THEME: HISTORICAL CITY CENTRES

NEWS - SEVILLE, EUROPE'S LARGEST OLD TOWN - PALMA DE MALLORCA, SAFE AND CLEAN CITY CENTRE - VITORIA, A CONTROVERSIAL PROJECT - NARBONNE, A PREDECESSOR WITHIN CITY DEVELOPMENT
Hardly anything binds our history and the present together so closely as the historic city centres. This cultural heritage creates, if well preserved, a unique identity and thereby prerequisites for a successful growth. Cities with historic city centres face great challenges. On one hand it is a fact that the historic environment is an invaluable asset. On the other hand it is difficult to meet today’s environmental demands.

Our demands on comfort and hygiene for historic city centres and modern construction are the same but the conditions are totally different. Conventional waste collection has its limitations and can in certain cases be a hindrance to a sustainable development of the city. These areas were not planned for the handling of source separation of 4-5 fractions. Neither were they built to resist the environmental strain caused by 100,000 visitors daily. To take full advantage of the attraction of a historic environment new solutions are a must.

This issue of Envac Concept will elucidate how three Spanish cities, Seville, Vitoria and Palma de Mallorca, successfully have solved their waste collection problems.

These historic city centres also add another dimension to sustainable urban development. The report on the French city Narbonne shows that one over the centuries has fulfilled modern demands on recycling and applied environmentally friendly transport systems. Ingenious underground transport- and evacuation systems were a substantial part of the city infrastructure even in the Roman era.

Combining the historic heritage with the demands put on modern cities is a huge and important challenge - but there are solutions.
“With the exception of helicopter transport, we have tried every means of removing waste from the city centre.”

The search for an efficient way of removing the inner city’s waste has for a long time been an urgent project in Seville. With Europe’s largest medieval city centre and large numbers of Roman, Arabic and Spanish cultural treasures, Seville is one of Spain’s main tourist attractions.

APPRECIATED TECHNOLOGY
The installation of an underground waste transport system, which was first put into use in April 2001 “Pino Montano” and in June 2002 “City Centre-Santa Cruz”, has been so warmly received that the city’s inhabitants now demand an expansion of the system so that the entire inner city is included.

“The planning of the first installation in Seville began back in 1995”, recalls Alejandro Rodríguez García, technical director of Lipasam, Seville’s municipal waste management company. “We were impressed with what the technique had accomplished in Vila Olympica in Barcelona and in other places in Europe. The Pino Montano project, a new construction area in the outskirts of Seville, which was financed by EU funds, was, however, postponed for several years before it got going at the beginning of 2000. We changed our strategy and decided to connect the existing buildings in order to increase the use of the system's capacity”. It was also decided to install a mobile waste vacuum system in Santa Cruz, the historical city centre.

“The mobile system works satisfactorily even if it does have its limits since we cannot connect shops and restaurants”, says Alejandro Rodríguez. “We need parallel systems, something that we would rather avoid. We are therefore considering installing a stationary system, even in the historical city centre.”

Seville currently has two stationary systems in operation and an additional two under construction. A new master plan will be presented in the spring, which will regulate the extension of the underground waste transport system in the city. The master plan will include 4-5 new constructions - a total investment of more than 100 million Euros.

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Today, the historical city centre with its listed buildings is, by and large, a pedestrian precinct. There are restaurants and shops everywhere. The squares are packed with outdoor cafes. In the high seasons, hundreds of thousands of visitors walk the narrow alleys. Storing and removing waste in this environment using conventional methods has been shown to have its limits.

SEVILLE

“The technique has received broad acceptance among politicians and our employees”, explains Alejandro Rodríguez. “We have not come up against any protests. Nor have we had any technical problems with our constructions.” The general impression among users is that the system is considerably cleaner and more hygienic than traditional, manual waste collection.

Prior to the election of 2002, a poll was carried out among the city’s inhabitants in which waste management was ranked as the most positive municipal service. This contributed to a great degree to the successful re-election of the governing political parties.

Alejandro Rodriguez is, however, of the opinion that it is considerably easier to deal with indoor waste inlets than street side inlets. When the waste inlets are in the streets and squares, an employee from LIPASAM is needed to occasionally go by and remove the waste that has been placed beside the inlets. “It seems as if it is harder to reach out with the information when the inlets are placed in public areas. It may also be the case that people feel less responsibility for keeping the streets tidy in public places, but we are, seeing clear signs of improvements in this behaviour”, says Alejandro Rodriguez.

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Mallorca hardly needs any introduction. The island is one of Southern Europe’s biggest tourist attractions. 12 million tourists visit the island each year.

“Mallorca’s economy is dependent on its tourism. At every meeting I have with the tourist industry, the importance of a safe and clean town is emphasized”, explains Francisca Bennasar, Vice mayor responsible for tourism in Palma.

The tidiness of the city environment is indeed very important for tourism. It is therefore important to remove waste as effectively as possible. There were, however, big problems getting effective waste collection to work in Palma. Narrow alleys, big differences in altitude in the city, stairs, and lots of people made conventional waste transport extremely difficult. In addition, the city has a relatively large number of elderly people who cannot walk very far with their rubbish. They also had problems with hygiene, particularly during the summer months.

The journey towards a comprehensive waste system for the historical city centre has however only been 50% achieved so far. In October 2002, the first phase was introduced through 357 waste inlets being commissioned. The next phase will begin in March 2004. “We expect that we should be able to shorten the installation time based on our experiences from phase 1”, explains Antoni Nadal, President of EMAYA, Palma’s waste management company. Many people were sceptical about the system when it was first started, and this led to a lot of questions and uncertainty.

Acceptance of the new system has clearly increased since it was put into operation. At the latest meeting that EMAYA had with representatives of residents and businesses, a request was put forward for more waste inlets in areas which today have conventional waste collection.

The waste inlets have received a lot of attention because they are such a striking feature in the appearance of the city. It was, however, decided not to make the waste terminal visible. The waste terminal is therefore located entirely under the ground at the main entrance of the city, an area outside the city wall that is easily accessible for waste trucks.

With the installation of an automatic waste transport system, the two waste fractions could be separated; organic and residual.

“Even if most people accept the source separation of household waste, we can and must improve,” says Arturo Cadenas, Managing Director of EMAYA. “We have realised that the information campaigns we run need to go on for longer in order for them to provide us with the impact we expect.”

EU FINANCING

“Even though 80% of the construction work was financed by the EU, we would, with today’s experience, not hesitate to pay the installation costs ourselves”, says Antoni Nadal.

“We are, however, grateful for the support we have received from the European Union and we believe that the results will also be of benefit to the many tourists.” It is also striking how clean and well cared for the city has become. Antoni Nadal explains that EMAYA has high ambitions of keeping the city centre in perfect condition. Francisca Bennasar nods and confirms that the politicians in Palma are very satisfied with the results.
A controversial, but successful project

Unlike the cities of Southern Spain any moorish influence in the cityscape is conspicuous by its absence. Large parks and beautiful private villas bear witness to an affluent period around the turn of the 20th century. Vitoria is still one of Spain’s most expansive cities, even today.

The city was founded in 1181 and is today the capital of the Basque Provinces. The old medieval town centre that forms the city centre became a national historic monument in 1977 and was honoured with the prestigious Europa Nostra award. Environmental initiatives have a high priority in Vitoria. It was the first Spanish city to adopt Agenda 21. Recently the influential Spanish daily newspaper El Pais named Vitoria as one of Spain’s three most attractive cities - to live and work in.

José-Antonio Pizarro, vice major and head of the environment and refuse collection in Vitoria.

Waste management has long been a priority area for the city. The city has the ambition of limiting the number of waste containers on streets and squares to an absolute minimum. At the same time separate waste storage chambers in properties do not exist. In view of this, an interest in an automated underground waste transport system would appear logical.

INITIAL PROBLEMS

“It was practically impossible for us to implement the requirement for waste separation in the medieval town centre using conventional techniques”, explains José-Antonio Pizarro, vice major and head of the environment and refuse collection in Vitoria. After seeing Envac’s installations in Sweden and Spain, the head of the environment in Vitoria was convinced that this was the right technology to solve the waste collection issue in the historic town centre. Unfortunately, not all political parties got behind him at the beginning. Nor did the residents around the planned site for the terminal and this led to strong protests during the entire period of the project. About 1500 people demonstrated every Saturday for 5 months against the installation of the underground waste transport system. One can hardly imagine more difficult conditions for connect to the system”, Pizarro continues. The city recently carried out a survey among residents who are connected to the system. 98% think that the waste management is working well according to the survey.

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Due to this positive change in attitudes the city has decided to invest in the system on a wide front. Alongside the installation in the historic town centre, Vitoria today has a further 3 systems under construction. Within a couple of years, Vitoria will have the greatest density of automated waste systems in the world. 35,000 apartments, about 25% of Vitoria’s urban population will be connected to an Envac system by 2007.

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SELF FINANCING

The installation of an automated waste transport system in an old town centre involves higher installation costs than for new areas. Unlike many other Spanish cities, Vitoria has financed the installation entirely from its own funds. Nor has any connection fee been taken from property owners. Residents and commercial users pay the same rates as those who have manual waste collection.

“Today nobody protests. On the contrary, we get regular enquiries from adjacent areas that also want to connect to the system”, Pizarro concludes.

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Vitoria is one of the most attractive Spanish cities, much due to the extensive commitment to the environment where waste management plays a vital part.
Narbonne has a long historic tradition of underground infrastructure.

Narbonne - A predecessor within city development?

Underground infrastructures are viewed by many today as a part of sustainable urban development. Narbonne, in Southern France, bears witness to the fact that the Romans had already been building their cities on the basis of this principle.

The construction of houses and monuments followed the same principle. Narbonne can therefore be considered to be a predecessor within “ecological construction”, which does prescribe the use of construction materials, etc. Another good example is the rainwater and sewage channel built in the moat that was formed at the time the Roman ring wall was torn down. Today this channel lies underneath the boulevards surrounding Narbonne’s historical city centre and is still used for the evacuation of rainwater and sewage. As in so many other historical cities, Narbonne has knowledge and experience within construction technology and city planning that we would do well to learn from today and use in our endeavour to achieve sustainable urban development.

Development of an historical heritage - a question of quality of life

For Michel Moynier, Mayor of Narbonne, the sustainable development of our cities is away from only being a political issue. It’s a matter of taking concrete action.

Sustainable development and the environment have been prioritised for many years in the community’s work with preserving the city’s exceptional cultural and historical heritage. In certain areas this prevents the development of the city. One example is the collection of waste that creates severe problems in the historical city centre, particularly since the introduction of source separation. In spite of the community’s efforts, a satisfactory solution has still not been found for an efficient and hygienic way of removing the waste.

Michel Moynier has been searching for a solution to the problem for a long time. During a study visit to Sweden in Autumn 2003, he saw for the first time the way underground waste transport systems are used on a large scale.

“It also hope it will be possible to use the Roman sewage channels and that they will function as technical culverts for the system,” added Michel Moynier. “It would be an excellent solution, not just to reduce the installation work but also to make practical use of existing structures in order to construct a future solution by combining a 2,000 year-old heritage with modern technology,” concludes Michel Moynier.
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We offer efficient and environmentally friendly systems for waste collection. Strong support during planning, installation and operation will guarantee high user availability and flexibility. We strive to be regarded as a reliable long-term partner offering first class quality products.

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