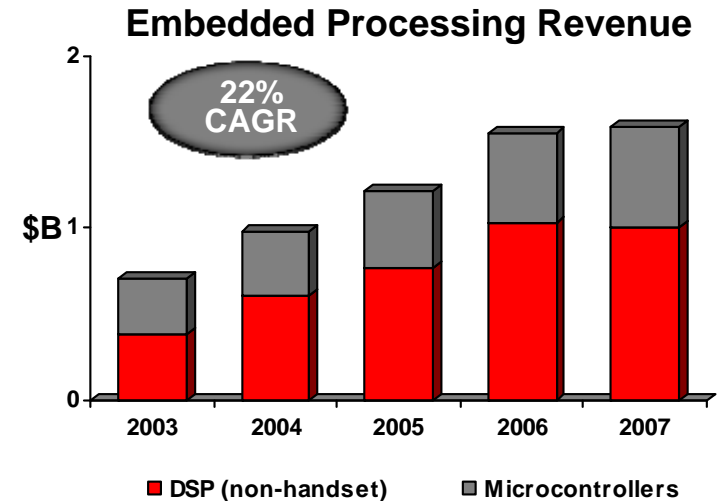


# DSP & Embedded Control

**Mike Hames**

Senior vice president, Application-Specific Products

# Tightening focus on embedded processing: DSP & microcontrollers



- Strong growth
- Attractive profitability
  - ~60% gross margin
  - ~30% operating margin
- Customers differentiate with own software development
  - 10K+ customers
  - 20+ year product life cycles
- Higher investments driving results

# Fast-growing, diversified markets

## Video/ Imaging



Security & surveillance



HD video conferencing



Internet appliances



Inspection

## Automotive



Braking & safety



Electronic power steering



Collision avoidance



Airbag



Automotive infotainment

## Infrastructure



Pico basestation



WiMAX basestation



2G, 3G & LTE basestations



IP voice & video infrastructure

## Industrial



AC drives & servos



Sensing



LED lighting



Solar, wind, hybrid inverters



Digital power supplies

## Medical



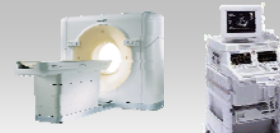
Portable ultrasound



Personal medical devices

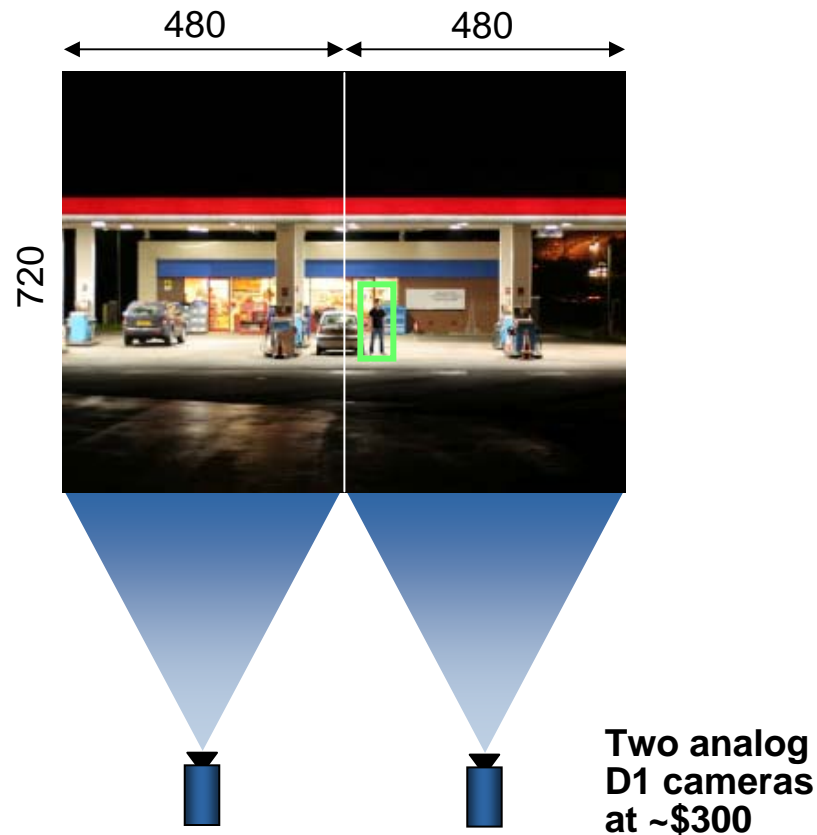


Medical imaging



Automated external defibrillator

# TI transforming video security market



- Created ~\$50M business in three years
- ~\$250M+ revenue opportunity in five years
- Video analytics create market discontinuity
- Market shifting to high definition
- Opportunities in both analog system upgrades and new IP-based deployments



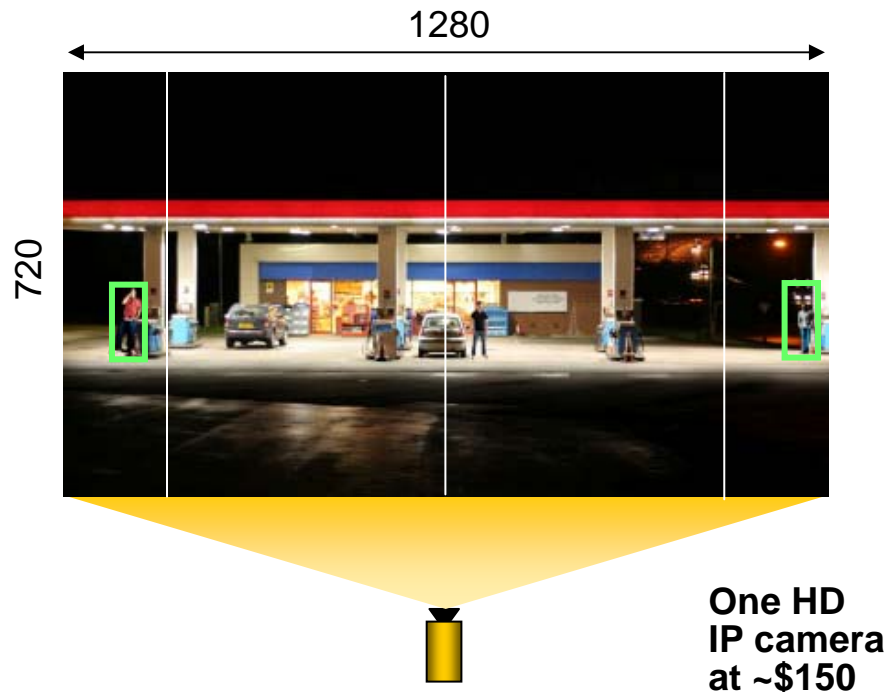
In Texas, a stoplight camera was deployed at no cost to the state. Systems integrators simply get a percentage of the proceeds of the \$75 tickets. Before and after pictures of the car have time/date stamp and license plate ... the evidence is convicting.

#### NOTICE OF VIOLATION

NOTICE # 0100800524926  
PIN # 4285  
Amount Due: \$75.00  
Due Date: 05/19/2008



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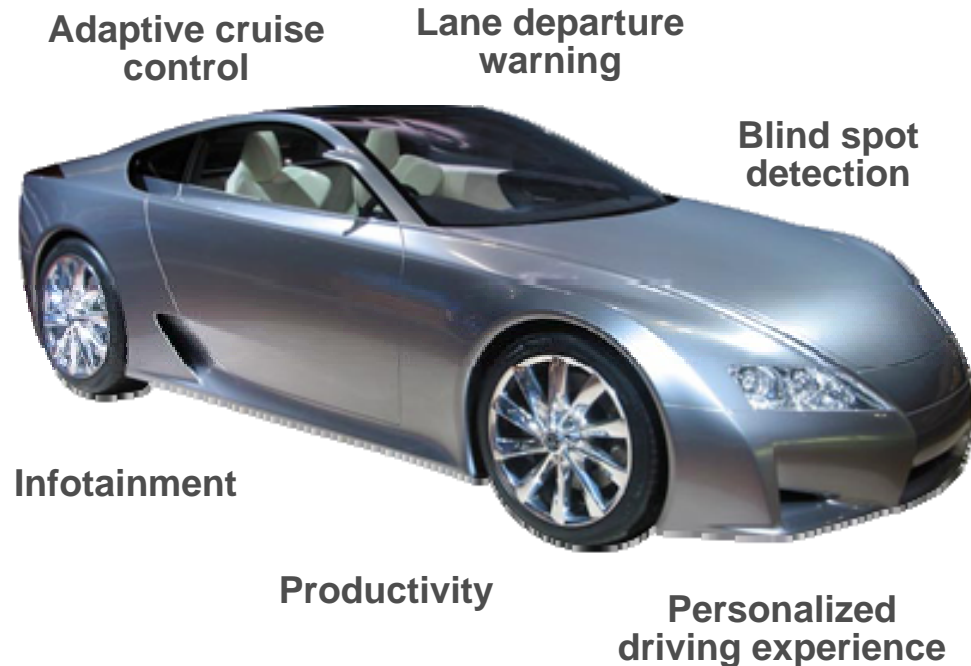
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# Making the car fun, efficient, safe



- ~\$400M embedded processing revenue today
- Strong position in braking and airbag
- ~\$1B revenue opportunity in 10 years
- Growth from vision and infotainment
- Engaged with broad set of customers worldwide



Volvo's advanced safety innovation, Blind Spot Information System (BLIS), was the first system to help avoid the risks of accidents caused by blind spots. It won the Safety and Technology Award at the 2006 *Autocar Awards*.



# Leading communications infrastructure into next generation



- ~\$500M revenue in 2007
- Strong growth: 32% CAGR (2003-2007)
- Clear market leader
- Future growth drivers
  - More 3G deployments
  - Technology evolution (4G)
  - Increased video content demand



A large OEM customer evaluated alternative solutions for its next product. We worked with them through simulation benchmarks, tooling bake-offs and silicon performance testing. TI's latest multi-core DSP had the right balance of power/performance/cost ... and won the business.

# Improving energy efficiency of industrial equipment



- eMetering & digital power: >\$50M revenue today, 40% CAGR (2003-2007)
- >\$250M revenue industrial opportunity in 5+ years
- 200M homes with eMeters, 2.5B total meters
- Solar, wind, hybrid inverters provide additional growth
- Only 5% of motors equipped with energy-efficient, variable-speed drives



It costs \$100+ to change a battery in a digital water eMeter. When manufacturers use TI's ultra-low power MSP430, the battery lasts 10+ years. TI's MSP430 devices optimized for this application enable a five-to-one reduction in system components for eMeters.

# Revolutionizing healthcare



- ~\$75M revenue today
- >\$250M revenue opportunity in 5+ years
- Glucose monitor, consumer medical devices booming
- Imaging opportunities in traditional hospitals and new portable applications
- New frontiers in diagnostics, patient monitoring and implantables



SonoSite technology helps military doctors in Iraq and Afghanistan to deliver quality ultrasounds once reserved for large, immobile systems but now available in small portable units. Enabling high-quality care in the “golden hour” is helping save lives of both civilians and soldiers by bringing the technology to the patient rather than the patient to the technology.

 SonoSite

# Early entry, early insight into new markets

adidas  
virtual trainer



TableTop Media



Restaurant pay station

Bose® SoundDock



Pachinko  
digital gaming



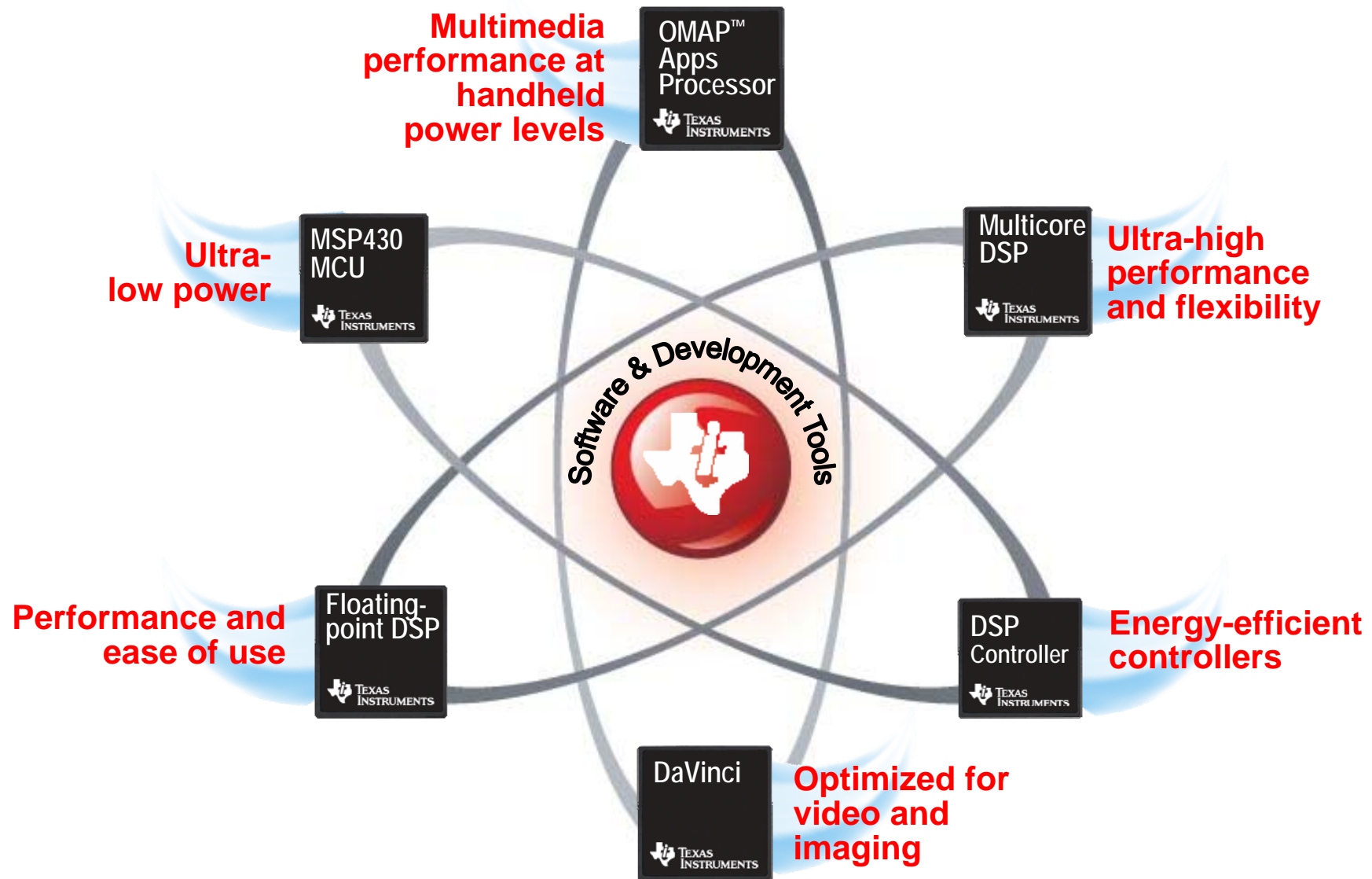
Candle Dragon DotPen  
(Wireless digital pen)



# Early entry, early insight into new markets

- Extending reach into emerging economies with global sales force
- Accelerating new design wins with low-cost, easy-to-use development tools
- Training 85,000 new engineers at 1,100 universities around the world
- Providing customers of all sizes with early access to leading-edge embedded processing technology

# Innovative products fuel new applications



# Summary

- Delivering growth in embedded processing; good opportunities in many new markets
- Customers creating differentiated products with reusable software developed for our DSP and microcontroller platforms
- Increasing our investment, accelerating innovation and expanding breadth of product portfolio
- Growing customer base – benefiting from analog relationships and industry's largest sales force