

## Chairman's Letter

To my fellow shareholders:

STR Holdings, Inc. will hold its annual meeting on September 24, 2019 at our headquarters in Enfield, CT. We chose to delay this meeting by a few months to allow time for a few important initiatives to develop more fully such that we could report them to you with greater certainty and discuss their impact on the direction of the company.

The first of these important initiatives was securing debt financing to help support our growth. In late March of 2019, we announced that our Spanish subsidiary, Specialized Technology Resources España, S.A.U. ("STR Spain"), received €2.0 million in the form of a loan from the economic development ministry of the regional government of Asturias, Spain ("SRP"). In addition to this loan, STR Spain has received preliminary approval for approximately €2.6 million from the Spain Ministry of Industry, Commerce and Tourism ("REINDUS"). STR Spain expects to receive funding of the REINDUS loan within 2019, though it should be noted that funding of this loan has been delayed once already from mid-July due to what we understand to have been procedural matters unrelated to STR. The SRP loan and the REINDUS loan are important debt instruments that we expect will be very helpful in financing the ramp and operation of our food packaging products business. However, there can be no guarantee that the REINDUS funding will be received on favorable terms, or at all.

The second initiative involves our fixed assets in the Port of Tanjung Pelepas ("PTP"), Iskandar Puteri, Johor Bahru District, Johor, Malaysia. We entered a purchase and sale agreement for our land and building therein January 2019, which due to our location within PTP is subject to the consent of the Johor Port Authority and PTP itself, as well as other conditions typical of any industrial real estate transaction in Malaysia. In the first quarter of 2019, PTP ordered a six-month observation period wherein the prospective buyer would store their goods in our building to allow periodic monitoring by PTP's environmental health and safety department. At this time, we have completed the required observation period without issue, have secured the consent of JPA and have been advised by the president of PTP that the remaining required consent will be forthcoming within the month of August 2019. Following receipt of these important consents and other customary real estate clearances and filings that are generally required for transactions of this type in Malaysia, we believe we can finalize the transaction and receive the associated value of approximately \$5.3 million in our accounts before the close of 2019.

The third initiative relates to our new film products business in Spain. As you may recall from last year's letter, as well as from more recent updates, we have made a major investment in the food packaging business at STR Spain. More specifically, we have invested approximately €5 million in new equipment and facilities upgrades to allow us to participate in the high-barrier, multi-layer film market for food packaging. Our films protect perishable foods such as meat,

fish, cheese and other dairy products, cereals and other packaged convenience foods typically found in your local grocery store. Our films can be used as the clear cover sealed to the top of a meat tray, one of the layers in a stand-up food pouch, one component of printed laminated packaging structure, the clear skin layer found on choice-cut meat packages, etc. We made this investment believing that (i) solar encapsulant manufacturing will continue to decline in Europe, (ii) our facilities, systems, supplier relationships and know-how are very well suited for plastics manufacturing, (iii) the high-barrier films market in Europe will continue to grow for the foreseeable future, (iv) demand for our products will support our installed capacity and, (v) the return on investment will be strongest at the high-tech end of the product spectrum where we have chosen to enter. Our approach is to design and manufacture products that, by virtue of the unique configuration options associated with having nine layers within a single film product, can provide exceptional food preservation quality while also reducing the amount of plastic per packaging unit. This effect is accomplished by careful selection of the various materials used within the nine-layer structure, as well as their specific location within that structure. This configurability allows us to design and manufacture products equally effective as those already in the market, but often at a lower unit weight and at a lower cost, meaning we should be able to outperform much of our existing competition and attract customers to our product line. Most packaging film lines currently in operation either lack the capability to manufacture the products we will make or can only achieve the same performance by using considerably more of the barrier material layers within their products that add to the unit weight as well as the cost. With that stated, we estimate that of the many thousands of packaging film lines in Western Europe, there are currently a small number, perhaps less than 50, similar to ours with which we expect to compete. I should also inform you that not all packaging products require high-barrier film properties, so we are aiming for the more specialized part of the food packaging market that relies on exceptional moisture and oxygen barrier properties to preserve food for an extended shelf life without the need for artificial preservatives.

So far in this important business launch, we have fully installed and tested a state-of-the-art multilayer film packaging line, have developed, tested and manufactured several specific packaging products, have passed compulsory migration testing to qualify those products for use in food-contact applications, have made and shipped our first orders off the line and have received positive feedback from our very first customer that our products ran well in their food packing plant.

While I consider this a major achievement along the road to building a new and growing business around these products in Europe, we have also had some unexpected challenges, including difficulty manufacturing one of our more technical products, which we have since reformulated and produced successfully, and delayed qualification testing from many prospective customers, at least in part due to the tendency for many companies in Europe to suspend product and supplier evaluations during the typical summer vacation months of July and August. Since conducting our pre-investment market checks, we have found that a higher percentage of prospective customers than originally anticipated now require certification according to the British Retail Consortium ("BRC") Standards. While we believe we are already

compliant with BRC, an audit of past production records is required and we have not yet accumulated sufficient records to meet their standards. This BRC requirement creates a bit of a “catch 22”, in that without BRC Certification, it is certainly more challenging to find work and develop sufficient production records required to pass the audit and secure the certification. In any event, we have been able to identify some customers who do not require BRC certification, as well as others who will accept our current status of “BRC compliant,” but this unexpected complication has made the hunt a much more difficult task.

BRC certification requires clean manufacturing practices, special provisions and procedures for avoiding contamination, proactive pest control, certain material handling requirements and other measures important to ensure food-safe production. We have been operating our facility in what we believe to be BRC-compliant mode since 1Q19. Our goal is to clear this important BRC certification hurdle by year-end by having an audit as soon as practicable after we have been able to develop sufficient production records.

The fourth and final initiative is one that we had the great pleasure of announcing on Form 8-K, filed on August 2, 2019. In summary, we have entered into a very important agreement to supply one of the strongest solar panel manufacturers in the business with a proprietary encapsulant developed by STR. We have agreed to add solar encapsulant manufacturing capacity required to produce products meeting their demand and specifications, in exchange for their commitment to purchase product made on the new equipment. The counterparty to this agreement has extensively tested our product and has advised us that our formula meets their requirements. They will ultimately also require that products made on the new production equipment be tested and meet their requirements; a step that will have to wait until our new capacity has been purchased and installed. We anticipate that such capacity will be operational during the first half of 2020, that the material will pass their requirements and that production-scale sales will commence under the supply agreement (the “Agreement”) mid-year 2020. The Agreement assures through a take-or-pay provision that the customer will buy at least \$5 million worth of STR encapsulant per quarter, or pay a percentage of the value of any shortfall amount. Correspondingly, STR has agreed to a minimum production provision to guarantee the customer uninterrupted supply and failing to meet such provision would result in a fee, payable by STR, to offset the customer’s cost of alternate procurement.

This Agreement replaces and greatly improves upon a technology transfer deal signed with this customer in 2018, whereby STR would have essentially earned one-time milestone fees for such a transfer. Under the Agreement just signed, STR will now be in a long-term supply relationship with the opportunity to grow our solar encapsulant business with recurring revenue and profitable sales over the three-year supply agreement period and potentially beyond, assuming success in becoming a valued supplier to this important customer.

In the highly competitive solar encapsulant space, we remain keenly aware that business must be not only earned but also retained; that means aggressively controlling cost and continually working to improve our product performance year after year. In that spirit, we are currently

exploring options for leasing a facility that will afford maximum advantage of critical supply routes while minimizing operational costs and transportation to our customer's facilities.

Apart from this major development, we continue to see increasing demand for our existing production capacity in CT. We believe that recently increased import duties on foreign-made solar panels and encapsulants, along with the newly reduced corporate income tax rate, have attracted solar manufacturers to the United States. While still modest, sales from our CT location for the first six months of 2019 have increased four-fold over the prior-year period, and we believe this trend may continue and provide additional opportunity for STR in North America.

Regarding our financial performance, we continue to work hard to control our SG&A cost and succeeded in reducing full-year 2018 SG&A by 7% versus 2017, and have made further progress in the first half of 2019 by reducing such costs by 17% versus the prior year period. Approximately 50% of the \$8 million cash use in 2018 was for capital investment, while the balance funded our operating cash loss; something we continue to work to eliminate through our growth initiatives and investments.

Our solar strategy remains to strengthen our encapsulant business within markets where we have an advantage and the opportunity for profitable sales of competitive products. One geography where the conditions have changed rather dramatically is India.

As you may recall, we entered into an agreement in 2018 to participate in the Indian solar market by working with a tolling partner rather than setting up our own facility there. Our approach was deliberately "capital lite" to avoid putting STR-owned physical assets at undue risk. The Indian solar market continues to face intense pricing pressure from Chinese imports and is therefore subject to the associated risk that domestic manufacturers are overrun by foreign competition. While India recently instituted a 25% safeguard duty on Chinese and Malaysian solar imports, the benefit to domestic manufacturers may not prove sufficient to counteract the entrenched foreign competition. These conditions have resulted in slow payment for STR products from Indian manufacturers and credit risk that we have been unwilling to accept. Along with this economic reality, and also because of our unwillingness to accept orders on uncertain credit terms, our tolling partner has informed us that they are no longer interested in cooperating with STR and intends to pursue the local market with their own line of solar products.

Given this backdrop, we have made the decision to unwind our tolling partnership and business in India and are presently working with our former partner to reconcile all related accounts including the collection of outstanding receivables and the settlement of amounts owed to STR for equipment and inventory. The toller has paid STR approximately \$1 million thus far in 2019 and has a remaining balance of approximately \$2 million, which we are urgently working to collect.

In closing, we have made important progress on our overarching goal of returning the company to sustainable profitability. Our strategy to complete this goal is to build sales for our packaging business in Europe and to capitalize on the revitalization of the American solar market through execution of our new supply agreement and by continuing to grow with our existing customer base while also adding new customers with whom we have recently been working to qualify our products.

As always, thank you very much for your continued trust and confidence in STR. We remain committed to do our best to deliver quality products and services to our customers and create value for our shareholders.

Sincerely,



Robert S. Yorgensen  
Chairman, President and Chief Executive Officer  
STR Holdings, Inc.

### **Forward-Looking Statement Disclaimer**

This letter contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements may include words such as “anticipate,” “believe,” “expect,” “intend,” “may” and other words and terms of similar meaning, and include any discussion regarding the timing, investment, financing or anticipated success, as applicable, of our new investment in Spain or of our new supply agreement and other initiatives in the U.S., the timing or completion of our sale of our Malaysian facility, and our ability to unwind and collect the amounts due to us under our tolling arrangement in India. The food packaging business is highly competitive, and we cannot assure that we will be successful in this new endeavor. In particular, we cannot assure that we will be able to successfully obtain the BRC certification on a timely basis, if at all, or that we will be able to achieve our anticipated revenue, earnings or payback from this new investment. Nor can we assure that we will be able to obtain the funding from the anticipated REINDUS loan on favorable terms, if at all. The commencement of commercial sales under our new supply agreement is subject to contingencies, including the acquisition, installation and start-up of new equipment at a location to be determined, and the completion of testing and qualification of our product. We cannot assure that we will satisfy these contingencies on a timely basis and within budget, if at all, or that the new supply agreement will be commercially successful. We also cannot assure that we will be able to close the sale of our Malaysian facility on a timely basis, if at all, nor can we assure that we will be able to collect amounts that we believe are due to us from our former tolling partner in India. These forward-looking statements are also subject to risks and uncertainties generally applicable to our business and other factors disclosed by us from time to time in our filings with the SEC, including those described under the caption “Risk Factors” in our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q. Except as required by law, we disclaim any obligation to publicly update any of our forward-looking statements.