



EUROPEAN Cleaning JOURNAL

The pan-European
magazine for the
professional
cleaning sector

SEPTEMBER 2018

ECONATURAL FROM BEVERAGE CARTONS TO THE SUSTAINABILITY YOU CAN ACTUALLY SEE.

GOLD SPONSOR OF

FORUM PULIRE
10 11 OCTOBER 2018
MILANO UNICREDIT PAVILION



LUCART
PROFESSIONAL

Naturally advanced

SPECIAL REPORT



Washroom
dispensers

Page 23

WORKFORCE



Social
enterprise

Page 35

BUSINESS



Corporate
jargon

Page 49

Mopping
equipment
- latest
developments

Starts page 39

incorporating the official journal of the
EUROPEAN FEDERATION
OF CLEANING INDUSTRIES



Italian coastal project restores areas at high environmental risk

Reporting from Italy, ECJ correspondent Anna Garbagna writes about a modern method of tackling pollution along the country's coastline and restoring it to its former beauty.

The Mar Piccolo of Taranto, Apulia, one of 15 Italian areas being classified as "at high environmental risk" and known for the aquaculture of the famous mussels of Taranto, will be the subject of a restoration operation of a kind never attempted before.

The Apulia region is in fact starting experiments with a microfiltration technology which should deliver an effective and eco-friendly solution that is low cost and user-friendly, to deal with the problem of polluted sediment which affects thousands of Italian coastal areas. It is expected that, in less than a year-and-a-half, the area which is highly compromised today, will be returned to the community and the local economy.

European funding

Enea, the Italian national agency for new technologies, energy and sustainable economic development, has lead this project, together with the Istituto per l'Ambiente Marino Costiero del CNR (The Institute for the Coastal Marine Environment) of Taranto and other important partners within the framework of Life, a European funded program.

The main object of this initiative, called "Life4MarPiccolo", is the environmental rehabilitation of a section of this coastal basin which has been seriously polluted over the years, firstly by the activities of the Arsenale Militare (military arsenal) and of Cantieri Navali (shipyards) and

later by industrial plants. The initiative will operate by creating an innovative system of water purification and a comprehensive research programme which could lead to applications on a national scale or wider.

The plant, located in Tamburi, in the Taranto area, will be operational in the next few weeks and could give its first concrete results as early as summer 2019.

Microfiltration

The principle that this project is using, for the first time in the world, employs membrane microfiltration technology to decontaminate the polluted marine sediments and consequently the water column above. The process will take around 18 months, at the end of which this sea basin will be returned to the local economy and the local community with noticeable improvements from next summer.

The undertaking is absolutely innovative and opens up opportunities of great

environmental, scientific, economic and social interest. The system is characterised by being selective, flexible and low cost as well as being able to permanently solve the problem of sediment pollution.

Permanent removal

The procedure is expected to work in a surgical way, fully and permanently removing pollutants such as polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs) and heavy metals without altering or damaging the surrounding ecosystem which in the case of Mar Piccolo, contains particularly fragile biotic components and several protected species.

Compared to traditional systems such as dredging, which indiscriminately removes or covers the seabed thus spreading potentially polluted material, or by using de-polluting chemicals, the system which will be piloted in Taranto has exponential environmental and economic advantages as well as

being user friendly.

The plant, which has been engineered by Genelab, consists of a mobile unit for the resuspension and extraction of sediment, it operates near the shoreline and channels the sediment through a microfiltration membrane which occupies an area of about 150 square metres.

Decontaminated water

Once the finest organic element has been removed, the plant will return decontaminated water to the environment while the waste element with the polluting residues of larger size is sent for biological purification through fungal micro-organisms. It will therefore be possible to biodegrade some pollutants and to transform them into useful composites.

Another strong point is the extreme flexibility of use, with the ability to be used virtually everywhere, an aspect which could create opportunities for export to other parts of Italy and abroad.

Hand hygiene compliance may be overstated

Medical researchers at the University of New South Wales in Australia have discovered that hand hygiene rates in hospital staff drop sharply when humans undertaking compliance monitoring are replaced by machines.

A government-led hand hygiene programme has been running in the country's hospitals for the past eight years, with human auditors ensuring staff follow hand hygiene guidelines, which require a minimum of 70 per cent compliance.

But compliance rates fell from more than 90 per cent to 30 per cent when the human auditors

were relieved by automated surveillance, creating infection risks for patients, the study's authors said.

Surveillance methods

The researchers compared human and automated methods of surveillance in an Australian teaching hospital over two years. Automated surveillance consisted of hand hygiene dispensers at sinks and bedsides recording hand hygiene by touch, while human surveillance was direct observation of healthcare workers by human auditors.

"Regular hand hygiene among healthcare workers is a

cornerstone of hospital hygiene to prevent the transmission of pathogens and potential infection," said lead author UNSW medicine professor MaryLouise McLaws, an infection control expert and World Health Organisation health adviser.

"In our study, we found that as soon as human eyes were off the clock outside of the mandatory 20-minute audit and our automated method continued to monitor compliance, hand hygiene compliance went from 94 per cent to 30 per cent."

The study was published in the American Journal of Infection Control.

▪ Rapportant d'Italie, Anna Garbagna évoque les moyens modernes qui y sont déployés pour s'attaquer aux sédiments pollués qui affectent le littoral du pays.

▪ En Australie, des chercheurs médicaux ont constaté que le degré d'hygiène des mains des personnels hospitaliers tombe sensiblement lorsque des machines se substituent aux humains pour le suivi de la conformité.

▪ Anna Garbagna berichtet aus Italien über eine innovative Art, um mit den verschmutzten Sedimenten umzugehen, die die Küstenbereiche des Landes beeinträchtigen.

▪ Medizinische Forscher in Australien haben entdeckt, dass die Handhygienegeraten bei Krankenhauspersonal deutlich zurückgehen, wenn die Überwachung der Einhaltung der Handhygiene anstelle von Menschen durch Maschinen erfolgt.

▪ Dall'Italia, la corrispondente Anna Garbagna ci informa su un metodo innovativo per bonificare i sedimenti che inquinano le aree costiere italiane.

▪ In Australia, i ricercatori medici hanno scoperto che lo standard dell'igiene delle mani fra il personale degli ospedali diminuisce drasticamente quando il monitoraggio delle conformità da parte del personale viene rimpiazzato dal controllo per mezzo delle macchine.