

HORIZON
2020

Narrowband IoT for Waste Collection in Rural Areas

Fact Sheet

Project Information

NB4WASTE

Grant agreement ID: 782670

[Project website](#) 

DOI

[10.3030/782670](https://doi.org/10.3030/782670) 

Project closed

EC signature date

19 July 2017

Start date

1 August 2017

End date

30 November 2017

Funded under

SOCIETAL CHALLENGES - Smart, Green And Integrated Transport

Total cost

€ 71 429,00

EU contribution

€ 50 000,00

Coordinated by

ALPHA SYLTEC INGENIERIA SL



Spain

Objective

The NB4WASTE Project, developed by SYLTEC, will put on the market an integral IoT solution for municipal waste collection management in rural areas using the new NB-IoT communication standard, for the first time in this type of market, including a specific developed low cost unit ultrasonic sensor technology with low energy consumption and 10 years battery life. Thanks to NB4WASTE solution municipalities will increase yield and profit per service (30%) and will save on fuel costs (25%). Additionally waste bin companies business will increase by 40% offering the NB4WASTE solution. Exploitation of Big Data obtained by means of the NB4WASTE in order to decrease operating costs will be one of the main objectives. Thus, by

route optimization and predictive operations thanks to Big Data exploiting will result in 25-50% costs and 25% CO2 savings. The main alternatives to NB-IoT as competitive solutions available on the market of Low Power Wide Area technologies are LoRa and SigFox but both of them are worse considering market flexibility implementation and coverage. Only NB-IoT ensures business scalability expansion and reliable service. If we add market flexibility (open standards) and coverage (spectrum efficiency) to the main properties scored by experts (low power, bandwidth, supplier breadth, security and deployments) it is the most competitive alternative. NB4WASTE will contribute to Circular Economy by increasing recycling targets due to more optimized selective collection implementation for smart waste management in rural areas. It will also promote competitive rural business and help European Members for digital inclusion ensuring that everybody can contribute to and benefit from the digital economy and society. Financial 5 years forecast demonstrates NB4WASTE profitability. With a margin of 20% and a total of 418 units sold during 2019-2023 period (20% market penetration: France, Italy, Spain, UK and Chile) the Return of Investment for SYLTEC will be around 3,84

Fields of science (EuroSciVoc)

[natural sciences](#) > [computer and information sciences](#) > [internet](#) > [internet of things](#)

[engineering and technology](#) > [environmental engineering](#) > [waste management](#)

[engineering and technology](#) > [electrical engineering, electronic engineering, information engineering](#) > [information engineering](#) > [telecommunications](#) > [telecommunications networks](#) > [mobile network](#) > [4G](#)

[engineering and technology](#) > [electrical engineering, electronic engineering, information engineering](#) > [electronic engineering](#) > [sensors](#)

[engineering and technology](#) > [environmental engineering](#) > [energy and fuels](#)



Programme(s)

[H2020-EU.3.4. - SOCIETAL CHALLENGES - Smart, Green And Integrated Transport](#)

MAIN PROGRAMME

[H2020-EU.2.1.1. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies \(ICT\)](#)

[H2020-EU.2.3.1. - Mainstreaming SME support, especially through a dedicated instrument](#)

Topic(s)

Call for proposal

[H2020-SMEInst-2016-2017](#)

[See other projects for this call](#)

Sub call

H2020-SMEINST-1-2016-2017

Funding Scheme

[SME-1 - SME instrument phase 1](#)

Coordinator



ALPHA SYLTEC INGENIERIA SL

Net EU contribution

€ 50 000,00

Total cost

€ 71 429,00

Address

**CALLE SANTIAGO LOPEZ GONZALEZ 9 POLIGONO INDUSTRIA SAS
47197 VALLADOLID**

 **Spain** 

SME 

Yes

Region

Centro (ES) > Castilla y León > Valladolid

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

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Permalink: <https://cordis.europa.eu/project/id/782670>

European Union, 2025

