

Valletta, Malta, March 15<sup>th</sup>, 2029



## Core Purpose | Mission | Vision (2015-2020)

- ▶ The **IEEE** core purpose is to foster technological innovation and excellence for the benefit of humanity
- ▶ The **IEEE Entrepreneurship Initiative** strives to amplify exposure of activities, programs, communities, and events for founders *and aspiring entrepreneurs* that exist across the breadth of IEEE
- ▶ The **IEEE N3XT® Affiliate Event Program** is designed to help create experience consistency in order to more strongly engage founders, aspiring entrepreneurs, and those working in startups across the decentralized and diverse IEEE communities

# Programs for 2018 & 2019

## ▶ 2018 Launched Program

### IEEE N3XT® Affiliate Event Program

- Planned and budgeted 3-5 → [executing 8 by EOY](#)

## ▶ 2018 Scaled Program

### IEEE N3XT® Stars Program

- Targeted selection of external events based on opportunity for partnership
- Utilized [IEEE N3XT® Stars](#) as Affiliate Event Speakers

## ▶ 2018 Community IEEE + Entrepreneurship Membership & Social Media

- Engineering-Driven consistency in web & eNews
- IEEE + Entrepreneurship News and Activity “Catch”
- Efforts to convert [activity](#) > [subscriber](#) > [member](#)

## ▶ 2018 Pilot Program Launch

### IEEE Entrepreneurship Founder Office Hours

- Opportunity for IEEE member startups to access [Investor & Business Mentors](#)

## ▶ 2018 Pilot Program Activity

### IEEE Entrepreneurship – Local Networks

- Tested [Local Area Network](#) development with Region 2 YP leaders – Pittsburgh
- 2019 Inquiries: Singapore, Brazil, Turkey

## ▶ 2019 Expand 2018 launches and focus on Global Partnerships

- Singapore NRF, Hello Tomorrow, United Nations Global Sustainable Tech, etc.

# IEEE Entrepreneurship Activities & Events v. the IEEE N3XT® Event Series (2018-2019)

► **IEEE Entrepreneurship Brand = Anything IEEE + Startup**

- Portal and [event calendar](#) that promotes all activity that is “IEEE + Startup” including Society/Council conferences with content or speakers geared to these audiences

► **IEEE N3XT® Affiliate Event Series:**

- An IEEE trademarked brand that IEEE events can apply for through an application process including review as well as approval and agreement to deliver on a consistent brand experience



# IEEE N3XT® Affiliate Program Pilot Year (2018-2019)

*The name IEEE N3XT® embodies the spirit of engineering-driven technological development by using the root of the word “next,” and the numeral “3” to represent the three event pillars of ideas, innovation, and inspiration.*

## ► About IEEE N3XT® Affiliate Events

- IEEE Organizational Units planning an event geared toward the startup community apply to be included in the IEEE N3XT® Event Series
- IEEE Entrepreneurship works in partnership with IEEE Entities to host branded IEEE N3XT® events
- Partners agree to abide by the event MOU guidelines and milestones to host an event within a conference or as a stand-alone such that the attendee experience with the events is similar
- **Creates consistency across/within varied IEEE organizational units with the ideal of creating a similar attendee experience aka brand expectation**  
*(see back-up slides 17 - 25 for details on the 2018 programs)*



# IEEE N3XT® Stars @ Tech Entrepreneur Competitions (2018-2019)

- ▶ **IEEE N3XT® Stars Program** is **NOT** a stand alone event or activity
  - selection occurs in collaboration with large-scale technology startup competition events
  - 2017 Pilot included: Launch Festival, Collision, Hello Tomorrow & European Union's K4I
- ▶ **IEEE Judges identify and select from event competition candidates**
  - with engineering-driven innovation at their core, and
  - that align with the IEEE core purpose to foster technology and innovation for the benefit of humanity



California, USA  
5 Sept 2018



Singapore  
17-20 Sept 2018



Brussels, Belgium  
26-27 Nov 2018



Brussels, Belgium  
28-30 Nov 2018



# Summary from Past Ad Hoc Chair, Allan Tear

- ▶ There is low awareness of IEEE as a value-added player in startups, and we need credible partners to amplify reach
  - Widen/deepen partnerships with active/known players in the frontier tech startup space (currently active with Hardware Cup, Hello Tomorrow, Web Summit/Collision, Cyclotron Road)
- ▶ Build entrepreneurship networks in local communities matching on-the-ground needs. We are building resource kits / education rather than reacting to constant call to seed fund local efforts
  - IEEE East Africa, Singapore, India.
- ▶ Launch an N3XT entrepreneurship product that offers a bundle of resources to engineering driven founders and teams, without pushing them through the IEEE membership journey first
  - Find IEEE Entrepreneurship through N3XT, then discover the full IEEE, rather than the other way around. Entrepreneurs don't have the time/patience to digest all of IEEE in one bite
- ▶ Although we now have standing committee, resourcing is extremely limited and number of volunteers familiar with today's startup low
  - We are working hard to find a leverage model that makes some progress possible on these points

# IEEE History of Strategic Plans

- ▶ **2015-2020 Goals:** agile communities, emerging technologies, humanitarian activities, public policy  
**Initiatives:** industry/YPs/entrepreneurship, vitality, public service, adapt structure/processes
- ▶ **2020-2025 Goals:** Open access, 4M Members, agile standards, new style events  
**Initiatives:** IEEE OA pubs, long tail services platform, microtraining, IEEEmeetups
- ▶ **2025-2030 Goals:** global meetups, 10% population reached, IEEEgithub, AI interoperable standards  
**Initiatives:** IEEEgithub, IEEE technology predictions, OAIX, AI grand challenge



# Microtraining (2025)



- ▶ Why: entrepreneurs need access to timely training and it is easier to produce smaller chunks
- ▶ What: short videos (<15 minutes) on recent technologies, linked to IEEEgithub, standards, etc.
- ▶ How: gather anecdotal evidences at meetups, from github, challenges, etc.
- ▶ Results (relative to # of students and 31.2M practitioners)
  - Member conversion (93.6K, 0.3%); Engagement (0.93M; 3%); Reach (6.2M, 20%)
  - 5% of IEEE revenue, 15% margin
- ▶ Success stories
  - Continuous increase in traffic ever since introduction
  - # references to microtraining surpassed traditional papers for the first time in 2029



# Meetups Meet IEEE Events (2025)

- ▶ Why: entrepreneurs have similar technology and business needs in a focused manner
- ▶ What: regular and impromptu gathering of like minded people in the similar field of interest
- ▶ How: meetups as a part of traditional events, logistics for independent ones
- ▶ Results (relative to 63.2M people in the field of interest)
  - Member conversion (2,364; 2%); Engagement (15%); Reach (30%)
  - 5% of IEEE revenue, @20% margin
- ▶ Success stories
  - 90% of IEEE events had associated meetups
  - There were 3 times more meetups than traditional events in the period
  - Meetups lead to engagement with new businesses (subscription, training, corporate membership)



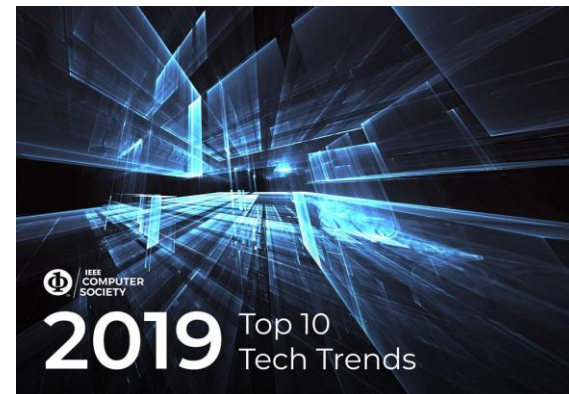
# IEEEgithub (2025)

- ▶ Why: entrepreneurs need focused solutions to specific problems, timely/relevant information
- ▶ What:
  - repository of code, data, prototype apps, lessons learned, background knowledge
  - information about related investors, other startups in the same area
  - access to potential customers
- ▶ How: leverage customized github instance to enable global startups to freely store and access information; sponsorship from investors, customers, advertisement or gold membership
- ▶ Results (relative to 31.2M practitioners)
  - Member conversion (62.4K; 0.2%); Engagement (0.31M; 1%); Reach (4.7M, 15%); Xplore acquisition (0.4%)
  - 5% of IEEE revenue, 30% margin
- ▶ Success stories
  - IEEEgithub surpassed traffic of Xplore in 2026; surpassed #documents in 2028



# IEEE Technology Predictions (2029-2030)

- ▶ Why: there was always need for as accurately as possible predicting future of technology entrepreneurs are on the cutting edge of technologies and best suited to predict
- ▶ What: estimate adoption and growth of technology (beyond roadmaps) in next 1, 5, 10 years
- ▶ How: gather experts and cross-compare tech roadmaps with business needs
- ▶ Results
  - Member conversion (0.1%); Engagement (10%); Reach (40%)
  - 5% of IEEE revenue, 20% margin
- ▶ Success stories
  - Governments, UN, corporate consulting, defining EU streams of funding
  - Substantial visibility through blogs, interviews, press
  - Predictions reached 100x more views than Xplore downloads



Total Pickup : 184  
Total Potential Audience: 10,458,058  
Engagement - 3,078  
Ranked #2 Dec 2018 on Google Search  
Ranked #2 on Bing Search & Bing News

# OAIX (Open AI eXchange) Goes Viral (2029-2030)

- ▶ Why: AI has gain wide adoption, yet not all deployments are interoperable and it is hard to standardize across geographies
- ▶ What: defined I/F for syntactic, semantic, and negotiation exchange between AIs
- ▶ How: combination of standards, technical development, and support
- ▶ Results (relative to 37.3B AI instances)
  - OAIX identifiable (90%); support core I/F (15%); negotiation I/F (2%); business I/F (4.7M, 0.15%)
  - 10% of IEEE revenue, 3% margin
- ▶ Success stories
  - 90% of AI instances support OAIX in one or the other form
  - OAIX generated opportunities for other products and services (microtraining, challenges, etc.)
  - OAIX licenses surpassed number of 802.11



ONNX

IEEE Industry  
Engagement  
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# Grand AI-Cybersecurity Challenge (2029-2030)



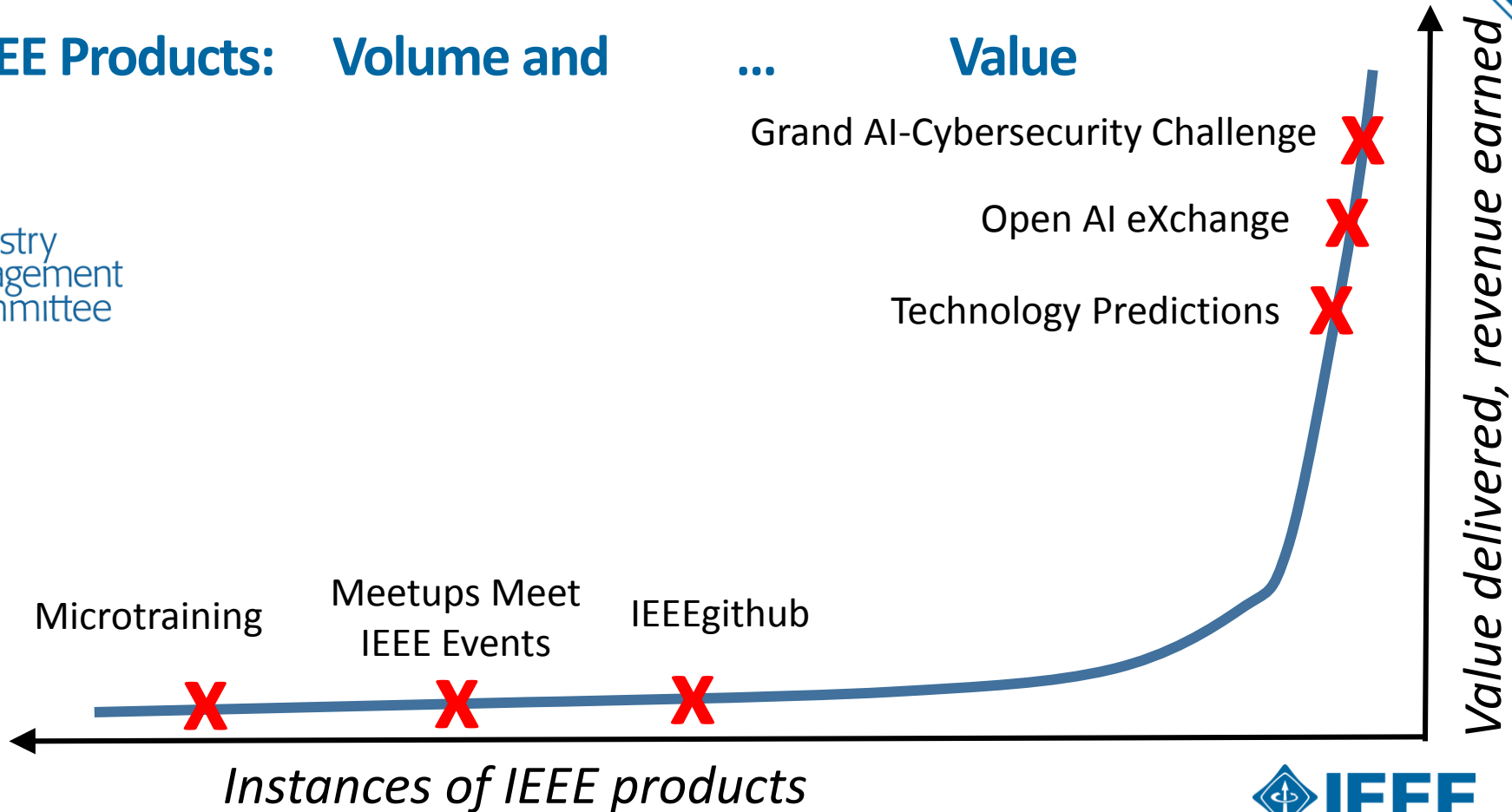
- ▶ Why: Bringing Civilization and Law to the internet (Cyberguard- watchdog, negotiator, enforcer)
- ▶ What: 1) standards/metrics for the effectiveness of cyber products; 2) arena for grand challenge competition; 3) repository for archiving traffic; attacks; defensive techniques; etc.
- ▶ How: sponsorship from global agencies and relevant corporate; relevant partners organizations /companies offering platforms (Unity); conduct competition to beat AI defense
- ▶ Results (relative to 37.3B AI instances)
  - 7 annual rand challenges run with participation from 5 (1<sup>st</sup> year) to 73 countries (7<sup>th</sup> y), and 12 to 276 individuals
  - 10% of IEEE revenue, 40% margin
- ▶ Success stories
  - Eliminated 5% of attacks, which are noise but distract from serious attacks
  - Established global standards for documenting and archiving attacks
  - Grew educational business for individuals and corporate to train in the AI-cyberspace defense
  - Reports to governments and corporate on the state of the cybersecurity AI
  - Grand challenge won Humanitarian award



## IEEE Products: Volume and

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## Value



# Summary

- ▶ What is common for all successful examples of the past 10 years?
  - They are all timely!
  - They are solving specific problem that our members have
  - They are either low touch or high end solutions
- ▶ Why is this important to IEEE
  - Diversified portfolio, from [Conferences (45%), Pubs (40%), Standards (10%), Membership (5%)] to [traditional (30%), meetups (15%), IEEEgithub (10%), microtraining (5%), OAIX (10%), Challenges (10%), TechCurves (5%), other (15%)]
- ▶ In 10 past years IEEE became much more visible to the world, resulting in growth:
  - Traditional paying membership 20% (500K), engagement membership to 6.9M, reach to 143M
  - member satisfaction rate grew 23%, major reasons stated: relevance, timeliness, ease of engagement
  - revenue grew +116% (\$1.08B), (8% YoY), attributed to traditional business (20%), new business (80%), other (16%)
- ▶ You may return to present time 😊!

IEEE Industry  
Engagement  
Committee





# Can IEEE be Bold?

- ▶ Envision what could be if IEEE took the initiative, if we chose to move forward boldly.
- ▶ Let me share that envisioned future with you some more in person.....