AFTER LIFE COMMUNICATION PLAN

InSiTrate

Life

In-situ treatment technology for drinking water production from nitrate-polluted groundwater

Tecnología In-situ para la producción de agua potable a partir de aguas subterráneas contaminadas por nitratos

RESTORING POLLUTED GROUNDWATER

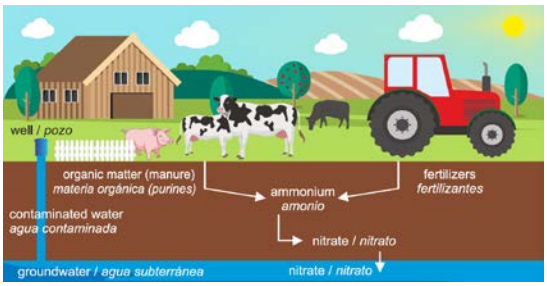
RECUPERANDO LAS AGUAS SUBTERRÁNEAS CONTAMINADAS

June 2017
Junio 2017

THE PROJECT

PROBLEM TARGETED

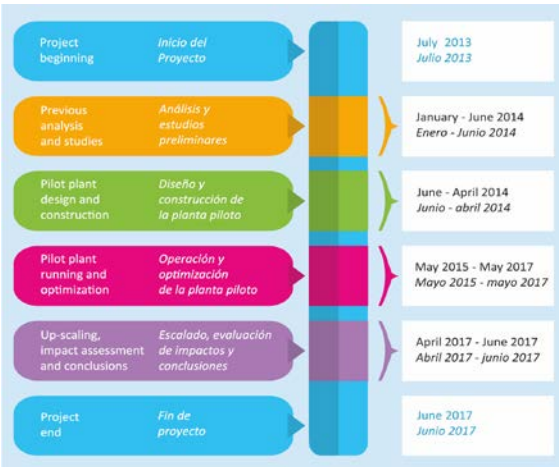
Groundwater is one of the main sources of freshwater in the World. However, the nitrate levels of groundwater in may places in Europe are above the legal limit of 50 mg/l due to the over fertilization of crops in the agriculture. Therefore, these water reservoirs are no longer suitable for drinking water purposes and they need proper treatment.



Most used conventional technologies are usually too expensive and they produce nitrate-rich brines that must be properly managed.

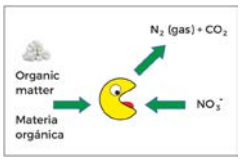
OBJETIVE AND TIMELINE

The objective of the project was to demonstrate the viability of an insitu technology based on the bioremediation process for the production of drinking water. A pilot plant was operated in Sant Andreu de Llavaneres (Catalonia).



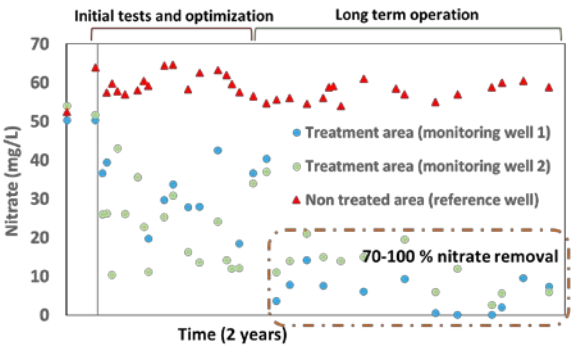
TECHNOLOGY

It consists in the controlled injection of organic matter in the aquifer to promote the biological denitrification.



RESULTS

Nitrate reduction between 70 and 100 % was achieved in the aquifer and 30 % in the extraction well along the two years of operation of the pilot plant.

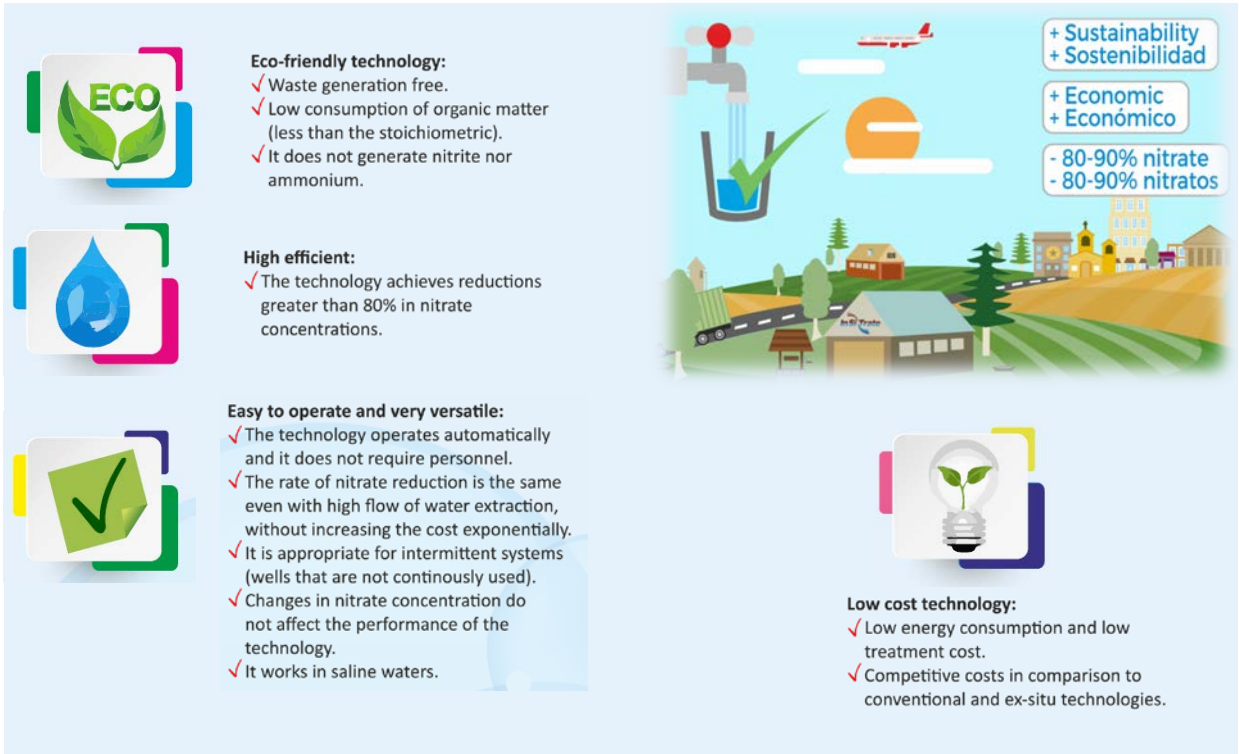


InSiTrate project demonstrated that the developed technology is very efficient in terms of organic matter consumption which is the main resource needed for the operation and in terms of costs if compared with conventional technologies.

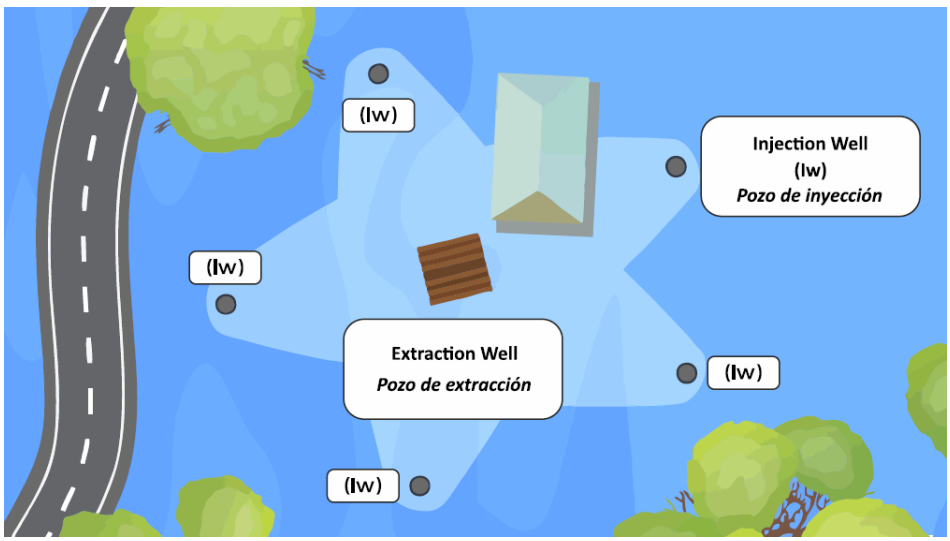
Furthermore, a simulation tool was developed to assist in the design and operation of the technology in new sites. This tool, together with the experience gained during the pilot tests, was used to design the operation strategy of the technology at full scale.

THE PROJECT

IMPACT



TRANSFERABILITY



The InSiTrate technology deployment requires of the construction of several injection wells around the treated water extraction well for the provision of the organic matter. It also requires of the construction of some control wells.

The InSiTrate technology can be implement in any porous aquifer with excess of nitrate concentration.

PAST DISSEMINATION ACTIVITIES

GRUPS OF INTEREST

- ✓ Public administrations dealing with drinking water management (municipalities, communities…)
- ✓ Drinking water management companies
- ✓ Irrigation associations
- ✓ Scientific community
- ✓ Public in general

OTHER COMMUNICATION ACTIVITIES

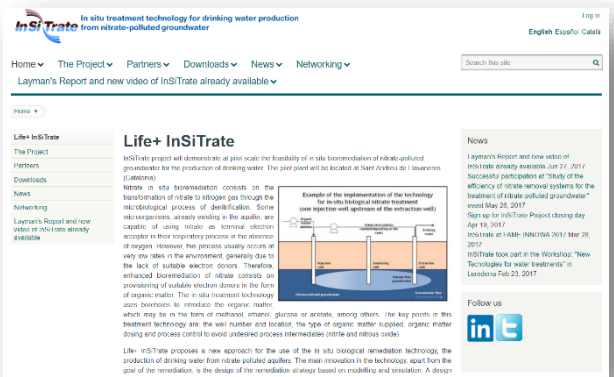
- ✓ Participation in 10 international conferences
- ✓ Participation in 16 national conferences and fairs
- ✓ 3 press releases
- ✓ > 30 articles mentioning the project in both the local and national press
- ✓ 6 appearances on local and national television and radio

DISSEMINATION THROUGH PRINTED MATERIAL

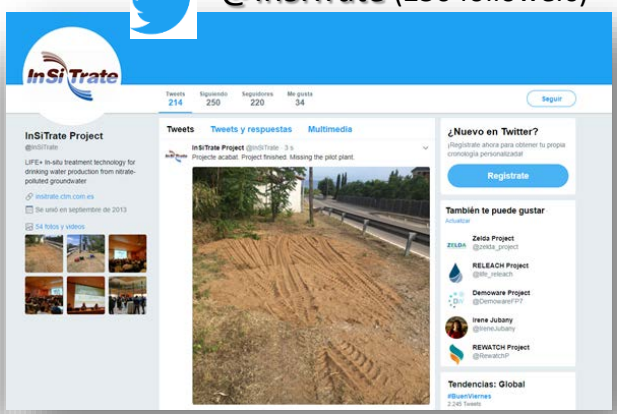
- ✓ Leaflets (CAT & ENG; 5000 units)
- ✓ Poster (ENG)
- ✓ Notice board (CAT & ENG; 3 units)
- ✓ Layman's report (ESP & ENG; 500 units)
- ✓ Folder to disseminate printed material in open days (200 units)
- ✓ Technology guideline leaflet (CAT, ESP & ENG; digital)

WEB PAGE AND SOCIAL NETWORKS

insitrate.ctm.com (> 6000 visits)



@InSiTrate (250 followers)



VIDEOS

Project introduction (>330 views)

Tracer test (>190 views)

Pilot plant construction (>100 views)

Final video with results (>60 views)

PAST DISSEMINATION ACTIVITIES

OPEN DAYS

5 Open Days were organized to show the pilot plant, some of them included also previous conferences. Slides from the conferences are all available in the project webpage.

	Event 1: Open day Llavaneres	Event 2: Jornada InSiTrate	Event 3: Open day ACA	Event 4: Jornada LIFEs CTM	Event 5: Open day sanidad
Date	12/12/2015	07/04/2016	21/04/2016	08/11/2018	22/02/2017
Type of event	Pilot plant visit	Conference + Pilot plant visit	Pilot plant visit	Conference + Pilot plant visit	Pilot plant visit
Place	Sant Andreu de Llavaneres	Barcelona Hotel Ilunion + Sant Andreu de Llavaneres	Sant Andreu de Llavaneres	Manresa (CTM) + Sant Andreu de llavaneres	Sant Andreu de Llavaneres
Participatns	8	72 / 29	8	100 / 16	5
Social groups involved	Sant Andreu de Llavaneres inhabitants	Specialized technicians, administrations and stakeholders	Administration	Specialized technicians, administrations and stakeholders	Administration
Duration	4 hours	Full day	3 hours	Full day	3 hours

FUTURE DISSEMINATION ACTIVITIES

DISSEMINATION OBJECTIVES

The objectives of the future dissemination activities are to promote the InSiTrate technology benefits when compared with conventional technologies for groundwater treatment and to promote the implementation of the technology at full-scale at national and international level.

TARGET GROUPS

- ✓ Public administrations dealing with drinking water management (municipalities, communities…)
- ✓ Drinking water management companies
- ✓ Irrigation associations
- ✓ Scientific community
- ✓ Companies dealing with water treatment technologies.

PROJECT WEBSITE AND SOCIAL NETWORKS

Description

The project webpage and the project Twitter account will be active for at least 5 years. Their content will be updated regularly with new information regarding the environmental problem targeted and the future implementation of the technology at full-scale.

Involved partners

Fundació CTM Centre Tecnològic

Period

2017-2022. Periodic updates of the webpage, at least 2 each year according to the advances, changes and new information availability. A minimum of 5 twits a year.

Budget: 2000 €

DISTRIBUTION OF DISSEMININATION MATERIAL

Description

Dissemination of the printed material produced during the project (leaflets, poster and Layman's Report). The distribution of the material will be done during dissemination events and directly to interested people. Moreover, printed material will be available in the hall of the buildings of the project partners and stakeholders. If needed, new prints will be produced. All this material will be available in the webpage for downloading.

Dissemination of the project videos, mainly the final video. This will be done in dissemination events in which the InSiTrate project will be presented and through the webpage of the project and the webpages of the project partners.

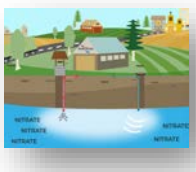
Involved partners

Fundació CTM Centre Tecnològic, Amphos21 and Catalana de Perforacions

Period

2017-2022.

Budget: 1000 €



FUTURE DISSEMINATION ACTIVITIES

NOTICE BOARDS

Description

The notice board erected in the hall of the Fundació CTM Centre Tecnològic during the project will remain there until 2020. This roll-up has been very useful to draw the attention of the persons visiting the centre, which usually ask for more information after reading it.

Involved partners

Fundació CTM Centre Tecnològic

Period

2017-2020

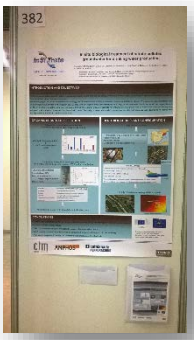
Budget: 500 €

DISSEMINATION IN CONFERENCES AND FAIRS

Description

InSiTrate technology will be presented in many events such as conferences and fairs to promote future full-scale implementations at national and international level. In these events, printed dissemination material will be available and videos showcased. Main events of interest for the dissemination of the project and the technology are listed below:

· AquaConsoil 2019 (European city
· Jornada de Innovación del Catalan Water Partnership 2019 - 2020 (Catalonia)
· Water Innovation Europe 2018. WSSTP (Brussels)
· Nicole 2017 (Copenhagen)
· SMAGUA 2018-2020 (Zaragoza)
· iWater 2018-2020 (Barcelona)
· CONAMA 2018-2020 (Madrid)



Involved partners

Fundació CTM Centre Tecnològic, Amphos21 and Catalana de Perforacions

Period

2017-2020.

Budget: 8000 €

DISSEMINATION IN CIENTIFIC AND TECHNICAL MAGAZINES AND JOURNALS

Description

Publication of project results will be made in two peer-reviewed journals. Some of the journals of interest are:

· Water Research
· Water Science and Technolgy
· Environmental Pollution

Publication of InSitrate technology will be made in popular magazines in the water sector.

Involved partners

Fundació CTM Centre Tecnològic, Amphos21 and Catalana de Perforacions

Period

2017-2018.

Budget: 8000 €

PROJECT IDENTITY

Code: LIFE12 ENV/ES/000651
Country: Spain
Starting date: July 2013
Ending date: June 2017
Duration: 4 años
Total budget: 1,211,634 €
Webpage: http://insitrate.ctm.com.es
Twitter: @InSiTrate
Email: info@ctm.com.es

COORDINATOR

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PROJECT PARTNERS

STAKEHOLDERS

Ajuntament de
Sant Andreu de Llavaneres

Agència Catalana de l'Aigua

Project (2013-2017) was supported and financed by the LIFE+ program of the European Commission