

Australian Institute of Packaging and Society of Plastic Engineers



The annual joint meeting of the Australian Institute of Packaging [AIP] and the Society of Plastic Engineers [SPE] took place at Box Hill on 11 April and attracted nearly ninety industry folk to participate in a panel discussion forum.

Richard Fine Founder and Sustainability Director from BioPak, Mark Jacobsen Marketing Director at Replas, Sean O'Malley Research and Technical Manager of Planet Ark and Kurt Palmer, Director Australian Industrial Ecology Network were the brave professionals from the industry that fronted up to address questions without notice from the floor.

The basic setting was to discuss the issues around recycling packaging materials with a particular emphasis on the rudiments of China's restriction on the importation of waste material.

It became obvious that Australian Governments, industry and the general population have been caught with their pants down. The curtailment of acceptance of our waste plastics had been flagged over a year before we realised that our pants were slipping. In fact astute managers were conscious of the looming crisis for the last two decades. Those who raised the issue met with the comment "they will never do that!"

Carol Lawrence National President of AIP became the speaker of our assembled parliament and led the discussion with leading and supplementary questions for each panel member. The session was then opened up to questions from the floor and general retorts from the wise and educated.

First concern was about food and organic collections and developments in that arena. Richard Fine explained that there are major concerns across the country as most councils are reluctant to make decisions, although over five million tonnes of organic waste goes to landfill. Compostable take away coffee cups, contrary to media reports are both recyclable and compostable; investment needs to be made in the collection and recycling infrastructure

Mr Fine says that composting is the best solution for foodservice disposables, for this packaging contaminated with food waste is ideally suited for composting, simplifying the disposal of food and packaging into one bin.

Kurt Palmer was asked to discuss the specifics of Materials Recycling Facilities [MRF] in the area of separating more specific polymers from the co-mingled waste. He explained that the lesser volumes of the exotic polymers are hard to profitably separate and collect, but there is technology available. The removal of black plastics in packaging will not improve the quality of the recovered polymer but will up the quantity.

Sean O'Malley was referred to a previous response and had coffee cups again on his radar. The waste hierarchy represents a great model for the coffee cup where a reusable model is better than a single use one. Planet Ark would like consumers to have their own cup and reuse it and for consumers to be informed how simple actions bring about positive changes. There are still occasions when the single use coffee cup will be used and we need to develop the programs to encourage the correct behaviours and systems for recycling.

The Australasian Recycling Label (ARL) is a partnership between Australian Packaging Covenant [APCO], Planet Ark and PREP Design, and will clearly outline for consumers what to do with their packaging, what can be recycled and how; and what can't. Sean said it is continually evolving and encouraged members to get involved and highlight their concerns and possible solutions.

Mark Jacobsen was hit with the question about recycling PVC content of mixed polymers. PVC is relatively easy to recycle - if it can be recovered in sufficient quantities and quality, but unless there is an end market then collection is a waste of time; needs to be demand for the end recycled product! The company mixes single polymers with other products according to the particular recipe for a new material.

It is feared that recycling could disappear in Australia unless we pull our pants back up and invest in the future. The Victorian Government has allocated \$13million to investigate possibilities; Canberra Council has entered into what is called the "Closed Loop". This is a follow on from experience with Red Group where collected material is remade into new material and returned to the source. Canberra Council will buy back the same mass of bollards or similar as was sent as predetermined comingled waste.

General questions from the assembly were solicited by our roving MC Anthony Peyton.

Q. How do we get governments of all persuasions involved?

A. Right now is the biggest opportunity to get Governments involved. But "measure before you manage" was the warning message.

Q. Experience with food services recycling operations.

A. There are commercial compost facilities available in every state. We need more green waste bins in public places. Recycling organics is commercially viable and demand from agriculture for nutrient rich compost exceeds supply

On the issue of clean plastic were learnt about an abattoir in Victoria that takes bloodied and soiled plastic wrapping and dry cleans it for further use. Plastic Forests operates a unique dry cleaning process which takes contaminated PE plastic films, which are not currently recycled from post food production streams & post-agricultural waste, turning that waste film into a range of recycled plastic products.

Q. Are we adopting European standards and practices?

A. Basically we are in tune. Plastic bags were the most visible pollutant which led to the withdrawal of shopping units. Now it is other eating aids that consumers discard. Straws and plastic containers are used for 20 minutes but pollute for a lifetime. Irrespective we need to get more recycled product into packaging. PET bottles are now being returned as virgin grade and other materials have the same capabilities. We need to redesign and rethink the material selection for a number of single use products in order to optimise functionality and durability.

Q. How does Australia stack up globally in minimisation of packaging for food?

A. There is evidence that consumers are raising issues of over packaging and wasteful practices.

The wealth of experience within the assembly was clearly demonstrated when segments rather than specific questions were delivered. All were positive but those with differing opinions were not backward in coming forth.

Replas have enough spare capacity to manufacture twice as much material but the lack of orders for recycled products is the main issue. The consumer is becoming more understanding of the need to be more environmentally conscious, witnessed by 10,000 hits in one day after the airing of “War On waste” on RED Group’ social media.

Advice was delivered that New Zealand used to send PET bottles to China and import the chipped recycle. A decision to process the discarded bottles at home has morphed into a profitable new industry.

Jeff Egan [JMP Holdings Pty Ltd] advised about a specialised pyrolysis and distillation technology to convert waste plastics into liquid hydrocarbon fuels.

He stated we must be open to all the options when dealing with a problem the size of the one we have today. If the collection system breaks down because China locks us out, then we have to come up with alternatives to deal with the waste that is building on our back door every day.

24 tonnes of reclaimed plastic per day will return you 9 million litres of high quality diesel over one year. Jeff’s calculations indicate a good return on investment.

This type of operation can be run in conjunction with all the other recycled programmes that Replas and others are doing very successfully.

As is his want, Han Michel [E-three and associates] seized the floor and delivered a passionate address which called for more changed behaviour. He stated that for any

problem there is a solution and Australia has not been as proactive as some European countries. Han's mantra was make something new don't just recycle.

On the issue of reuse of recycled materials Ralph Moyle [Packaging Solutions with Ralph Moyle] advised that the Therapeutic Goods Administration forbids the use of recycle material in any container that has direct contact with the contents. He also reminded us about the migration of mineral oils into breakfast foods from both plastic bags and the fibreboard outers.

The Red Group scheme with the supermarkets has educated the next generations about the need to recycle, but schoolchildren taking scrunched plastics to the store are not sustainable long term. Kerbside collection has to be introduced and advertised to make the closed loop a reality.

China was taking 1.25 million tonnes of recycling material each year, we desperately need to find alternatives otherwise councils will be stock piling and charging rate payers.

What if they took the easy way out and said we will drop offering the yellow bins, just place all waste into the one bin?

Anyone who was paying attention would understand that the opportunities in Australia to develop new industries to take up the tasks that China was doing for their own benefit over the years are ripe for the picking. A good marketer who does not have a market will go and start one, so a good packaging person can seek to fill the numerous opportunities.

Muthu Pannirselvan [SPE program chair] representing SPE, on behalf of both groups thanked the presenters and the members for participating in a memorable event.

Many delegates leaving the venue were noted checking their belt and pulling at the pants waist. Those with a pang of conscience may have put on braces as well the next day.

Written by Michael B Halley FAIP
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Reviewed by presenters