All Mined Diamonds are definitely not Rare Diamonds

CVD will give artisans the opportunity to form new shapes and cut.

There will be many possibilities.

Exclusively HZ focused on GenNext & Indian Origin entrepreneur.

Vikram Shah

Founder, Heyaru Engineering!

For our more comprehensive readers, here are the valued expressions!

What is your CVD production guideline for 2021 & in the longer run, especially after successfully growing CVD at Heyaru Engineering in Lommel?

Lab-grown diamonds, in particular CVD-grown diamonds, are multi-application products. Diamonds for gems and jewelry application are the low-hanging fruit for Heyaru to expand & grow. Antwerp, Mumbai/Surat is the loose diamond industry engine; having roots in both these geographical locations allows us to reap bigger & better fruits.

In 2021 & the near future, Heyaru will benefit from the growing demand for created diamonds for jewelry. 'Heyaru' being the first and only diamond producer in Belgium with our proprietary know-how, we will see an ample opportunity in the CVD diamond production.

To produce diamonds is a complex process. It takes years of research and effort, and the technology is slowly evolving. Almost after a decade of making lab-grown diamonds, we have perfected mass produce for jewelry applications. We will continue to scale up in the jewelry application; currently, we produce diamonds in various sizes, shapes, and colors such as white, blue, pink & yellow.

While we benefit from the business's gem side, we continue to advance our technology at our state-of-the-art facilities. We will also be producing ultra-high purity diamonds, which will be at least 50 times or purer than natural diamonds. These quality diamonds will be our game changer.

Vikram Shah
@ FIT 2020 Award Function

HYR Machine

Lab Grown Diamond

What is your sales approach for CVD; to sell within Belgium or to foray into the global CVD market?

Belgium is the world's largest rough diamond distribution center. For many decades, more than half of the rough global production has transited through Antwerp. Antwerp is historic when it comes to diamonds. At Heyaru, our goal is to produce one million-plus carat every year. We will distribute all our products from Antwerp, the cutting and polishing for gems application will happen mostly in Surat. 9 out of 10 diamonds are cutting in Surat.

Till this moment, people are aware of Silicon Valley. Upon learning about you, I heard about a Diamond Valley! Would you share your idea of a Diamond Valley with our readers!

Yes, with pleasure, I would love to share my vision of Diamond Valley.

Diamonds can be produced with a few methods; the popular ones are HPHT and CVD methods. Made Diamonds can be used for multiple applications; after jewelry, the watch industry is the next hanging fruit.

Silicon is a material of the past; it's a chemical element with fewer properties. Carbon is the material of the future. I am sure all your readers know that Diamonds are the most challenging form of Carbon. Along with the hardness, Diamond also has many new properties.

Silicon is definitely an inert material but it does degrade creating very slow minor ecological impact, whereas diamond as a material never degrades.

Let me give you an example of a mechanical diamond - It takes over 100 components to make a simple watch. Complicated watches can take a few hundred elements. Switzerland, the world's largest luxury and precision watch manufacturing country, is just next door to Belgium. Only gem diamonds were used for decorating the looks, but shortly, many components in this regard will be made from diamonds. Due to their hardness and frictionless properties, Diamonds will improve the life and precision of the watch mechanism. Diamonds will even be used for watch dials and will replace the crystal glass currently being used.

Other than mechanical, Diamonds will be used for many different applications like laser windows, power devices, energy transfer, sensor devices, quantum computing, data storage & transfer, medical application, filtrations, etc.

Today's worldwide scientific community is getting more and more involved in Diamond applications. Today, Diamond is a researcher's best friend.

Silicon Valley, after 50 years, is now a little over than quarter trillion-dollar economy. All these diamond applications put together and a fraction of that added to the current regio

Vikram Shah

Entrepreneur with experience in production, trading, retail operations, branding, promotion, advertising, export & import in diverse fields like gems, jewellery, Bollywood films, renewable energy, constructions, real estate, luxury products like watches, sunglasses, accessories, preciouses stones, crystal products, technical spares.

An entrepreneur's addiction, is SUCCESS. Vikram Shah is a man with a will of steel, a successful entrepreneur, and a senior company executive, with over 2 decades of experience in managing sales, marketing and international operations. He also has a comprehensive knowledge about the capital markets. In the past 20 years he has acquired & sold holdings in various companies creating handsome wealth for himself & other shareholders.

Vikram Shah is one of the first entrepreneurs to have in-depth understanding of Lab grown technical diamonds & its applications. Currently focusing on setting up projects related to technical diamonds grown in reactors.

He is experienced and highly energetic, able to drive profitability improvement, through strategic growth, waste elimination and quality enhancement. Rough procuring, diamond manufacturing, polishing, jewellery manufacturing, and, retail & wholesale marketing, are also his core strengths.

His dedication, commitment and discipline are his best qualities. He found a way, when, there seemed to be no way. Hard work also always comes into play. He takes action, while all others are sitting on their hands.

Mr. Vikram M. Shah the owner & promoter of the company will guide it on the path to growth. ■

Vikram Shah @ FIT 2020 Award Function

Limburg economy, can create a similar or more extensive economy.

Region of Limburg spread into two countries, north-east of Belgium & South of Netherlands. In this region, there are several universities, colleges, and incubators. From what I know currently, every institution has its own identity. Still, if tied up under one umbrella like 'Diamond Valley,' the value proposition can be much more robust, allowing the companies from Diamond Valley to have better recognition and valuation.

It should be noted that the methods to produce diamonds can also be used for creating other advanced materials, so there will be more than diamonds.

So I strongly think all these industries will flourish around the raw material (Grown Diamonds) will be available easily—this will with time form into a Diamond Valley.

CVD has many technological applications. What is your map to explore the technical applications?

As mentioned earlier, we will initially benefit from the low-hanging fruits and then continue to advance into new areas. We have tied up with a couple of universities and research institutions in Europe and the USA. With them, we will push the boundaries of science, bring other technological applications to commercial viability, and finally attempt to get them to the consumer's daily life. In the next ten years, we see consumer devices that will integrate with diamonds which Heyaru produces.

We continue to partner with institutions that are exploring diamond applications. After the methods to make diamonds were discovered, now well over 50 years ago, proper diamond materials are available only in the last ten years where more research can be done.

With Heyaru produced diamonds, the technological application will further modernize our daily lives.

CVD diamond has high-tech applications in optics, telecom, and energy-like fields, now in the post-Covid-19 era; virtually every player is looking for a tie-up to grow in a win-win. Looking at the larger plan of Heyaru, R&D becomes a necessity; how do you plan to invest in R&D? Mr. Vikram, initially you were a player of a mined diamond, how did you switch to human-made diamond?

In the early '90s, when I entered the mined diamond business, it had its glory and the business community was happy and satisfied, and trust was tradition. It was a time where if you entered any luxury store, the highest spending power was from the diamantaires. Many small & medium businesses were dependent on the diamond industry.

By the end of the 20th century, African civil wars increased, and the mined-diamond business was getting more competitive. Being a supply-driven business, miners were dictating their terms to the midstream players. Promises of the supplies made by miners were not being kept, and the 'trust is tradition' culture disappeared. 2008's great recession only increased the toll on the midstream players. Mined diamond companies are already very saturated, so I explored other avenues to get out of the prospected diamond business. I studied Bollywood, I started a luxury accessories line, and I ventured into real estate & a couple of more streams. Additionally, it is reported that 1 out of 7 mined diamonds sold to the consumers in the last 20 years can be a conflict diamond, thus for a combination of reasons, including ethical ones, it made sense to venture out.

A few years after exploring multiple streams, I decided to examine Lab-grown diamonds. I immediately realized that if I do not accelerate in this stream soon, I will be left behind and miss out on the first-mover advantages; this is a business model where one can be independent & where the sky is the limit. I soon learned the strengths, weaknesses, opportunities, and threats & decided to focus on them.

Vikram Shah @ FIT 2020 Award Function

Heyaru Lommel Factory

Vikram Shah with LGD

In gems application, a lab-grown diamond business is like Coca-Cola. After investing a few years in R&D, Cap-Ex, and making sure that everything is in the right place, the cost of growing a diamond diminishes. It is almost half of the mined diamond. With the correct branding & marketing, one can become a unicorn. Finally, it is a technological business. In one way or another, it will lead you in pushing the boundaries of science. The joy you achieve is enormous; those who come from the mined-diamond industry will understand the importance of not being dependent on the miner's supply. The results already make me feel delighted!

Being in a Lab-Grown business, you can do so much. While doing your business, you also help in solving global problems. You fall into a much bigger community than just a Diamond community.

What is your outlook for mined diamonds in 2021? Or what is the demand outlook of CVDs in 2021?

By keeping it limited to gem applications for the last couple of years, we have seen how the lab-grown diamond industry has disrupted the mined diamond industry. The mid-stream players are gradually joining the lab-grown sector, but the miners continue to be felt disrupted.

Mined diamond is a finite commodity; it is heading towards depletion, but there is still a considerable quantity to serve the consumer for another hundred years. Mined diamond is not a rare commodity. Mined diamond prices in the last 20 to 30 years have remained in the same range, only during a handful of periods it went over & below the content. So the value addition is not there. If consumers try to sell their mined diamonds, they get much less value for it than they had initially been paid. A few mining companies still control mined diamond & there are too many issues.

In 2018, FTC, a USA commission that protects the consumers' interest, amended the definition of a diamond. Indirectly this amendment reveals that the story of all diamonds is rare is just a myth. In my opinion, only type IIA rough diamonds over 100 carats should be categorized as rare diamonds. Thanks to social media the modern consumers are discovering this faster than ever before.

So, in my opinion, companies that will stick only to mined diamonds will continue to be in a 'closed' box and won't be able to venture out.

Natural or Lab Grown, a Diamond is a Diamond and both of these type of Diamonds are forever. They will be a girl's best friend for their sparkle, shine & symbolism of steadfast love.

While for the lab-grown diamonds (gems application), as the diamonds are produced in reactors, the production will continue to increase about 20% to 30% YOY. At a wholesale level, the prices will always be under stress. People who will be able to do business differently will create their recognition and will become unicorns.

As created diamonds provide many opportunities, I see a generation of designers that will spring out. For example, designers will design jewelry made from just one piece of diamond. It will give artisans the to form new shapes and cut. There will be many possibilities.

How do you think Heyaru creates a Global impact?

Heyaru being active in the so-called STEAM sector, we focus on science, technology, engineering, art, and mathematics. At Heyaru, our goal is to make our process in producing the advanced material is as green as possible. We will be setting up our state-of-the-art facilities in areas where there is access to abundant amounts of green energy; we will also try to produce as close as possible to the consumer supporting the society and neighborhood economy. We will not only profit from them, but we will again return in as many ways to the neighborhood economy.

Impact on the Mined Diamond producer and other minerals producing countries

I think mined diamond-producing countries should embrace the opportunity for stepping into the Lab-grown diamond business. They can also build their own Diamond Valley. Many mined diamond-producing countries have barren land in their backward regions. This area can be developed by stepping into sustainable, eco-friendly industrialization. Advance material manufacturing is going to be the future. Natural minerals & resources will be limited; local economies cannot be dependent on those resources forever, so it is interesting to replough the benefits in R&D and build more sustainable economies. ■