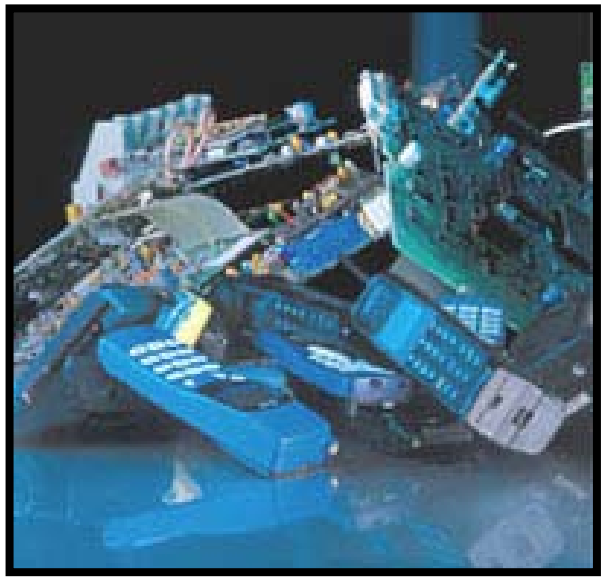
EESTI ELEKTRI- JA ELEKTROONI-KASEADMETE JÄÄTMETE TEKKEVOOGUDE HINDAMINE



KOKKUVÕTE

Uuringu eesmärk oli hinnata ligilähedaselt aastast Eestis tekkivat elektri ja elektroonikasedmete jäätmete (WEEE) kogust. Uuringus kasutatud andmed on pärit erinevatest statistilistest materjalidest ja elektri- ja elektroonikaseadmete (EEE) maaletoojate küsitlustest. Statistiliste andmete allikateks olid Tolliamet ja Statistikaamet.

WEEE koguste arvetsamiseks on kasutatud kahte meetodit. Esimene meetod põhineb lineaarsel arvestusel, võrreldes ühte riiki teisega. Teine meetod põhineb leibkondades kodumasinete ja –elektroonika seadmete olemasolu (penetratsiooni) määral.

Uuringust võib teha alljärgnevad järeldused:

- Lineaarse hindamismeetodi kohaselt on aastane Eestis tekkiva WEEE määr **20 000- 25 000** tonni (võrreldes Soome näitajatega). Tuginedes aga faktile, et arvestuses ei ole arvesse võtetud leibkondade ostujõu erinevust, võib nimetatud kogust pidada ka natuke liialdatuks.

- Leibkondades kodumasinete ja –elektroonika seadmete olemasolu määral põhineva meetodi kasutamise tulemusel saadi aastas tekkivaks WEEE koguseks **9 000 – 13 000** tonni. See meetod annab oletatatvasti täpsema hinnangu tekkivale WEEE kogusele.

- Levinumate EEE import on kasvanud viimase 5 aasta jooksul. Kaalutud keskmine EEE impordi kasv on 4,8 protsenti aastas. WEEE kogused kasvavad hinnanguliselt 3 – 5 protsenti aastas.

- Kasutatud EEE impordi osakaal kogu EEE impordis on väga vähene. Ometi mõndade seadmete puhul on impordi osakaal 10% kandis. Kasutatud EEE import koosneb suurel määral suurtest kodumasinatest nagu näiteks külmikud.

- Üldine teadmiste tase Eesti uue kohaliku jäätmeseaduse eelnõu ja Euroopa Liidu direktiivide (WEEE ja RoHS) osas ei ole eriti kõrge. Jämedalt 50% EEE maaletoojatest ei ole teadlikud uuest kohalikust jäätmeseaduse eelnõust ja 75% ei ole teadlikud neid puudutavatest Euroopa Liidu WEEE ja RoHS direktiividest.

- Küsitluse tulemustest lähtub, et keskonnahoiu aspect mängib vähetähtsat rolli EEE maaletoojate hulgas. Ainult mõnedes on tool keskkonnajuht või vastutus keskkonaalaste teemade eest on antud mõne muu valdkonna juhile.

- Uuringu käigus selgitati välja oluliseimad EEE maaletoojad perioodil 1998 – 2002.

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1 SISSEJUHATUS

1.1 Mis on elektri- ja elektroonikaseadmete jäätmed?

Elektri- ja elektroonikaseadmete jäätmed (WEEE) on üks kiiremini kasvav jäätmeliik arenenud maailmas. Lääneriikide valitsuste kasvav mure WEEE pärast on põhjustatud alljärgnevast:

- Elektri- ja elektroonikaseadmete jäätmete **kiire kasv**. 1998 aastal tekkis Euroopas 6 miljonit tonni WEEE (4% olmejäätmete üldmahust). WEEE oodatav kasv on tulevikus vähemalt 3-5 % aastas. See tähendab, et 5 aasta pärast tekib 16-28% rohkem WEEE-d ja 12 aasta pärast see määr kahekordistub. WEEE kasv on umbes 3 korda kõrgem, kui keskmine olmejäätmete tekke kasv.

- Seoses sellega, et WEEE sisaldavad **ohtlikke aineid**, võivad nad põhjustada suuri keskkonnaprobleeme ilma neid eelkäsitlemata. Rohkem, kui 90% WEEE läheb tänapäeva Euroopas veel ladestamisele või põletamisele ilma eeltöötlemiseta ehk ohtlike komponente eemaldamata. Suur osa segaolmejäätmetes sisalduvatest ohtlikest ainetest on pärit WEEE-st.

- Elektri- ja elektroonikaseadmete tootmisest tulenev **keskkonnakoormus** on suurem kui ükskõik millise muu materjali tootmisest tulenev keskkonnakoormus olmejäätmevoos. Järelikult peaks tõhustatud WEEE ringlussevõtt olema oluline faktor ressursside, eriti energiaressursi kaitsmisel.

Vastavalt WEEE-direktiivile saab elektri- ja elektroonikaseadmeid kategoriseerida kümnesse gruppi.
Need on:

- Suuremõõtmelised majapidamisseadmed
- Väikesemõõtmelised majapidamisseadmed
- Arvuti- ja telekommunikatsiooniseadmed
- Tarbeelektroonika seadmed
- Valgustusseadmed
- Elektrilised ja elektroonilised tööriistad
- Mänguasjad
- Meditsiiniseadmete süsteemid
- Seire- ja kontrolliaparatuur
- Müügiautomaadid

Lubatud on ka teistsugused kategoriseeringud.

1.2 Euroopa Liidu seadusandlus

Elektri- ja elektroonikaseadmete jäätmeid puudutavaid direktiive on kolm. Need on WEEE, EEE (asendub tulevikus EuE direktiiviga) ja RoHS direktiivid. Iga direktiivi kohta on toodud lühiülevaade käesoleva dokumendi lisades II, III ja IV (inglise keeles)

Vastavalt Lepingu artiklis 174 kehtestatud nõudele, aitab elektri- ja elektroonikaseadmete jäätmete direktiiv (WEEE) kaasa inimtervise ja keskkonna kaitsele. Ettepaneku põhiliseks eesmärgiks on kaitsta pinnast, vett ja õhku EEE jäätmekorraldusest tuleneva saastatuse eest, hoiduda äraviskamisele kuuluvate jäätmete tekitamisest ning vähendada WEEE jäätmete kahjulikku mõju. Püütakse säilitada väärtuslikke varusid, eelkõige energiavarusid. Direktiivi teine eesmärk on harmoneerida EEE jäätmekorralduse siseriiklikke meetmeid.

Eesmärgid saavutatakse läbi ulatuslike abinõude, milleks on 1) WEEE kogumine lahus ülejäänud jäätmete kogumisest, 2) WEEE töötlemine ja 3) WEEE taaskasutamine.
RoHS direktiiv täiendab WEEE direktiivi hõlmates lisaks juba nimetatud seadmete kategooriatele ka koduses majapidamises kasutatavaid elektripirne ja valgusteid. Direktiiv näeb ette järgnevate ohtlike ainete asendamise (nt järk-järgulise kaotamise) 1. juuliks 2006.a:

- Plii
- Elavhõbe
- Kaadmium
- Kuuevalentne kroom
- Broom(2) tuletõkestajad (PBB ja PBDE)

Direktiivi ei kohaldata varuosade ega enne 1. juulit 2006.a turule tulnud elektri- ja elektroonikaseadmete taaskasutamise puhul. Antud kohustus ei kohaldu ka meditsiiniseadmetele ning seire- ja kontrolliaparatuurile. Tingimuslikud erandid kehtivad ka väikesemõõdulistes luminofoorlampides kasutatavale elavhõbedale, katoodkiiretorudes (elektronkiiretorudes) kasutatavale pliile ning mõnedele pehmejoodistele.

Võidakse esitada ka täiendavaid erandeid sisaldavaid muudatusi seadmete osas, kus asendusaineid ei ole võimalik kasutada või kus asendusainete kasutamine on tervisele või keskkonnale isegi kahjulikum. Eri materjalides/komponentides kasutatavatele keelatud ainetele võidakse määrata kontsentratsiooni maksimaalne "taluvusmäär".

Euroopa Komisjon on avaldanud tööaruande, milles sisaldub algne tekst kavandatava EuP direktiivi kohta: "direktiiv peaks harmoneerima lõppotstarbe-seadmete disaini selleks, et tagada nende toodete vaba liikumine siseturul, eesmärgiga parandada antud toodete mõju keskkonnale. Seetõttu peaks antud direktiiv ette nägema säästva arengu põhimõtetele vastava ressursside efektiivsema kasutuse ning keskkonnakaitse kõrge taseme."

Ühendades kaks juba olemasolevat Euroopa Liidu algatust, so "EEE" (elektri- ja elektroonikaseadmete mõju keskkonnale) ja "EER"-i (energia efektiviseerimise nõuded), soovitakse luua ühtne raamdirektiiv.

Raamdirektiivi eesmärk on tagada lõppotstarbe-seadmete vaba liikumine siseturul, mis toimub integreerides keskkonnaaspekte tootedisaini ja –arendusse ning kehtestades öko-disaini nõuded antud seadmetele.

Lisaks sellele seab antud direktiiv tingimused spetsiifiliste ökodisaini nõuete määramiseks, ning metodoloogia, mille alusel nende nõuete tase määratakse kindlaks.

Euroopa Komisjoni konsultatsiooniperiood EuP küsimuses jõuab lõpule 2003. aasta mais. Esimene lugemine parlamendis peaks toimuma 2003. a detsembris, ning direktiiv peaks rakenduma 2005. aastal.

1.3 Uuringu eesmärk

Uuringu peamine eesmärk oli teostada üldisel tasemel WEEE tekke kaardistus ja viia läbi importööride küsitlus.

Uuring sisaldab alljärgnevaid osi:

- WEEE määrade arvestamine ja olulisimate allikate kindlakstegemine
- Kasutatud EEE impordi määrade väljaselgitamine
- Üldise importööre ja tootjaid puudutava kohaliku ja Euroopa Liidu seadusandluse kohase teadmiste taseme väljaselgitamine

2 UURINGU MEETODID

2.1 Statistilised meetodid

Ekspordi ja impordi kohased statistilised andmed (periood 1998-2002) pärinevad Eesti Tolliametist ja Eesti Statistikaametist. Statistilisi andmeid on kasutatud Eestisse sisseveetud ja siit väljaveetud EEE koguste kindlaksmääramisel. Statistika Eesti leibkondade elujärjest leidis kasutamist kodumajapidamistes kasutatavate EEE määrade kindlakstegemisel.
Statistilisi andmeid Eesti Keskkonna Informatsiooni Keskusest kasutati uuringus WEEE käitlemise hetkeolukorra väljaselgitamiseks.

Kogu Eesti WEEE tekke hindamiseks on kasutatud uuringus kahte meetodit:

1. **Meetod**
   Lineaarne oletus Riik1 ja Riik2 vahel juhul, kui Riik1 WEEE kogused on teada. See meetod eeldab, et WEEE tekkekogused inimese kohta ühes aastas on mõlemas riigis võrdsed.

$$KOGUS(Riik1) \Rightarrow \frac{\text{Elanike arv(Riik1)}}{\text{Elanike arv(Riik2)}} * KOGUS(Riik2)$$

2. **Meetod**
   Teine meetod põhineb nn. "valge tehnika" (külmikud, pesumasinad, nõudepesumasinad jne) olemasolu tasemel. Kogu leibkondades kasutusel oleva EEE määra saab välja arvestada, kui leibkondade arv ja EEE olemasolu määr leibkonnas on teada. Keskmise tekkiva WEEE aastase määra saab välja arvestada jagades kogu kasutuseloleva EEE määra keskmise seadme kasutusajaga aastates. Samuti on teada, et "valge tehnika" moodustab keskmiselt 2/3[1] kogu tekkivast WEEE määrast

$$KOGUS(E1...En) \Rightarrow \frac{PENETRATSIOON(E1...En) * KOGUS(LEIBKOND)}{Keskmine\ kasutusaeg(E1...En)}$$

$$KOGUS(\text{"ValgeTehnika"}) \Rightarrow KOGUS(E1)+...+KOGUS(En)$$

$$KOGUS(KOGU) \Rightarrow \frac{KOGUS(\text{"ValgeTehnika"})}{2/3}$$

2.2 Küsitlus

Küsitluse eesmärk oli koguda informatsiooni alljärgnevate asjade kohta:

- Kohaliku ja Euroopa Liidu seadusandluse kohane teadmiste tase
- Suhtumine keskkonnahoidu ja säästvasse arengusse
- Roll EEE distributsiooni ja müügi ketis

Sihtgrupp:

- Olulisimad EEE importöörid. Valik põhineb import statistika (periood 1998 – 2002) töötlemisel

[1] WEEE recycling and automated above/below ground waste/recycling collection systems in the Netherlands. 2001. Robert Long Consulting.

Tabel 1 sisaldab väljasaadetud uuringu tutvustuste ja küsimustike ning täidetud küsimustike arvu.

***Tabel 1**. Intervjuude valimi suurus ja vastanute arv*

Sihtgrupp	Valimi suurus	Täidetud küsimustikke	Vastanute %
Importers	123	32	26%

2.3 Statistilise uuringu tulemused tootegrupiti

Joonistel 1 ja 2 on kujutatud penetratsiooni määra protsentides, mis näitab selget kasvu igas kategoorias viimaste aastate lõikes.

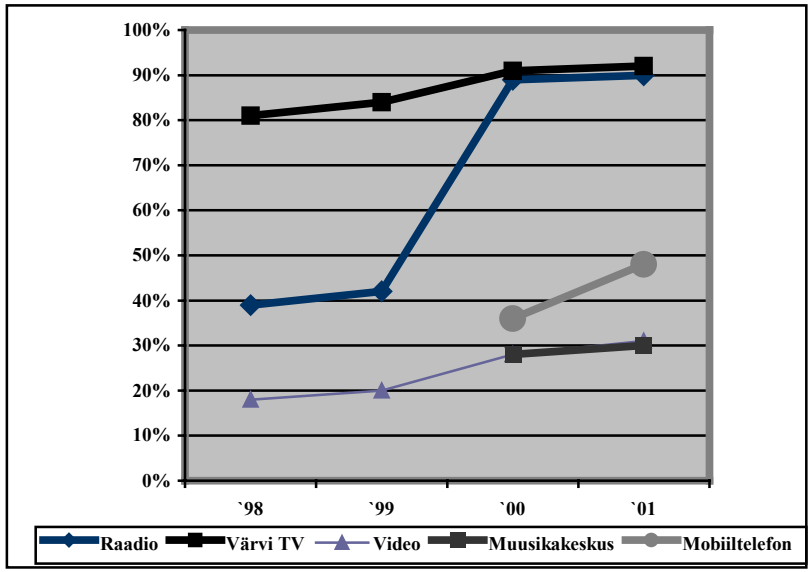


***Figure 1**. Levinumate olmeelektroonikaseadmete penetratsioon Eesti leibkondades*

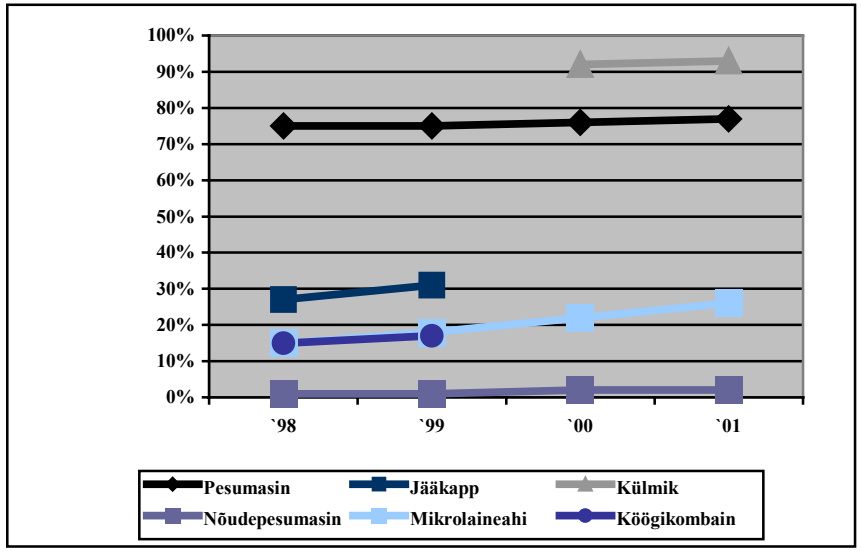


***Figure 2.** Olmes kasutatavate "valge tehnika" penetratsiooni määrad Eesti leibkondades.*

Keskmine penetratsiooni määr koduelektroonika seadmete (joonis 1) osas on kaks korda suurem (22%), kui võrreldav penetratsiooni määr nn. *"valge tehnika"* kategooriaga (joonis 2), kus kasv on tunduvalt stabiilsem (10%).
Seda näitajat võib võtta ka indikaatoriks tuleviku WEEE määrade hindamisel ja arvestamisel.

Mõne seadme kohta on andmed saadaval vaid alates aastast 2000. Sügavkülmikute ja köögikombainide kohta pole eraldi infot saadaval aastast 2000 alates. Hoolimata sellest väljendavad olemasolevad andmed mõningaid trende. Kiireim kasv on mobiiltelefonide ja mikrolaineahjude osas.

Hoolimata muutustest penetratsiooni määrades ja mõningaste statistiliste andmete puudumises mõningate perioodide osas, on need andmed väärtuslikud aitamaks hinnata kogu WEEE teket kodumajapidamistes.

Ajavahemikul 1998 kuni 2001 oli keskmine leibkondade arv Eestis ca 600 000[2] .
Tabel 2 näitab mõnede Eesti kodumajapidamistes kasutuselolevate EEE üldkogust, mis on arvestatud lähtudes penetratsiooni määrast. Samuti on tabelis 2 toodud välja ka keskmised seadmete kaalud ja seadmete kogukaal tonnides. Andmed põhinevad perioodi 1998 – 2002 keskmistel seadmete kogustel. Tuginedes sellele statistikale võib oletada, et keskmiselt on Eesti kodumajapidamistes kasutusel koduelektroonika- ja olmetehnikat koguses 88 500 tonni.

Tabel 2. *WEEE potentsiaal Eesti kodumajapidamistes 1998 - 2001*[3]

Seade	**Kokku ühikuid leibkondades**	**Ühiku kaal (kg)**	**Kogukaal (tonni)**
Värvi TV	522 000	24	1253
Raadio	390 000	-	-
Video	145 500	2,5	364
Mobiiltelefon	252 000	1	252
Muusikakeskus	174 000	-	-
Pesumasin	454 500	85	38 632
Sügavkülmik	180 000	60	10800
Külmik	558 000	60	33480
Nõudepesumasin	12 000	52	624
Mikrolaineahi	121 500	25	3037
Köögikombain	102 000	1	102
Kokku			**88544**

[2] Leibkonna elujärg 2000, Eesti Statistikaamet &
Leibkonna sissetulek ja kulutused 1998 - 1999, Eesti Statistikaamet
[3] Leibkonna elujärg 2000, Eesti Statistikaamet &
Leibkonna sissetulek ja kulutused 1998 - 1999, Eesti Statistikaamet

Tabel 3 sisaldab olulisemate EEE kategooriate impordi näitajaid. Näitajad põhinevad tollistatistikal. Viimases veerus on toodud välja keskmine aastane EEE impordi juurdekasv perioodil 1999 – 2002. Impordi statistikat saab kasutada WEEE aastase kasvu arvestamisel. Nagu näha kasvu näitajatest, on mõningate seadmekategooriate kasv märgatavalt oluline. Tarbeelektroonika ja elektriliste tööriistade kategooriates on täheldada isegi vähenemist, võrreldes aastat 2000 sellele eelnenud aastaga.

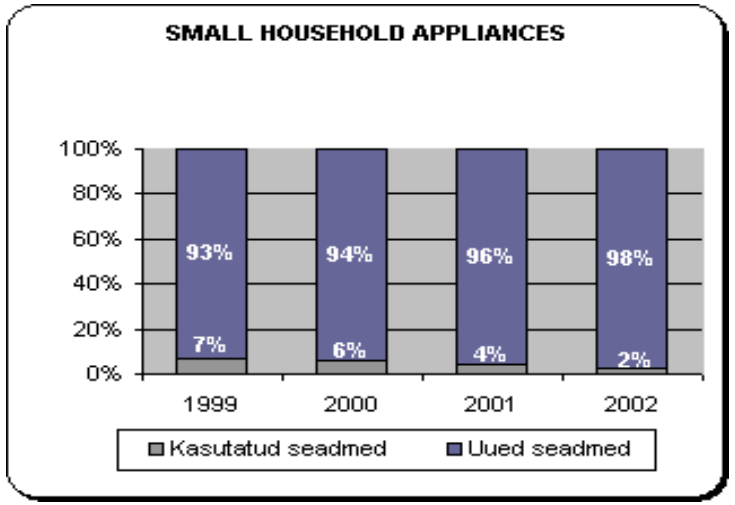
Tabel 3*. Olulisemate EEE importkategooriate lõikes perioodil 1999 – 2002 (1000 ühikut,va.valgustusseadmed grupp 1 on tonnides).*[4]

Toote kategooria	1999	2000	2001	2002	Aastane kasv
Suured kodumasinad	480	480	581	561	4,0 %
Väikesed kodumasinad	228	202	228	240	1,3 %
IT ja telekommunikatsiooni seadmed	491	474	470	588	4,6 %
Tarbeelektroonika	192	145	148	149	- 6 %
Valgustusseadmed Grupp 1(tonni)	1714	2050	2484	2733	12,5 %
Valgustusseadmed Grupp 2	168	166	150	198	4,0 %
Elektrilised ja elektroonilised tööriistad	75	12	143	185	25,4 %

[4] Eesti Tolliameti statistika

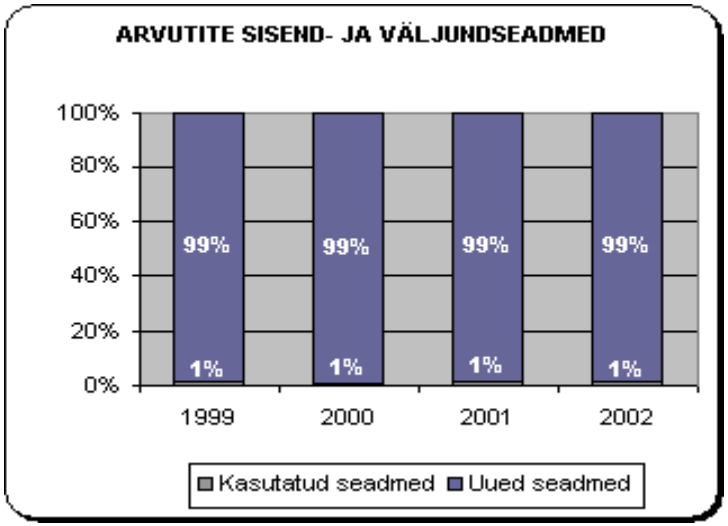
2.4 Kasutatud seadmete import

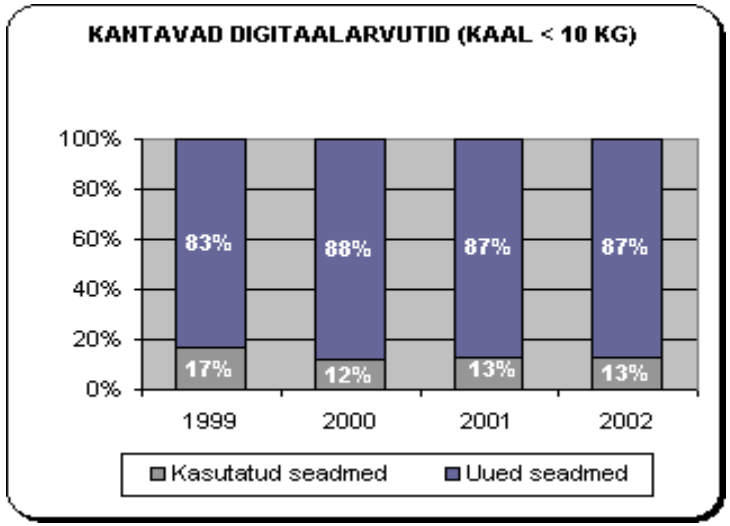
Tollistatistikale tuginedes on võimalik osade kategooriate kohta arvestada välja ka kasutatud EEE importi. Graafikutel 3 – 9 on toodud välja uute ja kasutatud EEE suhe kogu konkreetse EEE importi. Nagu näha graafikutel 3 – 9 on suurema hulga kasutatud EEE import võrreldavate perioodide jooksul pideva kahaneva loomuga. Erinev on situatsioon vaid arvutite kategoorias, kus kahanemine on alanud alles aastal 2001, sinnamaani oli kasutatud arvutite import pidevalt kasvanud. Sellist trendi võib seostada ka sellega, et Eesti impordib märgatavalt suures koguses erinevaid komponente ning arvutite kokkupanemine toimub kohapeal. Muude kodumasinate valmistamise kohta kohalikul turul aga sellises ulatuses informatsioon puudub. Samuti suurte kodumasinate kategoorias võis täheldada möödunud aastatel märkimisväärset kasutatud masinate impordi osatähtsust, kuid ka selles kategoorias on aastatel 2001 ja 2002 nende osakaal kiiresti kahanenud.



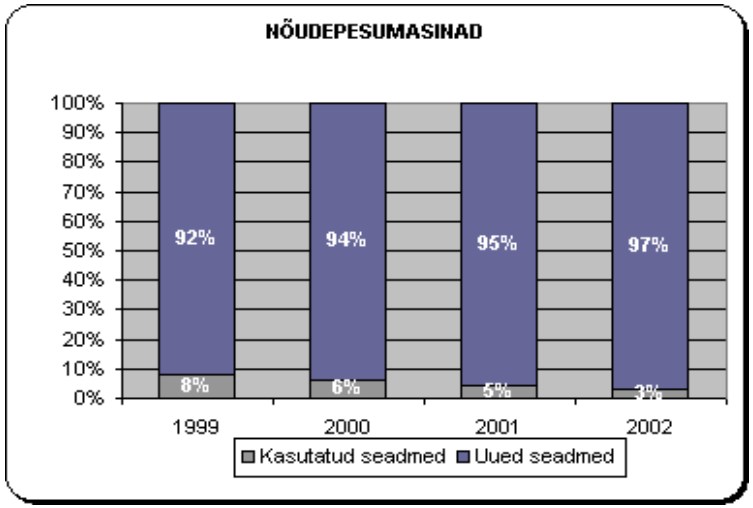
Graafik 4 . *Kasutatud ja uute väikeste kodumasinate import.*

Graafik 3 . *Kasutatud ja uute arvutite sisend- ja väljundseadmete import.*

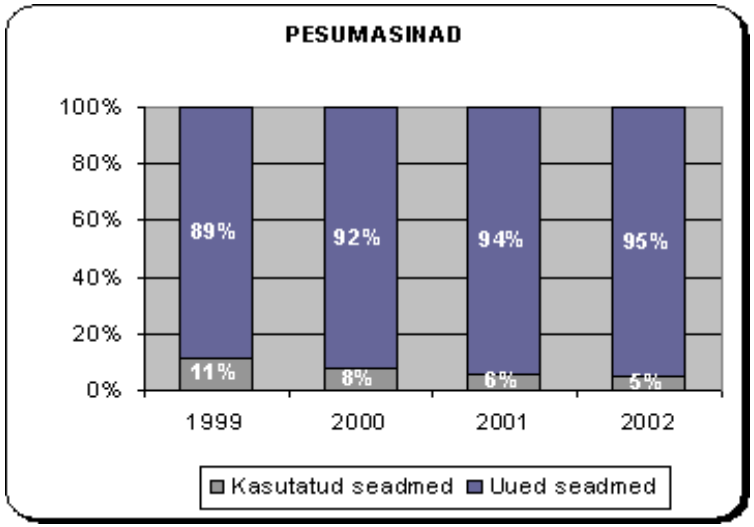




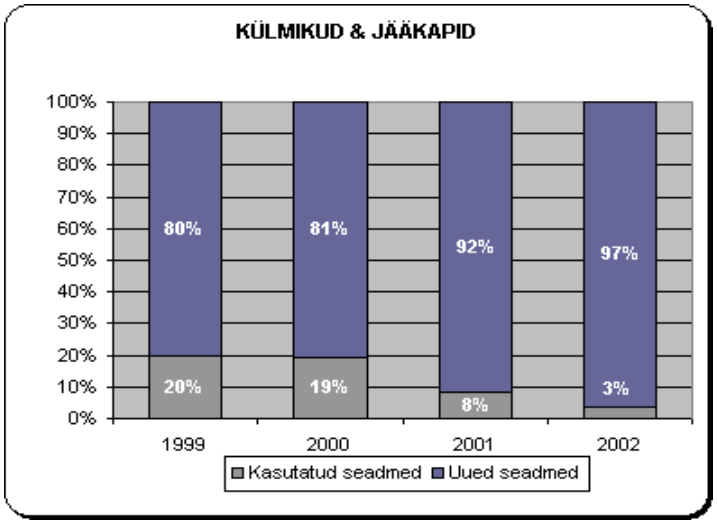
Graafik 5 . *Kasutatud ja uute kantavate digitaalarvutite import..*



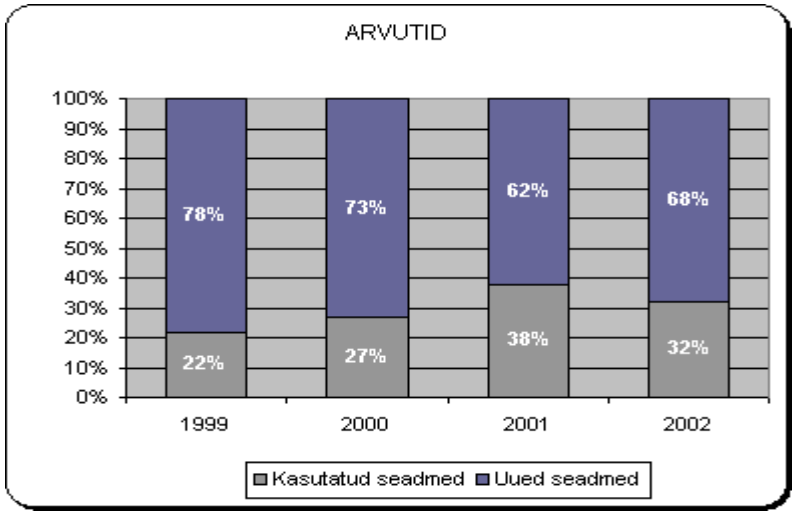
Graafik 6 . *Kasutatud ja uute nõudepesumasinate import.*



Graafik 7. *Kasutatud ja uute nõudepesumasinate import.*



Graafik 8 . *Kasutatud ja uute külmikute ja jääkappide import.*



Graafik 9. *Kasutatud ja uute arvutite import*

2.5 Küsitluste tulemused

Tabelites 4 – 11 on esitletud küsitluste tulemused, mis viidi läbi EEE maaletoojate hulgas. Esitletud on esitatud küsimus ja vastusevariandid. Mõningatel juhtudel on täidetud ka kommentaaride osa (juhul, kui vastajad pidasid vajalikuks kommentaare esitada).

Tabel 4. *Küsimus 1.*

Millist rolli mängib Teie asutus / ettevõte elektri- ja elektroonikaseadme tootmise-impordi-distributsiooni-müügi-kasutuse-hoolduse/remondi-kasutuselt kõrvaldamise ahelas?	Vastuseid	%
import/hulgimüük/jaemüük/hooldus	11	34
import/hulgimüük/hooldus	2	6
import/jaemüük	5	16
import/hulgimüük	9	28
import/hulgimüük/jaemüük	3	9
tootja/import/hulgimüük	1	3
import/jaemüük/hooldus	1	3

Tabel 5*. Küsimus 2.*

Milline on ettevõtte suhe keskonnajuhtimissüsteemidega(KJS)?	Vastuseid	%
ei ole plaanis juurutada	19	66
KJS on plaanis hakata juurutama	7	24
KJS on juurutatud ja sertifitseeritud rohkem, kui 1 aasta tagasi	2	7
KJS on juurutatud ja sertifitseeritud vähem, kui 1 aasta tagasi	0	0
KJS juurutamine on töös	1	3

Tabel 6*. Küsimus 3.*

Millisel tasemel ollakse Teie ettevõttes/asutuses teadlikud uuendustest, mida toob kaasa uue kohaliku jäätmeseaduse vastuvõtmine ja mis kohalduvad elektri- ja elektroonikaseadmete maaletoojatele ja tootjatele?	Vastuseid	%
täielikult teadlikud	1	3
üleüldiselt teadlikud, kuid mitte detailidega	15	47
ei ole teadlikud	16	50

Tabel 7. *Küsimus 4.*

Millisel tasemel ollakse Teie ettevõttes/asutuses teadlikud elektri- ja elektroonikaseadmetele kohalduvatest Euroopa Liidu direktiividest 2002/96/EÜ ja 2002/95/EÜ?	Vastuseid	%
täielikult teadlikud	0	0
üleüldiselt teadlikud, kuid mitte detailidega	8	26
ei ole teadlikud	23	74

Tabel 8. *Küsimus 5.*

Kas ja milliseid ettevalmistusi olete sellega seoses teinud?	Vastuseid	%
jah	3	10
ei	28	90

***Tabel 9**. Küsimus 6.*

10. Kas Teie ettevõttes/asutuses on tööl keskkonnajuht?	Vastuseid	%
jah on tööl erialase väljaõppe saanud spetsialist	0	0
jah on tööl, kuid ilma erialase väljaõppetta	1	3
ei ole tööl keskkonnajuhti, kuid selle valdkonna eest vastutab		
peadirektor	3	9
turundusdirektor	0	0
müügidirektor	1	3
tootmisdirektor	1	3
teenindusdirektor	0	0
kui keegi muu, siis palun täpsustada	5	16
ei ole	21	66
Kommentaar: kui on nimetatud "keegi muu", siis on selleks hooldusjuht või haldusjuht		

***Tabel 10.** Küsimus 7*

Kui mõnele brandile kohalduvad mingisugused tootjapoolsed keskonnahoiuga seotud nõudmised, siis palun kirjeldage neid alljärgnevalt lühidalt:	Vastuseid	%
jah	3	11
ei	24	89
Kommnetaarid: Canon (kasutatud toonerkassettide korduvkasutussüsteem Euroop Liidu piires), Xerox(tühjade tindikassettide tagasivõtt), Ricoh (väljavõte: pressikonverentsil Münchenis 19.05.2003 hindas Ökom Research AG - Saksamaa keskkonnahinnangute agentuur - Ricoh`i keskkonansõbralikumaks ettevõtteks 39 rahvusvahelise IT ja elektroonikatööstuse ettevõtte hulgas).		

***Tabel 11.** Küsimus 8.*

Vanade seadmete saatus. Kas olete korraldanud vanade seadmete uute vastu vahetamise aktsioone keskkonnahoiu eesmärgil?	Vastused	%
jah, teeme seda regulaarselt	0	0
jah, kuid mitte regulaarselt	7	25
ei ole	21	75
Kommentaar: Juhul, kui küsitud kampaaniaid on korraldatud, on levinumad praktikad järgmised: toimetatud metallijäätmete töötlejale, saadetud tagasi tootjale (juhtudel, kui kampaania on korraldatud tootja poolsel initsiatiivil), varuosadeks võtmine, renoveerimine, komponentide taaskasutamine, ülejääk prügilasse		

3 JÄRELDUSED

3.1 WEEE allikad ja kogused Eestis

Tuginedes teistele Euroopas läbiviidud WEEE uuringutele järeldub, et väikesed ja suured kodumasinad, tarbeelektroonika, IT ja telekommunikatsiooniseadmed moodustavad suurema enamuse WEEE kogustest (umbes 70 – 75 %)[5] Soomes näiteks moodustavad 80% WEEE-st väikesed ja suured kodumasinad, tarbeelektroonika, IT ja telekommunikatsiooniseadmed.[6]

Esimene meetod, mida on kasutatud WEEE koguste hindamiseks ja leidis esitlemist osas 2.1, oletab, et WEEE kogused kasvavad lineaarselt elanike arvuga. Aastal 1996 oli Soomes tekkiva WEEE kogus umbes 70 000 – 100 000[7] tonni.
Teine uuring annab aga veelgi täpsemad WEEE kogused: 70 000 – 75 000[8] tonni aastas. Antud uuringu arvestustes on tuginetud faktile, et Soome rahvaarv on 5,1 miljonit elanikku ja Eesti rahvaarv on 1,3 miljonit elanikku.

Selline lineaarne hindamismeetod ei ole kuigi täpne, kuid annab siiski võimaluse umbkaudseks hinnanguks. EEE kasutusaeg erineb riigiti. Muud faktorid mida peaks lisaks arvestama ja võrdlema riigiti on muuhulgas sisemajanduse kogutoodang elaniku kohta ja leibkondade ostujõu näitajad. Erinevusi tuleb arvestada ka linnade ja maapiirkondade vahel, tööstusele või teenindusele orienteerituse vahel.
Tabelis 8 on välja toodud hinnanguline WEEE kogus, elanike arv ja sisemajanduse kogutoodang elaniku kohta Eesti ja Soome kohta. Lineaarne hindamismeetod annab Eesti WEEE koguseks 20 000 – 25 000 tonni aastas.

Tabel 8. *Lineaarsel meetodil hinnatud WEEE kogused Eestis*

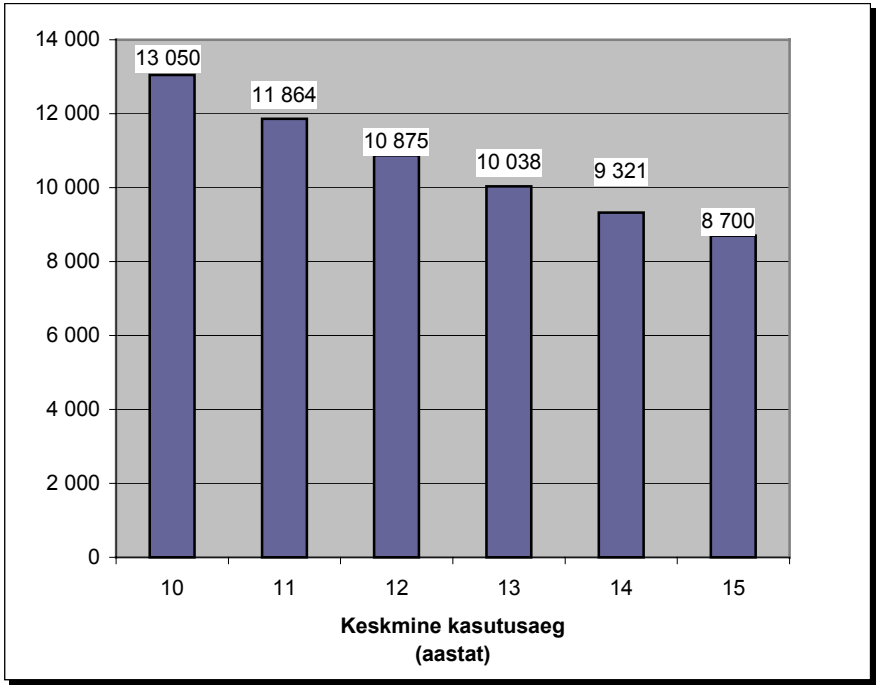
	Eesti	**Soome**
Elanike arv	1.3 miljonit	5.2 miljonit
SKT elaniku kohta	5010 €	27 000 €
Hinnanguline WEEE kogus aastas	**20000 – 25000 t**	**70000 – 100000 t**

Teine meetod (vt. osa 2.1) WEEE koguste hindamiseks võtab arvesse, et 2/3 WEEE moodustavad suured ja väikesed kodumajapidamise seadmed.

Tabelis 2 (osas 3.1) on välja toodud koguselised hinnangud kodumajapidamistes kasutusel olevate majapidamis- ja elektroonikaseadmete kohta.
Tuginedes statistilistele andmetele, annavad arvestused tulemuseks, et kodumajapidamistes on 2002 aasta seisuga kasutusel suuri ja väikeseid majapidamisseadmeid (va. elektroonikaseadmed) üldkaaluga 87 000 tonni.
Kasutuselolevate seadmete koguse jagamine keskmise seadmete kasutuseaga annab tulemuseks aastase WEEE tekkemäära tonnides. Kogu WEEE määr on arvestatud jagades aastase üldkoguse konstandiga 2/3.

EEE kasutusaeg varieerub aga oluliselt. Erinevad hinnangud on leidnud esitlemist erinevates uuringutes[9]. Kodumajapidamisseadmete kasutusiga kõigub erinevatel hinnangutel 7 aastast kuni 30 aastani. Käesolevas uuringus oleme eeldanud, et keskmine kasutusperiood mahub vahemikku 10 kuni 15 aastat. Graafikul 10 on välja toodud hinnangulised WEEE kogused just seda eeldust arvestades..

[5] Elektronikschrott in der Schweiz 2001. KB&P. Switzerland. (In German)
[6] Sähkö- ja elektroniikkakierrätyksen toteuttaminen – SER mallit- hanke. 1999. SET. (In Finnish)
[7] Sähkö- ja elektroniikkakierrätyksen toteuttaminen – SER mallit- hanke. 1999. SET. (In Finnish)
[8] Sähkö- ja elektroniikkakierrätyksen toteuttaminen – SER mallit- hanke. 1999. SET. (In Finnish)
[9] Collection targets for Waste from Electrical and Electronic Equipment (WEEE). 1998. Lochse et al.



Graafik 10. Hinnangulised WEEE kogused, juhul, kui keskmine EEE kasutusaeg kodumajapidamistes oleks 10 – 15 aastat

Tekkiva WEEE hinnanguline üldkogus, mis on esitletud graafikul 10, võib seega kõikuda vahemikus alates 9 000 tonni aastas kuni 13 000 tonnini aastas.
Võrreldes neid tulemusi lineaarse meetodiga saadud tulemustega, saame tulemuseks märgatavalt väiksemad WEEE kogused. Penetratsiooni määral põhinev meetod aga annab meie hinnangul rohkem täpsema tulemuse. Lineaarne hindamismeetod ei võta arvesse ühtegi sotsiaalmajanduslikku aspekti, millel on ilmne mõju tulemustele. Aastane WEEE kogus on seega 9 000 – 13 000 tonni.

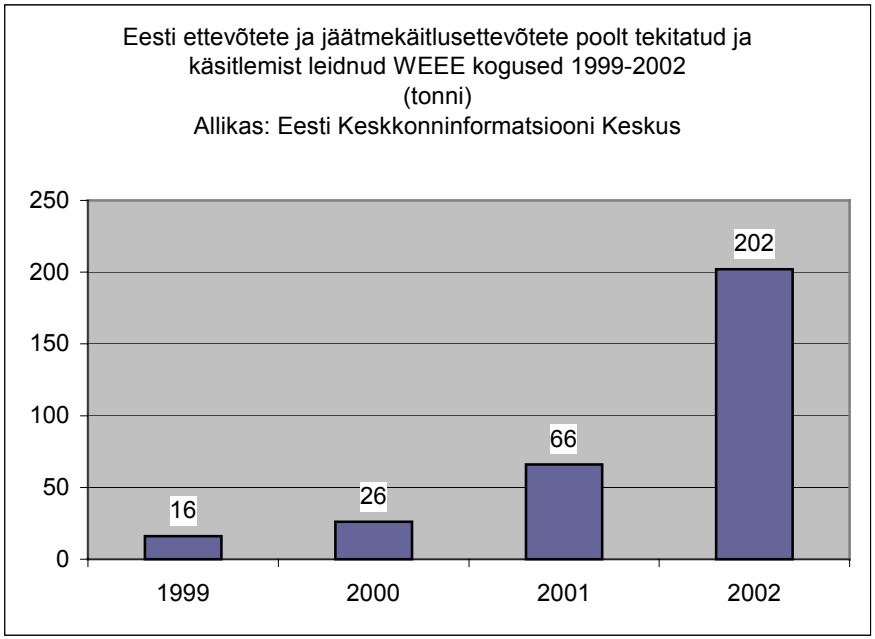
WEEE kogused kasvavad Eestis. On hinnatud, et Euroopa Liidus kasvavad WEEE kogused 3 – 5 % aastas. Eesti majanduskasv aga seejuures on kiirem, kui Euroopa Liidu keskmine. EEE impordi statistika ja penetratsiooni määrad annavad mõningasi vihjeid tulevastest WEEE määradest. Täpseid arve ei ole võimalik kahjuks selle põhjal võimalik anda, kuna see oleneb ka muudest faktoritest, sealhulgas keskmisest seadmete kasutuseast, mis eeldatavasti lüheneb ostujõu kasvades.

Impordistatistika (vt tabel 3) näitab, et import kasvab. Näiteks suurte kodumasinate kategoorias, mis moodustab märkimisväärse osa WEEE kogumäärast, on kasv olnud 4% aastas perioodil 1999 – 2002. Kaalutud[10] keskmine kasv on 5 %. Võib oletada, et Eesti aastane WEEE kasv on umbes 5%.

[10] Suurte ja väikeste kodumasinate impordi kasv moodustab 2/3 kogu kasvust ja ülejäänud 1/3 moodustab ülejäänud kasvu.

3.2 Eestis tekkiva WEEE kogumise, käsitlemise ja arvepidamise hetkeolukorra hindamine

Tuginedes Eesti Keskkonna Informatsiooni Keskusest saadud statistikale (Graafik 11) võib väita, et ametlikult registreeritud WEEE kogused on väga väikesed, eriti võrreldes neid veel oletatavate WEEE kogustega (vt osa 4.1) ja Euroopa liidu eraldi kogumise nõuetega (4 kg elaniku kohta).



Graafik 11. Tekitatud ja käsitlemist leidnud WEEE kogused Eestis, 1999 – 2002 (tonnides)

3.3 Kasutatud EEE import

Tänu erinevatele seadusandlustele, imporditakse mõningastest riikidest kasutatud EEE ka Eestisse. Kasutatud seadmete ja nende hulgas WEEE täpseid importkoguseid on keeruline hinnata. Graafikud 3 – 8 peegeldavad seda, et kasutatud seadmete import mängib väikest rolli suhtes kogu EEE importi. Kasutatud seadmete impordi osakaal on viimase 4 aasta jooksul näidanud pidevalt vähenemise märke (ainult kasutatud arvutite ja väljundseadmete import on erand). Sellest lähtuvalt võib oletada, et ainult kasutatud arvutite impordil võib olla märgatav mõju WEEE kogustele. Muudes kategooriates on kasutatud seadmete osakaal suhteliselt väike.

3.4 Üleüldine teadmistetase seadusandlustest

Tuginedes maaletoojate hulgas läbiviidud küsitluse tulemustele võib väita, et peaaegu 50% vastanutest ei ole teadlikud uue jäätmeseaduse eelnõust ja vaid 25% on üleüldiselt teadlikud RoHS ja WEEE direktiividest. Ainult üks vastanu on detailideni kursis kohaliku uue jäätmeseaduse eelnõuga , kui ka RoHS ja WEEE direktiividega.

10 protsenti kinnitasid, et on juba teinud oma ettevõtetes mingeid ettevalmistusi lähtuvalt uuest jäätmeseaduse eelnõust ja EL seadusandlusest. See on aga väiksem number, kui ülalmainitud informeerituse tase seadusandlustest.

3.5 Üldine suhtumine integreeritud keskkonnajuhtimise süsteemidesse (KJS)

Küsitluse tulemused viitavad sellele, et üldine suhtumine integreeritud keskkonnajuhtimissüsteemidesse (näiteks ISO 14001 või vastav).

25% vastanutest kinnitavad, et neil ei ole plaanis juurutada integreeritud keskkonnajuhtimissüsteemi lähitulevikus.

Vastanute asutustes ei ole 2/3 tööl keskkonnajuhti. 1/3 on keskkonnajuht tööl, kuid vaid mõni eriharidusega. Suurel osal on praktiseeritud varianti, kus keskkonnajuhi tööülesanded on pandud mõne teise juhtivtöötaja tööülesannete hulka.

4 SÕNASELETUSED

Mõningaid üldiseid definitsioone, mida on kasutatakse elektri- ja elektroonikaseadmete jäätmetele kohalduvas seadusandluses:

Ohtlikud ained või preparaadid on mis tahes aine preparaat, mida loetakse ohtlikuks Nõukogu direktiivi 67/548/EÜT või Euroopa Parlamendi ja Nõukogu direktiivi 1999/45/EÜ põhjal;

Kõrvaldamine on mis tahes toiming direktiivi 75/442/EÜT lisas II A toodud toimingutest;

Elektri- ja elektroonikaseadmed on seadmed, mis vajavad töötamiseks elektrivoolu või elektromagnetvälja ja seadmed selle voolu ja välja tekitamiseks, transpordiks ning mõõtmiseks, mis kuuluvad lisas I A kirjeldatud kategooriatesse ning on mõeldud kasutamiseks voolupingel mitte üle 1000 V vahelduvvoolu ja mitte üle 1500 V alalisvoolu korral;

Energia taastootmine on põlevate jäätmete kasutamine energia saamise eesmärgil otsesel põletamisel koos või ilma teiste jäätmeteta, kuid sooja taastootmisel;

Vältimine ehk preventsioon on meetmed, mille eesmärgiks on vähendada elektri- ja elektroonikaseadmete jäätmeid, neid sisaldavaid materjale ja aineid nii koguseliselt kui ohtlikkuselt keskkonnale;

Tootja on mis tahes isik, kes:
(i) toodab ja müüb oma kaubamärgi all elektri- ja elektroonikaseadmeid, hoolimata kasutatavast müügiviisist, kaasa arvatud distants- ja elektrooniline müük,

(ii) müüb oma kaubamärgi all teiste poolt toodetud seadmeid hoolimata kasutatavast müügiviisist, kaasa arvatud distants- ja elektrooniline müük,

või

(iii) impordib elektri- ja elektroonikaseadmeid teistest liikmesriikidest ametlikul alusel;

Taaskasutamine on mis tahes toiming direktiivi 75/442/EÜT lisas II B toodud toimingutest

Ringlusesse suunamine on taastootmine jäätmete tootmisprotsessi esmasel eesmärgil , välja arvatud energia taastootmine;

Korduvkasutamine on mis tahes operatsioon, mille abil elektri- ja elektroonikaseadmete jäätmed kasutatakse samal eesmärgil, kui nad olid loodud, kaasa arvatud kogumispunktidesse, edasimüüjatele uuesti ringlusesse võtjatele või tootjatele tagastatud elektri- ja elektroonikaseadmete jäätmete jätkuv kasutamine;

Käsitlemine on mis tahes tegevus peale elektri- ja elektroonikaseadmete jäätmete üleandmist ettevõttele nende jäätmete kahjutustamiseks, lahti monteerimiseks, purustamiseks, taaskasutamiseks või kõrvaldamiseks ja mis tahes muuks toiminguks, mille käigus toimub

elektri- ja elektroonikaseadmete jäätmete taaskasutamine ja/või kõrvaldamine;

Elektri- ja elektroonikaseadmete jäätmed on elektri- ja elektroonikaseadmed, mis on jäätmed direktiivi 75/442/EÜT artikkel 1(a) mõistes, kaasa arvatud kõik komponendid, koostisosad, mis on toote osad tootest loobumise hetkel;

Kodumajapidamises tekkinud elektri- ja elektroonikaseadmete jäätmed on elektri- ja elektroonikaseadmete jäätmed, mis tekivad kodumajapidamistes ja kommerts-, tööstuslikest-, institutsionaalsetest- ja teistest allikatest, mis oma olemuselt ja kogustelt on sarnased kodumajapidamistes tekkinuile;

LISA I Küsitlusele vastanud ettevõtted

Soovime tänada alljärgnevaid ettevõtteid, kes leidsid võimaluse ja vastasid küsitlusele

AM Kodumasinate Balti AS, Anava Eesti AS, Anttila, BAKT Kaubanduse AS, GNT Eesti AS, Infotark AS, DMC Direct OÜ, Hantarexi Valduse AS, Kristjuhan AS, Kulbert AS, AS Kungla Dialoog, Leventa AS, MicroLinki Arvutite AS, Sandmani Grupi AS, Stockmann AS / Hobby Hall, Zebra Infosüsteemid AS
ATBM OÜ, Elko Reval , KTK Overall, Electrolux Eesti AS, AS Elmaksi Hulgikaubandus, AS Mecro, ONOFF Eesti AS, AS PCT Arvutid, Tech Data Eesti AS, RTT, Reveko, OÜ Kliko, EMT, Lander, Fujitsu Invia, Whirlpool Eesti OÜ

LISA II WEEE DIRECTIVE (Press Release)

IP/00/602
Brussels, 13 June 2000[2(1)]

Commission tackles growing problem of electrical and electronic waste
The European Commission has adopted a proposal for a Directive on Waste Electrical and Electronic Equipment (WEEE) and a proposal for a Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment. The proposed Directives are designed to tackle the fast increasing waste stream of electrical and electronic equipment and complements European Union measures on landfill and incineration of waste. Increased recycling of electrical and electronic equipment, in accordance with the requirements of the proposal for a WEEE Directive, will limit the total quantity of waste going to final disposal. Producers will be responsible for taking back and recycling electrical and electronic equipment. This will provide incentives to design electrical and electronic equipment in an environmentally more efficient way, which takes waste management aspects fully into account. Consumers will be able to return their equipment free of charge. In order to prevent the generation of hazardous waste, the proposal for a Directive on the restriction of the use of certain hazardous substances requires the substitution of various heavy metals and brominated flame-retardants in new electrical and electronic equipment from 1 January 2008 onwards.

Welcoming the adoption by the Commission of the draft Directive, Environment Commissioner Margot Wallström declared: "This is a major step towards the objective of sustainable production and consumption. I am pleased that the Commission has been able to agree on a balanced initiative, which the Environment, consumers and industry all stand to gain from". She added: "Due to the fast pace of technological innovation, electrical and electronic equipment constitute one of the fastest growing waste streams in the EU. It is therefore particularly important to implement the key principles of EU waste management policy, especially the prevention and the recycling of waste, in this area."

In order to reduce the amount of electrical and electronic waste disposed of in landfills and incinerators the proposed weee directive seeks to establish separate collection and recycling systems for such waste. It also implements the principle of producer responsibility to provide incentives for producers to take into account,already at the product design stage, the need to reduce the use of hazardous substances and to improve the recyclability of these products.

The weee directive, based on article 175 of the treaty, will address all electrical and electronic equipment used by consumers and currently not treated before going to incinerators or landfills. It also covers a wide range of professionally used electrical and electronic equipment, such as information technology (it) and telecommunication equipment, which is not sufficiently recycled today.

The waste stream of electrical and electronic equipment has been identified as one of the fastest growing waste streams in the european union constituting 4% of the municipal waste today, increasing by 16-28% every five years - three times as fast as the growth of average municipal waste. Furthermore, it is one of the largest known sources of heavy metals and organic pollutants in the municipal waste. With a view to the resource intensive production of electrical and electronic equipment, the requirement to recycle these wastes will lead to significant resource savings. Thus, the new proposal fulfils a key objective of the fifth environmental action programme - the reduction in wasteful consumption of natural resources and the prevention of pollution.

The directive on electronic waste complements ec legislation on waste disposal, including the directives on landfills and incineration of waste, and follows the example set by other waste stream specific directives, such as the recently adopted end-of-life vehicles directive. Given that today more than 90% of electronic waste ends up in disposal or shredding facilities without any pre-treatment, depollution and proper recycling of this waste constitute the main objectives of the proposal. Proper pre-treatment and recycling can, however, only be achieved through separate collection of electronic waste. Accordingly, member states will have to organise this collection from private households. Producers will then take over the waste from designated collection facilities. From there the waste needs to be channelled to certified treatment facilities, where further treatment according to the standards set out in the directive can be ensured. The treatment standards contain minimum percentages for the recovery of this waste. These would come into force no later than 2006, and would range between 60 and 80%, depending on the product category.
In line with the polluter pays principle producers need to organise and finance the treatment, recovery and disposal of waste. The entry into force of the financing obligation will be delayed by five years to minimise the impact on producers of the financing requirement regarding waste from products put on the market before entry into force of the legislation ("historical waste").

The proposed directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment, based on article 95 of the treaty, introduces a substitution requirement for those substances in electrical and electronic equipment, which pose the main environmental problems during disposal and recycling of such waste. This requirement will support ongoing efforts to substitute these substances by less harmful substances. In line with the directive on end-of-life vehicles the targeted substances include the heavy metals, lead, mercury, cadmium and hexavalent chromium. In addition, two types of brominated flame retardants, pbb and pbde, are required to be substituted by 1 january 2008. The substitution of pbb and pbde must not lead to a lowering of the fire safety standards. Accordingly, the directive provides for exemptions from the substitution requirement if such substitution is not possible.

(1)2 Such as large electric and electronic household items (fridges, washing machines..) , small household appliances(toasters, hairdriers..), toys,TV-and video sets…

LISA III EUE DIRECTIVE

Proposal for a
DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
on establishing a framework for Eco-design of End Use Equipment

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,
Having regard to the proposal from the Commission1,
Having regard to the opinion of the Economic and Social Committee2,
Having regard to the opinion of the Committee of the Regions3,
Acting in accordance with the procedure laid down in Article 251 of the Treaty4,
Whereas:

HAVE ADOPTED THIS DIRECTIVE:

Article 1 Objectives and scope
1. This Directive aims to ensure the free movement of end use equipment within the internal market through the creation of a framework for the integration of environmental aspects in the design and development and for setting eco-design requirements for this equipment.
2. It also establishes the conditions for the setting of specific eco-design requirements, as well as the methodology through which the level of these requirements is determined.
3. This Directive shall not apply to motor vehicles, excluding installed equipment that does not assist in their propulsion.

Article 2:Definitions for the purposes of this Directive:

a) "End-use Equipment (EuE)" means equipment which is dependent on energy input (electricity, fossil and renewable fuels) to work as intended and equipment for the generation, transfer and measurement of such energy. It also means parts which are intended to be incorporated into EuE , and which are placed on the market as individual parts for end-users.
b) "Components and sub-assemblies" means parts intended to be incorporated into EUE, and which are not placed on the market as individual parts for end users.
c) "Manufacturer" means any natural or legal person responsible for the conformity of the equipment with this Directive in view of its placing on the market under his own name or trademark or for his own use
d) "Authorised representative" means any natural or legal person established in the Community who, explicitly designated by the manufacturer, acts on his/her behalf and may be addressed by authorities and bodies in the Community instead of the manufacturer with regard to the latter's delegated obligations under this Directive.
e) "Materials" means raw materials, intermediates, auxiliary materials and chemicals
f) "Product design" means the set of processes that transforms requirements into the specification of a product.
g) "Environmental aspect" means an element or function of a product that can interact with the environment.
h) "Environmental impact" or "impact on the environment" means any change to the environment, whether adverse or beneficial, wholly or partially resulting from products
i) "Life cycle" means the consecutive and interlinked stages, of the product from design to the final disposal.
j) "End of life" means state of a product when it is finally removed from use.
k) "Re-use" means any operation by which EUE or its components, having reached their end of first use, are used for the same purpose for which they were conceived. "Re-use" includes the continued use of EUE, which is returned to collection points, distributors, recyclers or manufacturers, as well as re-use of equipment following refurbishment.
l) "Recycling" means the reprocessing in a production process of the waste materials for the original purpose or for other purposes but excluding energy recovery. Energy recovery means the use of combustible waste as a means to generate energy through direct incineration with or without other waste but with recovery of the heat.
m) "Recovery" means any of the applicable operations provided for in Annex III.B to Directive 75/442/EEC as amended.
n) "Waste" means any substance or object in the categories set out in Annex I to Directive 75/442/EEC as amended which the holder discards or intends or is required to discard.
o) "Ecological profile" means a description of the magnitude and significance of the environmentally relevant inputs and outputs (including, as appropriate, raw materials, intermediate products, emissions and waste) associated with a product throughout its lifecycle
p) "environmental performance" of the product means the results of the manufacturer's management of the environmental aspects of the product, as reflected in the ecological profile of the product
q) "improvement of the environmental performance" shall mean the process of enhancing over successive generations of a product its overall environmental performance; the enhancing of the results need not take place in all environmental aspects of the product simultaneously
r) "eco-design" shall mean the systematic integration of environmental aspects into product design with the aim to reduce the overall environmental impact of the product throughout its whole life cycle
s) "eco-design requirement" shall mean any requirement in relationship to the product or its design with a view to improving its environmental performance
t) "specific eco-design requirement" shall mean a quantified and measurable requirement on a selected environmental aspect of the product (such as energy consumption during use) calculated for a given unit of output performance of the product
u) « harmonised standard » means a technical specification adopted by a recognised standards body under a mandate from the Commission in conformity with the procedures laid down in Directive 98/34/EC for the purpose of establishing a European requirement, compliance with which is not compulsory

Article 3: Eco-design requirements

EUE covered by implementing measures referred to in Article 14 shall be designed and manufactured applying the relevant requirements set out in the implementing measure.

Article 4: Placing on the market and putting into service

Member States shall take all appropriate measures to ensure that EUE covered by implementing measures may be placed on the market and/or put into service only if they comply with the provisions of the implementing measure.

Article 5: Free movement

1. Member States shall not create any obstacle to the placing on the market and/or putting into service within their territories on grounds of eco-design requirements of EUE that conform to the provisions of the implementing measure applicable to it and bear the CE marking according to Article 10.
2. At trade fairs, exhibitions, demonstrations, etc., Member States shall not prevent the showing of end-use equipment as defined in Article 1 not in conformity with the provisions of the applicable implementing measure, provided that a visible sign clearly indicates their non-conformity and their non-availability for sale until brought into conformity.

Article 6: Conformity assessment

1. Before placing EUE on the market, the manufacturer shall perform a conformity assessment of the EUE with the relevant requirements of the applicable implementing measure.
2. The appropriate conformity assessment procedures will be specified by the implementing measures and shall be chosen among those in Annexes IV and V or, when duly justified and proportionate to the risk, among modules B,C,D,E as described in Council Decision 93/465/EEC In the case where EUE is designed by an organisation registered according to the Community eco-management and audit scheme5 and the design function is included within the scope of the registration it shall be presumed that the environmental management scheme of this organisation complies with the requirements of Annex V Environmental management systems for which provisions have been applied in accordance with harmonised standards, the reference numbers of which have been published in the Official Journal of the European Communities, shall be presumed to conform to the corresponding requirements of Annex V.
3. After placing EUE on the market, the manufacturer or their authorised representative shall keep relevant documents relating to the conformity assessment performed and declarations of conformity issued, available for inspection by Member States for a period of 10 years after the last EUE has been manufactured. The relevant documents will be made available within [10] days of receipt of a request by the competent authority of a Member State. Where the manufacturer is not established within the Community and in the absence of an authorised representative, the obligation to make available upon request conformity documentation shall lie with the person designated by the manufacturer as responsible for placing the equipment on the Community market
4. Documents relating to the conformity assessment and declaration of conformity shall be drawn up in one of the official languages of the Community.

Article 7: Presumption of conformity

1. Member States shall regard EUE, bearing the CE marking provided for in Article 10 as conforming to the relevant provisions of the applicable implementing measure.
2. EUE, for which provisions have been applied in accordance with harmonised standards, the reference numbers of which have been published in the Official Journal of the European Communities, shall be presumed to conform to any corresponding requirements referred to in the applicable implementing measure
3. EUE which have been awarded the Eco-label*6*, shall be presumed to comply with the corresponding implementing measure

Article 8: Harmonised Standards

1. Member States shall ensure that appropriate measures are taken to enable interested parties to be consulted at national level on the process of preparing and monitoring the harmonised standards.
2. Where a Member State or the Commission considers that the harmonised standards for which application is deemed to satisfy specific provisions of the implementing measure do not entirely meet the above-mentioned provisions, the Member State concerned or the Commission shall inform the Standing Committee set up by Article 5 of Directive 98/34/EC giving the reasons therefore. The Committee shall issue an opinion as a matter of urgency.
3. In the light of the Committee's opinion, the Commission shall decide to publish, not to publish, to publish with restriction, to maintain or withdraw the references to the harmonised standards concerned in the Official Journal of the European Communities.
4. The Commission shall inform the European Standardisation body concerned and, if necessary, issue a new request.

Article 9: Restriction of placing on the market

1. Where a Member State ascertains that end use equipment bearing the CE marking and used in accordance with their intended use, does not comply with the applicable implementing measure, and/or that the CE marking referred to in Article 10 has been fixed unduly, the manufacturer or their authorised representative shall be obliged to make the EUE comply as regards the provisions of this Directive and/or the CE marking and to end the infringement under conditions imposed by the Member State.
2. Where non-compliance continues, the Member State must take all appropriate measures to restrict or prohibit the placing on the market of the product in question or to ensure that it is withdrawn from the market. The Member State shall immediately inform the Commission and the other Member States of any such measure, indicating the reasons for its decision and, in particular, whether nonconformity is due to: (a) failure to satisfy the requirements of the applicable implementing measure; (b) incorrect application of the harmonised standards referred to in Article 8(2); (c) shortcomings in the harmonised standards referred to in Article 8(2).
3. The Commission shall enter into consultation with the parties concerned without delay and may draw upon technical advice from independent external experts. Where the Commission considers, after this consultation, that the measure is justified, it shall immediately so inform the Member State which took the initiative and the other Member States.
4. Where the Commission considers, after this consultation, that the measure is unjustified, it shall immediately so inform the Member State which took the initiative and the manufacturer, or his authorised representative established within the Community. Where the decision referred to in paragraph 1 is based on a shortcoming in the standards the Commission shall immediately inform the Committee referred to in Article 8(2) in order to initiate the procedure referred to in Article 8(2). Furthermore the Commission shall at the same time inform the Committee referred to in Article 18
5. Where end use equipment which does not comply bears the CE marking, the competent Member State shall take appropriate action against the person(s) having affixed the CE marking and shall so inform the Commission and the other Member States.
6. The Commission shall ensure that the Member Sates are kept informed of the progress and outcome of this procedure.
7. The Member States and the Commission shall take the necessary measures to guarantee confidentiality with regard to the above-mentioned information, where appropriate

Article 10: Marking/Declaration of conformity

1. Before being placed on the market, the EUE must have affixed to them the CE marking of conformity and a declaration of conformity must have been issued, by which the manufacturer or their authorised representative ensures and declares that the EUE comply with all relevant provisions of this Directive.
2. The CE conformity marking consists of the initials "CE" as shown in Annex III.
3. The Declaration of conformity shall contain the elements specified in Annex VI.

4. The affixing of markings on EUE which are likely to mislead users as to the meaning and/or form of the CE marking shall be prohibited.
5. Member States may require the information to be supplied pursuant to Annex I, 1 part 3, to be in their official language(s) when equipment reaches the final user. Member States may also authorise this to be provided in one or more other official Community language(s). In the application of this provision, Member States shall take into account the principle of proportionality and, in particular: (a) whether the information can be supplied by harmonised symbols or recognised codes or other measures; (b) the type of user anticipated for the equipment and the nature of the information which is to be provided.

Article 11: Requirements for components and sub-assemblies

1. Member States shall ensure that manufacturers of components or sub-assemblies of EUE shall provide all necessary information to enable other manufacturers making use of the component or sub-assembly in EUE to establish the ecological profile of such equipment.
2. In particular, manufacturers of these components or sub-assemblies will provide information on the material composition and the consumption of energy and/or resources of their components or sub-assemblies, and where available, the results of environmental assessments and/or case reference studies which concern the use and end-of-life management of the component or sub-assembly.

Article 12: Decisions entailing refusal or restriction

Any decision taken pursuant to this Directive which restricts the placing on the market and/or the putting into service of EUE shall state the exact grounds on which it is based. Such decision shall be notified forthwith to the party concerned, who shall at the same time be informed of the legal remedies available to him under the laws in force in the Member State concerned and of the time limits to which such remedies are subject.

Article 13: Enforcement and administrative co-operation

Member States shall take appropriate measures in order to encourage the authorities responsible for implementing this Directive to co-operate with each other and provide each other with information in order to assist the functioning of this Directive. The administrative co-operation and exchange of information should take utmost advantage of electronic means of communication and may be supported by relevant Community programmes. Specifications and structure of the information exchange between the Commission and Member States will be decided in accordance with procedure laid down in Article 18.

Article 14: Implementing measures

1. The Commission in accordance with the procedure laid down in Article 18 may adopt implementing measures in order to set eco-design requirements for defined categories of EUE or for environmental aspects thereof.
2. The implementing measures will introduce a) eco-design requirements, on the basis of Annex I and/or b) specific eco-design requirements in accordance with Annexes II and VII.Specific eco-design requirements shall be introduced for selected environmental aspects which have a significant adverse impact on the environment.
3. The following criteria shall be applied for adopting the implementing measures:
3.1 The product shall represent a significant volume of sales and trade in the internal market;
3.2 The product shall involve a significant environmental impact at European level;
3.3 The entire life cycle of the product shall be considered
3.4 The priorities established in the Community environment action programme are taken into account
3.5 The product shall present a significant potential for improvement in relationship to this impact
3.6 The performance of the product shall not be significantly affected
3.7 Health and safety shall not be adversely affected
3.8 The impact on consumers is taken into account and in particular on lower income groups
3.9 The impact on manufacturers' competitiveness is taken into account, including on non-EU markets
When adopting eco-design requirements, market distortions shall not be created among equipment performing the same function but using different energy sources.

Article 15 Specific measures: existing Directives

Directives 92/42/EEC, 96/57/EC and 2000/55/EC covering energy efficiency requirement for domestic hot-water boilers, domestic refrigeration appliances and ballast's for fluorescent lighting shall be considered as specific eco-design requirements.

Article 16 Amendment

Directive 92/42/EEC is amended as follows:
a) Article 6 is deleted;
b) Annex I, section 2, is deleted.

Article 17 Abrogation

Directive 78/170/EC is hereby repealed.

Article 18: Committee Procedure

1. The Commission shall be assisted by a committee, hereinafter referred to as the "Committee", composed of representatives of the Member States and chaired by the representative of the Commission.
2. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.
3. The period referred to in Article 5(6) of Decision 1999/468/EC shall be set at three months.

Article 19: Transposition and transitional provisions

1. Before .....7 Member States shall adopt and publish the laws, regulations and administrative provisions necessary to comply with this Directive. They shall forthwith inform the Commission thereof.
2. When Member States adopt the measures referred to in the first subparagraph, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States. Member States shall apply such provisions as from .....8 Member States shall communicate to the Commission the texts of the provisions of national law which they adopt in the field governed by this Directive

Article 20: Penalties

Member States shall determine the penalties applicable to breaches of the national provisions adopted pursuant to this Directive. The penalties shall be effective, proportionate and dissuasive. Member States

shall notify those provisions to the Commission by the date specified in the first subparagraph of Article 19(2) at the latest, and shall notify it without delay of any subsequent amendment affecting the provisions.

Article 21: Addressees of the Directive

This Directive is addressed to the Member States.

Article 22: Entry into force

This Directive shall enter into force on the day of its publication in the *Official Journal of the European Communities*.

Done at Brussels,
For the European Parliament For the Council
The President The President

ANNEX I:
Further to the adoption of implementing measures laying down eco-design requirements pursuant to Article 14.2, Member States shall ensure that manufacturers of end use equipment shall comply with the following provisions

1 GENERAL PROVISIONS
1. Manufacturers of end use equipment shall perform an assessment of the environmental aspects of a product throughout its lifecycle, based upon the assumption that it is used under the conditions and for the purposes intended. This assessment shall be used for the establishment of the ecological profile of the product. It shall be based on environmentally relevant product characteristics and inputs/outputs occurring throughout the product life cycle expressed in physical quantities that can be measured. The depth of the analysis shall reflect the overall environmental influence of the product, and the expected number of products to be manufactured. It shall concentrate on and prioritise those factors, which are capable of being influenced in a substantial manner through product design.
2. The manufacturer shall make use of this assessment to evaluate alternative design solutions with the aim of achieving an improvement of the environmental performance of their product over successive generations of products and taking into account the state of the art in environmentally friendly design. The choice of a specific design solution shall achieve a reasonable balance between the various environmental aspects and between environmental aspects and other relevant considerations, such as safety and health, technical requirements for functionality, quality, and performance, and economic aspects, including manufacturing costs and marketability, while complying with all relevant legislation. The design process for EUE shall include, in particular, the elements set out under part 2 of this annex. The manufacturer shall document the specific design choices and the reasons behind them so as to permit the product to be manufactured, used, and treated at end of life in accordance with its environmental design. The information provided by the manufacturer on the environmental design characteristics for EUE shall contain, in particular, the elements described in part 3 of this annex.
3. Where there are changes to the legal, organisational, economic, or other requirements relating to a product which lead to a review of product design, the manufacturer shall also review the environmental aspects of the product design. In particular, the manufacturer shall identify and implement opportunities for improving environmental performance through the application of new knowledge or scientific findings and developments in the state of the art in environmentally friendly design.

2 ECO-DESIGN PARAMETERS FOR EUE
The aforementioned assessment shall address the following phases of the lifecycle of the product:
- raw material acquisition
- manufacturing
- packaging, transport, and distribution
- installation and maintenance
- use
- end-of-life.

For each phase, the following environmental aspects shall be assessed where relevant
- predicted consumption of materials, energy and other resources such as fresh water
- anticipated emissions to air, water or soil
- anticipated pollution through physical effects such as noise, vibration, radiation,electromagnetic fields.
- expected generation of waste material
- possibilities for reuse, recycling and recovery of materials, taking into account Directive 2002/…/EC on WEEE In particular, the following parameters shall be used, as appropriate, for evaluating improvement on the aforementioned environmental aspects:
- Weight and volume of the product
- use of materials issued from recycling activities
- energy consumption throughout the life cycle
- use of substances which are hazardous or otherwise of interest in view of their potential adverse effects on human health and the environment, taking into account Directive 2002/…/EC on RoHS
- quantity and nature of consumables needed for proper use and maintenance
- Ease for reuse and recycling as expressed through: number of materials and components used, use of standard components, time necessary for disassembly, complexity of tools necessary for disassembly, use of component and material coding standards for the identification of components and materials suitable for re-use and recycling (including marking of plastic parts according to ISO), use of easily recyclable materials, easy access to valuable and other recyclable components and materials; easy access to components and materials containing hazardous substances
- Incorporation of used components
- Avoidance of technical solutions detrimental to reuse and recycling of components and whole appliances
- Extension of lifetime as expressed through: minimum guaranteed lifetime, minimum time for availability of spare parts, modularity, upgradeability
- Amounts of waste generated and amounts of hazardous waste generated
- Emissions to air (acidifying agents, volatile organic compounds, ozone depleting substances persistent organic pollutants, heavy metals, fine particulate and suspended particulate matter)9
- Emissions to water (heavy metals, substances with an adverse effect on the oxygen balance)10

3 REQUIREMENTS FOR INFORMATION CONCERNING THE ENVIRONMENTAL DESIGN ASPECTS

The manufacturer shall ensure that relevant information concerning the environmental design aspects of the product is provided to those who are responsible for the product following the design phase, where applicable:-
– Instructions relating to the manufacturing process.

– Information for consumers on the significant environmental characteristics and performance of a product, accompanying the product when it is placed on the market to allow the consumer to compare these aspects of the products- Instructions for consumers/users on how to install, use and maintain the product in order to minimise its impact on the environment and to ensure optimal life-expectancy, as well as how to return the product at the end of life.
– Information for treatment facilities concerning disassembly, recycling, or disposal at end-of-life. Basic information shall be found on the product itself wherever possible. This information shall take into account obligations under other Community legislation, such as Directive 2002/…/EC on WEEE
9 Taking into account Directives 1999/13/EC (on emissions of volatile organic compounds due to the use of organic solvents), 96/62/EC (on ambient air quality assessment and management)
10 Taking into account Directives 2000/60/EC (water framework Directive), 91/271/EEC (concerning urban waste water treatment), 76/464/EC (on pollution of the aquatic environment by certain dangerous substances)

ANNEX II Method for Setting the level of Specific Eco Design Requirements

1 METHOD FOR SETTING THE LEVEL OF SPECIFIC ECO-DESIGN REQUIREMENTS
Specific eco design requirements aim at improving a selected environmental aspect of the equipment. They may take the form of requirements for reduced consumption of a given resource, such as limits for the use of this resource in the various stages of the life cycle, as appropriate (e.g. limits in the water consumption in the use phase or in the quantities of a given material incorporated in the equipment or minimum required quantities of recycled material). The level of a specific eco-design requirement for given EUE equipment shall be set as follows:
1. A technical-economical analysis considers the various types (brands, models) of the equipment in question on the market and identifies the technical options for improving the environmental performance of the equipment. On the basis of this analysis and taking into account economic and technical feasibility as well as potential for improvement, concrete measures are taken with a view to reducing the environmental impact of the equipment. Concerning energy consumption in use, the level of energy efficiency or consumption shall be set aiming at the life cycle cost minimum to final users (LLCC for Least Life Cycle Cost), using a real discount rate of [5]% and a realistic lifetime for the EUE. The life cycle cost (LCC) of the EUE is defined as the sum of the purchase price and of the operating expenses discounted over the lifetime of the EUE. The operating expenses cover primarily energy consumption and, where significant, additional expenses in other resources (such as water, detergent…). The real discount rate is defined as the difference between the interest rate and the expected average annual inflation. A sensitivity analysis covering the relevant elements (e.g. price of energy or other resource, cost of raw material or production cost…) shall be carried out to check if there are significant changes and if the overall conclusions are robust. The requirement shall be adapted accordingly. The same methodology could be applied to other resources, such as water.
2. The level of the specific eco-design requirement can be set by using evidence available in the framework of other Community activities including regulation No1980/2000 on an EU Eco-label, the thematic strategies on sustainable use of resources and recycling, Directive 92/75/EEC on energy labelling and Decision No 2001/469/EC on Energy Star labelling. Evidence available from existing programs applied in other parts of the world can be used for setting the specific eco-design requirement of EUE traded with the EU's main economic partners.
3. In principle, the setting of specific eco-design requirements shall not have as a consequence that a proprietary technology is imposed to manufacturers or that a significant proportion of models currently produced are removed from the market. In the last case, the date by which the minimum requirement needs to be achieved shall be set taking into account the redesign cycle for the product.

Annex III
The CE marking shall be at least 5 mm high and must appear in a visible, legible and indelible form on the EUE, where practicable and appropriate, and on the instructions for use. The CE marking must also appear on the sales packaging.
ANNEX IV
Internal design control
1. This module describes the procedure whereby the manufacturer or their authorized representative who carries out the obligations laid down in section 2 of this Annex ensures and declares that EUE satisfies the relevant provisions of the applicable implementing measure. The manufacturer, or their authorised representative, must affix the CE marking provided for in Article 10 to each item of EUE and draw up a written declaration of conformity. The declaration of conformity may cover one or more products and must be kept by the manufacturer.
2. The documentation must enable an assessment to be made of the conformity of the EUE with the requirements of the applicable implementing measure. The documentation shall specify, in particular:
- a general description of the EUE and of its intended use,
- the results of relevant environmental assessment studies carried out by the manufacturer, and/or references to environmental assessment literature or case studies, which are used by the manufacturer in determining product design solutions,
- the ecological profile of the product
- elements of the product design specification relating to environmental design aspects of the product,
- a list of the appropriate documents referred to in Article 8, applied in full or in part, and a description of the solutions adopted to meet the requirements of the applicable implementing measure where the documents referred to in Article 8 have not been applied or where these documents do not cover entirely the requirements of the applicable implementing measure
- a copy of the information concerning the environmental design aspects of the product which is provided in accordance with the requirements specified in Annex I, part 3.

3. The manufacturer must take all measures necessary to ensure that the equipment will be manufactured in compliance with the design specifications referred to in section 2 and with the requirements of the measure, which apply to it.

ANNEX V ENVIRONMENTAL MANAGEMENT SYSTEM
1. This module describes the procedure whereby the manufacturer who satisfies the obligations of section 2 of this Annex ensures and declares that the EUE satisfies the requirements of the applicable implementing measure. The manufacturer, or their authorised representative, must affix the CE marking provided for in Article 10 to each item of EUE and draw up a written declaration of conformity. The declaration of conformity may cover one or more products and must be kept by the manufacturer.
2. The manufacturer must implement the environmental management system specified in section 3 of this Annex.
3. Environmental management system (EMS) The EMS shall define the manufacturer's environmental product performance policy and how the implementation of this policy improves the environmental performance of products in order to ensure compliance of the EUE with the requirements of the applicable implementing measure.
3.1. The environmental product performance policy The manufacturer shall be committed to achieving improvement in overall environmental product performance and providing a framework for setting and reviewing environmental product performance objectives and indicators, taking into account the requirements of the implementing measure. All the provisions adopted by the manufacturer to establish and improve the ecological profile of the product through design and manufacturing must be documented in a systematic and orderly manner in the form of written procedures and instructions. They must contain in particular an adequate description of:

– the environmental product performance objectives and indicators and the organisational structure, responsibilities and powers of the management with regard to their implementation and maintenance,
– the checks and tests to be carried out after manufacture to verify product performance against environmental performance indicators,
– procedures for controlling documents required to ensure that they are periodically reviewed,
– the method of verifying the effective operation of the environmental management system.

3.2. Planning
The manufacturer shall establish and maintain a) procedures for the establishment of the ecological profile of the product b) environmental product performance objectives and indicators, which consider technological options taking into account technical and economic requirements c) a programme for achieving these objectives
3.3 Implementation
a) responsibilities and authorities shall be defined and documented in order to ensure effective environmental product performance and reporting on its operation for review and improvement b) documents shall be established indicating the design control and verification techniques implemented and processes and systematic measures used when designing equipment c) the manufacturer shall establish specifications indicating, in particular, standards which have been applied and, where standards referred to in Article 8 are not applied or where they do not cover entirely the essential requirements, the means used to ensure compliance with the relevant requirements d) the manufacturer shall establish and maintain information to describe the core elements of the environmental management system and procedures for controlling all documents required
3.4 Checking and corrective action
a) the manufacturer shall establish and maintain procedures to investigate and handle non conformance, and implement changes in the documented procedures resulting from corrective action b) the manufacturer shall carry out periodically an internal environmental management system audit

ANNEX VI: DECLARATION OF CONFORMITY THE EC DECLARATION OF CONFORMITY MUST CONTAIN THE FOLLOWING PARTICULARS:

1. The name and address of the manufacturer or of its authorized representative established within the Community;
2. A description of the model sufficient for unambiguous identification;
3. The operating instructions;
4. The results of measurements on the eco-design requirements carried out including details of the conformity of these measurements as compared with the eco-design requirements set out in the applicable implementing Measure;
5. Where appropriate, the references of the harmonized standards applied;
6. Where appropriate, the other technical standards and specifications used;
7. Where appropriate, the reference of other Community legislation providing for the affixing of the CE mark that is applied.

ANNEX VII THE IMPLEMENTING MEASURE SHALL SPECIFY , IN PARTICULAR:
- The exact definition of the type of EUE covered
- The requirements on installation of the EUE where it has a direct relevance to the environmental performance considered
- The level(s) of the specific eco-design requirement and associated date(s) for implementation
- The measurement standards and/or measurement methods to be used.
- The details for conformity assessment under Decision 93/465/EEC

– where the module(s) to be applied is (are) different from Module A; the factors leading to the selection of that specific procedure;
– where relevant the criteria for approval and/or certification of the third parties. Where different modules are laid down in other CE requirements for the same EUE, the module defined in the implementing measure shall prevail for the requirement concerned.
- Requirements on data to be provided by manufacturers to the authorities for enhanced monitoring of compliance.
- The duration of the transitional period during which Member States must permit the placing on the market of EUE which comply with the regulations in force in their territory at the date of adoption of the implementing directive.

LISA IV ROHS DIRECTIVE

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,
Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,
Having regard to the proposal from the Commission [11]
Having regard to the opinion of the Economic and Social Committee [12],
Having regard to the opinion of the Committee of Regions [13],

Acting in accordance with the procedure laid down in Article 251 of the Treaty in the light of the joint text approved by the Conciliation Committee on 8 November 2002 [14],
Whereas:

(1) The disparities between the laws or administrative measures adopted by the Member States as regards the restriction of the use of hazardous substances in electrical and electronic equipment could create barriers to trade and distort competition in the Community and may thereby have a direct impact on the establishment and functioning of the internal market. It therefore appears necessary to approximate the laws of the Member States in this field and to contribute to the protection of human health and the environmentally sound recovery and disposal of waste electrical and electronic equipment.

(2) The European Council at its meeting in Nice on 7, 8 and 9 December 2000 endorsed the Council Resolution of 4 December 2000 on the precautionary principle.

(3) The Commission Communication of 30 July 1996 on the review of the Community strategy for waste management stresses the need to reduce the content of hazardous substances in waste and points out the potential benefits of Community-wide rules limiting the presence of such substances in products and in production processes.

(4) The Council Resolution of 25 January 1988 on a Community action programme to combat environmental pollution by cadmium invites the Commission to pursue without delay the development of specific measures for such a programme. Human health also has to be protected and an overall strategy that in particular restricts the use of cadmium[15] and stimulates research into substitutes should therefore be implemented. The Resolution stresses that the use of cadmium should be limited to cases where suitable and safer alternatives do not exist.

(5) The available evidence indicates that measures on the collection, treatment, recycling and disposal of waste electrical and electronic equipment (WEEE) as set out in Directive 2002/96/EC of 27 January 2003 of the European Parliament and of the Council on waste electrical and electronic equipment [16] are necessary to reduce the waste management problems linked to the heavy metals concerned and the flame retardants concerned. In spite of those measures, however, significant parts of WEEE will continue to be found in the current disposal routes. Even if WEEE were collected separately and submitted to recycling processes, its content of mercury, cadmium, lead, chromium VI, PBB and PBDE would be likely to pose risks to health or the environment.

(6) Taking into account technical and economic feasibility, the most effective way of ensuring the significant reduction of risks to health and the environment relating to those substances which can achieve the chosen level of protection in the Community is the substitution of those substances in electrical and electronic equipment by safe or safer materials. Restricting the use of these hazardous substances is likely to

[11] OJ C 365 E, 19.12.2000, p. 195 and OJ C 240 E, 28.8.2001, p. 303.

[12] OJ C 116, 20.4.2001, p. 38.

[13] OJ C 148, 18.5.2001, p. 1.

[14] Opinion of the European Parliament of 15 May 2001 (OJ C 34 E, 7.2.2002, p. 109), Council Common Position of 4 December 2001 (OJ C 90 E, 16.4.2002, p. 12) and Decision of the European Parliament of 10 April 2002 (not yet published in the Official Journal). Decision of the European Parliament of 18 December 2002 and Decision of the Council of 16 December 2002.

[15] OJ C 30, 4.2.1988, p. 1.

enhance the possibilities and economic profitability of recycling of WEEE and decrease the negative health impact on workers in recycling plants.

(7) The substances covered by this Directive are scientifically well researched and evaluated and have been subject to different measures both at Community and at national level.

(8) The measures provided for in this Directive take into account existing international guidelines and recommendations and are based on an assessment of available scientific and technical information. The measures are necessary to achieve the chosen level of protection of human and animal health and the environment, having regard to the risks, which the absence of measures would be likely to create in the Community. The measures should be kept under review and, if necessary, adjusted to take account of available technical and scientific information.

(9) This Directive should apply without prejudice to Community legislation on safety and health requirements and specific Community waste management legislation, in particular Council Directive 91/157/EEC of 18 March 1991 on batteries and accumulators containing certain dangerous substances [17].

(10) The technical development of electrical and electronic equipment without heavy metals, PBDE and PBB should be taken into account. As soon as scientific evidence is available and taking into account the precautionary principle, the prohibition of other hazardous substances and their substitution by more environmentally friendly alternatives which ensure at least the same level of protection of consumers should be examined.

(11) Exemptions from the substitution requirement should be permitted if substitution is not possible from the scientific and technical point of view or if the negative environmental or health impacts caused by substitution are likely to outweigh the human and environmental benefits of the substitution. Substitution of the hazardous substances in electrical and electronic equipment should also be carried out in a way so as to be compatible with the health and safety of users of electrical and electronic equipment (EEE).

(12) As product reuse, refurbishment and extension of lifetime are beneficial, spare parts need to be available.

(13) The adaptation to scientific and technical progress of the exemptions from the requirements concerning phasing out and prohibition of hazardous substances should be effected by the Commission under a committee procedure.

(14) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission [18],

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Objectives

The purpose of this Directive is to approximate the laws of the Member States on the restrictions of the use of hazardous substances in electrical and electronic equipment and to contribute to the protection of human health and the environmentally sound recovery and disposal of waste electrical and electronic equipment.

Article 2

Scope

1. Without prejudice to Article 6, this Directive shall apply to electrical and electronic equipment falling under the categories 1, 2, 3, 4, 5, 6, 7 and 10 set out in Annex IA to Directive No 2002/96/EC (WEEE) and to electric light bulbs, and luminaires in households.
2. This Directive shall apply without prejudice to Community legislation on safety and health requirements and specific Community waste management legislation.
3. This Directive does not apply to spare parts for the repair, or to the reuse, of electrical and electronic equipment put on the market before 1 July 2006.

[17] OJ L 78, 26.3.1991, p. 38. Directive as amended by Commission Directive 98/101/EC (OJ L 1, 5.1.1999, p. 1).

[18] OJ L 184, 17.7.1999, p. 23.

Article 3
Definitions

For the purposes of this Directive, the following definitions shall apply:

(a) 'electrical and electronic equipment' or 'EEE' means equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields falling under the categories set out in Annex IA to Directive 2002/96/EC (WEEE) and designed for use with a voltage rating not exceeding 1 000 volts for alternating current and 1 500 volts for direct current;

(b) (b) 'producer' means any person who, irrespective of the selling technique used, including by means of distance communication according to Directive 97/7/EC of the European Parliament and of the Council of 20 May 1997 on the protection of consumers in respect of distance contracts [19]:

(i) manufactures and sells electrical and electronic equipment under his own brand;

(ii) (ii) resells under his own brand equipment produced byother suppliers, a reseller not being regarded as the 'producer' if the brand of the producer appears on the equipment, as provided for in subpoint (i); or

(iii) (iii) imports or exports electrical and electronic equipment on a professional basis into a Member State.

Whoever exclusively provides financing under or pursuant to any finance agreement shall not be deemed a 'producer' unless he also acts as a producer within the meaning of subpoints (i) to (iii).

Article 4
Prevention

1. Member States shall ensure that, from 1 July 2006, new electrical and electronic equipment put on the market does not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE). National measures restricting or prohibiting the use of these substances in electrical and electronic equipment which were adopted in line with Community legislation before the adoption of this Directive may be maintained until 1 July 2006.
2. Paragraph 1 shall not apply to the applications listed in the Annex.
3. On the basis of a proposal from the Commission, the European Parliament and the Council shall decide, as soon as scientific evidence is available, and in accordance with the principles on chemicals policy as laid down in the Sixth Community Environment Action Programme, on the prohibition of other hazardous substances and the substitution thereof by more environment-friendly alternatives which ensure at least the same level of protection for consumers.

Article 5
Adaptation to scientific and technical progress

1. Any amendments which are necessary in order to adapt the Annex to scientific and technical progress for the following purposes shall be adopted in accordance with the procedure referred to in Article 7(2): (a) establishing, as necessary, maximum concentration values up to which the presence of the substances referred to in Article 4(1) in specific materials and components of electrical and electronic equipment shall be tolerated; (b) exempting materials and components of electrical and electronic equipment from Article 4(1) if their elimination or substitution via design changes or materials and components which do not require any of the materials or substances referred to therein is technically or scientifically impracticable, or where the negative environmental, health and/or consumer safety impacts caused by substitution are likely to outweigh the environmental, health and/or consumer safety benefits thereof; (c) carrying out a review of each exemption in the Annex at least every four years or four years after an item is added to the list with the aim of considering deletion of materials and components of electrical and electronic equipment from the Annex if their elimination or substitution via design changes or materials and components which do not require any of the materials or substances referred to in Article 4(1) is technically or scientifically possible, provided that the negative environmental, health and/or consumer safety impacts caused by substitution do not outweigh the possible environmental, health and/or consumer safety benefits thereof.

[19] OJ L 144, 4.6.1997, p. 19. Directive as amended by Directive 2002/65/EC (L 271, 9.10.2002, p. 16).

2. Before the Annex is amended pursuant to paragraph 1, the Commission shall *inter alia* consult producers of electrical and electronic equipment, recyclers, treatment operators, environmental organisations and employee and consumer associations. Comments shall be forwarded to the Committee referred to in Article 7(1). The Commission shall provide an account of the information it receives.

Article 6

Review

Before 13 February 2005, the Commission shall review the measures provided for in this Directive to take into account, as necessary, new scientific evidence. In particular the Commission shall, by that date, present proposals for including in the scope of this Directive equipment, which falls under categories 8 and 9 set out in Annex IA to Directive 2002/96/EC (WEEE). The Commission shall also study the need to adapt the list of substances of Article 4(1), on the basis of scientific facts and taking the precautionary principle into account, and present proposals to the European Parliament and Council for such adaptations, if appropriate. Particular attention shall be paid during the review to the impact on the environment and on human health of other hazardous substances and materials used in electrical and electronic equipment. The Commission shall examine the feasibility of replacing such substances and materials and shall present proposals to the European Parliament and to the Council in order to extend the scope of Article 4, as appropriate.

Article 7

Committee

1. The Commission shall be assisted by the Committee set up by Article 18 of Council Directive 75/442/EEC [20].
2. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to Article 8 thereof. The period provided for in Article 5(6) of Decision 1999/468/ EC shall be set at three months.
3. The Committee shall adopt its rules of procedure.

Article 8

Penalties

Member States shall determine penalties applicable to breaches of the national provisions adopted pursuant to this Directive. The penalties thus provided for shall be effective, proportionate and dissuasive.

Article 9

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 13 August 2004. They shall immediately inform the Commission thereof. When Member States adopt those measures, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. The methods of making such a reference shall be laid down by the Member States.
2. Member States shall communicate to the Commission the text of all laws, regulations and administrative provisions adopted in the field covered by this Directive.

Article 10

Entry into force

This Directive shall enter into force on the day of its publication in the *Official Journal of the European Union*.

Article 11

Addressees

This Directive is addressed to the Member States. Done at Brussels, 27 January 2003.

For the European Parliament
The President
P. COX

For the Council
The President
G. DRYS

[20] OJ L 194, 25.7.1975, p. 39.