## 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.

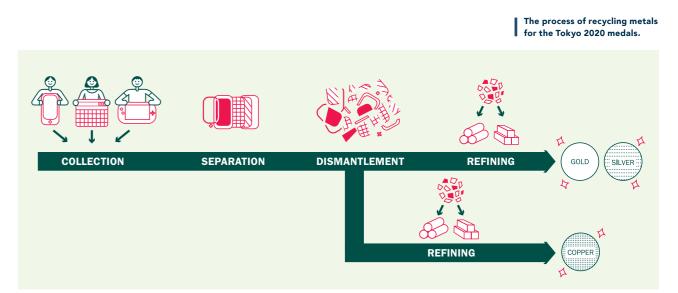
n May 18, 2017, a large group of visitors assembled for an unusual ceremony at the Tokyo Metropolitan Government office in Shinjuku. Tokyo Governor Yuriko Koike stepped up to a tall yellow box with a slot in front, labeled "Medal Cooperation Box" in Japanese, and began to address the gathering. "On May 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 Unfortunately, only about 10 percent of used elecrecycled materials, and Sydney 2000 famously made tronic devices are currently being recycled in Japan. bronze medals from discontinued one- and two-cent There are still countless phones, tablets, digital camcoins. However, Tokyo 2020 will be the first to target eras and other appliances gathering dust in homes because people simply are not ready to dispose of 100 percent recycled content in 100 percent of its medals. In another Olympic "first," Tokyo 2020 is them. Each idle gadget is a prospective urban mine, calling on all of Japan's citizens to join in this hercuwaiting to be "excavated." If the Tokyo 2020 Medal lean effort. As a Tokyo 2020 spokesperson says, "An Project can persuade owners to recycle these devices, it Olympic medal is the crowning achievement for athcould awaken a sleeping giant, and everyone in "Team letes from all over the world. Now, every person in Japan" will emerge a winner in 2020—including the Japan can share in this achievement." environment. "People are attached to their devices," The scope of the Tokyo 2020 Medal Project is a Tokyo 2020 spokesperson says. "We need to switch immense. A total of approximately 5,000 gold, silver their mindset from hanging on to old memories to and bronze medals will be awarded—requiring about creating new Olympic ones, not just for athletes, but eight tons of metal in the manufacturing process. for everybody."

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 discollection boxes at each of its more than 2,400 outcarded in Japan every year. These e-waste mounlets. Japan's Olympic athletes are also doing their tains pose enormous challenges, but they also offer part, passionately promoting the project on SNS. "Tokyo 2020 Olympic and Paralympic medals will a "golden" opportunity for resource-poor Japan. All electronic devices contain metals such as gold, silver, be made out of people's thoughts and appreciation palladium and copper. Approximately 280,000 tons for avoiding waste," says gymnast Kohei Uchimura, of metal with a total worth of 84.4 billion yen are a three-time Olympic gold medalist. "I think there is buried in Japan's urban mines. And since an averan important message in this for future generations.' age cellphone contains 0.03 grams of gold-a much higher ratio than in its equivalent in mined oremetal recovery is surprisingly efficient. Just 200 cellphones will yield the minimum six grams of gold plate required for each gold medal.



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