

經濟部工業局 函

機關地址：106臺北市信義路三段41-3號
聯絡人：技士 巫慶家
聯絡電話：02-27541255 分機2234
電子郵件：cju2@moeaidb.gov.tw
傳真：02-27043764



23553

新北市中和區建一路186號7樓

受文者：中華民國儀器商業同業公會全國聯合會

發文日期：中華民國108年5月2日

發文字號：工電字第10800379720號

速別：速件

密等及解密條件或保密期限：

附件：駐紐西蘭代表處經濟組來函及附件1份

主旨：函轉駐紐西蘭代表處經濟組陳報紐西蘭業者尋求與我國公司
合作開發虛擬量測技術系統一案，請查照。

說明：

- 一、依駐紐西蘭代表處經濟組108年4月24日紐經字第1080000423號函辦理。
- 二、紐商Virtual Measurement System(VMS)公司，專注開發虛擬量測技術，透過雷射感測、演算方法與數據分析，對物品進行無線6D量測，可快速定位量測點是否異於常況，須予以整修，運用範圍包含汽車、飛機、建物等之修復，並可用於機器人操作環境之定位。該項系統開發第一階段獲得紐西蘭國家研究單位Callaghan Innovation經費補助，在技術與演算方法部分已獲得確認，目前尋求第二階段之投資合作夥伴，進行產品雛型開發、製造與市場拓展，估計約需500萬美元投入。

三、鑒於精密機器為我國重點發展產業，請轉知國內業者參考，
並請於108年5月31日前函覆國內業者意願，俾利彙整回復。

正本：台灣區電機電子工業同業公會、中華民國儀器商業同業公會全國聯合會
副本：駐紐西蘭代表處經濟組、經濟部工業局電子資訊組

局長 呂正華

依照分層負責規定授權單位主管執行



駐紐西蘭代表處經濟組 函

地址：Level 23, 100 Willis Street, Wellington,
New Zealand
承辦人：駐紐經濟組
電話：64-4-4736474
Email：tecowec@taipei.org.nz

受文者：經濟部工業局

發文日期：中華民國108年4月24日
發文字號：紐經字第1080000423號
速別：速件
密等及解密條件或保密期限：
附件：如文(附件一)

主旨：陳報紐西蘭業者尋求與我國公司合作開發虛擬量測技術系統事，請查照惠復。

說明：

- 一、威靈頓商會擔任紐臺經貿協進會(New Zealand-Taiwan Business Council)秘書單位，致力協助台紐企業合作。該商會執行長John Milford日前引介紐商Virtual Measurement System(VMS)公司執行長Peter Edwards與本組會晤，說明該公司開發虛擬量測技術系統情形，並尋求與我商合作完成第二階段產品雛型，並進行市場開發。
- 二、VMS公司專注開發虛擬量測技術，透過雷射感測、演算方法與數據分析，對物品進行無線6D量測，可快速定位量測點是否異於常況，須予以整修，運用範圍包含汽車、飛機、建物等之修復，並可用於機器人操作環境之定位。E執行長表示該公司所開發之系統為可移動式、輕巧，因而其運用範圍比固定式裝置更廣，且價格更低，市場潛力與利潤相當龐大。渠復表示，本項系統開發第一階段獲得紐西蘭國家研究單位Callaghan Innovation經費補助，在技術與演算方法部分已獲得確認，目前尋求第二階段之投資合作夥伴，進行產品雛型開發、製造與市場拓展，估計約需

108/04/24 一般公文



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500萬美元投入。

三、鑒於精密機器為我國重點發展產業，倘貴局初步評估此項技術為我國產業發展所需或業者所感興趣，建請轉知該等單位或公司參考，如有意與紐方業者進一步洽商，本組樂意協助介接，或由雙方業者直接洽商；如無適當轉介對象，亦請簡復本組，俾向紐商回報。

四、檢附VMS公司有關本案之說明資料3頁，併請查參。

正本：經濟部工業局

副本：經濟部投資業務處、經濟部國際貿易局、中華民國國際經濟合作協會

電子公文交換章



Virtual Measurement Systems Limited (VMS) Investment Opportunity

VMS is seeking a new investment partner to complete its high-tech tool and bring it to market. We are seeking investment of USD 5m. A gross profit of 40% is expected to be a minimum given the tool's high function, low retail price and high margin.

Virtual Measurement systems Ltd (VMS) is seeking investment to fund completion of its breakthrough measurement tool and enable manufacturing, sales and distribution to global markets. The tool uses patented technology based on an algorithm developed by the New Zealand government science research agency, Callaghan Innovation. The algorithm is a trade secret and cannot be reverse-engineered.

Our market validation has evidenced strong global interest for the VMS technology which can address specific needs in multiple industries. Potential customers are currently paying very high prices for similar technology. As the cost to produce our tool is not high, we can command high to very high margins, depending on the industry.

Industries involved in the repair, overhaul or maintenance of machines or buildings want fast analysis. Every minute their aircraft, ship or land vehicle is not operational costs serious money. Industries such as oil & gas, infrastructure and commercial property constantly measure and analyse their assets to prevent hundreds of thousands, if not multi millions of dollars of damage to their structures.

VMS has completed field testing with international operators in a number of industries. All have expressed keen interest and all have asked for a 'finished prototype' to be able to demonstrate the technology to their customers. When we have finished the prototype that these distributors can demonstrate, they will place orders for distribution to their global markets.

Each of these potential customers has the same problem: the need for speed, accuracy, the transmission of complete data with affordability. The VMS tool is the solution to all these issues.

The most profitable industries identified so far as potential customers are:

- Motor vehicle collision repair (USD 3.4bn potential market)
 - Cars
 - Bikes
 - Trucks
 - Wheel alignment
- Ship building
- Seismic strength testing – measuring the ability of a building to withstand an earthquake

- Aircraft – structural analysis following bird strikes/ lightning strikes
- Robotics – precise measurement is needed to tell a robot where it is and at what angle at any given time
- Architectural and structural analysis of existing civil engineering structures – for insurance purposes, designing additions to standing buildings, bridges, viaducts, roads etc.
- Complex structures – location of damage or potential problems e.g. on oil rigs, at refineries etc

The VMS innovation is a tool that 'knows where it is' without the use of GPS or a power cable. The technology is defined as '6D' as it measures the 3 dimensions of height, width and depth as well as another 3 dimensions describing angles and their location.

The technology is competitively precise. It measures accurately from submillimeter to 10 cm, and up to 40 meters when a laser is attached.

The VMS tool:

- is small, fast and easy to use
- is wireless, fully portable, with no power cable
- needs minimal setup time
- measures any surface reliably to 0.5mm
- can accurately locate a problem
- transmits complete data to the user's database
- is inexpensive.

We are seeking investment of USD 5m to complete the tool and bring it to market.

Use of funds:

- 3m completion of the prototype
- 0.5m addition of a laser
- 1.3m tooling and manufacture
- 0.2 branding and marketing

Projected ROI is high and within 3- 5 years of initial sales. A gross profit of 40% is expected to be a minimum, given the low cost of goods sold, the low retail price and high margin.

Net Income

No. of Units sold	Retail price @ USD15,000ea	VMS revenue @ 60% retail	Distributor margin @ 40% retail	COGS	Net income to VMS
1	15,000	9,000	6,000	2,300	6,700

(Please note all figures are quoted in USD and subject to exchange rate fluctuations)

Our market experts have told VMS that the sales will begin in the hundreds and quickly move into the thousands of units.

Estimated sales for the first 3 years

Market	Number of units		
	Year 1	Year 2	Year 3
Europe, including UK	200	500	1,000
China, India & rest of Asia	300	1,000	2,000
USA & Canada	250	1,000	2,000
Rest of the world	100	500	1,000
Total	850	3,000	6,000

Estimated net income to VMS for the first 3 years, in USD

Market	USD (millions)		
	Year 1	Year 2	Year 3
Europe, including UK	1.34	3.35	6.7
China, India & rest of Asia	2.01	6.7	13.4
USA & Canada	1.68	6.7	13.4
Rest of the world	0.67	3.35	6.7
Total	5.7	20.1	40.2

To apply or for further information please contact

Peter Edwards
 Managing Director
 Virtual Measurement Systems Limited
peter.edwards@vmsglobal.co.nz
 +64 21 250 3787