gfu

The Market for Consumer Electronics

- Germany 2009 -

GfK

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Foreword

GfK Retail and Technology GmbH, with a more than 30 years expertise of monitoring the market for technical consumer goods in their retail panels, is publishing the annual report for the Consumer Electronics market in Germany, in co-operation with gfu (Gesellschaft für Unterhaltungs- und Kommunikationselektronik mbH). gfu is a corporation of leading companies within the Consumer Electronics industry and will be hosting the IFA - the leading trade show for consumer electronics and home appliances.

GfK Retail and Technology tracks data continuously and periodically in more than 2,800 outlets, including:

- electric specialist retailers
- technical superstores
- photo specialist retailers
- car audio specialists
- car parts and accessories retailers
- computer shops/system retailers
- OE specialists
- telecom specialist retailers
- hypermarkets
- department stores
- mail order houses
- online shops

All data collected by GfK Retail and Technology are accumulated to an annual average. In accordance with AG Marktforschung, a workgroup of the CE industry association represented by ZVEI – German Electrical and Electronic Manufacturers' Assoication, which is closely co-operating with gfu, these data are further enhanced by distribution channels not covered by GfK.

With respect to the increased interconnection of consumer electronics, telecommunication and information technology this study provides an overview of all markets. The representation of these markets focuses on sales to the end consumer, i.e. private or semi-professional demand.

Prognoses are not included in the survey.

Definitions

The product areas examined in this survey are based on the following definitions:

Consumer electronics:

- Audio/Video devices/Digital Still Cameras
- Set-Top-Boxes and Satellite Aerials (without D-Box)
- Car Audio- and Car Navigation Devices w.o. OEM* volumes
- Blank Audio/Video recording media
- Video games (consoles and software)
- Accessories (earphones, multi-remote controls)
- Photo Accessories

Telecommunication:

- Telephones
- Mobile phones
- Telefax devices

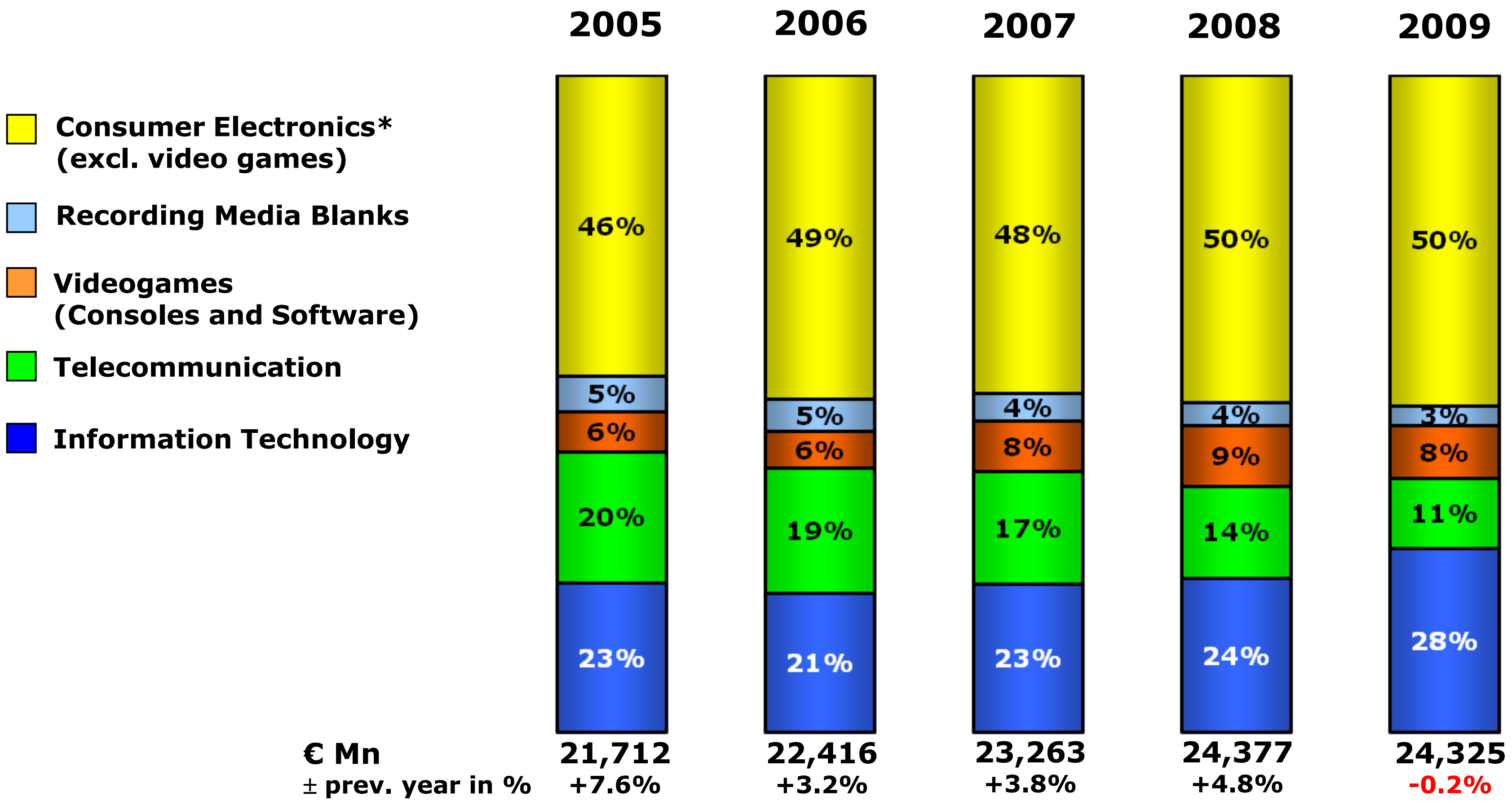
Information technology:

- Personal computer (desktop and notebooks)
- Periphery:
  - PC monitors
  - Printers
  - Multifunction devices
  - PDAs
  - Smartphones
- Scanners
- PC-TV cards

Turnovers shown in this report were calculated on the basis of consumer sales prices including tax.

* OEM = Original Equipment Manufacturer

Turnover CE, IT, Telco



* Since 2008: incl. digital photo frames, interchangeable lenses, eBooks

Turnover CE, IT, Telco

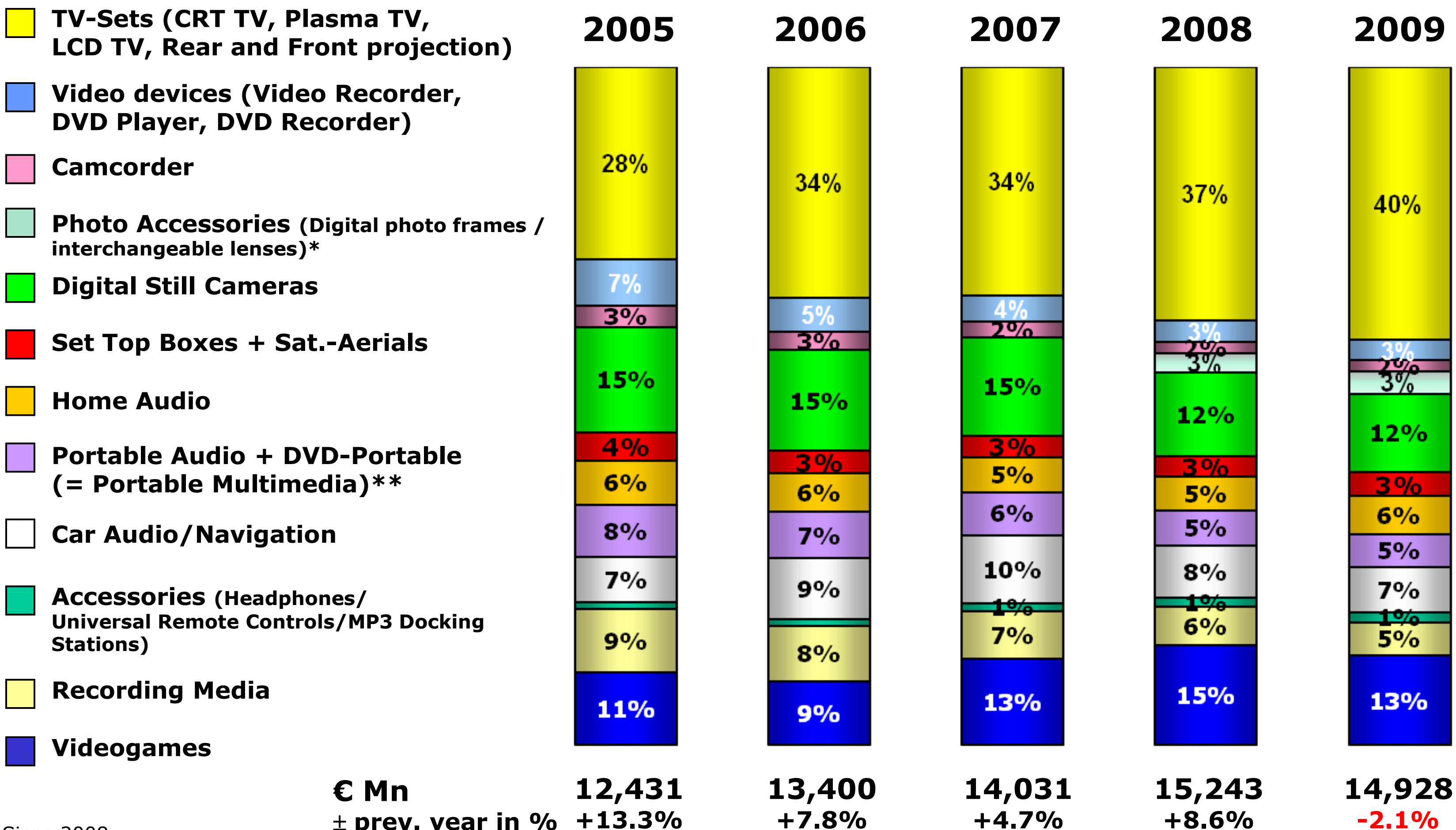
The most dominating topic of 2009 was the financial crisis. Despite this uncertainty within the markets, total CE turnover stabilised at the high level of 24.3 Billion Euro.

50% of this turnover is covered by classic CE Products. The introduction of HDTV in Germany has had a positive impact on the CE market, reflected by remarkable growth rates for LCD-TVs and digital Set-Top-Boxes.

Former growth drivers on the other hand, like Digital Still Cameras, Navigation Systems and MP3 Players have reached their market saturation point.

Considerable growth was achieved in the Information Technology sector too, mainly supported by the continuing high demand for Notebooks and Netbooks.

Turnover Consumer Electronics



* Since 2008
** Since 2009: incl. eBooks

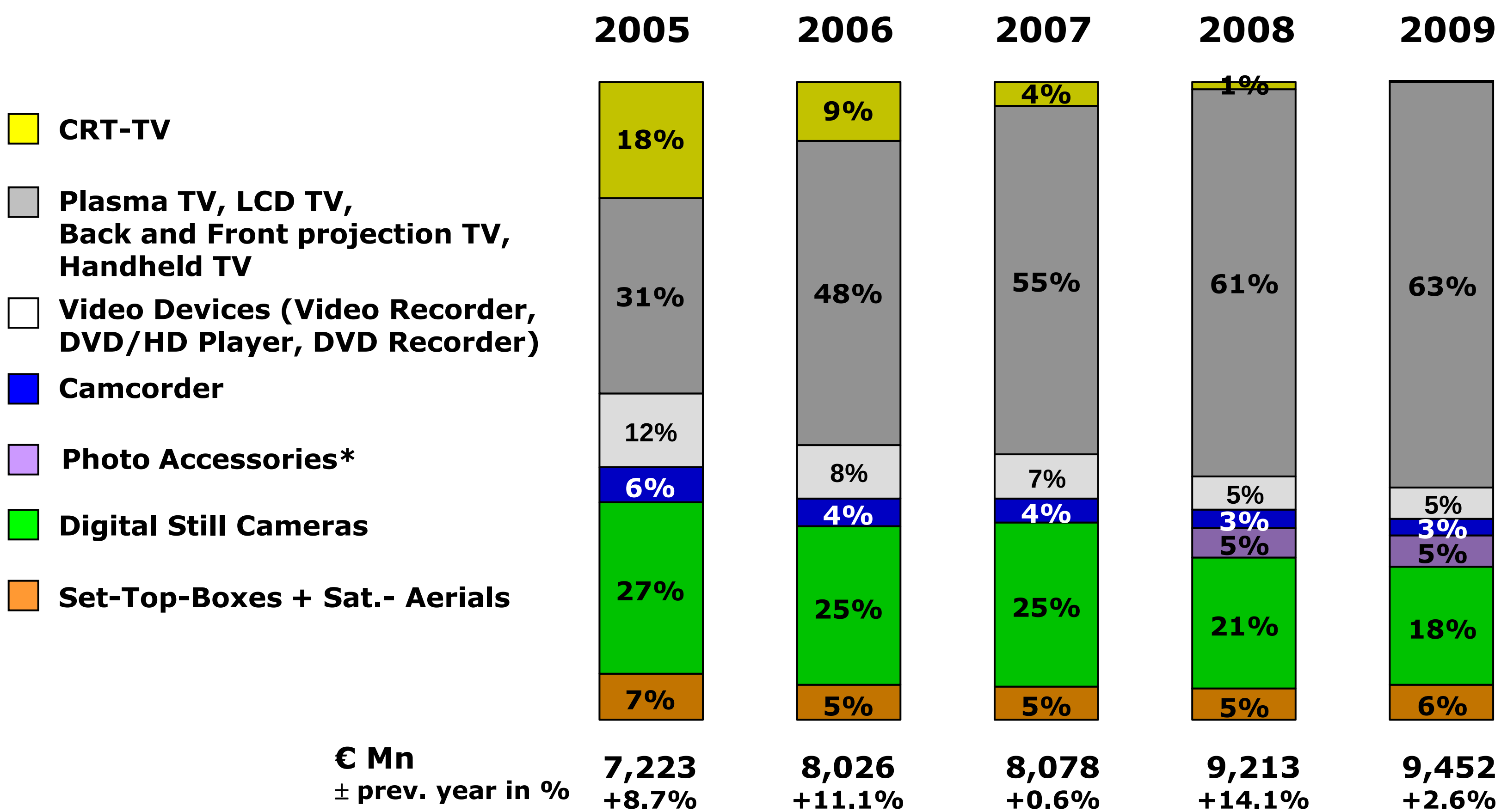
Turnover Consumer Electronics

Driven by Flat-TV sales, the share of the TV segment grows to 40% of total CE turnover. Compared to international standards for Flat screen TV’s in the home, Germany still has a low penetration. This leads us to assume that the trend will continue.

Navigation Systems saw their sales and turnover record in 2008. Market adjustment, as well as the substitution of mobile phone and in Car navigation is causing enormous price erosion.

Due to a lack of innovation and repositioning within the video games segment in 2009, the CE market lost a significant growth impulse.

Turnover Vision

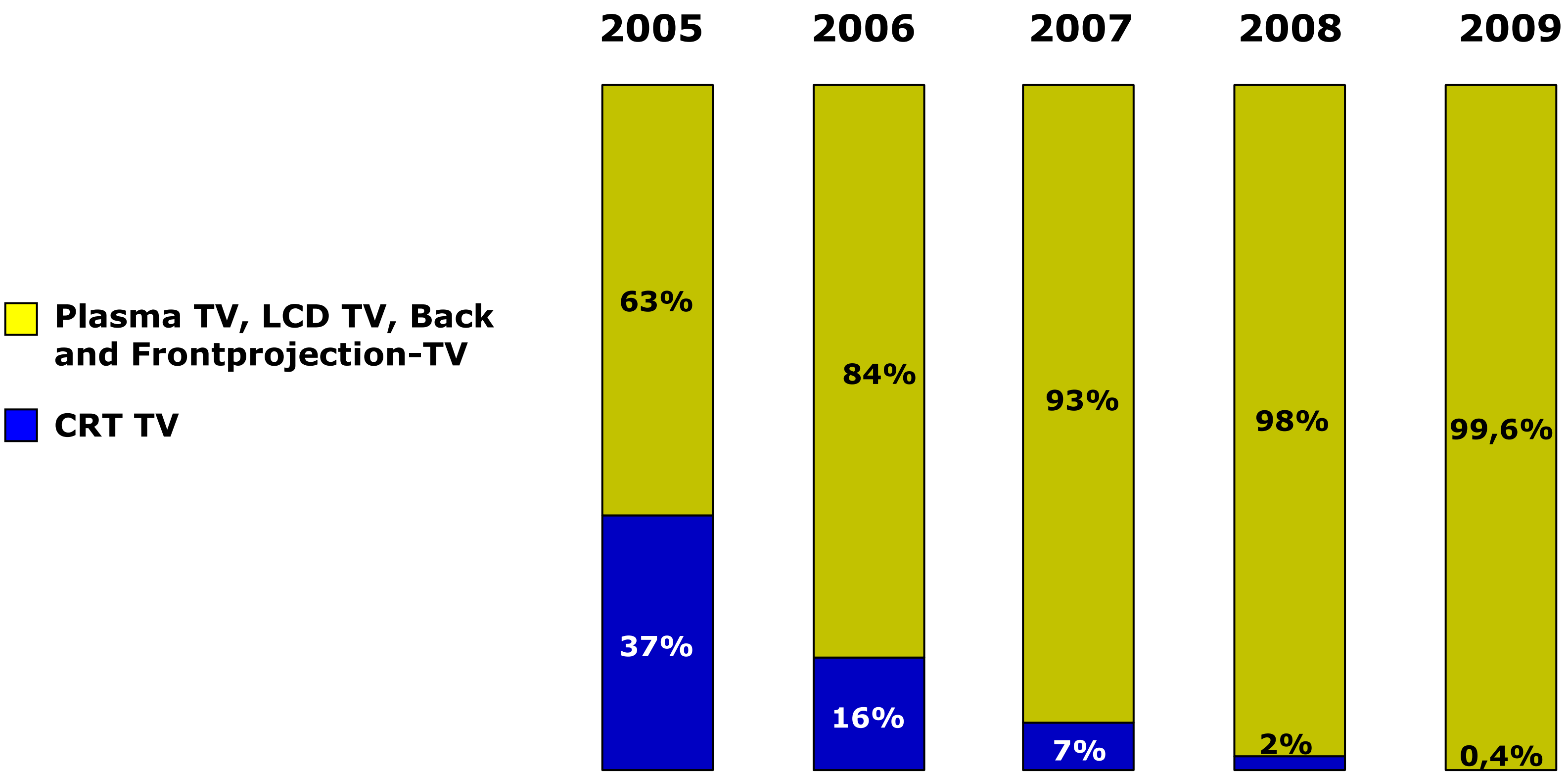


* Since 2008: digital photo frames / interchangeable lenses

GfK Growth from Knowledge

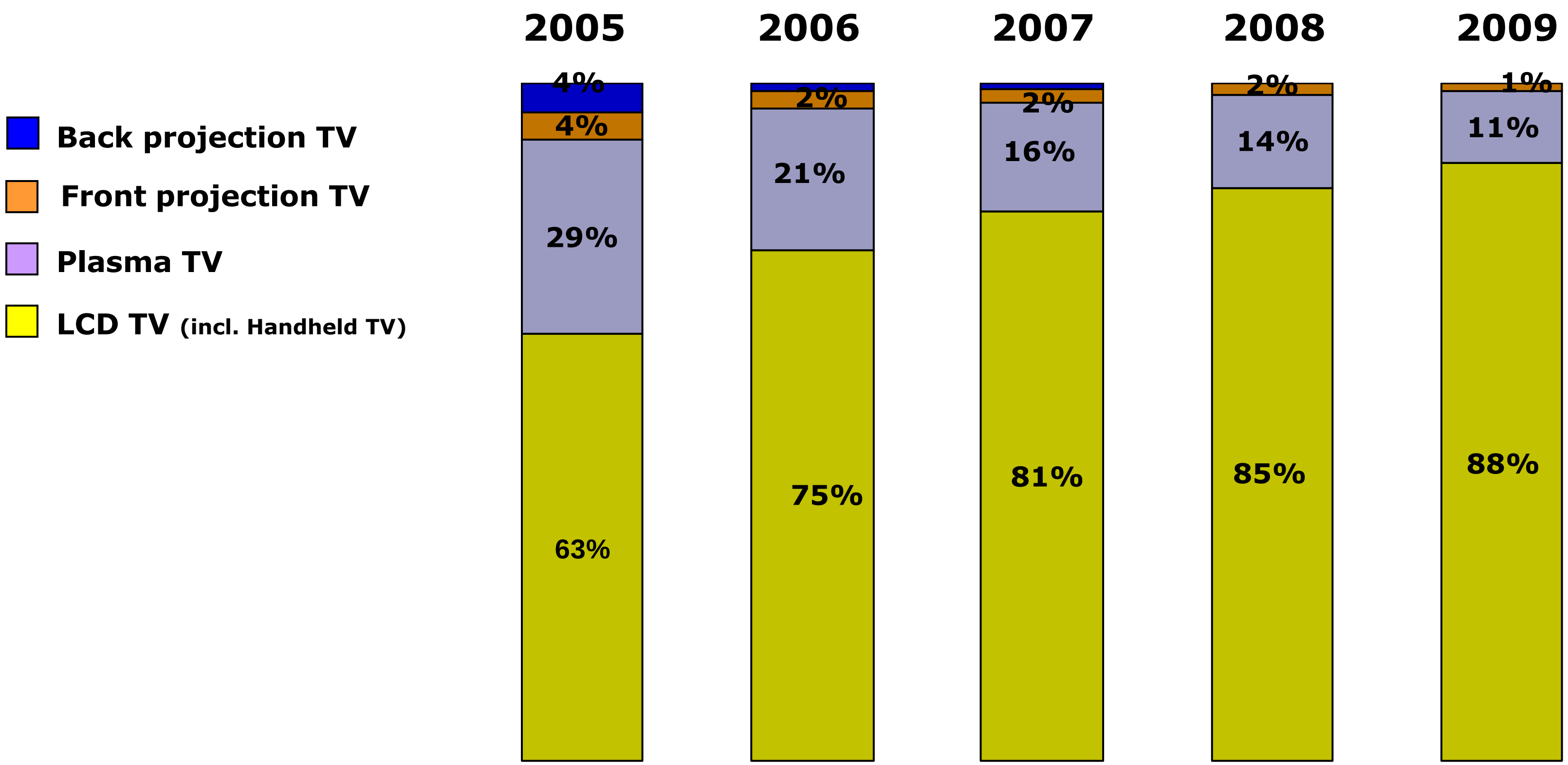
gfu Gesellschaft für Unterhaltungs- und Kommunikationselektronik

Turnover TV Sets



	2005	2006	2007	2008	2009
€ Mn	**3,539**	**4,563**	**4,729**	**5,701**	**6,013**
± prev. year in %	**+14.9 %**	**+28.9%**	**+3.6%**	**+20.5%**	**+5.5%**

Turnover new display technologies

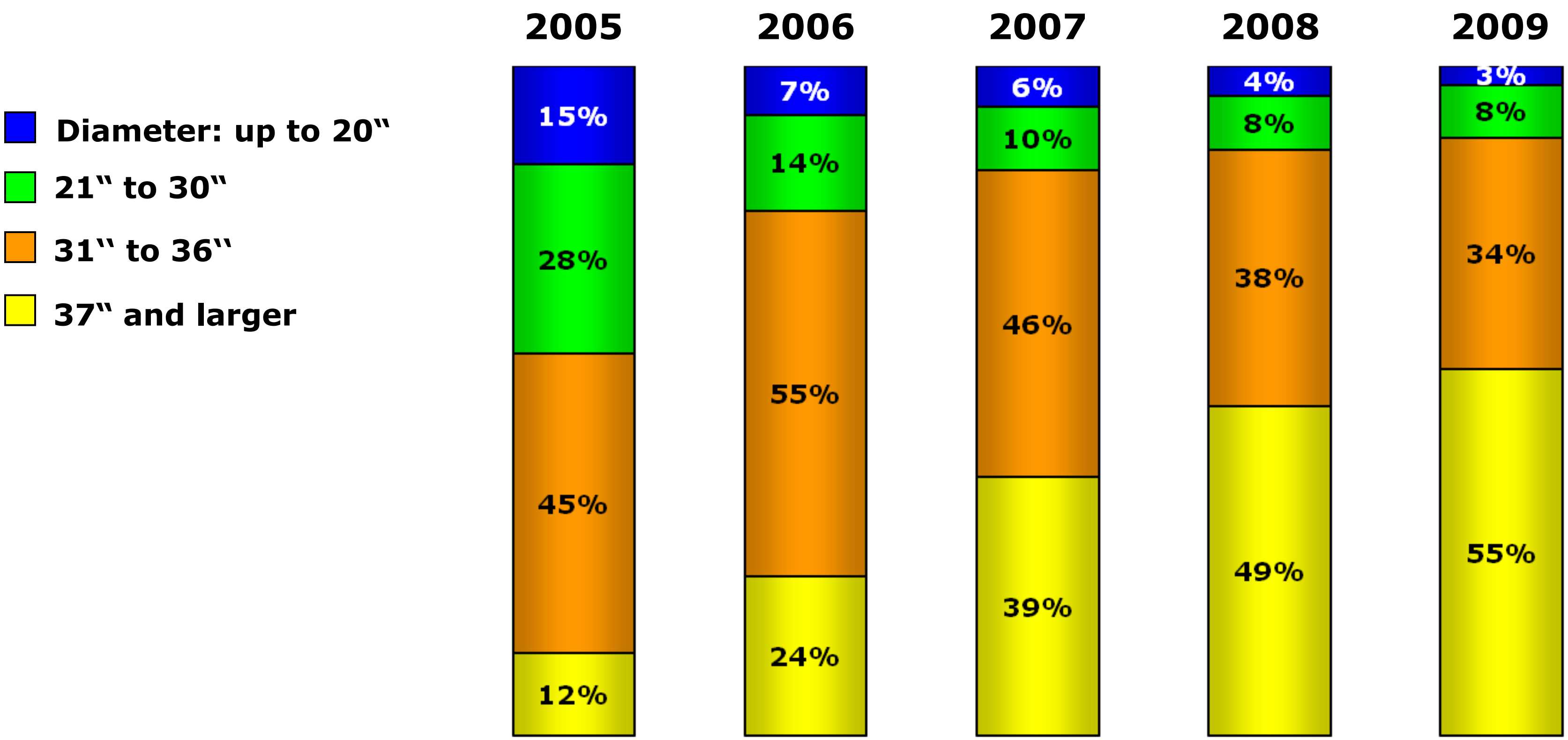


	2005	2006	2007	2008	2009
€ Mn	2,227	3,818	4,406	5,588	5,992
± prev. year in %	+99%	+71.4%	+15.4%	+26.8%	+7.2%

GfK Growth from Knowledge

gfu Gesellschaft für Unterhaltungs- und Kommunikationselektronik

Turnover LCD TVs



	2005	2006	2007	2008	2009
€ Mn	1,404	2,865	3,569	4,722	5,283
± prev. year in %	+147.3%	+104%	+24.6%	+32.3%	+11.9%

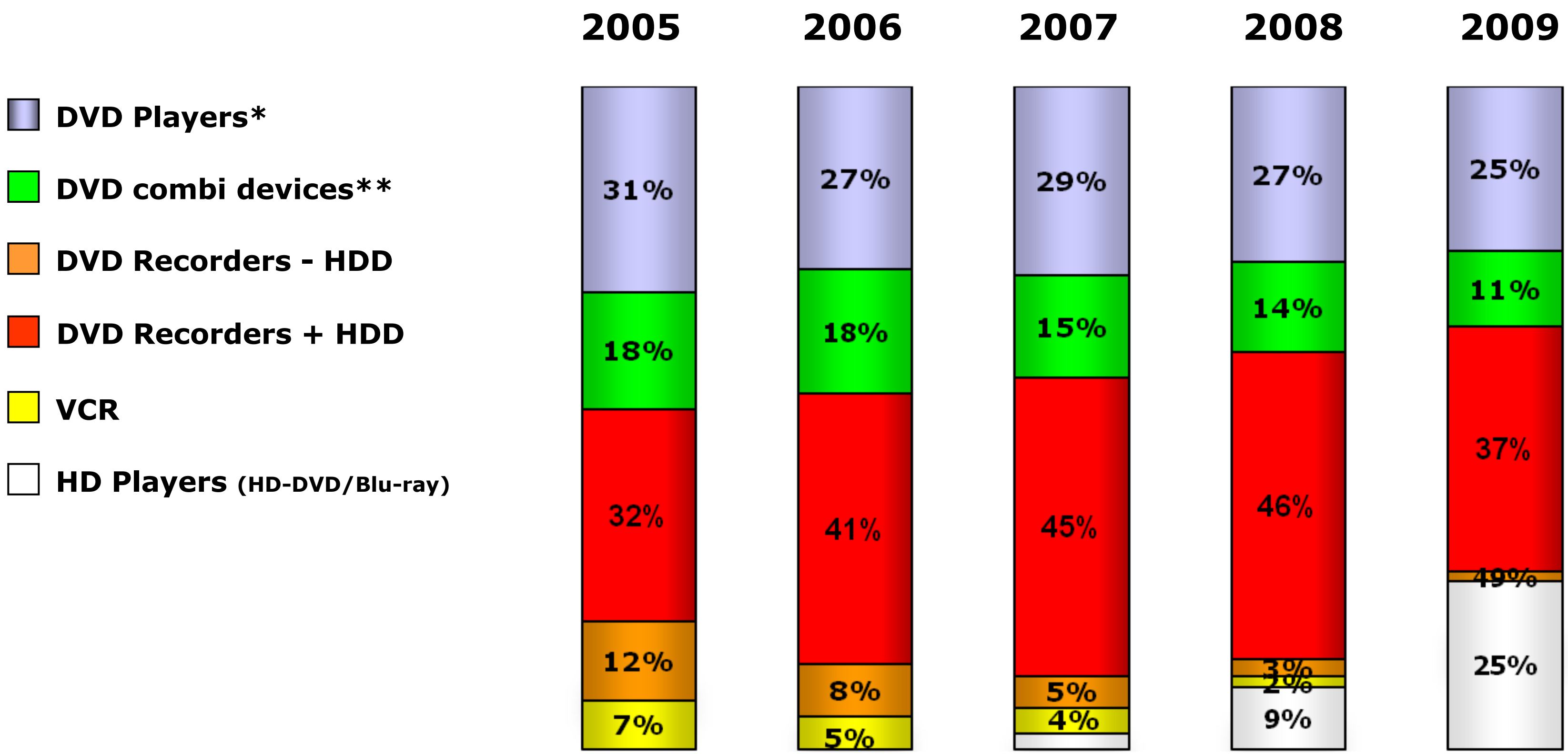
Turnover TV

Initiated by public broadcasting corporations and notable commercial broadcasters the digital switch-over to HDTV came in 2010. This in turn resulted in the fivefold increase of HDTV receiver sales, either integrated in the TV or as an optional stand alone Set-Top-Box.

With this, high resolution HDTV reached the mass market in Germany. The conditions for the change-over to high-definition-quality had been established by the appliance industry long ago; at the end of 2009 there were about 20 million HD-ready TVs in German households; 6.4 million with either an integrated HD Tuner or a stand alone HDTV Set-Top-Box.

The trend towards big screen TVs was obvious even in 2009. Modern design and new technologies like LED-Backlight and the fusion of TV and Internet pushed this trend.

Turnover Video



	2005	2006	2007	2008	2009
€ Mn	**833**	**679**	**552**	**474**	**455**
± prev. year in %	**-6.6%**	**-18.5%**	**-18.8%**	**-14%**	**-4.1%**

* excl. Portable DVD-Player (= Portable Multimedia)

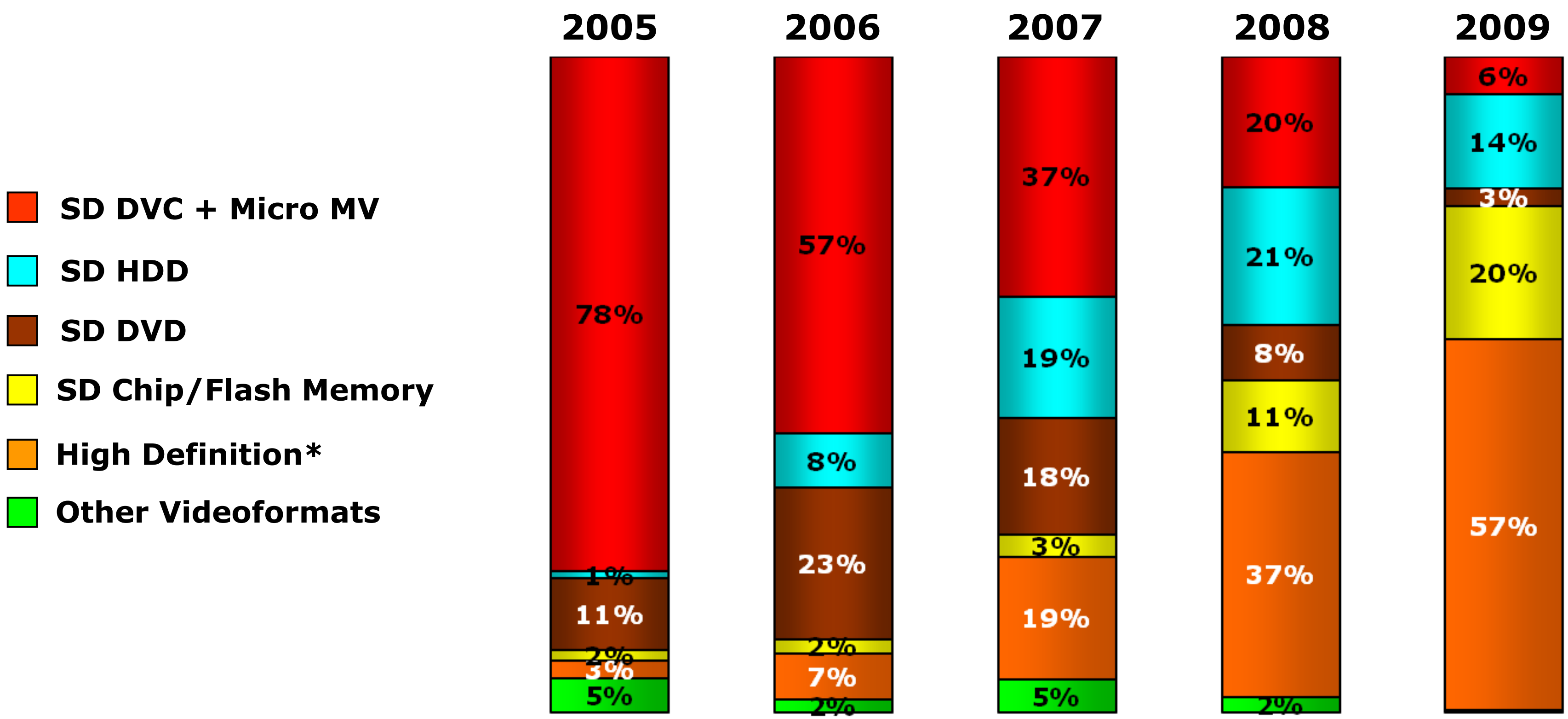
** DVD-Player/-Recorder + Videorecorder

Turnover Video

Although the video sector continued it's downfall, the fall steadied somewhat in 2009 (474m € in 2008 to 455m € in 2009). This is a result of the Blu-ray Player market establishing itself, as well as the prices for hardware and content becoming more attractive.

Generally the video market already shows a high penetration in the households with regards to DVD Players and Recorders. Furthermore, DVD recorders are increasingly substituted by Set-Top-Boxes with built-in hard disk drives (PVR).

Turnover Camcorder



	2005	2006	2007	2008	2009
€ Mn	**399**	**360**	**309**	**275**	**241**
± prev. year in %	**+1.1%**	**-9.7%**	**-14.1%**	**-11.2%**	**-12.4%**

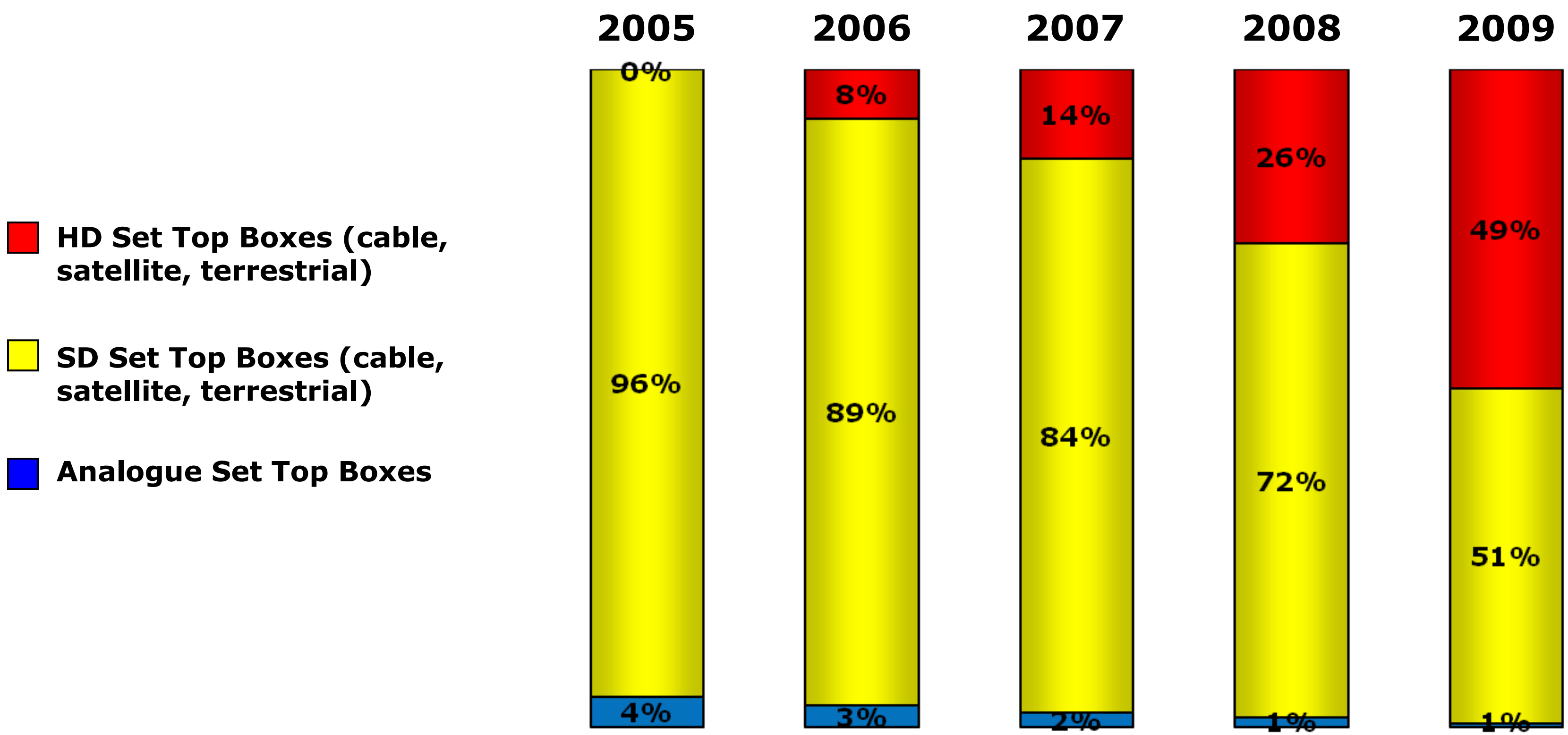
* HD DVC, HD DVD, HD Memory Card/Harddisc

Turnover Camcorder

Based on the establishment of HD in the TV sector, the same high quality standards is apparent in the Camcorder sector. High definition format reached a share of 57% of the total Camcorder turnover in 2009, 20% higher than in 2008.

Even the demand for modern Flash Memory and Memory Card Camcorders increased considerably. The total turnover share amounts for 20%. It is assumed this development is largely due to the new consumer groups, who tend to upload more content online (this perhaps related to the growth in online communities).

Turnover Set Top Boxes



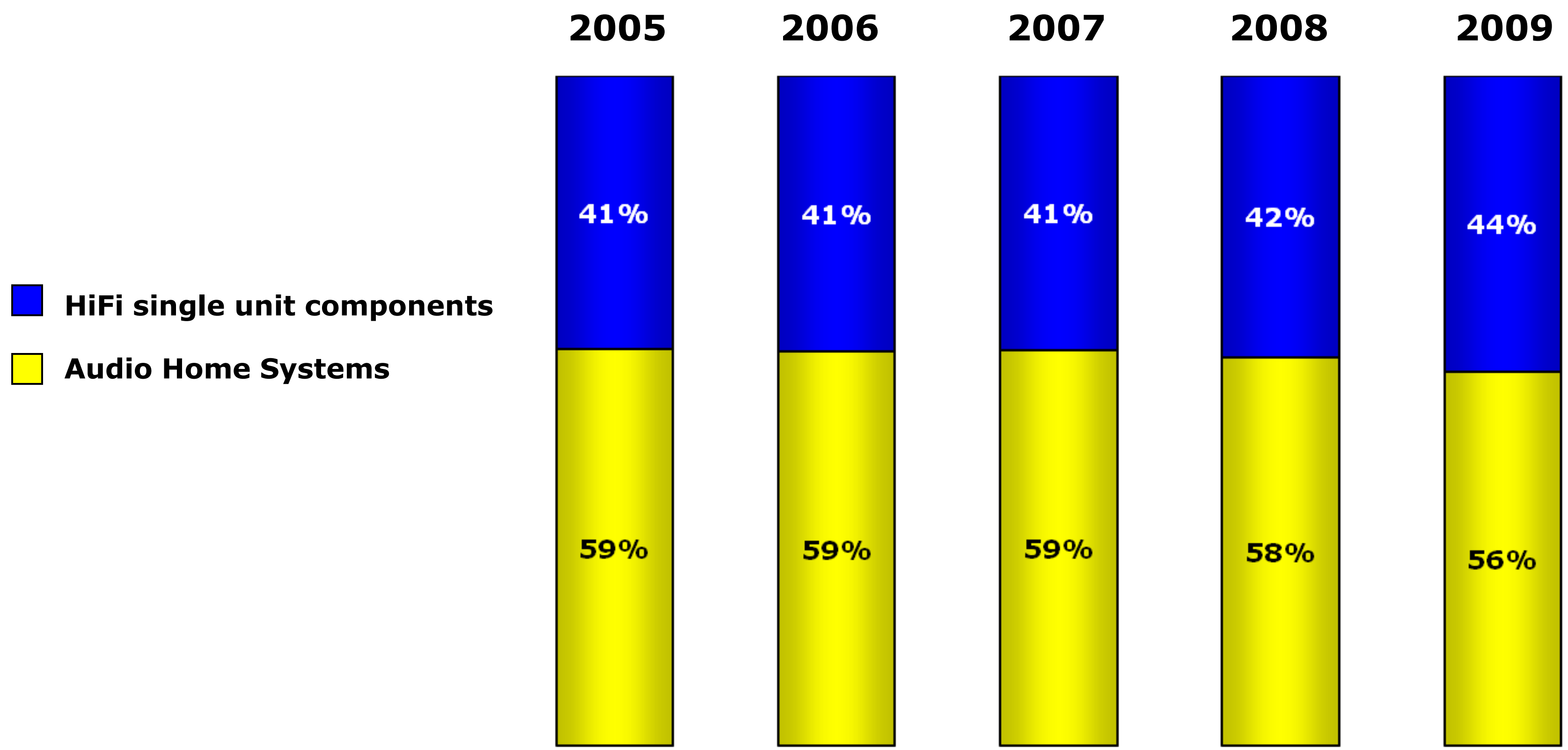
	2005	2006	2007	2008	2009
€ Mn	**448**	**382**	**382**	**401**	**471**
± prev. year in %	**+4.4%**	**-14.7%**	**+0.0%**	**+5.0%**	**+17.5%**

Turnover Set Top Boxes

The turnover of Set-Top-Boxes is still at a high level, supported mainly by the sales of digital Set-Top-Boxes. The turnover share of HD Set-Top-Boxes has been doubling on a yearly basis since 2006. In 2009 HD Set-Top-Boxes already counted for 49% of the turnover share.

Last year over one Million HD Set Top Boxes were sold; 860,000 alone for satellite reception.

Turnover HiFi Equipment



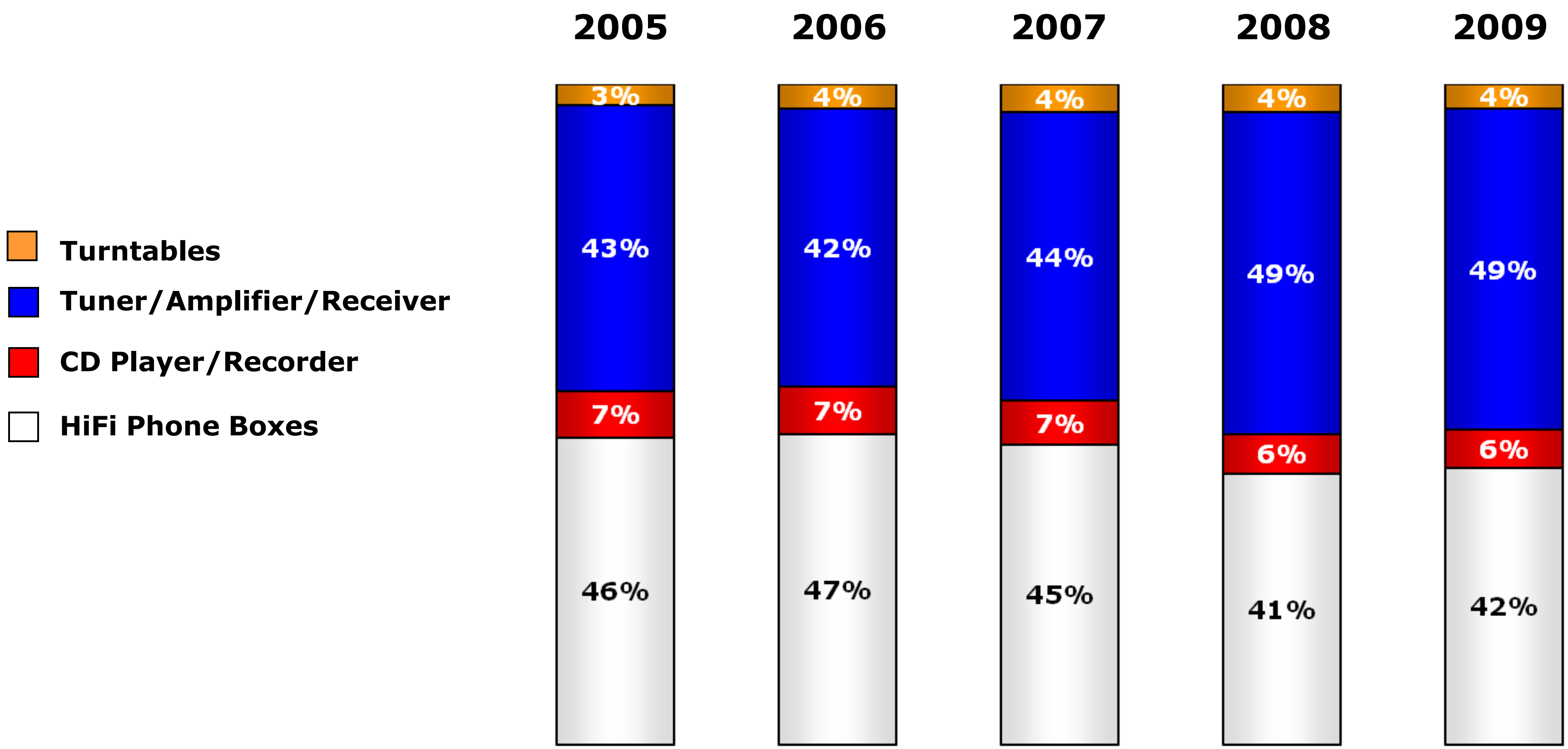
	2005	2006	2007	2008	2009
€ Mn	797	772	722	749	826
± prev. year in %	-11.5%	-3.2%	-6.4%	+3.6%	+10.4%

Turnover HiFi Equipment

The HiFi market achieved a turnover of around 826 million Euro in 2009; a 10.4% increase in on 2008.

While demand remained at the same level the average price increased, with high quality products playing a central role.

Turnover HiFi Single Components



	2005	2006	2007	2008	2009
€ Mn	**326**	**318**	**296**	**315**	**364**
± **prev. year in %**	**-8.4%**	**-2.4%**	**-7.1%**	**+6.4%**	**+15.8%**

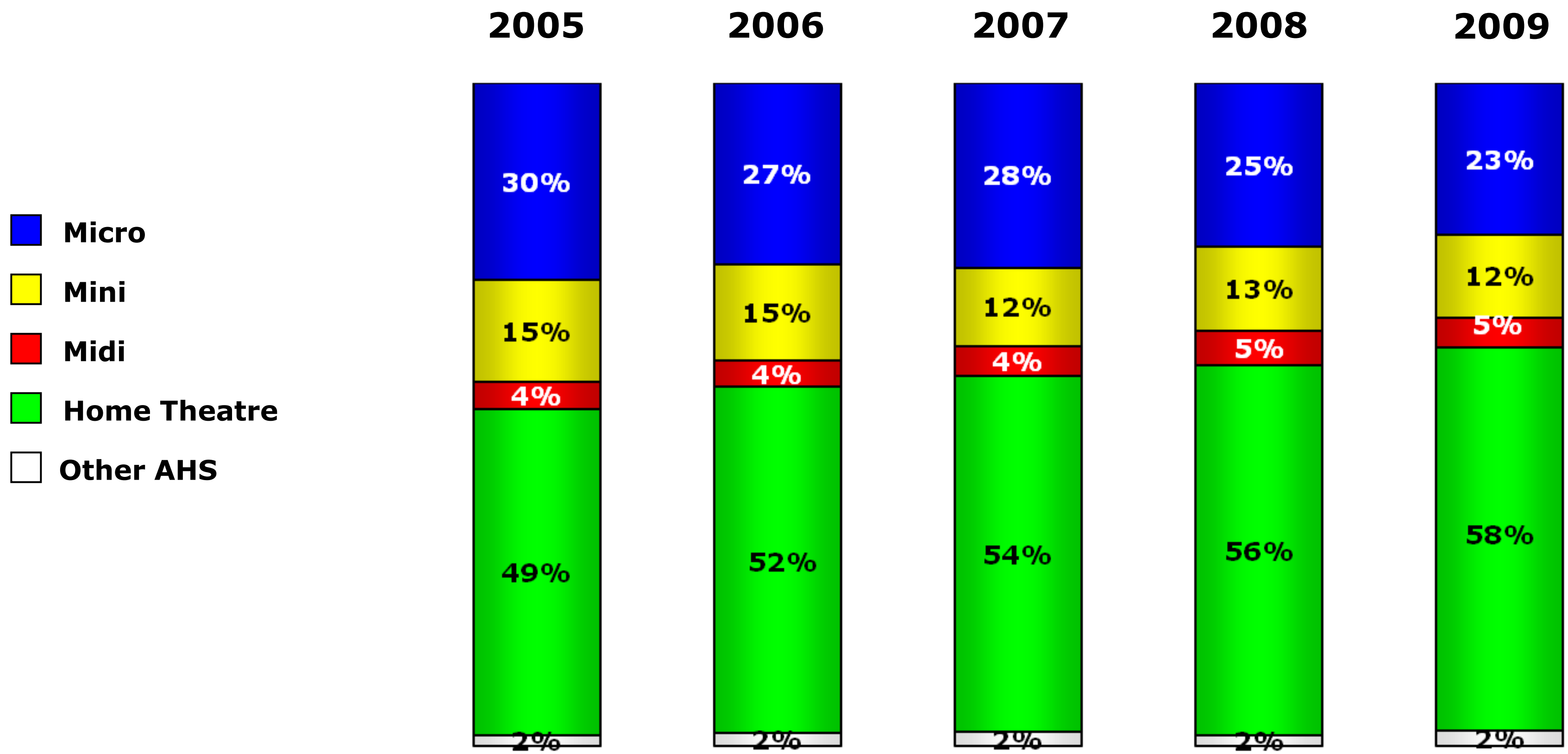
Turnover HiFi Single Components

The turnover achieved by HiFi Single Components was able to continue growing at a two-digit rate (16%) to 364 million €.

Instrumental in this development were enormous growth rates for Multi-Channel Receivers, increasing the turnover by approx. 20%.

Although the turnover share remained the same, HiFi Single Components like Tuners and Turntables also showed slight growth in turnover in 2009.

Turnover Home Audio Systems



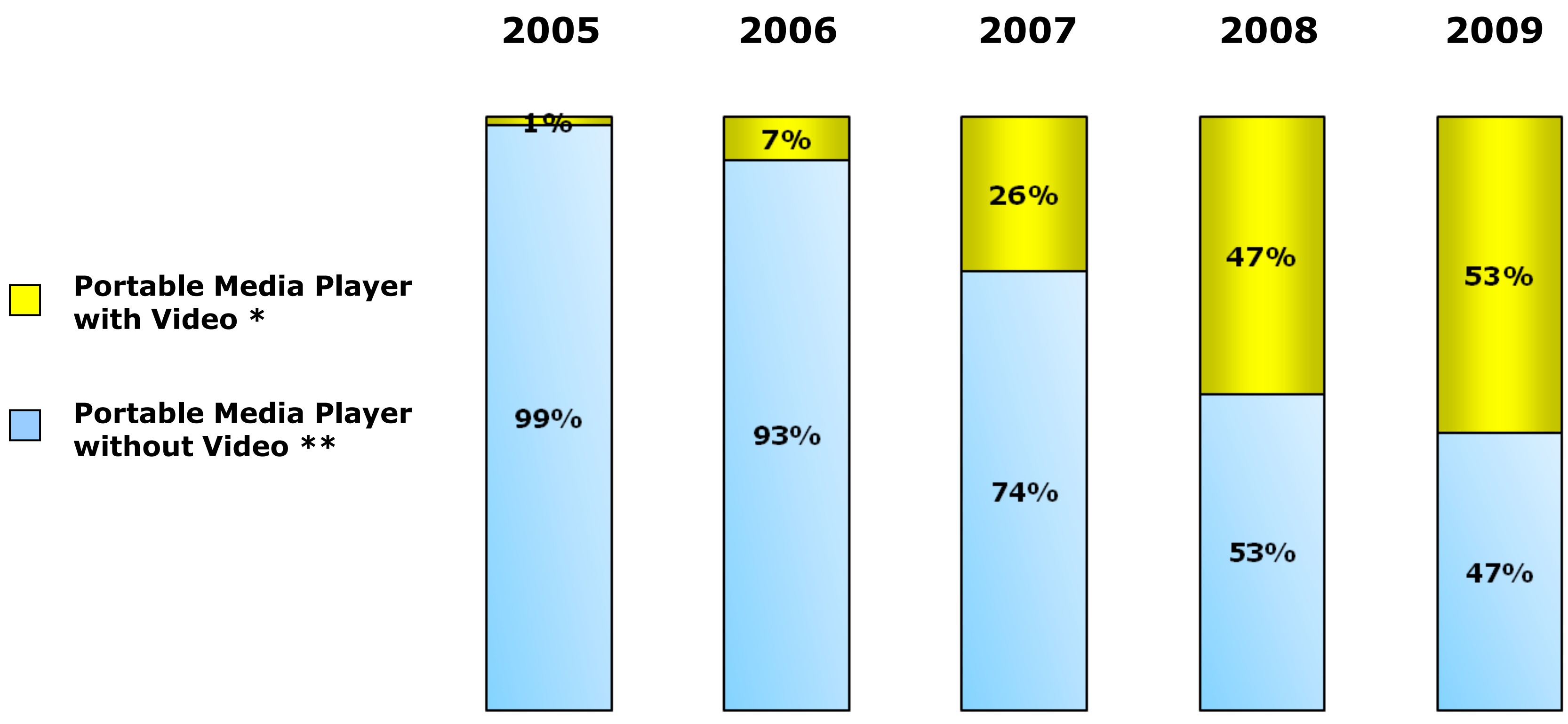
	2005	2006	2007	2008	2009
€ Mn	471	453	427	434	462
± prev. year in %	-13.4%	-3.8%	-5.9%	+1.7%	+6.4%

Turnover Home Audio Systems

The turnover made by Home Audio Systems shows reasonable growth (6.4%), mainly supported by Home Theatre Systems.

Due to matched design Home Theatre Systems and Flat TVs are becoming a homogeneous unit. Innovations like Dolby 2.1 and Blu-ray arouse new desires.

Sales Volume MP3 and MP4 Player



,000 Units ± prev. year in %	2005	2006	2007	2008	2009
,000 Units	8,383	7,420	7,942	7,790	6,683
± prev. year in %	+165%	-11.5%	+7.0%	-1.9%	-14.2%

* MP4 Player

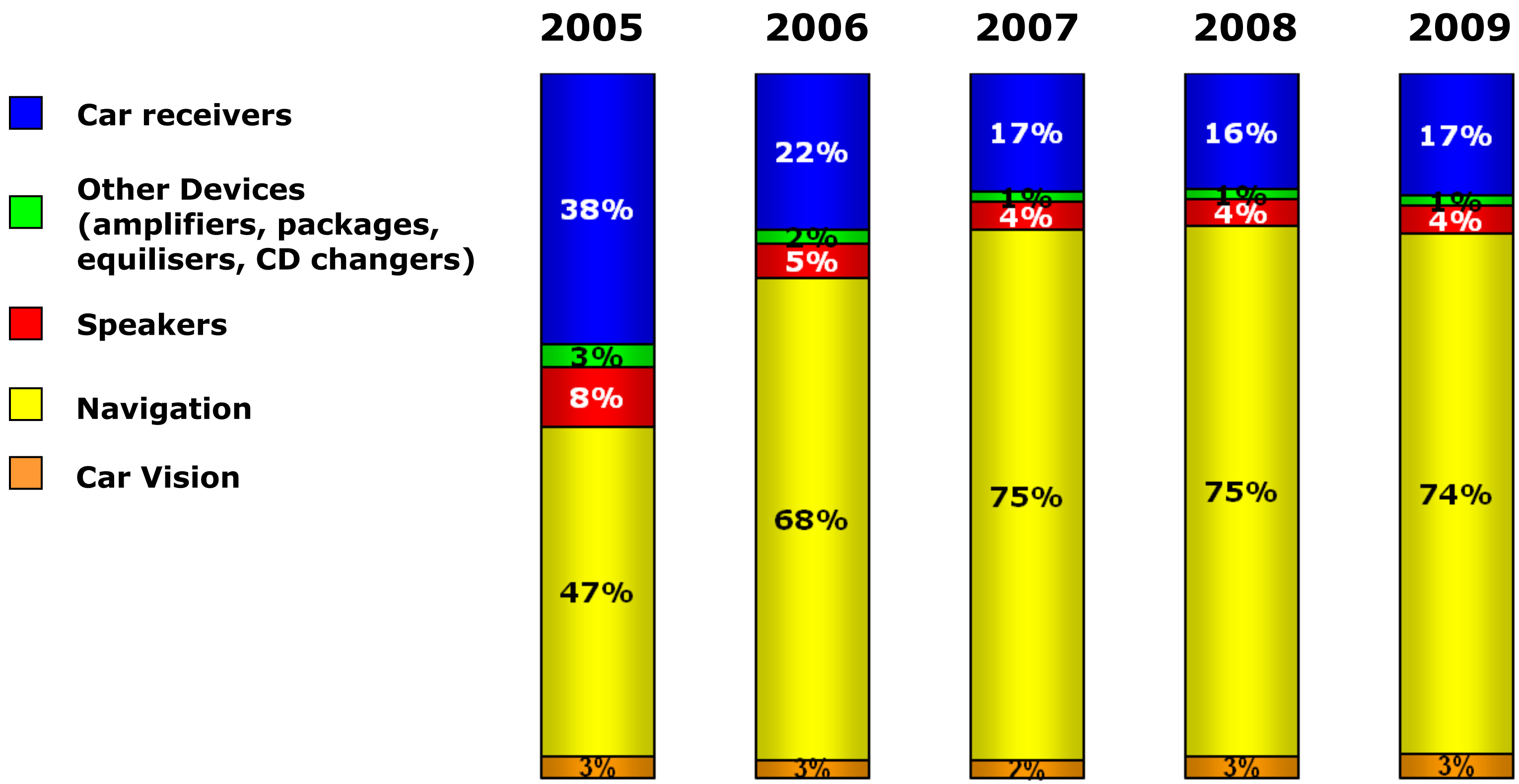
* *MP3 Player

Sales Volume MP3 and MP4 Player

The integrated Video-playback function (MP4) developed to a standard feature within a short time. In 2009 MP4 Players represented more than 50% of all sold Media Players.

Overall, turnover of mp3/mp4 players is declining due to market saturation and lack of innovation; we saw a 15.5% fall in turnover on 2008. It is also evident that with ever improving battery life, mobile phones are being used more frequently for music playback, especially amongst the younger demographic.

Turnover Car Audio/Navigation*



	2005	2006	2007	2008	2009
€ Mn	**823**	**1,201**	**1,410**	**1,171**	**990**
± prev. year in %	**+22.2%**	**+45.9%**	**+17.4%**	**-16.9%**	**-15.5%**

* without OEM-Volumina
(Original Equipment Manufacturers)

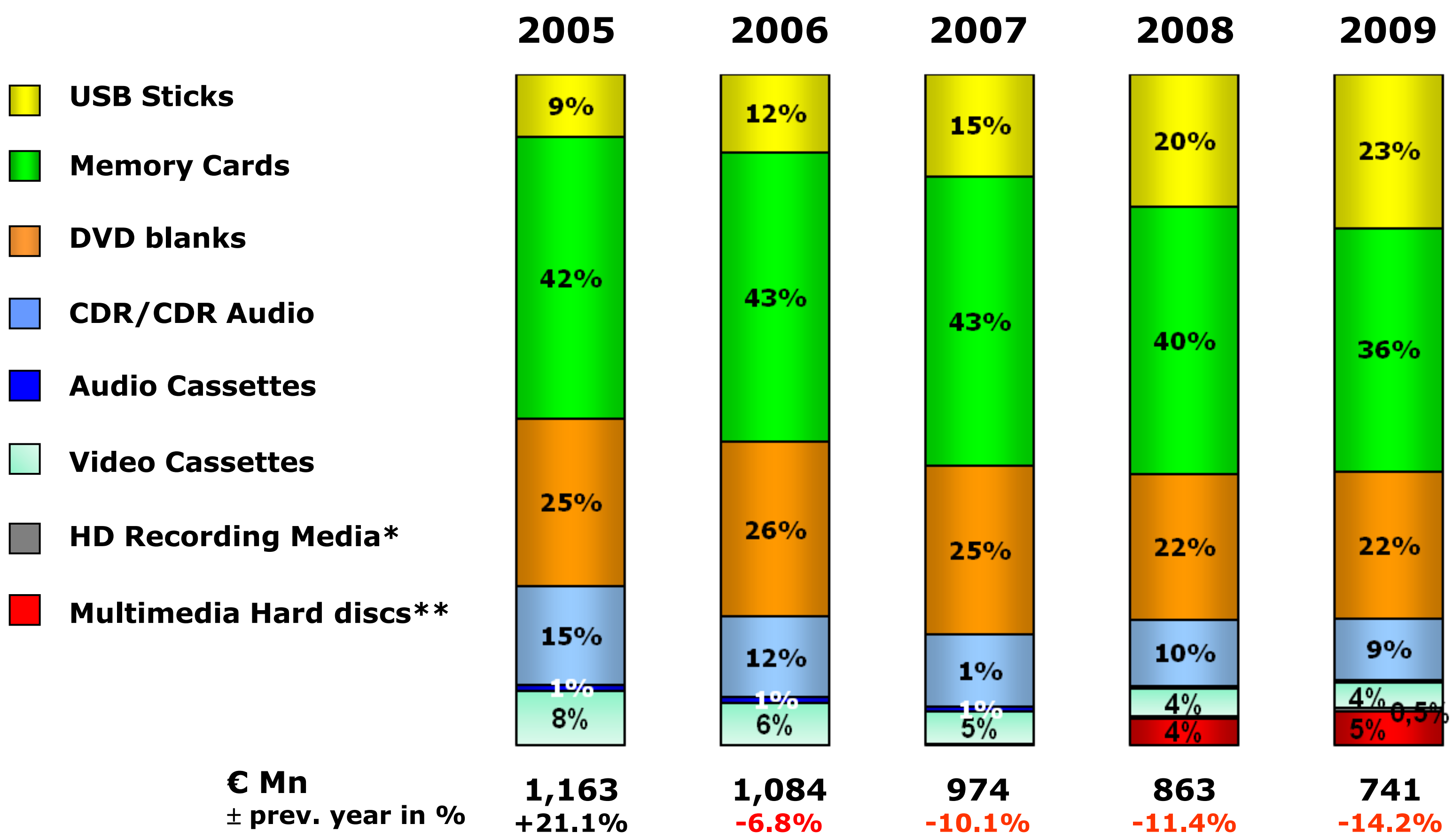
Turnover Car Audio/Navigation

The market for Car Media technologies is changing: from a classic medium for entertainment (car radio) into a computer assisting the driver (navigation device).

Due to the market saturation for portable navigation devices, caused mainly by the influx of suppliers, price erosion can no longer be compensated by sales. Providers tend to react to this competitive pressure by upgrading features and reducing prices.

The traditional car radio market in terms of installation, is losing importance as the ability to add to new vehicles is diminishing. In comparison the popularity of digital media players is increasing along with improved connectivity options within cars.

Turnover Recording Media



* Since 2007
** Since 2008

Turnover Recording Media

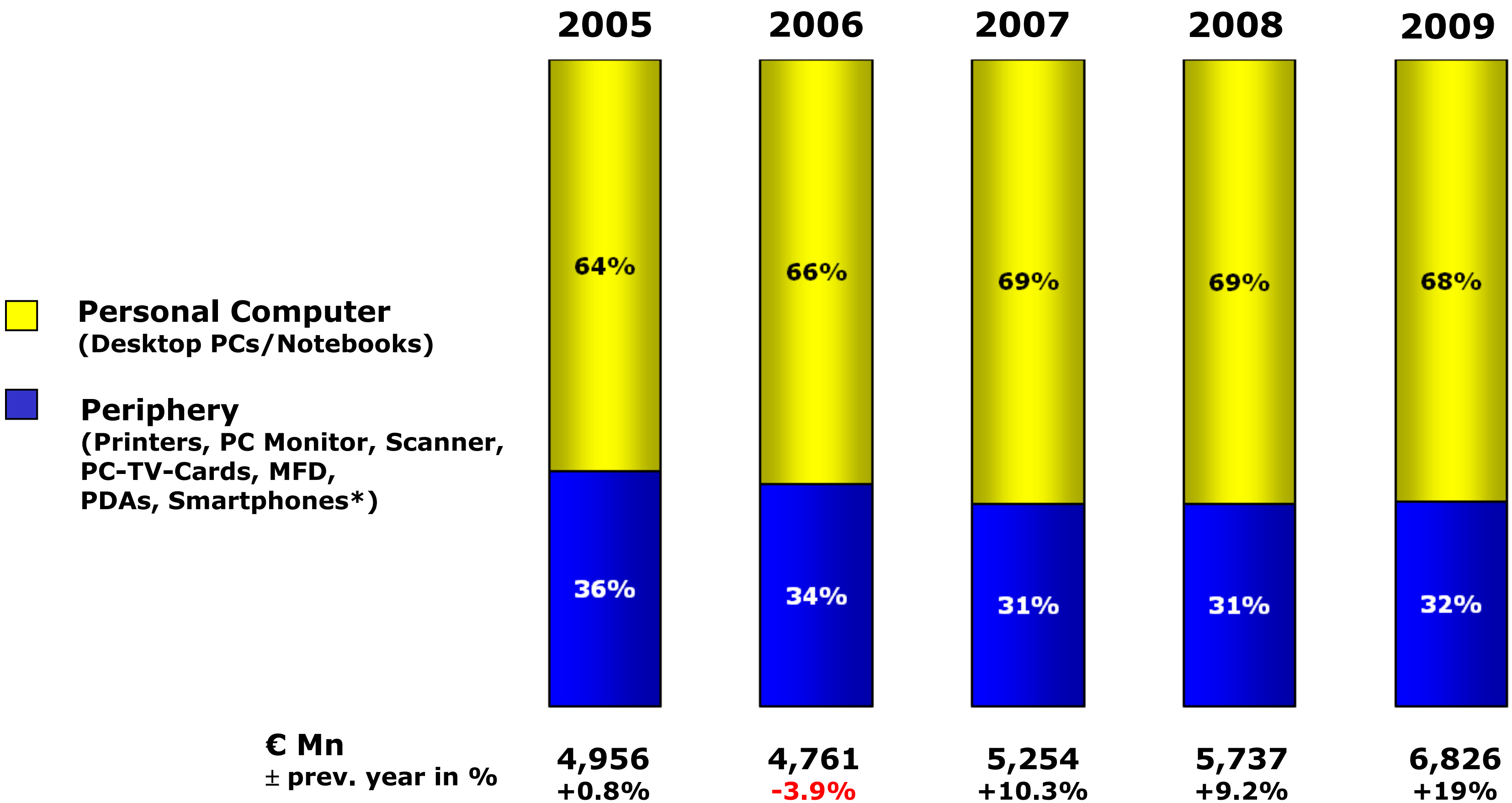
Enhanced recording capacities for steadily lowering prices. This is a brief description of the current trend for Flash Recording Media.

In 2009 the demand for USB Sticks was high with 13 million units sold.

Optic media like blank CD and DVD's continue to be sold by the millions. Their main strength being a cost-efficient way of data storage.

The new upcoming trend is HD Recording Media, with almost 500,000 units sold in 2009.

Turnover Information Technology (private purchase)



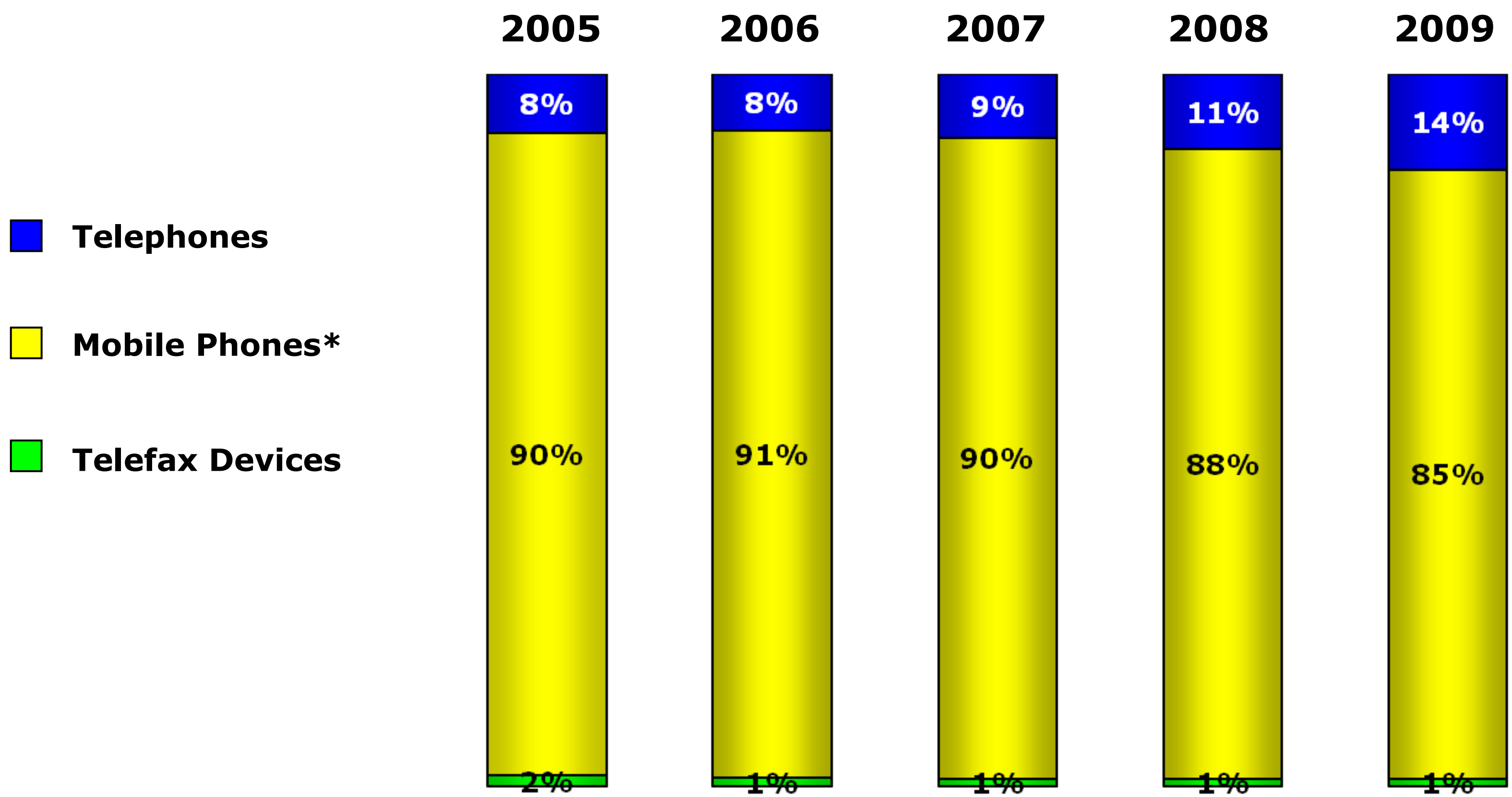
*since 2006

Turnover Information Technology (private purchase)

Information Technology in the private consumer market recorded an increase in turnover of almost 20%. This increase is exclusively down to the core business of PC Desktops and Notebooks. Consumers are more and more inclined to buy laptops due to their improved performance and attractive prices: In 2009 there was an 43% increase demand for Notebooks.

The turnover share of peripheries is still at a low level of less than one third. Especially PC Monitors lost approximately 24% of the turnover in comparison to the previous year, as prices decreased by 19%.

Turnover Telecom (private purchase)



	2005	2006	2007	2008	2009
€ Mn	**4,325**	**4,255**	**3,978**	**3,397**	**2,572**
± prev. year in %	**+1%**	**-1.6%**	**-6.5%**	**-14.6%**	**-24.3%**

* without subsidised prices

Turnover Telecom (private purchase)

The Telecom market declined again in 2009 by -24.3%. In 2009, almost 17 million mobile phones were sold to private customers. The demand for mobile phones was negative on both counts; turnover (-27%) and volume of sales (-21%).

The reason for this change is due to consumer behaviour. The preference is for well-priced mobile phone tariffs, which means that consumers do not look to change their handsets as frequently.

Forecast 2010

The market for Consumer Electronics in Germany continues it's dynamic development. Researchers from GfK, gfu and ZVEI are optimistic about it's further development in 2010. The forecast for 2010 is still at a high level of more than 24 Billion Euro – a positive message in comparison to the general economic atmosphere.

For 2010 researchers are expecting a positive sales impulse for TVs and Set-Top-Boxes, especially with the variety of HDTV programs becoming available. The record of 8.6 Million TVs sold in 2009 could be excelled in 2010, with the trend towards higher priced, larger, future-proof models set to continue. We also see the share of HD ready devices reaching 70% of the total TV market in 2010. "HDTV has duly arrived, which is good reason to invest in top-quality products for top-quality television. By the end of 2010, more than 29 million high-resolution TVs will be found in German households; 16.5 million of those with an integrated HD Tuner, or combined HDTV Set-Top-Box. TV's with integrated HD Tuners will triple in 2010", states Dr. Rainer Hecker, chairman of the supervisory board of the Gesellschaft für Unterhaltungs- und Kommunikationselektronik (gfu).

Another decisive trend of the CE sector is the desire for mobility, with ongoing high sales of mobile devices reflecting this. Portable Digital Video Players and Digital Cameras will become bestsellers as will Mobile Navigation Systems, Smartphones and Notebooks.

Dr. Rainer Hecker notes that "With all due optimism, the development of the CE sector depends heavily on the economic situation. Increasing unemployment and crisis in specific economic sectors could curb market development."
"Nevertheless, we are expecting a stable year with a similar turnover to the previous year. Positive contribution comes not only from the big sporting events of this year (Olympic Winter Games 2010 and FIFA World Cup 2010) but also the highlight of the CE sector - the international trade fair for consumer electronics and home appliances (the 50th IFA) from 3rd to 8th of September in Berlin", Dr. Hecker concludes.

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