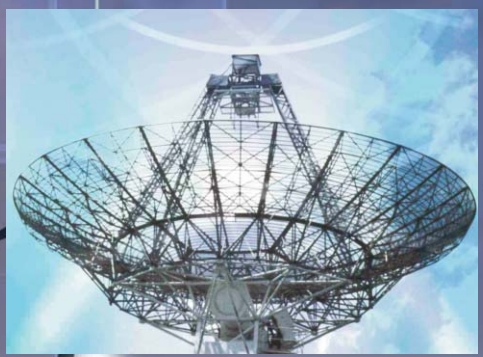
TECHNICAL INSIGHTS

FROST & SULLIVAN

TechVision

Top 50 Multi-Billion Dollar Technologies and Innovations Reshaping Our World



TechVision

The TechVision program continues to be the flagship research of Technical Insights, the Technology and Innovation Consulting and Research practice of Frost & Sullivan. TechVision embodies a collection of the most exciting technologies that are actively shaping our world. This body of work is a culmination of thousands of hours of relentless effort put in by over 60 global technology analysts based in six continents.

A unique feature of the TechVision program is an annual selection of Top 50 technologies which are driving visionary innovation and stimulating global growth. The selected technologies are spread across nine Technology Clusters shown below and represent the bulk of R&D and innovation activity today. Each Technology Cluster represents a unique group of game-changing technologies which are attracting huge investments, demonstrating cutting-edge developments, and driving creation of new products through technology convergence.

Our technology analysts are constantly collecting intelligence on several emerging and disruptive technologies and innovations from around the globe. Numerous interviews are conducted with innovators and technology developers, funding sources, and others involved in the technology ecosystem. The respondents are spread across public and private sectors, universities, research institutions, and R&D-focused government agencies. Next, each technology is rated and compared across many parameters such as global R&D footprint, year of impact, global IP patenting activity, private and government funding, current and emerging applications, current and potential adoption rate, etc. Finally, the list is condensed to the Top 50 technologies which we believe have the maximum potential for mass commercialization and wide-scale impact.

Our analysts went a step further and looked for possible convergence scenarios where two or more of the Top 50 technologies are likely to come together to disrupt, collapse and transform the status quo. Driven by IP interactivity emanating from each of the top technologies, a whole range of new concepts, products and services will be launched at unprecedented speed in the future.

The TechVision program is enriched with ideas to empower your visionary innovation initiatives.

Rajiv Kumar
Senior Partner

Sensors & Control

Clean & Green Environment

Materials & Coatings

Information & Communication Technology

Health & Wellness

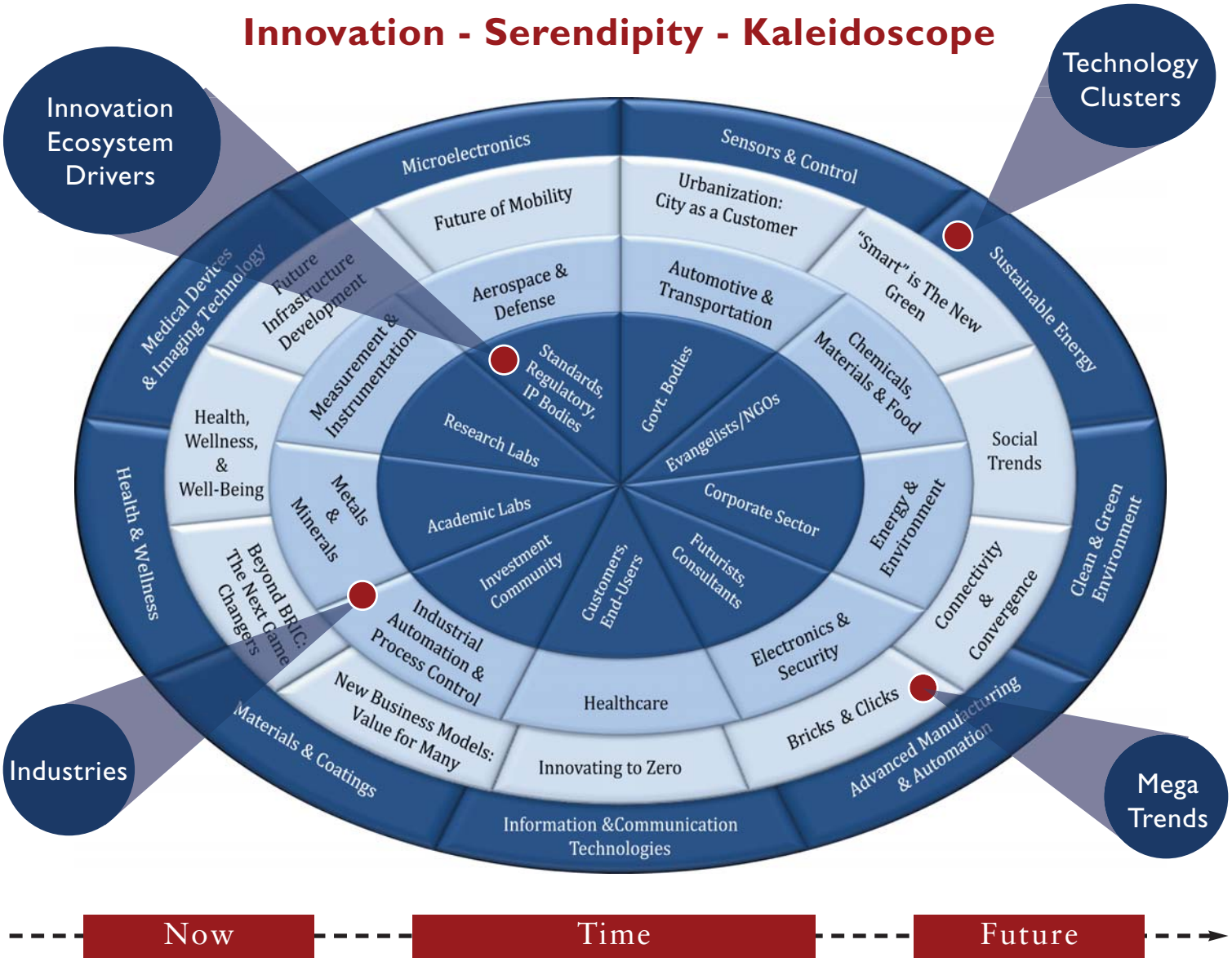
Sustainable Energy

Medical Devices & Imaging Technology

Advanced Manufacturing & Automation

Microelectronics

Innovation - Serendipity - Kaleidoscope



While each Technology Cluster is an independent domain demonstrating excellence in global R&D and innovation, all clusters are virtually interlocked. The vast array of current and future applications of these dynamic technologies are interdependent and overlapping. These technologies are rapidly evolving and form a vortex of innovation driving new concepts, products, and services.

Benefits of TechVision Program

- Identify emerging and disruptive technologies to develop, acquire or invest in
- Synergize R&D projects and manage portfolio
- Leverage intelligence for early-mover advantage
- Empower serendipitous technology convergence
- Drive product development and commercialization
- Effectuate strategic decision making
- Collaborate and co-create value

How to leverage the TechVision program

2014 TechVision Research - The Top 50 Technologies Compendium

Multiple Technology Convergence Deliverables

Technology Advisory Services and Briefings

Deep Dive Technology Tracking

Technology Convergence Workshops with your Executive Team

24/7 Access to our Global Technology Analysts

Leverage TechVision as an Innovation Engine to drive exponential GROWTH

Health & Wellness
• Nanomedicine • Biosimilars • Cancer Immunotherapy • Synthetic Biology • Stem Cell Therapeutics • Metabolomics

Information & Communication Technology
• Augmented Reality • XaaS Platform • Dark Data • Cognitive Analytics • Context-Aware Computing • Predictive Data Analysis • Neuromorphic Computing • Virtual Reality

Medical Device & Imaging Technology
• Digital Tomosynthesis • BioNEMS/Nanofluidics • Health Informatics • Neuromodulation Techniques

Sustainable Energy
• Big Wind Power • Floating LNG • Hydraulic Fracturing • Heat Pumps • Li-based Batteries

Global Top 50 Technologies

Microelectronics
• Wearable Electronics • Wireless Charging • Printed/Flexible Electronics • Smart Haptics & Touch • OLED Displays

Clean & Green Environment
• Solid Waste Upcycling • Desalination • Advanced Filtration • Air Filtration • Smart Metering

Sensors & Controls
• Quantified Self • Touchless Sensing • Energy Harvesting • Sensor Fusion • M2M Communications

Advanced Manufacturing & Automation
• 3D Printing • Atomic Layer Deposition • Multi-Material Joining Technologies • Composites Manufacturing

Materials & Coatings
• Polymer Chameleons • Self-healing Materials • Biochemicals • Superhydrophobic Coatings • Antimicrobial Coatings • Carbon Fibers • Lightweight Composites