SEMI-FlexTech Membership
Your Key to Collaboration in a Global Marketplace
Exceptional Services for the Electronics Industry

Advocacy • Communities • Expositions/Conferences • Market Intelligence
Standards • Workforce Development • Thought Leadership

20+ Technology Communities
7 Semicons
5000+ Volunteers
2,260+ Member Companies
170+ Programs
1.3mil People Served
2300+ Program Hours
980+ Standards

One SEMI
SEMI Connects the Electronics Manufacturing Supply Chain

SEMI global platforms, standards, technology communities, interest groups, committees, conferences, and expositions gather the extended electronics supply chain for comprehension, synchronization, and action.

CONNECT  ♦  COLLABORATE  ♦  INNOVATE
Five SEMI Vertical Application Markets

<table>
<thead>
<tr>
<th>“Consumer”</th>
<th>“Factory”</th>
<th>“Car”</th>
<th>“Health”</th>
<th>“Data”</th>
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<tbody>
<tr>
<td>Home-related examples</td>
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<tr>
<td>• Wearables</td>
<td>• IoT</td>
<td>• Safety</td>
<td>• Wireless patient monitoring</td>
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<tr>
<td>• Smart Lights</td>
<td>• Industry 4.0</td>
<td>• Telemetrics</td>
<td>• Dose monitoring</td>
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<tr>
<td>• Smart Locks</td>
<td>• Machine Learning</td>
<td>• Infotainment</td>
<td>• Health and wellness monitoring</td>
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<tr>
<td>• Smart Thermostat</td>
<td>• Sensors</td>
<td>• Wearables</td>
<td>• Biometrics, sensing, and diagnostics</td>
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<tr>
<td>• Smart Coffee Pot</td>
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<td>• Car-to-car, car-to-road</td>
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<tr>
<td>• Smart Pet Feeder</td>
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<td>• Driverless cars</td>
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</table>

Flexible hybrid electronics, printed electronics, MEMS/sensors, and electronic textiles will all play a role in these vertical markets.
FlexTech is one of the many ways to get involved
FHE Application Segment Leader: Transportation

**Autonomy**
- Sensors
- Advanced driver assist
- Driver monitoring
- Highway pilot to full automation (SAE level 4-5)

**Cockpit of the Future**
- Functionality meets interior design
- Driver and passenger monitoring
- Displays – curved, center stacked, head-up

**Connected**
- Infotainment apps
- Local travelers’ services
- Telematics for fleets, roadside assist, infotainment

**Safety & Security**
- 360° birds eye view
- Information-rich lighting
- Anti-theft

**Fuel & Power**
- Electric vehicles – batteries
- Energy harvesting windows / devices

**Monitoring Requirements**
- Stringent automotive reliability requirements
- Cost effective
- Volume manufacturing
- Safety-critical standardization
- Anti misuse & abuse
FHE Application Segment: Medical, Health and Wellness

Cognitive Function
- Military, consumer, industrial, and athletics
- High value assets, safety, performance

Telemedicine
- Vital sign and geriatric patient monitoring
- Reduced health care costs
- Continuous measurement capability

Treatment Response
- Reduce treatment cycle times
- Reduced costs
- Lower mortality rates

Aeromedicine
- Coordinated triage
- Continuous vital sign monitoring
- Variable / austere environment

Performance Monitoring
- Improved health and wellness
- Athletic performance enhancement

Monitoring Requirements
- Cost effective
- Unique accuracy & precision
- Low maintenance
- Automated analytics
Building Industry Consortia: History of FlexTech

1993  Founded as US Display Consortium
   • R&D partnership between industry and US Government
   • 136 projects - $205M combined investment

2008  Re-Launched as FlexTech Alliance in 2008
   • 55 projects – $32M combined investment

   • 17 projects – $15M combined investment

2015  Launched Manufacturing Innovation Institute – Flexible Hybrid Electronics - NextFlex
   • $75M federal investment + $90M in industry cost share

2016  Became SEMI’s first Strategic Association Partner

2018  NBMC Re-Launched as Nano-Bio Materials Consortium
   • $7M federal investment

4 Consortia Formed
$400M+ of Federal Investment + Industry Match
Collaborative Development
The Consortium Model

Industrial Partner Objectives & Market Drivers

US Government Mission

R&D Consortia

Flexible Hybrid Electronics Supply Chain Development
- CMOS integration
- Power
- Radio & communications
- Sensing, warnings, wearable displays

Flexible, Wearable Human Performance Monitoring
- Human performance monitoring/augmentation
- Medical application
- Wearable devices & subsystems

Flexible Hybrid Electronics Manufacturing
- Manufacturing platforms
- Process design rules & kits
- Cleanroom assembly & system integration

Go-To-Market Advisory Group

Technical Council

R&D Projects

Governing Council

Government & Commercial Strategy Alignment

Pilot Manufacturing Consortium

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R&D Projects

Technical Council

Governing Council

Government & Commercial Strategy Alignment

US Government Mission
Assemble investment partners and governing council

Identify needs and challenges

Assess the technology landscape (technical council)

Issue a request for proposal

Fund projects – typically at a 50% cost share

- Q2 2017
- Q4 2017
- Q2 2018
- Q1 2019
- Q2 2019
Benefits of a SEMI membership

**EDUCATION**
- Industry Data
- Advocacy
- Workforce Development

**TECHNICAL EXPERTISE**
- Standards
- Technology Communities
- R&D Programs

**CONNECTION**
- C-level Forums
- Technical Conferences & Workshops
- World Class Trade Shows
- Online Members-only Forums
- PR & Marketing

Discounts!
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<th>Engage For Better Business Results</th>
<th>Non-Member</th>
<th>SEMI Member includes MSIG, FlexTech &amp; FOA Technology Communities</th>
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<td>Network, exhibit, sponsor or present at SEMI’s 100+ conferences</td>
<td>✔️</td>
<td>✔️ Discounted Pricing &amp; Exhibitor Points</td>
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<td>Purchase market data reports and databases</td>
<td>✔️</td>
<td>✔️ Receive discounts</td>
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<td>Standards development and access</td>
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<td>Meeting space at SEMI HQ in Milpitas, CA</td>
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<td>Access to unique market updates &amp; an online library of reports and presentations</td>
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<td>Participate in SEMI’s Technology Communities— including FlexTech, MSIG, FOA</td>
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<td>Exclusive online and in-person networking opportunities</td>
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<td>Global exposure-- membership directory listing, webinars, blog posts &amp; press releases</td>
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<td>Directly participate in SEMI’s advocacy efforts worldwide</td>
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<td>Be a leader on critical industry initiatives such as Smart Manufacturing &amp; workforce development</td>
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<tr>
<td>Save $$ on industry &amp; business services through our Cost Savings Program</td>
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JOIN NOW

It all starts with your SEMI membership.

Contact one of our membership managers.

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FlexTech Resources – How to get started

- **FlexTech InfoHub** – Flexible, Hybrid and Printed Electronics: flextech.org
- **Members Only Online Community**: [http://connect.semi.org/home](http://connect.semi.org/home)
- **How to Join SEMI**
  - Membership Application: [https://store.semi.org/membership-application](https://store.semi.org/membership-application)
  - Technology Communities Application: [goo.gl/HmMXMD](http://www1.semi.org/en/fe-public-library)
- **Social Media**
  - LinkedIn: [https://www.linkedin.com/company/flextech-alliance/](https://www.linkedin.com/company/flextech-alliance/)
  - Twitter: [@flextechnews](https://twitter.com/flextechnews)