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solutions

Green Oak Solutions



Management Software Solutions for Secure Reuse and Recycling Factories

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Landscape of Emerging Regional Recycling and Reuse Business

- Family business up to large scale implementations
- Very different level of recycling and refurbishment technologies planned or implemented
- Very different process and quality standards
- Recycling volume for some recycling technologies to small
- Limited international cooperation
- Legal aspects of cross border movements implemented on various levels

How Emerging Recycling and Reuse Business can be Contracted?

- Process, enviromental and quality standards implemented?
- Transparency?
- End-to-end cross boarder track and trace possible?
- Cost and business process management?

We need high business standards!

We need cost efficient implementations!

We have to avoid negativ news !

Recyclers - Compliance Continuum

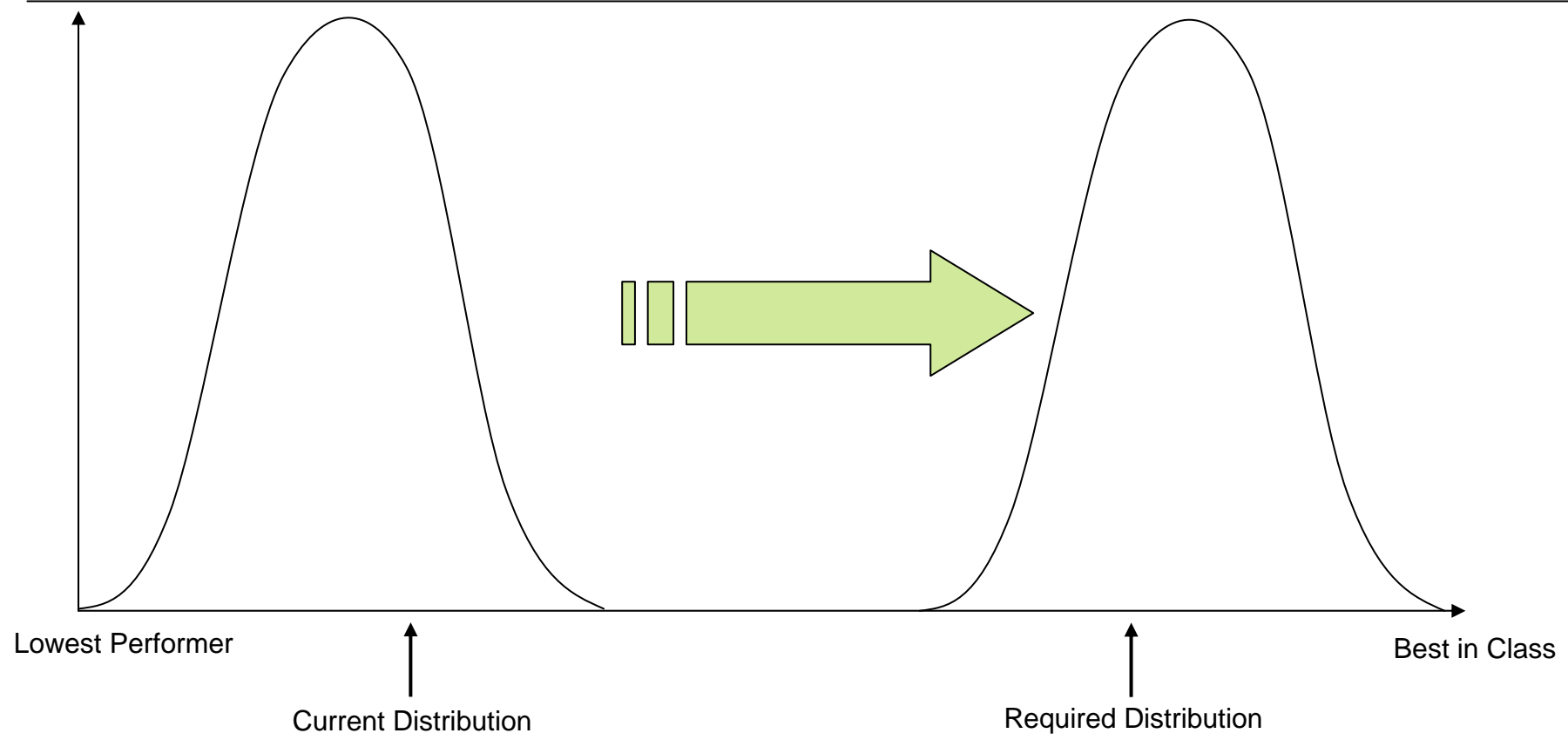
- Fully Compliant
- “Leading Edge”
- Marketing Potential → “Corporate Responsibility”
- Care and Maintenance of Operation

- Full knowledge of extended “Waste” Supply Chain
- Understands Compliance Responsibilities in each area
- Has validated technical capabilities across Supply Chain
- Payments linked to proof of Compliance
- Full data transparency at transactional level
- Consolidated auditable corporate reporting capability of all Waste streams
- Fully identified all Waste Streams
- Process in place to handle new Waste Streams and approve new Suppliers etc.

- Unable to confirm / Identify all waste streams
- Unable to identify full supply chain
- Unclear on full scope of compliance responsibilities
- Unclear of technical capabilities of Supply Chain
- No Payment linkage to proof of Compliance
- No Data / Transactional tracking of Waste Disposal
- No consolidated corporate view of disposals
- No process in place to address new Waste Streams

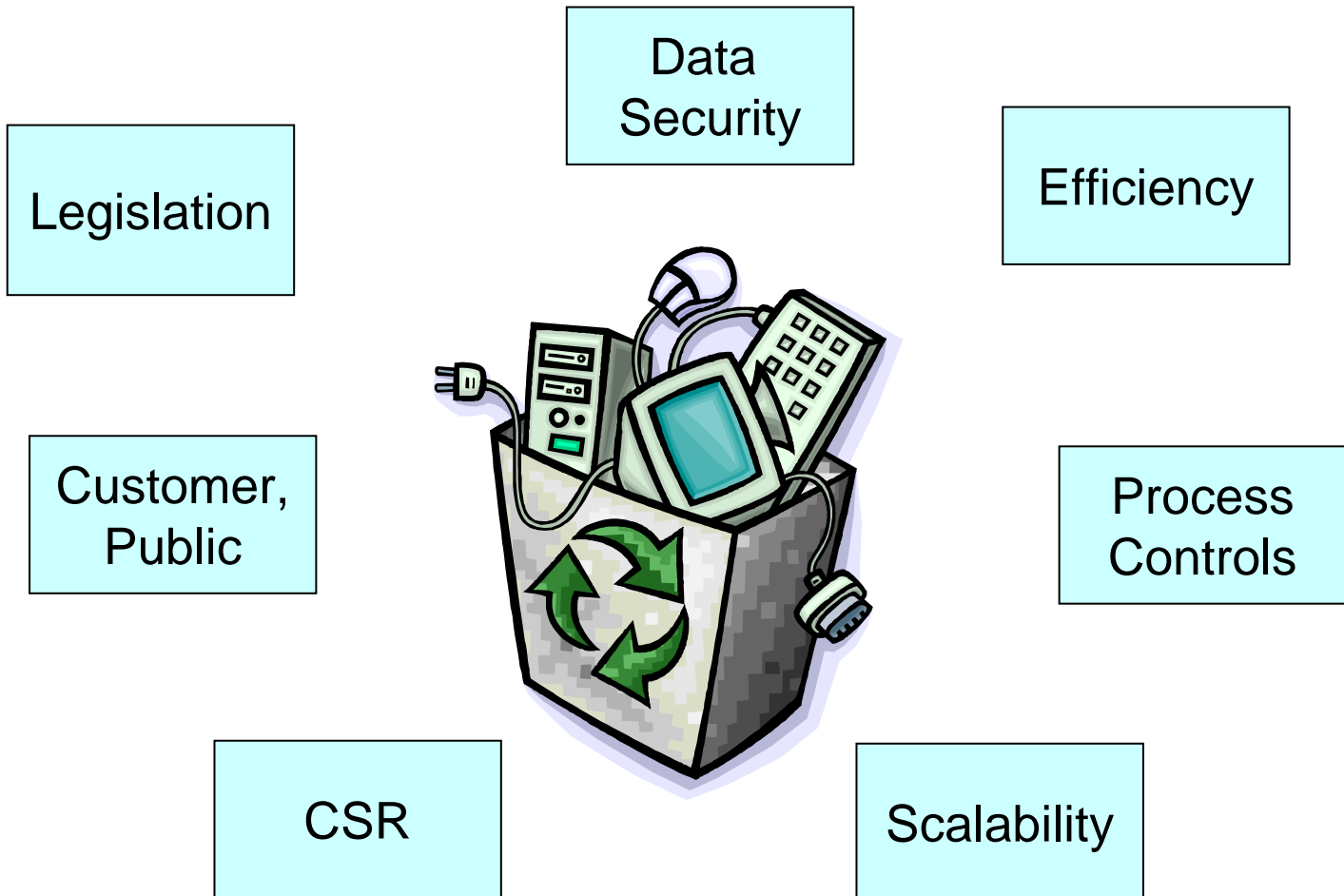
- Out of Control
- Exposed to losing Trading Capability
- Significant Analysis, deployment and ongoing control effort required
- Reputation at Risk

Recyclers - Compliance Continuum



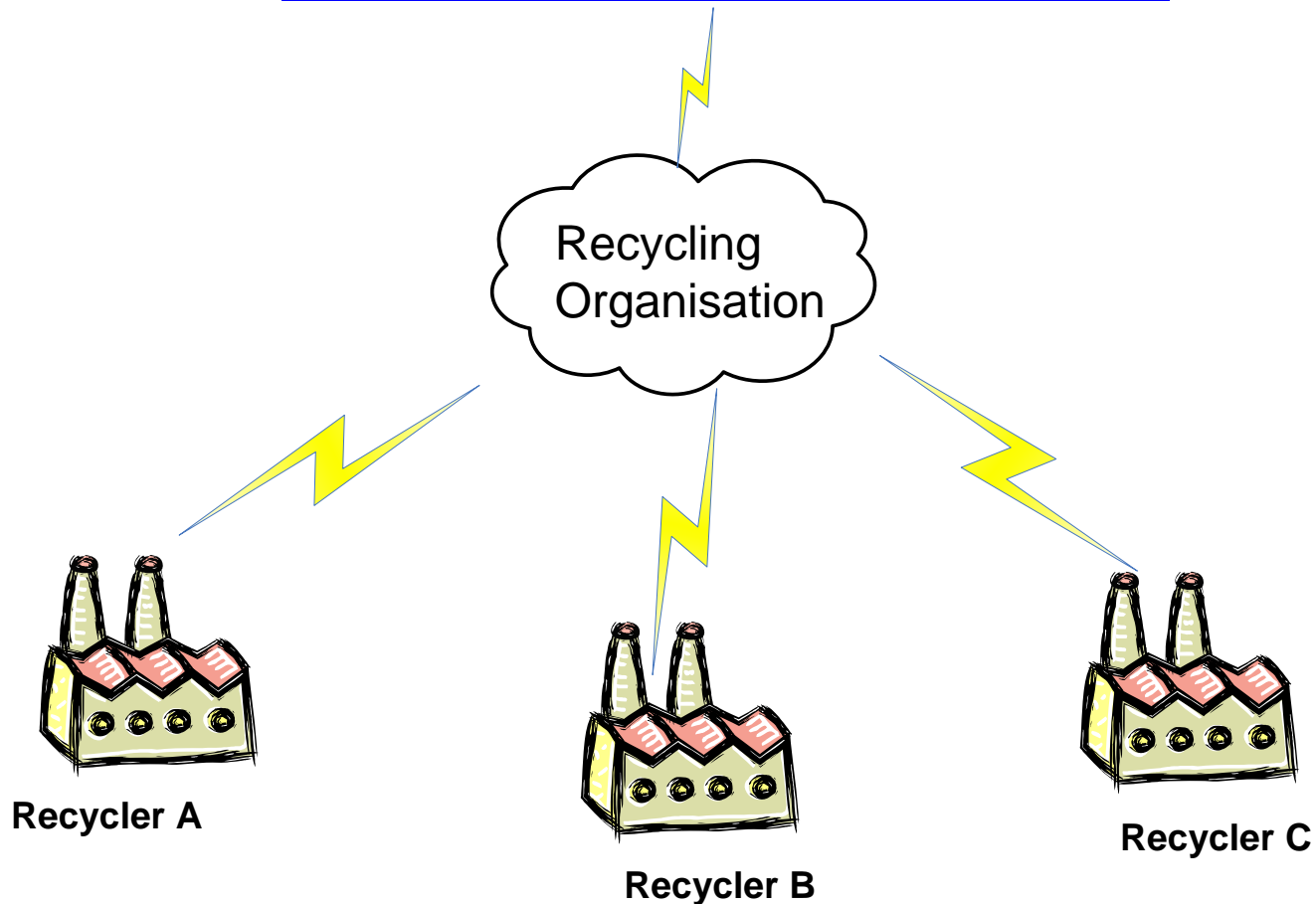
- Significant Process Analysis
- Supplier Conversion
- IT / Data Transparency

Why do I need management system supported by software?



Multiple Organisation on Multiple Levels of Technology in Multiple Locations (Countries)

Gov. and Business Partners



Legislation

Legislation includes:

- Basel Convention
 - Step 1 - Minimising generation of hazardous wastes
 - Step 2 - Treat and dispose of hazardous wastes as close as possible to where they are generated
 - Technical Guidelines detailing environmentally sound management disposal methods
 - Step 3 – Minimize international movements of hazardous wastes
- Local legislative requirements
- Working with EU contracts: WEEE directive (EU)
 - Producer Responsibility requirements
 - Annex II considerations



Corporate Social Responsibility

Your customers have specific responsibilities and requirements:

- Corporate commitment to sustainability - Environmental Policy
- Subject to legislation - WEEE directive or the Basel Convention
- ISO 14001 certification
- Subject to Data Protection legislation

Your process needs to be robust enough to mitigate your customers' legal risks and also protect their brand reputation!



Data Security

- Escalating occurrence of security exposures associated with disposal of data within corporations, banks, gov't departments
- Proliferation of data security legislation throughout the globe – Data Protection Act etc.
- Corporations have to ensure that they have the highest levels of compliance backed up by fully secure disposal processes in order to fully mitigate risks

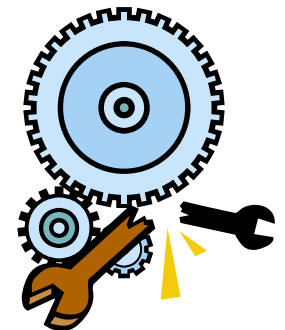


Exposures can seriously damage corporate brand

Efficiency Considerations

Consider how a good software system can help minimise administrative effort:

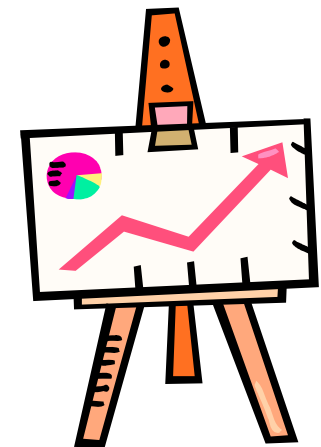
- What information do my customers require before I can invoice?
- Can I minimise the effort associated with creating required shipping documentation such as Trans Frontier Shipment (TFS) information?
- What information is required for legislative reporting purposes?
- What specific reports do my customers require?
- How do I minimise double entry of data?



Process Considerations

Can my management/ IT system help me:

- Easily identify specific material including customer details, order #, status etc.?
- Provide accurate view of material in inventory that enables me to quickly locate specific waste/material?
- Distinguish between material that **has been processed** and material that **has not been processed**?
- Plan capacity and manage backlog situations?
- Record evidence of destruction of specific materials or removal of e.g. Annex II materials?



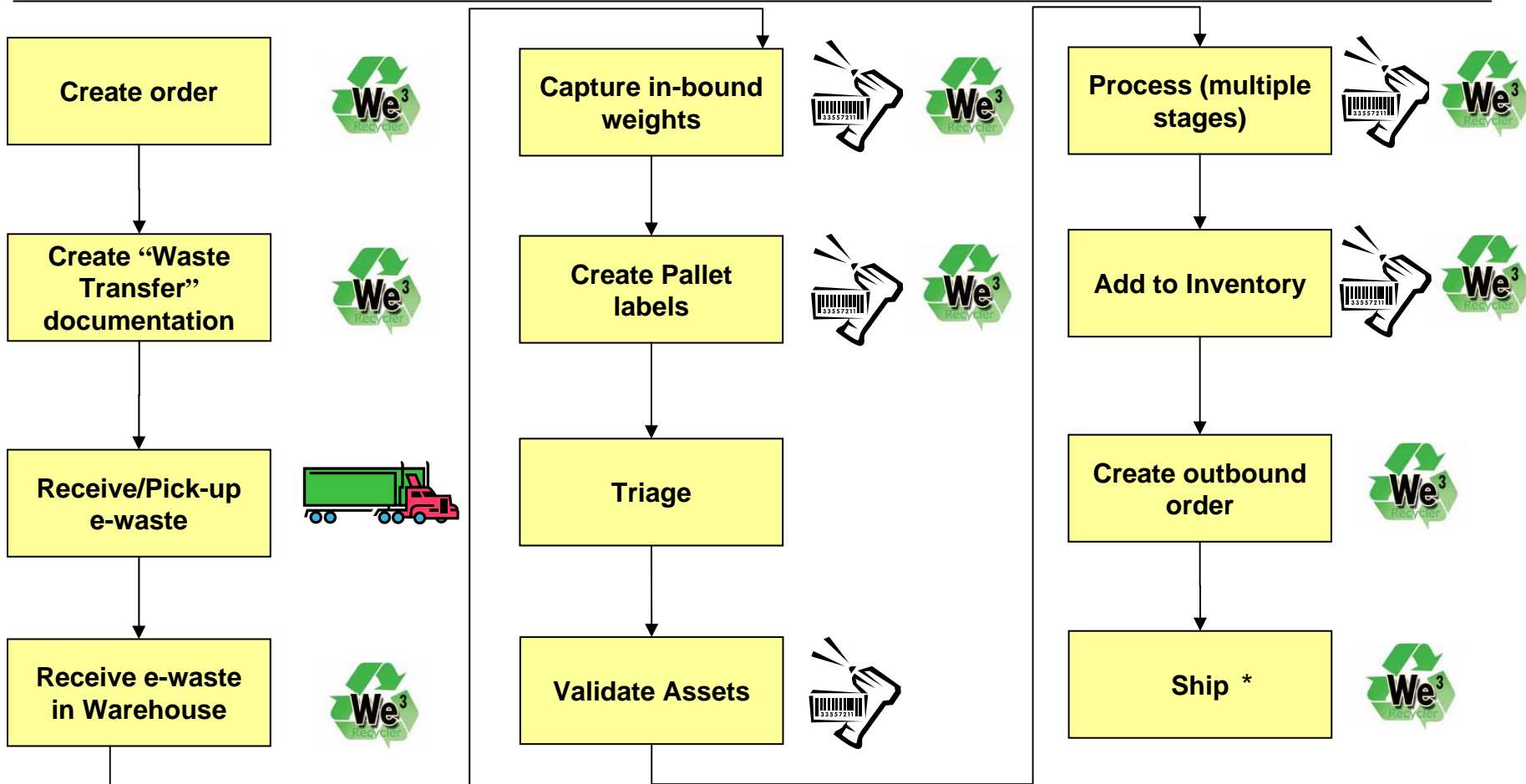
We3 Recycler - Overview

We3 Recycler is the leading web-based software specifically designed for the e-waste recycling industry. Features include:

- Management of Customer/Supplier details
- Order creation
- Order scheduling, fulfilment and inventory management
- Mobile capability
- Weighbridge Integration
- Product Catalogue
- Track and Trace
- Workflow Management
- Invoicing
- Compliance and Management Reporting



Complete end-to-end traceability!



* Certificate of destruction can be requested from downstream processors and recorded against outbound order number

Processing Support

- Support for ANY waste processing requirements including:
 - IT Asset recovery/ Refurbishment
 - CRT recycling
 - Fridge recycling
 - WEEE recycling
 - Shred and separate
 - Full asset track and trace – via *Dynamic Workflow Manager*



Flexibility - Dynamic Workflow Manager

Easily create/modify workflows for *ANY PROCESS* – *Change INSTRUCTION SCREENS, PRODUCT ROUTING AND DATA CAPTURE!*

AMS Processor Client : Version 3.2.0.19131

File Unit Processing Modules Information Views Administration Windows Info

Validation Line Worker Change Workflow Unit Information Add Container Add Product Inv By Product Inv By Location

Graphical Action Designer

Action Step Tool Box

Standard output Product Change Capture Attributes Add To Inventory Harvest To Inventory Capture Faults ZeroData DiskWipe Generic DiskWipe Blanco DiskWipe Move To Workflow

Workflow Detail Selection

Workflow: Recycle

Detail: Recycle

Get

Action Title: Recycle Workflow

Action Info:

Decision Title: Finished Goods

Decision Text: Do you have harvested product that you want to add to Finished Goods Inventory

Outcome Title: Please Choose One

True Button: Yes

False Button: No

Exception Button:

START

END

True Destination
False Destination
Other Destination

Set True To End
Set False To End
Set Other To End

Remove True
Remove False
Remove Other

Set As Start Point

Delete

Save Actions

InventoryViewSupervisor, LineWorker, amsadministrator, LineWorkerSupervisor, Local Client Monitor Test Functional Test

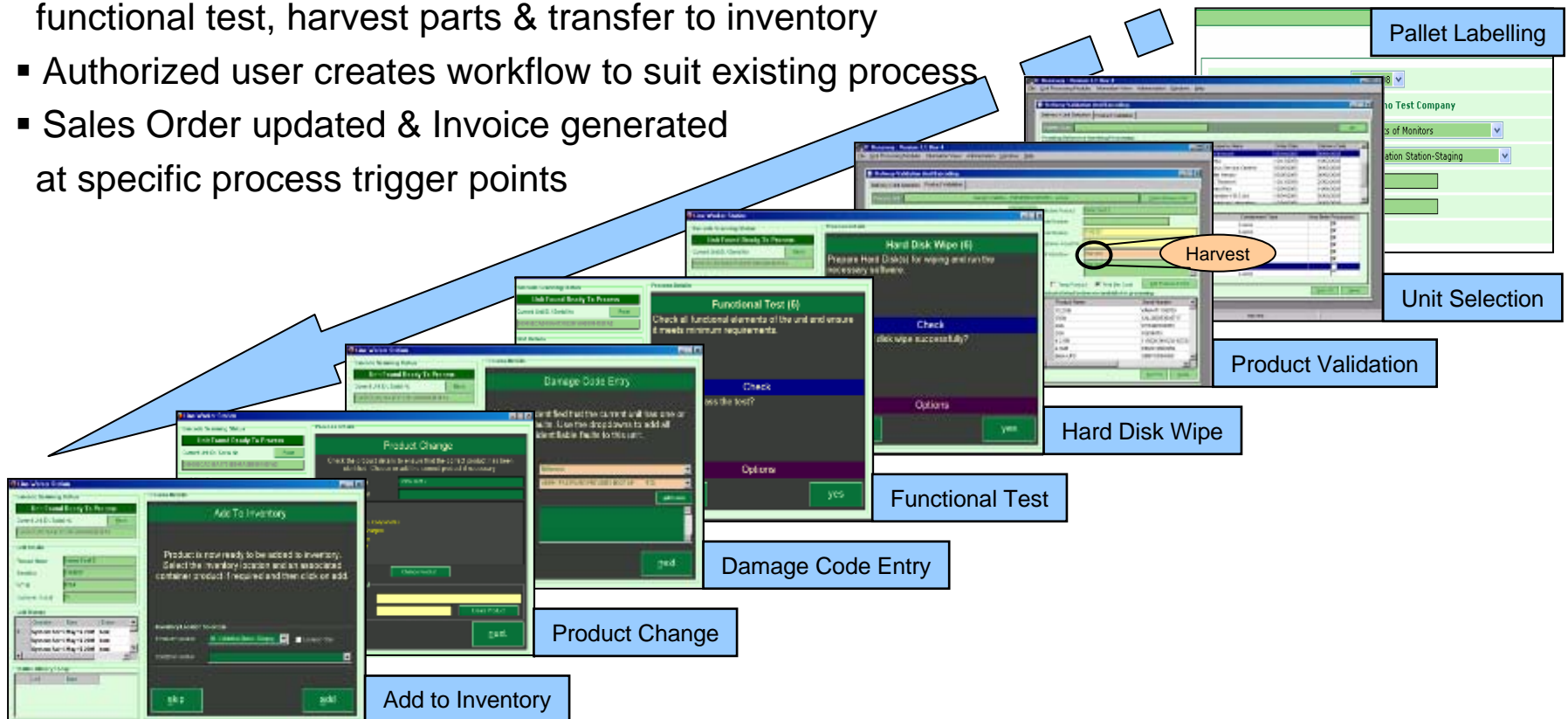
Custom screen design

Pre-defined process steps

Easy to use drag and drop designer

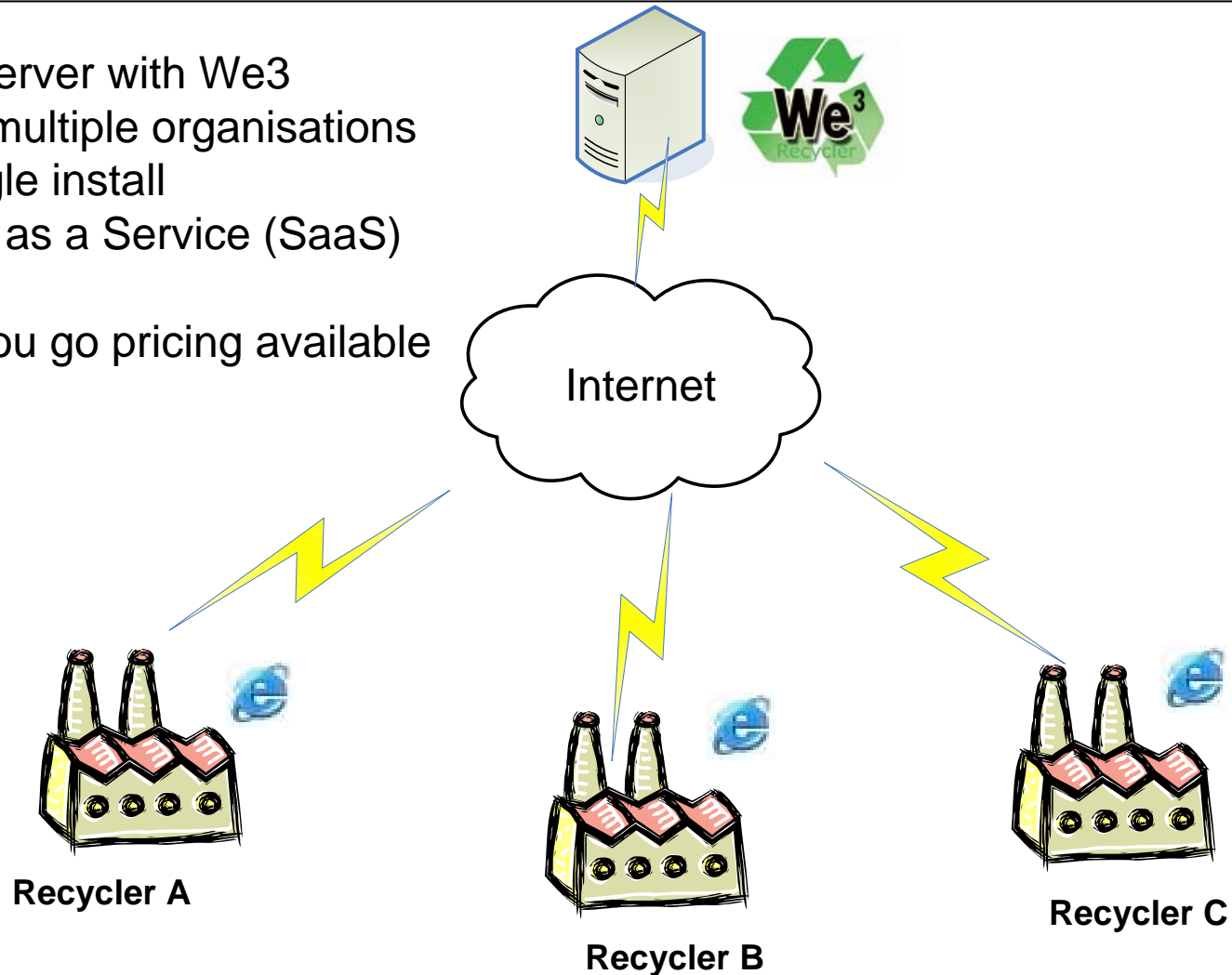
Example of Workflow

- Full track and trace using GUIDs (global unique IDs)
- Example of a more complex workflow - “Harvest”: Hard disk wipe, functional test, harvest parts & transfer to inventory
- Authorized user creates workflow to suit existing process
- Sales Order updated & Invoice generated at specific process trigger points



Web-based and Multiple Organisation

- Hosted server with We3
- Support multiple organisations from a single install
- Software as a Service (SaaS) model
- Pay as you go pricing available



Automated Invoicing

- Automated invoicing upon receipt/validation of material
- Customer specific pricing
- Add special charges for logistics etc
- Sales and purchase invoices.
- Export invoices to third party financial systems

The screenshot displays the 'We3 Finance Manager' application. The main window shows a 'Print Preview' of an invoice. The invoice is for 'UK Recycle' and is dated 09-26-2008. The invoice number is 600122. The net amount is £7.00, and the VAT is £2.49. The total amount is £9.49. The invoice is for a quantity of 14 lamps. The company logo is 'Goes Here'.

Quantity	Weight	Details	Unit Price	Net Amount	VAT Rate	Vat
14	0.00	Lamp	£0.50	£7.00	7.00	£2.49

Date: 09-26-2008, RTD: Eagle 72, 60, Carter - Edinmark Recycling, RTD # - 6000307, Customer RTD # - 223231, Company # - 42141

Track CODs from Downstream Processors

Set inbound/outbound orders to Certificate of Destruction required from downstream processor

The screenshot displays the 'QL06 Order Traceability with Drill Down' report in a web browser. The main interface shows order details for 'Test Company 1', including dates and a checked 'Cod Required for this customer' flag. A table on the right lists order history with columns for 'Loading', 'Customer', 'Operator', 'Gross Weight', 'Inventory Location', 'Serial Number', and 'Work Flow'. A callout box labeled 'Set COD required flag' points to the checked checkbox in the order details. Another callout box labeled 'Order Traceability Report with COD' points to a row in the table where the 'Work Flow' is 'COD'.

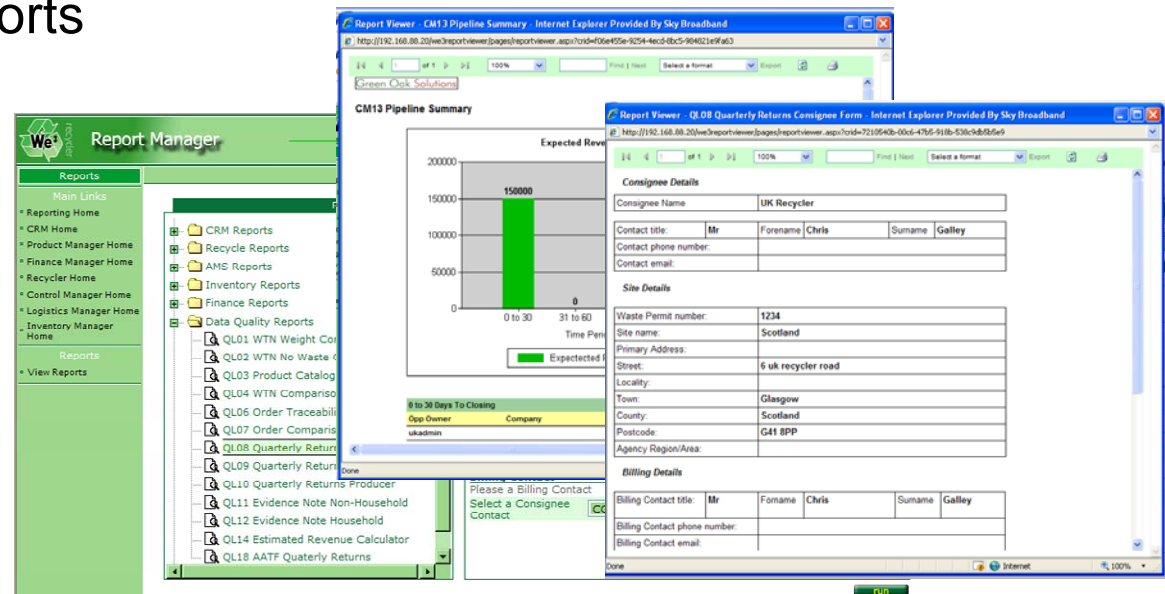
Loading	Customer	Operator	Serial Number	Work Flow
305-5454	Ge...	George Offei		
	Gross Weight	Inventory Location	Operator	
	280.00000000	Receiving	George Offei	
or	Serial Number	Work Flow		
Offei	TMP0B0901CB33AD	COD		
reated	Operator	Serial Number	Work Flow	
/19/2009 2:23:37 PM	Nicki Limebeer	TMP8A69D10BC539	COD	
reated	Operator	Serial Number	Work Flow	
/19/2009 2:19:56 PM	Nicki Limebeer	TMP75CDA04222CA	COD	
reated	Operator	Serial Number	Work Flow	
/19/2009 2:28:10 PM	Nicki Limebeer	TMP724CE3FD972	COD	
reated	Operator	Serial Number	Work Flow	
/19/2009 2:22:59 PM	Nicki Limebeer	TMP22C7BFA9137	COD	
reated	Operator	Serial Number	Work Flow	
/19/2009 2:22:02 PM	Nicki Limebeer	TMP12B8E52C475F	COD	
reated	Operator	Serial Number	Work Flow	
/19/2009 2:24:48 PM	Nicki Limebeer	TMP699AF07940AA	COD	
reated	Operator	Serial Number	Work Flow	
19/2009 12:23:56 PM	Christine Clark	TMPA7E12E3CC96B	COD	
reated	Operator	Serial Number	Work Flow	
/19/2009 2:25:25 PM	Nicki Limebeer	TMP03FDE4CAAE3B	COD	
reated	Operator	Serial Number	Work Flow	
09 2:27:35 PM	Nicki Limebeer	TMP79C83D4DD469	COD	

Set COD required flag

Order Traceability Report with COD

Compliance Reporting

- Controlled and hazardous waste transfer notes
- Certificates of destruction
- Evidence Notes
- HDD wipe certificates
- Environment Agency reports



Summary

- Quality recycling processes require quality IT systems
- Extremely important for OEM customers – Brand Reputation!
- Highly flexible solutions required to cope with variety of products and recycling processes
- Must be able to drive process efficiencies
- Web-based solutions – flexible and scalable on all levels of technology and organizational structures

Cooperation Possibilities

We are interested in cooperation to establish local and international recycling and reuse management infrastructures for any level of technology and product/ waste type to enable you to partner professional local and international customers for any level of technology and product/ waste types.

Thank You!

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