

## Part B: Individual Report

Our team chose the theme of lab-grown diamonds as we know they have revolutionized the diamond industry in recent years, holding a unique identity that highlights ethical, sustainable, and financial benefits while maintaining identical quality and brilliance to natural diamonds. This attracts customer groups aiming for a lower budget or seeking a higher cost-performance ratio product. For example, a one-carat lab-grown costs around \$1435, while a one-carat natural diamond can cost all the way up to \$5635. According to “Laboratory-Grown Diamonds: An Update on Identification and Products Evaluated at GIA”, the production of lab-grown diamonds has rapidly increased from nearly zero percent in 2009 to five percent in 2021. This vast growth suggests that it is critical to prevent companies from selling lab-grown diamonds at the price of natural diamonds. Transparency and accountability are key factors for stakeholders, such as customers, to ensure a fair trading process. This report presents a case study of the GIA (Gemological Institute of America) within the global diamond industry. It examines production, practices, circulation, consumption, and use flows. The analysis focuses on three key topics: governance and ethical issues, markets, and communication strategies within a multi-country context.

I have chosen to present the Gemological Institute of America (GIA), a globally recognized nonprofit institution that sets the standard for diamond grading, as it plays a significant role in the industry. GIA has shaped the industry's governance, ethical standards, and communication strategies as lab-grown diamonds gain popularity. With consumers becoming increasingly conscious of the origins of their jewelry, the demand for transparency and accountability has surged. This presentation explores GIA's impact on lab-grown diamonds by analyzing its role in production, standardization practices, circulation, consumer engagement, and governance. Additionally, it examines how GIA's approach ensures transparency and market credibility in a global context. The influence of GIA extends beyond grading, as it also shapes public perception and market acceptance of synthetic diamonds.

Before elaborating on GIA's significance, here is a little background information on lab-grown diamonds: Unlike natural diamonds, which are formed via high pressure and heat within the Earth's mantle, lab-grown diamonds are created using two primary methods: High-Pressure and High-Temperature, or HPHT, and Chemical Vapor Deposition, which is CVD. These techniques duplicate the natural diamond formation process but significantly reduce formation time, which allows the production of chemically and physically identical diamonds to natural ones. Despite this, while lab-grown diamonds hold advantages in costs and ethics, concerns arise regarding their authenticity and grading consistency. Since policies remain broad regarding the issue, the rapidly advancing technology of lab-grown diamond production raises questions about future quality control standards and how the industry will adapt to ongoing innovations. Hence, we identified that accomplishing the ultimate goal of conveniently distinguishing lab-grown and natural diamonds is challenging, making certification essential for consumer trust.

In response, GIA created the Laboratory-Grown Diamond Grading Reports, which provide detailed insights for each lab-grown diamond, such as production method, quality, and traceability, ensuring industry-wide transparency. This level of scrutiny enables consumers to make informed purchasing decisions while maintaining confidence in the authenticity of their diamonds. The availability of these reports has significantly reduced consumer skepticism, making it easier for lab-grown diamonds

to be accepted in high-end markets. GIA strengthens consumer confidence and promotes ethical business practices by holding lab-grown diamonds to the same rigorous grading standards as natural diamonds.

Besides the report, GIA has established a certification system ensuring credibility for lab-grown diamond producers. As the industry expands, a trusted certification institution like GIA will legitimize these products in a transparent environment for retailers and consumers, countering concerns such as the fact that human vision cannot distinguish the difference. This demonstrates that misrepresentation and fraud would undermine consumer trust without clear grading standards. This is why reliable certification is crucial for maintaining market integrity, as the jewelry industry thrives on transparency and authenticity, ensuring that both retailers and consumers make informed and ethical purchases.

One of the significant challenges GIA faced while determining the reports' standards was the lack of universal grading standards. GIA has addressed this by implementing globally accepted classification systems that ensure consistency in evaluating diamonds, regardless of their origin. As a result, retailers and jewelers worldwide can confidently rely on GIA's certifications to validate product authenticity. This has created a more level playing field, allowing consumers to compare products more easily and make choices based on verifiable data rather than marketing claims.

GIA's grading reports have enabled retailers and stakeholders to distinguish between natural and lab-grown diamonds, preventing false trading and supporting fair competition. The organization has also worked closely with stakeholders to establish best practices for labeling and disclosure, ensuring that customers fully understand the origins of their purchases. GIA has also invested in educating jewelers and retailers in various ways, including workshops, online courses, and certification programs, enabling businesses to provide accurate information to customers and reduce misinformation in the marketplace. In the long run, these educational efforts would contribute to shaping industry standards and consumer awareness.

By upholding high grading standards, GIA has facilitated the acceptance of lab-grown diamonds in traditional jewelry markets. Many luxury brands and retailers now carry lab-grown diamonds, partly thanks to their reliable certification. According to a 2023 market report by Mordor Intelligence, the lab-grown diamond market is expected to grow at a CAGR of 9.8% from 2023 to 2028. Additionally, the global lab-grown diamond industry was valued at USD 22.45 billion in 2022 and is expected to reach USD 37.32 billion by 2028, demonstrating a growing consumer shift toward sustainable alternatives.

This rapid growth emphasizes the need for a well-rounded certification system to maintain market integrity and consumer trust. As more consumers prioritize sustainability, lab-grown diamonds continue to disrupt traditional diamond markets, compelling traditional jewelers to adapt their business models. Moreover, the acceptance of lab-grown diamonds has prompted discussions about the broader implications of standardization, including how new technologies and materials might reshape the future of the diamond industry. Gemstone enhancement and traceability innovations like blockchain technology for certification tracking may further refine the industry. Blockchain, in particular, has the potential to provide an immutable record of a diamond's origins, reinforcing consumer confidence and reducing fraud. The role of independent certification bodies such as GIA in maintaining consumer trust is becoming increasingly vital as the market continues to evolve.

In conclusion, GIA plays a key role in shaping the future of lab-grown diamonds. Through standardized grading, ethical governance, consumer education, and communication strategies, GIA ensures fairness, transparency, and trust in the industry. Its lab-grown diamond grading reports provide consumers and retailers with clear, reliable certifications, helping lab-grown diamonds gain broader acceptance in global markets. With the increasing prominence of sustainable consumerism, GIA's role in this space is more critical than ever. The industry's future success depends mainly on organizations like GIA maintaining and adapting their standards to keep pace with technological advancements and shifting market demands.

As the demand for ethical and sustainable jewelry grows, GIA's influence will remain essential in maintaining market integrity and consumer trust. By bridging the gap between innovation and tradition, GIA helps redefine the diamond industry for future generations, ensuring that lab-grown diamonds remain a viable, ethical, and sustainable choice for modern consumers.

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### **Part C: Reflective Review**

This presentation was a unique experience for me to work in a virtual team. We faced many challenges from the very start of collaborating, as we were all in different time zones—negotiating the meeting time can be difficult sometimes. This often led to delays in decision-making, as we had to wait for everyone's input before moving forward. Therefore, we procrastinated the first few meetings since we couldn't negotiate an ideal time. As a result, our initial progress was slower than expected, which put pressure on us to catch up later. Another challenge we encountered was the misinterpretation of the assignment: we initially thought we were presenting one organization in three facets, but we later realized that we were presenting a separate one. This misunderstanding required us to rework a significant portion of our presentation, which was stressful given our limited time. These are the two major mistakes I identified as the most influential throughout the project.

Overall, I have gained precious experience in organizing the team, including helping and discussing the project among the team. I also learned the importance of taking initiative in a virtual team. Meanwhile, I am thankful that our team consistently stayed motivated by the shared goal of showcasing the communication prospects of lab-grown diamonds. Our shared enthusiasm helped us overcome difficulties and stay focused despite the initial setbacks. We also found a way to communicate with each other by sharing slides and documents to find our strengths and flaws in the presentation. This approach not only improved our presentation quality but also strengthened our teamwork. I have always stayed positive and motivated under the team's encouraging atmosphere. Looking back at the process, I believe these situations would have been avoidable if we had been more task-independent and avoided social loafing and procrastination.