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Question 1 - What are the key issues facing the NSW waste system?

Our business focuses on developing scalable and robust solutions for the issue of textile waste and using patented recycling methods to convert this waste into high value resources. One of the biggest issues facing this area is that the issue of textile waste is essentially unreported in terms of, not managed in terms of process and not understood in the damage it causes. More than 501,000,000 kilos (average Australian has 23kg of waste) of unwanted clothing ends up in landfills across the nation each year. This doesn't include the 94,000,000 kilos that is exported overseas. These are just conservative figures because the sheer volume of the nation's textile waste problem is just an approximation. Unlike glass and plastics, textile waste is not tracked by any state or federal government waste strategies or waste management plans. Remarkably, six thousand kilograms of clothing and textiles are sent to landfill every ten minutes. ABC War on Waste Exporting used textiles was once a strategic and strong revenue stream, but global markets are now swamped by the tsunami of fast fashion, pushing down export prices and forcing waste import restrictions to tighten in many countries, such as China, Uganda and Vietnam. Locally, for some textile industry sectors, exporting is not cost effective and where there isn't a second-hand market, companies simply offload their waste textiles into landfill, and wear the waste levy costs. The solution to the problem of textile waste is not new schemes and consumer restrictions, but actually can be found in effective resource recovery models. The solutions lie in adopting circular economy principles that address key areas of product and supply chain - design, education, logistics and waste. These initiatives drive cost reductions and importantly create new revenue models. The customer lacks education in the textile recycling space and simply does what they have always done charity shop or red top bin. The amount of resource being wasted is staggering and more education and better collection methods are essential in this space.

Question 2 - What are the main barriers to improving the NSW waste system?

This is such a huge question to answer. I can only answer what has been my biggest frustration. There are many vested interests in keeping the existing linear model of consumption going, that even if governments listen to the new players advocating circularity that really need government backing and support, they find themselves practically ignored in favour of the established industry players who talk change but want the status quo to continue. As a new entrant into this market, the attitude of government statements publicly compared to how the civil service behaves just reinforces the above point. Government talks a good line of waste and the environment it talks a good line on the need to support entrepreneurs and innovative manufacturing in tackling these issues and generating real jobs, it makes public statements regarding the funds available AND then you have to actually deal with the process and system. The slowness of the process actually drives start-ups away from engagement, as it is so counter to a start-up mentality, for an entrepreneur six months is a lifetime. The virtually kafka-esque conversations, "we love your solution, it generates jobs and reduces landfill but you are a start-up so are just more riskier than an existing player so we cannot help, even though it is a better solution'.....if NSW is really serious about reducing textile waste then it has to understand that this is a new area, and as such will attract new players, yes, NEW players who do not have three years of audited accounts but still need government help? If funding cannot be provided via simple grants then perhaps there can be really strong and clear public statements and concrete action to insist that all government procurement contains at least 25% locally sourced recycled materials. Government are huge buyers and by making this market they directly support new players into the industry.

Question 3 - How can we best reduce waste?

ACTION that is perceived as positive, firm but fair. Policy that has a higher goal. Legislative change. Voluntary codes and well-meaning statements of intent will no longer be enough. Make product stewardship and lifetime product cycle management a legal issues for Boards to have to contend with. Use the markets to price textile waste properly. Europe does this and people are still consuming and still wearing clothes! No more landfill expansions, stop assuming that 'burning is the only alternative the landfill and raise the levy to a point where it is such a strong price signal, that consumers actually have to amend their consumption. Stop just listening to the big players who have a simple agenda of 'bury or burn', listen to other more innovative voices in this space, encourage this debate and be part of it. NSW can leads the world if it chooses. Fairness and equity for all players. Create a level playing field on pricing, no more levy refunds for charities, this means the external pricing is never borne by the consumer just passed through. Europe has started to introduce laws that ban the throwing away of food waste by consumers, that bans the disposal of textiles into landfill....why are we scared to undertake these more serious actions. I was in Holland recently and the professionalism and thoroughness of joined up government and industry in textile waste recycling was just amazing compared to NSW.

Question 4 - How can we recycle better?

Make it easy and make it obvious. Make collection simple and straightforward BUT make sure the outcomes are clear and demonstrable to the person doing the recycling. The NSW consumer cares more about the environment not the balance sheet of a foreign owned waste disposal company! Hypothecation for the landfill levy. "No taxation without representation". If you are going to raise a levy then clearly spend it on local initiatives and local companies that are reducing waste further. Subsidising the balance sheets of well established firms who can raise debt finance will not go down well with NSW consumers. Yes raise the levy, but spend it all on environmental issues not general expenditure. The consumer has been angered by so called recycling schemes run by big companies, being exposed as essentially a 'clip the ticket' on the way to China waste management model. This has changed and government and the established industry has been caught lacking in scale and innovative solutions. It looks like it is reacting all the time rather than having a proactive long term plan and actions in place to build this over time, across multiple waste streams. Avoid green washing, the consumer sees through it and is often more informed and educated on environmental issues than govt. As a very media savvy 20 year old pointed out to me recently, 'using bottles for roads is just shallower landfill!' The consumer will recycle a lot more if: The scheme is simple, e.g. yellow top for glass, blue for paper, purple for textile, green for organic etc. The scheme works e.g. regular pick up and transparency in where it goes, e.g. composting, The scheme is long term e.g. it does not change every election cycle, the environment is above politics If they see local benefits that they can grab hold onto and feel good about themselves, they need confidence in the schemes, they are really adding value and are engaging and supporting local jobs and communities.

Question 5 - What are the main opportunities for improving the NSW waste system?

Again I can only comment on textile recycling. The main improvement would be to move the model away from the ageing model of the charities collecting and whilst trying to sell some, they export or waste the balance simply because both the volume of donations is increasing whilst the quality is decreasing. For textiles - stop thinking waste, start thinking resources. View the model as supply AND demand. The current model focuses on supply only as it buries or burns that supply so cannot satisfy the demand? Recently we described our business and the market opportunities: The solution to the problem of textile waste is not just new schemes and consumer restrictions, but actually can be found in effective resource recovery models. The solutions lie in adopting circular economy principles that address key areas of product and supply chain - design, education, logistics and

waste. These initiatives drive cost reductions and importantly create new revenue models. The market opportunity, size and value is compelling. The feedstock for this process is virtually endless, the total addressable market of textile waste in Australia is approx. 1 million tonnes and globally that figure is a staggering 92 million tonnes. As population growth and consumption increases, textile waste is estimated to have a 62% growth rate between 2018 and 2030 to 140 million tonnes globally. We see the market opportunity for BlockTexx as both a solution to a customer problem but also as a novel product that meets significant market demand. BlockTexx's total addressable supply is ~600,000 tonnes/year. Of this, the relevant addressable supply is ~14% and the capacity of one chemical recycling plant is ~2%. BlockTexx's addressable demand is \$9.2b-\$10.3b. This consists of three segments: global industrial products market (\$5.1b-\$5.7b), global fashion textiles market (\$3.0b-\$3.3b) and the global industrial textiles market (\$1.1b-\$1.3b). The industrial products segment is sized using domestic use of recycled PET resin, starting from Australian consumption of PET. According to the 2016-17 Australian Plastics Recycling Survey National Report - approx. 131,500 tonnes of PET are used by Australian manufacturers with 10% (13,300t) being recycled PET. We calculate the relevant market size of recycled PET resin in Australia is \$28-29m. Fashion textiles include the production of fashion textiles for clothing and footwear from recycled polyester (Global). According to Grand View Research, Recycled Polyethylene Terephthalate (PET) Market Analysis, the market size for global recycled PET for fashion textiles is \$3.0b-\$3.3b. Leading brands Nike and H&M are just two of a growing list of fashion textiles companies that are committed to using 100% recycled materials by 2024 & 2030 respectively. The industrial textiles market segment can be sized using the global recycled PET consumption. The market size for global recycled PET for industrial textiles is \$1.1b-\$1.3b. The industrial textiles segment is estimated from the polyester chips required to manufacture new textiles for the commercial laundry services industry. Assuming the disposal and purchase of commercial linens is equivalent, an estimated 740-1,090 tonnes of polyester are used in commercial linens for Australia each year. The back-to-back segment is \$1.8m-\$2.8m, estimated from the polyester chips required to manufacture new textiles for the commercial laundry services industry. The Australian laundry's back-to-back segment is 1% of the rPET demand for household items. When we look at the export opportunities. Current global demand for our products is very strong with the expected increasing need to meet demand for rPET and cellulose to 2025 of 60% and 62% respectively. (textile fibre manufacture) Our facility capacity will enable BlockTexx to commit to long term export contracts ensuring positive cashflow for the business and secured employment for staff and economic benefits to any region. BlockTexx is an end to end textile recycling solution. BlockTexx diverts textile waste from landfill, into a low environmental impact and world leading recycling technology that recovers valuable resources from this waste. From this process, high quality recycled materials are created for use in many industries. BlockTexx provides environmental impact and landfill diversion for companies with textile waste through secure collection and recycling services. For approx. the same cost as sending textile waste to landfill, companies are assured that their waste is securely recycled. As an added value, these companies can market their green credentials to customers or use the environmental data for company reporting. We also generate real well paid regional jobs. The project has the capacity to deliver up to 30 regional jobs in high-value export ready sectors. The economic benefit of these roles has been modelled using the REMPlan tool and methodology, and shown to generate economic value of up to \$47.4 million in the shire it is located.

Question 6 - Any other information that you would like to contribute to the waste strategy initiative?

Please be brave in the policy intent and its statements