

24 April 2023

DDRS – Proposals Pilot Projects

Closed environment deposit pilot(s) &
Comparison of the 3 proposals

Closed environment deposit pilot(s)

Agenda

- 1) Reminder of the context
- 2) Proposal summary & Comparison :
 - DDRS Alliance
 - Unbox BE
 - Litterbits (Twintag & Verhaert & Cegeka)
- 3) Annex – Original Proposals received (as separated PDFs)

Closed environment deposit pilot(s)

1. Context

1. Reminder context

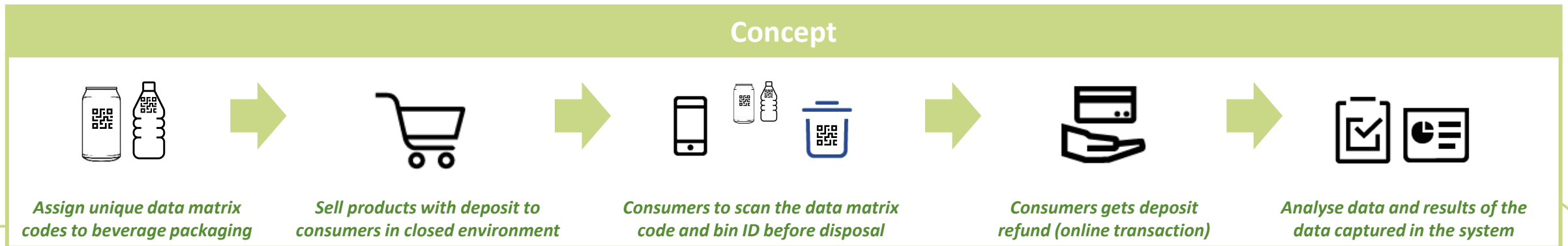
Closed environment deposit pilot(s)

Description :

- **Proposed timing & duration:** min. 1 month; Q2 2023
- **Sample:** 10 000 units to be sold with unique code & 20 cents deposit
- **Environment:** Closed, e.g. office building, manufacturing sites
- **DDRS elements included:**
 - Consumer App
 - Unique product code
 - Bin identifiers

Please note: Variations are possible to test various scenarios. Multiple pilots can be organised at different premises to compare proof-of-concepts against each other based on the criteria. For example, similar set-up with only home scanners, different deposit value, app providers, etc.

Criteria	Proposed operationalization
Effectiveness (collection)	% returned beverage packaging against sold beverage packaging during pilot
Accessibility	User-experience survey after pilot (various elements)
Fraud prevention	Included as part of pilot set-up (to be defined)
Compliance with privacy rules	Part of preparation; documentation to be provided to participants
Operational applicability	Data management (back-end mock up); Use of bin identifiers;



Closed environment deposit pilot(s)

2. Proposals description & Comparison

2. Description & Comparison

Proposed set-up of each pilot proposal

Set up	DDRS Alliance	LITTERBITS (Twintag/Cegeka/Verhaert)	UNBOX BE
Location & Population	<i>No location proposed</i>	<i>Corda Campus Hasselt / 250 companies / 5000p</i>	<i>HQ KBC Leuven / 2000p</i>
Process summary	<ul style="list-style-type: none"> a) Dedicated DDRS app/application portal b) Buying cans & bottles at local POS with unique codes c) Deposit return flow starts by scanning unique code on PMD collection points d) Opening a web page on the phone featuring a scanning window for the unique bottle/can code e) Optional : also scanning of product barcode possible f) Registration in the back-end database as “returned” g) Personal refund of accumulated deposit credits (> 5€) via transfer into personal bank account (via external partner Hashing) 	<ul style="list-style-type: none"> a) Dedicated DDRS app/application portal b) Buying cans & bottles at central caterer & vending machines with unique codes (data matrix) c) Deposit return flow starts by scanning QR code on PMD collection points d) Opening a web page on the phone featuring a scanning window for the unique bottle/can code e) No scanning of product barcode possible f) Registration in the back-end database as “returned” g) Personal refund of accumulated deposit credits (through QR code certificate); no transfer into personal bank account yet. 	<ul style="list-style-type: none"> a) DS app/application portal b) Buying cans & bottles at KBC Vending machines with unique codes (data matrix) c) Deposit return flow starts by scanning data matrix on PMD collection points. d) Scanning with the DDRS app the unique bottle/can code e) No scanning of product barcode possible f) Registration in the back-end database as “returned” g) Personal refund of accumulated deposit credits (> 1€) via transfer into personal bank account (KBC interface).
Tools & Assets	<ul style="list-style-type: none"> a) Personal smartphone 3/4/5G b) No personal app needed for participants (only web application through a QR) by Recycl3R c) #10K units and collection points with serialized codes (or QR) d) Dedicated Back-end platform to collect/refund 0,2€ deposit(s) by Kezzler e) Optional usage of “over-the-counter” take-back service f) Refunding on personal bank account by external partner (Hashing) g) Usage of unique non-predictive QR codes on collection points 	<ul style="list-style-type: none"> a) Personal smartphone 3/4/5G b) No personal app needed for participants (only web application through a QR code) c) #10K units and collection points with Twintag serialized codes (or QR) d) Dedicated Twintag Back-end platform to collect and refund 0,2€ deposit(s) – QR report e) Refunding on personal bank account by external partner (bank) f) Usage of unique non-predictive ®Twintag QR codes on collection points 	<ul style="list-style-type: none"> a) Personal smartphone 3/4/5G b) Dedicated UNBOX DDRS app for participants c) #10K units and collection points bins with serialized data matrix d) Dedicated Back-end application to collect accumulated 0,2€ deposit(s) e) Refunding on personal bank account by external partner (KBC) f) Usage of unique data matrix codes on collection points

2. Description & Comparison (nxt)

Proposed set-up of each pilot proposal

Set up	DDRS Alliance	LITTERBITS (Twintag/Cegeka/Verhaert)	UNBOX BE
User Experience survey (input applicant)	<ul style="list-style-type: none"> a) How acceptable have you found the system for returning drink containers to regain your deposit (1-5)? b) How easy was the system to understand? c) How easy was it to register in the web app? d) How easy is it to return containers using the web app? e) How well did the scanning work with your phone? f) How easy is it to redeem your €5 coupon? g) Overall, how easy was the app to use? h) How much did you like the app? i) How likely would you use this system if it was a national scheme? j) Using this system, how often would you return drink containers for recycling? k) What problems did you encounter with this trial? l) What improvements would you like to see? 	<ul style="list-style-type: none"> a) How user friendly do you rate the application ? b) Rate the overall user experience of the pilot setup ? c) Preferred features for the user (import vs satisfact) ? d) Kind of resistance experienced during the test ? e) Tipping point and stretch of deposit value ? f) To change behaviour identify reasons for resistance and optimise ability. 	<ul style="list-style-type: none"> a) Check if users would participate without a deposit b) What is your personal driver to participate ? c) How important is the deposit amount (cut-off ?) ? d) Other suggestions ?

2. Description & Comparison (nxt)

Proposed set-up of each pilot proposal

Set up	DDRS Alliance	LITTERBITS (Twintag/Cegeka/Verhaert)	UNBOX BE
GDPR	<ul style="list-style-type: none"> a) Personal data usage/storage (email + IBAN ban account number) b) Only anonymized/re-aggregated reporting c) Monitoring when/what/where consumed (optional) d) Experience survey AFTER pilots 	<ul style="list-style-type: none"> a) Personal data usage/storage (email + IBAN ban account number) b) Only anonymized/re-aggregated reporting c) Monitoring when/what/where consumed (optional) d) Experience survey AFTER pilots 	<ul style="list-style-type: none"> a) Personal data usage/storage (name + IBAN bank account number) till 30 days after pilot b) Only anonymized/re-aggregated reporting c) No monitoring what/where consumed d) Experience survey AFTER pilots
Communication strategy	<p>The key messages are :</p> <ul style="list-style-type: none"> A. A deposit return scheme (DRS) provides: a. high collection rates (over 90%) of material to drive increased recycling and reduce the use of virgin material, and b. reduces litter and subsequent pollution due to used drink containers. B. Digital DRS (DDRS) offers a new solution for the public to return drink containers within a DRS using the blue bag system; C. This trial is part of a program for the Flemish Government to evaluate the readiness of DDRS for Flanders; D. Your engagement and support in this trial will help shape the DRS choices made at national/regional level 	<p>Simple and clear & The economics of emotions & Gamification (if needed to speed up)</p> <p>Based on the following elements of journey :</p> <ul style="list-style-type: none"> • step 0: create a simple trigger (hook) to onboard • step 1: it's a reward driven system (deposit + emotional rewarding) that should be clear at first glance • step 2: the solution should be simple and accessible • step 3: the action needs to be pleasant and effective • step 4: a trigger (call to action) afterwards to return into the loop 	<p>Elimination/Mitigation/prevention of litter is related to behavioural change.</p> <p>Make people aware about the cost of packaging, about the cleaning up of litter and the need to have a correct collection/recycling/re-use strategy.</p>

2. Description & Comparison (nxt)

Proposed set-up of each pilot proposal

Set up	DDRS Alliance	LITTERBITS (Twintag/Cegeka/Verhaert)	UNBOX BE
Communication Channels	<i>Later to be discussed with selected hosting organization.</i>	<ul style="list-style-type: none"> a) Corda Campus intranet/email/newsletter b) Internal mails c) Posters nearby vending machines d) Posters nearby PMD bin(s) e) Regular reporting on pilot success f) Infographics 	<ul style="list-style-type: none"> a) KBC Intranet b) Internal mails c) Posters nearby vending machines d) Posters nearby PMD bin(s) e) Local (DDRS) helpdesk
Included in budget proposal	<ul style="list-style-type: none"> a) Develop a custom app based on an existing solution from Recycle3R b) Providing labels on 10# beverage SKUs and local collection points c) Visit host location 4 times during the project d) Survey, reporting results and evaluation 	<ul style="list-style-type: none"> a) Set-up Twintag platform as DDRS “application” b) Set-up / Operation / Removal of “test” environment at Corda Campus c) Printing/Labelling unique Twintag coding on 10# beverage SKUs and collection points d) Set-up/Operate local helpdesk at location, including the communication(s) e) Deposit sponsoring (no physical reimbursement) f) Survey, reporting results and evaluation 	<ul style="list-style-type: none"> a) Set-up dedicated DDRS application b) Set-up / Operation / Removal of “test” environment at KBC c) Printing/Labelling unique coding on 10# beverage SKUs and collection point, including removing non-consumed items d) Set-up/Operate local helpdesk at location + communications e) Survey, reporting results and recommendations
Not included in budget proposal	<ul style="list-style-type: none"> a) Set-up / Operation / Removal of “test” environment at host location b) Run the optional over-the-counter take-back service c) Actual labeling of products/collection points with appropriate unique coding 	<ul style="list-style-type: none"> a) Data Protection Impact assessment b) Bank integration c) Security Threat modeling d) Pilot phase 2 & 3 recommendations & preparations 	<ul style="list-style-type: none"> a) Not specified
Budget (excl VAT.) d.d. 24/04/2023	26,3 K€	93 K€	29 K€