




Global TMW:  T&MW China  T&M Korea[Login](#) | [Register](#)[FREE](#) Newsletter Subscriptions!MATLAB.  The MathWorks [LEARN MORE](#) AGILENT
PCI
ANRITSU
ISA
TEKTRONIX
USB[HOME](#) [MAGAZINE](#) [NEWSLETTERS](#) [TECHNOLOGY SECTIONS](#) [BLOGS](#) [RESOURCES](#) [EVENTS](#) [RSS](#) [AWARDS](#)[SEARCH](#)[SUBSCRIBE FREE](#) to *Test & Measurement World* magazine!

TAKING THE MEASURE

[« ITC: ATE companies team with c... | Main |](#)
[Link This](#) | [Email this](#) | [Blog This](#) | [Comments \(1\)](#)

Rick Nelson

Halla on what the semiconductor industry is doing for you

November 10, 2008

MUNICH, GERMANY. Who cares about semiconductors? Maybe only the trade press and its readers, suggested Brian L. Halla, chairman and CEO of **National Semiconductor**, at a press conference today on the eve of Electronica. Politicians don't seem to care, he said, recounting a visit to Washington with Intel Chairman **Craig R. Barrett** on behalf of the **SIA**. He said the two pushed for expansion of the **H-1B visa program** and for more support for research, including full funding of the America Competes act, mostly to no avail. The semiconductor industry ranks fifth or sixth, he said he was told by **Henry M. Paulson**, on Washington's list of priorities.

The industry doesn't seem to get much respect from the stock markets, either, Halla said, noting that before the recent sub-prime debacle price-earnings ratios for chip companies were in the low teens—not in the 30 to 50 range common in earlier boom times.

"Why has the bloom gone off the lily?" he asked. After all, he said, the semiconductor industry is seminal to almost every innovation today, with semiconductors at the heart of nearly every system and product and with the industry operating at nanometer geometries, pushing atoms around.

He invited his audience to think about semiconductors the way neighbors do. They all have cell phones, PCs, and a host of consumer-electronics gadgets and, he said, might well ask the industry what it has done for them lately.

To address the emerging ennui, he called for a semiconductor sea change, in which the industry addresses "quality of life megatrends" in renewable energy, healthcare, and security. Electronics is moving beyond the age in which it's almost completely driven by IT.

He called analog the enabler of the sea change and noted that Moore's Law didn't say anything about power efficiency. For some computers and workstations, he said facetiously, you fans manufactured by Boeing. He said that many chores needn't be addressed by processing with 0s and 1s. Instead, he called for processing real-world signals in the real, analog, world.

He cited a history of semiconductor industry innovations, including DRAM for mainframes, processors for PCs, enabling technology for the Internet, and chips for consumer-electronics gadgets. Each of these peaked and declined, he said, to be replaced by the next wave of innovation. In anticipation of the decline of the consumer electronics cycle, he said, he is anticipating that the next cycle will be for devices that serve renewable-energy, electric-vehicle, and battery-management applications.

As an example of emerging semiconductor capabilities and applications, he touted National Semiconductor's PowerWise technologies, which, he said, perform "analog-to-information" conversion in which entire processing chains move to the analog domain. He cited an analog far-field noise suppression circuit that uses 10% of the power that a DSP-based approach would offer.

He also cited the company's SolarMagic technology, which can dramatically increase the efficiency of solar panel deployments in which some panels are subjected to periods of shade as the sun moves across the sky. SolarMagic, he said, can compensate for the degradation in power output that can occur when panels fully exposed to sunlight are interconnected with panels that are fully or partially shaded.

He cited additional areas that National is pursuing, including electric vehicles (he sees instant recharging as within reach) and health care (for which "distributed medicine" can help to cut costs).

He noted in response to a question that he doesn't talk to Intel's Barrett much about analog processing, and National's approach is far different from Intel's efforts to **turn everything into a digital computational problem**. Halla did say that he thinks it's time to stop just throwing more gates at problems.

He was asked who he thought would make a good **CTO of America**, a position that President Elect Obama said he would establish. Halla said that neither **Carly Fiorina** nor **Meg Whitman** would be good choices (although they would certainly indicate bipartisanship on the part of Obama), saying the best choice would come from the semiconductor industry.

As for what he would like to see from government, he advocated an avoidance of isolationism. "We need to be able to design anywhere in the world and ship anywhere in the world, Politicians

RECENT POSTS

[Halla on what the semiconductor industry is doing for you](#)

[ITC: ATE companies team with chip makers, OSAT](#)

[IMEC: Bringing science to life through art](#)

[ASML and IMEC: from planar transistors to 3D microthrusters](#)

[Body DAQ presents health, entertainment opportunities](#)

[Salary survey results are coming, but some trends are evident now](#)

[ITC panel to address yield learning: who pays, who gets the data](#)

[Economy in the hands of gamblers](#)

[Alice and friends cram for Turing test](#)

[Smoot day tomorrow](#)

RECENT COMMENTS

Tamza on [Halla on what the semiconductor industry is doing for you](#)

gevommaNomy on [Credence, LTX plan merger, rationalization ahead](#)

baralntilla on [Credence, LTX plan merger, rationalization ahead](#)

Abhinav Kumar Tyagi, Indian Institute of on [S-parameters are so yesterday](#)

Chasm on [McCain calls for White House science and technology adviser; supports nuclear technology](#)

MOST COMMENTED ON

[Metric system rears ugly head in US election](#) (44)

[Stupid consumers plague CE industry](#) (25)

Advertisements

Always a Leader!



TABOR ELECTRONICS Inc.
Since 1971

Tabor's All-In-One Waveform Generators

- Combines arbitrary (memory + DDS) and pulse (analog + 16-bit digital pattern) waveforms in one unit
- Drop-in emulation for legacy HP, Tektronix, LeCroy, and Fluke pulse generators
- Includes user-friendly front panel interface and development software

For more information call
EADS North America Test and Services at 800-722-2628
or visit www.taborelec.com/us

Tabor's Home in The USA
EADS NORTH AMERICA
Test and Services

T&MW's Resource Center
Enter Now

isolationist but we need to design anywhere in the world and ship anywhere in world," he said.

Posted by [Rick Nelson](#) on November 10, 2008 | [Comments \(1\)](#)

November 10, 2008

In response to: **Halla on what the semiconductor industry is doing for you**

Tamza commented:

The industry just needs to slow down (I kid of course). We are so conditioned to Moore's Law and such that this is unlikely. Just think back to the auto industry, there were dozens of car manufacturers who were consolidated in to the big three, two, one, none!

POST A COMMENT

Display Name or Registered Users Login [Here](#).
Please restrict submissions to less than 7,000 characters (including any HTML formatting).



Before submitting this form, please type the characters displayed above. Note the letters are case sensitive:

Submit Comment

- [Hummer vs. hybrid](#) (14)
- [Incandescents, fluorescents, LEDs, oh my!](#) (12)
- [Does McCain owe the patent troll?](#) (10)

ARCHIVES

- [November 2008](#)
- [October 2008](#)
- [September 2008](#)
- [August 2008](#)
- [July 2008](#)
- [June 2008](#)
- [May 2008](#)
- [April 2008](#)
- [March 2008](#)
- [February 2008](#)
- [January 2008](#)
- [December 2007](#)
- [November 2007](#)
- [October 2007](#)
- [September 2007](#)
- [August 2007](#)
- [July 2007](#)
- [June 2007](#)
- [May 2007](#)
- [April 2007](#)
- [March 2007](#)
- [February 2007](#)
- [January 2007](#)
- [December 2006](#)
- [November 2006](#)
- [October 2006](#)
- [September 2006](#)
- [August 2006](#)
- [July 2006](#)
- [June 2006](#)
- [May 2006](#)
- [April 2006](#)
- [March 2006](#)
- [February 2006](#)
- [January 2006](#)
- [December 2005](#)
- [November 2005](#)
- [October 2005](#)
- [September 2005](#)
- [August 2005](#)
- [July 2005](#)

BLOG

[Taking the Measure](#)

Advertisement

[Ads By Google](#)

Used Test Equipment

Great Prices On Top Brand Names. Up To 70% Off On Refurbished Items!
www.MetricTest.com

Test Equipment

Rent, Lease, Buy Used Equipment. Agilent, Tektronix, Acterna & More
www.electrorent.com

Software Testing Online

Earn a Testing Certificate From Villanova 100% Online
www.VillanovaU.com

[About Us](#) | [Advertising Info](#) | [Site Map](#) | [Contact Us](#) | [FREE Subscription](#) | [Editorial Calendar](#)

©2008 [Reed Business Information](#), a division of [Reed Elsevier Inc.](#) All rights reserved.
Use of this Web site is subject to its [Terms of Use](#) | [Privacy Policy](#)

Please visit these other Reed Business sites

Media & Publishing:

Broadcasting & Cable | ContentAgenda | LA 411 | Library
Journal | Multichannel News | New York 411 | Publishers
Weekly | School Library Journal | Criticas | Tradeshow Week |
Variety | Video Business

Manufacturing:

Control Engineering | Design News | Industrial Distribution |
Logistics Management | Kellysearch | Manufacturing Business
Technology | Modern Materials Handling | Plant Engineering |
Purchasing | Purchasing Data | Supply Chain Management
Review

Subscriptions:

All Magazine and eNewsletter Subscriptions

Business & Printing:

Converting | DM2-DecisionMaker | Expert Business Source |
Graphic Arts Blue Book | Graphic Arts Monthly | Hot Frog |
Packaging Digest | The Industry Measure | Tracom Group | Zibb

Gifts & Furnishings:

Casual Living | Furniture Today | Gifts & Decorative
Accessories | Home Textiles Today | Home Accents Today |
Jewelers' Circular Keystone | Kids Today | Playthings

Hospitality:

Chain Leader | Foodservice Equipment & Supplies | HOTELS |
R&I

Electronics:

EDN | Instat | Semiconductor International | Test &
Measurement World | TWICE

Building & Construction:

Associated Construction Publications | Buildcore | Building
Design & Construction | Building Team Forecast | Construction
Equipment | Consulting Specifying Engineer | Custom Builder |
Daily Commercial News | Housing Giants | HousingZone |
Interior Design | Journal of Commerce | Professional Builder |
Professional Remodeler | Reed Connect | Reed Construction
Bulletin | Reed Construction Data | SmartBuilding Index | RS
Means