

# PHILIPS

## Philips Speech Processing

### EcoDesign on LFH9600/9620



Intuitive.  
The "One-Thumb Operation"

**Dictation Workload: difficult case - simple cure**  
Philips digital dictation systems can significantly ease production of even the most difficult case notes. Digital dictation is safe and fast, so your patients get their results earlier. The easiest way to increase your efficiency. For free demo of dictation solution to suit your need: [www.dictation.philips.com/promotion](http://www.dictation.philips.com/promotion) • Tel: 01206 755 550

**PHILIPS**  
sense and simplicity

## Warum EcoDesign ?

- Sustainability Approach von PHILIPS global – umweltgerechte Produktgestaltung ist ein wesentlicher Bestandteil
- ISO 14001 – erfordert auch kontinuierliche Verbesserungen auf Produktebene
- Geschäft entwickelt sich zusehend in „projectbusiness“  
→ Ausschreibungen
- Immer häufigere und detailliertere Anfragen über Umweltaspekte unserer Produkte (Großaufträge, „green“ catalogues,....)
- Globaler Klimawandel (CO<sub>2</sub>) ist eines **der** wichtigen Themen

**?? FRAGE ??**

**Welche globale Umweltauswirkung haben unsere Produkte ?**

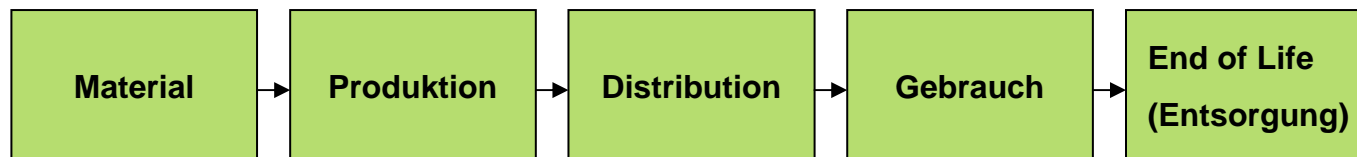
# PROJEKT „EcoToolbox“

Projektpartner:

- Technische Universität WIEN
- KERP
- PROFACTOR

Projektziel: Erstellung einer Toolbox zur Umweltgerechten  
Produktgestaltung


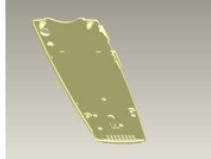
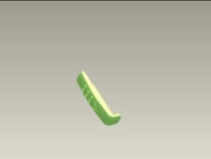

## Life Time Cycle Model





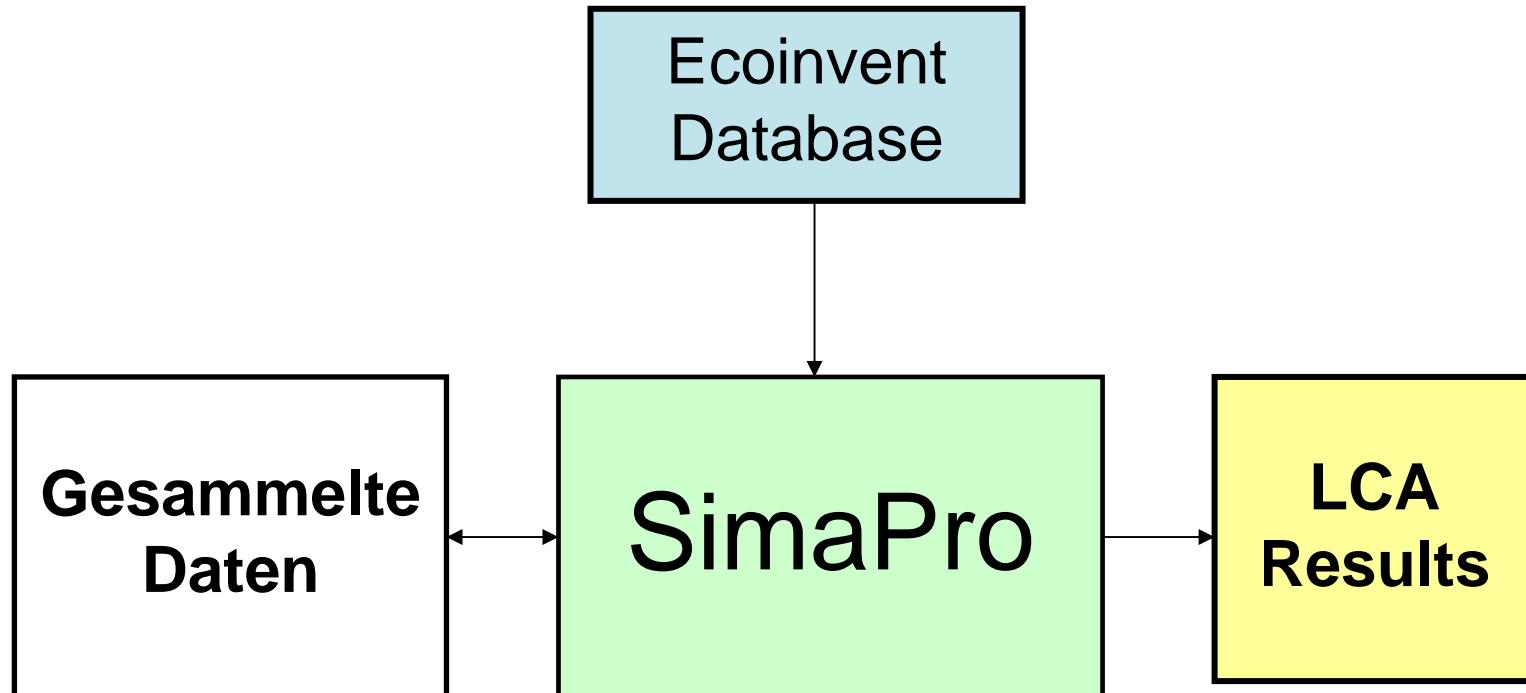
# 1. Schritt: Detaillierte Life Cycle Analyse von DPM2

## e.g. Material

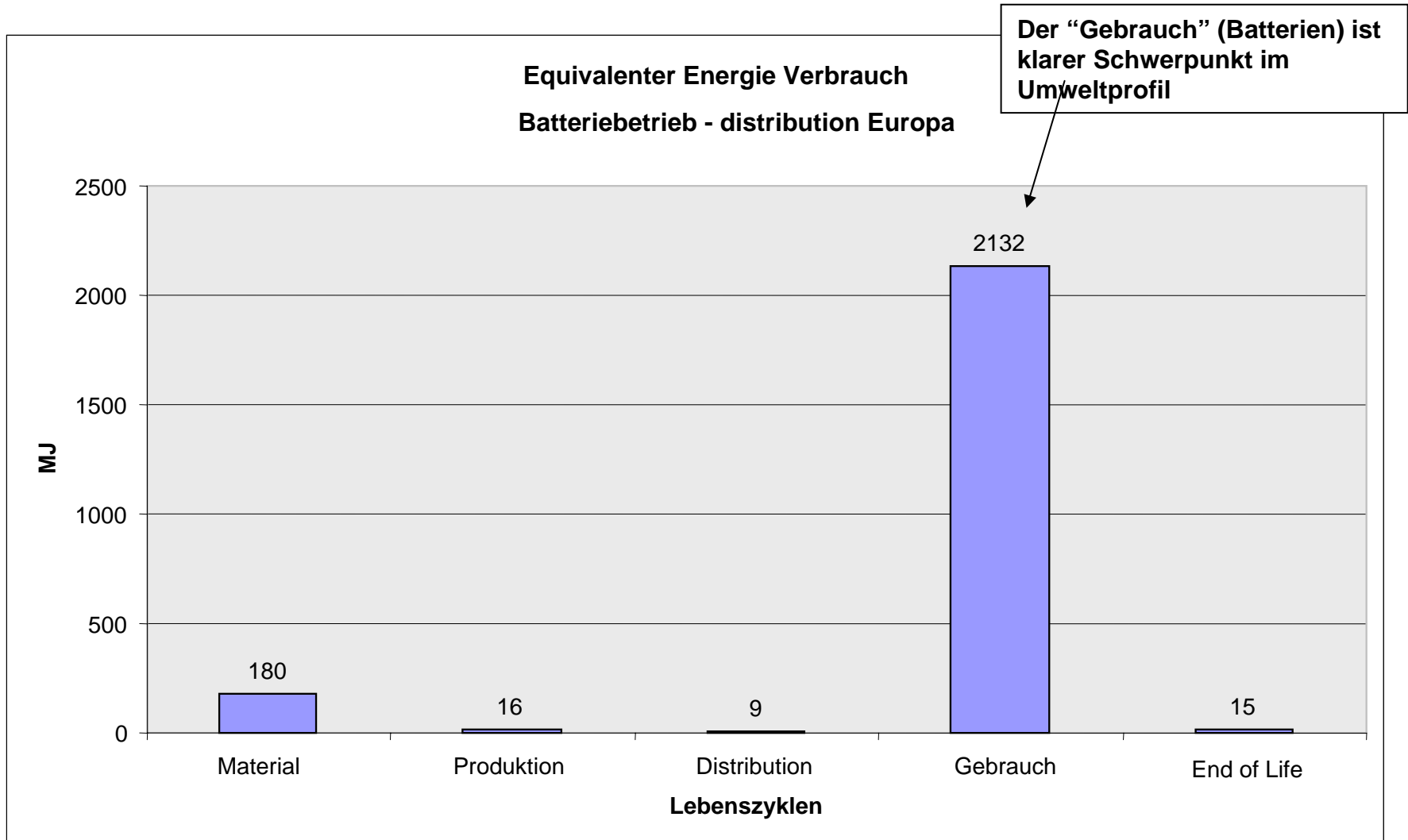
BG-Teil-Nr	Baugruppe-Teil	Material-Prozessname	Menge	Einheit
101-01		ABS	14,53	g
101-02		Spritzgießen	14,53	g
101-03		Lackieren und Bedrucken	19060	mm <sup>2</sup>
101-04		Transport, LKW < 3,5 t 590 km	8,5727	kgkm
102-01		ABS	5,04	g
102-02		Spritzgießen	5,04	g
102-03		Lackieren	11619	mm <sup>2</sup>
102-04		Transport, LKW < 3,5 t 270 km	1,3608	kgkm
103-01		ABS	0,927	g
103-02		Spritzgießen	0,927	g
103-03		Lackieren	973	mm <sup>2</sup>
103-04		Transport, LKW < 3,5 t 270 km	0,25029	kgkm
104-01		ABS	0,077	g
104-02		Spritzgießen	0,077	g
104-03		Lackieren	303	mm <sup>2</sup>
104-04		Transport, LKW < 3,5 t 270 km	0,02079	kgkm

- Jede einzelne Komponente wurde analysiert betreffend:
  - Verw. Material
  - Prozess
  - Oberflächenbehandlung
  - Transport
- Equivalente Analysen wurden für alle anderen Lebenszyklen durchgeführt

## 2.Schritt: Life Cycle Assessment Analyse von DPM2

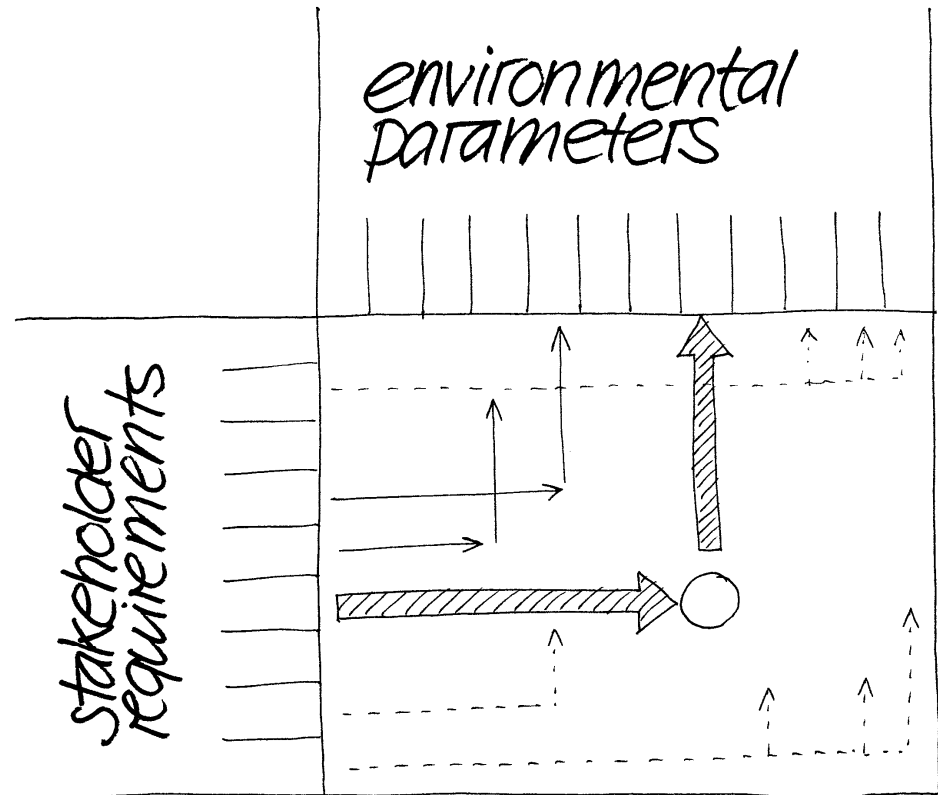


## 2. Schritt: LCA-Ergebnis = Umweltprofil von DPM2



### 3.Schritt: Stakeholderanalyse / Quality Function Deployment

- Auflistung aller rechtlichen Anforderungen  
z.B. RoHS-, WEEE-, EuP-Directive
- Auflistung aller Kundenanforderungen (LEAD-User)
- Relativierung mit Umweltaspekten



## 4. Schritt: Ableitung von Verbesserungspotenzialen

- Reduktion der Stromaufnahme ( Hardware + Firmware )
- Vermeidung der Verwendung von Primärbatterien  
→ Verwendung von wiederaufladbaren Batterien fördern
- Vermeidung von Verbundwerkstoffen (vereinfachtes Recycling)
- .....



## 5.Schritt: Umsetzung

### 1) Reduktion der Stromaufnahme:

Durch Optimierung der Firmware ( z.B. von C nach Assembler ) konnte die Stromaufnahme um fast 30 % gesenkt werden

### 2) Vermeidung von Primärbatterien:

Vorgängergerät wurde mit Primärbatterien ausgeliefert – Ladegerät und Akkus waren Zubehör.

Ladegerät und Akkus gehören jetzt zur Grundausstattung des Gerätes .

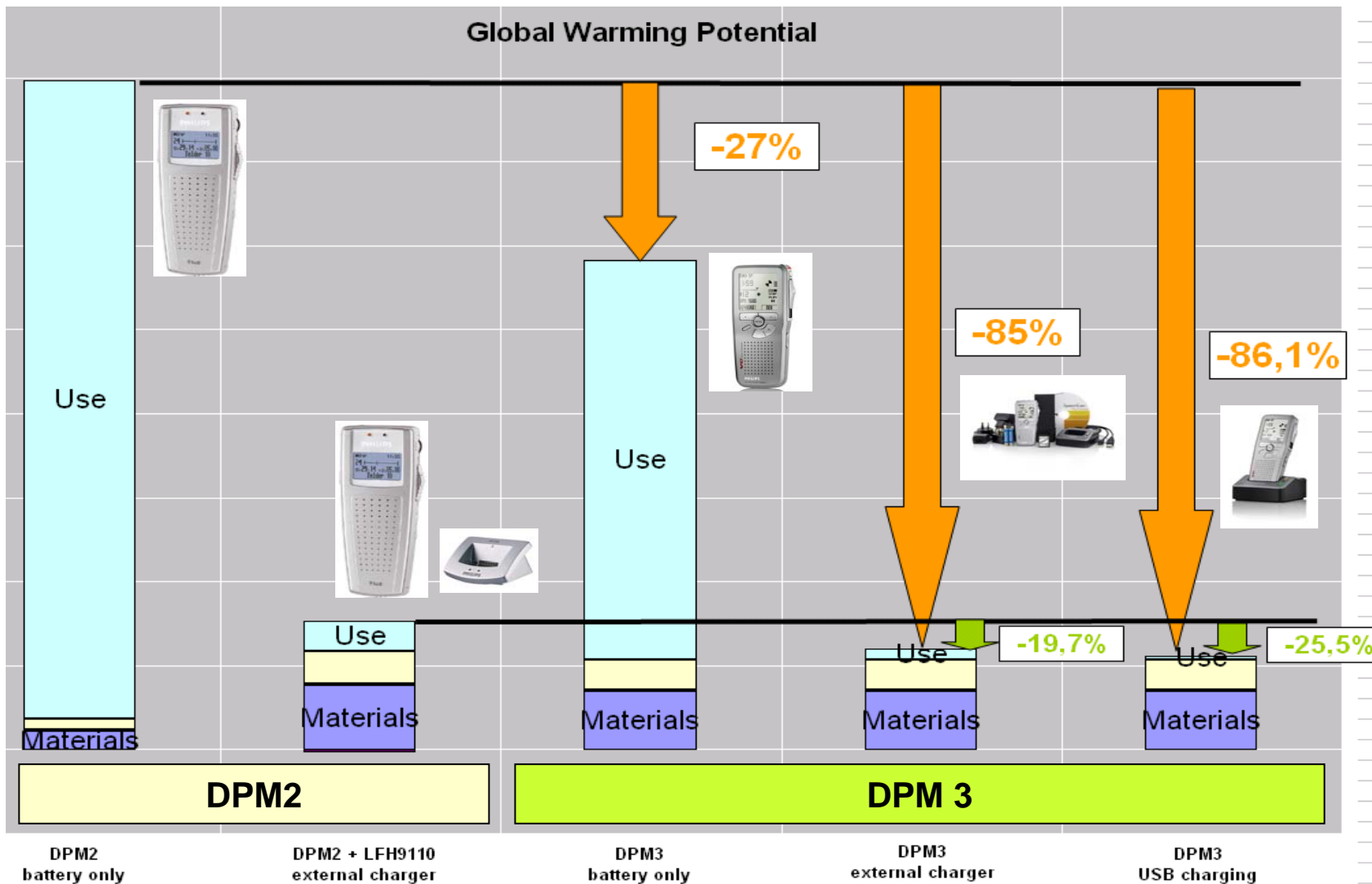
### 3) Vermeidung von Verbundwerkstoffen:

Durch Integration von mechanischen Funktionen konnte Teileanzahl um 30 % und Herstellkosten um 10 % gesenkt werden

# LFH 9600 / 9620



# Ergebnis ( Global Warming = CO<sub>2</sub> )



## Green Product Concept – Digital Pocket Memo

- Neu: 17 Std. Batterie-Lebensdauer ( statt 12)
- Wiederaufladbare Akkus und Ladestation beigepackt.
- 30% weniger Teile
- 10% geringere Montagekosten
- Intelligentes Ladekonzept, reduzierter Stand-by Energiebedarf (USB-Recharging).
- Design for Recycling (DfR) umgesetzt.



## Auszug aus dem ISO 14001 Audit Bericht Jänner 2007

Durchgeführt von ÖQS

....Im Zuge des Umweltmanagements wurde in Zusammenarbeit mit universitären Einrichtungen und Partnern ein Öko-Design Projekt durchgeführt, das mustergültig für die österreichische Wirtschaft ist.

Damit wurde eine Vorleistung in Richtung der im Entwurfsstadium vorliegenden Öko-Design Verordnung gemacht.

Es gilt nun, die Ergebnisse entsprechend zu vermarkten, um sich auch hier vom Mitbewerber abzugrenzen. ....

# Letzter Schritt: Environmental Product Declaration - Vermarktung

## Environmental Product Declaration—EPD

### Philips Digital Pocket Memo 9600/9620

This Environmental Product Declaration provides quantified environmental data and additional environmental information. The environmental data are based on critically reviewed Life Cycle Assessment result according to ISO 14040 series of standards.

#### Product Description



The Digital Pocket Memo® 9600/9620 is a handy, powerful and efficient device, comfortably to operate and offering latest recording technology with the 4-position switch. With the exchangeable Multimedia or SD-Cards, you have virtually unlimited recording time. Its ten user definable keywords allow easy file organization and archiving.

Voice files can be easily and quickly downloaded directly to your PC via a USB cable, the USB docking station or the optional LAN docking station for professional transcription.

The Digital Pocket Memo® is packaged with two rechargeable batteries, the external power supply unit, the USB docking station, the USB cable, the leather pouch, the quick reference guide, the SD memory card and the SpeechExec ProDictate, Philips' new dictation software that provides authors with easy-to-use functionality for organizing recordings. The software can also be configured to the user's preferences. Featuring a modern and intuitive user interface, authors can quickly and easily define urgent jobs and track work in progress.

The Digital Pocket Memo® 9600/9620 can be operated in three modes.



**A** The first modes consists of operating the Digital Pocket Memo LFH 9600/9620 with alkaline batteries. The information provided in this document for this mode is marked with "A"



**B** The second mode consists of operating the Digital Pocket Memo LFH 9600/9620 with rechargeable batteries and external power supply unit for recharging. The information provided in this document for this mode is marked with "B".



**C** This mode consists of operating the Digital Pocket Memo LFH 9600/9620 with rechargeable batteries and charging via the USB docking station only. The external power supply unit is not used in this mode. The information provided in this document for this product variant is marked with "C".

#### Information about the manufacturer

PHILIPS Speech Processing has more than 50 years of experience in the professional market for Dictation devices. The headquarter as well as the development and the production is located in the High Tech Campus Vienna. The production in Vienna is meeting the ISO 9001 and ISO 14001 standard. Dedicated sales clusters located in every continent ensure that the customer base get the best commercial and technical support.

PHILIPS is also the leader in the IVA ( International Voice Association ) who defined the well established DigitalSpeech®standard (DSS), which is an important element for the interoperability in modern, professional and digital dictation environment. As a globally acting company PHILIPS has defined a public Sustainability Policy and has initiated a lot of activities to improve the portfolio.



## Description of the Life Cycle Stages and Life Cycle Data

The Life Cycle Data covers the life cycle stages as shown below.

### Materials



This stage includes extraction of resources from nature, transport to the processing sites and then producing raw materials. For the supply parts additionally the manufacturing process, surface treatment and transport have been considered for this stage. Only materials exceeding 5g are shown here.

Materials	[g]
ABS	80.08
Aluminium	22.68
Copper	38.73
Glass	6.33
Leather	17.70
Paper	361.70
PC	19.60
Printed wire board	62.42
PVC	57.48
Steel	34.74

### Manufacturing



This stage includes entire energy and processes materials needed for the assembly of the Digital Pocket Memo. Recycling of the waste at the manufacturing site is considered.

Materials	waste [g]	recycling
Cardboard	47.28	-46.33
PET	17.10	-15.94
Energy	[kWh]	
Electricity	0.55	

### Distribution



This stage includes the packaging and an average transport scenario to deliver the Digital Pocket Memo from the manufacturing site in Vienna to customers worldwide.

Materials	[g]
Cardboard	113.60
Paper	70.00
Transport	[kgkm]
Airplane	4142.7
Truck	2672.7

### Use



For operation mode A this stage includes the consumption of alkaline batteries, for the operation mode one set of rechargeable batteries are needed additionally electricity to recharge the batteries. In this mode B also stand-by consumption of the external power supply unit is considered. For mode C one set of rechargeable batteries as well as electricity for charging are considered. In this mode no stand-by consumption occurs since the USB station is directly supplied from the PC or Laptop.



Materials	
Batteries	500 p
Energy	[kWh]
Electricity	0.0



Materials	
Batteries	2 p
Energy	[kWh]
Electricity	9.72



Materials	[g]
Batteries	2 p
Energy	[kWh]
Electricity	2.0

### End of life



This stage includes recycling of materials, minimum 65% of the worn out Digital Pocket Memo according to the requirements of the WEEE-directive\*. No energy for transport or recycling processes has been considered.

Material	recycling	[g]
ABS		-78.48
Aluminium		-22.23
Copper		-37.96
Paper		-354.47
PC		-19.21
Steel		-34.05

\* DIRECTIVE 2002/96/EC on waste electrical and electronic equipment

## KONKLUSION:

- Detaillierte Informationen über die Umweltauswirkungen unseres Produktes sind nun verfügbar
- Verbesserungspotentiale konnten gezielt identifiziert werden
- Gut gerüstet für EuP

Die erzielten Verbesserungen können nun entsprechend

### VERMARKTET

werden und zwar aus

- UMWELTSICHT (EPD)
- PRODUKTSICHT (Features)



TWANN YOU