# **EDISON**

## QuickView

## Panorama Synergy

## Novel optical MEMS readout system

Panorama Synergy's MEMS optical readout technology has the potential to create sensors that are substantially more accurate and sensitive than any currently available, as well as being more robust, less sensitive to heat and electrical interference and suitable for use in proximity to explosive materials and flammable gases. Following the announcement of two key partnership agreements in FY15, Panorama is scheduled to make its first commercial sales during FY16.

### FY15 lays foundations for commercialisation

In Q115, Panorama demonstrated that it was able to simultaneously stimulate the moving parts of MEMS sensors and measure their data output with a single optical laser. This removes the need to stimulate the sensors electrically, creating the possibility of an all-optical sensor to detect explosives or flammable gases. This demonstration was followed in Q215 with the external validation of Panorama's first prototype detector by CSIRO, which can detect toluene, benzene and other petro carbons. In parallel, Panorama has secured title to the core technology and set up agreements with foundries for the manufacture of the company's technology in small batch runs ahead of large-scale manufacturing. Crucially, it has transformed its financial position, raising A\$7.0m (gross) through a placing at A\$0.36 and \$1.8m through exercise of stock options. Management estimates that it is fully funded for the next 18-24 months.

## Commercialisation in FY16 with key partners

This progress has attracted partners keen to incorporate the technology into complete systems. Panorama has an exclusive agreement to supply air quality sensors for Quantify's power management and environmental control systems. It also has a collaborative development agreement with ASX-listed Enerji to provide toluene monitors for Enerji's proposed next-generation waste heat-to-electricity systems. Panorama has been awarded a \$50k grant to extend the sensor platform into other fields and uses such as health monitoring of electrical transformers and hydrogen detectors for monitoring fuel cells.

## Valuation: Solid capital base for growth

There are no estimates indicating potential revenues and profits available, precluding an informed view of valuation. However, the initial forward orders worth c A\$2m that Quantify has secured, the first of which are expected to be delivered by the end of CY15 and the company's solid capital position (A\$6.7m net cash at end FY15) provide a good base for first commercial revenues during FY16.

#### Historical financials

Year end	Revenue (A\$m)	PTP* (A\$m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
06/14	0.0	(1.6)	(0.38)	0.0	N/A	N/A
06/15	0.2	(4.4)	(0.82)	0.0	N/A	N/A

Source: Company data, Bloomberg. Note: \*After deducting share-based payments.

#### Technology

#### 14 September 2015

Price	A\$0.24
Market cap	A\$121m

#### Share price graph



#### Share details

Code	PSY
Listing	ASX
Shares in issue	506.2m

#### **Business description**

Panorama Synergy owns title to a novel opticalbased readout technology for micro-electrical mechanical system (MEMS) sensors. This has the potential to create sensing devices for novel applications where conventional electronic readout technology is not suitable.

#### Bull

- MEMS market was worth \$11.1bn in 2014 and is expected to grow to more than \$20bn by 2020, a CAGR of 10% pa (Yole Développement).
- Optical-based readout technology more sensitive than conventional electronic systems and safer in the presence of explosive gases.
- Panorama's optical readout technology is an order of magnitude smaller than existing lab-based optical systems and more accurate.

#### Bear

Key commercialisation programmes dependent on ability of third parties.

- Management still in process of establishing a team for commercialising MEMS opportunity.
- Free float only 40%.

#### Analysts

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