

# Going for Gold, Together

*In a historic initiative, Tokyo 2020 organizers ask the public for help in sourcing Olympic and Paralympic medals from “urban mines” of obsolete electronic devices.*



A gold medal from the Tokyo 1964 Olympic Games. The design of the Tokyo 2020 medals is being awaited with great anticipation.

On May 18, 2017, a large group of visitors assembled for an unusual ceremony at the Tokyo Metropolitan Government office in Shinjuku. Tokyo Governor Yuriko Koike stepped up to a tall yellow box with a slot in front, labeled “Medal Cooperation Box” in Japanese, and began to address the gathering. “On May 10, we reached the 30,000-unit mark,” she announced. “As of today, we have received 31,288 cellphones and other small electronic devices.” Standing beside the governor was a middle-aged man who had recently donated the cellphone of his late wife, a keen athlete. Invited to share his memories with the audience, he said, “I think my wife would be happy

knowing that her phone was being used for this purpose.” The young lady who contributed the milestone 30,000<sup>th</sup> cellphone voiced her thoughts as well. Smiling broadly, she stated, “As a Japanese citizen, I’m delighted to be able to engage in this way in the Olympic and Paralympic Games Tokyo 2020.” It was a memorable day for the Tokyo 2020 Medal Project. Launched on April 1 by the Tokyo 2020 Organising Committee, the Tokyo 2020 Medal Project is an unprecedented venture that aims to produce every single medal for the Tokyo Olympic and Paralympic Games with metals extracted from small, obsolete electronic devices. Of course, Tokyo is not the first host city to recycle metals for medals. The silver and

bronze medals at Rio 2016 comprised 30 percent recycled materials, and Sydney 2000 famously made bronze medals from discontinued one- and two-cent coins. However, Tokyo 2020 will be the first to target 100 percent recycled content in 100 percent of its medals. In another Olympic “first,” Tokyo 2020 is calling on all of Japan’s citizens to join in this herculean effort. As a Tokyo 2020 spokesperson says, “An Olympic medal is the crowning achievement for athletes from all over the world. Now, every person in Japan can share in this achievement.”

The scope of the Tokyo 2020 Medal Project is immense. A total of approximately 5,000 gold, silver and bronze medals will be awarded—requiring about eight tons of metal in the manufacturing process.

In the past, host cities have solicited donations from mining companies for their medals. However, natural mining exacts a heavy environmental toll, as many tons of rock and soil are removed to extract small amounts of metals. Instead, Tokyo 2020 will take a more contemporary direction, tapping Japan’s so-called “urban mines”—the vast reserves of scrap metal already available inside used electronic devices.

About 650,000 tons of electronic devices are discarded in Japan every year. These e-waste mountains pose enormous challenges, but they also offer a “golden” opportunity for resource-poor Japan. All electronic devices contain metals such as gold, silver, palladium and copper. Approximately 280,000 tons of metal with a total worth of 84.4 billion yen are buried in Japan’s urban mines. And since an average cellphone contains 0.03 grams of gold—a much higher ratio than in its equivalent in mined ore—metal recovery is surprisingly efficient. Just 200 cellphones will yield the minimum six grams of gold plate required for each gold medal.

Unfortunately, only about 10 percent of used electronic devices are currently being recycled in Japan. There are still countless phones, tablets, digital cameras and other appliances gathering dust in homes because people simply are not ready to dispose of them. Each idle gadget is a prospective urban mine, waiting to be “excavated.” If the Tokyo 2020 Medal Project can persuade owners to recycle these devices, it could awaken a sleeping giant, and everyone in “Team Japan” will emerge a winner in 2020—including the environment. “People are attached to their devices,” a Tokyo 2020 spokesperson says. “We need to switch their mindset from hanging on to old memories to creating new Olympic ones, not just for athletes, but for everybody.”

By August, more than 50,000 cellphones and other small electronic devices had been collected at the Tokyo Metropolitan Government office in Shinjuku. To keep the momentum going, municipalities and participating organizations have set up boxes for obsolete electronic devices at thousands of locations throughout the country, while Japan’s largest telecommunications company has installed cellphone collection boxes at each of its more than 2,400 outlets. Japan’s Olympic athletes are also doing their part, passionately promoting the project on SNS.

“Tokyo 2020 Olympic and Paralympic medals will be made out of people’s thoughts and appreciation for avoiding waste,” says gymnast Kohei Uchimura, a three-time Olympic gold medalist. “I think there is an important message in this for future generations.”

The process of recycling metals for the Tokyo 2020 medals.

