PCE Mainstream
From Analogue to Digital

Ken Humphreys
Topics

- Current Status
- What is digital CE
- Our digital portfolio
- Analogue portfolio
<table>
<thead>
<tr>
<th>Product</th>
<th>Sales Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTV</td>
<td>&gt; 13 mln units</td>
</tr>
<tr>
<td>Monitors</td>
<td>&gt; 11 mln units</td>
</tr>
<tr>
<td>Audio</td>
<td>&gt; 23 mln units</td>
</tr>
<tr>
<td>DVD</td>
<td>&gt; 3.5 mln units</td>
</tr>
<tr>
<td>VCR/TV-VCR</td>
<td>&gt; 8 mln units</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>&gt; 60 mln units</strong></td>
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</table>
Current Strongholds

1. Displays:
   - CTV #2
   - Monitors #2
   - TV-VCR Combi #1

2. A/V Storage:
   - CDRCR #1
   - CD-R #1
   - DVD #2
   - VCR #2

Excluding Japan
DVD Status

- 1999: 600 K
- 2000: 1.4 mln.
- 2001: >3.5 mln.

Philips Q1 2001:
Overtook Matsushita & Pioneer becoming #2
Topics

• Current Status

• What is digital CE

• Our digital portfolio

• Analogue portfolio
What is digital CE?

- **Industry:** All devices converting digital input signals into consumer understandable information e.g.
  - internet connected
  - digital storage/play back/recording
  - digital imaging
  - digital TV (STB, iDTV)

- **Consumers:** no uniform answer, most cited:
  - “I do not know”, “High quality CE products”
  - “Internet related products”, “PC related products”
  - “Multifunctional/convergence products”
  - “Future proof CE products”, “Expensive CE products”
Topics

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"Digital" vs. Analogue Served CE markets
World in € bln

Annual growth rates

- **Digital Displays**: 24%
- **DVD Function**: 30%
- **CD Function**: 6%
- **Analogue MCE**: -3%

'Digital' Displays:
- integr. digital TV,
- LCD TV,
- Plasma TV,
- PTV (dig. prepared)
- LCD monitors

DVD Function:
- DVD Player,
- DVD Recorder,
- AHS with DVD,
- DVD Audio receiver,
- TV-DVD Combi,
- VCR-DVD Combi,
- DVD-HDD Combi,
- DVD-R-HDD Combi

CD Function:
- CD Player, CD
- Portable, RCR with CD,
- AHS with CD,
- CD-Recorder,
- 8cm & 12cm MP3 CD
- SACD separate
- SACD function

Analogue MCE:
- All other non-digital MCE categories

Excluding STB
Philips “Digital” Portfolio vs. “Digital” World Markets

In line with the market

Source: Philips Consumer Market Intelligence

Let's make things better
Our portfolio strategy

- Analogue Portfolio:
  - Focus on profitability

- Digital Portfolio:
  - Focus on digital displays & AV playback and recording
  - Focus on profitable growth opportunities
Build up digital portfolio

• From market point of view:
  – more focus on youth
  – more focus on portable
  – more focus on design
  – market oriented Product Creation Process
  – support premium brand: Upmarket products
  – digital application focus: displays & storage
  – USPs:
    • Best picture
    • Best sound
    • Ease of use
    • Compatibility
Build up digital portfolio

• From industry point of view:
  – Based on own strongholds
  – Market led
    (external market research, focus groups, world tours, dealer tours, listening)
  – Consistent product/consumer segmentation
  – Consistent design
    (across product lines and within the consumer segments)
  – Free up resources from analogue
Our Growth Opportunities- Displays

- LCD TV
- iDTV
- Plasma TV
- TV-DVD
- LCD Monitor
- CRT-TV Jumbo
- CRT Monitor
- CRT- TV non-Jumbo
- PT V
- CRT Monitor
- TV-VCR

- Market growth (CAGR 01-04)
- Market size 2001 (€ Bln )

- Invest(?)
- Milk
- Scrutinize

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# Upgrade range TV

<table>
<thead>
<tr>
<th></th>
<th>Basics</th>
<th>Classics</th>
<th>Selectives</th>
<th>Innovators</th>
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<td>Quality</td>
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<td>Performance</td>
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<tr>
<td>Value for Money</td>
<td></td>
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*Let's make things better*
Digital Television
The next digital consumer experience

• Digital Terrestrial TV is a certainty as governments prepare analogue switch-off

• Services planned worldwide

• Offers the three fundamental benefits of digital content:
  BETTER EASIER MORE
Digital TV The CE Story So Far

- 1998 - launch of DTTV in UK
- Philips first to launch products including STBs and integrated digital TVs

UK experience has given us invaluable insight:
- consumers want choice
- they want widescreen
- they want integrated solutions
CE Digital TV Product Focus Integrated TVs

- Builds on proven TV leadership
  - widescreen heritage
  - picture and sound quality
  - ease-of-use
  - product design
  - leverages the Philips TV brand

- Focus on business creation in terrestrial, horizontal market
  - ‘normal’ CE product business
  - retail distribution
  - existing trade relationships
Digital TV Roadmap

- Modular solutions for Pay-TV
- Enhanced broadcast services and richer content
- Eventual integration of broadcast, Internet and HD storage
DTV in the United States: An outline view

- More complex proposition
- Cable in 70% of homes
- Satellite growing
- Digital migration via cable and satellite
- Analogue switch-off under political discussion
Introduce digital-ready (HD) sets
- 4:3 still dominant
- 16:9 growth fuelled by DVD

Careful consideration now being given to next steps
- Integrated DTVs possible, but dependent on standards clarity and viable mass market opportunities
- terrestrial-v-cable-v-satellite (?)
- free-to-air-v-proprietary systems (?)
Our Growth Opportunities - Storage

- All products are digital except VCR
- Market size 2001 (€ Bln)
- Market growth (CAGR 01-04)

Digital products:
- SACD
- DVD-V
- AS+CD
- VCR
- CD-portable
- CD-R
- MP3CD
- 8cm MP3CD
- DVD-HDD
- DVD-Recorder
- DVD-Audio receiver
- CD-player

Analogue products:
- Milk
- Scrutinize

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CD/DVD/HDD storage businesses

Key success factors:

• Compatibility
• Consistency
• Partnership
Digital Playback and Recording
Two-Way Compatibility A Key Element

CD-ROM & Photo CD Video CD & Super Video CD

CD Recorders

Super Audio CD

DVD-Recorder

Compact Disc

Video CD & Super Video CD

CD Recorders

DVD

Digital Playback and Recording Two-Way Compatibility A Key Element

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DVD Recorder - Opportunity!

- Market (VCR) > 55 mln units per year
- DVD fastest growth product in MCE history
- Two-way compatible (forward & backward)
- Highest picture and sound quality recording
- Philips launches recorder Q4 2001
DVD Recorder - Opportunity!

- Philips DVD Recorder is not a new format.
- The only system designed from start to be
  - Two-way compatibility (forward and backward)
  - Compatible with CE as well as PC platforms
- Digital Picture & Sound Quality
- It’s a DVD disc!
  - Durable recordings
  - Direct Access
  - No cartridge
  - 4.7 Gbyte capacity
- Recording time up to 4 hours
Digital portfolio summary

Build on our key strongholds

Optical Storage:
- CD: CD audio playback & recording, CD data playback & recording
  - CD MP3
  - CD imaging
  - CD function (everywhere)
- DVD: DVD video playback & recording, DVD data playback & recording
  - DVD imaging
  - DVD function (everywhere)
  - DVD - HDD combi

Displays:
- CTV: Integrated digital TV, LCD TV, LCoS PTV, plasma TV, WS
- Monitors: LCD monitors, LCD-TV monitor, LCoS monitor

e-Appliances: Based on our display & digital storage products:
  (Internet radio, Rush, MP3CD, Web Monitor, ...)

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Topics

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• Analogue portfolio
Maximise profitability of Analogue

- Reduce/eliminate asset base
- Increase external sourcing
- Reduce diversity
- Minimal development cost
- … manage on cash cow status
Business Model Analogue

• Philips focuses on:
  – Product specification & design
  – Demand generation
  – Supply chain management
  – Brand

• Outsource to partner:
  – product creation
  – demand fulfillment (e.g. China)
## Sourcing Ex - China

<table>
<thead>
<tr>
<th>Business</th>
<th>Location</th>
<th>Qty.</th>
<th>%</th>
<th>trend in China</th>
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</thead>
<tbody>
<tr>
<td>TV</td>
<td>Suzhou</td>
<td>1.0 m</td>
<td>10 %</td>
<td>increasing</td>
</tr>
<tr>
<td>Monitors</td>
<td>Suzhou</td>
<td>3.5 m</td>
<td>40 %</td>
<td>stable</td>
</tr>
<tr>
<td>Monitors</td>
<td>Others</td>
<td>1.6 m</td>
<td>40 %</td>
<td>stable</td>
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<tr>
<td>VCR</td>
<td>ODM partner</td>
<td>3.0 m</td>
<td>40 %</td>
<td>increasing</td>
</tr>
<tr>
<td>TVCR</td>
<td>ODM partner</td>
<td>0.7 m</td>
<td>40 %</td>
<td>stable</td>
</tr>
<tr>
<td>DVD</td>
<td>ODM partner</td>
<td>1.6 m</td>
<td>50 %</td>
<td>increasing</td>
</tr>
<tr>
<td>Audio</td>
<td>ODM partner</td>
<td>18.5 m</td>
<td>80 %</td>
<td>stable</td>
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<tr>
<td>PCB</td>
<td>Monitors</td>
<td></td>
<td></td>
<td>decreasing</td>
</tr>
<tr>
<td></td>
<td>Audio</td>
<td></td>
<td></td>
<td>stable</td>
</tr>
</tbody>
</table>

*Est. total ex. China > 50 % increasing*
De-verticalisation

Business model: in-house, ODM
Displays: iDTV, Plasma TV, LCD TV, LCoS PTV/Monitor, LCD TV-monitor
Storage: DVD-recorder, SACD, 8cm CD, MP3CD, HDD recording, Solid state Audio

Business model: in-house, ODM
Displays: dig. ready PTV, jumbo CRT TV, Wide Screen, Real Flat, LCD Monitors
Storage: DVD, DVD combi

Business model: ODM
Displays: CRT non jumbo TV, TV-VCR, CRT monitors
Audio, Accessories

Business model: ODM, OEM
VCR, small screen CRT-TV, B&W TV
Audio: non CD separates

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Portfolio Implementation Plan

- Manage & speed up transition analogue - digital

- Invest in digital
  - focus on strongholds: display & storage
  - deliver internet in selected applications

- Scrutinize & milk analogue
  - profitability
  - minimise assets
Conclusions

• Why successful transition to digital?
  – We build on our existing strongholds

• Can we lead in digital?
  – Yes, in displays
  – Yes, in A/V playback and recording

• Ingredients for success?
  – The brand Philips
  – Customer knowledge (consumer, trade and OEM)
  – Market and industry knowledge
  – Product / Technology Knowledge
Our New Digital Stars in TV range

- Plasma TV: Home Cinema
- Integrated dig. TV
- Plasma TV: 36”, 42” (HDTV, Dig. Natural Motion)
- LCD TV: 15”, 20”
- TV-DVD combis
- dig.prepared HDTV 55”- 64”

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Our Digital Audio/CD Stars

- 8 cm MP3 CD player
- Expanium MP3CD
- Image viewer
- Internet Radio
- Rush
Our Digital Stars in DVD

SACD/DVD range

High end DVD range

DVD-Recorder

DVD-HDD combi

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Our New Digital Stars in Monitors

- LCD-TV Monitor
- LCD Monitor
- Web terminals
- Web tablets
Conclusions

• We know the market
• We have the products and the people
• We can profitably manage the transition
• We focus on repeating existing successes

Analogue  Digital