

Preparing for WEEE – OEM View

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PRESENTATION OUTLINE

WEEE INTRODUCTION

CORPORATE WEEE TEAM OBJECTIVES

MAJOR AND MINOR PLAYERS IN CHANGING TOWARD WEEE

BENCHMARK WHAT'S BEEN DONE ELSEWHERE

CUSTOMERS WHO HAVE REQUESTED CONTENT INFORMATION ALREADY

RECOMMENDED STRATEGY FOR WEEE IMPLEMENTATION

SUMMARY RECOMMENDATIONS

SUMMARY COSTS

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DIRECTIVE IN THE EUROPEAN UNION ON WASTE FROM ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

MAJOR ELEMENTS:

- **PRODUCT DESIGN**
 - **ELIMINATION (BAN) OF LEAD, MERCURY, HEXAVALENT CHROME, BROMINATED/HALOGENATED FLAME RETARDENTS**
 - **EASE OF DISASSEMBLY**
 - **RECYCLABILITY**
- **COLLECTION OR RETURN CENTERS IN EUROPE**
- **LABELING REQUIREMENTS**
- **REPORTING OBLIGATIONS**
- **WEEE IS RETROACTIVE**

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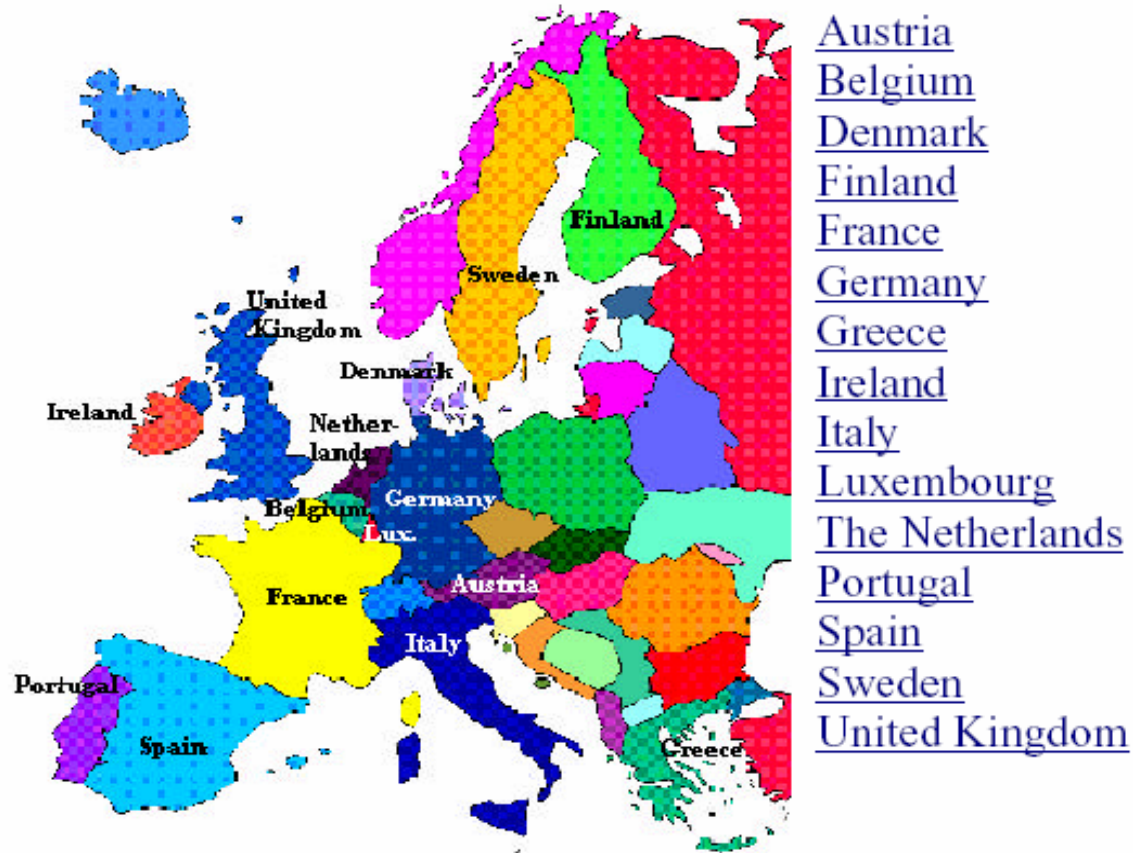


WEEE (Waste Electrical and Electronic Equipment)

WEEE IS GOING TO:

- **IMPACT STORAGETEK'S EUROPEAN REVENUE STREAM
(JAPAN IS PASSING SIMILAR LEGISLATION)**
- **DEMAND THAT WE HAVE COMPLETE DOCUMENTATION,
CERTIFICATION AND WEIGHT % CONTENT OF ALL RESTRICTED OR
HAZARDOUS SUBSTANCES (ROHS).**
- **DEMAND THAT IMPORTS NOT ACCOMPANIED BY THE CORRECT
PAPER WORK BE SENT TO AN INDEPENDANT TESTING LAB FOR
ANALYSIS AT THE MANUFACTURERS EXPENSE.**

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WEEE TIMELINE (current status)

REGULATORY TIMELINE	'02	'03	'04	'05	'06	'07
Anticipated Passage of Directive	→	☹				
Member Countries Begin Passing Their Legislation		☹	→			
WEEE Directive Becomes Law					☹	
Manufacturers Compliant No Later Than					☹	
StorageTek Product Development Time		→	→	→		
SUPPLY CHAIN TIMELINE						
All Components Lead-Free			☹			
First Products Lead Free		☹				
All Products Lead Free			☹			
Eliminate Other Heavy Metals	☹					
Eliminate Identified Flame Retardants	☹					

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TEAM OBJECTIVES

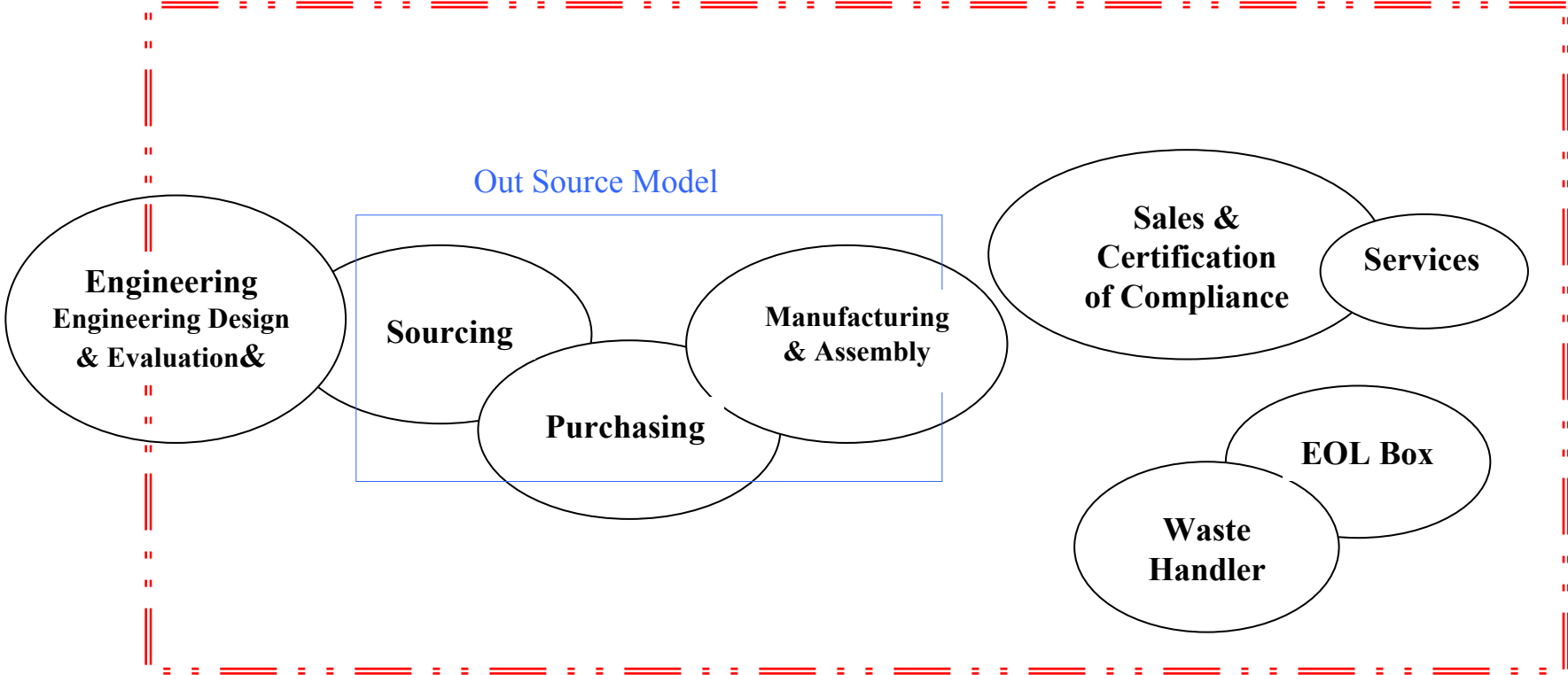
- OBTAIN EXECUTIVE MANAGEMENT, SUPPORT AND RESOURCES
- PUSH WEEE HORIZONTALLY AND VERTICALLY THROUGH OUT OPERATION
- CONTINUE WITH NATIONAL ELECTRONICS MANUFACTURING INITIATIVE (NEMI) MEMBERSHIP
- RECOMMEND HOW WEEE COMPLIANCE SHOULD BE MANAGED

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Legal / EHS / Risk Management / Financial / Government Relations / IS

WEEE Business Process



StorageTek is responsible for its products Cradle to Grave

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BENCHMARK WHAT'S BEEN DONE ELSEWHERE

NEMI WAS CONTACTED FOR INFORMATION ON OTHER MEMBER COMPANIES AND HOW THEY WERE PREPARING FOR WEEE COMPLIANCE.

- **NO BENCHMARKING INFORMATION IS AVAILABLE AT THIS POINT.**

NEMI PROPOSING TO ESTABLISH A WEEE WORKSHOP IN THEIR BUSINESS LEADERSHIP TEAM TO ADDRESS THIS.

- **TO REAP THE BENEFITS WE MUST PARTICIPATE**

**ESTABLISH THE STANDARDS / PROTOCOLS FROM THIS WORKSHOP
STORAGETEK SHOULD RENEW MEMBERSHIP IN NEMI AND ATTEND MEETINGS**



RECOMMENDED STRATEGY FOR WEEE IMPLEMENTATION

THE TEAM FEELS THAT THE FIRST TWO STRATEGIES LISTED ARE NOT OPTIONS. THEY WERE RAISED HERE SO THE CONSEQUENCES COULD BE EXAMINED.

STRATEGY 1: DO NOTHING INTERNALLY TO ADDRESS WEEE. ABSORB THE EXPENSES AT CUSTOMS OR THE WASTE HANDLER.

**RISKS: 1) OUR PRODUCT WILL NOT PASS CUSTOMS
2) JEOPARDIZE REVENUE / OEM RELATIONSHIPS**

STRATEGY 2: ABDICATE ALL RESPONSIBILITY TO THE CONTRACTED MANUFACTURER

**RISKS: 1) JEOPARDIZE REVENUE / OEM RELATIONSHIPS
2) NO CONTROL OVER PRODUCT CERTIFICATION
3) UNKNOWINGLY OPEN TO LITIGATION
4) LOSE TOUCH WITH INDUSTRIES ON THE CUTTING EDGE**

STRATEGY 3: DEVELOP AN INTERNAL INFRASTRUCTURE THAT WILL SUPPORT A SHARED VISIBILITY TO THE DATA

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RECOMMENDED STRATEGY FOR WEEE IMPLEMENTATION (continued)

STRATEGY 3: (continued)

RISKS:

- 1) RESOURCES ALLOCATED TO THE PROBLEM,**
- 2) SUPPORT GIVEN TO BUSINESS PROCESS CHANGES**
- 3) PRIORITY GIVEN TO SOFTWARE DEVELOPMENT.**
- 4) ESTIMATED 2.0 YEAR PROJECT**
- 5) UNABLE TO STAY ON CUTTING EDGE OF ELECTRONIC DATA INTERCHANGE
(edi)**

BENEFITS:

- 1) THE SAME INFORMATION ACCESSABLE BY EVERYONE AT THE SAME
TIME**
- 2) BETTER VISIBILITY OF THE INSTALL BASE**
- 3) PROVIDES THE INFORMATION NECESSARY TO PROVE COMPLIANCE**
- 4) SUPPORTS CUSTOMER FIRST**
- 5) PROVIDES THE INFRASTRUCTURE THAT ENCOURAGES LEAN THINKING**



SUMMARY - RECOMMENDATIONS

RENEW MEMEBERSHIP IN NEMI

DRIVE THE WEEE EFFORT VERTICALLY AND HORIZONTALLY WITH SPECIFIC GOALS THROUGH OUT CORPORATION

RETAIN LEGAL COUNCIL IN EUROPE

PROVIDE ENGINEERING WITH WEEE COMPLIANT PARTS LIST FOR NEW GENERATION MACHINES.

DEVELOP AND MAINTAIN A WASTE HANDLING SYSTEM AT THE BOX LEVEL

DESIGN FOR EASY DISMANTELING AT THE WASTE HANDLER

DEVELOP A CROSS-FUNCTIONAL INFORMATION SYSTEM WITH BROAD ACCESS

ASSIGN A RESPONSIBLE ENGINEER(S) TO ADVISE ON / REVIEW ENVIRONMENTALLY SUSTAINABLE ELECTRONIC AND MATERIALS PROCESSES.

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SUMMARY - COSTS

THIS PROJECT WILL NOT BRING IMMEDIATE RESULTS TO THE BOTTOM LINE.

THIS PROJECT WILL BE BENEFICIAL FOR ITS LONG TERM COST AVOIDANCE.

NO ADDITIONAL COSTS FOR “DESIGNING GREEN” OR FOR EASE OF DISASSEMBLY.

WEEE COMPLIANT PARTS WILL BE SOLD AT AT AN INCREMENTAL COST TO COVER MATERIALS

STRATEGY 3\$800,000 OVER 2 YEARS MAX - NO NEW SOFTWARE

NEMI MEMEBERSHIP..... \$40,000 / YEAR

COUNCIL IN EUROPE..... \$20,000/ YEAR

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