March 2023

DDRS – Pilot Projects

Closed environment deposit pilot(s)

The better we sort, the more we recycle

Fostplus

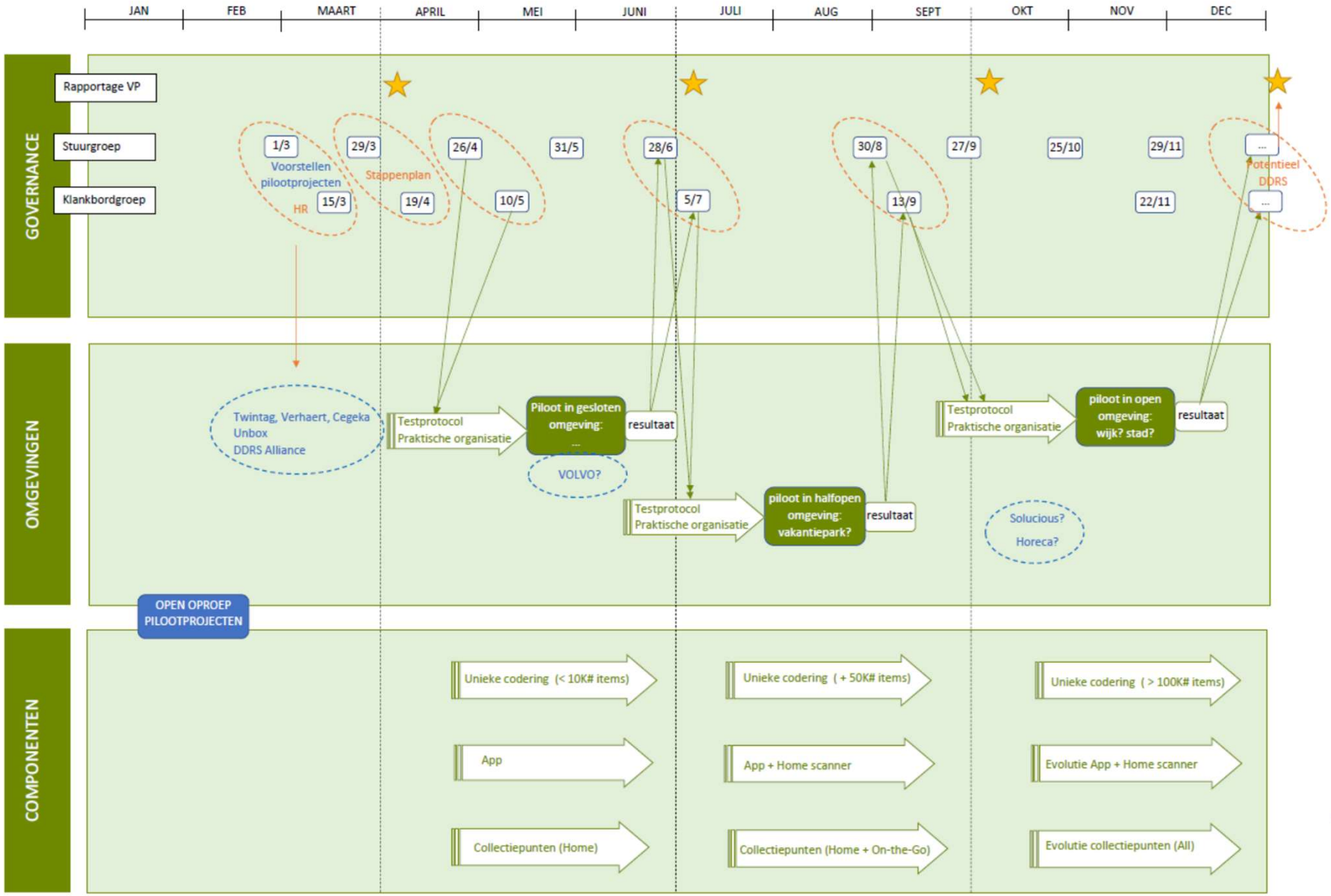
Closed environment deposit pilot(s)

Agenda

1) Context
2) Pilot description

Closed environment deposit pilot(s)

1. Context

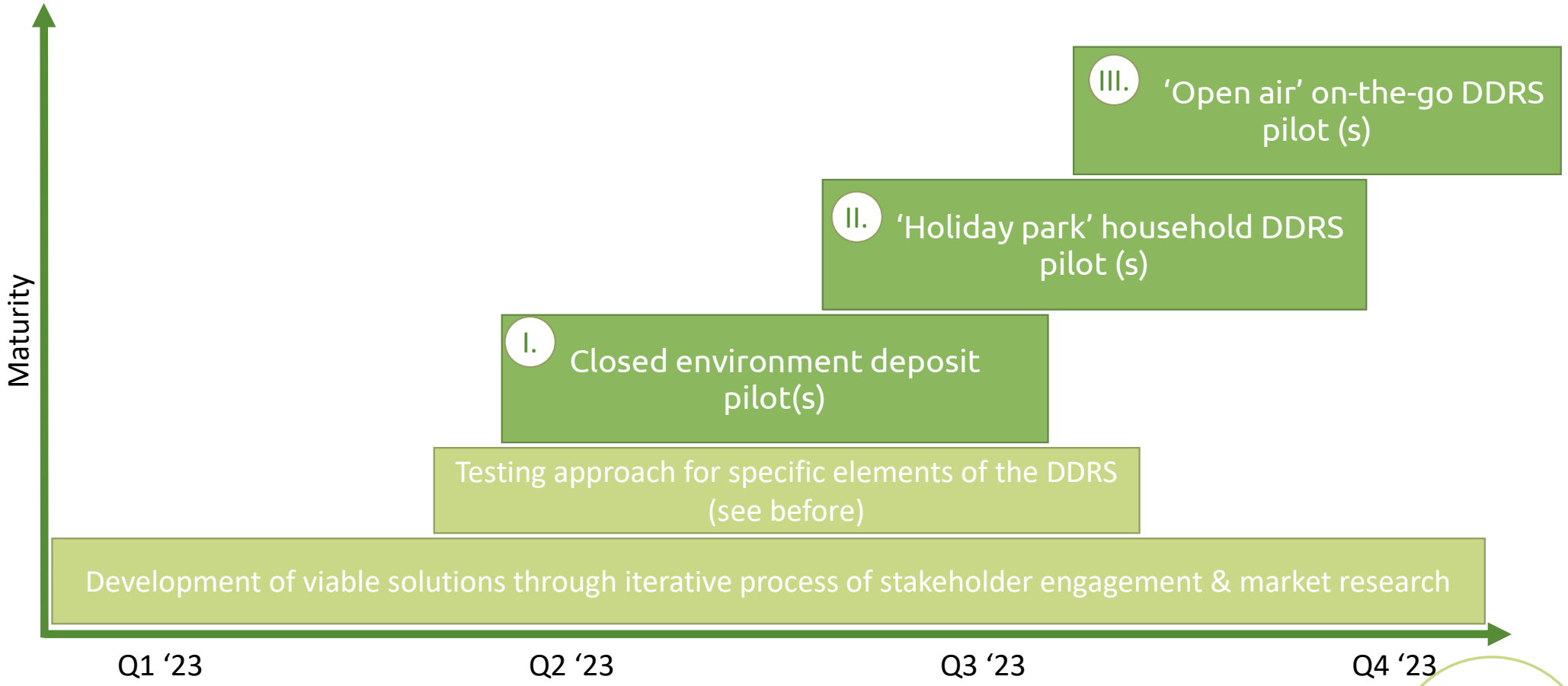

JAN
FEB
MAART
APRIL
MEI
JUNI
JULI
AUG
SEPT
OKT
NOV
DEC
GOVERNANCE
Rapportage VP
Stuurgroep
Klankbordgroep
1/3
Voorstellen pilootprojecten
HR
15/3
29/3
Stappenplan
19/4
26/4
10/5
31/5
28/6
5/7
30/8
13/9
27/9
25/10
29/11
22/11
...
Potentieel DDRS
...
OMGEVINGEN
Twintag, Verhaert, Cegeka
Unbox
DDRS Alliance
Testprotocol
Praktische organisatie
Piloot in gesloten omgeving:
...
resultaat
VOLVO?
Testprotocol
Praktische organisatie
piloot in halfopen omgeving: vakantiepark?
resultaat
Testprotocol
Praktische organisatie
piloot in open omgeving: wijk? stad?
resultaat
Solucious?
Horeca?
OPEN OPROEP PILOOTPROJECTEN
COMPONENTEN
Unieke codering (< 10K# items)
Unieke codering (+ 50K# items)
Unieke codering (> 100K# items)
App
App + Home scanner
Evolutie App + Home scanner
Collectiepunten (Home)
Collectiepunten (Home + On-the-Go)
Evolutie collectiepunten (All)

Deliverables einde kwartaal

- Q1
  - Planning 2023
  - Aanpak Pilot Project Q2
  - Overzicht deliverables (adhv componenten)
- Q2
  - Deliverables Q2
  - Aanpak Pilot Project Q3 en Q4
  - Stand van zaken Pilot Project Q2
- Q3
  - Deliverables Q3
  - Evaluatie Pilot Project Q2
  - Stand van zaken Pilot Project Q3
- Q4
  - Deliverables Q4
  - Evaluatie Pilot Project Q3
  - Stand van zaken Pilot Project Q4

1. Context

Proposed pilot approach



1. 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;

Concept

Assign unique data matrix codes to beverage packaging

Sell products with deposit to consumers in closed environment

Consumers to scan the data matrix code and bin ID before disposal

Consumers gets deposit refund (online transaction)

Analyse data and results of the data captured in the system

Closed environment deposit pilot(s)

2. Pilot description

2. Pilot description : overview

	Fost Plus	Applicant
1) Describe the focus / subject / objective & content of the pilot / test:	x	x
Example: "Measure the acceptance rate of using the deposit scheme process / identifying the level of difficulties using the application"		
2) Describe the question(s) this pilot should answer:	x	x
Example: "The closed environment deposit pilot aims to test the impact on the effectiveness of collection and the user experience of the application."		
3) Describe the question(s) this pilot does not aim to answer:	x	x
Example: "The closed environment deposit pilot does not aim to test the POS activation or the deposit refund."		
4) Describe the platform that will be used for the application, the data management system and the security		x
5) Describe the critical success factors for the pilot:	x	x
Example: "Effectiveness of the collection / user experience of the application"		
6) First identification / proposal how performance will be measured (KPI & the process of measurement):	x	x
Example: "To assess the success of the pilot, we focus on 1) the % returned beverage packaging against sold beverage packaging during pilot and 2) the user satisfaction score after the pilot."		
7) Communication strategy & messages	x	x
Example: "We want to convey the story of a positive user experience to all audiences via specific channels."		

2. Pilot description

Describe the focus / subject / objective & content of the pilot / test (1/2)

- ***Define the objective of the pilot***
- ***Describe and visualise the focus of the pilot (area of the DDRS flow)***

Concept

Assign unique data matrix codes to beverage packaging	*Sell products with deposit to consumers in closed environment*	*Consumers to scan the data matrix code and bin ID before disposal*	*Consumers gets deposit refund (online transaction)*	*Analyse data and results of the data captured in the system*

- ***Describe the DDRS elements included***
  - *Example:*
    - *Consumer App: Describe the minimum requirements*
    - *Unique product code (serialization): Describe the set up e.g. sticker solution managed inside close environment*
    - *Bin identifiers: Describe the set up e.g. sticker solution managed inside close environment*

2. Pilot description

Describe the focus / subject / objective & content of the pilot / test (2/2)

Set up	Description
Proposed timing & duration	*Describe the timing : Q2 2023* *Describe the duration : min 1 month*
Assets	*Which application(s) /technology will you use to set up the different steps of the pilot to run flow on slide 8*
Sample size	*10,000 number of units to be handled (labelled, sold)*
Test environment	*Pilot 1: closed environment: which one do you propose?*
Processes	*Describe how the users will be onboarded, level of instructions they should receive etc.*
Focus groups	*Depending on test environment*
Other	

2. Pilot description

Describe the question(s) this pilot should answer & the questions the pilot does not aim to answer

The question(s) this pilot should answer:

"The closed environment deposit pilot aims to test the user understanding of the system within a closed environment.“

"The closed environment deposit pilot aims to test the proposed customer solution front end."

"The closed environment deposit pilot aims to measure the collection rate.“

“The closed environment deposit pilot aims to evaluate the different used back end solutions”

The question(s) this pilot will not answer:

“*automated printing solution is not in scope”*

“public bin (on the go) test is not in scope”

2. Pilot description

Describe the platform and data management system

User platform	Description
Which application(s) will be used?	*Describe the application (Import Interfaces, Data Transformation (ETL), Process Automation, Monitoring and Data Historization and External Access/API) and the Data Architecture (Infrastructure, scaling, database)*
Which data management system will be used?	*Describe the data management system (Carriers, Model & Flows : Accuracy, Validity, Uniqueness, Completeness, Consistency, Timeliness, Integrity, and Conformity)*
How will security of personal information be guaranteed?	*Describe the security measures of the application and data management system*

2. Pilot description

Critical success factors (1/2)

First identification / proposal how performance will be measured (KPI & the process of measurement)*:*

Criterium	Key Performance Indicator	Threshold(s)
Describe criteria which define success	***Describe the measurement indicator and system***	***Describe the threshold for success***
Effectiveness of collection	• *Indicator: % returned beverage packaging against sold beverage packaging during pilot* • *Measurement: count of returned beverage packaging*	• *Example: > 97% is positive result, < 90% is a bad result*
User experience of the application	• *User rating in an experience survey after the pilot* • *Measurement: online survey score*	• *Example: > 9/10 is positive result, > 8/10 is satisfactory, < 7/10 is bad results*
Back-end solutions	• *Measurement: 500 requests fired in 1 second* • *Measurement: number of errors in log file due to bad scans or bad messages compared to all actions in log file* • *Measurement: uptime of the solution*	• *Response < 500ms is positive result. Response > 500ms but < 1s is satisfactory.* • *Number successful messages > 99,99% is positive result.* • *Uptime of 99,99 is positive result. Uptime of 99,95 is satisfactory.*
Proposed security on solutions	• *Measurement: produce a penetration test report*	• *A penetration test report that discloses 0 critical findings is a positive result.*

2. Pilot description

Critical success factors (2/2)

Experience survey after the pilot:

Input DDRS team
How user friendly do you rate the application?
What do you think of the look and feel of the proposed application?
Which points for improvement do you see?
If you would use the DDRS system day to day, what is the minimum amount (€) that would trigger the usage?

Input applicant

2. Pilot description

Communication strategy

- **Describe the “push” communication strategy for the pilot**
  - Describe key message we want to convey, to which audiences and via which channels
  - *Example: The main message we want to convey with a closed environment pilot is that DDRS leads to a higher collection rate and the users find the application user friendly. We foresee communication on the outcome of the pilot via the newspapers.*
  - *To be cleared / amended by the Layer communication & stakeholder management*
- **Describe the “pull” communication**
  - Identify the communication risks linked to the pilot and the likelihood
  - Define mitigating actions for each risk
  - Define the communication path for the involved parties (reaction on media coverage, questions from politics and interest groups)

2. Pilot description

Messages

Message	Audience	Channel
Describe key messages we want to convey with our pilot: *Example: increase in % collected packaging, positive user experience, easy to use bin tags*	**Describe the audiences we want to communicate to:** *Example: citizens, politics, municipalities etc.*	**Describe the channel:** *Example: newsletter, social media campaign, opinion article newspaper etc.*