

Belgrade in Serbia will host the European Demolition Association convention next summer. In the meantime, the national association has been busy with its own third annual conference.

Marina Furtula, Ministry of Labour Employment, said joint working with other agencies could increase the Serbian's public's knowledge of demolition



Taking the next big steps

Six months before the city of Belgrade hosts the European Demolition Association's annual convention, the Serbian Demolition Association has held its third annual conference.

Taking place under the theme "Today for Tomorrow" the conference took place during Serbia's designated "Year of Occupational Safety and Health".

Serbian Demolition Association president Dejan Bojovic chaired the event and said: "As Serbia enters the fourth industrial revolution, we lag behind the west by some 30 to 40 years.

"In terms of the circular economy, we hope to achieve this level very soon, but we can't achieve it without co-operation."

"This conference also shows how important the Year of Occupational Safety and Health has been."

Speakers from government ministries and universities took to the platform alongside

demolition contractors and equipment suppliers as the conference addressed issues such as the circular economy, closing landfills and recycling concrete waste.

ACADEMIES AND INSTITUTES

Speakers included Marina Furtula from the country's Labour and Employment Ministry, while the Academy of Engineering Sciences of Serbia, the Institute of Standardization, the Serbian Green Building Council and the University of Civil Engineering were all represented.

Miroslav Mažar from the Slovakian office of French company Arden and Mikko Heikkilä of Dynaset in Finland gave the view from manufacturers, while Miroslav Jovanović and Rade Kajganić presented on the Serbian company Teikom's experiences of urban demolition in the capital city.

And a European context was provided by Patrick Frye of French contractor Cardem and Artem Kondratiev from the Russian Demolition Forum.

Professor Dr Branko Kovacevic, of the Serbian Academy of Science, started the event by putting Serbian demolition and recycling in the context of the country in general.

"The major task is the modernisation of Serbia," he said.

"We are a small country in Europe with the highest brain drain. Every year, between 20,000 and 30,000 people leave Serbia.

"It is an old country, one of the oldest in Europe, and the future is not just about the economy, it is about living.

"We have decent engineering schools with a long tradition. All of them have been in existence for more than a century. But demolition is a multi-disciplinary area. We need to create things first and start our ideas from scratch.

"There is urban mobility in Serbia. People live in towns and villages and this relates to environmental standards and the quality of life. There is a lot of work to do but we have taken the right direction, even more so because have co-operated with the leading institutions in the world."

Marina Furtula from the Serbian Ministry of Labour Employment said that through joint working with other agencies it could increase the knowledge of the country's population about the demolition industry, especially asbestos, which is now banned in new products in Serbia. Also, identification and treatment of asbestos, including removal, can only be carried out by trained and authorised staff.

Marina highlighted the new law due for adoption at the end of 2019 designed to make both workers and employers more responsible for their workplaces, with fines in place for offenders, after more than 50 people died on construction sites in Serbia in 2018. She also pointed out that in some areas there is already positive news.

"It is important for our workers to be safe in their workplace and we have to take care of their health. In an area like noise, we are even stricter than the European Union (EU). There the level is 87 dB (A), here it is 85."

The first speaker from outside of Serbia, Patrick Frye of French contractor Cardem, gave



Professor Dr Mica Jovanovic said Serbia needs to close its landfills but also improve its recycling



Serbian Demolition Association president Dejan Bojovic



an insight into demolition in the company's home country.

HUMAN RESOURCES

Patrick outlined the three main engineering measures, which are the preliminary draft (can you demolish?), the work execution plans (what will it cost?) and the control and technical assistance in place (is there one way or several, and how fast is it?).

He also identified the human resources constraints on projects, including a standard 35-hour working week rising to a maximum of 39 hours with overtime, though not permanently.

Following the previous discussion on asbestos, he said that in France it has been identified as a major risk, and at management level a penal responsibility – if something goes wrong, the boss can go to jail.

Professor Dr Mica Jovanovic discussed the closure of landfills. Serbia is trying to reduce the amount of waste going to landfill by

increasing recycling sites, as currently only 5% of waste is recycled.

As well as the lack of recycling, the country has a lot of illegal dumping sites, including illegally constructed industrial landfills where waste is not properly treated.

"We should close the illegal sites if we want to join the EU," said the professor.

"Closing a landfill is the final stage in the construction of that landfill, whenever and however it was constructed.

"It is a different thing from removing and demolishing a facility.

Radisa Knezevic, representing Serbia's Institute of Standardization, which has been in existence for 85 years, considered the subject of standards for the circular economy.

He said that at a global level, more than 650 standards have been identified that indirectly relate to the circular economy. These fall into three objectives – social, economic and environmental protection – while issues around the standards include sustainable purchasing and procurement, and managing materials at the end of their life.

Radisa added that at the European level, work on the circular economy and the construction industry was already taking place with the results due early this year.

Nationally, the institute had organised a meeting for construction companies. It would continue to actively monitor events and would aim to fully inform all stakeholders.

Chair of the meeting Dejan Bojovic said that Serbia was following Europe very closely with its standard for the circular economy, and that the institute was there to help the demolition association.

DECONTAMINATION

Dragana Grujic introduced the Serbian Green Building Council, a not-for-profit, non-governmental organisation.

"We have heard about demolition, deconstruction and landfills, but we are still very far from these things in Serbia," said Dragana.

"Apart from the circular economy aspect, it's great to be able to deconstruct all the product from the jobsite and start again. The capacity of green building is well known and we should consider the material before it's used."

A presentation on behalf of Ozren Tasic of Environ Belgrade looked at the role and significance of decontamination, an issue in Serbia where more than 25,000 sq m (269,000 sq ft) of concrete surfaces have had to be decontaminated.

The paper said that the country suffered from a series of instances of people feeling ill shortly after moving into new homes. The smell was linked to materials that were not present in the concrete itself but in the oil that was used when the concrete coating was in place. This was unrecycled oil that had already been used.

The Ministry of Environmental Protection in Belgrade has identified more than 700 contaminated sites, but only 52 had been decontaminated, so there was still a lot of room for improvement.



The audience at the Serbian Demolition Association's third annual conference listens in

A demolition of two halves

Giving the contractor's view at the conference was Serbian company Teikom, which uses high reach machines from Komatsu on a range of projects across eastern Europe. It was represented by engineer Miroslav Jovanovic and owner Rade Kjanagic.

The specific project described was a large textile company complex with many outbuildings.

Among the challenges was that its administration building was part of a residential structure. While the administration building had to be torn down, the residential structure was to be left intact. The problem was increased by the building being only 5 m (16 ft) from a road, and traffic could not be stopped at any time.

"The street had a lot of traffic going through it, and stopping the traffic was out of the question," said Miroslav.

"We had to physically cut one building to separate it from the other half. Because of this construction, we decided to start demolishing the surrounding building first.

"There was no room for mistakes, so we moved people out until the end of the demolition.

"We started removing the elevator shafts and continued demolishing from the top down.

"There was a large quantity of dust present, which we had to spray, and we also had problems with strong winds, which meant on some occasions we had to stop working for a few hours.

"One of the most demanding parts of the job was the southern edge of the building. We could not approach from that side because of the balconies on the other buildings.

"We had to be in constant radio contact with the operator to give instructions on how to safely demolish the building. The other big challenge was the two parts of the buildings. We had to cut successively, so as we demolished it we then cut the next section."



Radisa Knezevic, of Serbia's Institute for Standardization, has organised a meeting with the construction sector to discuss standards and the circular economy