

THE 2018 PIPELINE
FAKING THE DIAMOND DREAM

by Chaim Even-Zohar and
Pranay Narvekar

TACY'S 2018 DIAMOND PIPELINE

ON US\$ BILLION | PREPARED BY PHAROS BEAM CONSULTING LP

DIRECT COSTS
OF ROUGH PRODUCTION **7.8**

ROUGH PRODUCTION
VALUE **14.38**

MINES SALES
TO INDUSTRY **15.02**

NET ROUGH USED FOR
LOCAL PRODUCTION **15.50**

VALUE OF POLISHED
PRODUCTION **19.98**

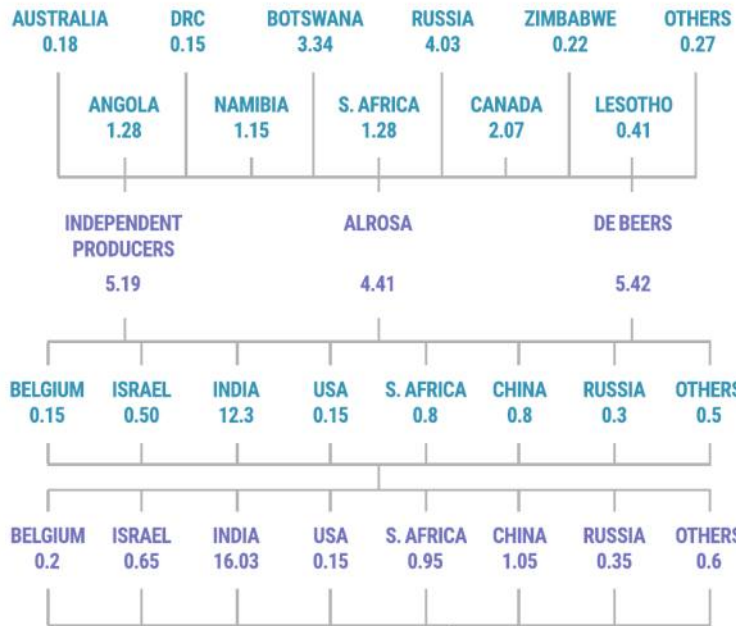
POLISHED SALES **19.8**

VALUE OF RECYCLED
POLISHED **0.3**

VALUE OF DIAMOND
CONTENT IN RETAIL SALES
(INCLUDING SYNTHETICS) **20.74**

RETAIL SALES OF
DIAMOND JEWELRY **78.13**

DIRECT COST OF PRODUCTION



Including stock value depreciation

ROUGH GEM SYNTHETICS

USA, SINGAPORE,
MALAYSIA,
RUSSIA & OTHERS
≥ 0.6

POLISHED
SYNTHETICS
≥ 1

VALUE OF RECYCLED DIAMONDS (CONSUMER SELL BACKS) RE-ENTERING PIPELINE



Last year the diamond pipeline pretty well succeeded in Faking the Diamond Dream. Some of the largest companies discovered that defaulting on debts of hundreds of millions of dollars had become the new source of value. Lenders tried to recover lost value by suing clients – some of whom responded in kind. Court appointed forensic investigators revealed the myriad of fake corporate conduits established to facilitate carefully premeditated roundtripping, money laundering, banking and trading frauds, and schemes to syphon (other people's) money out of the diamond pipeline.

Banks en masse were recusing themselves from future participation in the diamond pipeline. Selling undisclosed synthetic diamonds, especially in smaller goods, continues to remain the new source of value for some. This was the year in which De Beers betrayed its own slogans and revealed its ambitions to become a huge lab-grown gem diamond supplier, undercutting competitor pricing well before it sold its very first Lightbox stone. For the squeezed mid-stream of the diamond pipeline to succeed, it needed to fake the diamond dream. Or else...

Or else – what? Some exasperated players came to believe that if you are a decent, honest, hardworking player, fully respecting all the treasured ethical, moral and legal norms, when you take pride in honoring commitments to fellow players, clients, suppliers, banks, etc. – then you most likely did not make money and were eroding your equity. Planning one's exit out of the business or "compromise" (and criminalize yourself) by joining the Diamond Dream Fakers too often seem the more viable option.



by Pranay Narvekar
and Chaim Even-Zohar

LOSING THE ILLUSION?

When Bruce Cleaver took the helm of De Beers just two years earlier, in his inaugural statement he reflected “We must never lose sight of the fact that for the entire diamond pipeline to succeed, every individual part of the diamond pipeline needs to succeed.” The rough traders and manufacturers have not lost sight of this – the rough producers, however, may have forgotten this message. While the 2018 pipeline numbers might belie a sense of stability, there were fundamental changes to the underlying assumptions on which the industry based itself, especially when it comes to the legitimacy and acceptance of Lab-grown diamonds or LGDs.

De Beers’ entry into the LGD market through Lightbox was felt as a disloyalty by many of the company’s loyal clients and by others who rightly and wrongly still perceived the dominant producer as some kind of custodian and, in any event, provided a rude though not wholly unexpected wake-up call for the entire pipeline. The actual Lightbox launch and the impact of the physical products is expected to be more gradual and Lightbox was reportedly designed to clearly differentiate LGD as a separate product from natural diamonds. However, the impact of the announcement on the psyche of the companies and individuals within the pipeline was clearly not fully factored in. The announcement of LGD pricing some 80% below the competitors caused an immediate price pressure on other lab-grown producers as well. Amazingly, other LGD suppliers were forced to reduce selling prices even when not a single Lightbox stone was yet available anywhere! Eventually, the significantly lower priced LGD availability in small goods saw a domino effect on the smaller natural diamonds – and these prices have gone on a downward trend ever since. Did someone shoot himself in the leg?

The De Beers announcement shattered the very basis of time-honored beliefs. It also inflicted enormous

damage to its own standing in the diamond and jewelry markets – but management seems focused on bottom line. Industry participants, who had hitherto taken the ostrich approach to the LGDs, were suddenly faced with the scenario of the industry beacon publicly deciding to get into the LGDs. Other less scrupulous players who had been engaged in lab grown on an arm’s length basis or “mixing” goods in an undisclosed marketing environment felt suddenly “justified” and came “out of the closet.”

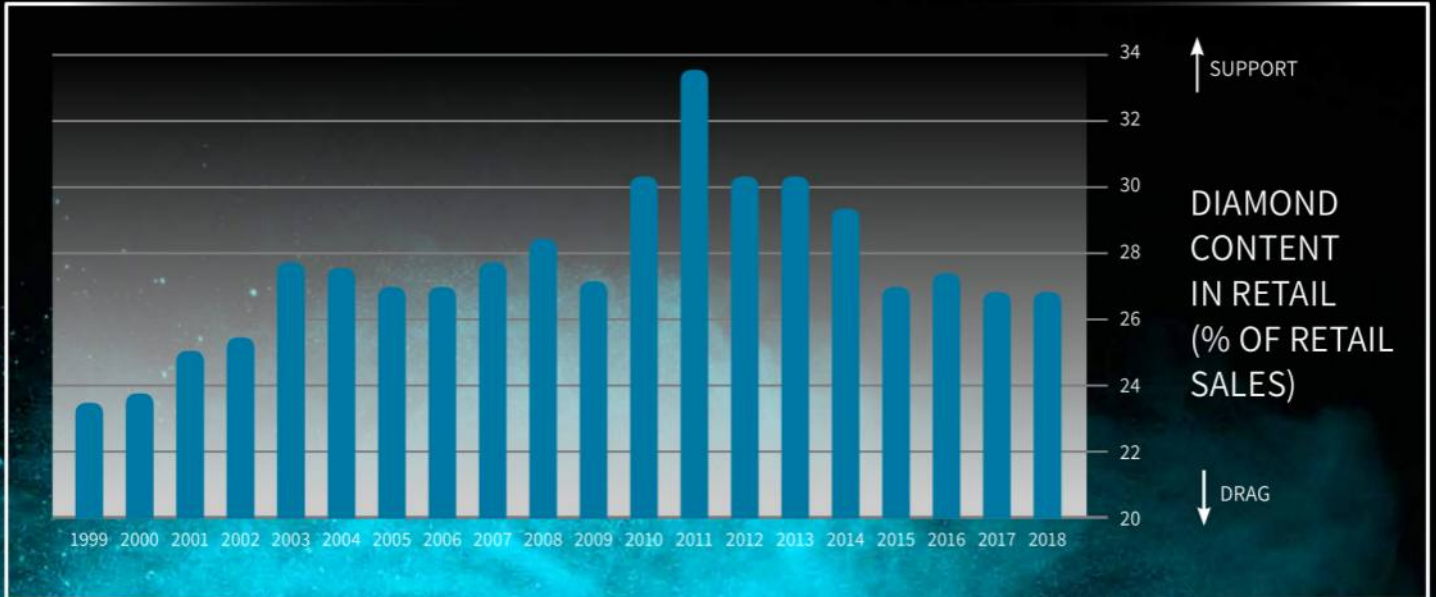
Till that point, the perception was as if the industry had convinced itself that it was “moral” to be in the natural diamond business and those, even in the legitimate LGD business, were thought to have “sinned” in some way. The “sinners” felt vindicated and a lower threshold of “morality” became readily accepted. The Diamond Dream had become an illusion. The flood gates of the self-imposed moral restraint on the pipeline participants was broken, the consequences of which are still playing out.

2018: THE START OF THE FOURTH DIAMOND RUSH....


As a recent “Heart in Diamond” blog eloquently recalls, “for centuries, the discovery of diamonds has brought shiploads of daring people to some of the world’s most far-flung and exotic locations: from the dry deserts of western Africa, to the wild rainforests of South America, and to the cold and desolate lakes of northern Canada.” In 2018 the lab-grown diamond rush commenced in earnest and in science halls virtually everywhere.

Anecdotal evidence suggests that the interest of diamond pipeline participants in LGDs has gone up more than 10-fold since June 2018. It currently seems like the previous restraint in dealing with LGD has been replaced by the fear of being left behind, with nearly everyone, from rough producers, polishers, traders, jewellery manufacturers, laboratories, trade associations to

DIAMOND CONTENT IN RETAIL



Fragile



retailers considering their options!! For what we would call “LGD exploration” in science halls around the globe, investment (and risk) money seems plenty, sourced both from within and outside the traditional pipeline participants.

Hard verifiable data on undisclosed (or mixed undisclosed) LGD sales are tough to establish, but there is ample evidence, based on production capacities, to infer that the current market share of fully disclosed LGD is still in the higher part of single digits. The recent announcement by Signet, the largest jeweler in the US, who began test marketing lab grown diamonds through their James Allen platform, might suggest that the retail industry in the US is well on its way to accepting the LGDs. Signet is following many other traditional diamond chains which embraced LGDs already years ago.

A Faked Diamond Dream has real consequences. Pipeline participants are realizing that the monopoly and image margins in the illusion-prone product has disappeared – probably forever. These worries and the sudden change in how they perceive their business, has caused trauma to the industry participants and left the industry with a serious case of “split” personality (dissociative identity disorder to be politically correct) as they are at pains to redefine the industry for the future!!

PIECING TOGETHER DEMAND

From a retail perspective, 2018 was not that different from the previous year. Sales continued to be flat in most markets, with internal dynamics driving the changes, at least on a local currency basis.

Currency movements, on the other hand, had a larger impact and will be felt in 2019 as well. In 2018 the dollar strengthened against a basket of currencies, especially in consuming countries. Diamonds are priced and traded in USD, while many consuming markets, including China, India and Europe have their own currencies. A strong

dollar means that jewellery eventually becomes more expensive in local currency terms. Consumers are usually driven by budgets, and these increase in prices drives down the demand for diamonds. The dollar gained strength in the middle of the year, which corresponded to the drop off in sales for the year, after a strong start.

However, retail numbers do not necessarily filter down directly into diamond demand, and more factors are getting added to that equation as can be seen in the US market, which accounts for nearly half of all the diamond demand. While reports indicated a 3-4% increase in jewellery sales, on the polished front it surely did not feel like it. In addition to the reported demand adjustments that need to be made for growth in watch sales (which are also sold by jewelers), and the drop in diamond content (in the jewelry piece), we now also need to adjust for the growth in LGD sales, which are starting to become significant.

Except for a few exclusive LGD retailers, LGD jewellery is being sold through the same channels as regular jewellery, with traditional jewellery outlets keeping LGD along with their regular product. More often, retailers may sell a natural diamond center piece, surrounded by a dozen or so small LGD diamonds. One way or the other, growth in LGD sales eats away the sales from natural diamonds. To put it bluntly – even though other reports might try to argue differently – each and every sale of a LGD diamond reflects a non-sale of a natural diamond equivalent. It seems very much like a zero-sum game for now.

While De Beers has ostensibly shied away from launching LGD bridal jewellery (Lightbox is positioned as a fun purchase), probably to appease their existing sightholders, most of the other LGD competitors identified bridal as their biggest opportunity!! LGD bridal sales are robust, omnipresent, and more profitable to the retailer than the natural alternative. Retailers have no problem selling the Diamond Dream as LGD sales pitch!

ABSOLUTE OR INCREMENTAL SALES?

As retailers dip their toes into the LGD jewellery market, it is important to understand their thinking and how they perceive the LGD opportunity. For a retailer, like any business, the LGD business can represent both an opportunity and a threat for them.

The authors of this article witnessed sales in a U.S. retail store where a young couple bought LGD engagement rings with boundless enthusiasm, considering the U.S.-made (U.S. labor, U.S. technology, eco clean, “American-love”) product equal or even better than the natural diamonds – and were willing to pay accordingly! Whether this was an exception or will it become the rule, we wouldn’t know.

At the current stage of the LGD market evolution, it is still a new product, which most consumers have yet to experience. Apart from the marketing aspects, a retailer will try the product because he would like to see if there is an incremental gross margin which he can make by keeping LGD jewellery. For a retailer the costs of the retail point of presence are almost fixed, and any incremental margin he makes can help his overall profitability.

Most larger ranges of natural diamond jewellery will continue to be priced higher than LGD in the long run, which simply means that a retailer will need to sell many more pieces of LGD for him to make a similar gross margin on LGD. Hence, if the retailer feels that LGD jewellery would cannibalize his natural diamond jewellery sales, common sense would say that the retailer would be very hesitant to carry a line of LGD jewellery.

It is this theoretical premise which the retailers are testing right now. In practice, retailers are loathe to miss an LGD sale which the jeweler next door will readily supply. LGD’s are becoming impetrative for the retailer fearing that his potential customer would have walked out of the door and resulted in a lost sale. However, what might be in the best interests of retailer, is not any more the best interest of the natural diamond suppliers and the natural pipeline.

For some time now, small jewellers in the US have been struggling as closures outweigh the new store openings. Depending on the continued interest of consumers in LGDs, retail formats might also change as the relative mix of margins, capital requirements and retail costs changes.

BUILDING BRANDS

The other areas which the LGD pipeline will need to work on, would be on building brands. There are many companies who are doing it in their own way, using electronic means, or a mix of an offline-online strategy. Most LGD producers/brands also seem to be much savvier than the natural industry when it comes to using social media to get the message across.

However, brand building is much more than just marketing or spending large amounts of money to create awareness. Just ask the poor DTC sightholders who were driven by the Supplier of Choice program incentives to invest heavily in going downstream and building retail stores and brands, without adequate resources of planning. It was one of the big reasons why the financials of the midstream weakened in the first place, especially in the first decade of the millennium.

LGD producers, traders and companies seem to have rushed into this space with equal gusto, combining both marketing as well as aggressive PR. The recent clarifications from the FTC have evened the playing field slightly.

While the efforts are commendable, history indicates that a very low percentage of brands are ultimately successful, and this requires not just savvy marketing, but consistent investment. A few large midstream diamond companies have invested in the LGD brands and pipeline, and apart from capital, they will also bring in lessons from their previous experiences in brand building.

THE MID-STREAM PROFIT CHIMERA

While rough producers face their own challenges, it still does not go to explain the level of angst and challenges being faced by the midstream. Sightholders (or long term contract holders), who buy from primary producers have been the bulwarks of the mid-stream. But they seem to be in a world of pain.

Without going into too many details (that is separate analysis by itself), the average net margin for regularly supplied boxes rough boxes from Alrosa and De Beers traded in the secondary market over a typical sight cycle of 3 years, is negative. This means that if a sightholder had purchased a rough box from the primary supplier in cash and accounted for all expenses and the terms provided while selling the box, the sightholder would have lost money. This was found to hold for a majority of boxes which are being regularly supplied to the market.

Effectively a sightholder would have been better off, buying these boxes regularly on the market from rough dealers, instead of buying them directly from the producers. More worryingly, this is not a single blip, but a long-term trend. While a loss in margin being a low single digit margin might not seem much, in many cases that's the kind of net profit which sightholders make, if at all!!

However, it would be incorrect to put the blame solely on the producers. They are after all focused on maximizing value for their shareholders, and if there are rough buyers who are willing to pay a premium, then they should be selling the rough at that price. Maximizing shareholder value limits the ability of producers to hold or stockpile goods. At the same time, it is undeniable that the short-term focus of profit optimization, squeezing customers, and causing protracted losses of pipeline profitability, may turn out to have become a classical case of killing the goose that lays the golden eggs. It will – and is already – backfiring on the producers which have by and large lost the esteem and prestige which once gave them their

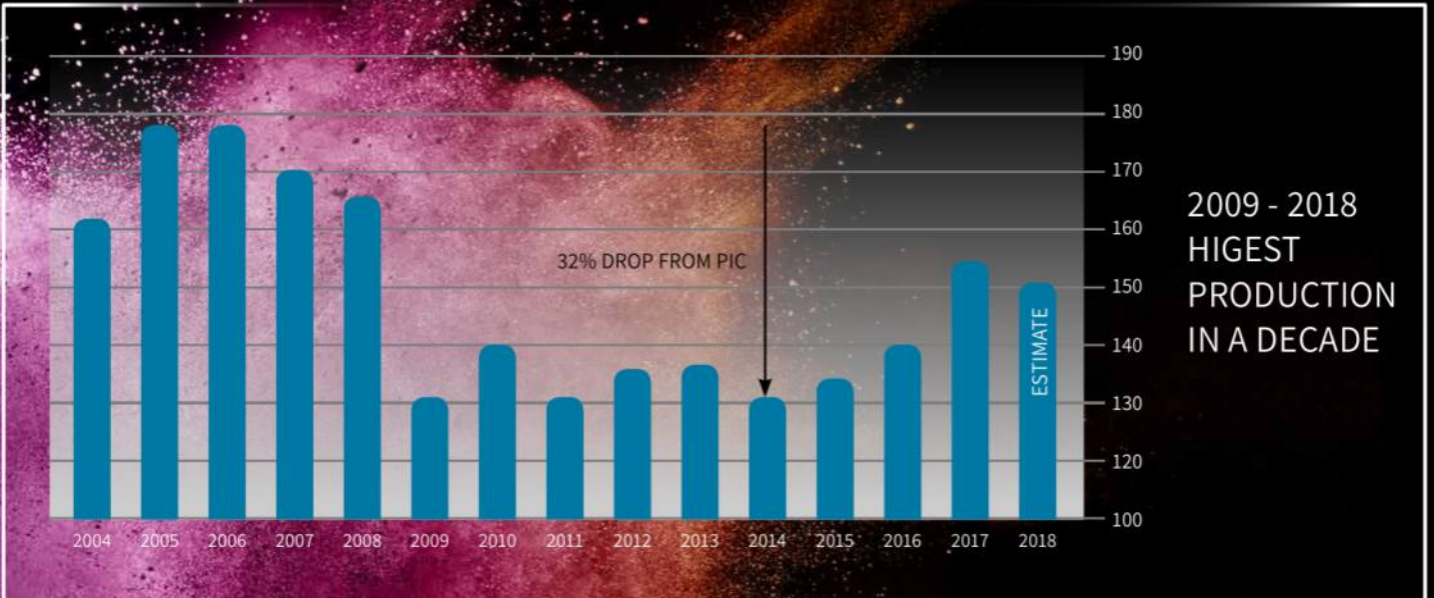
stature. They have eroded their own “diamond placing power” – something which traditionally gave them their strength. They contributed to turning the Diamond Dream into Faked Dreams...

Clients of De Beers and other producers have lost the fear of the consequences of “refusing a box” – and the undeniable fact is that “they get away with it.” Forget the talk about product differentiation: rough purchasers have alternatives. The (surprising) continued availability of boxes at discounts on the secondary market, significantly limits the downside to the sightholder in refusing a loss-making sight. Sightholders must now weigh the consistent but higher priced and less flexible supply (sight) against the more flexible, consistent margin but slightly in-consistent supply alternative.

THE “WEAKEST” LINK

Historically, the industry always believed that the primary sources, namely the sights, were always the cheapest way of getting their supply. Producers also nurtured their sightholders and wanted them to be strong financial partners who were a key link in the chain which took the rough to the finger. However, the mid-stream currently looks to be the weakest link in the natural diamond pipeline and the greatest financial fiascoes (and banking defaults) are among the prestigious sightholders! Don't ever think that the producers had been unaware in due time of the miserable fortunes and plight of their defaulting clients. Call it: convenient willful ignorance. What 2018 clearly demonstrated is that hitherto unseen shackles had broken, and midstream companies are seen trying to actively get into all segments of the LGD business right from LGD production, to polishing, trading, jewellery, retail and branding. If De Beers can be in both the natural and LGD pipeline, what is to stop the midstream companies from doing so? Nothing, absolutely nothing.

ANNUAL GLOBAL DIAMOND PRODUCTION



POLISHED DEMAND

The pipeline saw diverging demand when it came to polished. The first half of the year saw strength as growth in China and a good season saw good sales in 2018. However, as trade tensions kept ramping up, and dollar strengthened, demand saw a dip.

The Lightbox announcement, also forced retailers to take a careful look at their inventories, as they focused on the LGD threat to their own business. Excess supply of rough and pipeline destocking at retail further subdued polished demand, which was almost flat on a year on year basis. Considering the price drop, especially in cheaper goods, meant that the pipeline will struggle to sell values in the current year.

While the natural industry faced a de-stocking issue, the LGD industry was faced with the reverse issue. As retailers started to increasingly experiment and carry LGD product lines, these needed to be first added to stock, leading to a stocking demand. This is quite similar to a jewellery program launch, like say journey, where there is an initial burst as retailers stock up ahead of sales. These are not actual sales to consumers. Companies who get carried away by either expanding capacity or offering excessive goods on memo risk overextending themselves.

ECONOMICS 101

To refresh our collective memories, prices of all products, including diamonds and diamond jewellery are driven purely by demand and supply and the balance between the two. The only way to manage prices is to artificially control either the demand or the supply.

For over 70 years, the cartel, led by De Beers, excelled at managing the prices of diamonds to show a steadily rising trend. A large part of the confidence in diamonds as an asset is driven by this management of prices. De Beers primarily focused on increasing the demand, through its advertising campaign while simultaneously controlling

the supplies. In times of excess supply they were able to control the supply through stockpiling as well as slowing down the mine production, i.e. leaving the diamonds in the ground. It helped that they controlled nearly 80-90% of supplies, which meant that the pipeline functioned almost like the downstream distribution channel for a single company.

This scenario changed in the last 15-20 years, as the producers moved from a monopolistic structure to an oligopolistic one, with 4-5 large producers now controlling the supply. This meant that the ability of the producers to manage the supplies and the prices was reduced, leading to the industry witnessing a greater volatility in rough prices. While the industry has gradually accepted price volatility as a way of life, what it had not factored in was that new mines were expected to come on stream in the 2015-2020 period.

After the crisis in 2008, diamond production had dropped from over 160 million carats to between 120-130 million carats. This was part of the spike in prices in 2011 as the demand picked up due to government efforts post the 2008 great depression. This is even visible in the Kimberley Process statistics, where the production of rough diamonds, in carats, hit a 10 year high in 2017. Production is expected to stay near 145m carat range till 2020.

This increased rough production gradually started to push through into the pipeline. Hence while the supply had increased, there was no compensating increase in demand, which continued to remain muted in the absence of any concerted advertising efforts. This mismatch naturally resulted in a drop in the price of diamonds.

As we all know, diamonds are not homogeneous. We cannot simply add 100 1 cent stones to make a 1 carat stone. Hence the demand and supply equation of different qualities of diamonds starts affecting the price of diamonds. Specific areas might show different price

movements compared to others like in cases where the supply has increased significantly. The recent woes of some of the new Canadian miners, dependent on cheaper rough is a case in point, as prices in these areas dipped more than the overall price decline.

LGD DEMAND SUPPLY

Demand supply constraints also applies to LGD producers, although in a different manner. Unlike a mine, where extraction costs increase and which are eventually depleted, a facility to produce LGD will continue to produce LGD diamonds, given adequate maintenance and upgrades. After the initial “sunk” investment cost, it is economically better for companies to run their facilities and produce LGDs, as long as the revenues from the sale of the LGDs exceed the variable cost of running and maintaining the facility.

The other feature of LGD production, is that LGDs can be produced as per demand, and not determined by the characteristics of the mine. Hence the formula and input parameters can be tailored as per the market demand, so that the correct mix is produced. The issue of managing rough production which does not meet demand becomes less critical in the case of LGDs.

While there might be some differentiation in times and formulas, the cost differential between producing a small diamond as against a large diamond is nowhere close to that of natural diamonds. Choosing the right technology becomes a more critical determinant factor.

All these factors were visible in how the scenario played out last year. The prices of small gem quality diamonds produced indiscriminately by industrial diamond producing factories in China, crashed the price of these diamonds. These prices eventually stabilized when LGD producers depleted their stocks and started producing LGDs only on demand.

In the case of larger diamonds, currently produced

primarily by the CVD method, demand continued to be healthy, while there was no deluge in supply. Naturally, these prices saw a less steep drop in prices as production gradually increased. As more production capacity is installed, these prices would continue to slide.

Eventually, being a manufactured product, its pricing would move to a cost plus model, wherein rough is sold at an acceptable margin above the cost of production. The only way in which LGD producers can combat the same is through consolidation and moving to a production monopoly, just like De Beers achieved in natural diamonds!!

CERTIFICATION OF LGD

Off-late, there has been a fair amount of heart-burn in the industry about the certification of LGDs, including whether laboratories should certify LGDs, the design of the certificate, the information printed on the certificate etc. This to our mind is a storm in a tea-cup.

Certification, per say, is nothing but an external quality certificate authenticating the grade of the stone. In natural diamonds, the differential in rough prices for better qualities is usually explained due to the fact that this supply cannot be increased. Hence based on the characteristic of the mines, only a fixed quantity would be available. Hence if a D IF stone is one of the rarest to find, while it looks better than other stones, it goes without saying that its price would be higher. In LGD, which can be produced as per requirements, the differential cost of production does not vary by an order of magnitude, unlike the pricing differential in natural stones.

The value of the stone needs to be weighed against the incremental revenue which is achievable for the stone. Even in natural diamonds, it sometimes mind-boggling why companies would certify stones in the 0.20 to 0.35 carat range, because the cost of the certification just does not seem to justify the increased value. With LGDs

this issue is even greater, as they are priced even lower than natural stones, which means that the differential between qualities is narrower.

De Beers was targeting this, when they launched Lightbox diamonds all priced at USD 800. Logically, it would also mean that as LGD production of larger sizes increases and technology improves, the price differential across qualities will further narrow, making it uneconomical to certify LGD for increasingly larger sizes. Hence to our mind, certification of LGD will be a 2-5 year opportunity, after which the need for certification will disappear in all but the largest of stones.

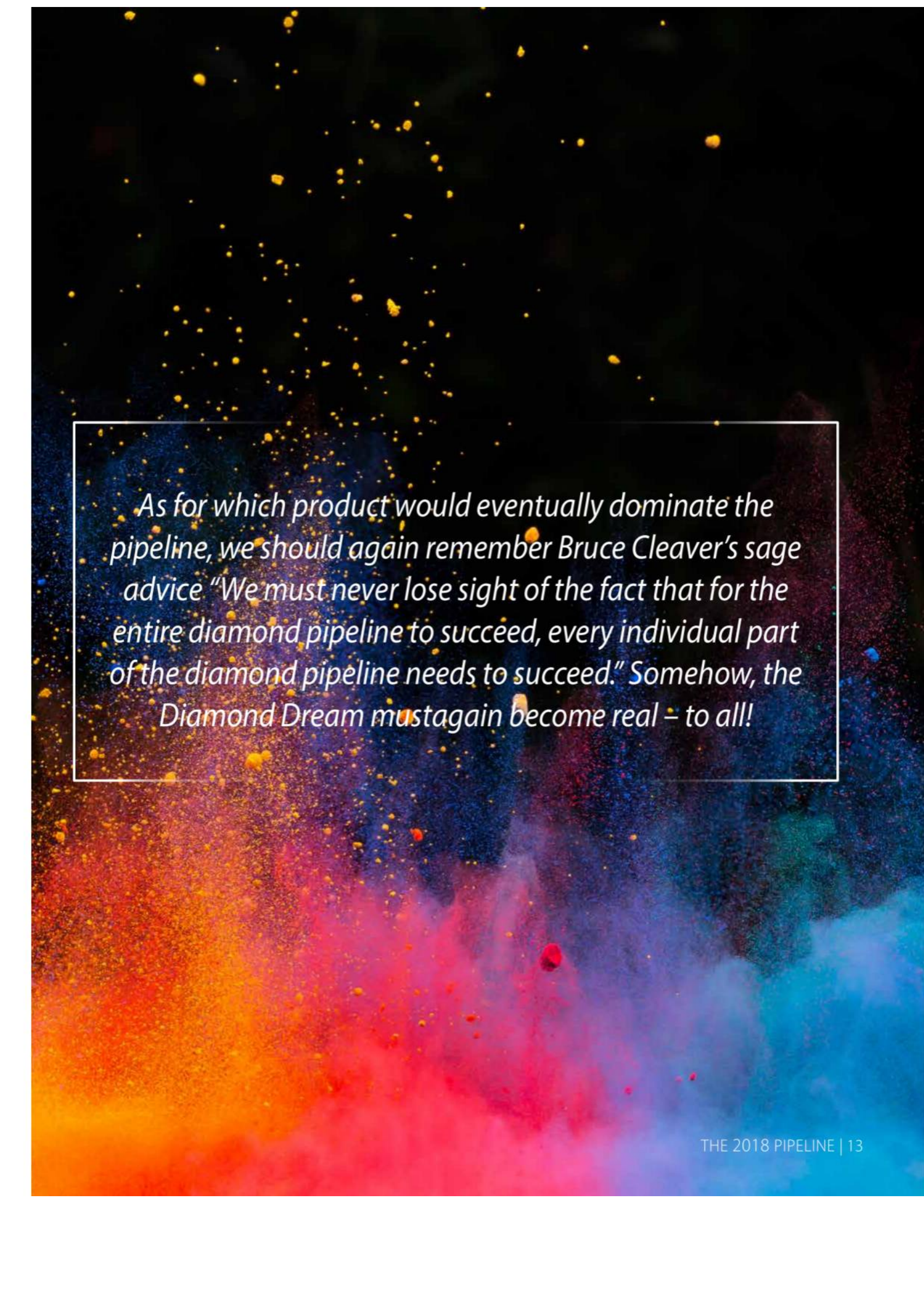
LGD PROFITS ARE REAL - NOT FAKED....

To summarize the year that was: We are in the midst of the diamond pipeline evolving from having only one product to having two distinct products within the same pipeline. Both the products will have areas which are independent and have their own defined market within the jewellery space as well as overlapping areas, wherein the differentiation might not even be relevant. While some producers might be distinct, companies in the pipeline might choose to be in both lines of business within the pipeline.

Natural diamonds will have their own dynamic driven by mine life, profitability, type of products and production, while LGDs, which are manufactured products, will eventually move to a cost-plus model for the rough. With LGDs the mid-stream will add much more value as compared to natural diamonds. Companies could well work successfully in both pipelines, as long they to manage these different businesses.

Suffering from a split personality is never easy for the patient, who might end up taking reckless actions, which they otherwise might not have done. In the case of the industry, while we current suffer from it, eventually the only solution would be the acceptance of both the

products in a common pipeline. For the time being, product differentiation seems the preferred strategy – and it seems to work. They are still seen as two totally different businesses. To effectively cope with the future may require adapting to the new business realities. Except for natural diamond producers, all pipeline participants, from trader, manufacturer to retailer, only earns money on the products added value – the difference between buying and selling prices (minus costs). The supply of natural diamonds are, by nature, limited and deposits are exhausting. With lab-growns, the skies are the limits.



As for which product would eventually dominate the pipeline, we should again remember Bruce Cleaver's sage advice "We must never lose sight of the fact that for the entire diamond pipeline to succeed, every individual part of the diamond pipeline needs to succeed." Somehow, the Diamond Dream must again become real – to all!

