

IEEE Future Directions: An Overview

2023



An Introduction to IEEE Future Directions



What is the IEEE Future Directions

- Anticipates the direction of new and emerging technologies and world challenges that IEEE can impact
- Coordinates resources across an unmatched array of IEEE technical expertise globally
- Scouts out and nurtures ways IEEE as a whole can provide an impact through its broad and deep volunteer base
- Bridges across IEEE Operating Units (OUs) to ride fast-rising waves of innovation
- Provides a valuable collaborative view and fosters engagement, enabling IEEE OUs to develop new offerings

Goals

- Actively engage Future Directions Committee to ensure success of its initiatives from incubation to transition
- Promote and enable incubator projects

[ieee.org/futuredirections](https://www.ieee.org/futuredirections)



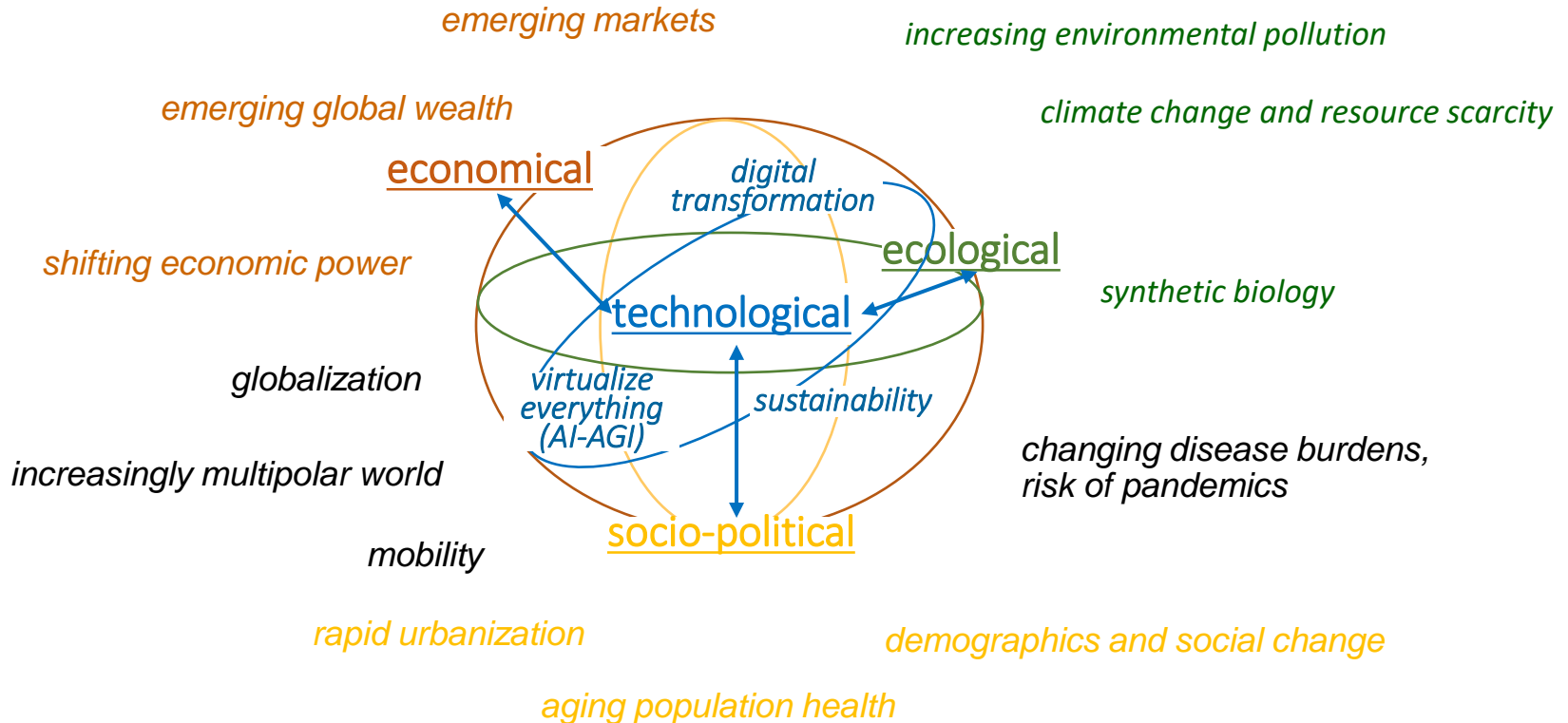
2023 Strategy and Vision

Continued collaboration across all of IEEE and beyond

- Continue collaboration between FDC's Industry Advisory Board (IAB) and Industry Engagement Committee (IEC), expand to Gartner and MIT Tech Review
- Foster new Technology Roadmaps across Initiatives and Societies
- Continue and grow external partnerships with Microsoft, Lockheed Martin, and others
- Continue outreach to Societies and Councils that was started in 2022, addressing February Presidents' Forum
- Invited to address collaboration ideas at February IEEE-USA Board meeting
- Expand coverage of Future Tech Forums leading to an in-person Forum in 2024
- Support IEEE wide effort on Climate Change

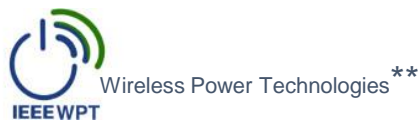


Technology Megatrends vs General Megatrends



<https://innovationatwork.ieee.org/top-technology-trends-for-2023/>

2023 IEEE Future Directions Coverage



*Last year (2022) in Future Directions

**New in 2023

iee.org/futuredirections

Exited from Future Directions



X Becomes a Council in 2024

Engagement Opportunities

How can I get involved...

Engagement Opportunities

- Serve on current initiatives
 - Initiatives: Digital Privacy, Digital Reality, Future Networks Testbed, Low Earth Orbit (LEO) Satellites and Systems, Metaverse, Public Safety Technology, Quantum, Smart Lighting, Telepresence
- Participate in Technical Roadmaps
- Provide Subject Matter Expert speakers to relevant Future Directions events
- Contribute articles to Future Directions Newsletter and/or select initiative newsletters
- Directly influence and participate in education, and drive standards work
- Or simply learn more about IEEE Future Directions

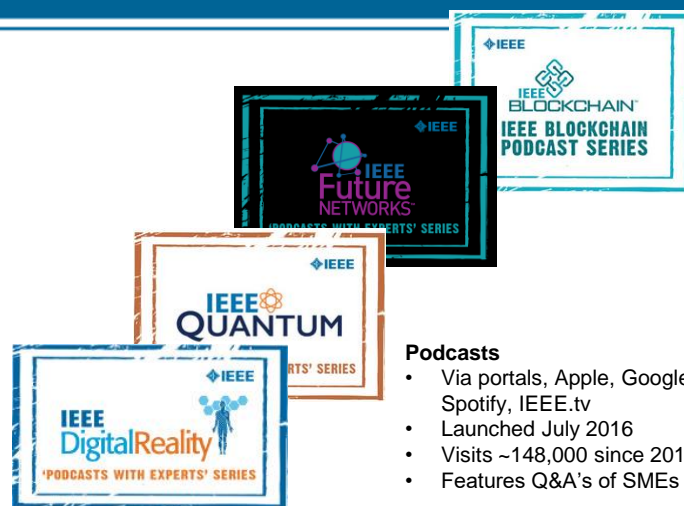
IEEE Future Directions Outreach and Engagement

- ✓ *Blog*
- ✓ *Web Portals*
- ✓ *eLearning Modules*
- ✓ *Webinars*
- ✓ *Workshops*
- ✓ *Conferences*
- ✓ *Competitions*
- ✓ *Podcasts*
- ✓ *eNewsletters*



Bi-monthly dedicated eNewsletter

- Reach ~40,000 unique subscribers
- Launched April 2016
- Original articles written by SMEs
- Feature section on Tech Policy and Ethics



Podcasts

- Via portals, Apple, Google, Spotify, IEEE.tv
- Launched July 2016
- Visits ~148,000 since 2018
- Features Q&A's of SMEs



Nicholas Napp, co-founder of Xmark Labs explores salient aspects of AI in gaming. He examines social and ethical implications for humanity along with perils, challenges, and opportunities in this realm.



Jeewika Ranaweera, Principle Hardware Engineer at Oracle shares her unique insights on numerous areas where immersive technologies can benefit humanity. From improved employee and professional training, to treating medical and mental disorders and improving the overall daily lives of individuals, Jeewika explores how virtual and augmented reality technologies can be employed for the betterment of society.

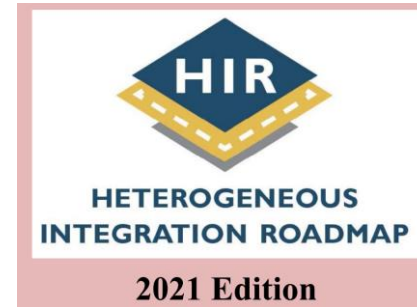
4 Published Roadmaps – all are “humming”!!

roadmaps.ieee.org



INTERNATIONAL ROADMAP FOR DEVICES AND SYSTEMS™

[Computer Society, Rebooting Computing]



[EPS]



[PELS]



[ComSoc]

IEEE Future Tech Forum Signature Roundtable Signature Events

Small virtual roundtables all the way up to a “World Technology Forum” that mimics the World Economic Forum

Interactive Series from 2021 available on demand

- 30 April 2021: [Climate Change](#)
- 25 August 2021: [Digital Privacy](#)
- 11 October 2021: [Digital Inclusion—International Day of the Girl Child](#)
- 8 December 2021: [Public Safety Technologies](#)

<https://cmte.ieee.org/futuredirections/future-tech-forum/>

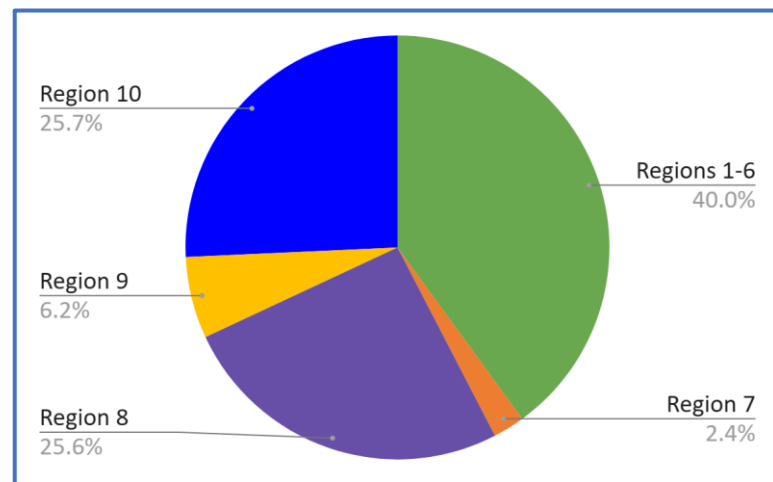


IEEE Future Tech Forum Signature Roundtable Signature Events - 2022

- The Social Digital Twin
- Responsible AI
- Sustainable Manufacturing: Innovation and Challenges
- Technology Standards: Rapid Technology Evolution Demands New Approaches
- Expanding Humanitarian Applications with Technology Roadmaps
- International Day of the Girl
- Future of Workforce



7 December 2022: Future of the Workforce



<https://cmte.ieee.org/futuredirections/future-tech-forum/>

IEEE Future Tech Forum Signature Roundtable Signature Events - 2023

- 2 x Climate Change (April: Planet Positive)
- IEEE Metaverse Initiative
- Inventors, Entrepreneurs, and the Future

- Engineering the Road to Space
- European Public Policy Activities
- 2nd Digital Privacy
- 2nd Public Safety Technology

- Partnership: Lockheed Martin
- Partnership: Microsoft

- Collaborations: IEEE Societies
- Focus on Region 9 and 10 Sessions
- *And more...*



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