Dyecoo

Please summarize your initiative in less than 300 words:

DyeCoo is the world's first supplier of water and chemical free dyeing technology. Its revolutionary CO_2-based dyeing process makes dyeing sustainable, efficient and profitable.

Dyeing textile has always used water-based technologies. No matter how sophisticated those technologies have become, the fact remains: a lot of water is used and polluted. Fresh water is a precious resource, its supply is limited and dwindling fast. If you're finding it hard to imagine how big the impact of dyeing on the environment really is, just keep the following statistic in mind: in 2014, the textile industry was responsible for 20% of all global water pollution. There is, however, a silver lining to that large number looming over our planet's future. Imagine what kind of global effect a technological break-through in textile could have. The bigger the problem, the bigger the impact of a smart, creative solution. That's what drives the ambitions and innovations at DyeCoo. DyeCoo, a Dutch based company, imagined a better way to do (dye) things and then, passionately, set to work to develop a scalable technology that changes everything.

The technology uses reclaimed CO_2 as dyeing medium in a closed loop beam dyeing system – recycling 95% of the used CO_2 after each batch. The technology is currently focused on dyeing polyesters. CO_2-based technology has already been embraced by A-list brands, governments and designers. And with good reason. Why wouldn't you want to reduce costs and increase sustainability? It's not just about being more responsible; it's about a game-changing technology creating better results across the board. The patented CO_2-dyeing by DyeCoo uses less energy, less dye, less time, no processing chemicals and zero water. Reducing operating costs by 45%. Even the end product is better thanks to more evenly distributed dye with intense, vibrant colors as a result. DyeCoo technology is lean. DyeCoo technology is clean. DyeCoo needs to become the standard in textile dyeing across the globe.

Why have you launched this initiative / project? What problem are you trying to solve?

CO_2 dyeing technology has existed for years already, but so far nobody had been able to scale the technology up to industrial size. At DyeCoo we recognized however, the impact success would mean for the textile industry and the entire world. Not only producing high quality dyed polyester textiles against competitive prices, also have a huge positive impact on our environment by reducing pressure on our water resources. The textile industry now is the second largest polluter of fresh water. DyeCoo has the key to solve this problem.

Who is your target audience(s)?

Textile manufacturers. They are the ones that need to invest in new and improved ways of producing / dyeing textile. Brands show us already that they have an interest to buy and market sustainably dyed textile, but now it is up to the manufacturers to step up.

How do you define success in relation to your initiative? By when?

Our audacious goal is to replace all conventional dyeing equipment globally with our sustainable solution. On short term our focus is to improve our technology further so that it meets all of our customer wishes. That is the first vital step into achieving our dream. Success can be measured by satisfied customers who are willing to further invest in the technology, which we predict will be in the coming years.

What actual water improvements have you achieved to date? Please provide evidence to support this.

We now have several brands that have products on the market using our technology. Our technology saves an average of 150 liters of water per kilo of dyed fabric (depending on the conventional method compared with, this can vary). In conventional water dyeing every 100 kilo of fabric dyed needs 6 kilo of process chemicals (to dissolve the dyes in water) – at the end of the process these chemicals remain and contaminate the water. DyeCoo uses 0 processing chemicals.

- Our machines have a capacity of 300 kilo fabric per day or around 100.000 kilo per year.
  Conventional methods use around 150 liter of water per kilo of fabric.
  Per year our technology saves 15 million liters water annually per machine. And 6500 kilo of processing chemicals per machine.
- Adidas announces that they have produced 1 million yards of drydye fabric – equaling a 25 million liters saving: http://goo.gl/qiOQS8
- Our customer in Taiwan produces 700 km of fabric every day! They have the ambition to completely switch their dyeing method to DyeCoo technology.
- Nike has a product line on the market using the name Colordry. (amount of products unknown)
- Peak will launch its first product using the name DryDron next year. (amount of products unknown)

What will you have achieved by August 27th, 2015, when the GLASA symposium and award ceremony takes place?

DyeCoo is currently working hard to further improve efficiency and the performance of our equipment. Thanks to our efforts our customers will have been able to dye

more fabric using absolutely no water or processing chemicals.

How replicable or scalable is your initiative / project? How easy is it for other actors working with the apparel industry to adopt your approach?

Over the last decade we have been working hard to scale the existing CO_2 dyeing technology. We have grown from a 1 liter capacity in 2007 to 2000 liters per vessel in 2015. Our technology is not easily replicated by others and can be implemented at existing dye houses by us without much difficulty. Biggest challenge is the investment that has to be made by our customers. Our technology even opens up the opportunity for regions that have little to no water reserves to start dyeing textile.

What are the barriers or enablers needed to scale?

We need to become more efficient and set up global service and maintenance. There are some small mechanical improvements that can be made but those do not stand in the way of production. The improvements will help to become more efficient and can be retrofitted at all our current customers.

Is your approach more effective than other initiatives that have similar goals? If so, how?

There are other initiatives out there that also improve the environmental footprint of dyeing but no other has been able to completely eliminate the use of water and process chemicals out of the process. Furthermore our process uses less energy and has lower operational costs. Cherry on the pie is that we are able to create very intense and vibrant colors.

What potential does this initiative / project have to significantly solve the water challenges affecting or caused by the apparel industry? Please be as specific as possible, including calculations or projections if at all possible.

The initiative has the ability to completely eliminate the use of water in the dyeing of polyesters. In 2014 80 billion kilo of fibers was produced. 60% of that amount consists of polyester. The amount of fibers and the percentage of polyester will increase significantly every year.

Is there anything else we should know about your initiative that would highlight its importance and the leadership that has been required to establish and execute it?

Over twenty years ago the first small pieces of fabric have already been dyed using CO_2 technology. Studies have been done about the scalability and the business case of the technology and from many different sides the opinion was that it could not be done. DyeCoo however was different and has worked passionately over the last decade to make water free and process chemical free dyeing a reality. The DyeCoo

team has shown a passion, drive, flexibility and incredibly creative and innovative thinking and brought us to where we stand now. The impossible made possible.

Where can I find more information about your initiative (please include attachments or links to additional information)?

Website DyeCoo:	www.dyecoo.com
Nike ColorDry:	http://news.nike.com/news/nike-colordry
Launching customer DryDye:	http://www.drydyefabric.com/
Adidas products	http://goo.gl/kp3tEi

Please include relevant contact information for following up:

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