VIL
EMPOWERING
LOGISTICS

COLLECTIVE RESEARCH PROJECT
WIN4TRACK

RFP WIN4TRACK: POC'S

APRIL 2017

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1 INTRODUCTION

VIL is an open innovation platform for the logistics sector that has the mission to leverage Flanders as a sustainable and innovative logistics top region in Europe. We adhere to a bottom up approach and are company driven. We are also a membership organization and as such have abt. 550 members and can arguably state we represent the logistics community in Flanders.

2 CONTEXT AND SCOPE

2.1 Scope

In October last year, VIL launched the collective research project 'WiN4track'.

With the project 'WiN4track' (**Wi**reless **N**etworks for **track**ing) VIL wants to support the Flemish logistics sector with practical experience with innovative LPWAN (Low power wide area network networks) for asset tracking and goods monitoring (conditions). Which networks are available today? How can they increase the visibility of logistic assets and conditions of shipments through the supply chain? How can they increase the productivity and efficiency of logistics operations? How can this technology be implemented in practice? What is the business case ?

16 companies (manufacturers and logistics service providers) are participating in this innovative project: Arcelor Mittal, B Logistics, Borealis, CNH Belgium, Colruyt, Contraload, DHL Supply Chain, Eandis, Euro Pool System, Fostplus, Infrabel, PostNL, Proximus, Siemens, Sint Jude Medical and Renewi (Van Gansewinkel).

http://vil.be/en/project/win4track/

This RFP outlines the functional requirements for the different POC's and test scenarios. The supplier candidate must propose a solution fulfilling these requirements or propose alternatives with a clear explanation.

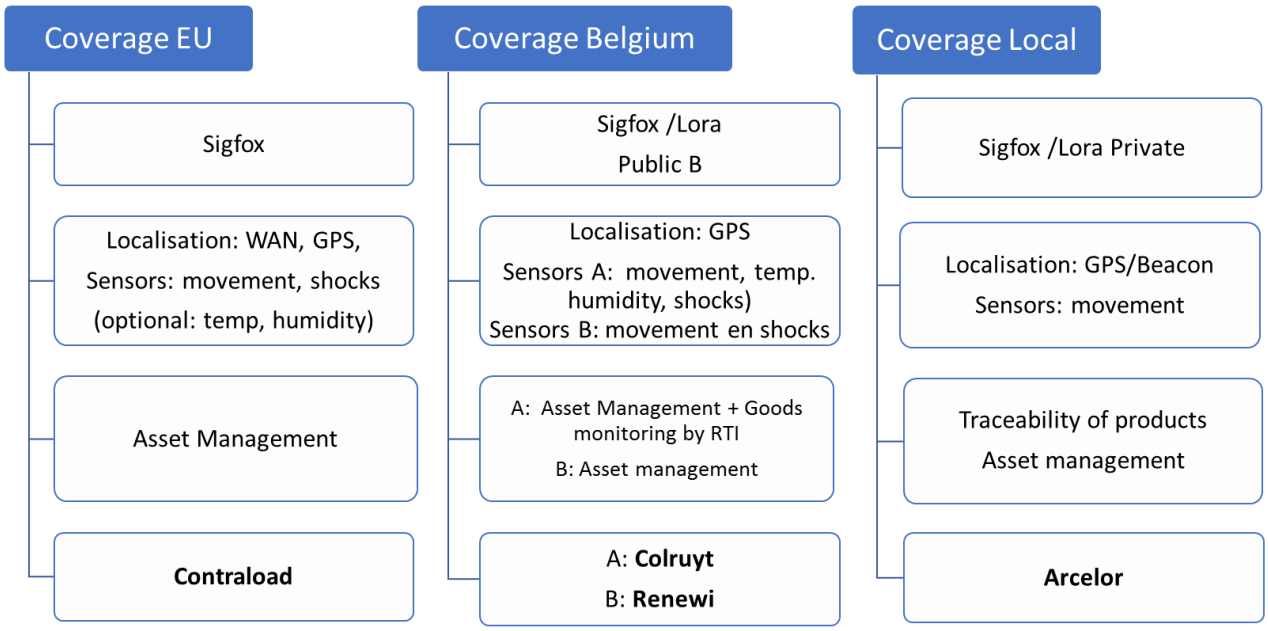
The candidates are fully free to propose a different set-up if this justifies a better solution.

2.2 Scope of the Proof -of-Concepts

In practice VIL will set up several POC's based on different use cases:

- POC 1: Contraload - Asset Management: pallet box (smartbox) in Europe
- POC 2: Colruyt – Asset Management + Goods Monitoring: tracking & tracing of temperature sensitive products (fresh meat) in Belgium
- POC 3: Renewi – Asset Management: T&T waste containers in Belgium
- POC 4: ArcelorMittal – Asset Management: T&T of logistics assets on site

The next table gives an overview of the different POC's mapped with the necessary coverage and LPWAN technology.



Each POC is split up in two parts:

- Indoor/outdoor readability tests
- Test lanes.

The details about the different tests are described in chapters 3.3 and 3.4

2.3 Objectives

The main objectives for these POC's are testing the technical capabilities, performance and usability of LPWAN networks for logistics applications:

- Connectivity (signal strength)
- Reliability (reception of messages)
- Location possibilities ((A)-GPS, Cell ID, Triangulation, Beacon (indoor))
- Performance (efficiency) – benchmark with existing control tools
- Platform possibilities to manage asset tracking and goods monitoring (geofencing, alerts, trip reporting, configuration, dashboards, sensor data, ...)
- Supply chain visibility (demonstrating the use of LPWAN to create more supply chain visibility in operational test lanes)
- Robustness

The valorisation of the POC results and knowledge transfer towards VIL members is not a part of the RFP.

2.4 Results

All test results will be documented in a clear report based on a standard VIL PowerPoint and Word template. The test scenarios and results will be described and completed with conclusions and recommendations.

3 GENERAL REQUIREMENTS AND TEST SCENARIO'S

In this chapter all test criteria, valid for all POC's, are explained. For each POC there are additional specific requirements and test scenario's explained in the corresponding chapters (chapters 4 to 8).

3.1 Application requirements

3.1.1 Reporting

All test results will be recorded and the software has to be able to report the relevant data:

- Identification of asset/product and position of the LPWAN device
- Process step (lane test)
- ID of LPWAN device
- Timestamp
- Location (A)GPS or Beacon (indoor)
- Location coordinates
- Signal Strength
- Sensor value(s)
- Number of messages received
- Alerts

The application also allows an export of the recorded data as a csv file and to represent the data in a graphical dashboard for the location and the sensor data.

3.1.2 Connectivity & Reliability

To analyse connectivity and reliability all received messages must be stored in the software platform. Next to the full message payload, the receiving antenna and signal strength must also be recorded.

A visual representation (heat map) of received messages and their according signal strength is required.

3.1.3 Configuration

The application must allow to configure a test lane upfront with all necessary data

- Lane
- Geo fences
- Alerts
- Others

Lane

The software application must be able to configure the different process steps of the logistic lane (trucking, warehouse, …) combined with address, contact person, involved party, location.

Geo fences

In the software client features have to be available to import geofences by address or by latitude-longitude coordinates. A geofence can be either a square defined by 2 coordinates or a circle defined by a coordinate and radius (m) or a polygon.

Each geofence is defined by a unique identifier (ID) and a description.

Example:

ID	Type	LAT-LNG1	LAT-LNG2	RADIUS	Description
Depo	Circle	51.1870023-4.4198343		500	Main Depo

Alerts

It should be possible to configure alerts on predefined situations. These situations are (but not limited to):

- Entering geofence
- Leaving geofence
- Item starts moving
- Item standing still
- Input or sensor value out of range

Distribution of the alerts can be through e-mail, sms or visual indication on the User Interface. For each alert an owner, distribution list and distribution method must be configurable.

Others

Application must be able to configure the hardware with regards to the communication interval between hardware and back-end for location updates.

The application also allows to group assets for ease of retrieval and oversight.

The application provides multiple search capabilities for locating an asset. Search capabilities can be based on: (e.g.) type of asset, status of asset, geofence area, …

3.1.4 User interface

Multi-Tenancy architecture

Preference goes to a multi-tenant architecture where each user can configure and monitor its own devices depending on the given rights.

When 2 POC's run within the same software instance, users from one POC should have no access to the other POC's.

User Rights

At least 3 user rights levels should be available:

- Viewer: A viewer can view devices, their current position, and logging. But cannot change any configuration.
- User: A user can do the same as a viewer, but he can also add new devices, configure device names, etc. but cannot delete devices or change loggings.
- Administrator: An administrator can do everything the software allows.

Hosting

Online hosting of the software should be provided by the supplier. No servers will be available to install any software.

Register devices

In the User interface it has to be possible to register new devices and add a unique identifier.

Graphic user interface

- Layered map based visualization
- Geofence areas to be drawn, defined and handle business rules
- Graphical map allows visualisation the actual and historical locations of the assets with appropriate filters such as asset ID or groups of assets, alert status, date and time period.
- Application is capable of retrieving historical data for the following basic reports and visualizing this on the GUI
    - Historical location data per asset and per time period
    - (Optional) Number of rotations per time period
    - Overview of all actual assets present per defined location
    - Overview of assets with a specific alert status (low battery, sensor threshold exceedance, exit or entry of a defined geofence area)

3.1.5 Deliverable

The web application (test database, different workflows and visual user interface) also will be made available for free as deliverable after the test period to VIL for demonstrations during minimum 3 years.

3.2 Hardware requirements

3.2.1 Identification

For each POC all the devices have to be provided with a clear visible serial number (printed label) and all the serial numbers have to be listed in a separate table.

3.2.2 Device message timing

For analysis reasons all LPWAN trackers must have a fixed time interval for sending messages even if this has negative effects on battery usage. Maximum battery performance is not part of this test.

3.2.3 Location Accuracy

GPS accuracy will be investigated by comparing the different GPS coordinates of each message while device is not moving. The device has to detect this movement by means of a tilt sensor and/or magneto meter, not by the GPS coordinates. In each message one bit has to indicate that the device has moved between the current message and the previous message.

3.2.4 Detailed Specifications

For all the POC's the next table shows an overview of all the LPWAN sensors.

Requirements LPWAN	POC1 Contraload	POC2 Colruyt	POC3 Renewi	POC4 Arcelor Mittal
Technology	Sigfox	Sigfox and LoraWan public	Sigfox and LoraWan public	Sigfox, LoraWan private
Location Accuracy	< 30 m	< 100 m	< 100 m	< 10m
Localization	GPS and Network (Cell or Triangulation) and indoor beacons	GPS and Network (Cell or Triangulation) and Indoor beacons	GPS and Network (Cell or Triangulation)	GPS
Autonomy	5 - 10 y	1 - 3 y	10 y	1-3 y
Refresh rate data static	each 24 hours	each 15 minutes	each 24 hours	each 12 hours
Refresh rate data dynamic (movement)	each 30 minutes	each 15 minutes	each 15 minutes	each 30 minutes
Sensors	Protection IP 65, shock resistance, operational temparature: -20° - + 65°, CE approved			
GPS	Y	Y	Y	Y
Temperature	Optional	Y Range: 5 °C - 40 °C Accuracy: 0,5 °C Sampling rate: 15minutes	Optional	Optional
Humidity	Optional	Optional	Optional	Optional
Shock	Optional	Optional	Optional	Y
Tilt	Y	N	N	N
Movement	Y	Y	Y	Y
Empty detection (external sensor)	Preferable	N	N	N
I/O	Y Input (pot free contact)	N	N	Y Input (1-10V or 0-20mA)
Beacon	Y (indoor localisation)	Y (indoor localisation)	N	Y
Number of devices	Preferable two different devices per technology			
Sigfox	40	20	20	20
Lora		20	20	20

3.3 Readability tests

The indoor/outdoor readability test is focused on location and communication measurements (signal strength and reliability) and can be divided in two different types of test scenarios:

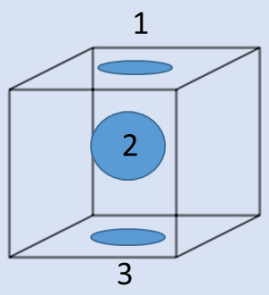
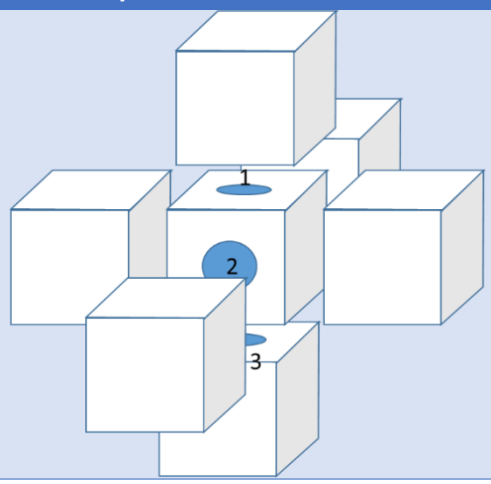
- Asset/RTI position test
- Logistics process test

Specific technical tests are outside the scope of test, the project focuses on the operational functionality of the device for the user or its service offering. The device shall be integrated in common supply chain conditions and activities where the functioning is verified.

3.3.1 Asset placement test

For each POC it is important to validate what the impact is of the placement (location) of the LPWAN sensor at the asset or RTI. The readability will be influenced by the material or content of the asset/RTI.
The test will be executed with the asset/RTI in a free air space and with the asset/RTI stacked with other similar assets/RTI's if this makes sense for the particular POC. These tests will be performed in & outdoor with the different LPWAN devices.

- Location on top of the asset/RTI
- Location on the sides of the asset/RTI
- Location on the bottom of the asset/RTI

Placement test	Stacked placement test
	

3.3.2 Logistics process test

Beside the position test the asset/RTI will also be tested in different logistic process steps (storage, cooling, filling, loading, unloading). The same test in 3.3.1 will be executed in different logistics processes indoor and outdoor to validate the impact of the environment (building constructions, infrastructure (production lines, …), other RF signals, …).

3.4 Lane tests

The focus of the lane test is to validate the feasibility of applying LPWAN devices for supply chain visibility. During the lane tests LPWAN devices are integrated in several logistical activities including warehouse, transfer points, road transport. The lanes test will be executed with the technology and preferable amount of LPWAN sensors indicated in the detailed specification overview table at 3.2.4.

The LPWAN sensors will be attached at the most positive and operational acceptable placement as a result of the readability tests. The lane will be configured with the necessary alerts, geofencing and involved parties/contact persons to inform alerts and to have access to the web application. The logistic flows of the different lanes are described in more detail for each POC in the following chapters.

The LPWAN device will monitor at least location, communication measurements (signal strength and reliability) and some sensor values (temperature, humidity, shock, movement) depending on the use case. The collected information must be shown on a web-application.

4 POC 1: CONTRALOAD

4.1 Introduction

Contraload was founded in 2004 as a new actor in the pooling business. Pooling is a combination of re-designing supply chains and facilitating a JIT execution. Contraload has the right people and systems to allow the reuse, return, repair and remanufacturing of both pallets and IBCs. Contraload goes that one step further by making intelligent use of its IT system (POOL-IT) and thus making load carriers highly returnable and minimizing transport throughout the supply chain.

4.2 Scope

Contraload has selected one asset type, the Smartbox, and one dedicated product flow going from and to Hamal Signature and its 12 suppliers for this POC.

The objective of this POC is to get 100% visibility in the location of the smartboxes within the selected flow to reduce administrative work for the customers and the company, to prevent asset losses and to provide valuable insights (e.g. temperature monitoring).

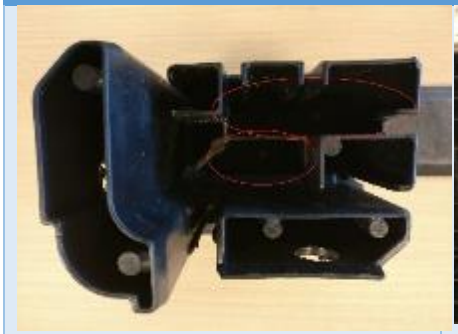
Asset

The smartbox is a foldable palletbox.

Picture Smartbox type 1208
Dimensions Length: 1.200mm Width: 800mm Height: 805mm

In the smartbox there are multiple locations available that could be used to mount the tracker:

- Inside the runner there is space available ranging from 30x43x47mm, 25x43x83mm to 72x20x83mm.
- Inside the pallet base there are pockets 30x40x90mm and 80x22x14mm. These pockets are directly in contact with the inside of the box. A direct temperature measurement is possible, but the pocket is not closed.
- Third option is one of the foldable lids. Inside this lid a space of 30x80x100mm can be used. One side of this lid comes directly in contact with the inside of the box and can be used to measure the temperature. Extra advantage of this last option, the status of the box, open or folded, can be detected by means of a tilt sensor.

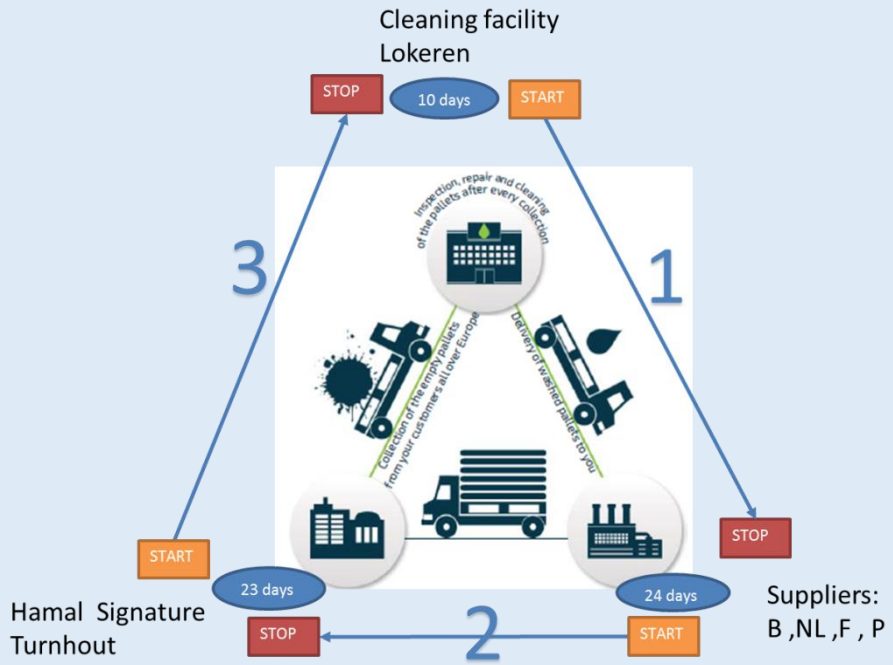
Inside the runner	Inside the pallet base	Inside foldable lid
		
Free spacing pockets 30x43x47 mm (lxwxd) 25x43x83 mm (lxwxd) 72x20x83 mm (lxwxd)	Free spacing pockets 30x40x90 mm (lxwxd) 80x22x14 mm (lxwxd)	Free spacing pocket 30x80x100 mm (lxwxd)

Area

The map gives an overview of the different locations of the suppliers active in Belgium, The Netherlands, Poland and France.

4.3 Flow's

Flow Contraload Smart Boxes



The Hamal flow contains 3 transport stages. In a first stage washed or new smartboxes are delivered from the cleaning facility to the suppliers (of Hamal). At the supplier the smartboxes are filled with products with destination Hamal. In the second transport the loaded smartboxes go from the supplier to Hamal. When the smartboxes are emptied at Hamal, they are folded and ready to be collected by Contraload to transport them back to the cleaning facility. The total rotation time is 57 days (average).

The suppliers order the smartboxes they need in the Contraload software portal and the delivery is registered in the system. Once the suppliers send the smartboxes to Hamal, the suppliers declare that transport flowin the Contraload software portal. Contraload contacts Hamal on a frequent basis to know how many empty smartboxes they have available to be collected.

The facilities are located in:

- Cleaning facility: Belgium-Lokeren
- Hamal Signature: Belgium-Turnhout
- Suppliers: Belgium(4), France(2), Netherlands(5) and Poland(1)

4.4 Extra Requirements

4.4.1 Indoor beacon

To locate the smartboxes at the cleaning facility (indoor), where there is probably no GPS reception, an indoor beaconing system has to be foreseen. The beacon will be foreseen to be used as a trigger point to control the status of the smartbox, i.e. if it has passed the cleaning location or not. This provides the ability to know the difference between the status “clean” or “dirty”.

4.4.2 Smartbox Status

Extra sensors (capacitive sensor or tilt sensor) that can detect the status of the smartbox, empty-full or folded-open are required. When placing the tracker inside the lid the open/folded status can be detected by means of a tilt sensor. This feature could add extra business values to the use of LPWAN tracking.

4.4.3 Temperature monitoring

Extra features that can detect ambient or box temperature are nice to have but are not required. The locations where the sensor is placed near the inside of the box are preferred for this feature. This feature could add extra business values to the use of LPWAN tracking.

5 POC 2: COLRUYT

5.1 Introduction

Colruyt Group is a Belgian company founded in 1928 by Franz Colruyt and best known for its retail operations with the Colruyt supermarkets. The group is also active in wholesale, export, technology and automation. It is a family business that has evolved into a multinational group with a focus on retail and related activities.

5.2 Scope

To transport fresh and frozen food Colruyt uses cooled trolleys in standard trucks. For the transport of meat separate cooled trucks are used on separate delivery rounds. Colruyt wishes to use the cooled trolleys for the transport of meat. This is only possible if the cooled trolleys have a sufficient temperate monitoring system on board.

The cooled trolleys are transported between the Colruyt distribution centre and the shops using closed metal trailers.

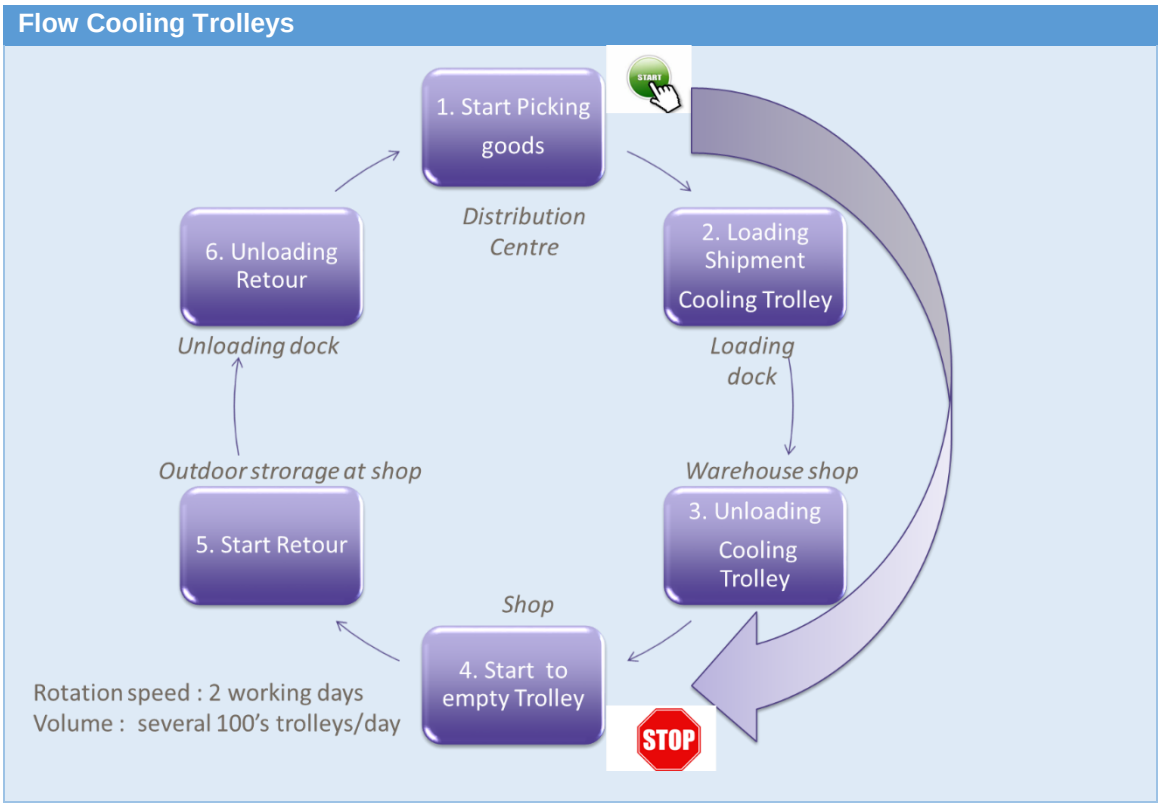
Assets

Cooling Trolley	Standard Trailer

Area

The cooled trolleys will only move within Belgium.

5.3 Flow's



Short explanation of the different process steps:

1. **Start Picking**

- Injection "cooling" in trolley (passive cooling). It allows cooling the trolley to the required temperature (temp +2 till +8 °C for 48 hours).
- Picking trolleys with products (e.g. fresh meat)

2. **Loading Shipment**

- Filled trolleys are collected at the shipping area and sorted out per shop
- Trolleys will be loaded in a trailer for a certain shop destination

3. **Unloading at shop**

- The trolleys will be unloaded and placed in the transit area (warehouse) of the shop

4. **Start to empty trolley**

- The trolley will be moved from the transit area to the shop and the products will be moved to the fridges of the shop

5. **Start Retour**

- The empty trolley will be placed in an outdoor storage at shop

- At the same time of the delivery empty trolleys will be collected for retour transport at the Distribution Centre (DC)

Unloading Retour

- The empty trolleys will be unloaded at the DC
- The trolleys will be prepared (cleaning...) for reuse.

5.4 Extra requirements

5.4.1 Temperature monitoring

The temperature monitoring has to take a sample each 15 minutes and store the measurements of the last 5 hours. There has to be an acknowledgement system present to guarantee 100% data transfer of all measurements. The temperature measurements are relevant between picking the products and emptying the trolley at the shop.

The temperature measurement is a functional test and it is not necessary to measure inside the cooling trolley. The sensor don't have to be calibrated and can measure the outside temperature with an accuracy of 0.5 °C in a range of 5°C up to 40°C.

5.4.2 Indoor Beacon

At the distribution centre and shop indoor beacons for positioning can improve location accuracy as GPS reception will be limited or non-existing inside the building. Therefore it would be necessary to have a beacon at the preparation area (injection cooling) in the DC and at least in one shop at the transit area and also between the transit area and shop.

5.4.3 Shock monitoring

Extra features that can detect shocks during transport or movement are nice to have but are not required. It informs Colruyt how the trolleys are handled in the complete logistic chain.

6 POC 3: RENEWI

6.1 Introduction

Renewi, created in 2017 by the merger of Shanks Group plc and Van Gansewinkel Groep B.V., is a leading waste-to-product business ideally positioned to be part of the solution to some of the main environmental problems facing society today: reducing waste, avoiding pollution, and preventing the unnecessary use of finite natural resources. With over 8,000 employees across nine countries in Europe and North America, Renewi has deep expertise and an extensive breadth of waste management products and services.

For Renewi, waste is a state of mind, an opportunity. 'When we take away someone's waste we then give it new life. We transform a wide range of used materials into useful products and raw materials for our customers, like recycled paper, metal, plastic and glass, woodchips, compost, energy, fuel, and other products'.

6.2 Scope

Renewi wants to get visibility on their open containers that are used to collect waste and to transport the waste to the waste treatment plants. Today stock management is done by manually counting the containers on the different locations. This method is error prone and does not give insight in 'sleeping containers', 'container theft', 'average use of a container',… It also does not enable fast and accurate invoicing.

During this POC the scope will be on 2 asset types and diverse flows.

Assets

For this POC 12m^3 and 40m^3 open waste containers will be used to attach the LPWAN tracking devices to.

Picture 12 m^3	Picture 40 m^3
Dimensions Length: 6.300mm Width: 2.500mm Height: 1.100mm	Dimensions Length: 7.300mm Width: 2.550mm Height: 2.585mm

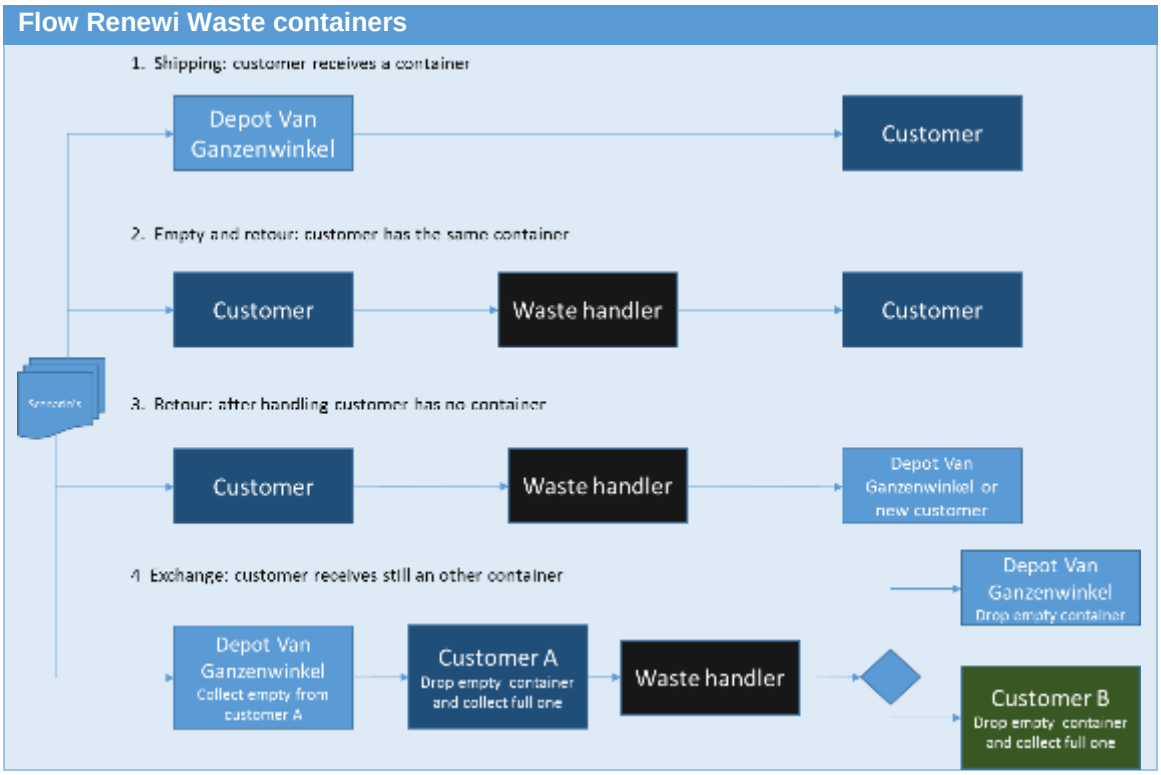
Area

Containers will operate in Belgium. In total Renewi has 20 different depots in Belgium. The placement of the LPWAN sensors will be organized in Evergem.

6.3 Flow's

During the POC the LPWAN tracking device will be deployed on several 12m³ and 40 m³ containers in different flows. The diagram gives the overview of the 4 different existing flows.

Flow 2 is a closed loop between one customer and one waste handler. The same containers will be used and have a rotation about 3 à 4 times a day. The other flows are more open and it will be uncertain where the container will pass (+/- 150 different waste handlers).



7 POC 4 ARCELOR MITTAL

7.1 Introduction

ArcelorMittal in Belgium, with sites in Ghent, Geel, Genk and Liege, is part of the ArcelorMittal-group. Arcelormittal - Ghent is a production site of carbon steel for a wide range of industries.

7.2 Scope

The scope for ArcelorMittal are mobile assets (fork trucks, locomotives, hydraulic platforms, ….), moving around there huge site (about 10 km²).

There is the need to track these assets to create more visibility, to know where these assets are. ArcelorMittal is looking to increase the efficiency of these assets (own or rental assets). Where and which assets are available.

The focus is on two types of mobile assets in particular locomotives and mobile transport conveyer.

Besides tracking the position for the mobile transport conveyor it would also be interesting to measure the fuel tank to optimize the supply for refilling in the field.

Assets

Locomotives	Mobile transport conveyer

Area

ArcelorMittal in Ghent covers an area of 2km by 5km. The selected assets will not leave this area.

7.3 Extra requirements

7.3.1 Shock monitoring

Extra sensors that can detect shocks during movement or handling will be required. It informs ArcelorMittal how the assets are handled on site.

7.3.2 External input

For both assets an external input (analogue signal 0-10 VDC or 0-20mA or any alternatives) are required to track the 2 different outputs from a local PLC on the both assets:

1. Fuel lever from the mobile conveyor to optimise the fuel supply
2. Working hours from locomotive to manage maintenance or maximum speed to handle safety on site.

7.4 Extra test scenario's

7.4.1 Benchmark Lora Private and Lora Public

Besides capturing the data from a private LoraWAN network installed on the site of ArcelorMittal it would be interesting to activate the same LoraWAN sensors for a public LoraWAN network. This allows us to benchmark the communication measurements (signal strength and reliability). The collected information shall be shown on a web-application.

8 PLANNING AND MILESTONES

Highlevel projectplan POC's Win4track									
Activities/Milestones	Date	Q2 2017		Q3 2017			Q4 2017		
		Mei	Juni	Juli	august	Sept.	Oct.	Nov.	Dec.
Final decision	22/mei								
Kick-off + site survey									
Set-up preparations POC's (supplier and customer)									
Execution test POC Local (testing + reporting)									
Execution test POC's B (testing + reporting)									
Execution test POC EU (testing + reporting)									
Validation test results									
Demo projectmembers and results POC	28/sep								
Final test report	5/okt								

9 RESPONSE GUIDELINES

9.1 Consultation objectives

VIL is looking for one or more candidates (integrators/service providers) capable of providing the best possible products and services for its 'WiN4track' project in terms of quality, price and flexibility, in compliance with the specifications.

The candidate is asked to submit its response in compliance with the present response guidelines.

9.2 Procedure

The RFP will be sent as an electronic PDF document via mail to manufacturers and system integrators who are invited to participate in this RFP. The RFP will also be published on the VIL website.

Electronic documents and questions should be sent to Luc Pleysier at the following email address: luc.pleysier@vil.be

Interested parties can apply by a full and substantiated written quote sent electronically to the following e-mail address: luc.pleysier@vil.be. Latest reception date is **9 May 2017 at 12.00 GMT.**

From **11 to 16 May** selected applicants may be invited for a meeting or conference call in order to present and to provide additional explanations on their quote.

9.3 Contents of proposal

9.3.1 Proposal structure

The proposal has to respect the following format:

- Short company presentation
- Summary understanding of the RFP
- Solution description
- Architecture of the solution
- Price offer
- Project approach, project management and detailed planning
- CV's of the project team
- Similar project references (includes also contact person and contact information)
- A certified copy of the civil liability insurance police in case of professional misconduct

The tender may be submitted in English or Dutch.

9.3.2 Content

The applying party provides a quote that meets the requirements and functionalities described in the RFP, with separate budgeting per POC. In total the quotation has 4 different POC's:

- POC1: Contraload
- POC2: Colruyt
- POC3: Renewi
- POC4: ArcelorMittal

The proposal contains a clear budget for each component in terms of usage of hardware material, software and services (project management, development, installation). The hardware devices shall be clearly specified and marked. For the services, a clear overview of the cost structure is required. Resources should be identified by their number of budgeted man-days, together with CV's, credentials, project approach and planning.

The candidates has also to fill in the separate offering Excel template.

The candidates can also tender for one or more separate POC's and also for a partial POC for one practical technology Sigfox or LoraWAN.

Please indicate also the extra cost for supplemental LPWAN sensors for readability tests

9.3.3 Suggestions

Of course, the present consultation's recipients are free to propose, in their capacity as professionals, any functional or technical solution that would be able to meet or enhance the objectives contained in this RFP: in particular, any innovative technical solution can be proposed, provided that its continued existence and reliability are guaranteed. In the event that

the suggestions from candidates significantly modify the financial offer, candidates will have to provide various price offers that summarize the different possibilities.

9.4 Project budget

The implementation of this project is offered at a fixed price (maximum 50.000 EUR for all POC's together, VAT excluded) (see page 31 the Law on public procurement).

9.5 Payment conditions

Payments shall be performed according to the following scheme and on the basis of interim acceptances:

- At start-up: 30%
- After execution of the feasibility tests and final report: 70%

9.6 Confidentiality

"Confidential Information" means any oral, written, graphic or machine-readable information communicated by the Receiving party related to this RFP or consequent discussion related to the project.

Confidentiality applies to information, but not limited to this RFP, the planned testing or information of commercial nature, that the principal or participating companies in the project disclose to the external party orally, written or electronic format.

Receiving party shall not have any liability to the disclosing party with regard to any Confidential Information which Receiving Party can prove:

- was in the public domain at the time it was disclosed by the disclosing party or has entered the public domain through no fault of Receiving Party;
- was known to receiving party, without restriction, at the time of disclosure, as demonstrated by files in existence at the time of disclosure;
- is disclosed with the prior written approval of the disclosing party or is disclosed to receiving party by a third party which is not subject to any confidentiality restrictions regarding such information;
- is disclosed pursuant to the order or requirement of a court, administrative agency, or other governmental body; provided, however, that receiving party shall provide prompt notice of such court order or requirement to the disclosing party and shall reasonably cooperate with the disclosing party to enable the disclosing party to seek a protective order or otherwise prevent or restrict such disclosure;

- is or has been independently developed by employees, consultants or agents of receiving party without violation of the terms of this agreement and without reference or access to any confidential information.

These confidentiality commitments apply for 2 years.

9.7 Intellectual property

Receiving party agrees, except as otherwise expressly authorized by the disclosing party, not to make any copies or duplicates of any confidential information. Any materials or documents that have been furnished by the disclosing party to receiving party in connection with the relationship shall, except as may be required by applicable law or court order, be promptly returned to disclosing party or destroyed by receiving party, within ten (10) days after (a) the transaction has been rejected or concluded or (b) the written request of the disclosing party.
Nothing in this RFP shall be construed as granting any rights under any patent, copyright or other intellectual property right of the disclosing party, nor shall this agreement grant receiving party any rights in or to the disclosing party's Confidential Information other than the limited right to review such confidential information solely for the purpose of determining whether to enter into the Transaction.

In case of violation of this provision regarding intellectual property, a compensation of 15.000 euro will be paid by the contractor per violation, subject to higher claims if the actual damage amount surpasses the aforesaid.

9.8 Project Management

Project management is in the hands of VIL. VIL will monitor and supervise the tasks of the selected partners. The daily management of the VIL project will be performed by Luc Pleysier and Gunther Storme.

10 SELECTION PROCEDURE

10.1 Evaluation criteria

The main evaluation criteria are:

- Ability to comply the requirements of the RFP and to offer a proper quotation in the recommended timing.
- Quality and proven business experience in similar environments and/or solutions.
- The budget of the proposal.
- The plan of approach in terms of project management, support and implementation.
- Availability for the implementation of the work.

10.2 Disclaimer

The publication of this offer request does not imply any obligation for VIL.

10.3 Assignment

Given the limited value of the quotation, less than 50,000 Euro, excl. VAT, and taking into account Art. 17 § 2, 1 °, a WOO 1993 and 26 § 2, 1 °, a WOO 2006, the RFP is granted on the basis of the negotiated procedure without prior publication.

10.4 Governing law

This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the Belgian laws. The parties agree that the courts of Antwerp, Belgium, shall have sole and exclusive jurisdiction over any dispute arising under the terms of this Agreement. The Parties consent to venue in Antwerp, Belgium.

If any of the provisions of this RFP are found to be unenforceable, the remainder shall be enforced as fully as possible and the unenforceable provision(s) shall be deemed modified to the limited extent required to permit enforcement of the RFP as a whole.

10.5 Contact

VIL

Koninklijkelaan 76

2600 Berchem

Contact person: Luc Pleysier

Tel:+32 3 229 05 11.

Mail: luc.pleysier@vil.be

VIL

EMPOWERING LOGISTICS

Koninklijkelaan 76, 2600 Berchem
• T +32 3 229 05 00

WWW.VIL.BE
info@vil.be