# Digital Cinema: seizing the high ground

"Digital Cinema is a good example of a project seizing the high ground through its commercial success and simplifying considerably the life of the users (copy virtualisation thus reducing the global cost, good content protection, high quality projection)."

*Philippe Letellier*
*— Vice-Chairman ITEA 2*

Ten years ago, from January 2001 until June 2003, Barco, with the support of the Flemish Government Agency IWT, headed the ITEA project "Digital Cinema" to develop the key components for the transition of the movie industry from analogue 35mm film to digital technology.

The main innovation in this project centred on:

- Projectors:
  Barco was able to develop a Digital Cinema product family ranging from the first DP30 to the DP100 projector, which was Barco's first 2K digital projector to support the DCI standard drafted at the time.

- Communicator software:
  This software allows post-production houses to build customised projector profiles, with full access to all the projector parameters including an integrated 3D colour look-up table. Cinema Exhibitor's technical staff can remotely monitor, set up and upgrade a suite of projectors.

- Alternative Content interfaces:
  Digital projectors enable new applications for Cinema Exhibitors: B2B presentations, live events, opera, gaming... It was therefore important to offer an optional interface (Barco's ACSAR) to connect and format any type of video or PC signal, with fully integrated control to enable single button operation of the projector and the interface.

- Subtitling:
  Projectors were outfitted with the capability to render and overlay subtitles internally. Subtitles were delivered as independent XML files enabling easy localisation of a single digital distribution master.

The completion of this project kicked-off 10 years of digital cinema pioneering for Barco. The result today is:

- Nearly 40,000 Barco projectors deployed globally enchanting 50 million moviegoers everyday

- Undisputed global market leadership for Barco in Digital Cinema, including more than 10,000 screens equipped in both China and the US.
- Impressive growth realised, year-on-year from 2011 to 2012 standing at 50% (e.g., China 15%, India 60%, Latin America >400%!).

The business success of this project was such that some partners merged after the completion of the project to better access the market (Octalis acquired by Thomson, Barco acquiring some activities of XDC (previously part of EVS).

"The stimulation and support of ITEA and IWT helped Barco to develop, already in 2001-2002, key innovations that laid the foundation for the huge success of today's Digital Cinema business."

*Jan Willem Brands*
*- CTO Barco N.V.*
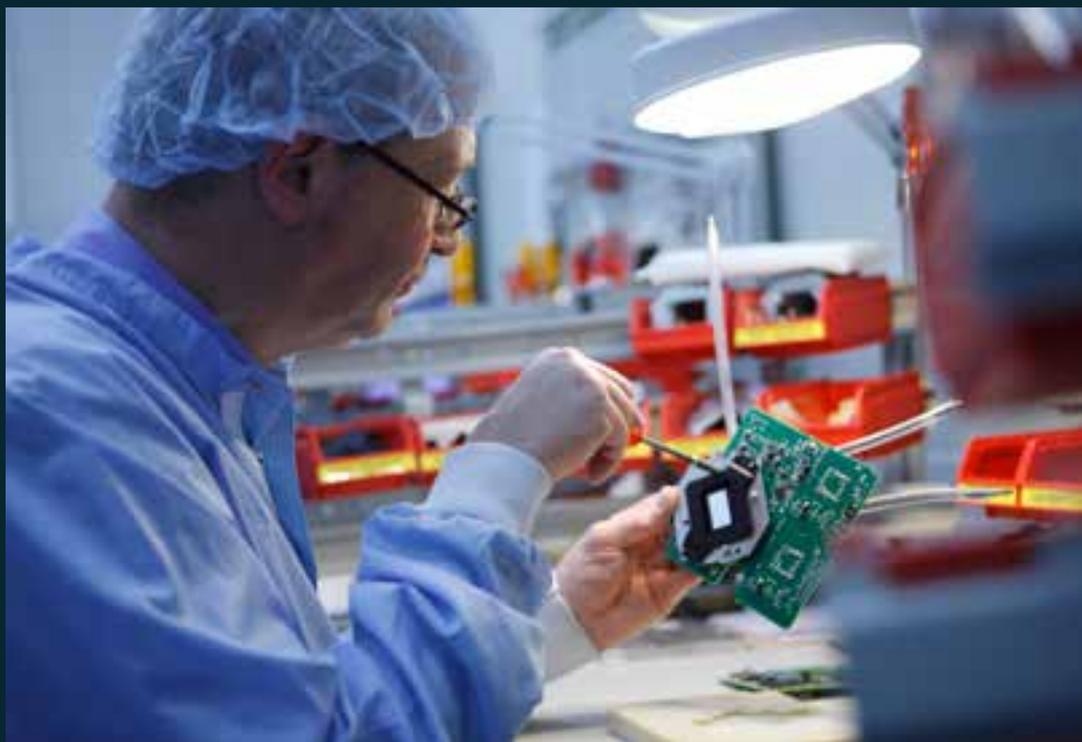


**BELGIUM**
Barco N.V.: *Digital Projection*
EVS Digital Cinema: later independent as XDC, some activities later acquired by Barco: *Compression, Distribution and Playout*
Octalis S.A: Octalis, later acquired by Thomson: *Digital Rights Management*

**FINLAND**
Sublime Software: Digital Subtitling and Interactivity

**GERMANY**
Kinoton GmbH: *Theatre Automation*

**UNITED KINGDOM**
Computer Film Company: now Filmlight: *Digital Post Production*
University of Derby

**NETHERLANDS**
Stage Accompany
Philips Research: *Watermarking*