

Airbus, Bill Gates and others back video imaging satellite venture

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Airbus, Bill Gates and Japanese billionaire Masayoshi Son have joined to back a spinoff from Bellevue, Wash.-based Intellectual Ventures that aims to launch a constellation of imaging satellites "that will deliver real-

time, continuous video of almost anywhere on Earth."

Russell Hannigan, founder and chief executive of the new venture—called EarthNow—said real-time video will provide a leap beyond existing Earth observation satellites that provide still photos and video clips sometime after a user requests the images.

"With EarthNow's constellation of satellites, you will see events unfold as they happen," he said. "We are excited by the prospect of giving everyone a stunningly beautiful, real-time window on your world from space."

No satellites have yet been built. EarthNow recently closed a first round of financing focused "primarily on maturing the overall system design."

Though the amount of funding was not disclosed, it includes investments and partnerships from an impressive list of [satellite](#) industry and tech-company heavyweights.

EarthNow's key partner is European aerospace giant Airbus, which proposes to mass-produce the satellites using production lines in Toulouse, France, and in Florida.

Aside from Microsoft co-founder Gates and Son, also investing in EarthNow is Greg Wyler, founder and executive chairman of OneWeb, a large, still-nascent satellite venture that aims to provide [broadband internet access](#) globally and has attracted investment of nearly \$2 billion.

OneWeb's initial fleet of nearly 900 satellites is also being built by Airbus.

Son heads the Japanese conglomerate Softbank Group, which is also a financial backer of OneWeb.

EarthNow's satellites will be modified versions of the small, low-cost, high-performance models Airbus originally developed for OneWeb, which Hannigan in an interview called "the Model T of spacecraft."

The venture is affordable because Airbus and One- Web have figured out how to mass-produce these satellites at low cost, he said.

While the OneWeb satellites will carry a payload of communications software and electronics hardware, EarthNow's payload will be video-imaging software and optical hardware.

Hannigan said the key to EarthNow's technology is that each individual satellite in a constellation of hundreds will have enormous processing power on board.

That means that though each satellite will collect colossal quantities of data—far too much to beam back to Earth in real time—the software will be able to process it all onboard and focus on sending back to Earth only that part of it the user wants to see.

He said the system has been validated in a lab setting, though not yet in space.

The company foresees initial business coming from government and large businesses.

As examples of applications, Hannigan listed monitoring of illegal fishing in the oceans; a warning system that can spot forest fires as soon as they ignite; mapping and guiding traffic flows through a "smart city"; and real-time media reports of events happening in remote sites.

But eventually, Hannigan said, the goal is to develop a service that consumers can access to observe what's happening now on any part of

the globe.

"You should be able to look around, to pan and zoom and explore the world for yourself in real time," he said. "That's the ultimate goal."

The project was incubated by Intellectual Ventures, founded and led by Microsoft's former chief technology officer, Nathan Myhrvold. His firm specializes in patenting technologies and bringing them to market.

Hannigan said the company is for now still housed at the offices of Intellectual Ventures but is scouting for its own space, likely somewhere on the Eastside.

He said a joint Airbus/EarthNow team of about 25 to 30 people is currently working on the project, with about half in Toulouse and half in Bellevue.

He said he expects to hire more people here after the next funding round.

When its satellites are built, EarthNow will have to line up launch providers to get them into orbit and a ground network to receive and process the incoming video data.

All that lies ahead. "We're at the beginning phase," said Hannigan, declining to say when he expects the service to begin operating.

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