

Servizi Ecologici

Franchini

Ecoelogia

INNOVATION AND TECHNOLOGY
in the environmental sector since 1976

Since 1976 Franchini Ecological Services S.p.A. has stood as a point of reference for companies, individuals and public bodies that require professionals who work in the field of ecological and environmental services.



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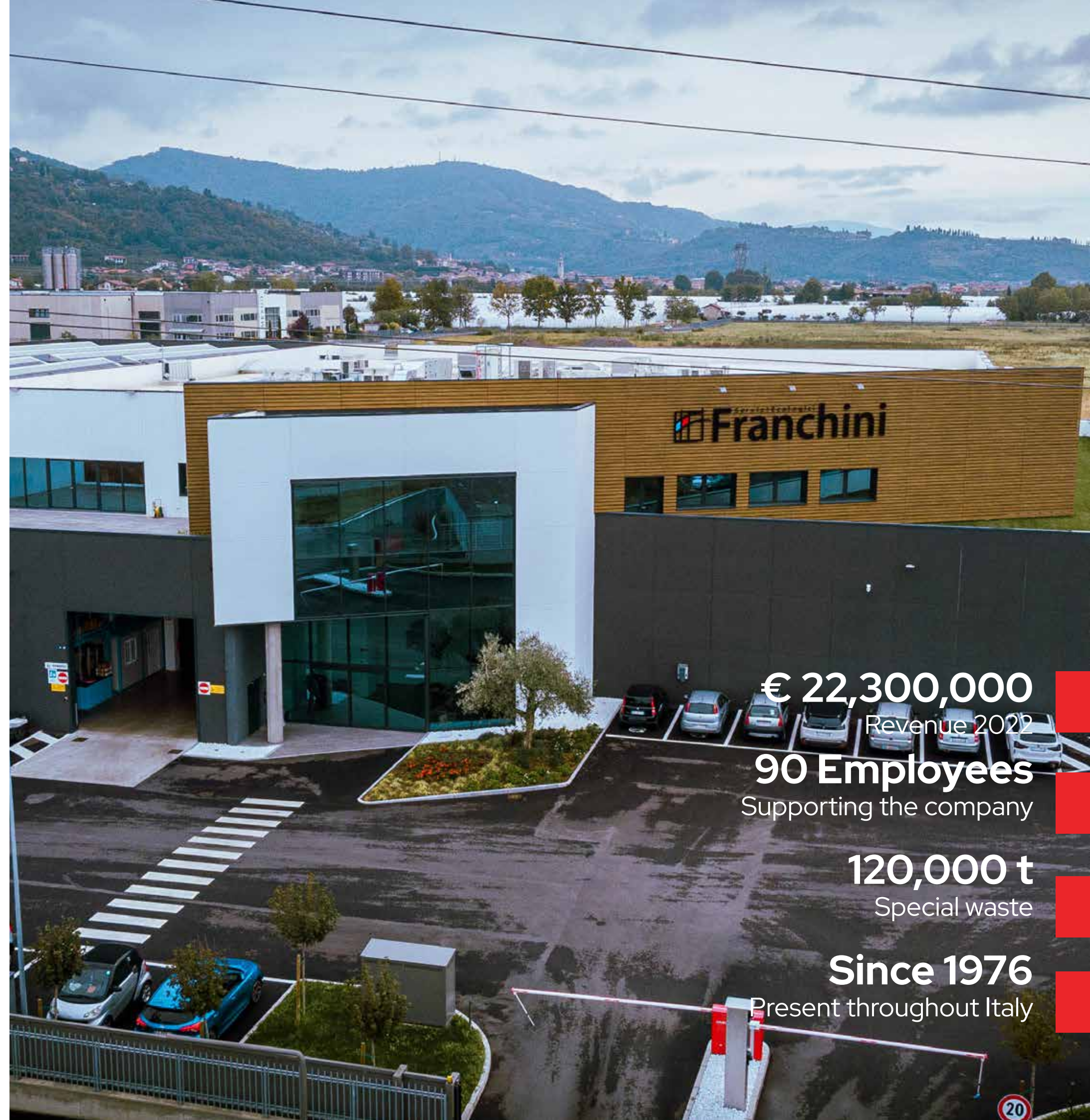
Vehicle fleet and main equipment

Almost 50 years of experience

Franchini S.p.A. Ecological Services came about from the passion for the "earth" and has always paid particular attention to customer care. The company activities began in the thirties, when Luigi Franchini performed mechanical-agricultural work on behalf of third parties. The "Thresher" activity ended when the lands of the foothills were destined for more profitable industrial and residential activities. That work experience, however, was not lost. In fact, his sons Giuseppe and Giacomo Franchini transformed agricultural tractors and cisterns into rudimentary self-purging machines, the first embryo of modern machinery used today to perform maintenance cleaning services on civil and industrial sewage networks, inheriting the spirit and values taught by their father: attention to the customer, honesty, spirit of sacrifice and dedication to work.

The company is now led by the third generation of the Franchini family, Stefano, Gianluigi, Andrea and Filippo; each of them plays a strategic role in the corporate structure. With them, the company has embarked on the path of development and transformation from a family business to a structured and modern company, without ever forgetting the characteristics imprinted by the founder Luigi. Today it stands as a point of reference for companies, individuals and public bodies that require professionals that work in the ecological and environmental services sector.

Franchini Ecological Services has a large fleet of technologically advanced vehicles and equipment capable of responding to every operational requirement, even in the event of



€ 22,300,000

Revenue 2022

90 Employees

Supporting the company

120,000 t

Special waste

Since 1976

Present throughout Italy



an emergency. Numerous natural gas-powered vehicles are available in the vehicle fleet. Some technologies and know-how are designed and developed internally by the company: the mobile systems used in the sludge dehydration sector, for example, are designed directly by Franchini technicians.

The company today boasts a number of highly professional figures at all levels. The workforce is constantly growing both in terms of new hires and above all in intrinsic professional qualities, thanks to an intense program of preparation and training activities.

The flexibility of the organisational and management structure is designed to be able to manage company dynamics and is constantly updated to respond quickly and professionally to the needs of the task and to the specific market.

Certifications

Franchini S.p.A. Ecological Services operates with an integrated quality, environment and safety system certified by the body DNV and with a marked sensitivity towards the social aspects of work in accordance with the following standards:

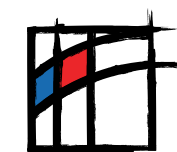


The company is listed in the Register of Environmental Managers in the Lombardy Regional Section under number MI00498 Categories 4-5-8-9.


















Servizi Ecologici
Franchini
Ecoelogia

The Services








Innovation and Technology
in the environmental sector since 1976





Maintenance cleaning of sewage systems and of purification tanks

	Industrial purges		Roadside purges
	Civil purges		High pressure washing
	Intervention in confined spaces		Process analysis laboratory
	Disposal of Liquid Waste		Hydrodynamic cleaning of Piping
	Purification tank cleaning		Suctioning Excavator
	Sludge sand removal		Sludge dehydration
	Sludge screening		High pressure washing
	Liquid waste Rifiuti Liquidi		

Treatment of sewage sludge from civil and industrial waste water with mobile plants

	Suctioning Excavator		Sludge and removal
	Sludge dehydration		Sludge screening
	Process analysis laboratory		

Cleaning of anaerobic digesters

	Anaerobic digester cleaning		Fermentor Cleaning
	High pressure washing		Interventions in confined spaces

Cleaning of process tanks containing combustibles with the issue of leak and gas free test certificates

	Process tank cleaning		Fuel Tank Cleaning
	Tank inerting		High pressure washing
	Interventions in confined spaces		Pipe rack piping cleaning
	Gas Free		Tank Leak Test

Regeneration of pipes through operations from the inside and air and water tightness tests



Piping
Regeneration



Piping
Leak Test

Remote inspections, georeferencing and mapping of sewers and of other networks



Video Inspection



Mapping of
Sewer Networks

Transportation, disposal and recovery of special waste



Suctioning
Excavator



Liquid Waste
Disposal



Solid Waste
Transportation



Eternit Collection
and Transportation

Emergency service 7 days a week



Environmental
Emergency Service



Purges
Emergency Service



Flooding
Emergency Service

Maintenance cleaning of sewer networks and of purification tanks

Civil Networks Civil Purges

Franchini S.p.A. Ecological Services mainly operates these services on sewage networks (from the collection to the purification of waste water) serving existing residential buildings in the province of Bergamo and neighbouring areas.

As this is an activity aimed at maintaining the perfect functionality of these discharges, it requires a territorial proximity that allows for rapid intervention in the event of a malfunctioning of the infrastructure.

Since 1976 we have gained experience that distinguishes us today for the offer of a complete and professional service.

We offer customised solutions that are perfectly suited to the customer's needs. We also operate scheduled maintenance cleaning tasks which guarantee interventions of a preventive nature and, in the event of emergencies, through an EMERGENCY SERVICE active 24/7; we intervene as quickly as possible and with all the necessary tools to resolve specific problems, even those of high complexity.



Industrial Networks Industrial Purges

Franchini S.p.A. Ecological Services operates these services on the sewage networks (from collection to the purification of waste water) serving buildings for production and/or commercial use throughout the national territory with promptness and competence and with particular attention to respect for the environment and to the regulations to protect safety.

The industrial drainage services are used to keep the sewage networks and the purification sections of the industrial production sites in a good state of efficiency.

The service is performed (by way of example) on the following infrastructures:

- Sewer networks
- Rainwater collection networks
- Wastewater treatment plants
- Production and process lines
- Polluted areas

Non-stop cleaning of industrial tanks and lagoons

The tanks and all the cement products used in the water purification cycle require periodic cleaning in order to reduce the volumes of dregs present.

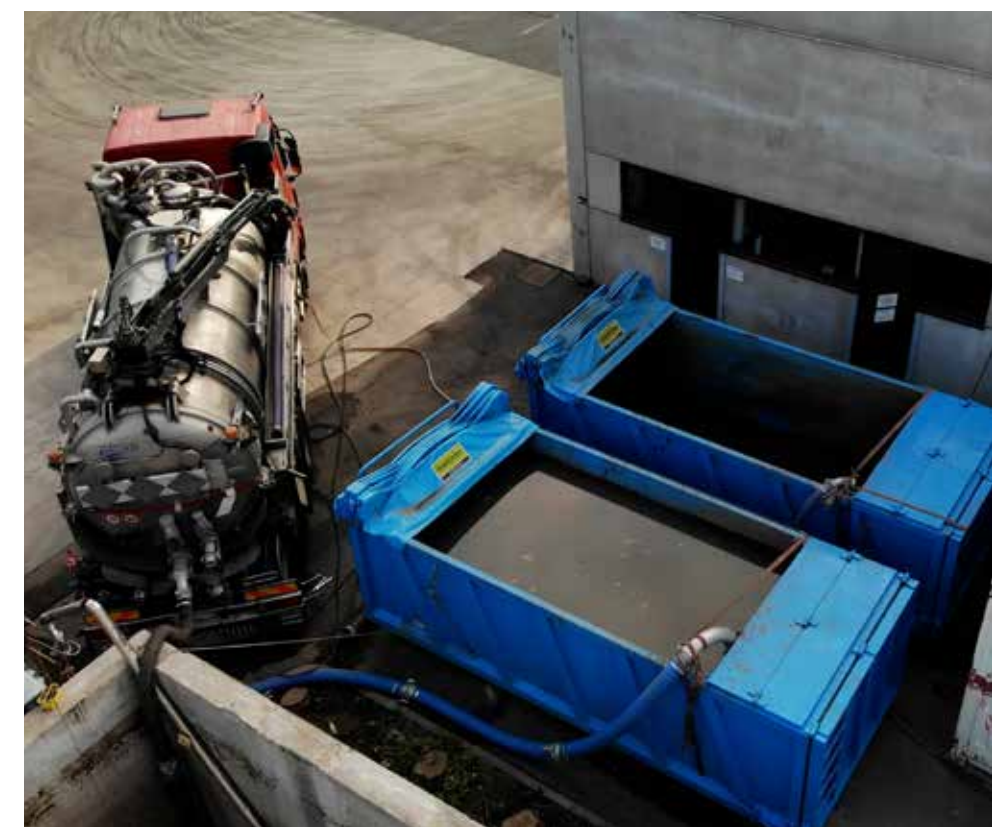
From lagooning tanks, to settling tanks, to purification plant tanks, the need is to eliminate the sediments deposited on the bottom to maintain full efficiency by performing the service, leaving them in operation and therefore without the need to empty them.

The tanks are normally large in size, contain large volumes of water and can present access problems. Thanks to the know-how acquired over the years and the specific skills developed in the sector, Franchini has developed new methods for carrying out the cleaning activities of industrial tanks without interrupting the work cycle, also due to the use of special equipment designed in-house.

The cleaning cycle conceived by Franchini Ecological Services takes place by introducing a floating dredger into the tank; the sludge taken from the dredge is subjected to sand removal, screening and dehydration before being transferred to the appropriate disposal plants; the operators work from the outside in complete safety, without the need to enter confined spaces. It is not necessary to stop production activities as the tanks are not emptied but left in operation: the company can therefore continue its work without interfering with the service.



The non-stop tank cleaning and industrial lagoon cleaning service was designed by Franchini Ecological Services in order to increase the safety conditions of the personnel using a no-entry methodology and with the aim, when possible, of eliminating technical shutdowns that often create management issues for the end customer.



Treatment of sewage sludge from civil and industrial waste water with mobile plants



Dehydration

Franchini S.p.A. Ecological Services specialises in the dehydration of wastewater purification sludge. We dehydrate biological sludge, digested sludge, purification sludge, drilling sludge, aggregate washing sludge and primary sludge.

The proposed service consists of carrying out dehydration of the pumpable sludge produced by the waste water purification processes, performed using mobile plants positioned directly at the customer's treatment plant. The mobile systems we have at our disposal are all of very recent construction, characterised by high technological contents and high treatment potential: centrifuges with capacities from 900 to 4000 kg SST/h, 1200x1200 filter presses, all designed by our Company in order to obtain the maximum operational flexibility and the optimum process yields.

The economic/management advantages that can be achieved by choosing to use our service are linked to several factors:

- Less production of sludge to be transported and disposed of: the sludge dehydration process we perform extracts higher percentages of water than many of the traditional systems commonly used in purifiers. This allows a significant reduction in the mass of dehydrated sludge produced and consequent considerable savings on transportation and disposal costs;
- Greater cost control, deriving from fewer personnel employed; lower electricity consumption; depreciation and maintenance of fixed systems; minor purchase of reagents;
- Lightening of structural costs deriving from the complete outsourcing of a service which for a treatment plant is marginal to the core business.

Sand removal

Desanding of sludge has the objective of effectively removing sand and inert solids, normally heavier than the organic components, present in the purification sludge and in the dregs deposited on the bottom of the purification plants. The sands and aggregates present could cause damage to the mechanical equipment used in the subsequent stages of water treatment.

Franchini S.p.A. Ecological Services is the only company in Italy capable of carrying out this process by removing particles up to 40 microns from the mud, using mobile systems.

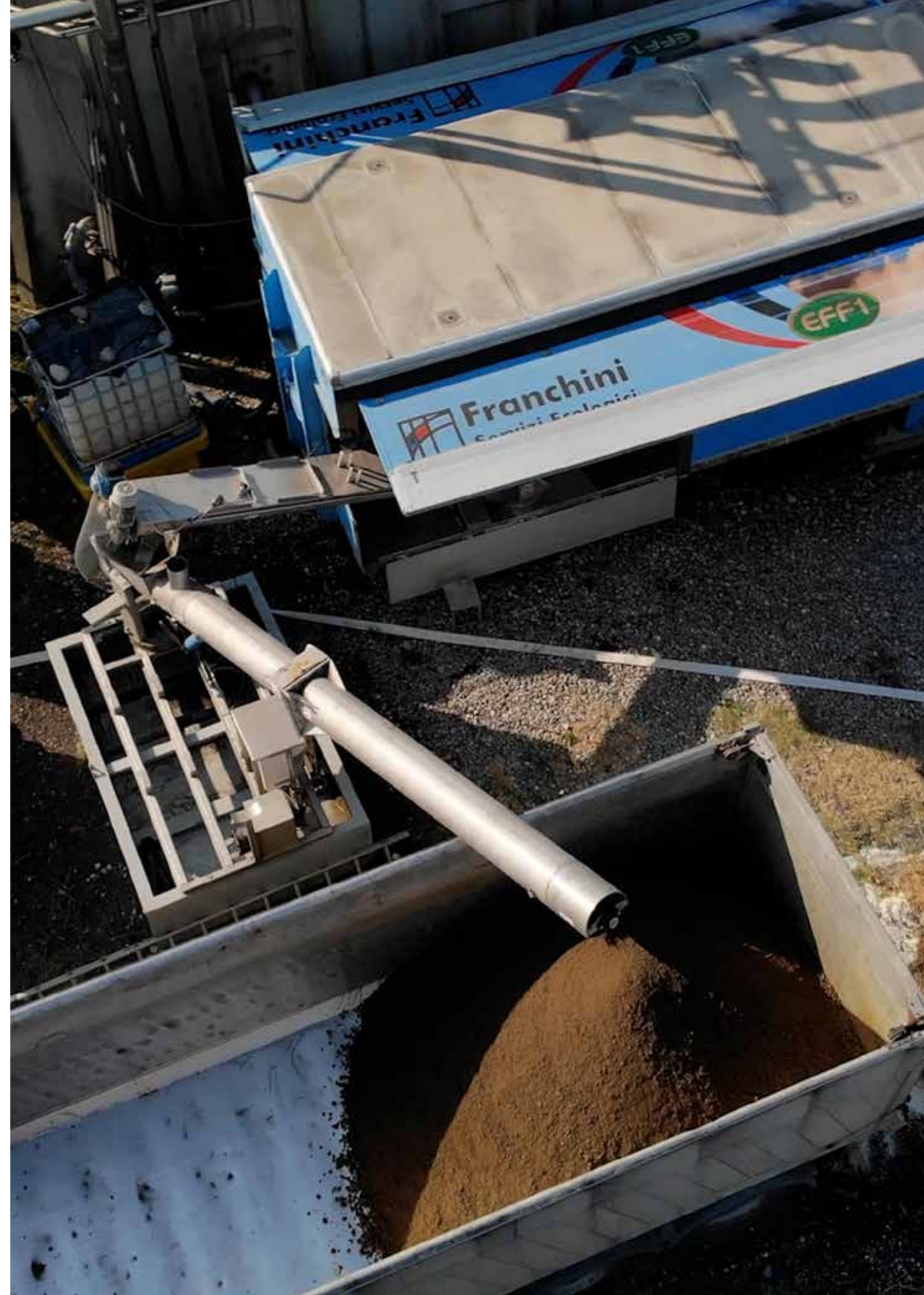
The sludge removal is particularly recommended in the maintenance phases of the technical elements present in purification plants, to classify the sludge present in the anaerobic managers, in the tanks and in the purifying compartments. It allows correct separation of the various components, directly on site, thus reducing the management costs of the disposal of waste resulting from cleaning operations.



Screening

Sludge screening consists of a coarse mechanical filtration operation, at 5 or 10 mm, with the aim of retaining coarse non-sedimentable solids (rags, plastic, etc.) and coarse sedimentable solids (gravel, etc.) present in water and sewage sludge. Franchini S.p.A. Ecological Services is able to oversee this phase of primary importance in the ordinary and extraordinary maintenance activities of the technical elements included in the waste water purification cycle.

Sludge screening is particularly recommended in the maintenance phases of the technical elements present in the purification plants, to classify the sludge present in the anaerobic managers, in the tanks and in the purification compartments. It allows correct separation of the various phases, directly on site, thus reducing the management costs of the disposal of resulting waste.



Cleaning of anaerobic digesters

Franchini S.p.A. Ecological Services offers a cleaning service for turnkey digesters and purifiers starting from the inerting and safety phase up to the delivery phase of the digester clean and without the presence of gas (gas free).

A leading company in the Italian market in the cleaning and remediation of anaerobic digesters, Franchini S.p.A. has specialised and adequately trained personnel and all the technologies and machinery necessary to fully carry out all the activities necessary for the delivery of the clean and gas-free product.

The service is split into three phases:



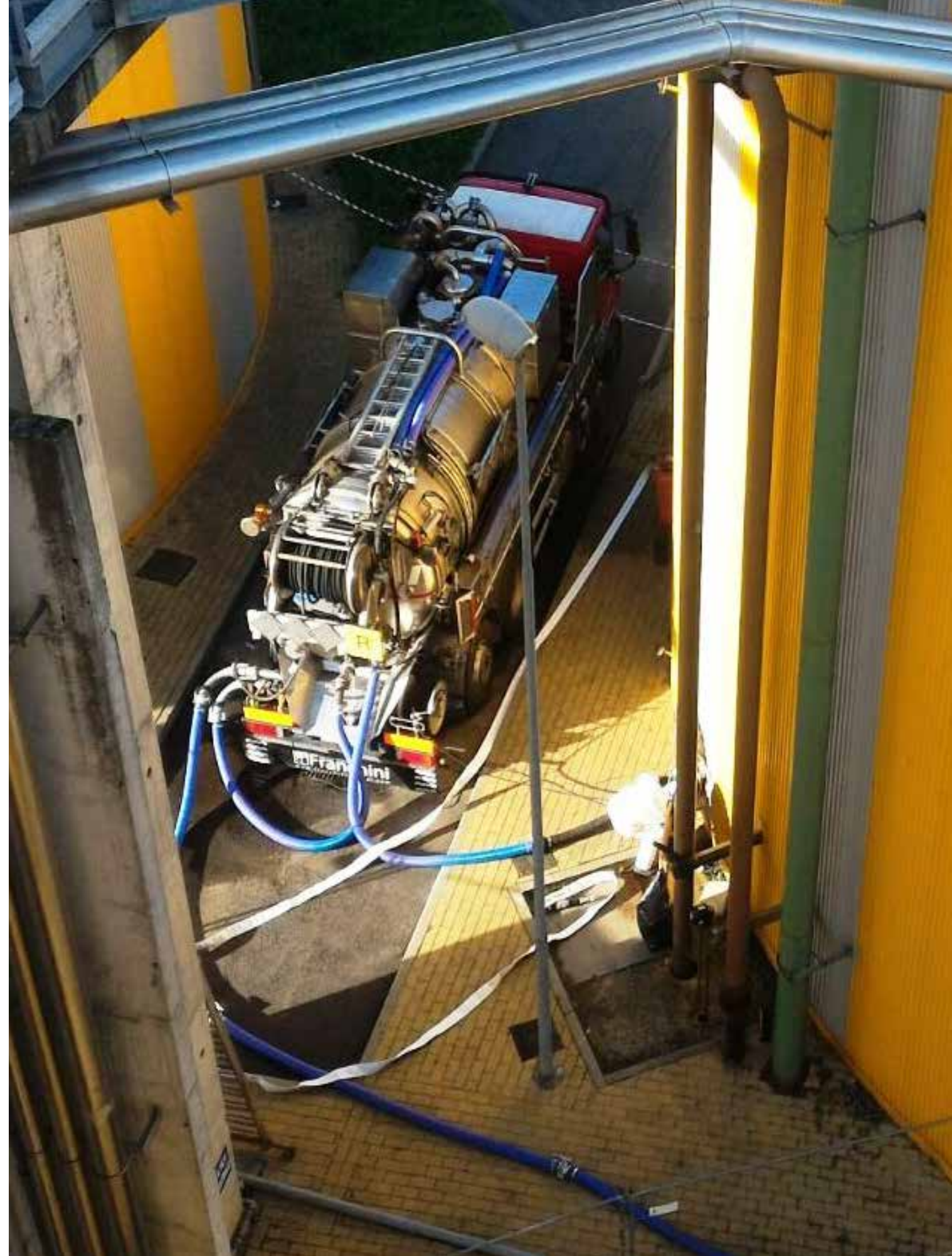
Technical inspection

Specialist technical activity aimed at collecting all sensitive data combined with samples necessary for the development of correct service planning. An inspection is carried out at the work site or in the plants to be reclaimed, the works necessary for correct intervention are identified and the quantity and quality of the material to be removed is identified.



Feasibility analysis and classification - intervention planning

From the technical analysis of the data collected during the inspection carried out and from the results of the analytical checks performed at our analysis laboratory, the best intervention methods and the relative commercial offer are defined and designed.





Intervention of inertisation, cleaning and reclamation

Making the product to be cleaned safe by making it inert is the first phase of the service and preparatory to all the subsequent ones.

Nitrogen is an inert, dry and clean technical gas, effective in making potentially explosive spaces/volumes safe (tanks, pipes and anaerobic digesters).

Influxing with nitrogen reduces the possibility of burning potentially explosive environments by generating stable gas mixtures. Inertisation using nitrogen takes place using a variety of procedures, based on the needs and conditions of the environment to be reclaimed and made inert.

The digester is then cleaned using special machinery and equipment, managed by highly specialised and qualified technical personnel.



Inerting – The methodologies used.

Purging: This technique consists of introducing an inert gas into an appliance, tank or pipe to allow the process gas to escape.

Blanketing: This procedure ensures constant inert conditions above a product, for example in a tank. The blanketing method is used to prevent explosions, discolouration, polymerisation and other unwanted changes that can compromise the quality of the product itself.

Sparging: A finely distributed gas is bubbled through a liquid in the form of bubbles in order to improve mixing and to increase the gas-liquid exchange surface. This technique is used, for example, to remove oxygen from oils, wastewater and other products.

At the end of the intervention, after the necessary checks, a Gas Verification Report is issued to the customer, in which a duly qualified technician certifies that all the activities performed are in accordance with the law.



Cleaning of process tanks containing combustibles with issuing of certification relating to leak and gas free tests

Franchini S.p.A. Ecological Services operates throughout the country to perform leak tests on tanks.

To have tanks that are always efficient and safe, regular preventive periodic checks are required through leak tests, recognised by the relevant bodies, and aimed at monitoring and verifying their structural integrity.

The tank leak tests are performed during normal operating activities or following the decommissioning of an underground tank in order to meet the regulatory requirements according to the Arpa guidelines and municipal hygiene regulations. All our interventions are carried out by highly specialised operators, with the aid of equipment and instruments compliant with the UNICHIM standards, guaranteeing the best results in terms of safety and quality of the service provided and in full compliance with the current environmental regulations.

Our tank leak testing services can be performed on:

- vertical and horizontal external tanks
- vertical and horizontal external cisterns
- single-chamber underground tanks, both in decommissioning and in operation
- single-chamber underground tanks, both in decommissioning and in operation
- double-chamber underground tanks, both in decommissioning and in operation
- double-chamber underground tanks, both in decommissioning and in operation



Process tanks

Cisterns and process tanks are an integral part of numerous industrial production plants, which is why their maintenance and cleaning becomes essential and necessary to guarantee the efficiency and safety of the systems themselves.

The tanks can be horizontal or vertical and contain dangerous substances such as acids and corrosive substances.

Even the physical state of the substance stored in the tank can vary significantly from one process to another and can be in the liquid or sometimes solid state.

For these reasons, maintenance interventions in the tanks, including cleaning, require intervention planning, specific skills and technical devices that Franchini S.p.A. Ecological Services is able to offer thanks to the professionalism acquired together with the use of modern equipment and highly trained and instructed personnel. Franchini S.p.A. also provides for the collection, transportation and transfer of any residual waste resulting from cleaning of the tank.

Once the intervention has been completed, the customer is issued a Declaration of successful cleaning of the tank, in which a qualified technician certifies that all the activities performed have been carried out to a professional standard and in accordance with the current legislation.



Check for gas absence

The "gas free" status is the instrumental verification of the actual condition detected, inside a tank or closed confined space, in order to determine the risks related to the composition of the internal atmosphere. Through calibrated and certified measuring instruments, Franchini S.p.A. Ecological Services is able to evaluate the potential explosiveness of the reclaimed volume in order to stabilise the atmosphere and make it a safe environment over time, even when the temperature and pressure vary.

The "gas free" check is required by law and certifies the absence of risks associated with the presence of flammable or explosive vapours inside the tank. The "gas free" verification certifies the actual state of healthiness of confined or ventilation-free environments. The "gas free" verification also makes it possible to ascertain the actual safety conditions prior to any extraordinary maintenance activities inside the building.

Following the verifications, a gas verification report is issued to the customer in which a technician, qualified and listed in the professional register, certifies that all the activities performed are in accordance with the law.





Restoration of pipes through operations from the inside and air and water tightness tests

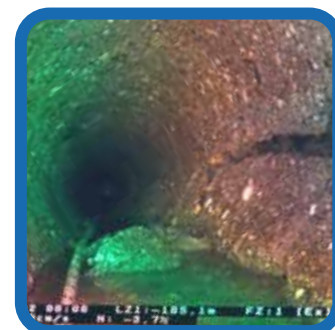
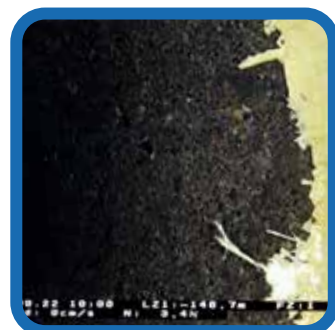
Pipeline restoration consists of the repair of deteriorated or damaged pipes avoiding masonry and/or excavation work, operating from inside the pipe.

This is possible thanks to modern technologies that are used to perform precise on-screen inspections of the pipes and to locate and evaluate the breakage or defect.



On-screen inspection

Pipeline anomalies such as cracks, breakages, structural yielding and obstructions that are not visible from the outside or through line mapping are identified through on-screen inspection. In general, on-screen inspection is used to analyse the state of preservation of pipes and ducts in order to be able to predict and plan non-invasive restoration.





Restoration

Pipeline restoration through repair consists of restoring the mechanical and hydraulic functionality of pipes, working from the inside, without breakages, excavations or masonry work. The pipe is covered internally by a sheath which can be made up of various materials. The thickness of this sheath is designed on the basis of the type of pipe in such a way that it does not reduce the diameter of the outlet and to restore hydraulic efficiency while also guaranteeing the structural solidity of the product. The performing of NO-DIG repairs using the following technologies: packer part-liner, relining, amex joints, sanitube relining.



Air or water tightness tests

They are performed after completion of restoration of a pipeline or at the end of the laying of a new pipeline (as a test work); the air or water tightness tests are carried out according to the provisions of the Uni En 1610 standard. The test is conducted by positioning shutter balloons, one upstream and one downstream of the section to be tested. Pressurisation can take place with air or water. The test times and pressure in the air test are determined according to the test method and the diameter of the sewer. In water testing, the pressure varies depending on what is to be tested (pipes only, pipes and manholes or manholes only). Once the leak test is completed, the "test protocol" is issued to the customer, stamped and signed, complete with a graph showing the progress of the test.



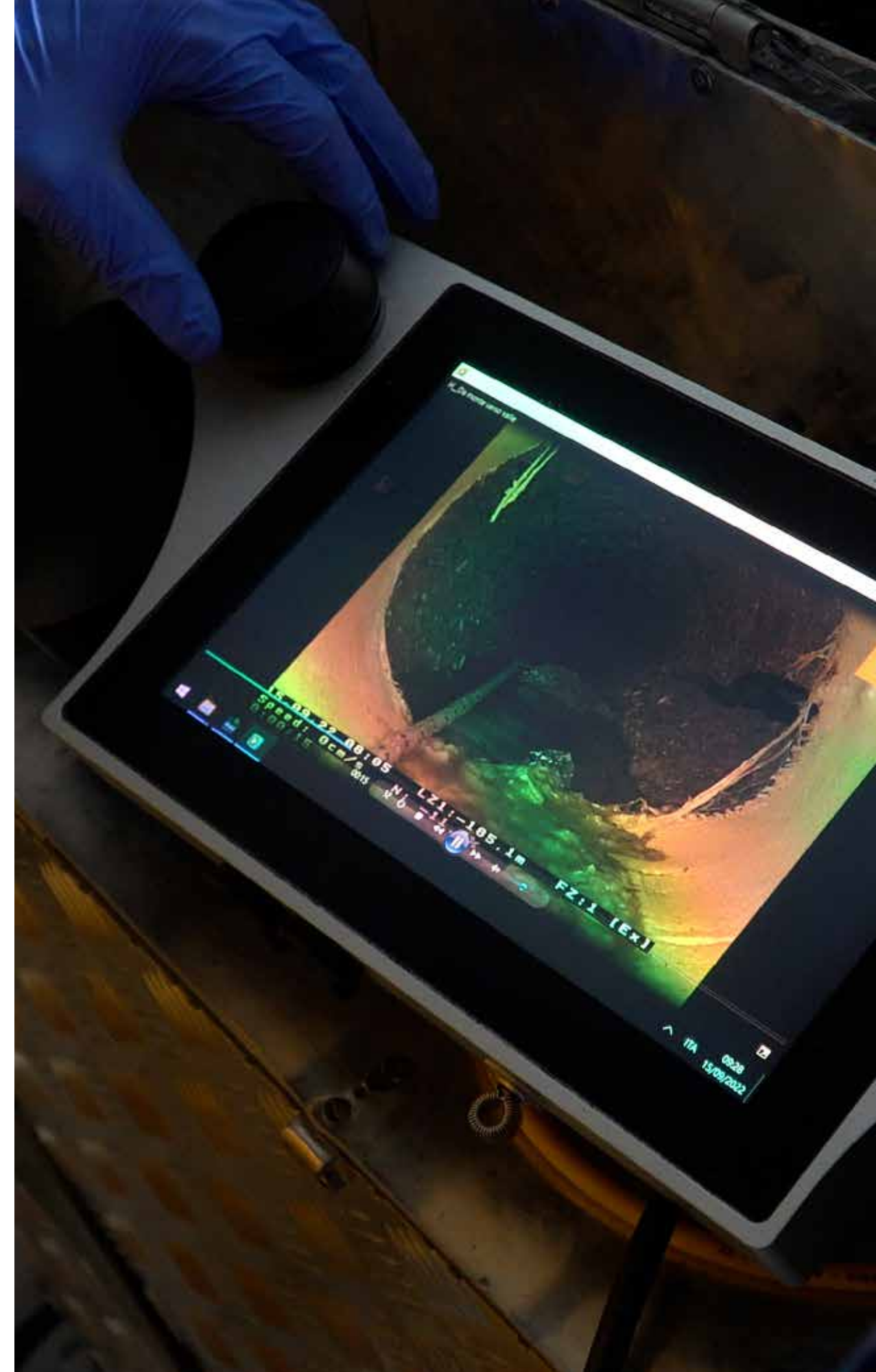


Remote inspections, georeferencing and mapping of sewers and of other networks

The network mapping service that Franchini S.p.A. Ecological Services provides its customers with is an additional and/or complementary element to the maintenance cleaning system, but still of fundamental importance. It is in fact used to perform an investigation and an on-screen survey of the layout of the sewer networks and to determine their state of preservation.

Thanks to robotic television probes, satellite detection systems (3D-Geosense system), radio detectors and the computerised mobile system, we are able to perform a detailed technical study of the ducting in question with the relief of the pipeline route, returning the instantaneous coordinates of each point, cataloguing the data relating to the geometry of the section, with exact determination of the layout in 3D, exact satellite position, slope of the pipeline, location of the connections, localisation of any anomalies (breakages, infiltration of roots, ...), then being able to carry out complete and precise mapping of the sewage networks.

With state-of-the-art instrumentation, such as that of Franchini S.p.A. Ecological Services, it is easier to identify with absolute precision the structural problems of the network in order to perform targeted and decisive piping maintenance interventions.





Transportation, disposal and recovery of special waste

Franchini S.p.A. Ecological Services offers transportation, disposal and recovery services for non-hazardous and dangerous special waste, guaranteeing compliance with the current environmental regulations.













The customer is guaranteed assistance at every stage of waste management, from classification to identifying the most suitable type of treatment. We also provide a chemical/physical analysis service of the waste and any supporting regulatory consultancy.



Vehicle fleet and main equipment

Franchini S.p.A. Ecological Services operates with a fleet of vehicles and with technologically advanced equipment capable of responding to any need and operational requirement.



	18	Sewage trucks
	16	Drive motors 3 & 4 Axles
	5	Tractors
	20	Trailers, semi-trailers and light trailers
	32	Light trucks and cars
	2	Mobile systems for sand removal and sludge screening
	22	Mobile sludge dehydration systems
	2	Mobile remote inspection, georeferencing and network mapping units
	1	Mobile sewer remediation unit
	1	Floating dredger
	1	Mobile workshop unit
	130	Removable containers



Via Manzoni, 30 | 24060 Bolgare BG
T. +39 035 42 89 800 | F. +39 035 42 89 880
info@franchiniservizi.com

Listed in the Bergamo Companies Register under no. 00865450167
Tax Code and VAT no. 00865450167

www.franchiniservizi.com