Hon Stephen Dawson MLC
Visit to Europe
Friday 25 May 2018 to Friday 1 June 2018

Official Visit to Europe
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Overview
The Hon Stephen Dawson MLC visited Europe from Friday 25 May 2018 to Friday 1 June 2018 to study the implementation and operation of ‘best in class’ container deposit schemes and waste management facilities in three countries. His program included a visit to Lithuania (Vilnius), where Europe’s most recently adopted container deposit scheme is returning 92% of eligible containers after just two years of operation. The delegation also visited Norway (Oslo) where a container deposit scheme is well established, backed by an award winning marketing and education program, and feeds into a state-of-the-art waste management system that focuses on post-collection sorting of waste to separate items of high recycling value. A visit to the Oslo headquarters of TOMRA, who produce 75% of the reverse vending machines (RVMs) used in container deposit schemes throughout the world, allowed the delegation to observe and interact with the most up to date RVM hardware and software, and also to talk to some of the charities that derive an income from the Norwegian container deposit scheme. The visit ended in Germany (Hamburg) where sorting facilities combined with reprocessing operations demonstrated the commercial value of high quality mixed plastics in a circular economy context.

On Monday 28 May 2018 (during the official visit), the European Commission released a proposal for new EU-wide rules to target the 10 single-use plastic products most often found on Europe’s beaches and seas (attached). This was also discussed with waste managers and drivers of European policy reform.

The Minister was accompanied by:
1. Mr Mike Rowe, Director General, Department of Water and Environmental Regulation
2. Dr Shaun Meredith, Senior Policy Advisor, Hon Stephen Dawson MLC

Friday 25 May
Travel – Perth to Dubai (Depart 22:20)

Saturday 26 May
Travel (cont’d) – Dubai to Vilnius (Lithuania) (arrive 18:20)

Sunday 27 May
Dinner with Lithuanian container deposit scheme operators and Reloop Platform
Detailed discussion about the Lithuanian container deposit scheme with scheme coordinator and operator. The structure of the scheme was outlined in detail, and the key issues around the implementation of the scheme, the support for the scheme provided by key stakeholders, and some of the issues around minimising cost implications for retailers and consumers, including small brewers, were discussed.
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Monday 28 May

Meeting with Lithuanian Vice Minister, Dalius Krinickas

Lithuanian Vice Minister for the Environment, Mr Dalius Krinickas, and his key policy staff shared their experience with developing and implementing the policy and legislation that underpins the Lithuanian system. The Lithuanian government described their pride in the success of the program, but noted some of the teething problems associated with establishing a scheme coordinator, and allowing sufficient time for retailers to fully engage in the scheme. A copy of the Lithuanian legislation (translated into English) was gratefully accepted by the Minister’s delegation. A photo of the meeting is attached.

Tour of Lithuanian Container Deposit Scheme

The Minister’s delegation was taken on a tour of all elements of the Lithuanian container deposit scheme, which has achieved a remarkable 92% container return rate after just 2 years of operations. The Lithuanian scheme is based on a retail obligation model, where businesses that sell eligible drink containers are obliged (with few exemptions) to take back those containers and pay the consumer the deposit for those containers. The Lithuanian model is unique in that there are no manual collection points – the system is run wholly on reverse vending machines (RVMs), and the capital costs associated with installing a RVM are borne by the scheme, not the individual retailer. There are 1042 RVMs in total throughout Lithuania. Lithuania also has a strong market for reusable glass bottles – approximately 70% of their glass bottles are washed, processed and refilled.

The delegation was also taken on a tour of several RVMs, which highlighted the need for a high level of manual handling required for reusable glass bottles, and also demonstrated how RVMs could be designed to accept a range of other recyclable materials.

The tour also included a visit to the container sorting facility – USAD – which annually processes 600 million containers and recycles 11,000 t of PET plastic and 4000 t of aluminium. Currently the USAD processing facility exports its PET to Romania, but a Romanian-based company is building a processing facility adjacent to the sorting operations.

Other issues discussed included the basis for including/excluding eligible containers, government subsidisation of the scheme, job creation as a result of implementing the scheme, producer registration requirements and timeframes, scheme data availability and confidentiality requirements, advertising and charity involvement in the scheme. Photos are attached.

Press conference

Immediately following our meeting, a press conference was held at the USAD facility. The Minister outlined the basis for our visit to ‘best in class’ container deposit schemes and waste facilities in Europe, discussed the implementation of a scheme in Western Australia in early 2020, and thanked our hosts for their hospitality and for sharing their information and experiences. Media articles from the press conference are attached.
Networking lunch

A late lunch was had with our Lithuanian hosts, and a member of the reloop platform (Anna Larssons) where we discussed the physical, legislative and governance differences between the Lithuanian and Western Australian schemes, and also the broader European context regarding container deposit schemes and the circular economy.

Travel

Flights: Vilnius (Lithuania - depart 16:45) to Oslo (Norway - arrive 19:00)

Tuesday 29 May

Visit to Infinitum – Norway’s largest deposit return operator and counting centre

The growth and development of the Norwegian container deposit scheme was discussed in some detail. We investigated the legislation that charges an incremental tax on cans, PET and glass containers if return rates drop below 90%. Industry works to find solutions to deliver this return rate, in what is a producer responsibility system.

We also discussed recycling markets and volume requirements, labelling, the interaction between the container deposit scheme and the green dot recycling system throughout Europe, deposit reconciliation regimes with retailers, reverse logistics requirements, and the progressive policy change on plastics occurring throughout Europe. The delegation was also introduced to Infinitum’s compelling ongoing advertising campaign that describe the embodied energy in drink containers and the value of recycling these containers from an environmental perspective.

The boardroom meeting was followed by a tour of the Oslo facility, where the delegation got to see first hand the mechanical and manual sorting of drink containers that had been returned through some of the 11,300 manual return points, 3,700 Reverse Vending Machines, or 35 logistics hubs throughout Norway. Photos of the tour are attached.

Interview with local media

Following a light lunch with Infinitum staff, local media interviewed Minister Dawson on container deposit schemes, and other waste initiatives in Australia. A short video of this interview can be found here: https://vimeo.com/273481379/fa8d26cd32

Visit to ROAF Waste Sorting Facility

In Norway, 66% of household waste goes to energy recovery facilities. The ROAF waste sorting facility is a state-of-the-art post-sorting facility that separates 45,000 tonnes of domestic waste annually into components suitable for recycling, composting, landfilling and waste-to-energy. The plant uses near-infrared technology to identify and sort materials, and employs 7 FTE. It is the only wholly automated waste facility in Europe. The delegation was taken on a tour of the facility. Photos are attached.
Dinner with Norwegian Hosts

A networking dinner was had in Oslo with our Norwegian hosts from Infinitum and TOMRA.

Wednesday 30 May

Visit to TOMRA head office

The delegation also visited TOMRA, who took us on a tour of their reverse vending machine museum, and gave a presentation which described their sorting and collection business. TOMRA aims to “lead the resource reuse revolution”, with a focus on reverse vending machines in Container Deposit Schemes, and development of sorting and recycling business relationships internationally. Currently TOMRA has 75% of the total reverse vending machine market share in container deposit schemes across the world (including in New South Wales).

TOMRA discussed their experiences as a network operator and infrastructure provider in New South Wales, where their joint venture with Cleanaway is collecting in excess of 20 million containers per week. TOMRA showed us the hardware and software and real-time monitoring of reverse vending machines. There was in depth discussion about the logistics network that sits behind a reverse vending machine based system, and some of the lesson that had been learnt during the first few months of the New South Wales system.

There was also some discussion about the procurement model currently being undertaken to install the collection network for the Queensland container deposit scheme.

Opportunities for installing PET and other plastic reprocessing and recycling facilities in Western Australia were also discussed, including minimum volumes of materials required and quality of waste streams.

Photos of the meeting with TOMRA are attached.

Charity operators and container deposit schemes

The delegation met with the Red Cross Norway to discuss charity engaged in container deposit schemes. In Norway, the Red Cross has more than 1000 manual collection points run by volunteers. These collect approximately 11 million containers per year, with the airport being the single greatest volume site (1.7 million containers per year). Donation points on the reverse vending machines collect slightly more containers (approx. 18 million per year).

In Norway, there is a Red Cross instant lottery on every machine which provides users that donate their container to charity with the opportunity to win instant cash prizes. This lottery collects an order of magnitude more containers than through the manual collection points and other reverse vending machine donation points (in excess of 200 million containers per year) and raises approximately $6 million per year for the Red Cross. Red Cross considered that the brand recognition associated with having a Red Cross on every machine in Norway also provided them with significant benefit from the scheme. Photos with Red Cross are attached.
The delegation then travelled to the airport, stopping off to see the front and back end of a new reverse vending machine installation currently in operation in a suburban shopping centre. See photos attached.

**Travel**
Flights: Oslo (Norway - depart 19:55) to Hamburg (Germany - arrive 22:45)

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**Thursday 31 May**

**Breakfast meeting with Reloop Platform**

The delegation met with Clarissa Morawski from the Reloop Platform to discuss in detail the recent changes in European Union policy regarding plastics and the circular economy. The implications of China’s national sword program in Europe and Australia were also discussed in some detail alongside some of the opportunities that these policy initiatives might provide with regard to the establishment of Australian recycling facilities.

**Meeting with Remondis recycling**

The delegation’s final meeting was with Remondis recycling in Hamburg. Here we received a short presentation from Reloop Platform on the range of priorities for future European policy directives, including minimum recycled content in packaging, re-usable packaging, new ways of calculating recycling percentages, push for consideration of other non-drinking containers in European container deposit schemes, and increased pre- and post-sorting of waste.

Remondis also gave a presentation exploring the benefits and limitations of the German container deposit scheme system, and the role their four recycling plants play in advancing the circular economy ideals in Germany. Remondis shared detailed information on their entire operation, from the collection and sorting of PET, glass and aluminium containers, through their processing and bundling plants, and the end markets for their bundled materials. We were then taken on a tour of the Remondis PET reprocessing facility, where they undertake mechanical and manual sorting of container before separation into saleable components.

We were also taken through Remondis’ PET recycling facility, where they receive 35,000 tonnes of bundled PET containers each year from a range of European countries and sort, flake, wash, dry and pack the clean PET flake for sale to recycled PET producers. We were also taken on a tour of their QA/QC facility for the PET flaking operation. Photos of this facility are attached.

The delegation travelled to the airport via a reverse vending machine in a shopping centre, where we were given full access to the front and back end of the retail operation, which accepted crates of class bottles as well as individual containers.

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**Thursday 31 May**

Travel – Hamburg to Dubai (Depart 16:25)

**Friday 1 June**

Travel (cont’d) – Dubai to Perth (arrive 17:35)
Meeting with Lithuanian Vice Minister for Environment, Dalius Krinickas
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Tour of Lithuanian sorting facility
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Press Conference, Lithuania

Online media article – Lithuania

https://www.alfa.lt/straipsnis/50301136/is-taupumo-ar-samoningumo-kodel-lietuvoje-priduodama-tiek-daug-taros
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RVM in Lithuania
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Lithuanian RVM – second installation
Tour of Infinitum facility, Oslo.
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‘Inside a reverse vending machine’ promotional photos – Infinitum, Oslo.
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TOMRA headquarters and Reverse Vending Machine museum – Oslo.
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**Automated Collection Point System Performance**

<table>
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<tr>
<th>Top 10 Active Sites Today</th>
<th>Zone</th>
<th>Volume</th>
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<tbody>
<tr>
<td>1. Wollongong Ctr Chambie</td>
<td>23</td>
<td>20.6</td>
</tr>
<tr>
<td>2. Wollongong Harris St Avail Rd Community Ctr</td>
<td>27</td>
<td>16.8</td>
</tr>
<tr>
<td>3. Wollongong Greame</td>
<td>27</td>
<td>16.8</td>
</tr>
<tr>
<td>4. Wollongong Central</td>
<td>27</td>
<td>16.8</td>
</tr>
<tr>
<td>5. Wollongong Campbelltown Mall</td>
<td>23</td>
<td>17.3</td>
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<tr>
<td>6. Wollongong Queanbeyan</td>
<td>23</td>
<td>17.3</td>
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<td>7. Wollongong Marsfield</td>
<td>27</td>
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<tr>
<td>8. Wollongong Casula</td>
<td>27</td>
<td>17.7</td>
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<td>9. Wollongong Wagga Wagga North</td>
<td>23</td>
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<table>
<thead>
<tr>
<th>Volume per Material Today</th>
<th>ACP</th>
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<tbody>
<tr>
<td>Alumina 633,106</td>
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<tr>
<td>Other Material 179</td>
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<td>Other Material 15</td>
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<tr>
<td>PET 146,446</td>
<td>26%</td>
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<tr>
<td>Steel 479</td>
<td>0.0%</td>
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<tr>
<td>Volume per Material (Since Dec 1st) ACP</td>
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<tr>
<td>Donation 566,446</td>
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<td>Profit 31,033,330</td>
<td>12%</td>
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<tr>
<td>Revenue 215,841,016</td>
<td>87%</td>
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New South Wales – live data. From TOMRA headquarters, Oslo.
Meeting with Red Cross – charity involvement in Container Deposit Schemes, Oslo.
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Tour of ROAF waste sorting facility, Oslo.
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Remondis factory tour – Hamburg
PET flaking operation – Remondis, Hamburg.
Reverse vending machine, Hamburg.