Hard Work Over the Summer Leads to Opportunities this Fall and Beyond

FlexTech’s Governing Council met on August 25, 2017 for the annual planning meeting to discuss and decide on objectives and activity 2018-2020. With the theme of “Getting to WOW,” the Council provided substantive insights into how SEMI I FlexTech can facilitate better business results for our industry and members.

Moving forward, we will implement the following recommended actions to position SEMI I FlexTech as an exemplary resource for our members:

- **Drive engagement with end users** by telling a compelling story, defining a core audience, and taking the FlexTech show on the road to approach new constituencies.
- **Raise industry value and awareness** by producing market reports and benchmarking the technology landscape.
- **Promote growth** by **funding innovation from R&D to manufacturing**.
- **And lastly, be a champion for technology** by targeting specific groups, such as flexible displays and power sources.

If you have suggestions to help implement these actions, let us know!

I stepped away from the annual meeting feeling invigorated and hopeful for the future of SEMI I FlexTech. The Governing Council, led by Keith Rollins of DuPont Teijin Films, deserves a round of applause!

With our best wishes,

Michael Ciesinski
President

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**Project Updates**

**PROJECT CLOSE OUT - 16-11 & 16-12 - Wearable Device for Dynamic Assessment of Hydration Status**
PROJECT CLOSE OUT - 15-7 Sensor for Monitoring Human Biometric Parameters

FlexTech Members Only Content

News and Announcements

2018FLEX Call For Papers - OPEN on October 5th
Our annual FLEX CFP is opening soon! We invite you to submit an abstract of a paper, student poster or industry post for the 17th Annual Flexible & Printed Electronics Conference. The deadline to submit your abstract is November 3, 2018. Check your inbox for a CFP email next week or visit the [2018FLEX website](#) after 10/5 for more information.

### FHE & Sensors in the Automotive Industry

More than 70 representatives of the electronics supply chain gathered in Detroit, Michigan on September 13th to discuss the impact of flexible hybrid electronics (FHE) in automobiles. Speakers came from organizations involved in a wide variety of FHE-related activities, including: lighting, human-machine interface, sensors, extreme environments, LIDAR, in-mold electronics, windows, and roadmaps. Attendees left with a better sense of productive pathways for innovation in automotive electronics, what to expect in the near-term, and the challenges remaining for wider acceptance.

The program was organized by a committee of SEMI | FlexTech members, NextFlex and OE-A with a sponsorship by Novacentrix.

**Overall Observations:**

- Tesla’s design and sourcing methodologies are much flatter, but not yet having a great impact on the way innovations are adopted by traditional OEMs.
- FHE are already embedded in:
  - Door handle sensors
  - Custom lighting – sills & interior lighting schemes
  - Capacitive touch controls via large are displays consoles
- Aftermarkets are controlled by OEMs as well, but might be useful ways to demonstrate more FHE capabilities to the OEMs.
- As we move up the automated driver assistance systems (ADAS) levels, demand for flexible and curved displays will increase, as drivers are able to switch their attention away from the road for long periods of time.
- Fundamental FHE challenges remain in both technology and business realms:
  - Making stable and reliable interconnections remain a challenge.
  - High temperature plastic substrates would be welcome for increasingly stringent testing and reliability specifications in the automotive sector.
  - Advanced packaging solutions are impressive, but thermal demands still pose challenges.
  - Until 5G is more clearly defined, antenna needs will be unclear, but FHE has clear advantages here.
  - There does not appear to be significant market pull on FHE from the OEM’s in the near future. Curiosity? Yes. Directories and easily accessed information will assist in satisfying curiosity.
Showing the right people the possibility of FHE is challenging. The supply chain is long and complicated.

Throughout the day, the differences in approach to innovation between the electronics industry and the automotive industry was quite clear. This opportunity to share perspectives on products and technology was highly valued by those who attended.

NextFlex's Innovation Day

It was a full house at NextFlex for their 2nd Annual Innovation Day on September 21. Over 300 people gathered to celebrate a year of manufacturing, innovating and educating with speakers, demos and networking.

The list of guest speakers included U.S. House of Representatives, California, Zoe Lofgren and Ro Khanna and members from the California State Assembly, Bob Wieckowski and Kansen Chu who gave inspirational speeches about the changing manufacturing landscape and workforce development.

The latter half of the day was dedicated to 20+ table tops from companies, universities and government organizations. A constant chatter filled the room as researchers, engineers, students and alike came together to discuss their latest development, breakthrough or innovation in their area of expertise.

Upcoming Events

Printed Electronics Insights: Smart Packaging & IoT
Cambridge, Great Britain
OCTOBER 11-12, 2017

A day of presentations and panel discussion on IoT and its application in Smart Packaging ranging from experiences of packaging companies to the latest innovations from academia. View the program here. FlexTech members receive a discount on ticket prices.
How does the convergence of semiconductor and organic electronics manufacturing & application come into play with the rise of IoT devices and systems? Explore efficient integration of smart systems at a low cost enabled by plastic electronics.