

A close-up, slightly blurred image of an industrial robotic arm with a yellow and silver body, holding a precision tool. The background shows other robotic components in a factory setting.

ROBOTICS

SUMMIT & EXPO

The International Technical Design and Development Event for Robotics and Intelligent Systems

June 5 – 6, 2019 • Seaport World Trade Center • Boston, MA

Why Innovators are Flocking to 5G

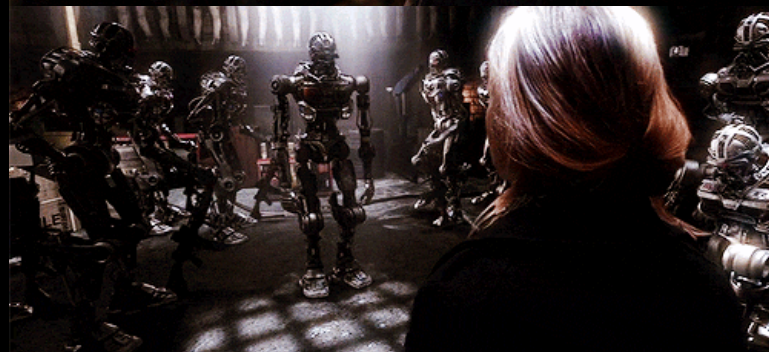
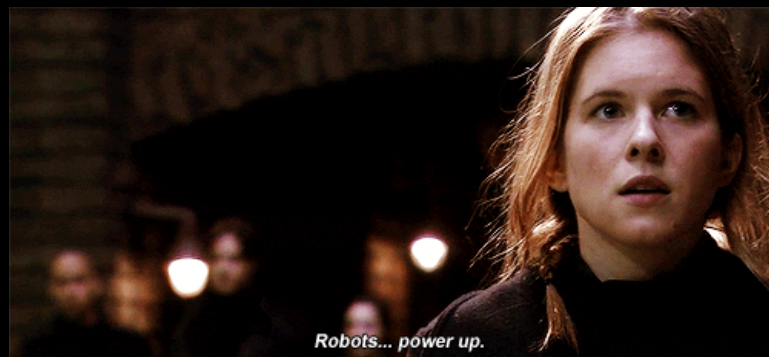
(And What You Should Do About It)



Joshua Ness
Sr Manager, Verizon 5G Labs
@jcness

5G[✓]
LAB

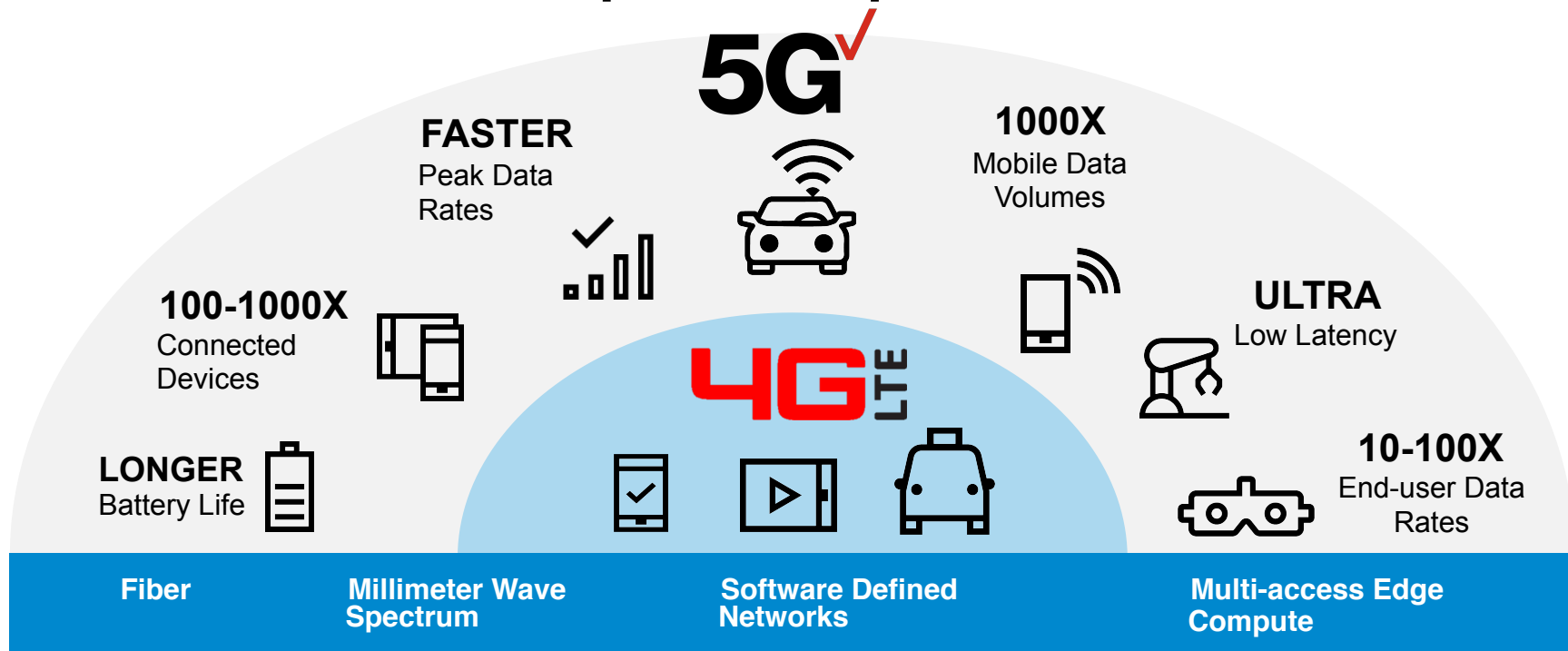
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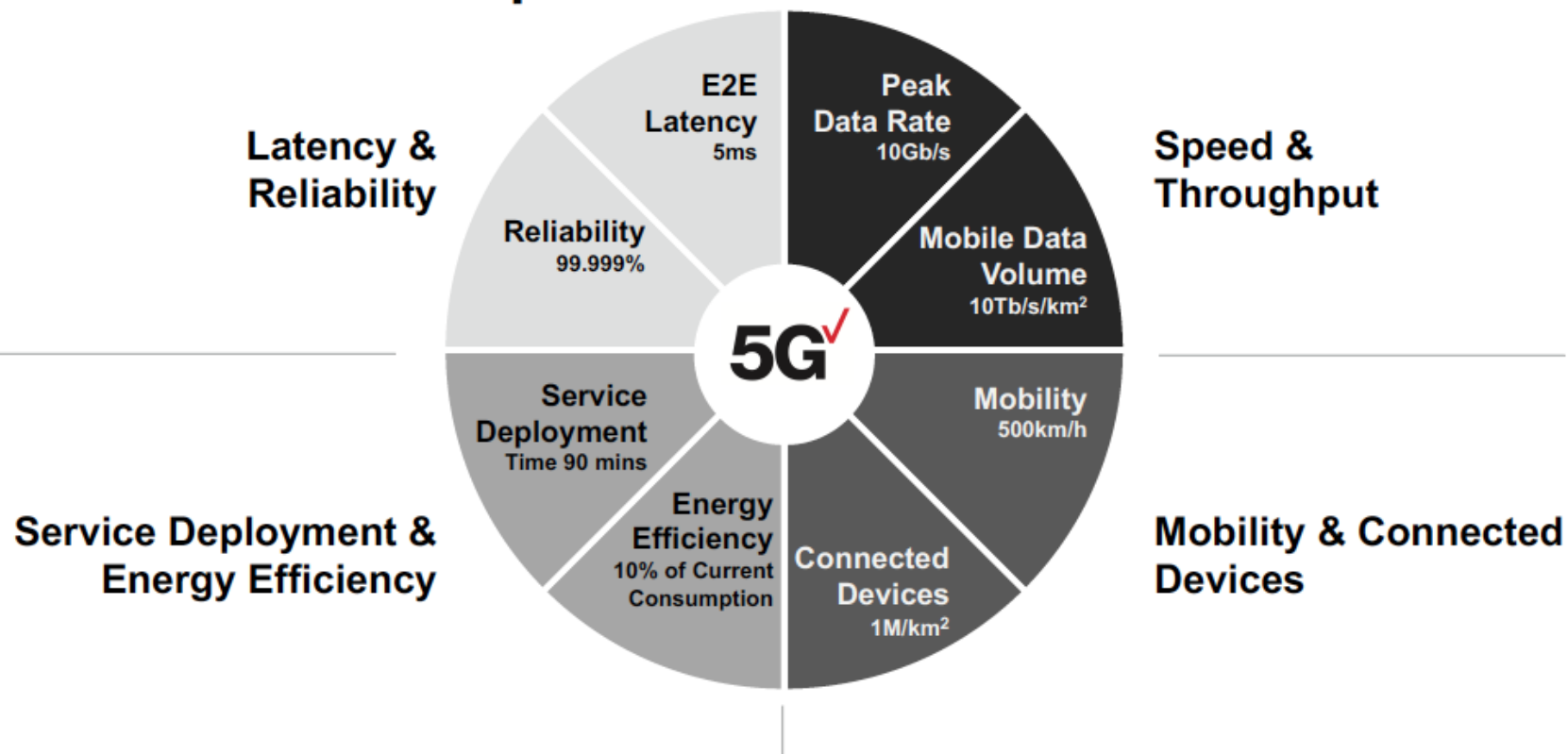
Evolution of Technology



5G Ultra Wideband expected capabilities vs. 4G



5G Currencies / Capabilities

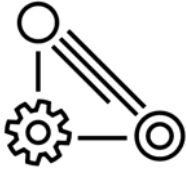


Ultimately, driving the Fourth Industrial Revolution

First Industrial Revolution

Water and steam power

The work one could do was no longer constrained by that individual's physical strength or endurance.

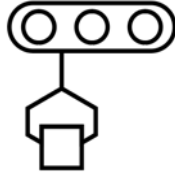


First mechanical loom, 1784

Second Industrial Revolution

Electrical energy and division of labor

Electrical energy means work can be done almost anywhere. Mass production becomes possible.



First conveyor belt, 1870

Third Industrial Revolution

Electronics and information technology

It becomes possible to offload mental work to machines, allowing businesses to do for thought what had been done for physical objects.



First programmable logic controller, 1969

Fourth Industrial Revolution

Cyber Physical Era

Massive change on the back of 5 technology shifts combining for a flywheel effect. AI, Next Gen Cloud, IoT, AR/VR/MR, and 5G. Pervasive intelligence, massive sensorization and immersive/augmented capabilities.



The real-time intelligent enterprise, 2019



What it is
How it works
Why it matters

A intentionally different approach to ecosystem engagement

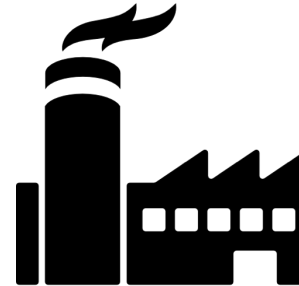
Created as a
community-based
incubator of startups
and innovators



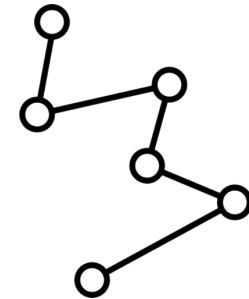
Knowing we need to
collaborate outside of
our four walls to drive
the Fourth Industrial
Revolution



Embracing of local
talent, expertise,
and industries

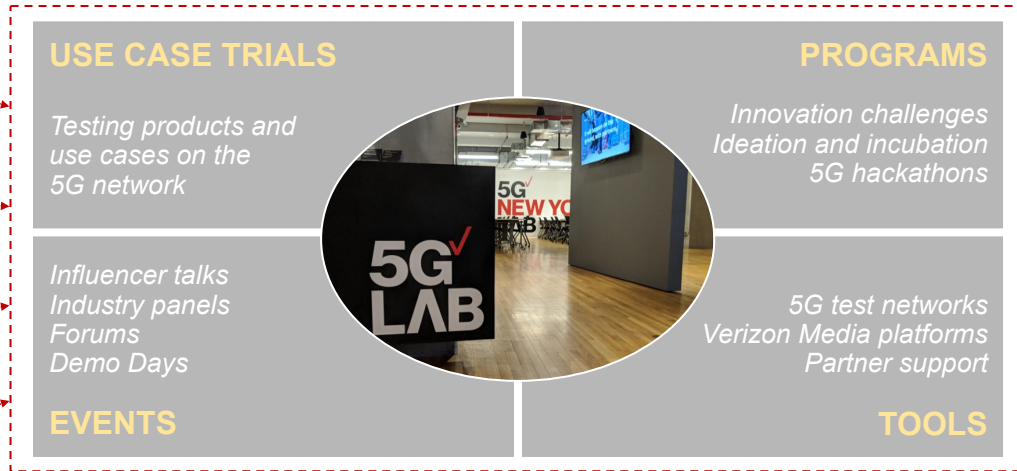
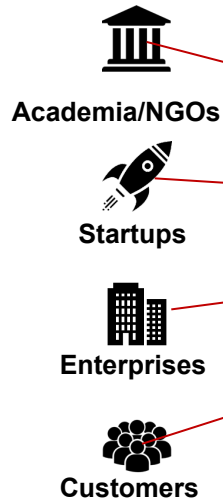


Amplified by
connecting to
strategic R&D
partners



How we operate our open innovation fabric:

COLLABORATORS



OUTCOMES

- Inspiration** and education about the 5G Future
- Exploration** and validation of 5G use cases
- Development** of real 5G experiences

5G
PALO ALTO
LAB

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LOS ANGELES
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NEW YORK
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5G
CAMBRIDGE
LAB

Meeting the creators and innovators where they are



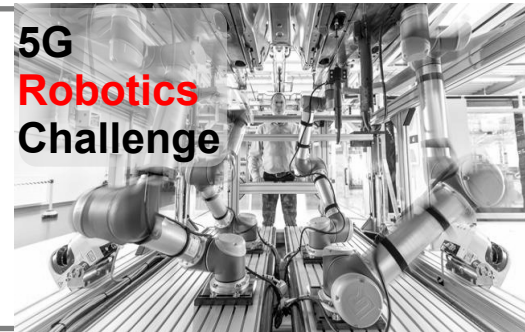
\$1M in awards to 10 companies who are incubating 5G solutions in our 5G Labs.

5G[✓] FIRST RESPONDER LAB

Supporting 15 first responder-driven startups throughout 2019



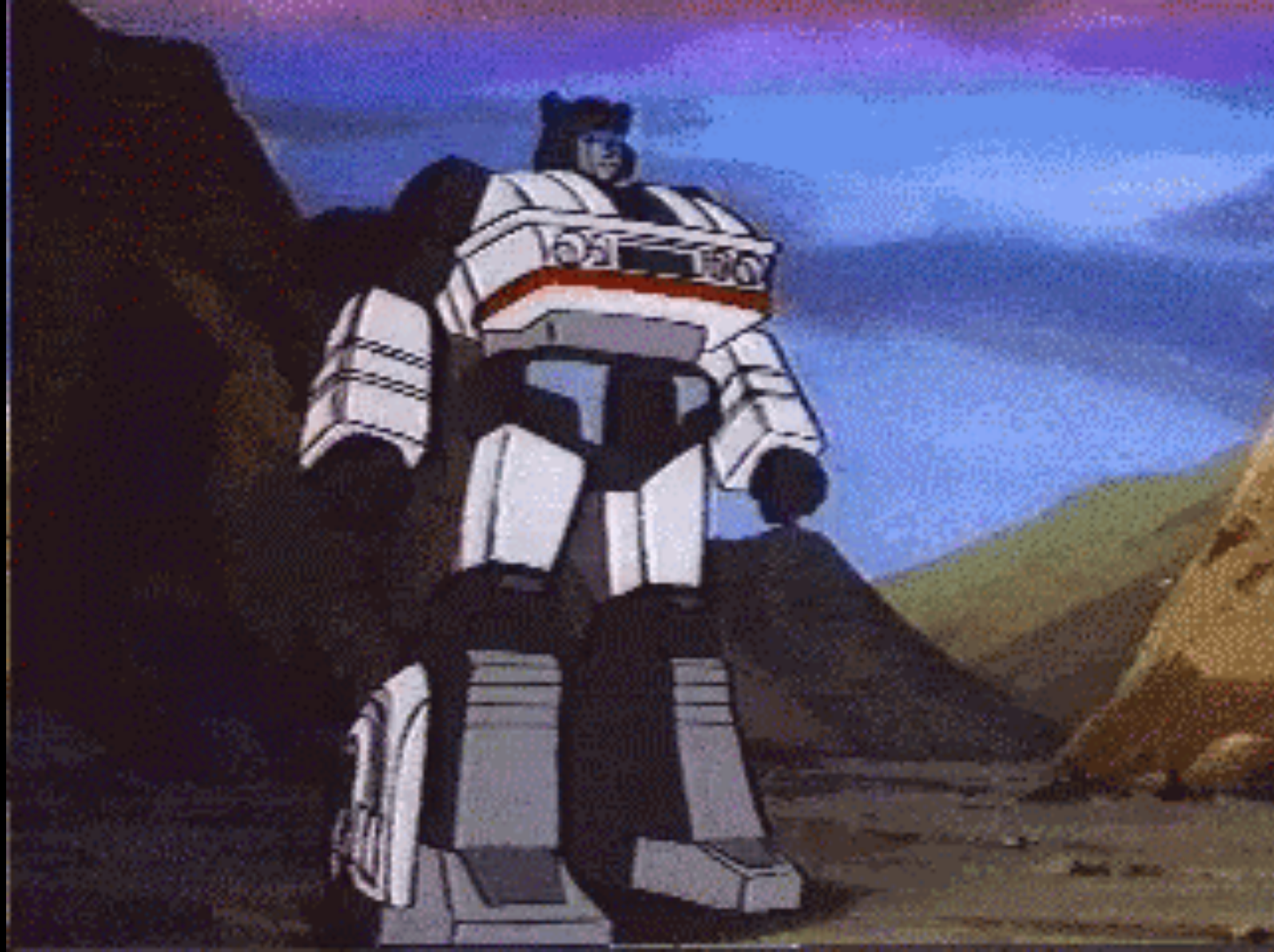
In partnership with the Independent Filmmaker Project, we are putting next generation tools in the hands of up-and-coming 5G storytellers.



\$300k in grants to 10 researchers exploring the intersection of smart manufacturing, collaborative robotics, and 5G







A man, a woman, and a younger man are gathered around a table in a laboratory or office setting. They are looking at a transparent, cube-shaped electronic device that contains various components like a circuit board and a camera. The man on the left is pointing at the device. The woman in the center is leaning over the table, and the man on the right is also looking at the device. In the background, there are computer monitors and a robotic arm.

Built on 5G Challenge

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with us.

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Built on 5G[✓] Challenge

**Let's build
the future
together.**

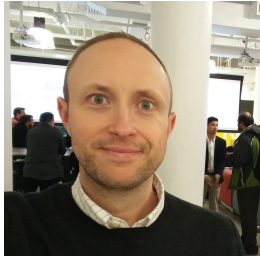
The Built on 5G Challenge is a nationwide search for the best products, services, and applications that will bring the true power of 5G to life.

[Apply now](#)



Verizon5GLabs.com/BuiltOn5G

Thank you



Joshua Ness
Sr Manager, Verizon 5G Labs

@jcness
joshua.ness@verizon.com

