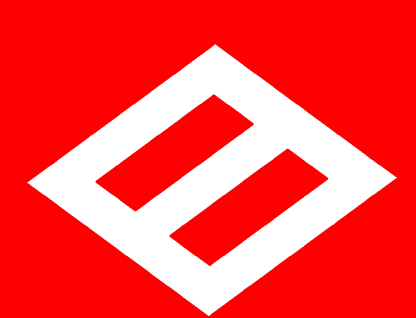
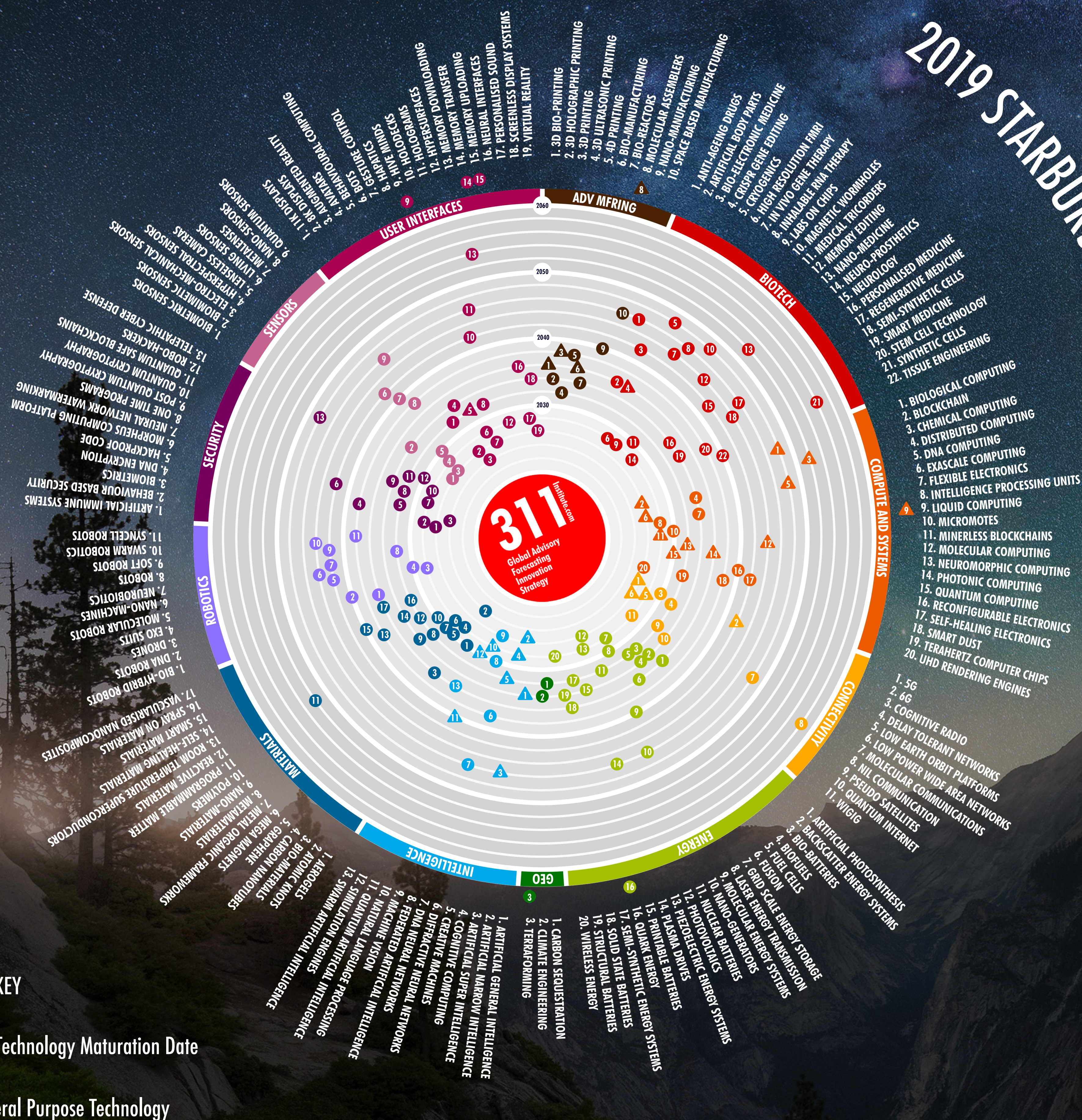




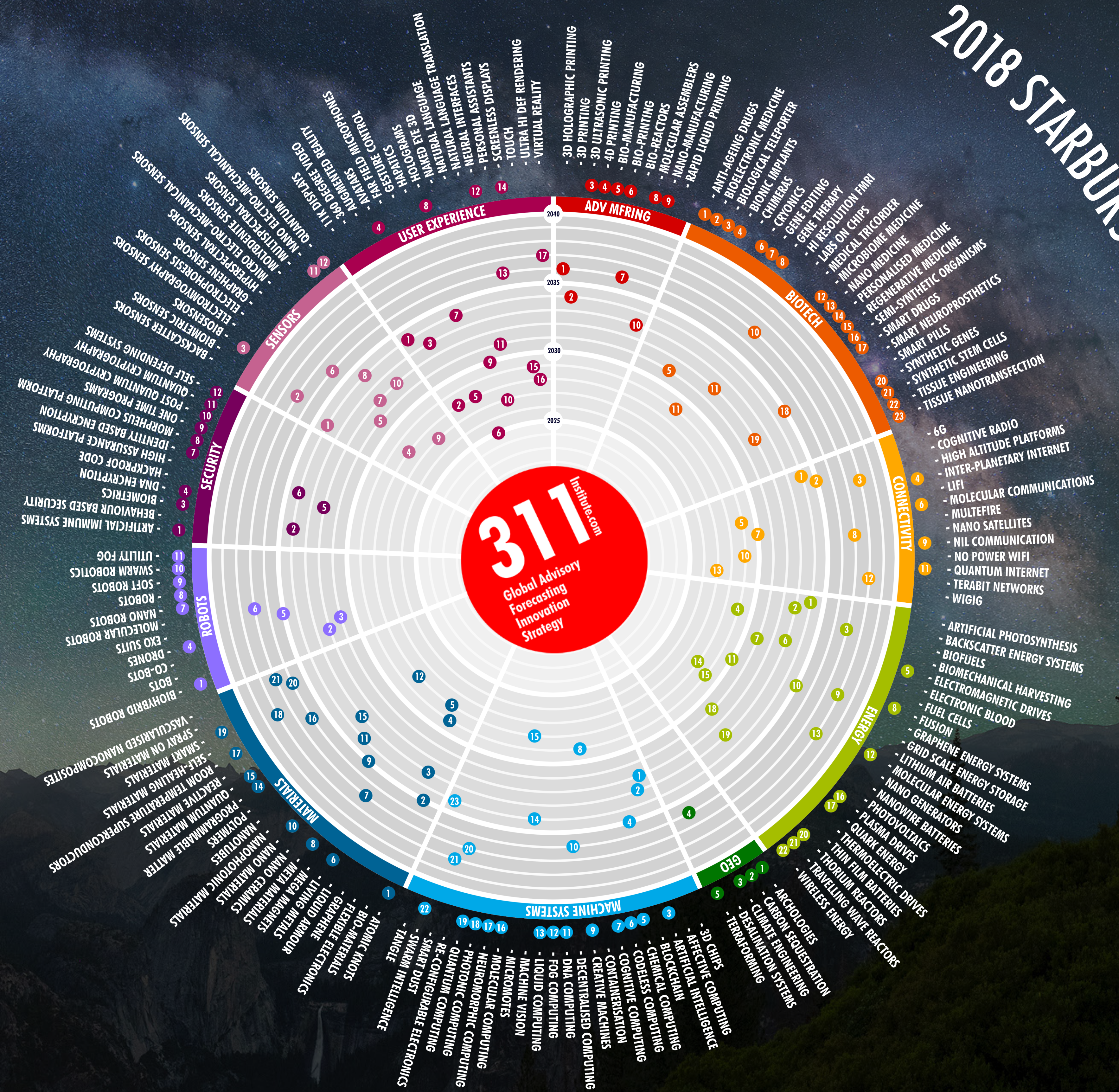
THE GRIFFIN EMERGING TECHNOLOGY STARBURST 2019 EDITION. WHAT WILL YOU #DISRUPT?

Vs

2019 STARBURST



2018 STARBURST



WELCOME FROM @311INSTITUTE

The 311 Institute is a global Futures and Deep Futures advisory, strategy, and innovation firm, and our mission to democratise access to the future and help people realise their exponential potential.

Now in its forth year the Griffin Emerging Technology Starburst is used by organisations all around the world to help them keep track of the latest emerging technology trends and envision the future of their companies and products.

LOOKING BACK AT 2018

In 2018 I saw an increase in the number of notable world firsts compared to 2017, especially in the fields of Computing and Materials. There were also note worthy breakthroughs in Advanced Manufacturing, Artificial Intelligence (AI), Computing, Neural Interfaces, and Synthetic Biology which included: First successful regenerative medicine trial to re-grow severed frog limbs • A Neuromorphic computer that simulated a whole mouse brain • An AI made out of glass • The first Quantum Compass • First AI art sold at auction • First conscious robot • First AI Synthetic Content generators • Development of the world's most durable material • A game of telepathic Tetris • First AI diplomat • Estonia first nation capable of re-booting itself • First space elevator trials • Weaponisation of neural networks • A 3D printed AI • An AI made entirely out of DNA • Living human memories edited for the first time • First million core Neuromorphic computer • Video's replayed from bacterial computers • Memories transferred between living animals • First AI robo-coder ... and MANY more.

INTRODUCING THE 2019 STARBURST

In this year's Starburst, which displays 168 of the world's most promising emerging technologies, each with an addressable market value of at least \$500 Billion spread across 12 categories, including for the first time Intelligence, I expanded the timeline from 2040 to 2060, promoted 41 new emerging technologies, and demoted 41, and for the first time, highlighted 25 society changing General Purpose Technologies.

In 2019 I expect to see even more astounding breakthroughs, many of which will build on the breakthroughs we saw in 2018.

MORE RESOURCES ...

Click or scan the QR code to download our Starbursts FREE companion EXPONENTIAL TECHNOLOGY CODEX to explore these technologies in more detail, and get access to thousands of articles, keynotes, podcasts, reports, and videos.

EXPLORE MORE. Click or scan me to learn more about the future.

