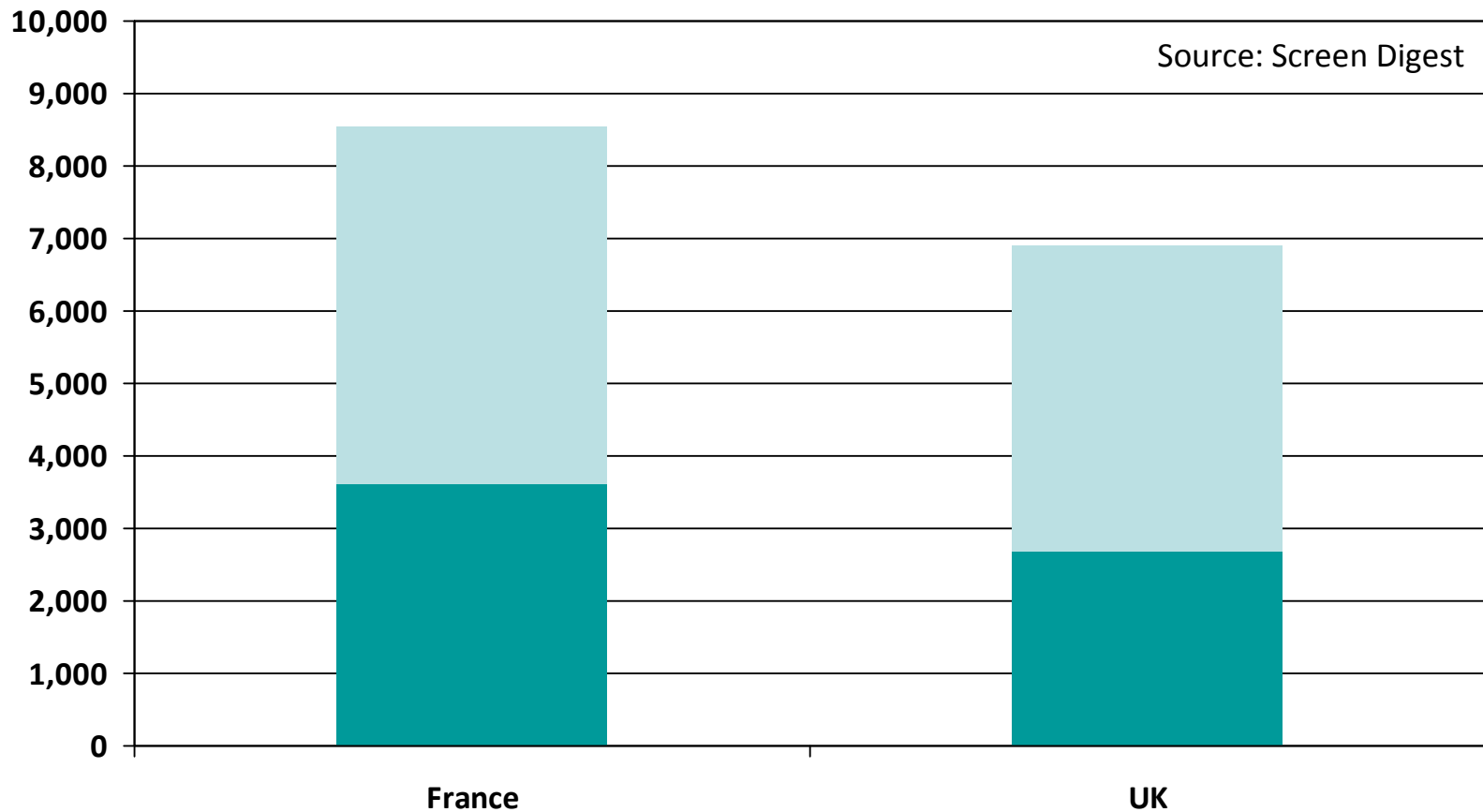




French HD DTT

UK uptake v. France uptake

- As a result total HD penetration may be higher by 2012 in France





French HD DTT

Conclusions

- A 'lucky laggard' technical route
- Good co-operation between hardware, regulators, broadcasters

- Strong uptake expected right from launch because:

- 1. An attractive offering: four of the top five channels of which 4 free-to-air channels
 - Commitments on 'true HD' output
 - Bullish HD players TF1 and ARTE

- 2. A significant HDTV-enabled installed base at launch
 - Many sets and adapters sold in 2008 will be already Free-HDTV 'plug-and-play'
 - On the pay side, existing Canal Plus DTT boxes are already MPEG-4

Thank you!

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The closing joke

- **Question: What will be the best option to watch the 2012 Olympics in high definition?**
- **Answer: Take a Eurostar at Saint Pancras and go to a bar in Paris.**