



COVER IMAGE

NASA is using hyperspectral imaging spectroscopy to provide information on vegetation health. (Image credit: Sigma Space Corporation / NASA)

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A period of decline

So, has the bubble burst? After more than 12 years of double-digit growth, the image sensor market will experience its first decline this year, according to the industry analyst Strategies Unlimited in the US (see page 621). A slow-down in growth was sure to happen — no industry can sustain such high growth for such a long period of time — but unfortunately the global economic crisis has accentuated the slow-down into a decline. The question is whether this is merely a ‘blip’ in the growth chart, or whether it is more serious, causing the market to continue declining. The current prediction is that the industry will, like so many other high-tech markets, enter a cyclical phase of growth.

The reason behind this prediction is that the largest market (by far) for image sensors is the mobile phone/cameraphone market, and this itself is consumer-orientated and cyclical. The situation could become more complex, however, because new applications for image sensors are emerging every year, and these could exhibit very different market dynamics.

For example, Mats Gökstorp, president of the European Machine Vision Association,

believes that the economic crisis could be a market opportunity for imaging applications in manufacturing (see page 638). He believes that the best time for the manufacturing industry to invest in machine vision systems is when it emerges from the economic crisis, as there will be a need for increased productivity and efficiency.

When companies do invest, they may want to look at hyperspectral imaging (see page 627), an imaging technique that can provide more information than traditional single-point spectroscopic instruments. Terahertz imaging may also offer advantages over traditional imaging technologies (see page 630) in many applications.

There are also applications that no-one could have predicted, such as the use of imaging to combat the swine flu pandemic — infrared imaging is being used in airports to detect elevated body temperatures and symptoms of fever in travellers (see page 624).

Compared with the revenue generated from image sensors in cameraphones, these applications may be niche, but that doesn't stop them being interesting and exciting.

CONTENTS

BUSINESS NEWS

Cyclical growth of the image sensor market and more **621**

RESEARCH HIGHLIGHTS

Our choice from the recent literature **622**

PROFILE

Adapting to change **624**

INDUSTRY PERSPECTIVE

Hyperspectral imaging: Cubes and slices **627**
David Bannon

Terahertz imaging: Revealing hidden defects **630**
Irl Duling and David Zimdars

Microscopy: One-shot analysis **633**
Etienne Cuche, Yves Emery and Frédéric Montfort

PRODUCT HIGHLIGHTS

CMOS image sensors, stereoscopic microscopes and more **637**

INTERVIEW

Room for growth **638**
Interview with Mats Gökstorp