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FRX Innovations, Inc. (OTCPK:FRXIF)

FRXIF: A stock on the cusp of catching on fire.

FRXIF is growing its market penetration in the sustainable fire-retardant business and is getting a tailwind from increasing government regulation. We initiate FRXIF with a valuation of \$1.20 based on a discounted cash flow model with a 15% discount rate.

OUTLOOK

FRX Innovations is a company on the cutting edge of a growing demand for a fire retardant without the potential negative health impacts many of the current retardants have. The company's Nofia product is endorsed by numerous "green" organizations and customer testimonials are glowing.

We believe the safe fire-retardant market is getting ready to explode and the FRX will be a major beneficiary of that projected increase in demand.

Current Price (9/12/22) \$0.42
Valuation \$1.20

SUMMARY DATA

52-Week High \$0.53
52-Week Low \$0.34
One-Year Return (%) N/A
Beta N/A
Average Daily Volume (sh) 3,500

Shares Outstanding (mil) 57.5
Market Capitalization (\$mil) \$24.15
Short Interest Ratio (days) N/A
Institutional Ownership (%) N/A
Insider Ownership (%) N/A

Annual Cash Dividend \$0.00
Dividend Yield (%) 0.00

5-Yr. Historical Growth Rates
Sales (%) N/A
Earnings Per Share (%) N/A
Dividend (%) N/A

P/E using TTM EPS N/A
P/E using 2022 Estimate N/A
P/E using 2023 Estimate N/A

Zacks Rank N/A

Risk Level High
Type of Stock Small-Growth
Industry Industrials

ZACKS ESTIMATES

Revenue (in millions of \$)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2021	N/A	N/A	N/A	N/A	N/A
2022	1.1 A	1.3 A	1.8 E	2.3 E	6.5 E
2023	2.3 E	2.4 E	2.5 E	2.7 E	9.8 E
2024	3.0 E	3.4 E	4.0 E	4.3 E	14.7 E

Earnings per share

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2021	N/A	N/A	N/A	N/A	N/A
2022	-0.17 A	-0.04 A	0.04 E	0.05 E	-0.12 E
2023	-0.03 E	-0.03 E	0.00 E	0.00 E	-0.06 E
2024	-0.05 E	-0.01 E	0.02 E	0.03 E	-0.01 E

Initiating Coverage



We are initiating coverage of FRX Innovations (FRXI.V) with a valuation of \$1.20 per share, which represents substantial premium from the recent trading range of the stock. We believe investors are largely ignoring the burgeoning “safe” fire retardant market and the degree to which FRX will play a major role in meeting the growing demand, creating the potential for substantial gains in both revenue and market capitalization.

FRX Innovations is a global manufacturing company, producing a family of environmentally sustainable flame-retardant products that serve multiple large markets, in the US and globally, spanning electronics, automotive, electric vehicles (EV) and medical devices.

Flame retardants aren’t often a product people think about, but there is likely a flame retardant of some sort on many items that initially wouldn’t even be considered to need such treatment. From TV’s, to cars, drapes, carpets, computers, appliances and mattresses—just to name a few, fire retardants are ubiquitous in people’s lives all over the world. While most people don’t think about such things, many existing retardants could be having a detrimental effect on health, and governments are starting to pay more attention to that possibility and issuing new regulations in an attempt to eliminate those negative health consequences. According to the National Institute of Health, many of the chemicals used in most flame retardants are associated with such adverse health effects as:

- Endocrine and thyroid disruption
- Impacts to the immune system
- Reproductive toxicity
- Cancer
- Adverse effects on fetal and child development
- Neurologic function

For obvious reasons, however, we don’t want to necessarily get rid of fire retardants as they are an important safety component in many of the items people come into contact with every day. This is where FRX comes in. As we’ll detail below, FRX Innovations provides a solution that provides the benefit of fire retardants but has none of the potential health hazards that come with traditional halogenated retardants. The company bills itself as “the world’s premier polymeric, non-halogenated flame retardant (FR) provider for a range of consumer and industrial products and applications in electrical & electronics, electric vehicles, transportation, building & construction, fiber & textile, medical devices and other end-use markets.”

In short, FRX provides the solution that governments are increasingly starting to mandate, and manufacturers and consumers are increasingly demanding through its Nofia product—described in detail below. We believe that this move to safer fire retardants is in the relatively early stages but is an inevitable growing wave that FRX is riding on top of.

The Problem

FRX Innovations is a global manufacturing company, producing a family of environmentally sustainable flame-retardant products that serve several large markets spanning electronics, automotive, electric vehicles (EV) and medical devices. For a little history on the company, FRX Polymers was founded in 2007 and trademarked Nofia, its flagship product, in 2013. FRX Innovations was then formed as the holding company for FRX Polymers in 2021 and went public on the TSX-V exchange in 2022 under the FRXI.V ticker and currently trades OTC under the ticker FRXIF:OTCPK and on the Frankfurt Exchange under the symbol W2A. FRX Polymers is the world's only producer of halogen free, polymeric flame retardants that do not migrate out of plastics. Commercialized under the brand name Nofia flame retardants, the company notes that the polymers can be used as a flame-retardant additive for plastics in multiple applications including automotive interiors, electronic devices, and transparent fire-retardant sheets. Before we get into the details of that, it's important to understand why being halogen free is important, and, increasingly, required.

First, flame retardancy is a legal requirement for many plastics used in electrical equipment, consumer electronics, building and construction, textile and transportation applications. Flame retardants inhibit ignition, slow the spread of fire or protect critical infrastructure during a fire and reduce smoke or toxic fume production. Up until now, many products used, and continue to use, halogenated flame retardants to meet flammability standards in commercial and consumer products. People can be exposed to these flame retardants in their homes, workplaces, and cars as well as on planes, trains and in public spaces. Unfortunately, studies have shown toxic side effects such as persistence of the chemical in humans, air, water and soil. These chemicals can be absorbed into the human body through diet and household dust and can build up over time in people and animals which could result in adverse health effects by interfering with hormones, reproductive systems, thyroid and metabolic function, neurological development in infants and children, and the immune system. These chemicals can be found in everyday products such as:

- **Electronics and Electrical Devices** - computers, laptops, phones, televisions, household appliances, and wires and cables
- **Consumer Products** - wigs and hair extensions, children's clothes, baby accessories and strollers, and many other products
- **Furnishings** - foam, upholstery, synthetic leather, mattresses, carpets, curtains, and fabric blinds
- **Building and Construction Materials** - electrical wires and cables, and insulation materials, such as polystyrene and polyurethane insulation foams
- **Transportation Products** - seats, seat covers and fillings, bumpers, overhead compartments, and other parts of automobiles, airplanes, and trains.

Studies cited by the company note that over 60% of fire-retardant plastic formulations are based on halogen-containing additives. The EPA has noted undesirable side effects of these materials, such as persistence in the environment and bio-accumulation in animal and human tissues. Additionally, when fires or incinerations occur, a substance with halogen may contribute to the formation of highly toxic substances. As a result, global government and regulatory agencies have pushed for the elimination of halogen-containing fire retardants.

For example, in Europe the Eco-Design regulation banned the whole class of halogenated flame retardants from enclosures and stands of TVs and monitors. According to company management, this was the first action of its type to affect a whole class of a chemical family. In 2022, that decision was confirmed in a European court. Similarly, the state of New York signed into law what appears to

be very similar legislation at the end of 2021, which we believe will have an impact that reaches far beyond the state of New York.

Also, according to company management, later in 2022, the European Union will deliberate on the confirmation of a Category 1B Carcinogen label on the largest brominated flame retardant TBBPA. A confirmation would result in TBBPA becoming a “Substance of Very High Concern” which would mean that many uses would effectively be phased out, a process that original equipment manufacturers are already initiating. Canada will confirm or modify, in the same time-frame, restrictions on the largest non-reactive brominated flame retardant “Deca Ethane”, and the US National Toxicology Program from the National Health Institute will issue its report on the carcinogenic potential of the largest chlorinated flame retardant.

Additionally, The Washington State Department of Ecology recently released its final report as part of the 2019 Safer Products for Washington law. This report put into place what the non-profit Toxic-Free Future calls “the most significant restriction of toxic chemicals in products ever by a state.” The report starts the process of making the rules, which will be adopted by June 2023 and go into effect as soon as one year following, that will restrict organohalogen flame retardants in foam mats and casings for electronics such as televisions. The state notes it will also pursue restrictions on organohalogen flame retardants and certain organophosphate flame retardants in recreational foam products such as covered floor mats, foam pits, covered flooring, and outdoor recreational products.

We don’t believe it’s going too far out on a limb to suggest that these governmental steps are merely the tip of the iceberg. As consumers become more aware of the potential dangers existing flame retardants contain, and news of the new restrictions circulates and gets more coverage, more restrictions seem quite likely to be coming and the company that can meet the new requirements of still being a flame retardant and being safe for people to be around in the long term stands to benefit greatly.

The Solution

FRX has been developing such a solution for over a decade and is now positioned, in our view, to benefit from this growing wave. As an example, FRX notes that it was the first company to supply non-halogenated, non-migrating, fire retardant materials of low concern to human health and the environment commercially under the brand name Nofia. Nofia is based on chemistry that allows the polymerization of a phosphonate monomer into unique oligomeric and polymeric brominated fire retardants, which have “clear advantages” such as:

- Halogen free
- Does not migrate from the host plastic
- Does not bioaccumulate
- Supplied as pellets (no liquid handling or dust formation)
- Improves properties other than flame retardancy.

As mentioned, Nofia is a registered trademark of FRX. Nofia products are manufactured at its manufacturing facility on the Port of Antwerp in Belgium, one of the world's largest chemical producing clusters. The FRX production plant in Antwerp was constructed in 2013 with completion in 2014. It is highly efficient and requires only two technical operators per shift. It operates to the highest quality standards and is ISO 9001 certified. Nofia Polyphosphonates are produced using sustainable green chemistry principles such as a solvent-free production process, no waste byproducts, and near 100% atom efficiency. FRX's portfolio includes an extensive patent estate with

64 patent applications globally as of March 31, 2022. Per company management, Nofia flame retardants are independently assessed by the following organizations to have the best sustainability ratings of any similar product: GreenScreen, Benchmark 3, ChemFORWARD SAFER Class B, TCO listing, ChemSec Marketplace Alternative as an Oeko-Tex for textile applications—an impressive list that helps confirm that Nofia is safe for humans to be around.

The nature of the fire-retardant industry means that oftentimes users of a retardant are not anxious to share the details of that use, thus making it difficult to get comments on the product from companies that are willing to go on the record. However, Polymer Compounders Limited (PCL), the largest independent engineering thermoplastic compounder in the UK, is an exception, and the below selection from a letter of support from the company is a good sample of what companies are saying about Nofia:

“Nofia is clearly recognized in the market as being one of the most sustainable flame-retardant additives available. FRX’s products have achieved benchmark 3 in the important Green Screen rating system, which is the top rating for non-biodegradable products. This is the main reason why we were attracted to FRX at the start of our development but later we also realized that Nofia offered important secondary properties that have become as important to PCL as is its primary property of sustainable flame retardancy and permanence. We have found that we can match all the key performance criteria, such as heat performance, impact strength and exceptional flame retardancy of competitive formulations in our Nofia based formulations. We can even offer superior performance in terms of lower density and better processability. Simply put we believe that Polymer Compounders has developed the best FR Polycarbonate/ABS alloy in the world and due to these important secondary properties coupled with the sustainability of FRX’s technology, we believe that FRX will become a long-term supplier to our company.”

PCL goes on to say that one of the uses for Nofia is for a customer who indicated they would like to convert their entire line of halogen containing products to Nofia-based products, seeing no other suitable alternatives on the market. PCL notes that “This one customer alone has the potential create exponential growth for both Polymer Compounders and FRX.” A ringing endorsement by an important market participant and one that we agree with.

Nofia flame retardants are the only commercially available polymeric non-halogen flame retardants suitable for all of its applications that we’ve been able to find. There are three types of Nofia flame retardants:

- Homopolymers – The company’s standard products for use in most applications, notably polyesters. The homopolymers have an exceptionally high limiting oxygen index of 65%, which makes it particularly well suited to be used as flame retardant additives. Nofia homopolymers are transparent, high flowing polymers with a glass transition temperature of about 90-105°C. The different grades have different molecular weights.
 - Products
 - Nofia HM1100
 - Nofia HM5000
 - Nofia HM7000
 - Nofia HM9000
- Copolymers - especially developed for use with polycarbonate and its blends (the most important being plastics for everyday electronics). The copolymers are polyphosphonate-co-carbonates. A range of compositions can be produced from high to low phosphonate content. The copolymers have good impact resistance and glass transition temperatures while maintaining high melt flow and a high limiting oxygen index.
 - Products

- Nofia CO3000
- Nofia CO6000
- Oligomers - which are used in polyurethane, printed circuit boards and as dispersions in coatings. Oligomers are low molecular weight, reactive flame-retardant additives. The oligomers are phosphorus-based additives with phenolic end groups suitable for flame retarding thermoset resins, such as unsaturated polyesters, epoxy, polyurethane and polyurea. They are transparent and highly soluble in the typical solvents used in thermoset resin processing.
 - Products
 - Nofia OL1001
 - Nofia OL3001

These products are developed for various types of products as follows:

Fibers

- Home textiles—FRX product-Nofia HM 1100
 - Applications
 - Drapes
 - Decorative fabrics
 - Vertical Blinds
 - Roller Blinds
 - Sliding Panels
 - Wall Coverings
- Industrial Textiles—FRX product-Nofia HM 1100
 - Applications
 - High tenacity fiber (cords, hoses, belts, rope, cordage)
 - Automotive (head liners, interior lining, upholstery, convertible tops)
 - Non-woven
 - Other industrial (braiding, brushes, sewing thread, substrate fabric)
- Synthetic Hair—FRX product-Nofia HM 1100
 - Applications
 - Full wigs
 - Hair extensions/weaves
 - Hair pieces

Electrical and Electronics

- Copper clad laminates—FRX product-Nofia OL3001
 - Applications
 - High Density Interconnect
 - High speed server, data storage and other network equipment
 - Mobile devices
 - Potential 5G device solution
- Connector and Electronic Housing—FRX products-Nofia CO3000, CO6000, HM1100, HM7000, HM9000
 - Applications
 - Electronic Connectors
 - Electronic Housing
- Wire and Cable-FRX Product-Nofia CO6000, HM5000, HM7000.
 - Applications
 - Thermoplastic Polyurethane (TPU)
 - Polyester Elastomers (TPE)

- Insulation Film-FRX Product-Nofia HM1100, HM 7000, HM9000
 - Applications
 - Wire and Cable Wrap
 - Capacitor
 - Battery label
 - Flexible print circuits
- Lighting Diffusers- FRX Product-Nofia HM1100, HM9000
 - Applications
 - Lighting Diffuser

Transportation

- Molded Foam-FRX Product-Nofia OL1001
 - Applications
 - Engine cover
 - Battery seal
 - Automotive acoustic and isolation pads for motor and exhaust systems
- Thermofoldable Sheet- FRX Product-Nofia HM1100, HM7000, HM9000, CO3000, CO6000
 - Applications
 - Railway interior
 - Aviation interior
 - Bus interior
- Composite Sheet- FRX Product-Nofia HM5000
 - Applications
 - Railway interior
 - Aviation interior
 - Bus interior

Building and Construction

- Protective Coating- FRX Product-Nofia OL1001, OL3001
 - Applications
 - Intumescent coating for Cellulosic Fire Protection
 - Intumescent coating for Hydrocarbon passive Fire Protection
- Structural Foam- FRX Product-Nofia HM1100, HM7000, HM9000
 - Applications
 - Housings
 - Sheets
 - Fibers
 - Lighting
- Films, Sheets and Molding-FRX Product-Nofia HM1100, HM5000, HM7000, HM9000, CO3000, CO6000
 - Applications
 - Thin wall moldings
 - Sight glasses
 - Window systems

The Market

FRX management calculates that \$4.0 billion of the potential market are halogenated flame retardants together with their synergist agents which have long been the target of Green NGO's and government regulation. Of that amount, the company estimates that approximately \$1.5 billion may be suitable for applications utilizing FRX's Nofia flame retardants. FRX management estimates that the company could be successful in achieving a 4% - 6% penetration in this market by 2025 (\$60-90 million).

The company pointed to several different areas where they see future growth for FRX through the expanded use of Nofia. The highlights of those areas are as follows (market opportunity amounts are from FRX projections):

Core applications for Nofia

	FIBERS	FILMS	FOAMS	ELECTRONICS
Addressable Market (US\$) ¹	US\$150MM	US\$ 500MM	US\$ 700MM	US\$ 1.2B
Select Applications				
Existing Customers	<ul style="list-style-type: none"> World's largest PET fiber producer 	<ul style="list-style-type: none"> Leading global film producers 	<ul style="list-style-type: none"> Several world leading urethane foam producers 	<ul style="list-style-type: none"> World's top 2 Copper Clad Laminate producers
Value Proposition	<ul style="list-style-type: none"> Processability 35% productivity gain High Strength Recycle feedstock 	<ul style="list-style-type: none"> Processability Fire retardant and transparency High strength 	<ul style="list-style-type: none"> Automotive interior foam Low volatiles Low odor 	<ul style="list-style-type: none"> Faster download speeds Low cost Improved reliability

1. From Nexant Report 2018, www.frx-innovations.com

- Textiles - \$150 million market opportunity
 - According to the company, the largest concentration of existing customers of FRX Polymers manufacture inherently flame-retardant polyester.
 - Those customers include three of the world's top seven polyester producers.
 - One of these produces post-consumer recycled polyester fibers.
 - Another customer, along with its customers, launched harder wearing fabrics suitable for applications such as furniture.
 - These products commercialized in 2021 and are wholly dependent on FRX technology.
 - One customer is a major supplier of non-halogenated synthetic hair for wigs that is expected to gain share as a result of pressure to remove halogens from articles which are frequently touched.

- Foams and Films - \$120 million market opportunity
 - FRX has partnered with two global leaders of polyester films and polyester foams.
 - The flame-retardant polyester foam market is expected to grow as products in transportation applications replace older technology based on halogenated flame retardants.
 - Potential new applications for flame retardant polyester film include use in newer designs of lithium-ion batteries.
 - A global leader in polyurethane chemicals worked with Nofia flame retardants in 2021 and has completed lab approval for use in “Under hood” foams in China.
 - According to FRX, details of that commercialization are being worked out now.
 - Separately, work done in 2021 led to the May 2022 first use of Nofia flame retardants for interior foam applications for a well-known global luxury brand vehicle, produced in China.

- Coatings - \$50 million market opportunity
 - FRX’s channel partner in this segment, a global leader in waterborne polyurethane dispersions (PUDs), is developing new flame retarded products based on Nofia technology, according to the company.
 - FRX also reports one of the world’s largest producers of flame-retardant dispersions for both textile coatings and adhesive is developing dispersion products containing Nofia flame retardants to supply textile and adhesives end users.
 - One of the key benefits of Nofia flame retardants is that they can be used as part of a transparent coating. According to company management, this is currently unique in the industry as no other flame retardant offers transparency and flame retardancy simultaneously.
 - Halogenated flame retardants used in textile coatings are under threat per company management.
 - One such example is the British furniture standard where NGOs and large retailers would like to move to halogen free furniture. The most vulnerable halogenated flame-retardant applications use approximately \$50 million of flame-retardant products per year according to FRX estimates.

In addressing these areas of the market, FRX has a global reach through its own distribution and its partners:

FRX Innovations, Subsidiaries & Partner Locations

Established Platform for Accelerated Market Penetration in a Variety of Markets



<https://www.frx-innovations.com/> -- September 1, 2022

The company is already making advances in markets around the world as the company recently announced it was beginning to ship its Nofia product to a leading German luxury automobile manufacturer, for use in passenger cabins. The company notes that this launch follows a process that was developed where Nofia is formulated and converted into polyurethane foams by an FRX partner, Xianzhong, which is a leading Chinese polyurethane foam manufacturer.

The Company

As we've shown, FRX Innovations is one of the world's foremost manufacturers of fire retardant that is sustainable and absent the potential serious detrimental health effects of traditional fire retardants. And as we've seen above, unlike many companies that are at the start of a potential explosion in demand, FRX is already in the market around the world and receiving rave reviews from major customers. In a market such as the one for fire retardants, it is our experience that word of mouth can be some of the most beneficial "marketing" that a company can have, and it appears to us that the "buzz" surrounding FRX is growing, providing investors with a slightly higher risk tolerance a chance to invest just before FRX stock may really begin to move as revenues and profits start to accelerate.

As described, the company has global operations, and, in fact, has substantial interest in China, due to the size of the market and due to the strict standards for fire retardant that Chinese manufacturers of certain products adhere to. Due to this exposure, however, 1Q2022 revenue dipped from the year-earlier quarter due largely to a slowdown in Chinese orders, with the country shutting down areas of the economy due to COVID outbreaks. The company also experienced what we're seeing all over

the world—rising costs due to a variety of issues that we believe are largely outside of the company's control, resulting in lower overall margins. We believe this is a temporary measure and, in fact, will start to reverse as demand increases and FRX manages its costs more efficiently—resulting in higher margins and profitability in the not-too-distant future.

According to our discussions with management, the company is able to expand production without adding to capacity or labor to any great degree, while the management has also laid out how they can add to production once FRX revenue approaches the \$35 million mark, at which point company management believes the existing system would begin to be stretched. At this point, it appears that the company can expand production fairly easily, giving the company a long runway before any sort of production crunch would impact operations. Given the demand increase that we see, given the new regulations that are coming down from governmental agencies as well as other market factors, we believe the ability to meet that demand will be critical for the company to achieve profitability. The cash balance was down a bit from the same quarter a year ago but the company has proven repeatedly the ability to raise fund as needed—although it appears to us the need to take such action will be short lived as revenue reaches the point of profitability and the company is able to self fund for the most part.

The news flow has been quite positive for FRX, with new orders coming in and customers raving about the Nofia product and we have no reason to believe this positive movement won't continue. Company management appears to be focused on growing revenues and controlling costs—exactly what we want to see. Management indicated that the company's sales force was going to be expanding as the company seeks to get its very important message out. With all of this potential positive movement, we believe FRX stock is at an attractive option for investors looking for growth and has a modestly higher risk tolerance, which is always required when looking at companies at the lower end of the market capitalization spectrum.

Valuation

Our belief that FRXI.V is a potentially attractive investment opportunity comes from our valuation work on the company. Our initial valuation, using what we believe are fairly conservative future estimates, yields a valuation of \$1.20. As mentioned and outlined above, we are of the opinion that the sustainable fire-retardant market is on the verge of exploding and that, from our research, FRX stands to be at the front of the line in that increasing demand. For valuation purposes, we assume revenues grow at a 50% rate for the next three years, then decelerate to 25% annually for five years, before settling at a longer-term growth rate of 15%. On the margin front, we are conservatively estimating that margins, through scaling the business as well as better supply chain management following the COVID-induced issues, will improve from 30% to 40% gradually over the next five years and level off there, while administrative and marketing expenses will grow at a 5% annual clip.

These assumptions result in FRX Innovations achieving profitability in 2028 and remaining profitable thereafter. We use a higher discount rate of 15% due to the risks associated with smaller companies, but, in contrast to many other cases in which we apply a higher discount rate, the market demand for the Nofia product does not warrant a higher discount rate in our view due to the confidence we have that the increase in demand will come to fruition. After all of these assumptions, we arrive at a valuation for FRXIF of \$1.20, which is a nice premium to the recently traded price of around \$0.50 per share, leading us to believe that FRXIF has the potential to be an attractive investment prospect for those with a higher risk tolerance.

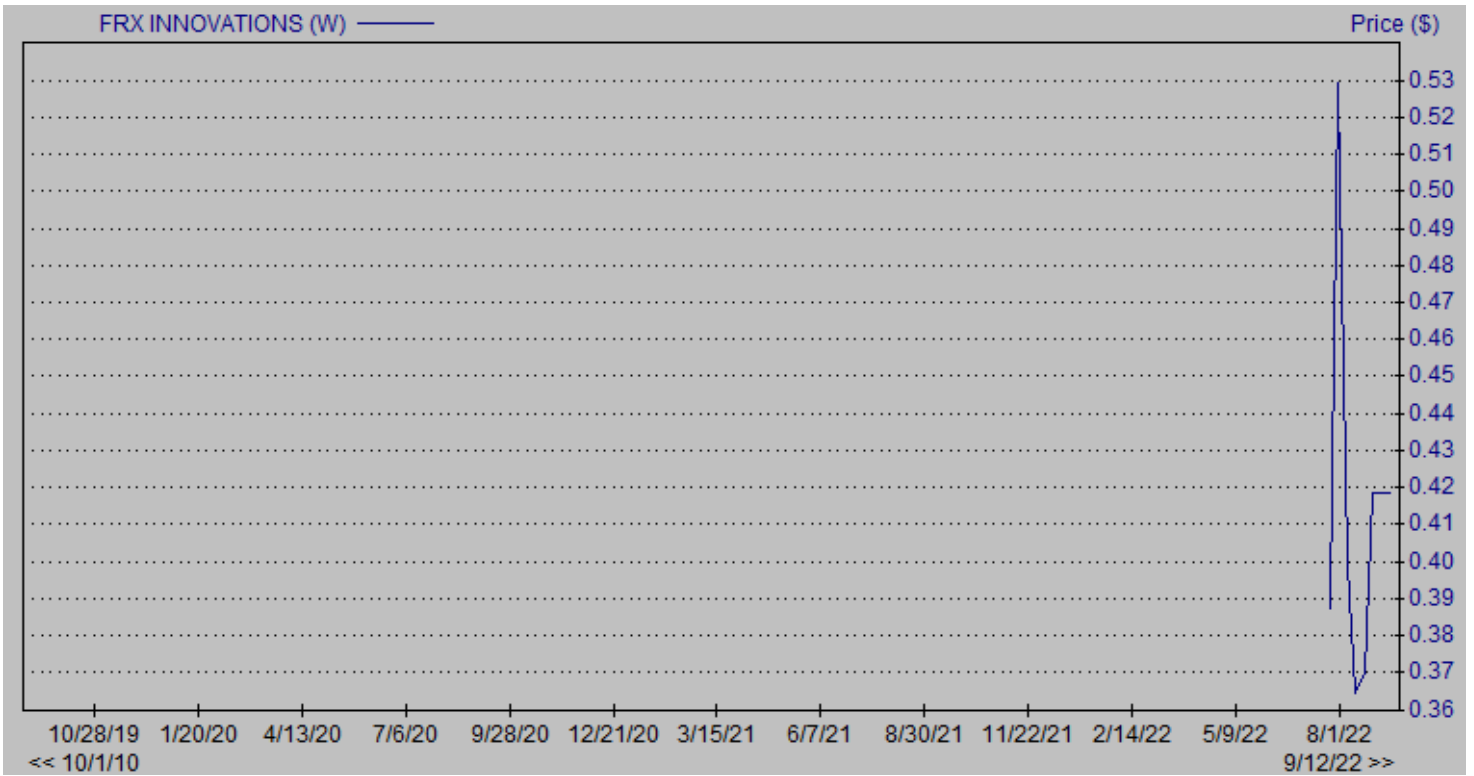
Risks

- Government regulations on fire retardant could go against FRX.
- Funding for the company could become scarce or exceedingly expensive.
- Competitors could develop a more compelling product.
- The leadership team could leave.
- Supply disruption could dampen sale expansion plans.

PROJECTED INCOME STATEMENT & BALANCE SHEET

FRX Innovations Income Statement and Balance Sheet							
	1Q2022A	2Q2022A	2022E	2023E	2024E	2025E	
Revenue	1,100,132	1,305,790	6,528,950	9,793,425	14,690,138	22,035,206	
Cost of Goods Sold	1,596,927	1,799,344	7,834,740	7,834,740	9,548,589	13,221,124	
Gross Margin	(496,795)	(493,554)	(1,305,790)	1,958,685	5,141,548	8,814,083	
Operating Expenses							
Administrative	1,121,345	1,055,333	3,165,999	3,324,299	3,490,514	3,665,040	
Sales and Mktg	156,495	132,914	398,742	418,679	439,613	461,594	
Research	143,745	161,274	483,822	508,013	533,414	560,084	
Total Operating Expenses	1,421,585	1,349,521	4,048,563	4,250,991	4,463,541	4,686,718	
Operating Gain/(Loss)	(1,918,380)	(1,843,075)	(5,354,353)	(2,292,306)	678,007	4,127,365	
Other Income/(Expenses)							
Interest Expense	(658,971)	(301,942)	(1,207,768)	(1,147,380)	(1,090,011)	(1,035,510)	
Other Income/(Expense)	(2,067,164)	(42,939)	(128,817)	(115,935)	(104,342)	(93,908)	
Total Other Income/(Expense)	(2,726,135)	(344,881)	(1,336,585)	(1,263,315)	(1,194,352)	(1,129,418)	
Total Gain/(Loss)	(4,644,515)	(2,187,956)	(6,690,938)	(3,555,621)	(516,345)	2,997,947	
Total Gain/(Loss) per share	\$ (0.17)	\$ (0.04)	\$ (0.12)	\$ (0.06)	\$ (0.01)	\$ 0.05	
Wtd avg num. of shares outstanding	27,878,063	53,654,032	54,727,113	57,463,468	60,336,642	63,353,474	
Assets							
Current Assets							
Cash and equivalents	353,474	1,795,770	1,093,474	1,148,148	1,205,555	1,265,833	
Net receivables	1,591,855	1,588,138	1,672,443	1,756,065	1,843,868	1,936,062	
Net inventories	2,507,524	2,389,303	2,634,467	2,766,190	2,904,500	3,049,725	
Other current assets	4,606,685	447,367	4,839,898	5,081,893	5,335,988	5,602,787	
Total Current Assets	9,059,538	6,220,578	10,240,282	10,752,296	11,289,911	11,854,406	
Non-Current Assets							
Plant and Equipment	18,579,938	17,301,626	18,579,938	18,208,339	17,844,172	17,487,289	
Right-of-use assets	490,717	458,558	490,717	500,531	510,542	520,753	
Intangible assets	385,728	384,624	385,728	393,443	401,311	409,338	
Patents	403,876	391,376	403,876	411,954	420,193	428,596	
Other non-current assets	1,564,928	-	1,564,928	1,596,227	1,628,151	1,660,714	
Total Non-Current Assets	21,425,187	18,536,184	21,425,187	21,110,493	20,804,370	20,506,690	
Total Assets	30,484,725	24,756,762	31,665,469	31,862,789	32,094,280	32,361,096	
Current Liabilities							
Accounts Payable	3,789,560	3,040,062	3,981,407	4,061,034	4,142,256	4,225,102	
Accrued Expenses	1,066,689	903,203	1,120,690	1,143,104	1,165,966	1,189,285	
Other current liabilities	6,480,818	1,567,890	6,808,909	6,945,087	7,083,989	7,225,669	
Total Current Liabilities	11,337,067	5,511,155	11,911,006	12,149,225	12,392,211	12,640,056	
Long-term Liabilities							
Note and conv. note	21,079,054	10,939,995	11,079,054	11,633,007	12,214,657	12,825,390	
Common stock warrants	5,385,571	2,063,459	2,385,571	2,266,292	2,152,978	2,045,329	
Conv. Debenture	4,519,697	-	5,259,697	5,522,682	5,798,816	6,088,757	
Lease liability	460,163	441,320	437,155	459,013	481,963	506,062	
Total Long-Term Liab.	31,444,485	13,444,774	19,161,477	19,880,994	20,648,414	21,465,537	
Total Liabilities	42,781,552	18,955,929	31,072,483	32,030,219	33,040,625	34,105,593	
Stockholders Equity/(Deficit)							
Common stock	27,878	48,363	27,878	28,157	28,438	28,723	
Additional Paid-in Capital	25,180,302	47,153,058	43,249,302	43,681,795	44,118,613	44,559,799	
Accumulated Deficit	(36,494,696)	(41,033,924)	(41,789,883)	(42,956,241)	(44,144,622)	(45,355,781)	
Other	(1,010,311)	(366,664)	(894,311)	(921,140)	(948,775)	(977,238)	
Total Stockholders Equity/(Deficit)	(12,296,827)	5,800,833	592,986	(167,430)	(946,345)	(1,744,497)	
Total Liabilities and Shareholder Equity	30,484,725	24,756,762	31,665,469	31,862,789	32,094,280	32,361,096	

HISTORICAL STOCK PRICE



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