



BN-DICT PC01: Domestic Computers Government Standards Evidence Base 2009: Key Inputs

Version 1.1

This Briefing Note and referenced information is a public consultation document and will be used to inform Government decisions. The information and analysis forms part of the Evidence Base created by Defra's Market Transformation Programme.

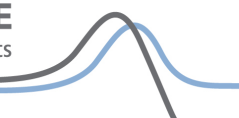
1 Introduction

- The aim of this Briefing Note is to provide details and reference sources of the underlying data in the model, along with the key assumptions used in the model.
- There are three main sections to this Briefing Note, corresponding to the main variables of the MTP modelling approach:
 - Ownership & stock
 - Sales
 - Usage & lifespan
- Each section also includes an indication of the overall confidence in the dataset, to provide a sense of the robustness of the model.
- Since preparing the data for Government Standards in 2009, new sources of evidence have been found or been made available. They will be taken account of in future revisions of data. New sources as follows:
 - Act on CO₂ study data

This Government Standard Briefing Note (GSBN) covers domestic personal computers. The following definitions of PCs are adapted from the ErP Preparatory study on PCs¹.

- **Personal Computer:** A device which performs logical operations and processes data. Personal computers are composed of, at a minimum: (1) a central processing unit (CPU) to perform operations; and (2) user input devices such as a keyboard, mouse, digitizer or game controller. For the purposes of this study, personal

¹ European Commission DG TREN Preparatory studies for Eco-design Requirements of ErPs (Contract TREN/D1/40-2005/LOT3/S07.56313) Lot 3 Personal Computers (desktops and laptops) and Computer Monitors Final Report (Task 1-8)



computers include both stationary and portable units, including desktop computers, integrated computers, notebook computers and tablet PCs.

- **Desktop Personal Computer (PC):** A computer where the main unit is intended to be located in a permanent location, often on a desk or on the floor. Desktops are not designed for portability and utilize an external monitor, keyboard and mouse. Desktops are designed for a broad range of home and office applications including, email, web browsing, word processing, standard graphics applications, gaming, etc.
- **Laptop Personal Computer (PC):** A computer designed specifically for portability and to be operated for extended periods of time without a direct connection to an ac power source. Notebooks and tablets must utilize an integrated monitor and be capable of operation off an integrated battery or other portable power source. In addition, most notebooks and tablets use an external power supply and have an integrated keyboard and pointing device, though tablets use touch sensitive screens. Notebook and tablet computers are typically designed to provide similar functionality to desktops except within a portable device. Docking stations are considered accessories and therefore are not covered in this briefing note.

2 Ownership & stock

2.1 Summary

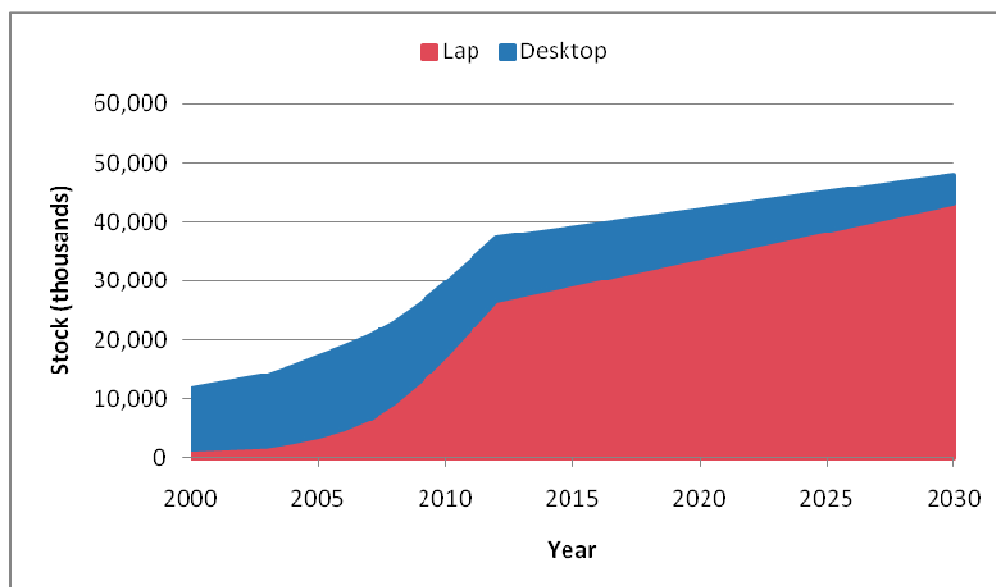


Figure 1 – Total Domestic PC Stock

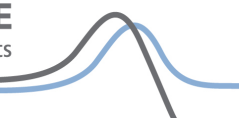
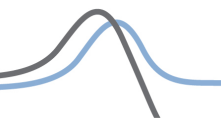


Table 1 Domestic Desktop and Laptop PC Stock

Year	Stock ('000s)		
	Desktop PC	Laptop PC	Total PC
2009	12,973	13,016	25,989
2010	12,252	17,287	29,538
2020	7,994	34,060	42,054
2030	4,803	43,229	48,032

- Desktop PC stock is assumed to fall from 2009 onwards. Laptop stock is expected to increase significantly leading to an overall increase in total PC stock. The graph above shows that laptop PC stock increases steeply until around 2012 after which time stock growth slows due to market saturation.



Data sources – ownership & stock

Table 2 Ownership & stock data sources – Domestic Desktop PC

Year	Reference	Reference date	Author	Justification	Confidence in sources (High/Low)
1960 - 2030	Household Numbers ²	2008	MTP Supplied	Best data available	High
2003 - 2012	Gartner Forecast: PC Installed Base, Worldwide, 2004-2012, September 2008 Update	2008	Gartner	Best data available	High
1979, 2030	Expert Assumption	2009	MTP Technical Expert	Required assumption to estimate past and future domestic desktop PC stock	High

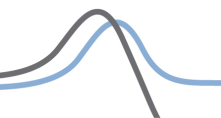
Table 3 Ownership & stock data sources – Domestic Laptop PC

Year	Reference	Reference date	Author	Justification	Confidence in sources (High/Low)
1960 - 2030	Household Numbers ²	2008	MTP Supplied	Best data available	High
2003 - 2012	Gartner Forecast: PC Installed Base, Worldwide, 2004-2012, September 2008 Update	2008	Gartner	Best data available	High
1979, 1990,	Expert Assumption	2009	MTP Technical	Required assumption to	Medium

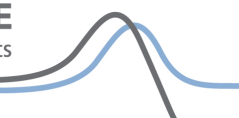
² Refer to BNXS25 UK Household and Population Figures 1970-2030 for details on household population figures.

MARKET TRANSFORMATION PROGRAMME

Developing evidence for Government and business on energy using products



Year	Reference	Reference date	Author	Justification	Confidence in sources (High/Low)
2030			Expert	estimate past non-domestic laptop PC stock	



2.2 Methodology & key assumptions – ownership & stock

- This section describes what has been done with the data listed in Table 2 and Table 3 along with a rationale for any key assumptions (in particular any expert judgements listed in Table 2 and Table 3) and detail of any background calculations behind the data points.

2.2.1 Historic data

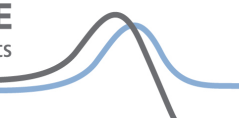
Table 4 Interpolation & background calculations – ownership & stock

Year	Methodology & assumptions
	General PC stock
1979	Desktop and laptop PC stock – number of each type of PCs in stock is calculated by multiplying the share of households with each type of PC by the number of households.
1980 - 2002	Desktop and laptop PC stock – number of PCs in stock is calculated using the same method as in 1979.
2003 - 2008	Desktop and laptop PC stock – percentage of households assumed to have laptops is calculated by dividing the stock of laptops by the number of households (for each year).
	Desktop PC stock
1960-1978	Desktop PC stock – percentage of households assumed to have a desktop PC is 0%.
1979	Desktop PC stock – percentage of households assumed to have a desktop PC is 1%.
1980 - 2002	Desktop PC stock – percentage of households assumed to have laptops is based on a straight line interpolation between the 1979 assumption and the calculated 2003 values.
2003 - 2008	Desktop PC stock – Gartner stock data used.
	Laptop PC stock
1960-1989	Laptop PC stock – percentage of households assumed to have a laptop is 0%.
1990	Laptop PC stock – percentage of households assumed to have a laptop is 0%.
1991 - 2002	Laptop PC stock – percentage of households assumed to have laptops is based on a straight line interpolation between the 1990 assumption and the calculated and 2003 values.
2003 - 2008	Laptop PC stock – Gartner stock data used.

2.2.2 Future analysis

Table 5 Extrapolation & background calculations – ownership & stock

Year	Methodology & assumptions
2009- 2012	Desktop and laptop PC stock – Gartner forecasts used
2013-2029	Desktop and laptop PC stock – based on a straight line interpolation between the 2012 and 2030 stock values.
2030	Desktop and laptop PC stock – distribution of desktop to laptop PCs assumed at 1:10 based on expert assumption.
2030	Desktop and laptop PC stock - percentage of households assumed to have a desktop or laptop PC is 75% (expert assumption). Multiplied by above ratio to give 67.5% laptop PCs and 7.5% desktop PCs in stock.
2030	Desktop and laptop PC stock – overall stock figure calculated by multiplying



Year	Methodology & assumptions
	assumed percentage of households with each type of PC by the number of households.

2.3 Data issues – ownership & stock

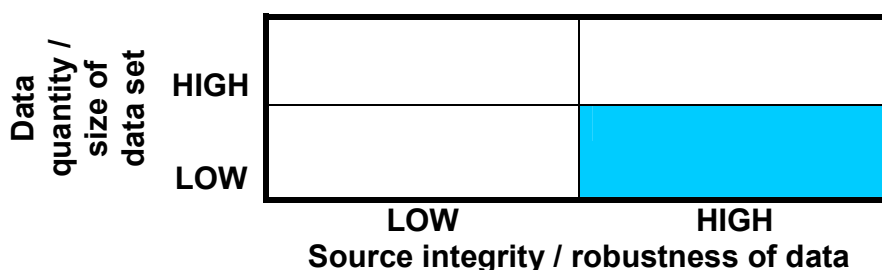
- This section flags any areas of uncertainty, both in general and for specific data points, along with a description of how this has been dealt with in the model

Table 6 Data issues – ownership & stock

Issue/risk	Approach taken/rationale
Mintel- PC Peripherals - UK - June 2006 report not used in stock calculations.	MTP referred to the Gartner data rather than the Mintel data as Gartner provided a larger dataset.
The ICT market changes rapidly. A sudden change in the ICT market distribution between products can have large impacts on sales and hence stock of particular products. For example, the distribution PC type has shifted dramatically in the last two years towards laptop PCs due to decreased costs to consumers. Three times as many laptop PCs then desktop PCs are now purchased each year.	MTP references respected market intelligence in the area and aims to take account of probable changes in future stock through well founded assumptions. These assumptions are reviewed on an annual basis.
There is a high probability that domestic ICT stock data also includes a percentage of non-domestic stock associated with small and medium (SME) sized businesses. This situation has arisen as some SMEs are likely to procure ICT products from the same retail outlets as domestic customers.	MTP currently assumes that some ICT products procured for SME use will also be used as personal products in the home. No data is currently available to aid in splitting sales into these different user groups. MTP can continually review the situation.

2.4 Confidence level – ownership & stock

- This section provides an indication of overall confidence in the data set (i.e. data points, calculations, interpolation and projections).
- MTP has confidence in sourced stock data input into the desktop and laptop models. Confidence in stock levels reduces further into the future, where changes in the ICT industry could cause larger divergences in stock levels compared to MTP assumptions.



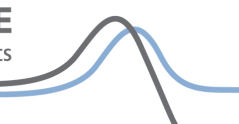


Figure 2 Confidence indicator for ownership data

3 Sales

3.1 Summary

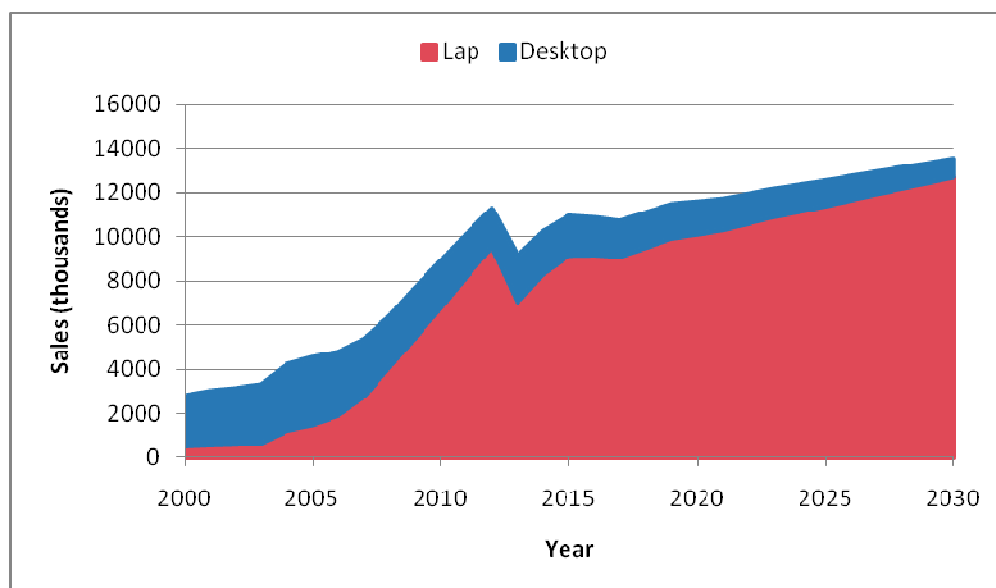
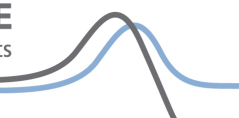


Figure 3 – Total Domestic PC Sales

Table 7 Desktop and Laptop PC Sales

Year	Sales ('000)		
	Desktop PC	Laptop PC	Total PCs
2009	2,242	5,443	7,686
2010	2,118	6,784	8,902
2020	1,471	10,115	11,586
2030	819	12,714	13,533

- Domestic desktop PC sales are assumed to continue decreasing as sales of laptop PCs continue to increase into the future. The irregular lines in the sales graph above are caused by interplays between the dying desktop PC sales and the growing laptop PC sales.



Data sources - sales

- This model is a stock-based model, which calculates sales automatically using the stock projection and the product lifetime. Real sales data is put in as a check only, to help evaluate the output sales calculated from the model. This data series is usually incomplete. The sales shown in the previous charts and tables were to illustrate the full generated (rather than input) sales data series

Table 8 Sales data sources

Year	Reference	Reference date	Author	Justification	Confidence in sources (High/Low)
2006 - 2012	Gartner Forecast: PCs, EMEA, September 2008 Update	2008	Gartner	Sales data from a leading market research company.	High

3.2 Methodology & key assumptions - sales

- This section describes what has been done with the data listed in Table 8 along with a rationale for any key assumptions (in particular any expert judgements listed in Table 8) and detail of any background calculations behind the data points

3.2.1 Historic data

Table 9 Interpolation & background calculations – sales data

Year	Methodology & assumptions
1960 - 2030	The MTP model is a stock-based model, which calculates sales automatically using a stock projection, the product lifetime and a stock churn calculation to account for products purchased in previous years gradually leaving stock. Real sales data is put in as a check only, to help evaluate the output sales from the model. This data series is usually incomplete.
2006 – 2008	Desktop and laptop PC sales - Used sales figures in Gartner Forecast: PCs, EMEA, September 2008

3.2.2 Future analysis

Table 10 Extrapolation & background calculations – sales data

Year	Methodology & assumptions
2009-2012	Desktop and laptop PC sales - Used sales forecasts in Gartner Forecast: PCs, EMEA, September 2008

3.3 Data issues - sales

- This section flags any areas of uncertainty, both in general and for specific data points, along with a description of how this has been dealt with in the model

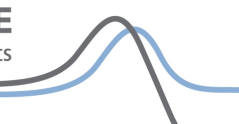


Table 11 Data issues - sales

Issue/risk	Approach taken/rationale
<p>The ICT market changes rapidly. A sudden change in the ICT market distribution between products can have large impacts on sales. For example, the distribution of PC type has shifted dramatically in the last two years towards laptop PCs due to decreased costs. Three times as many laptop PCs than desktop PCs are now purchased each year.</p>	<p>MTP references respected market intelligence in the area and aims to take account of probable changes in future stock through well founded assumptions. These assumptions are reviewed on an annual basis.</p>
<p>There is a high probability that domestic ICT sales data also includes some sales to the non-domestic sector – especially to small and medium (SME) sized businesses as some SMEs are likely to procure ICT products from the same retail outlets as domestic customers.</p>	<p>MTP currently assumes that some ICT products procured for SME use will also be used as personal products in the home. No data is currently available to aid in splitting sales into these different user groups. MTP will continually review the situation.</p>

3.4 Confidence level

- This section provides an indication of overall confidence in the data set (i.e. data points, interpolation and projections).
- MTP has a large amount of confidence in sourced sales data input to the desktop and laptop models.

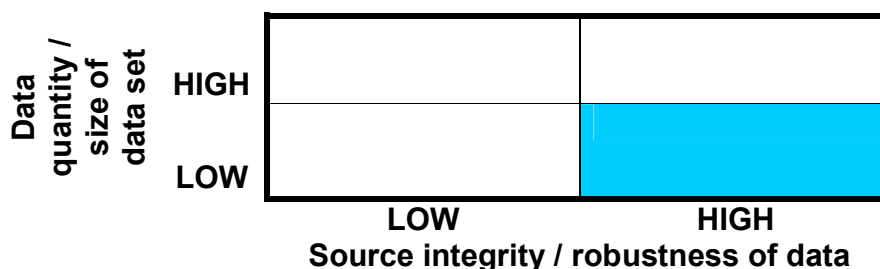
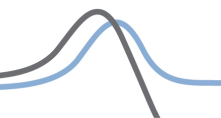


Figure 4 Confidence indicator for sales data



4 Usage & lifespan

4.1 Summary

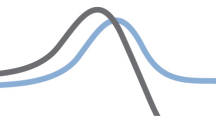
- Two sets of use profiles are developed for desktop and laptop PCs. The first use profile is based on a situation where no power management is enabled and the second where power management is enabled. The non-enabled power managed use profile is the same as the enabled use profile but with the sleep time added to the on-idle time. An “enabling rate” is used as a weighting factor between these two use profiles to arrive at overall use profile for each product.
- Enabling rates vary for each scenario, and details of assumptions are located in each scenario GSBN.
- The table below shows the **fully enabled use profile** (i.e. what 100% enabling would look like). The non-power managed use profile is calculated by adding the sleep mode time to the on-ready time.

Table 12 Usage PCs - all scenarios

	Desktop				Laptop			
	(Use Hours/Year)				(Use Hours/Year)			
Year	On-Idle	Sleep	Off	Off- Unplugged	On- Idle	Sleep	Off	Off- Unplugged
2008	1,982	1,244	5,335	199	1,308	1,068	3,192	3,192
2010	2,175	1,384	5,002	199	1,436	1,187	3,068	3,068
2020	3,237	2,151	3,173	199	2,136	1,846	2,389	2,389
2030	3,237	2,151	3,173	199	2,136	1,846	2,389	2,389

Table 13 Lifespan of PCs and laptops - all scenarios

Year	Desktop PCs	Laptop PCs
	Lifespan	Lifespan
	Years	Years
2008	4.5	3.5



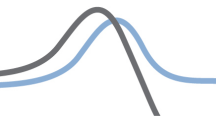
	Desktop PCs	Laptop PCs
	Lifespan	Lifespan
Year	Years	Years
2010	4.5	3.5
2020	4.5	3.5
2030	4.5	3.5

- On-idle and sleep mode use for both desktops and laptops is expected to increase over time within all scenarios as internet usage increases (e.g. web-surfing, downloading music and increasingly watching television)
- Lifespan is expected to remain constant into the future as advances in laptop and desktop PC technology continue to necessitate regular upgrading.

4.2 Data sources – usage & lifespan

Table 14 Usage & lifespan data sources – Desktop PC

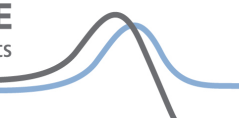
Year	Reference	Reference date	Author	Justification	Confidence in sources (High/Low)
2008	Fraunhofer	2006	Fraunhofer	Used to derive use profiles.	Medium
2008	ENERGY STAR Use profiles	2005 and 2006	ENERGY STAR	Used to derive use profiles.	Medium
2008	Lawrence Berkely National Laboratories (LBNL)= use profiles	2005	LBNL	Used to derive use profiles.	Medium
2008	TIAX	Jun-05	TIAX	Used to derive use profiles.	Medium
2000-2002, 2005, 2008, 2009,	Expert Assumptions	2009	MTP Technical Expert	Used to derive use profiles.	Medium



Year	Reference	Reference date	Author	Justification	Confidence in sources (High/Low)
2012, 2014					
2008	Expert Assumptions	2009	MTP Technical Expert	Expert assumption required for lifespan.	Medium

Table 15 Usage & lifespan data sources – Laptop PC

Year	Reference	Reference date	Author	Justification	Confidence in sources (High/Low)
2008	Fraunhofer	2006	Fraunhofer	Used to derive use profiles.	Medium
2008	ENERGY STAR Use profiles	2005 and 2006	ENERGY STAR	Used to derive use profiles.	Medium
2008	LBNL use profiles	2005	LBNL	Used to derive use profiles.	Medium
2008	TIAX	Jun-05	TIAX	Used to derive use profiles.	Medium
1988, 2008, 2009	Expert Assumptions	2009	MTP Technical Expert	Expert assumption required to develop use profiles in each year.	Medium
2008	Expert Assumptions	2009	MTP Technical Expert	Expert assumption required for lifespan in each year.	Medium



4.3 Methodology & key assumptions – usage & lifespan

- This section describes what has been done with the data listed in Table 14 and Table 15 along with a rationale for any key assumptions (in particular any expert judgements listed in Table 14 and Table 15) and detail of any background calculations behind the data points

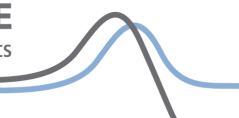
4.3.1 Historic data

Table 16 Interpolation & background calculations – usage & lifespan data

Year	Methodology & assumptions
	General PC usage
1960 - 2007	Desktop and laptop PC – two sets of use profiles are developed for each product type one based on a situation where no power management is enabled and the second where power management is enabled. An “enabling rate” is used as a weighting factor between these two use profiles to arrive at overall use profile for each product. Desktop and laptop PC non-enabled use profile based on same approach used for 2008. All PCs – daily use profiles converted to annual use profiles using same approach as in 2000.
2008	Desktop and laptop PC non-enabled use profile are the same as the enabled use profile but with the sleep time added to the on-idle time. This is to account for the fact that non-power managed enabled products will not spend any time in sleep mode. All assumptions are based on expert opinion regarding expected improvements in power management and increased usage of PCs, as no further information was available. All PCs – daily use profiles as detailed above are multiplied by 365 days to arrive at annual use profiles
	Desktop PC (all power modes)
1960 – 1999	Desktop PC (all power modes) assumed to be the same as in 2000. This assumption is based on an expert opinion as no further data was available.
2000	Desktop PC (all power modes) use profiles based on an expert assumption as there no other data available. Assumed that on-idle time is 3.5 hours a day. Off unplugged time is 0.5 hours a day. Sleep mode time is assumed to be 2.0 hours a day and off mode time is assumed to account for the rest of each 24 hour period.
	Desktop PC (on-idle)
2001	Desktop PC – on-idle use is assumed to increase over time as internet connections in home increase resulting in further use of the products. MTP has added an assumed percentage increase in time spent in on-idle modes for each year. These percentages increases are based on expert opinion assumptions of increased use into the future. These percentages increases are based on expert opinion assumptions of increased use into the future. Annual percentage increases are assumed to be 6% in 2001.
2002-2004	Desktop PC – on-idle use is assumed to increase by the same amount each year as in 2001.
2005	Desktop PC – on-idle use is assumed to increase by 5% over the previous year’s value.
2006-2008	Desktop PC – on-idle use is assumed to increase by the same amount each year as in 2005.
	Desktop PC (sleep)
2001	Desktop PC – sleep mode use in the power managed profile is expected to increase each year as a result of products being used more. MTP has added an assumed percentage increase in time spent in sleep mode for each year. These percentages increases are based on expert opinion assumptions of increased use

MARKET TRANSFORMATION PROGRAMME

Developing evidence for Government and business on energy using products



Year	Methodology & assumptions
	into the future above the 2000 base year profiles. Annual percentage increases start at 8% in 2001.
2002	Desktop PC – sleep mode use is assumed to increase by 7% over the previous year's value.
2003-2004	Desktop PC – sleep mode use is assumed to increase by the same amount each year as in 2002.
2005	Desktop PC – sleep mode use is assumed to increase by 6% over the previous year's value (expert assumption).
2006-2008	Desktop PC – sleep mode use is assumed to increase by the same amount each year as in 2002.
	Desktop PC (off)
2001 – 2008	Desktop PC – off unplugged time assumed to be equal to the value of 0.5 hours a day used in 2000. This is based on an expert assumption as no further information was available.
2001	Desktop PC – off mode time assumed to be the remainder of a 24 hour period after on-idle, sleep and off unplugged time is subtracted. This is based on an expert assumption as no further information was available.
2002-2008	Desktop PC – off mode calculated using the same assumption as in 2001.
	Laptop PC (on-idle)
2008	Laptop PC – on-idle time assumed to be 70% that of desktop PC on-idle time to account for use time spent on battery power. Based on an expert assumption as no further information available.
1960 – 2007	Laptop PC – on-idle time is based on the same assumption made in 2008.
	Laptop PC (sleep)
2008	Laptop PC – sleep mode time assumed to be 14% lower than that of desktop PC sleep mode time. This 14% figure accounts for use time spent on battery power but also a higher time spent in sleep mode whilst plugged in due to better power management settings. Assumptions based on expert opinion as no further information available.
1960 – 2007	Laptop PC – sleep mode time is based on the same assumption made in 2008.
	Laptop PC (off)
2008	Laptop PC – off-mode time is based on the assumption that half the daily time not spent in on-idle or sleep mode will be spent in off-mode. The other half of the remaining from each 24 hour period is accounted for by unplugged time. Assumptions based on expert opinion as no further information available.
1960 – 2007	Laptop PC – off mode and off unplugged time is based on the same assumption made in 2008.
	Lifespan
2008	Lifespan assumed to be constant at 4.5 years for desktop PCs and 3.5 years for laptop PCs. Lifespans are based on expert opinion. These lifetimes do not reflect any possible second lifetime of products.
1960 - 2007	Lifespan assumed to be the same as in 2008.

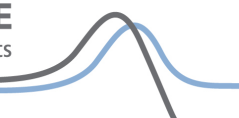
4.3.2 Future analysis

Table 17 Extrapolation & background calculations – usage & lifespan data

Year	Methodology & assumptions
	Desktop PC (on-idle)
2009 - 2011	Desktop PC – on-idle use is assumed to increase by the same amount each year

MARKET TRANSFORMATION PROGRAMME

Developing evidence for Government and business on energy using products



Year	Methodology & assumptions
	as in 2005.
2012	Desktop PC – on-idle use is assumed to increase by 4% over the previous year's value.
2013-2020	Desktop PC – on-idle use is assumed to increase by the same amount each year as in 2012.
	Desktop PC (sleep)
2009	Desktop PC – sleep mode use is assumed to increase by 5% over the previous year's value.
2010-2013	Desktop PC – sleep mode use is assumed to increase by the same amount each year as in 2009.
2014	Desktop PC – sleep mode use is assumed to increase by 4% over the previous year's value.
2015-2020	Desktop PC – sleep mode use is assumed to increase by the same amount each year as in 2014.
	Desktop PC (off)
2009 -2030	Desktop PC – off unplugged time assumed to be equal to the value of 0.54 hours a day in 2000. This is based on an expert assumption as no further information was available.
2009-2020	Desktop PC – off mode time calculated using the same method as in 2001.
	Laptop PC (on-idle)
2009	Laptop PC – on-idle time assumed to be 70% that of desktop PC on-idle time to account for use time spent on battery power. Based on an expert assumption as no further information available.
2010-2020	Laptop PC – on-idle time is based on the same assumption made in 2009.
	Laptop PC (sleep)
2009 - 2020	Laptop PC – sleep mode time is based on the same assumption made in 2008.
2009 - 2020	Laptop PC – off mode and off unplugged time is based on the same assumption made in 2008.
	General PC usage
2009 - 2030	Desktop and laptop PC non-enabled use profile based on same approach used for 2008.
2009-2020	All PCs – daily use profiles converted to annual use profiles using same approach as in 2000.
2021 - 2030	Desktop and laptop PC – (all power modes) use is assumed to be the same as in 2020.
	Lifespan
2009 - 2030	Lifespan assumed to be constant at 4.5 years for desktop PCs and 3.5 years for laptop PCs. Lifespans are based on expert opinion. These lifetimes do not reflect any possible second lifetime of products.

4.4 Data issues – usage & lifespan

- This section flags any areas of uncertainty, both in general and for specific data points, along with a description of how this has been dealt with in the model

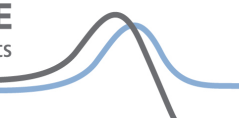


Table 18 Data issues – usage & lifespan

Issue/risk	Approach taken/rationale
Estimates of the time ICT products spend in each power mode vary considerably from source to source. The amount of time products spend in “on-modes” has a large impact on total energy consumption calculations. Large divergences in estimates suggest that knowledge in this area needs to be improved.	MTP has collated the most widely known use profiles and applied expert assumptions to derive expected use profiles for ICT products in the UK. MTP will continue to evaluate new use profile data as models are revised.
The ICT industry can change rapidly. Rapid changes such as uptake of new technologies (e.g. faster internet connections) can have large impacts on the use of products as consumers take up new or altered practices.	MTP attempts to model the most likely set of use profiles to reflect current product usage and takes possible future uses into consideration.
Lifetime data may vary considerably. Likelihood that some desktop and laptop PCs have a second lifetime after first 4.5 or 3.5 years.	MTP recognises that some additional energy consumption may be derived from PCs during second lifetimes. MTP assumes that use from these products will be minimal in the UK as most consumers would purchase a new PC.

4.5 Confidence level – usage & lifespan

- This section provides an indication of overall confidence in the data set (i.e. data points, interpolation and projections).
- Use profile figures vary considerably between published sources. Calculating simple averages of the published figures resulted in unrealistic use profiles. For this reason, MTP needed to make some assumptions surrounding expected use profiles.

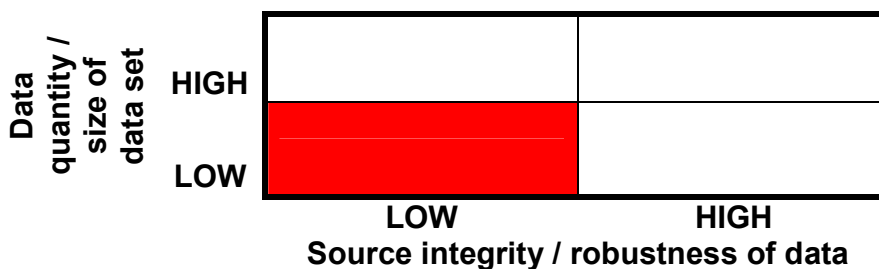
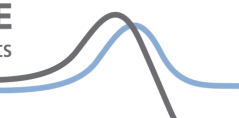


Figure 5 Confidence indicator for usage & lifespan data

Related MTP information

- BN-DICT PC 02: Government Standards Evidence Base 2009 – Reference Scenario, Domestic Computers
- BN-DICT PC 03: Government Standards Evidence Base 2009 – Policy Scenario, Domestic Computers
- BN-DICT PC 04: Government Standards Evidence Base 2009 – Best Available Technology (BAT) Scenario, Domestic Computers



- BN-NDICT PC 01: Government Standards Evidence Base 2009 – Key Inputs, Non Domestic Computers
- BN-NDICT PC 02: Government Standards Evidence Base 2009 – Reference Scenario, Non Domestic Computers
- BN-NDICT PC 03: Government Standards Evidence Base 2009 – Policy Scenario, Non Domestic Computers
- BN-NDICT PC 04: Government Standards Evidence Base 2009 – Best Available Technology (BAT) Scenario, Non Domestic Computers
- BN-DICT KO01: Government Standards Evidence Base 2009 – Key Outputs, Domestic ICT
- BN-NDICT KO01: Government Standards Evidence Base 2009 – Key Outputs, Non Domestic ICT

Changes from Version 1.0

- Text on new sources of evidence inserted.
- Minor changes to the template.

Consultation and further information

Stakeholders are encouraged to review this document and provide suggestions that may improve the quality of information provided, email info@mtprog.com quoting the document reference, or call the MTP enquiry line on +44 (0) 845 600 8951.

For further information on related issues visit <http://efficient-products.defra.gov.uk>