

### Action Summary – 8 July 2021

Analyst Theodore R. O'Neill is initiating coverage of KWESST Micro Systems Inc.

- We are initiating coverage of KWESST Micro Systems Inc. with a Buy rating and a US\$5 price target.
- KWESST is an advanced technology company that develops and markets products to create "intelligent tactical systems" and proprietary technology for applications in national defense and homeland security markets. Through acquisition, it is entering the law enforcement, private security, personal defense and highaction gaming markets.
- Multiple paths to growth. The company has a large portfolio of complimentary products and we believe any
  one of which could see solid revenue growth.
- **Defensible IP**. It has developed initial products incorporating features that are both patented and protected by trade-secrets and secures that with non-compete clauses in its employment contracts.
- **Growth through selective acquisitions.** The company has a history of successfully integrating acquisitions.
- Addressing a largely untapped market. With its new Low Energy Cartridge (LEC) Technology it can serve a new, largely untapped market for non-lethal weapons which, according to Researchandmarkets.com, is "...poised to reach over US\$10.3B by the year 2025."
- Attractive valuation. The shares appear to us inexpensive on an absolute and relative basis. Our US\$5 price target is based on the discounted value of all future earnings according to our estimates. Relative to peers, the shares appear inexpensive.

7/8 Closing pric	e: \$1.26	Ма	arket cap: \$53 millio	n	2022 P/E: N		2	022 EV / Sales: 3.9
Shares outstand	ding: 42.5 Ins million		sider ownership: 34%	% Avg	. tradi	ding volume: Dividend/Yield: NA/N 105,742		
GAAP estimates	(EPS in C	\$ – R	evenue in C\$ Mi	llions)		Cash bala	ance (C\$	Millions)
Period	EPS		Revenue	Op. Margin		• :	2020A	• 3.07
1Q20A	(0.03)		0.00	NMF		• :	2021E	• 0.54
2Q20A	(0.02)		0.50	NMF		•	2022E	• 0.72
3Q20A	(0.05)		0.81	NMF				
4Q20A	***		***	<u>NMF</u>				
FY20A	(0.12)		<u>0.86</u>	NME		Debt (\$ m	nillions)	
						• :	2020A	• 0.00
1Q21A	(0.04)		0.15	NMF		• :	2021E	• 0.00
2Q21E	(0.05)		0.45	NMF		• :	2022E	• 0.00
3Q21E	(0.04)		0.50	NMF				
4Q21E	(0.03)		<u>1.00</u>	<u>NMF</u>				
FY21E	<u>(0.14)</u>		<u>2.10</u>	<u>NME</u>		Adj. EBIT	DA (\$ mi	llions)
1Q22E	(0.04)		1.20	NMF		-	2020A	• (3.50)
2Q22E	(0.02)		2.50	NMF		-	2021E	• (5.69)
3Q22E	(0.00)		4.00	NMF		•	2022E	• (2.21)
4Q22E	0.01		<u>6.00</u>	NME				
FY22E	(0.05)		<u>13.70</u>	NME				
Note: Numbers may no report. *** Company co			0	el in the back of	this			

#### **Risks/Valuation**

- · Risks include: Highly competitive business; partially dependent on government spending; commercial development
- Our US\$5 target is derived using a discounted future earnings model

**Company description**: KWESST is an advanced technology company that develops and markets products to create intelligent tactical systems and proprietary technology for applications in national defense and homeland security markets.

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# **Investment Thesis**

#### We are initiating coverage of KWESST Micro Systems Inc. with a Buy rating and a \$5 price target.

KWESST is an advanced technology company that develops and markets products to create "intelligent tactical systems" and proprietary technology for applications in national defense and homeland security markets. Through acquisition, it is entering the law enforcement, private security, personal defense and high-action gaming markets.

**Multiple paths to growth.** The company has a large portfolio of complimentary products and we believe any one of which could see solid revenue growth.

**Defensible IP**. It has developed initial products incorporating features that are both patented and protected by trade-secrets and secures that with non-compete clauses in its employment contracts.

Growth through selective acquisitions. The company has a history of successfully integrating acquisitions.

Addressing a largely untapped market. With its new Low Energy Cartridge (LEC) Technology it can serve new, largely untapped market. According to ResearchandMarkets.com, the non-lethal weapons market is "...poised to reach over US\$10.3B by the year 2025." We believe that both gun-owners and non-gun owners will have an interest in having something non-lethal to protect themselves.

We believe there is a lot of pressure on law enforcement to adopt more and better non-lethal products. While 100% of law enforcement in the U.S. carries a lethal weapon and few carry a non-lethal weapon, the opposite is true in most of the rest of the world.

**Attractive valuation.** The shares appear to us inexpensive on an absolute and relative basis. Our \$5 price target is based on the discounted value of all future earnings according to our estimates. Relative to peers, the shares appear inexpensive.





#### Figure 1 – KWESST Micro Systems Inc. – One-year trading snapshot

Source: FactSet

# Valuation Methodology

We believe KWEMF/KWE is undervalued and we support that belief with two valuation techniques, both of which suggest the shares are undervalued at the current price. For the purposes of determining our price target we use a discounted future earnings model. For the purpose of confirming our price target we look at comparable company valuations:

- 1) The discounted value of all future earnings was used for our price target (see Figure 2)
- 2) Valuation relative to peers (see Figure 3)

# Discounted Future Earnings – Basis for Price Target

Our 12-month price target of US\$5.00 is based on a discounted future earnings model (Figure 2). For the purposes of deriving an earnings-based price target, we assume the company reaches breakeven in F4Q22 and continues to grow into the future. The model sums up all earnings per share, discounted at 12% to arrive at a per share valuation. Note, this model understates future novel product developments, probably understates the tax benefits, but offsetting that, the earnings never have a down year. The implied share price is C\$6.06 which convert to US\$4.83, which we round up to US\$5.00.



Discountee	d Earnings: C	\$6.06
		Discounted
Year	EPS	EPS
2021	(0.14)	(0.14)
2022	(0.05)	(0.04)
2023	0.10	0.08
2024	0.25	0.18
2025	0.35	0.22
2026	0.50	0.28
2027	0.70	0.35
2028	0.91	0.41
2029	0.94	0.38
2030	0.97	0.35
	3.98	

Figure 2 – KWESST Micro Systems Inc. – Implied Price Target Calculation

Source: Litchfield Hills Research LLC

### Valuation Relative to Peers

If we compare KWEMF/KWE to a simple average of its peers (Figure 3), the shares sell at a discount on both sales metrics. These metrics indicate the stock price should be higher than where it is today. This supports our \$5 price target. Details on each of the peers can be found in Figure 15 near the back of the report. The companies we used in Figure 15 are in similar lines of business although none of them are a perfect match.

### Figure 3 – KWESST Micro Systems Inc. – Summary Discount to Peers

	2022 Sales Multiple	2022 EV / Sales
Peers	4.44	4.23
RELA	3.90	3.88
Discount to Peers	12%	8%

Source: Litchfield Hills Research LLC and Refinitiv Eikon

### **Notes on our Financial Forecasts**

A significant portion of the Company's revenue for fiscal 2020 were prior to commercial production and considered to be nonrecurring. While the establishment of the Android Team Awareness Kit (ATAK) Center of Excellence is expected to drive incremental recurring revenue in Fiscal 2021, the Company anticipates the majority of its revenue will be non-recurring. The Company's ability to generate future revenue from its products will depend on customer acceptance of its final product development and market conditions.

Also in 2021, the company moved from a December ending year to a September ending year. The short public history and the lack of recurring revenue makes it difficult to look back at past results as a guide for estimating future results. We make the assumption the company reaches breakeven (BE) in F4Q22 and that it needs \$6MM in revenue to achieve breakeven. Making a prediction on which quarter will be the one where the business reaches BE is successful less than 20% of the time, in our experience. For KWESST, reaching break even may require both significantly higher sales, lower expenses as a percent of



sales or some combination. That being said, a delay in getting to that point would not necessarily impact our price target as it is calculated as the sum of all future earnings. As for assumptions in the model, we are following managements comments in regards to when commercial products become available (Figure 13). We also assume the Company will raise capital in FY21 and FY22.

On the expense front, the company follows a Canadian practice of providing more detail than is seen in U.S. filings. Financial forecasts always contain an element of uncertainty and it is no different here, but we expect that over time, the estimates will get increasingly accurate.

# **Company Background**

### Summary

KWESST is an advanced technology company that develops and markets products to create "intelligent tactical systems" and proprietary technology for applications in national defense and homeland security markets. Through acquisition, it is entering the law enforcement, personal defense and high-action gaming markets.

Based in Canada, it went public Sept. 2020 through a Capital Pool Company (CPC). A CPC is essentially a Special Purpose Acquisition Company under the Policies of the TSX Venture Exchange. Its head office is located in Vancouver, British Columbia its principal place of business is in Ontario.

On January 28, 2021, the Company incorporated a wholly-owned subsidiary in Delaware and established an office in Stafford, Virginia to better position the Company to pursue U.S. military business opportunities.

Also in January 2021, it announced it had entered into a technology purchase agreement with private, Ottawa based DEFSEC Corporation ("DEFSEC") to acquire a proprietary non-lethal munitions technology system referred to as the Low Energy Cartridge (LEC) Technology. The LEC Technology is a proprietary non-lethal cartridge-based ordnance system. Through this acquisition it enters the law enforcement, private security, personal defense and high-action gaming markets.

### Strategy

The company is executing on a strategy that involves organic and inorganic growth while focusing on extending technology leadership. KWEMF/KWE growth strategies include:

- Continue to Innovate and Extend Technology Leadership. It has developed initial products incorporating features that are both patented and protected by trade-secrets and secures that with non-compete clauses in its employment contracts. It has the scientific and specialized defense industry knowledge to continue to pursue new products and markets
- Grow the customer base and geographic markets. It plans to promote growth by expanding its sales network through both direct and indirect channels.
- Grow revenues and market share through selective acquisitions that will enhance earnings and offer complementary products and services or expand its geographic and industry reach. We believe that increased scale will improve operating margins.



# **Detailed Background**

# Defense and Homeland Security

### Micro Integrated Sensor Software Technology (or MISST)

MISST is the principal enabler of its product offerings and supports its work in developing a suite of products including the networked soldier systems of NATO and its allies (Figure 4). It is a proprietary technology of integration of miniaturized sensors, optics, ballistics and software that provides an advancement in affordable smart systems and mission capability. Current applications and offerings enable: (i) real- time networked situational awareness for soldiers and their weapons systems, (ii) smart management of ordnance systems, and (iii) solutions for countering drone attacks and countermeasures against weaponized lasers.



Source: Company image

# Tactical Awareness and Situational Control System (TASCS) Networked Observation and Reconnaissance System (or TASCS NORS)

The TASCS is the Company's core technology and consists of a sensor package mounted to a soldier weapon and a display running a user interface program typically known as Battlefield Management Systems (BMS) (Figure 5). The TASCS equips sniper weapons and spotters' stations with sensor packages that allow them to be accurately



located on the battlefield. TASCS NORS is equipped with cameras that allow viewing through the snipers' sight or the spotters' scope on the display device provided. The systems are networked through the user's communication network to allow the sharing of target information and imagery. Target information can be shared between the sniper and the spotter, and to all TASCS equipped systems in the network. With the TASCS system, target information can readily be passed, including a picture of the target, helping reduce incidents of friendly fire and collateral damage.

Figure 5 – KWESST Micro Systems Inc. – TASCS Networked Display



Source: Company image

### TASCS Integrated Fires Modules System (or TASCS IFM)

The TASCS Integrated Fires Modules Systems (or TASCS IFM) equips existing weapons systems with a sensor pack, which is similar to the TASCS Sniper, that accurately locates the weapon on the battlefield and provides a high-resolution bearing line indicating the direction in which the weapon is pointed (Figure 6). When connected to a display, and combined with the Company's ballistic algorithm, this enables the user to engage targets utilizing a map location only, without any requirement to see the target. When networked across to the TASCS system, targeting information can be received from and on any source of the network, and once a weapon is activated in the integrated fires modules systems mode, the impact point of the ammunition is displayed on all systems, giving friendly forces the ability to know if they are inadvertently being targeted and to take appropriate action. It also enables all networked systems to see where potential targets are and who is engaging them. The TASCS IFM is utilized primarily on systems that ordinarily require the user to have direct line of sight to the target, leaving them exposed. With TASCS IFM, they can engage from positions of cover and at longer distances, improving safety and survivability of the user.



### Figure 6 – KWESST Micro Systems Inc. – TASCS IFM



Source: Company image

### Shot Counter

The Shot Counter is a product developed by the Company, largely based on the same sensor technology as the TASCS, and which can be incorporated into a firearm in order to count the number of rounds fired by the weapon. It is a small device that fits inside the pistol grip of most weapons, and functions with no user input for up to ten years on a single battery. Information is gathered by near-field communication devices either in the armory or on a portable device. Near-field communication is a short-range wireless connectivity standard that uses magnetic field induction to enable communication between devices. In the current military and police force markets, systems that allow tracking of the number of shots fired and what type of ammunition has been fired by small firearms are uncommon. Furthermore, most OEMs weapons manufacturers provide a repair schedule based on the number of rounds fired, but because users have no way to track this information, users tend to resort to mass upgrade programs which increase their costs substantially. The Shot Counter will track the number and types of ammunition fired. It can also track and recommend scheduled maintenance for the individual weapons system. This should result in significant cost reduction for the user and ensure inventory readiness is at the highest level. In the future, the Shot Counter capability could be expanded to establish predictive maintenance. Commercial product development is currently on hold as the company focuses its resources on other near-term opportunities.

# KWESST Laser Warning System (or KWESST LWS)

Most military vehicles and aircrafts are equipped with a laser-warning system that provides an alert to the user when a laser is detected. The KWESST LWS is an internally developed miniaturized version of these warning systems about the size of a small cellphone and can be mounted on clothing or an individual weapon and provides individuals with an audible and sensory notification when the sensor detects laser radiation in a specific wavelength, allowing the user to take appropriate defensive action (Figure 7).



Figure 7 – KWESST Micro Systems Inc. – KWESST LWS



Source: Company image

### KWESST Laser Detector System (or KWESST LD)

The KWESST LD is an internally developed lightweight tripod or light vehicle mounted system that provides either a 180 degree or 360 degrees scanning detection of laser activity. The detector provides an accurate bearing line to the laser source. When networked through a TASCS IFM-equipped weapon system, it creates the possibility for a rapid response to the laser weapon threat (Figure 8).

Figure 8 – KWESST Micro Systems Inc. – KWESST LD



Source: Company Image

### Phantom

The Phantom is a compact, lightweight and selectively expandable electromagnetic transmitter capable of mimicking the electromagnetic footprint of a small tactical military unit and acquired from SageGuild on June 12, 2020. It is an electromagnetic decoy that is simple to operate, contains advanced "system on chip" technology, is man-portable and entirely programmable. Deflects, masks friendly force Electro Magnetic (EM) signature with numerous false phantom signatures (Figure 9). It spoofs adversaries to draw them out, slow their targeting of



friendly forces, and commit and waste assets on phantom targets. It has authentic emulation of voice, video, data and text signatures of NATO forces.

Figure 9 – KWESST Micro Systems Inc. – Phantom



Source: Company image

### GreyGhost Counter Drone System

A concern for deployed military and many police forces is the proliferation of small drones and the potential hazards they pose to troops and the public at large. Current methods to tackle this concern include utilizing electronic counter-measures known as jammers which attempt to disrupt radio-frequencies between the drone and the operator of the drone. Those jammers are only effective against drones that are GPS or radio-controlled. Other systems, such as net capture, have a short range and can only deal with one target at a time. Other kinetic (i.e., motion-related) systems rely on radar guidance and weapons or missiles, the cost of which can be high. The Company's licensed GreyGhost technology provides a kinetic interceptor which can use multiple methods to engage target drones. With a range in excess of three kilometers, in fully autonomous mode, the GreyGhost utilizes optical recognition to "lock" on to a target. It can also operate with TASCS systems. Once in attack mode, the GreyGhost will track and repeatedly impact the target drone until it is destroyed. One GreyGhost control station can currently operate three GreyGhost units at a time, allowing the capability to deal with multiple targets (Figure 10).



Figure 10 – KWESST Micro Systems Inc. – GreyGhost Counter Drone System



Source: Company image

# Military, law Enforcement, personal defense and high-action gaming

### LEC Technology

The LEC Technology is a proprietary non-lethal cartridge-based ordnance system (Figure 11) developed by DEFSEC, a private, Ottawa-based private company.

The LEC is a proprietary system consisting of:

- Inexpensive firing platforms in any design that fire only the LEC.
- A proprietary cartridge casing that generates spin to a projectile.
- Soft, frangible **projectiles** that mate to the interior cartridge casing.
- Different payloads in the projectile for various applications.
- Velocities and muzzle energy far below the "lethal" threshold.

We believe the LEC Technology has universal application across four market segments that currently use a variety of dated "non-lethal" or "less-lethal" products, each having a vast global market. These segments are (i) public order (riots and control of dangerous subjects), (ii) military and law enforcement training (realistic force-on-force training), (iii) personal defense (home, car, boat, RV, camping, hiking), and (iv) high-action gaming.



Figure 11 – KWESST Micro Systems Inc. – Non-lethal self-protection system LEC Technology



Source: Company image

### Services

In addition to the above principal products, on March 30, 2021, the Company announced the establishment of an Android Team Awareness Kit (ATAK) Centre of Excellence in Ottawa, Canada. This center will facilitate customer requirements for integration into the U.S. battlefield management. It is a natural extension of the Company's core business around digitizing applications "at the tactical edge" for shared situational awareness and targeting.

### **Principal Markets**

The Company markets primarily to military and law enforcement in countries that are members of NATO, as well as Australia and New Zealand. As the largest purchaser and user of military and law enforcement products, the U.S. is the Company's primary focus, followed by the rest of NATO, and to a lesser extent, the Middle and Far East.

An important trend in the market is to meet the stated objectives of military and law enforcement agencies throughout the Company's market territory, and to provide these agencies with economic and effective means to reach these objectives. Through utilization of TASCS technology, the company believes that these military and law enforcement agencies will be more likely to meet their budget objectives, while still having the capability to achieve more: overmatch opponents, and provide enhanced safety and protection to their troops.

Furthermore, we believe the Company is acknowledged as a subject-matter expert in the field of networked weapons. This expertise has been recognized by the U.S. military who requested that the Company participate in the NATO working group tasked with developing standards and requirements for these types of networked weapons.

The Company utilizes different approaches to the distribution of its products based on the target market. Each primary product is discussed in the table below (Figure 12) and planned product rollout is shown in Figure 13.



Figure 12 – KWESST Micro Systems Inc. –Principal Markets

	Products owned by the Company				
TASCS NORS	Primarily focused at police and military sniper users. TASCS NORS will be distributed using a combination of direct sales to end customers and through an international network of distributors and agents. The preliminary focus will be on U.S. and Canadian military and law enforcement agencies, as well as militaries of NATO countries.				
TASCS IFM	Primarily a military product. The initial sales target is the U.S.Department of Defense, which is being marketed directly by the Company's U.S. business development representative. Other primary targets are the U.S. Army, U.S. Special Forces, Canadian Special Forces, and NATO forces. Sales will be directly to the end customers for the U.S. and Canada, and through an international network of distributors and agents for the rest of the world. This is complemented by indirect sales into military programs through OEM partners.				
Shot Counter	Designed to support the military, police and OEM weapons suppliers. The Company will market directly to military and OEM customers. The Canadian Armed Forces, through Colt, are the initial targeted market. Concurrently, other marketing activities directed to weaponsOEMs such as LMT, SIG and Beretta are ongoing. Future marketing activity will be directed to the end users and to OEMs.				
KWESST LWS	Developed at the specific request of one of the Company's end users and will be directly marketed by the Company primarily to Canada,the U.S. and the military of NATO countries.				
KWESST LD	Designed to meet NATO requirements as identified by various NATO country militaries. It will be primarily marketed directly to the end users by the Company in the initial stages of sales and through distributors and agents as they are engaged.				
Phantom	The Phantom was developed to fill a gap identified in U.S. military capabilities. It will be marketed directly to the U.S. and the Canadian military in the early stages. It is anticipated that the Phantom technology will be distributed through industry partners specializing in the supply of electronic warfare equipment. The Phantom Technology will also be marketed to NATO countries, Australia and New Zealand through its network of agents and distributors.				
LEC Technology	KWESST will initially target the personal defense, lawenforcement and military markets where the LEC Technology provides an alternative to tasers and air operated, less lethal devices, as well as force-on-force training systems, such as Simunition. The Company will use multiple paths to go to market with the LEC Technology. The first will be a licensing arrangement with OEMs. Currently two OEMs have been identified, and initial discussions have been held. A number of well-placed distributors have been identified and KWESST will be negotiating distribution deals in the upcoming months. The second will be to roll-out to the self-defense and high-action gaming market.				
Product licensed by the Company					
GreyGhost	Primarily a military and security product. It will initially be marketed directly to end users by the Company, and as additional marketing samples become available in 2020, marketing will be expanded through a network of agents and distributors.				

Source: Company filings



	Concept & Design	Prototype <sup>(1)</sup>	Market Testing <sup>(2)</sup>	Pre- production <sup>(3)</sup>	Production <sup>(4)</sup>
TASCS NORS	Completed	Q3 FY21	Q3 FY21	Q4 FY21	Q1 FY22
TASCS IFM	Completed	Completed	Q3-Q4FY21	Q1-Q2 FY22	Q3 FY22
KWESST LWS	Completed	Completed	Q4 FY21	Q1 FY22	Q2 FY22
KWESST LD	Completed	Q3-Q4 FY21	Q1 FY22	Q2 FY22	Q3 FY22
Shot Counter	Completed	On Hold			
Phantom	Completed	Q3 FY21	Q4 FY21	Q1 FY22	Q2 FY22
GreyGhost	Completed	Completed	Q3-Q4 FY21	Q1 FY21	Q2 FY22
LEC Technology	Completed	Q3 FY21	Q4 FY21	Q1 FY22	Q2 FY22

#### Figure 13 – KWESST Micro Systems Inc. – Product Timeline

Source: Company filings

Notes:

- (1) Includes prototype Version 1 (V1), integration, and testing.
- (2) Includes field testing and prototype V2.
- (3) Includes final product development and sales demo units. A product is not ready for pre-production until it reaches Technology Readiness Level (TRL) of 5 to 6.
- $(4) \quad \text{Subject to market demand for KWESST's product}$

### Marketing Plans and Strategies

The Company continually markets its products through direct customer contact, tradeshows, demonstrations, and web-based marketing. In the coming months, and subject to available capital, the Company plans on ramping-up marketing by hiring marketing agents and distributors in key market areas.

Currently, the Company is scheduled to participate in the following major tradeshows focused on warfare and weapons technology, subject to potential cancellation or travel restrictions imposed by governments due to COVID-19 (Figure 14).



Tradeshow	Location	Date of Event
Small Arms and Cannon Symposium	Shrivenham, England	July 2021
Special Operations Forces Industry Conference	Tampa, Florida	May 2021
Eurosatory	Paris, France	September 2021
AUSA	Washington, DC	October 2021
Shot Show	Las Vegas, Nevada	January 2022
CANSEC	Ottawa, Canada	2022

#### Figure 14 – KWESST Micro Systems Inc. – Upcoming Tradeshows

Source: Company filings

Simultaneously with the various trade shows it plans to attend, the Company is preparing a focused media campaigns to ensure its visibility in trade journals. This campaign will ensure the Company's visibility in trade journals associated with the military and defense industry. The Company plans on preparing, in Q3 of Fiscal 2021 or sooner, a professionally produced marketing video, showcasing all of the Company's current product offerings.

# Favorable military market trends

The Company's primary markets are the U.S. military, the Canadian military and the military of NATO countries and allies. Within those markets, certain countries, including the U.S., Turkey, Poland and Germany, have increased military spending. Another trend is increased funding within the military for projects related to precision munitions for weapons already in use by the military (legacy weapons). We expect the Company's products will benefit from these trends by transforming legacy weapons to "smart" weapons (with better accuracy) with the integration of its system technology.

In recent years, military forces have become highly focused on the high cost associated with the long-term care of soldiers injured in the course of their duty. As such, products enhancing survivability of soldiers are also expected to increase in demand. Since the Company's products and specifically, the TASCS, have as an objective, to enhance soldier survivability by providing soldiers with targets from positions of cover (as opposed to the current situation, where they need to be exposed), the Company should also benefit from this market trend.

Another focus of the Company's target market is the improvement of health and safety conditions for troops. As discussed above, the Company's TASCS does this by allowing troops to engage from safer positions. Other Company products, such as the KWESST LWS and KWESST LD, were developed expressly to address the health and safety threats from weaponized laser devices by troops in the field.

The proliferation of small drones in the battlespace is also a growing concern. In many cases, jamming devices do not have the range required to defeat drones before they become a hazard. Existing weapons systems have proven to be relatively ineffective in defeating small drones, and several countries are now looking towards kinetic solutions to remedy the drone problem. The GreyGhost technology is an inexpensive standalone product that is within the financial means of most military and security forces. In mid-January 2021, the U.S. military issued a request for information on kinetic counter drone products.

# Competition

The Company's TASCS is a product which was developed to meet the growing need for the increased accuracy of existing weapons, as identified by the Close Combat Lethality Task Force (CCLTF) and other military organizations. TASCS integrates a map-based technology with electronic and optical systems to provide precise location and



angular pointing resolution, which is then combined with a complex ballistics program to provide weapon aiming capability. The built-in ability of all TASCS systems to be networked helps differentiates it from competitors. Many currently available systems do not have the high angular resolution that TASCS provides. Additionally, the Augmented Weapon Sight capability, a technology that transmits drone video footage directly to the TASCS end user device and allows targeting from that video, has been developed by the Company in conjunction with AeroVironment (AVAV-NR) and the Company believes it is the only known direct drone targeting capability available for crew-served weapons operated by soldier on the battleground.

We were unable to find any known direct competitors for the TASCS LWS and the TASCS LD with regards to devices providing portable usage by an individual, although there clearly are laser warnings systems out there at a different scale.

The Phantom addresses a gap in U.S. and other foreign military capabilities. To the Company's knowledge, the Phantom is at this time the only known miniaturized and dedicated electro-magnetic decoy for land. It is expected that as the technology becomes better known, existing companies specializing in electronic warfare will enter this market. This opens up the possibility for the Company to license the Phantom technology and cooperate with such companies, which could expand the market for the Phantom. In the coming months, the Company plans on contacting companies active in the electronic warfare field to discuss potential relationships. The Company has two patents pending that are used in the Phantom, which should minimize the risk of competition.

GreyGhost is a kinetic attack platform intended to intercept and knock out target drones. Several types of competitors exist in this market. Standard military weapons, which are generally not suited for this purpose, are one of the competing alternatives to GreyGhost. However, the weapon is not guided, which requires line of sight to engage the target. Companies such as Kongsberg Gruppen ASA have adapted their remote weapons stations for this purpose. The cost of their products is higher than that of the GreyGhost and not portable by a single user. Another competing technology is purpose-built missiles, which require tracking systems such as radars, and are costly. These missiles predominantly use explosive warheads to defeat targets, thereby increasing complexity and production costs. Also, missile systems are not able to re-engage targets when they miss them, while the GreyGhost will continue to reacquire and attack until its targets are neutralized. Finally, capture systems, such as those provided by Fortem Technologies, Inc., also represent a competitive.

Competition for the LEC Technology comes from OEMs that manufacture and sell training munitions, less lethal munitions, and high-action gaming equipment and supplies, such as paintball equipment. We believe that there are large, overlooked gaps in these markets, in particular for a simple cartridge-based system instead of complex, high-maintenance and compressed air systems and others that are not always "non-lethal."

The Shot Counter system differentiates itself from its only known competitor (Secubit Ltd., an Israel based company) through features, miniaturization and cost. The primary competitor in this market has a higher priced product in a large form factor. Moreover, the Company's management software and support for the Shot Counter is expected to constitute a further customer benefit, and as such could provide an additional revenue stream for the Company on an ongoing basis, over and above the sale of the product.

# Management

### David Luxton, Executive Chairman and Director

David Luxton is an entrepreneur in the defense and security industry. He is a former Canadian infantry officer, and former senior official with the Canadian and British governments. In 1990 he founded Simunition, a business that develops and sells simulated munitions for realistic close quarters combat training for military and law enforcement. Between 2003 and 2009, he led the expansion of the Allen-Vanguard Corporation, a company in the electronic countermeasure domain, from \$5,000,000 to \$300,000,000 in annual revenues, where he remains Chairman. Between 2015 and 2018, he was the Executive Chairman of United Tactical Systems, LLC, a company offering non-lethal products for law enforcement, military and personal defense. From 2003 to the date of this AIF, he has been President & Owner of DEFSEC, a company that specializes in strategic transactions in the defense and security industry. Furthermore, starting in 2017, he became a Senior Strategic Advisor to the University of Ottawa. Since 2019, he has been the Executive Chairman of KWESST. He holds a SMDP postgraduate studies from the



University of Oxford. He entered into a confidentiality and non-disclosure agreement through his consulting agreement with the Company on October 1, 2019. Being Executive Chairman of the Company is Mr. Luxton's full-time occupation.

#### Jeffrey MacLeod, President, Chief Executive Officer, Director and Promoter

Jeffrey MacLeod is an experienced defense industry executive with over 20 years of experience in the small arms and advanced soldier system fields. By establishing the Company, he aimed to develop software and hardware systems, such as the TASCS, to take existing legacy weapons and fully integrate them into a soldier system. Prior to founding KWESST, from 2008 to 2017, Jeffrey was the General Manager of Colt, a company producing small firearms for the Canadian military. Jeffrey has a Bachelor's degree in mechanical engineering from the Technical University of Nova Scotia (now Dalhousie University) and a Master's degree in Military Vehicle Technology from the Royal Military College of Science (U.K). He is a Professional Engineer registered in the Province of Ontario. He entered into a confidentiality and non-disclosure agreement with the Company through his employment contract on October 1, 2019. Being President and CEO of the Company is Mr. MacLeod's full-time occupation.

#### Steven Archambault – Chief Financial Officer

Mr. Archambault is an experienced finance executive with over 20 years' experience with private and public companies. He began his career as a CPA, CA with Ernst & Young LLP, followed by senior finance positions at AXIS Capital Holdings Limited, a global insurer and reinsurer listed on the New York Stock Exchange. Prior to joining the Company as of October 1, 2020, Mr. Archambault has been acting as a virtual CFO consultant since September 2019. From January 2018 to September 2019, he served as the CFO of Eureka 93 Inc. (formerly LiveWell Canada Inc.). Prior to this role, Mr. Archambault held the positions of President and CFO of International Datacasting Corporation and Group CFO of Novra, (OTCMKTS: NVRVF – NR) and immediately prior to Novra's acquisition of IDC, he was the CFO of IDC (listed then on the TSXV) from December 2013 and Acting CEO from February 2016 to July 2016. Mr. Archambault graduated from the University of Ottawa with a Bachelor of Commerce, Honors. He has entered into a confidentiality and non- disclosure agreement with the Company on October 1, 2020.

#### Rick Bowes – Vice President, Operations

Rick Bowes is an experienced defense industry executive with over 20 years of experience. Prior to joining the Company in April 2021, Mr. Bowes founded Cardinal Defense Consulting Inc. in 2018 and has since been offering consulting services to the defense industry. From 2016 to 2018, he served as the Vice President of Defense at ADGA Group. Over the course of his career, Mr. Bowes held various senior roles with defense contractors such as General Dynamics Canada, DRS Technologies Canada (now Leonardo DRS), ATCO Frontec and ADGA Group Inc., and he had a distinguished career as a senior officer in the Canadian Army, retiring in 2003 as a Lieutenant Colonel. He is a graduate of Royal Military College of Canada, and served in various operational and staff roles in the Canadian military and on secondment to the British Army. As an armor officer, Mr. Bowes served with various units such as Lord Strathcona's Horse (Royal Canadians) and the Canadian Airborne Regiment Battle Group across Canada and in deployed operations in Bosnia-Herzegovina with the UN Protection Force and the NATO Stabilization Force (SFOR). He was also part of the planning team for Canada's participation in the NATO Kosovo Force (KFOR) mission in 1999. He has entered into a confidentiality and non-disclosure agreement with the Company on April 13, 2021.



KWESST Micro Systems Inc.

Figure 15 – KWESST	Micro Systems Inc	- Comp Table (\$C)
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Company	Ticker	7/6/21 Close	Market Cap \$MM	EV \$MM	2022 MARKET CAP/SALES	2022 EV/SALES
Axon Enterprise	AXON-US	\$220.58	14,268	13,520	12.34	11.75
Olin	OLN-US	\$54.65	8,701	13,574	0.86	1.32
AeroVironment	AVAV-US	\$122.65	3,039	3,091	3.83	3.91
Vista Outdoor	VSTO-US	\$51.36	2,957	3,384	0.95	1.08
Sturm Ruger	RGR-US	\$103.33	1,817	1,636	2.23	2.02
Smith & Wesson Brands	SWBI-US	\$37.56	1,803	1,719	2.19	2.14
AMMO	POWW-US	\$10.74	1,200	1,065	4.09	3.71
Clarus	CLAR-US	\$33.76	1,063	1,091	2.36	2.41
Byrna Technologies	BYRN-US	\$26.45	547	544	7.58	7.58
Wrap Techno	WRAP-US	\$9.04	343	297	9.38	8.61
COMSovereign Holding	COMS-US	\$2.90	215	229	1.32	1.20
Applied Energetics	AERG-US	\$0.90	180	177	-	-
Draganfly	DFLY-CA	\$1.76	152	131	-	-
Patriot One Technlg	PAT-CA	\$0.50	75	60	6.12	4.99
Mace Security Intl	MACE-US	\$0.75	44	45	-	-
AVERAGE					<u>4.44</u>	<u>4.23</u>
KWESST Micro Systems	KWE-CA	\$1.25	53	53	3.90	3.88
	KWESST I	Discount to P	eers		-12%	-8%

Source: Litchfield Hills Research LLC and FactSet



KWESST Micro Systems Inc.

### Figure 15 – KWESST Micro Systems Inc. – Income Statement (C\$000)

September ending year	2019A		2020A		2020A		202	21E		2021E		202	22E		2022E
	Year	Q1A	Q2A	Q3A	Year	Q1A	Q2A	Q3E	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Year
Total Revenue	\$509	\$4	\$49	\$809	\$862	\$146	\$448	\$500	\$1,000	\$2,094	\$1,200	\$2,500	\$4,000	\$6,000	\$13,700
Total cost of revenue	<u>85</u>	<u>8</u>	<u>8</u>	<u>231</u>	<u>247</u>	<u>72</u>	<u>331</u>	<u>250</u>	<u>500</u>	<u>1,153</u>	<u>600</u>	1,250	2,000	<u>3,000</u>	6,850
Total Gross Profit	424	(4)	41	578	615	75	116	250	500	941	600	1,250	2,000	3,000	6,850
Operating expenses:															
Advertising and promotion	22	13	11	196	220	370	491	400	400	1,662	500	500	500	500	2,000
Personnel costs	791	336	183	287	807	318	331	340	350	1,338	400	500	400	400	1,700
Stock based compensation	0	0	21	262	283	196	605	300	300	1,401	500	500	500	500	2,000
Professional fees	98	97	24	70	190	107	279	300	300	986	300	300	300	300	1,200
Consulting fees	131	59	98	168	325	119	147	150	150	566	150	150	1	150	451
R&D consulting and materials, net	165	144	37	(101)	80	156	94	100	100	451	100	100	100	100	400
Business development	14	0	72	223	295	102	122	100	120	444	125	125	125	125	500
Travel and conferences	64	36	77	(0)	112	22	102	50	100	274	100	100	100	100	400
General and administrative	21	(4)	12	78	86	38	44	50	50	182	75	75	75	75	300
Depreciation and amortization	102	24	34	66	125	39	35	40	40	154	50	50	50	50	200
Insurance	31	8	8	20	36	25	35	35	35	130	0	0	0	0	0
Impairment of intagibles	0	0	0	0	0	0	55	0	0	55	0	0	0	0	0
Transfer agent and TSX-V fees	0	0	0	0	0	0	24	10	10	44	0	0	0	0	0
M&A costs	0	0	0	1,562	1,562	11	10	0	0	21	0	0	0	0	0
Total Operating Expenses	<u>1,438</u>	<u>714</u>	<u>577</u>	<u>2,831</u>	4,123	1,502	2,376	1,875	1,955	7,708	2,300	2,400	<u>2,151</u>	2,300	9,151
Operating Income	<u>(1,014)</u>	<u>(718)</u>	<u>(537)</u>	<u>(2,253)</u>	<u>(3,508)</u>	<u>(1,428)</u>	<u>(2,260)</u>	<u>(1,625)</u>	<u>(1,455)</u>	<u>(6,767)</u>	<u>(1,700)</u>	<u>(1,150)</u>	<u>(151)</u>	<u>700</u>	<u>(2.301</u>
Other income	<u>(133)</u>	<u>19</u>	<u>(108)</u>	<u>31</u>	<u>(57)</u>	<u>(21)</u>	<u>(17)</u>	<u>0</u>	<u>0</u>	<u>986</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	0
Pre-tax income	(1,147)	(699)	(645)	(2,222)	(3,565)	(1,449)	(2,277)	(1,625)	(1,455)	(5,781)	(1,700)	(1,150)	(151)	700	(2,301
Tax expense/(benefit)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net income	<u>(\$1,147)</u>	<u>(\$699)</u>	<u>(\$645)</u>	<u>(\$2,222)</u>	<u>(\$3,565)</u>	<u>(\$1,449)</u>	<u>(\$2,277)</u>	<u>(\$1,625)</u>	<u>(\$1,455)</u>	<u>(\$5,781)</u>	<u>(\$1,700)</u>	<u>(\$1,150)</u>	<u>(\$151)</u>	<u>\$700</u>	<u>(\$2,301</u>
EPS	(\$0.07)	(\$0.03)	(\$0.02)	(\$0.05)	(\$0.12)	(\$0.04)	(\$0.05)	(\$0.04)	(\$0.03)	(\$0.14)	(\$0.04)	(\$0.02)	(\$0.00)	\$0.01	(\$0.05
Diluted Shares Outstanding	17,430	20,768	28,695	41,000	30,844	41,392	42,142	43.000	44,000	42,633	46.000	48,000	48.000	50,000	48,00

Source: Company reports and Litchfield Hills Research LLC

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September ending year	FY2022E	FY2021E	Sept. 2020A	Dec. 2019A
Balance sheet				
Current Assets				
Cash and S.T.I.	\$717	\$542	\$3,074	\$22
Accounts receivable	1,000	500	479	220
Inventories	100	0	0	0
Other assets	1,000	1,000	442	54
Total Current Assets	2,817	2,042	3,995	295
Net PP&E	100	200	175	70
Other non-current assets	1,500	1,000	693	334
Total Assets	5,317	3,792	5,507	700
Current Liabilities				
Accounts payable and accrued exp.	4,000	2,000	818	199
Current loans and borrowings	1	250	329	375
Other current liabilities	200	125	7	29
Total current liabilities	4,201	2,375	1,154	603
Lease liability	300	300	496	117
Non-current borrowings	0	0	0	211
Total Liabilities	4,501	2,675	1,651	931
Stockholders' Equity				
Preferred stock	0	0	0	0
Common stock	0	0	0	0
Additional paid-in-capital	15,000	13,000	9,958	2,305
Retained earnings	(14,189)	(11,883)	(6,102)	(2,537)
Cum. trans. adj. and treasury stock	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total stockholders' equity	<u>811</u>	<u>1,117</u>	<u>3,856</u>	<u>(231)</u>
Total Liabilities and equity	\$5,312	\$3,792	\$5,507	\$700

### Figure 16 – KWESST Micro Systems Inc. – Balance Sheet (C\$000)

Source: Company reports and Litchfield Hills Research LLC



KWESST Micro Systems Inc.

# KWEMF-US/KWE-CA-Buy-US\$5 PT

### Figure 17 – KWESST Micro Systems Inc. – Cash Flow (C\$000)

	<u>2022E</u>	2021E	<u>2020A</u>
Net Income	(\$2,301)	(\$5,781)	(\$3,565
Receivables	(\$500)	(\$21)	(\$259
Inventories	(\$100)	\$0	\$0
Other assets	\$0	(\$558)	(\$388
Net PP&E	\$100	(\$25)	(\$105
Intangibles	(\$350)	\$95	(\$645
Other non-current	(\$500)	(\$307)	(\$358
Accounts payable and accrued exp.	\$2,000	\$1,182	\$620
Current loans and borrowings	(\$249)	(\$1)	(\$39
Lease obligations	\$0	(\$78)	(\$7
Other current liabilities	\$75	\$118	(\$22
Lease liability	\$0	(\$196)	\$379
Non-current borrowings	\$0	\$0	(\$211
Preferred stock	\$0	\$0	\$0
Common stock	\$0	\$0	\$0
Additional paid-in-capital	\$2,000	\$3,042	\$7,653
Equity Component of Convert	\$0	\$0	\$0
Other			\$0
Total Cash Flow	\$175	(\$2,532)	\$3,052

Source: Company reports and Litchfield Hills Research LLC

#### Disclosures:

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We, the Litchfield Hills Research Department, hereby certify that the views expressed in this research report accurately reflect our personal views about the subject company and the underlying securities.

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BUY: We expect the stock to provide a total return of 15% or more within a 12-month period.

HOLD: We expect the stock to provide a total return of negative 15% to positive 15% within a 12-month period.

SELL: We expect the stock to have a negative total return of more than 15% within a 12-month period.



KWESST Micro Systems Inc.

# KWEMF-US/KWE-CA-Buy-US\$5 PT

Total return is defined as price appreciation plus dividend yield.

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