

We improve the world's safety, security and scientific understanding by transforming challenging requirements into optical realities.

Last year, I described 2020 as the most challenging year in our history, and attributed our ability to pull through to perseverance and grit. In 2021, we persisted, and we performed. Our results reflect an intersection of strategic focus with strong demand. Parts of the 2021 story are consistent with our forecasts, but new chapters were written that will change our business.

Covid-19 is still with us, but it did not severely impact operations last year. All non-production staff were back on site by mid-year, and 98% of our employees are fully vaccinated.

Our 2021 financial results include several notable outcomes. Net income totaled \$1.7M, versus a loss of \$.9M in 2020. We saw the forgiveness of our \$973K PPP loan in Q1, but we also added organic net income in every quarter.

Sales were \$11.4M, a 26% increase over the previous year's \$9.0M. The defense and aerospace segment of the business remains firm, and is an area where we can add market share as a trusted supplier. Conversely, there has been a dramatic increase in demand for our optical and x-ray components for process control and metrology applications, resulting in sales growth of 70%.

An important outcome of 2021 was booked orders. The Company booked \$17.9M an increase of 82% that exceeded our forecast. Backlog at year end totaled \$12.4M, double from 2020. Bookings continue to increase through the first quarter of 2022. Scheduled deliveries extend beyond 12 months into the future.

There are a couple of factors driving this above average growth. Over the last year and a half, we strategically transitioned from several legacy product areas to focus on areas with growth potential where we possess high barriers to entry. One excellent example is our dominance in the area of bent crystal assemblies for x-ray applications, which range from plasma fusion research to semiconductor wafer inspection.

The process control & metrology segment of our business, which includes semiconductor capital equipment manufacturers, is in the midst of unprecedented growth. Fueled by the

microprocessor chip shortage, manufacturers are investing in expanding their production facilities around the world. In Europe and the US, amid growing unease over reliance on the Asian supply chain, governments are incentivizing onshore development of new chip manufacturing hubs. Semiconductor chip fabrication relies heavily on optical technologies and components, and consequently, these worldwide efforts are driving demand for our expertise, capabilities and capacity.

We are well positioned for growth, but need to expand our capacity. We added key fabrication equipment in 2021, and we will continue to invest in our manufacturing infrastructure this year. Our finance team has secured favorable terms on project financing to supplement expenditures from cash flow. We have upgraded our IT infrastructure, and strengthened our network against cybersecurity threats.

The biggest challenge we face is workforce development. The optics and photonics industry suffers from a skilled labor shortage, and the last two years have escalated the problem. In the US we have not developed an adequate workforce for the future of high technology manufacturing. Optics and photonics enable everyday life, and play an important role in keeping us safe. From smart phones and car vision systems, to medical imaging diagnostics, to defense and space applications, optics are at work. This modern expansion of optical applications has not been met with an expansion of skilled individuals to produce the required components and instruments.

At Inrad Optics we are employing several strategies to attract new employees. We hired a full-time recruiter to target mechanically inclined entry level employees we train in-house, as well as higher level engineering candidates. Early results have been excellent from this extra investment.

Along with several other optics manufacturers, we have partnered with Sussex County Community College (SCCC) to build an optical technologies training program to provide a pipeline of production resources in the near future. In addition, the American Center for Optics Manufacturing, via \$34M in Department of Defense support, is working to strengthen the domestic precision optics industry. The program at SCCC was the first in the country to be funded by AmeriCOM, with a \$2M grant for equipment and facilities.

Inrad Optics' long history has well-prepared us to navigate change and find solutions. We are meeting the challenges necessary to take advantage of the opportunities in our growing markets. Our dedicated employees inspire me with their creativity and commitment, and are our most valuable asset. I thank them for their contributions to our continued success in this dynamic environment.

Amy Eskilson
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