

Edition: 2009-Q1

## Do you have enough “reason to change”?

This edition of the EBU Technical Review includes articles about different aspects of HDTV and “broadcasting to handhelds”. These are two very important technology advances and the articles that follow in this issue provide important information on their current status.

But what makes new technologies most successful? Currently, there are over 150 **HDTV** channels available in Europe – and the number continues to grow, in spite of the recession. Fine progress! But if we look back to our early dream – which was a “European surge in demand for HDTV” in 2005, with the football World Cup taking place at that time – we would have to admit that the rollout is, well, successful ... but slower than we thought it would be. Could we have foreseen this?

The technology for **broadcasting to mobiles** has made an impact in Europe and there are operational services in some countries. But overall, we would have to confess that the rollout has been much slower than we thought it would be – in spite of pushes from the European Commission. Why has this happened? Should we have worked this out?

Though not directly broadcasting, for the sake of drawing on the experience, we might also want to take a sideways look at **Digital Cinema**. This is a parallel “digital switchover” situation. Though broadcasters do not make feature films, they may be concerned with serving cinemas in the future with “Alternative Content” (non-features such as sports events or concerts shown in cinemas). It is thus interesting for us to observe this other “switchover”. Arguably this has also been “extremely slow” in some countries. What were the reasons?

In addition, we know that one of the “hottest” topics around is “**3D TV**”. 3D movies are seen as the saviour of the cinema, and many standards groups are now investigating its cousin, 3D TV. But what will really happen here?

It may be useful to ask why digital rollouts have been as we thought they would be, or slower than we thought, and whether we can learn from the past when we consider the next generation of media.

In a short editorial like this, we cannot consider – in any detail or rigour – the why’s and wherefores of the different technology rollouts. But to set readers thinking, en route to the richer fare in this Review, we have prepared a rudimentary and simplified set of tables which are given below.

Our hypothesis is that, for any given new technology, there will be positive and negative factors at work, influencing the success of the change. These factors will be different for the different parts of the value chain, and will have different strengths. We call the positive factors “why change?”, and the negative factors “why not change?” in the tables below.

We have made gross simplifications of the value chains in each case, and the reader’s job nevertheless is to consider whether the tables are anything close to being “fair”.

We need to ask ourselves how “heavy” are the elements in the “why change?” column compared to those in the next column to it. If they are “much heavier” the service has a good chance of success, and vice-versa.

The more balanced they are, rather than all being in the positive, the greater is the risk of there being a slower rollout or, put another way, the chances of having no success with the rollout rise.

### **High Definition Television**

	<b>Why change?</b>	<b>Why not change?</b>
<b>Broadcaster</b>	Maintain audience (in an HDTV world)	Re-equipment needed New skills needed
<b>Equipment manufacturer</b>	Sales opportunity	
<b>Viewer</b>	More attractive viewing experience Nice furniture	New display needed

### **Broadcasting to handhelds**

	<b>Why change?</b>	<b>Why not change?</b>
<b>Broadcaster / Network operator</b>	Increased reach	Costs of transmitter network Lack of terrestrial spectrum
<b>Equipment manufacturer</b>	Sales opportunity	
<b>Viewer</b>	TV “anywhere”	New equipment needed Subscription or VoD

### **Digital Cinema**

	<b>Why change?</b>	<b>Why not change?</b>
<b>Film maker</b>	Reduced production cost Easier post-production	New skills needed
<b>Distributor</b>	Reduced distribution cost Immediate distribution	
<b>Cinema owner</b>		No new revenue New skills needed

### **3D TV**

	<b>Why change?</b>	<b>Why not change?</b>
<b>Broadcaster</b>	Audience attractor	Constraints on production grammar New equipment needed
<b>Equipment manufacturer</b>	Sales opportunity	
<b>Viewer</b>	Very high impact on first exposure	New equipment needed Stereopsis eye fatigue Glasses needed Novelty may “wear off”

You will form your own opinion, but our estimate of the weights of the columns is that they essentially reflect what has happened in practice.

HDTV has the “heaviest” positive elements, though it is not a landslide victory.

Broadcasting to handhelds has more weight than we would like in the “why not change?” column, so this could be seen as a “higher risk” technology.

Digital Cinema’s success has national variations, but its “Achilles’ heel” is that the cinema owners lack reasons in the “why change” column. The only way forward may be to subsidise their cinema transition.

For 3D TV, there is probably more in the “why not change” column than we would like, but the stunning first impression by viewers is likely to make at least some services start.

From these observations, can we define any “golden rules”? They could be the following:

- 1) For each separate element of the value chain, there must be a strong balance in the “why change?” column. The more there is in the “why not change” column, the higher the risk of a slow rollout or possibly a failure.
- 2) One of the most important elements is that if any one of the value chain elements does not have the magic dust – a major reason to change – then probably the change will not happen at all. Everyone must gain something, or the ship will not sail.

What do you think?

**David Wood**

*Deputy Director, EBU Technical*

26 March 2009

[Editorials Archive](#)

---