

Sustainability Manifesto – 2200333 Product Design BA

1. I believe that we are sustainability is not taken seriously enough in design when it comes to selection of manufacturing processes and materials.
2. Change to use renewable energy sources to power manufacturing for the business.
3. Use recycled materials rather than new recourses for every product.
4. Invest in research to develop and create new innovative ways to manufacture and use material that benefit the environment.
5. Allow the business to become sustainable by respecting the workers and providing them with a fair wage.
6. Work local and reduce transport to reduce carbon footprint emotions.
7. This can be achieved by utilising cellular manufacturing that will boost communication and speed up manufacturing times while emitting less greenhouse gasses.
8. Protect our planet.

“EPA estimated wood pallet recycling at 3.1 million tons in 2018 for a 17.1 percent recycling rate.”

This is a statistic that I have found online at a website based on the facts and figures about materials and waste. I am using this point to back up my third point in my manifesto that reads “Use recycled materials rather than new resources for every product.”

Only 17.1% recycling rate for wood pallets in 2018 shows that not enough wood is being recycled which makes it harder for businesses to use recycled materials in their products. This will result in businesses gathering new resources for their products.

“In 2018, landfills received 12.2 million tons of wood. This was 8.3 percent of all MSW landfilled that year.”

This is an example of another shocking statistic that I have found on the same website. 12.2 million tons of wood wasted that could have potentially been reused, this shows that to create more sustainable businesses and products new ways of recycling material need to be developed.

[Wood: Material-Specific Data | US EPA](#)

“The workers at a factory in China who were manufacturing clothing for Ivanka Trump's clothing line were working approximately 60 hours a week and were only getting paid a measly \$62 a week.”

This is a fact that I have found online on a website that researches into underpaid workers working on manufacturing lines in China for companies around the world. This fact is shocking, and I will be using it to back up my fifth point in my manifesto as an example of how companies disrespect and underpay their workers.

This fact shows how the workers are paid slightly over \$1 an hour that is way below the minimum wage. However, employers can get away with it in China as people are desperate for money and are prepared to work for this little wage.

Furthermore, safety for the workers is an issue when working in these factories in China as the work conditions are poor and injuries can occur and also deaths occur frequently. During the pandemic many workers died as correct restrictions to ensure safety for the workers were not followed.

[Underpaid Workers In Factories in China \(theodysseyonline.com\)](https://theodysseyonline.com/underpaid-workers-in-factories-in-china)

“Manufacturing cells are used to minimize product movement as well as materials.”

This is a statement that I have found on a website that is based on the benefits of cellular manufacturing. Minimising product and material movement will help to develop a more sustainable business as the overall carbon footprint will be reduced as less transport is needed. This is achieved as each part of the manufacturing process is under one roof rather than in a number of facilities or factories.

“Fewer defects decreases the number of products that must be scrapped;

Fewer defects also means that the raw materials, energy, and resulting waste associated with the scrap are eliminated;

Fewer defects decreases the amount of energy, raw material, and waste used or generated to fix defective products that can be re-worked.”

Cellular manufacturing can also boost manufacturing speeds and overall product quality as workers are forced to take more pride in their work as a part won't move down the production line if it isn't done properly. This can also result in less waste as parts are not damaged during transporting between production lines. This can help to further boost how sustainable the manufacturing process is as less parts and materials go to waste when in comparison to traditional manufacturing processes.

[Advantages of Cellular Manufacturing | Production Machining](#)

[Benefits of Cellular Manufacturing | Material Handling and Logistics \(mhlnews.com\)](#)

