

# Re-turn

## Ireland's New Deposit Return Scheme

IT & Data Flows  
29<sup>th</sup> June 2023

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# Agenda

## Today's Agenda to cover ...

1. Background
2. High Level - Schedules
3. System Overview
4. Information Architecture
5. Data Flow Diagram
5. Re-turn Portal
6. Producer Registration
7. Product Registration
8. Retailer Registration
9. Finance Aspects
10. Producer Monthly Reporting
11. AOB

# 1. Background

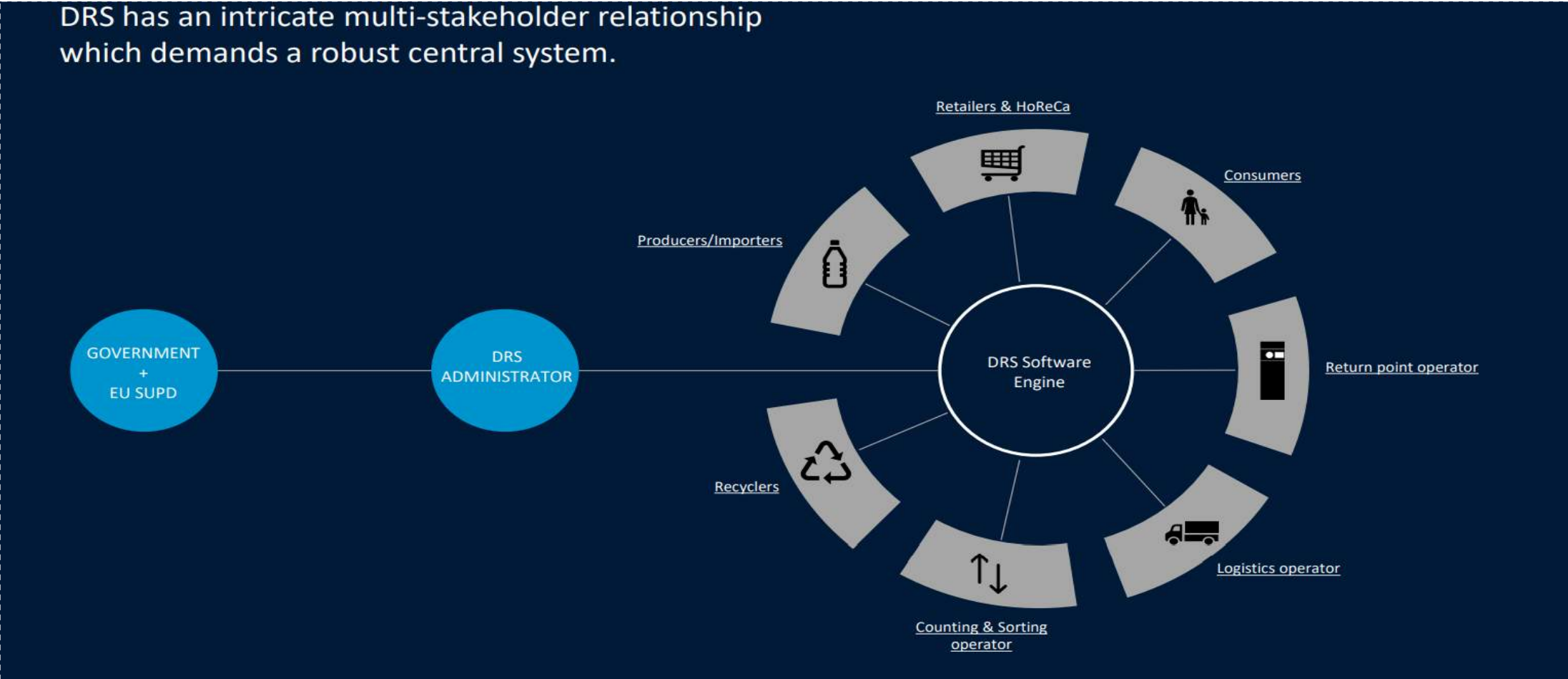
Ireland has committed to a Deposit Return Scheme as it incentivizes recycling by placing a monetary value on beverage containers.

- The consumer pays a small deposit on top of the retail price when they buy a drink or single-use container.
- The Deposit value was announced by Minister Ossian Smyth on 28 November, 2022.
- Return points will be located throughout the Republic of Ireland
- Beverage container materials included are:
  - **PET plastic bottles**
  - **Aluminium and steel cans**
- Containers from 150ml up to 3 litres are included in the scheme.

Consumers may return their empty containers either by using a reverse vending machine (RVM), or over the counter to an approved return point operator.

# 1. Background

What does the DRS system need to do and for who ?



# 1. Background

**The DRSI Technology Platform will manage a full transparent flow of money, data and material streams to fulfill obligated businesses needs as defined in the Regulations to meet recycling targets in the most cost-efficient way.**

**Create an environment that allows Ireland to be compliant with the 2018 EU SUP Directive that states recycling targets of 90% over beverage containers by 2029**

Data Management,  
Deposit Clearing &  
Reporting System

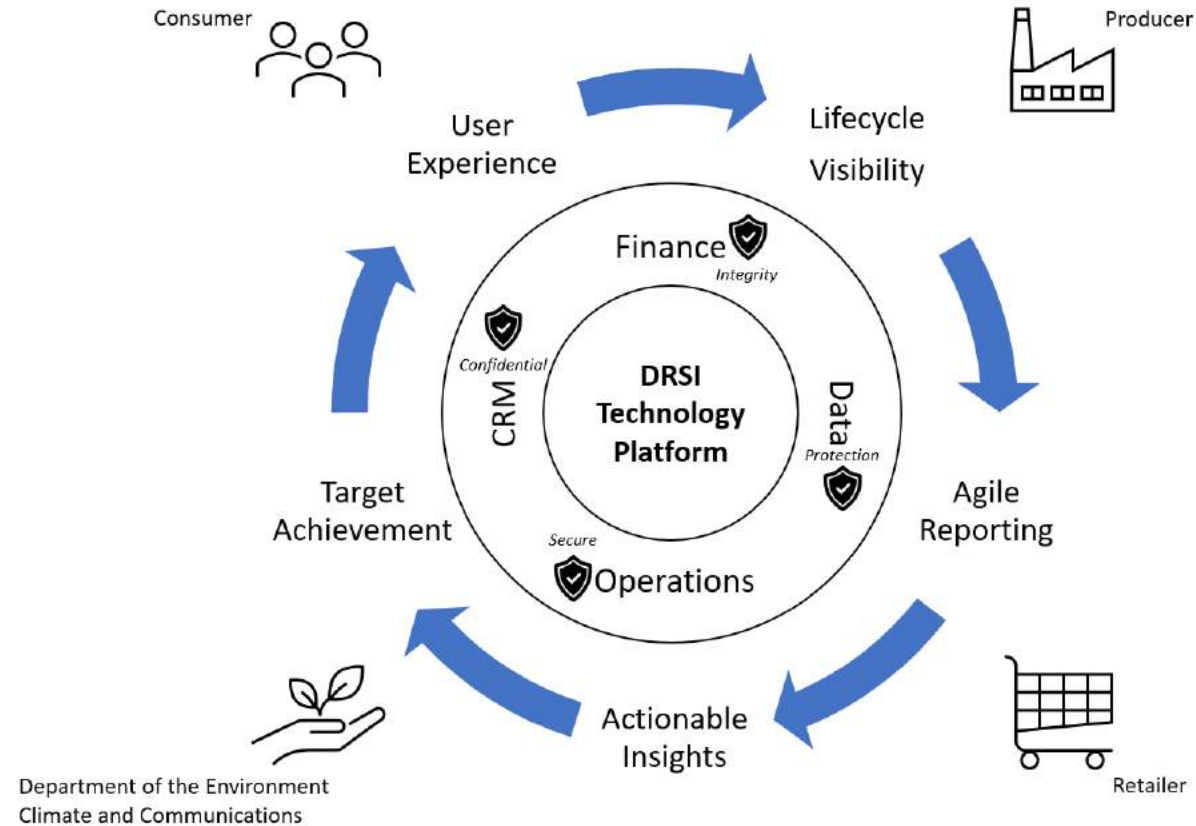
Operational  
Logistical System  
Collection /Sorting  
/Counting

IT & Finance System  
Fit for Purpose

Regulatory Reporting  
Auditing &  
Enforcement

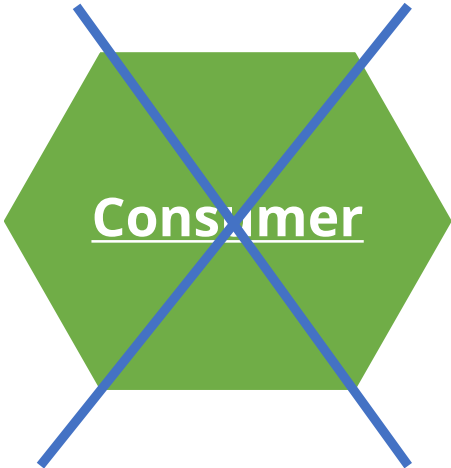
# 1. Background

The DRSI Technology Platform will be a robust, scalable, extensible and agile Digital Platform Solution which will empower the Circular Economy. It will deliver a frictionless and rich user experience across the product circular lifecycle providing traceability, data integrity, insights and reporting, supporting the achievement of targets as set out in the Directive (EU) 2019/904/EC and future iterations.



# 1. Background

Who will be directly involved with the DRS Platform ?



# 1. Background – high level

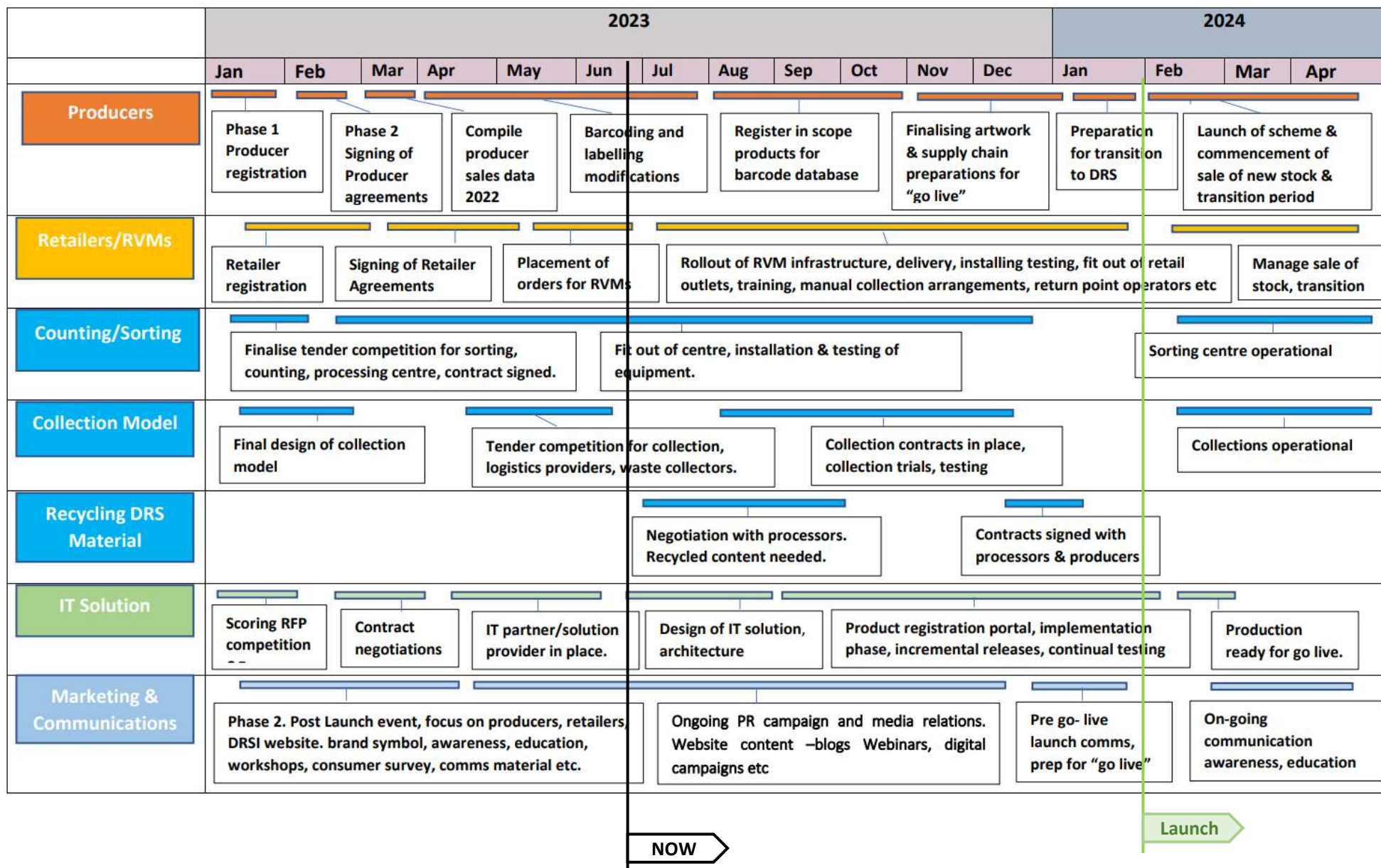
1. **Producers** place products on the market. They are obliged to register and report to **DRSI** the quantity and type and to pay associated deposit and fees.
2. **Retailers** sell the products to **Consumers**.
3. **Consumers** buy the products and return empty containers to either a **manual RPO** or an **RVM** which will associated (usually) with a Retailer.
4. **Transporters** pick-up bags with containers from the **manual RPOs**
5. **Transporters** pick-up compressed containers from the **RVMs**
6. **Transporters** deliver the containers to the **Sorting & Counting Centre** for collection, sorting and other waste manipulation processes
7. **The Sorting & Counting Centre** sells the processed plastic to a **Reprocessor**.
8. One or several **Reprocessors** manipulate the plastic bought from the **Sorting & Counting Centres** and sell the recycled material to Producer so they can bring it back to market.





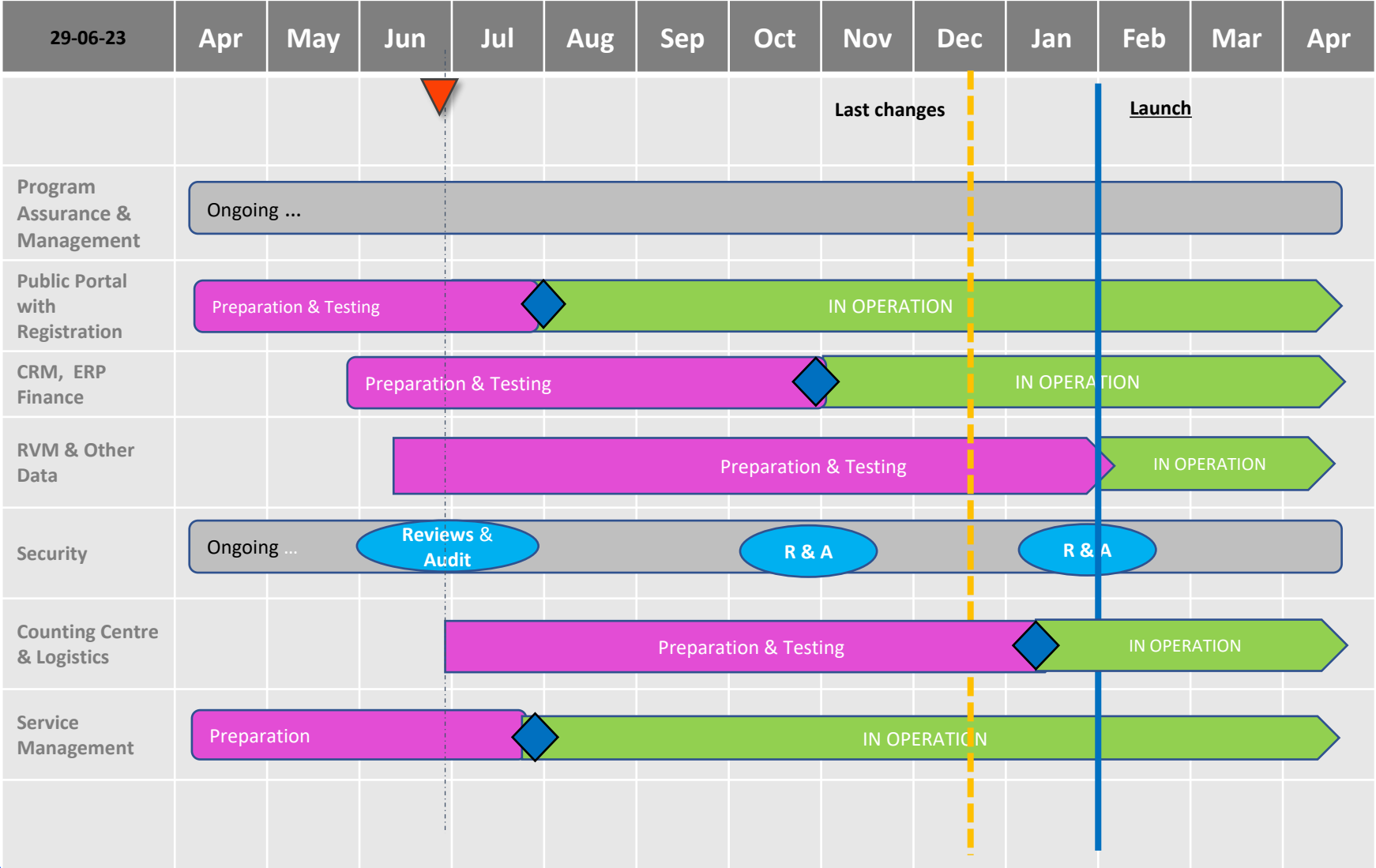
# 2. Timelines - Overall Program

Re-turn High-level Timeline (Critical Path)



# 2. IT Time Plans – Plan on a Page

**Full Consumer Launch = Feb 2024**



Comments
Governance, tracking, budget, schedule, risks
Retailers, producers, products, container whitelist
Financial Reporting ; Calculation Engine(s). Payments and Invoices
Process Transaction Reports. Support Retailer testing. DRSI access to RVM data
Reviews and audits as we roll out new functionality
Integrate with 2 other systems for reporting and data collection
Support , trouble shooting



# 3. System Overview - Components

DRSI			
Self Service	Finance	Governance	Back Office
Registration Access	“Customers” “Suppliers” Fees & Deposits Bank General Ledger	Compliance Audit Reports	Administration Reporting Reconciliations

# 3. System Overview - Components

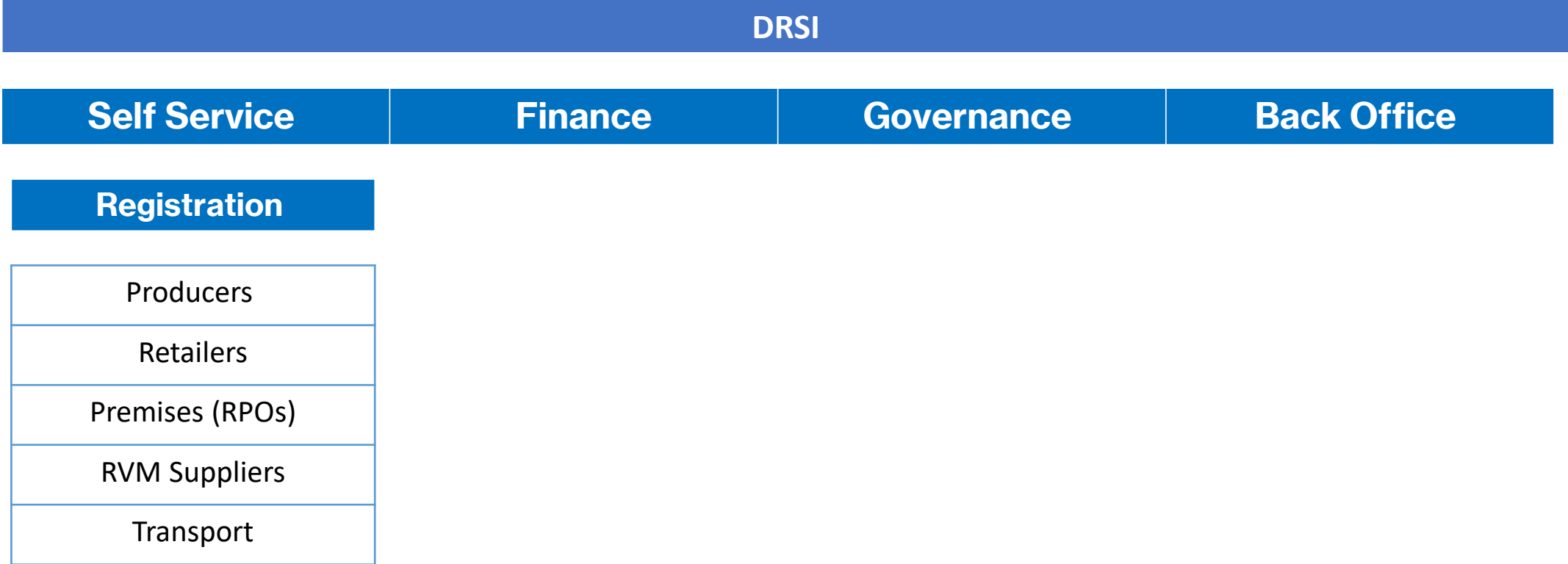
DRSI

Finance

Customer
Producers

Supplier
Retailers
Return Point Operators
RVM Suppliers
Transport
Counting

# 3. System Overview - Components



### 3. System Overview - Considerations

**Security and Data protection** is an essential element of the DRS implementation.

The Solution implementation has several IT-security specialists engaged that will be supporting the platform with audits, PEN tests, etc.

Security, GDPR and Data Protection is built by design.



### 3. System Overview - Considerations

**Traceability** and **auditability** of the data flows from Collection point collection up to related Invoice and Payment are key to establish basic trust between the stakeholders.

Producers/Importers and Retailers will require **access** to their (financial) data to control and audit the financial flows

**Data management** via User Interface and import/Export functionality at the Portal must be self-explanatory and straightforward to avoid escalations and requests for support.

### 3. System Overview - Technology

The Platform infrastructure chosen is based on **AZURE** cloud which is strictly single tenant and is not shared between with any other Schemes or other application customers to ensure data security and data consistency.

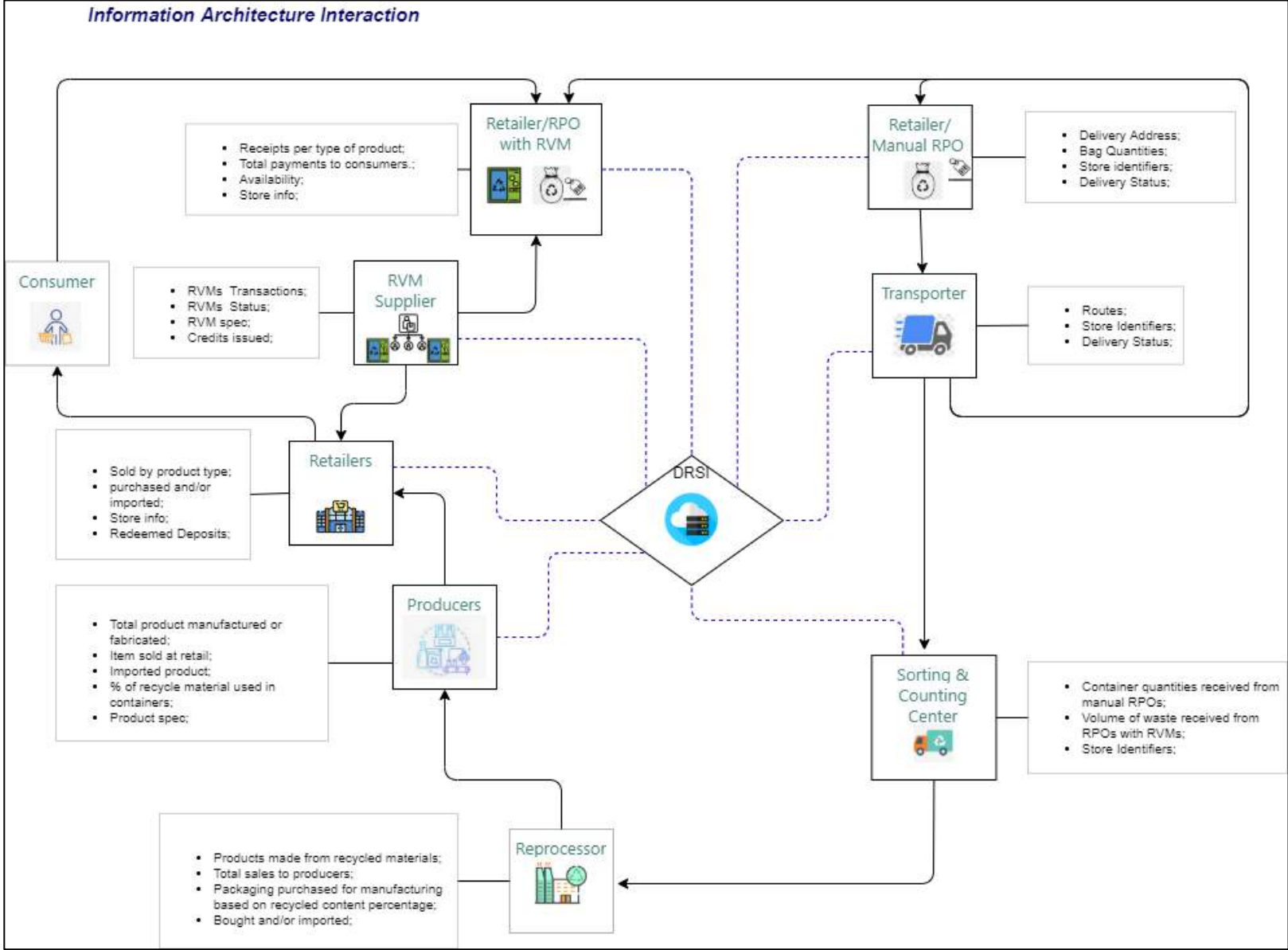
Microsoft Azure allows the setting up of automated replication to other geolocation and back-ups & archiving of the data base according to the DRSI requirements.

The architecture of the Supplier chosen is established on previous experience using already working modules elsewhere in other DRS Schemes to create a powerful, stable ecosystem with flexibility of growth and adjustments based on eventual Irish market needs.

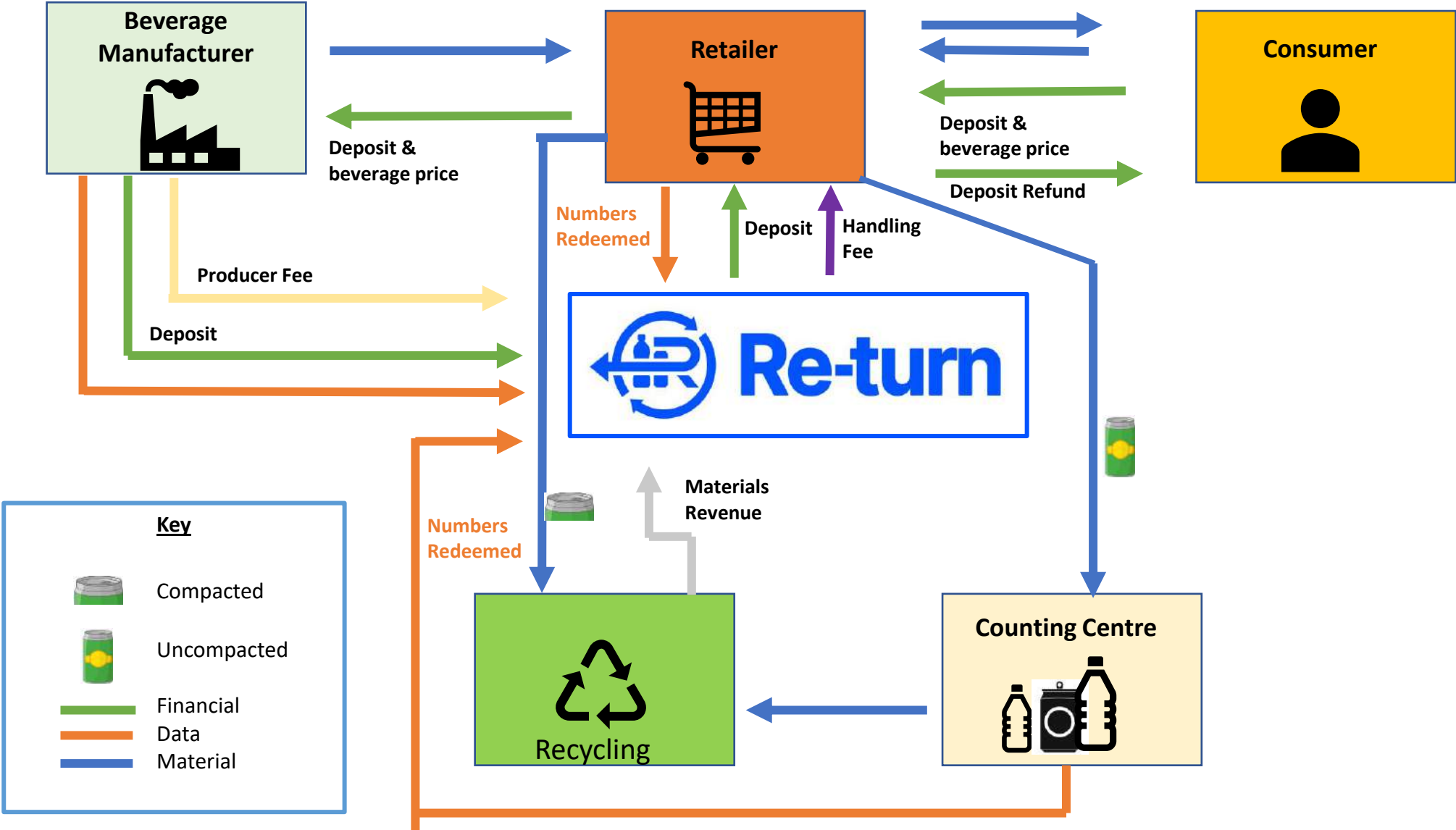


# 4. Information Flow

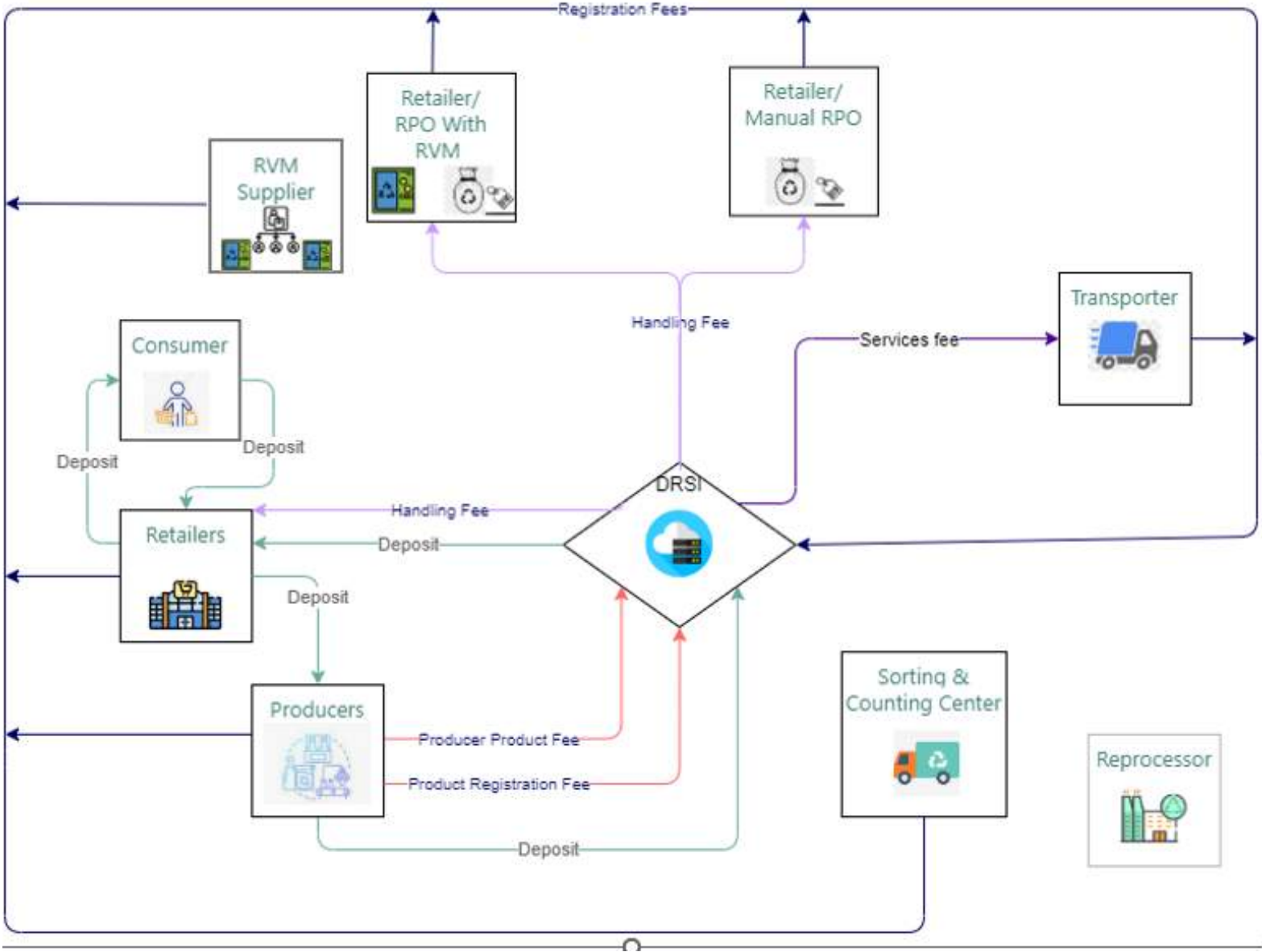
## Overview



# 4. Flow – finance, data, material

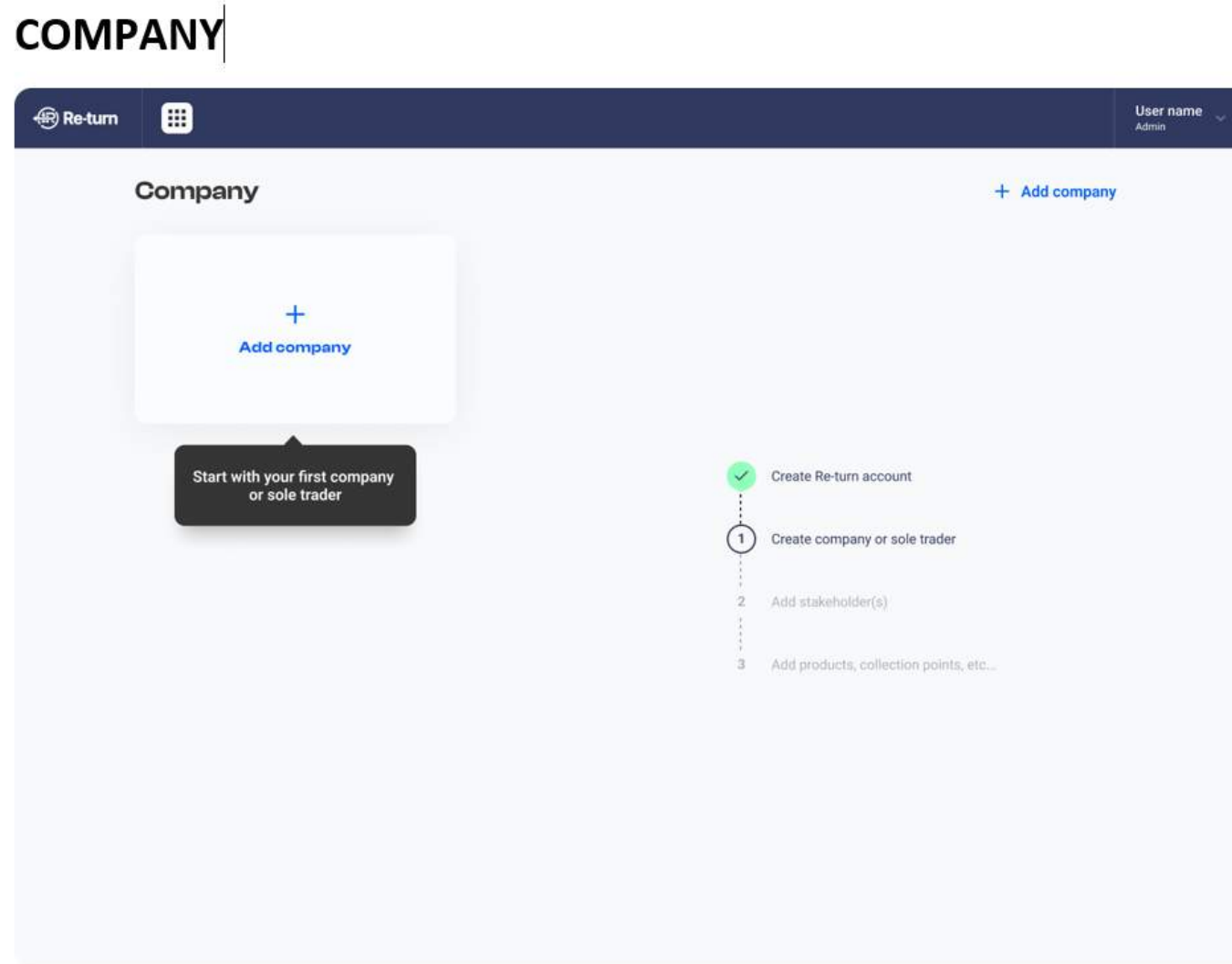


# 4. Financial Flows





# 5. Re-turn Portal – WORK IN PROGRESS screens & layouts





# 5. Re-turn Portal – WORK IN PROGRESS screens & layouts

A small, light-blue thumbnail version of the 'New Company Details' form. It shows the same layout as the larger image, including sections for Business Type, Company Details, Company Address, and Primary Contact Details. A blue 'Review' button is visible at the bottom.

**Re-turn** Add company User name Admin

### New Company Details

 Cancel

**Business Type**  
Company CRD: 19542 [Edit](#)

**Company Details**  
Company Name:   
Trading Name (Business Name) (Optional):   
Company Registration Date:   
Company Type:

**Company Address**  
Eircode:   
Address Line 1:   
Address Line 2 (Optional):   
City:  Country:



# 6. Producer Registration

Details on this was presented last week at a separate Webinar.

All **Producers** need to register with the Scheme

- provide basic information about their company
- sign a membership agreement

From August Scheme Members will have access to the new DRSI Portal that will provide for a range of activities. More capabilities will be added over the coming months

Those Producers who have already registered using the form currently on the Re-turn.ie website will be **migrated** to the new portal.

We would ask you to logon to the system and confirm your details are correct.



# 7. Product Registration

For information on product types and containers that are included in the DRS, please refer to [S.I. No. 599 of 2021 – Separate Collection \(Deposit Return Scheme\) Regulations 2021.](#)

This includes:

- Product brand and flavour
- Material aspects
- Container dimensions
- Multi-pack details
- Barcode details

A wide range of aspects regarding the Product need to be provided when registering the product on the Portal.

Samples of the product may be needed for verification with the RVM Suppliers.

Product Testing information has been sent out in recent weeks .

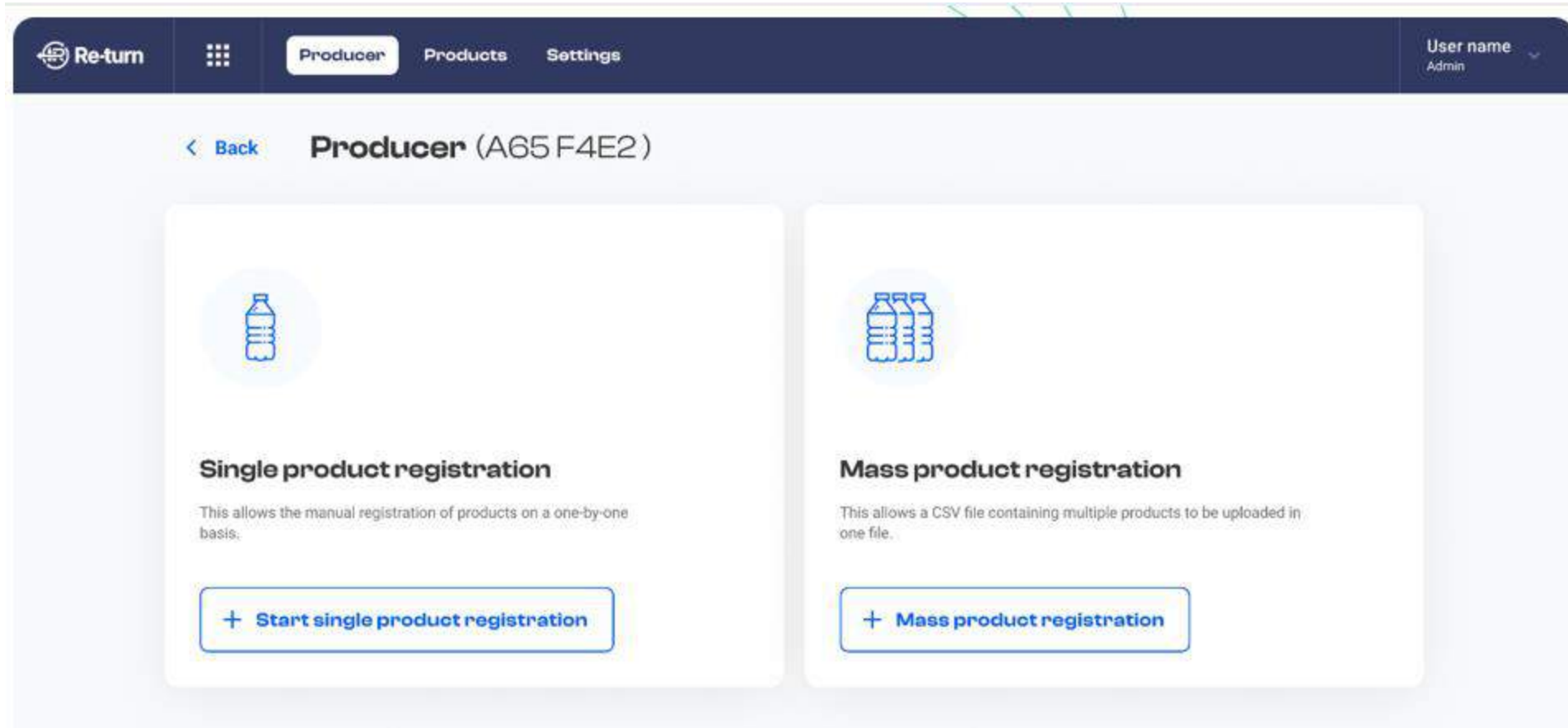
# 7. Product Registration

The portal will support the registration of products one-by-one or a batch upload of many products – will be dependent on Producers adhering to a specific CSV based format.

Before the Portal goes live in August, we will publish info regarding :

- **upload instructions**
- **example file with sample data**
- **empty formatted file with headers**

# 7. Product Registration



The screenshot displays the 'Product Registration' page for a specific 'Producer (A65 F4E2)'. The interface includes a dark blue navigation bar at the top with the 'Re-turn' logo, a menu icon, and tabs for 'Producer', 'Products', and 'Settings'. The user is logged in as 'Admin'. The main content area features a 'Back' link and the producer's name. Two registration options are presented in white cards: 'Single product registration' (with a single bottle icon) and 'Mass product registration' (with a three-bottle icon). Each card includes a brief description and a button to start the process.

**Single product registration**  
This allows the manual registration of products on a one-by-one basis.

**Mass product registration**  
This allows a CSV file containing multiple products to be uploaded in one file.

# 7. Product Registration

**Products**

Filters ▾ Search ↻ Send for approval

<input type="checkbox"/>	Barcode	First marketer name	Product full name	Material Refillable	Volume (ml) Weight (g)	Height (mm) Width (mm)	Last update	Status
<input checked="" type="checkbox"/>	8594003849626	Fake 1st marketer name	Pepsi 0.5l with sugar	PET No	500 0	348 87	DD. MM. YYYY	Draft
<input checked="" type="checkbox"/>	8594003849626	Fake 1st marketer name	Pepsi 0.5l with sugar	PET No	500 0	348 87	DD. MM. YYYY	Draft
<input checked="" type="checkbox"/>	8594003849626	Fake 1st marketer name	Pepsi 0.5l with sugar	PET No	500 0	348 87	DD. MM. YYYY	Draft
<input type="checkbox"/>	8594003849626	Fake 1st marketer name	Pepsi 0.5l with sugar	PET No	500 0	348 87	DD. MM. YYYY	Sent for approval
<input type="checkbox"/>	8594003849626	Fake 1st marketer name	Pepsi 0.5l with sugar	PET No	500 0	348 87	DD. MM. YYYY	Cancelled
<input type="checkbox"/>	8594003849626	Fake 1st marketer name	Pepsi 0.5l with sugar	PET No	500 0	348 87	DD. MM. YYYY	Sent for correction
<input type="checkbox"/>	8594003849626	Fake 1st marketer name	Pepsi 0.5l with sugar	PET No	500 0	348 87	DD. MM. YYYY	Approved



# 7. Product Registration

The data for each product can be entered one-by-one (manually though a menu system) or in bulk using formatted CSV files

The screenshot shows a web-based form for 'Single product registration'. The form is titled 'Product ID No.: 2023001' and is divided into several sections:

- Product details:** Includes fields for Product Name, Product Name (with a 'Show Details' link), Product Name, Product Name (with a 'Show Details' link), and Product Name (with a 'Show Details' link).
- Barcode details:** Includes a 'Barcode format' dropdown menu (set to 'EAN13'), a 'Barcode' input field (containing '875-0420382'), and a 'Barcode format' dropdown menu (set to 'EAN13').
- Container details:** Includes a 'Container Material' dropdown menu (set to 'PET'), a 'Container Type' dropdown menu (set to 'Can'), and a 'Container Color' dropdown menu (set to 'Transparent Colored PET').
- Container Details:** Includes a 'Container Height (mm)' input field (set to '0'), a 'Container Width (mm)' input field (set to '0'), a 'Container Depth (mm)' input field (set to '0'), a 'Container Diameter (mm)' input field (set to '0'), and a 'Container Diameter (mm)' input field (set to '0').
- Cap Details:** Includes a 'Cap Type' dropdown menu (set to 'Normal'), a 'Cap Material' dropdown menu (set to 'PET'), and a 'Cap Color' dropdown menu (set to 'PET').
- Label Details:** Includes a 'Label Type' dropdown menu (set to 'Full Body'), a 'Label Size' dropdown menu (set to 'New Label'), and a 'Label Color' dropdown menu (set to 'PET').
- Other information:** Includes a 'Product Name' input field, a 'Product Name' input field, a 'Product Name' input field, a 'Product Name' input field, a 'Product Name' input field, and a 'Product Name' input field.

The form also includes a 'Save as Draft' button and a 'Send for approval' button.

# 7. Product Registration

## Product Changes

All changes to products already included in the deposit return system must be approved by DRSI before they can be introduced. Significant changes to shape and size may mean that the container can no longer be accepted by the reverse vending machines and will require a new approval.

New sample packages and material specifications must therefore be submitted to DRSI for approval.



## New Product Registration

The registration of a new product shall be submitted to DRSI CLG for approval no later than six weeks before the planned go live. Products are registered in the producer web portal which will be available at [www.re-turn.ie](http://www.re-turn.ie).

When registering plastic bottles, specifications describing the material compositions of the bottle material, the label, the adhesive and the cap shall be included. These specifications are usually available from the packaging manufacturer.



# 8. Retailer Registration

User name  
Admin

## Register New Stakeholder

Cancel

Company Role Of No. 1

Email Of Authorised Signatory No. 1

[+ Add authorised signator](#)

### Retailer Membership Rules

By clicking this button, I acknowledge and confirm that I have read, understood, and agree to abide by the Retailer Membership Rules. This action constitutes my explicit agreement to observe, perform and be bound by the Retailer Membership Rules and any variation or supplemental terms and conditions of membership issued by the Deposit Return Scheme Ireland CLG ("DRSI") from time to time, which shall form part of the Retailer Membership Rules and shall have effect as if set out in the body of these Retailer Membership Rules. I understand that failure to comply with the Retailer Membership Rules may result in termination of my membership, without affecting any other right or remedy available to DRSI.

[Click here to view the Retailer Membership Rules](#)

I confirm and accept the Retailer Membership Rules

[Review](#)

# 8. Retailer Registration

Retailers will be providing data to the Platform in two steps

- Initial registration – contact details, company details
- Per premise – local contact details, floor size , RVM Supplier(s) and RVM Model(s), and some collection related details

Bulk updates will be supported via formatted CSV files



## 9. Finance Aspects

Finance is handled by integrating the DRS modules with Microsoft Dynamics 365 Business Central.

The ERP system contains a number of commonly required functionalities.

It is a system with on-line processing, integrated connection of all activities in the system for real-time economic monitoring.

All accounting and tax records are updated immediately at the entry of the initial documents.

This is a "no hard-close system" where it is not necessary to close individual working periods and perform batch data processing for the respective period.

Standard system features include integrated support for exporting and importing data from and into the system in all data windows into different formats, e.g. excel, pdf, word.

Other interfaces are available in REST API format.

## 9. Finance Aspects

- All users within the portal would have access to related invoices issued by DRSI or self-invoices issued by DRSI on behalf of the registered parties.
- After the invoicing data is imported from DRS to ERP the invoice is automatically posted in ERP and PDF of the invoice can be sent to the party (via email usually).
- ERP also sends invoice metadata and PDF back to DRS where the invoice is displayed to stakeholders through the DRS Document management capability.



## 9. Finance Aspects

Invoice type	data source	frequency
registration retailer	DRS - registrations	event based + recurring as per setup
registration producer	DRS - registrations	event based + recurring as per setup
product placement deposit	DRS - product placement	frequency based - ie.monthly
product placement industry fee	DRS - product placement	frequency based - ie.monthly
retailer deposit	DRS - voucher data	frequency based - ie.monthly
retailer handling fee	DRS - voucher DATA	frequency based - ie.monthly
transporter fees	DRS - uploaded invoice with metadata	frequency based - ie.monthly

# 9. Finance Aspects

Posted Sales Invoice



SW2200069 · TEST Matthew Producer

Process Correct Print/Send Invoice Incoming Document More options

**General** Show more

No.	SW2200069	Due Date	10. 1. 2023	Exist in Sent Emails	Yes
Customer	TEST Matthew Producer	Quote No.		Imported from DRS	<input type="checkbox"/>
Contact		Order No.		BCRS No.	BCRS/P/22-12137
Posting Date	10. 11. 2022	Cancelled	No		
VAT Date	10. 11. 2022	Closed	<input type="checkbox"/>		

Lines	Manage	Line	Fewer options									
Type	No.	Item Reference No.	Description	Quantity	Unit of Measure Code	Unit Price Excl. VAT	Line Discount %	Line Amount Excl. VAT	Deferral Code	Costcenter Code	Partner Type Code	
→ Item	PF1N		Administration Fee - PET Clear - Non-Market Specific Beverage	53 000	PCS						PR	
Item	PF3		Administration Fee - PET Other - Market Specific Beverage	15 000	PCS						PR	
Item	PF4N		Administration Fee - Glass - Non-Market Specific Beverage	100 000	PCS						PR	
Item	PF5N		Administration Fee - Steel - Non-Market Specific Beverage	7 000	PCS						PR	
Item	PF6		Administration Fee - Aluminium - Market Specific Beverage	20 000	PCS						PR	

Invoice Discount Amount Excl. ...	0,00	Total VAT (EUR)	879,02
Total Excl. VAT (EUR)	4 883,45	Total Incl. VAT (EUR)	5 762,47

# 9. Finance Aspects

Posted Purchase Invoice



PW2200011 · Matt PLC Ltd

Process Correct Print/Send Invoice Incoming Document More options

**General** Show more

Vendor	Matt PLC Ltd	VAT Date	10. 7. 2022	Exist in Sent Emails	No
Contact		Due Date	10. 10. 2022	Imported from DRS	<input type="checkbox"/>
Posting Date	10. 7. 2022	Vendor Invoice No.	221135001		

Lines	Manage	Line	Fewer options											
Type	No.	Item Reference No.	Description	Quantity	Unit of Measure Code	Direct Unit Cost Excl. VAT	Unit Price (LCY)	Line Discount %	Line Amount Excl. VAT	Job No.	Deferral Code	Cost Code		
→ Comment	⋮						0,00							
Item	HF3		BCRS/RT/22-11619 - Handling fee - Manual collecti...	5 412	PCS	0,01	0,00		54,12					
Item	HF3		BCRS/RT/22-11621 - Handling fee - Manual collecti...	1 169	PCS	0,01	0,00		11,69					
Item	HF3		BCRS/RT/22-11623 - Handling fee - Manual collecti...	1 162	PCS	0,01	0,00		11,62					
Item	HF3		BCRS/RT/22-11625 - Handling fee - Manual collecti...	6 244	PCS	0,01	0,00		62,44					

Invoice Discount Amount Excl. ...	0,00	Total VAT (EUR)	25,18
Total Excl. VAT (EUR)	139,87	Total Incl. VAT (EUR)	165,05



# 10. Monthly Reporting

From Launch in 2024, as detailed in the Producer Agreement, (clause 5) every month each Producer must report their monthly volumes per in-scope product.

DRSI are to invoice the Producer (by the 13<sup>th</sup>) for relevant Producer Fees based on the quantity and material type involved in the product.

**National** barcodes : report values for previous month

7 <sup>th</sup> of each month	through Re-turn Portal	Previous month's product volumes
13 <sup>th</sup> of each month	generated by Re-turn Portal	Invoice available for inspection on Portal
<i>Any disputed Invoices will be dealt with manually with DRSI Admin staff</i>		
30 days from Invoice		Payment of Invoice in full

7<sup>th</sup>, 13<sup>th</sup> or next business day

# 10. Monthly Reporting

From Launch in 2024, as detailed in the Producer Agreement, (clause 5) every month each Producer must report their monthly volumes per in-scope product.

DRSI are to invoice the Producer (by the 13<sup>th</sup>) for relevant Producer Fees based on the quantity and material type involved in the product.

**International** barcodes : report values for coming month.

7 <sup>th</sup> of each month	through Re-turn Portal	Coming month's product volumes
13 <sup>th</sup> of each month	generated by Re-turn Portal	Invoice available for inspection on Portal
<i>Any disputed Invoices will be dealt with manually with DRSI Admin staff</i>		
30 days from Invoice		Payment of Invoice in full

7<sup>th</sup>, 13<sup>th</sup> or next business day

# 10. Monthly Reporting

## New Import

Year

Month

Delimiter

**Import CSV**

## Instruction

[Download template file](#)

[Download import manual](#)

[Download example import file](#)

After data for invoicing of Producers/Importers has been entered, DRSI can then run the process of calculating and invoicing the Producers/Importers for the products being brought to the market.

Deposit and product fees are calculated based on reported volumes and invoiced through integrated ERP solution.

Invoice will be on entity basis with aggregate amount for deposit fee and aggregate amount for product fee types, all in separate lines based on fee category. Final invoice is stored and available for display in the portal







**END**

**THANK YOU**