



Data For Mobile Lifespan

How often do you exchange a new mobile phone? How many obsolete cell phones do you have in your home or office? An average working life of a mobile phone is 7 years but worldwide the average consumer changes their mobile every 11 months.

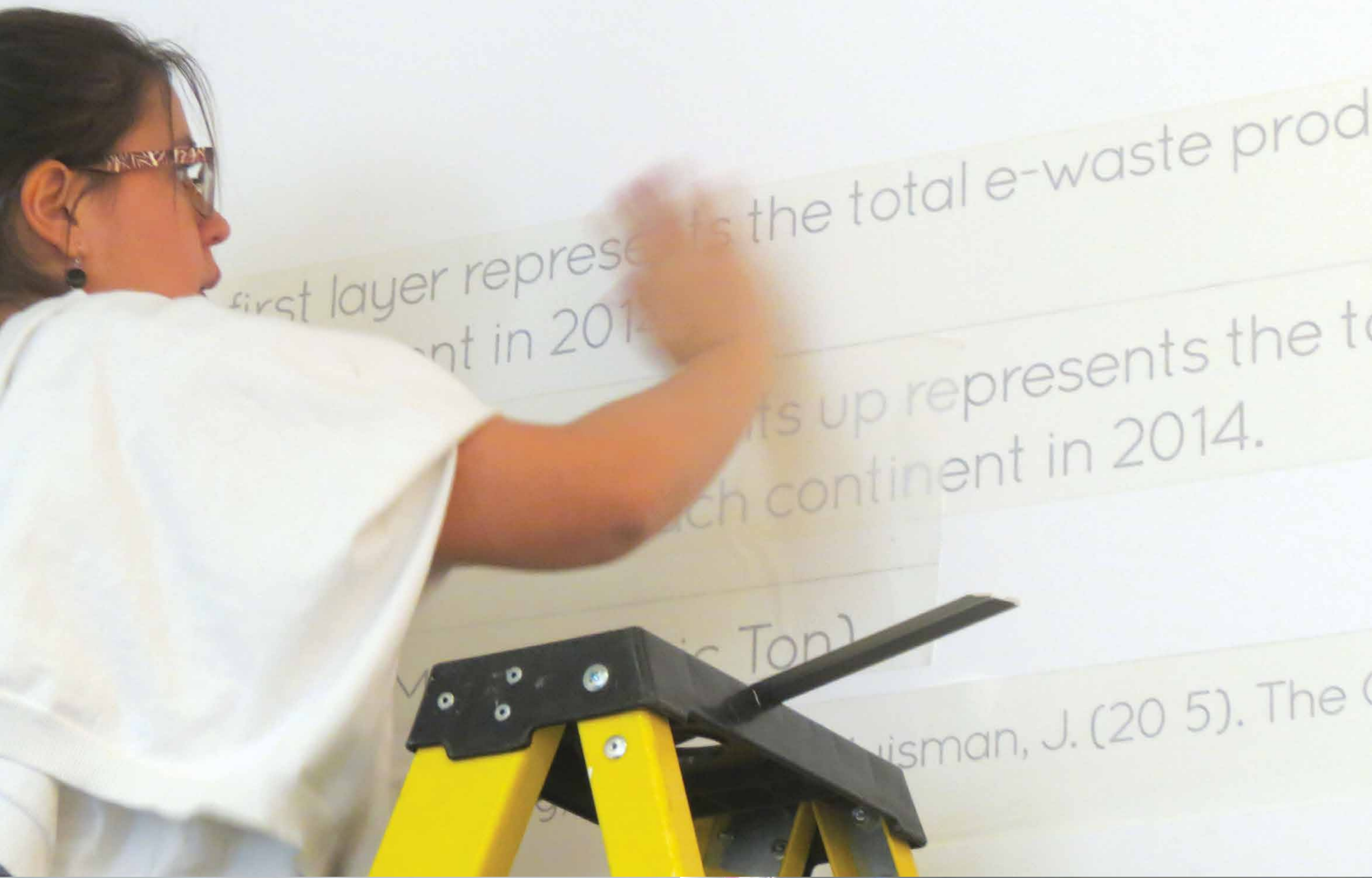
The installation represents the mobile phones lifespan of three popular mobile phone brands in the market. We have shown here since 2011 how the companies have introduced their new products and how it has influenced our lives. Each colour represents the different mobile brands and when they have released their mobile phones.

Apple



Samsung





Production and Recycling

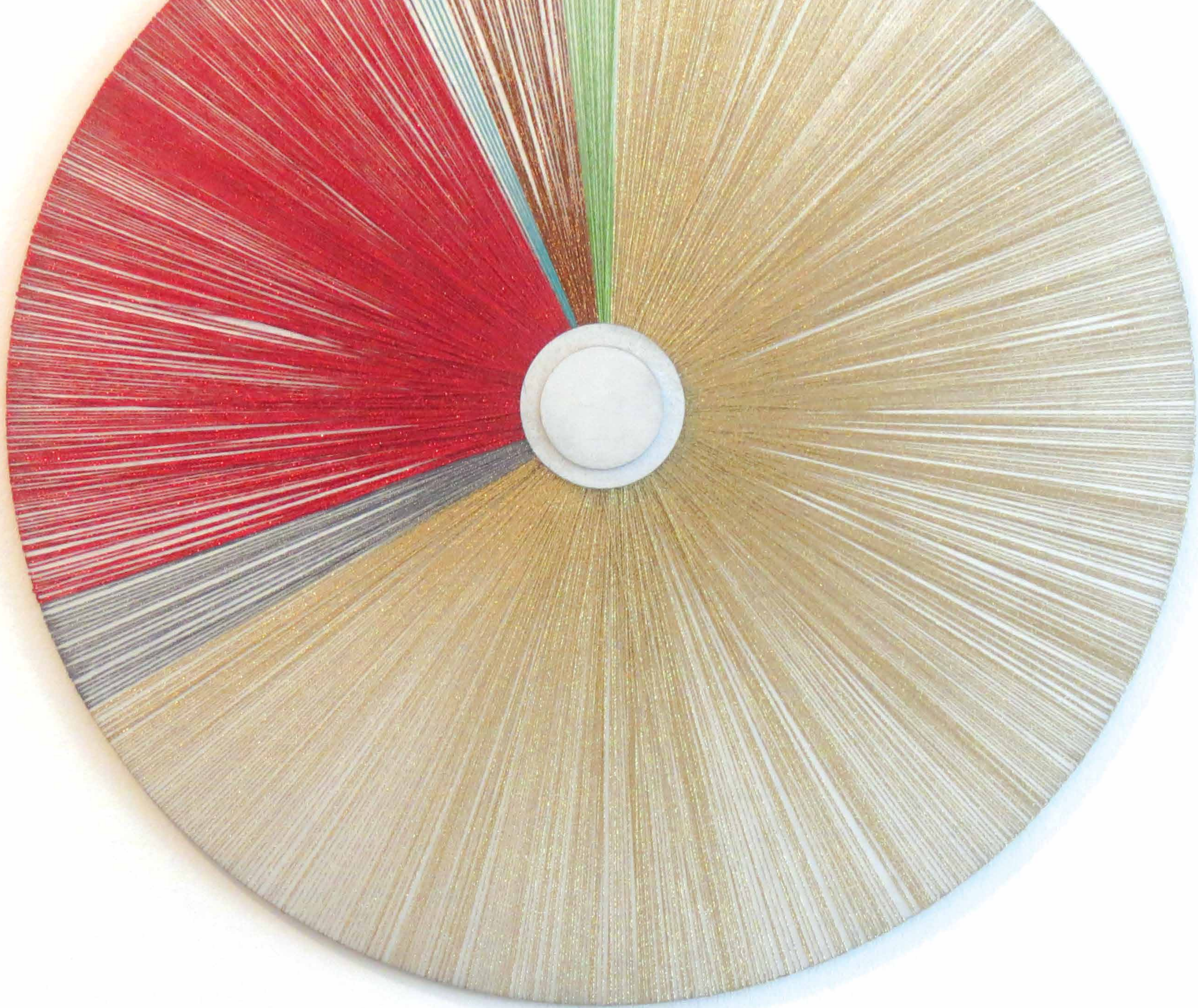
The first layer represents the total e-waste produced by each continent in 2014.

The second layer that lights up represents the total amount of e-waste recycled by each continent in 2014.

1 ball = 1 Mt (Million Metric Ton)

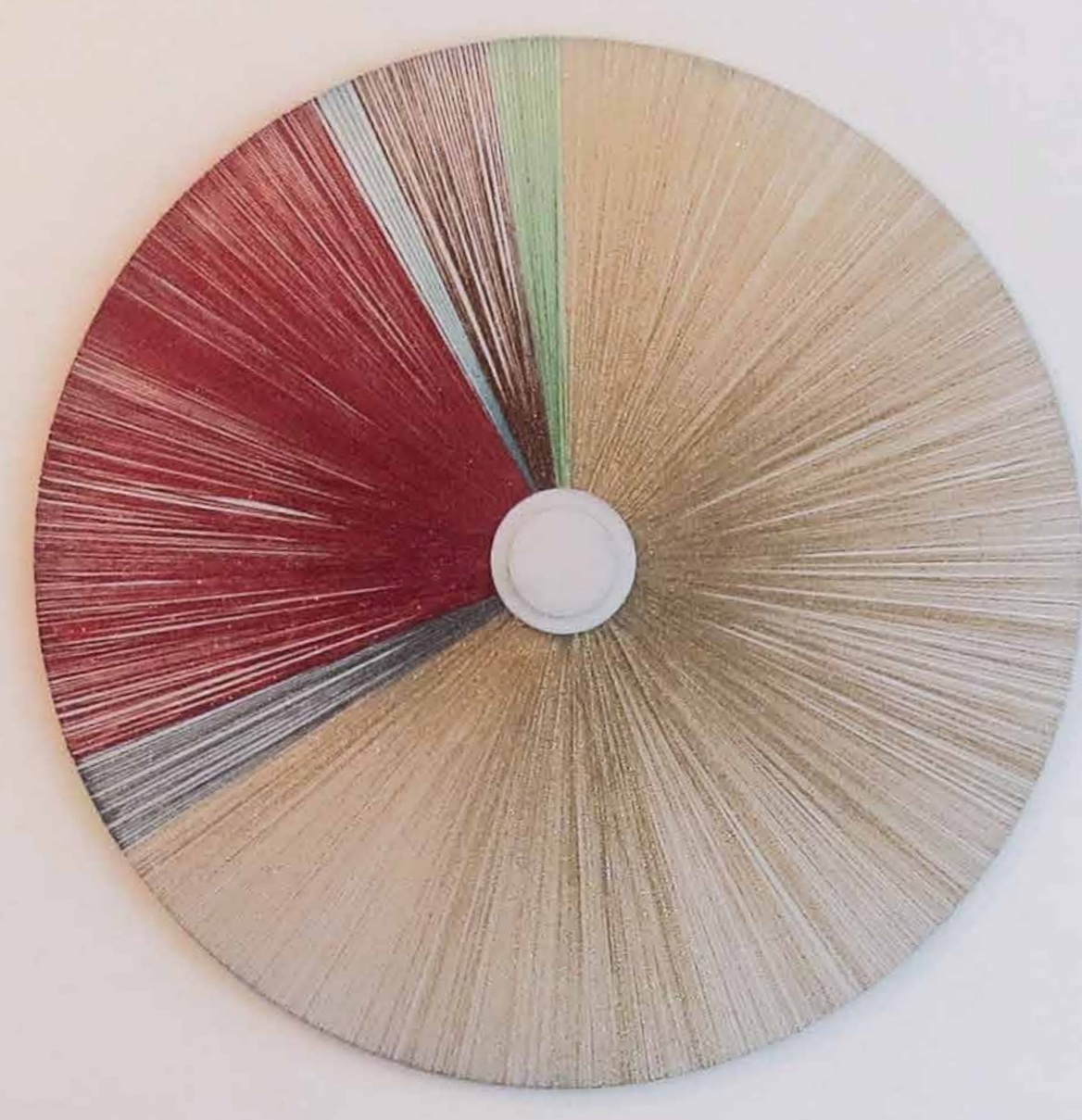
Source: Balde, C.P., Wang, F., Kuehr, R., Huisman, J. (2015). The Global e-waste monitoring system.





METHOD OF BATTERY DISPOSAL IN AUSTRALIA

(FROM APRIL 2010)



GENERATOR OF E-WASTE 2014

WORLDWIDE E-WASTE GENERATE 41,800,000,000 KG



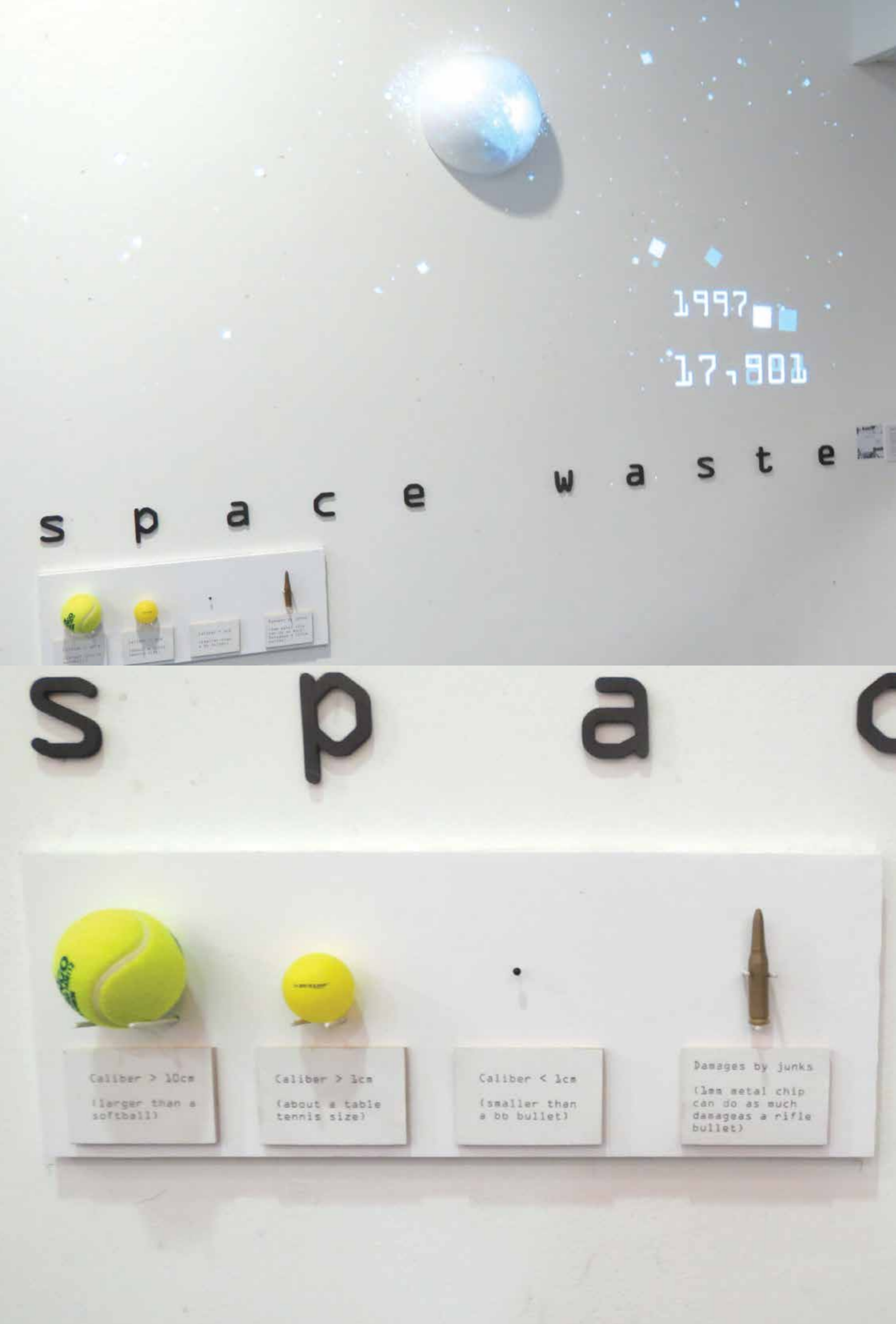
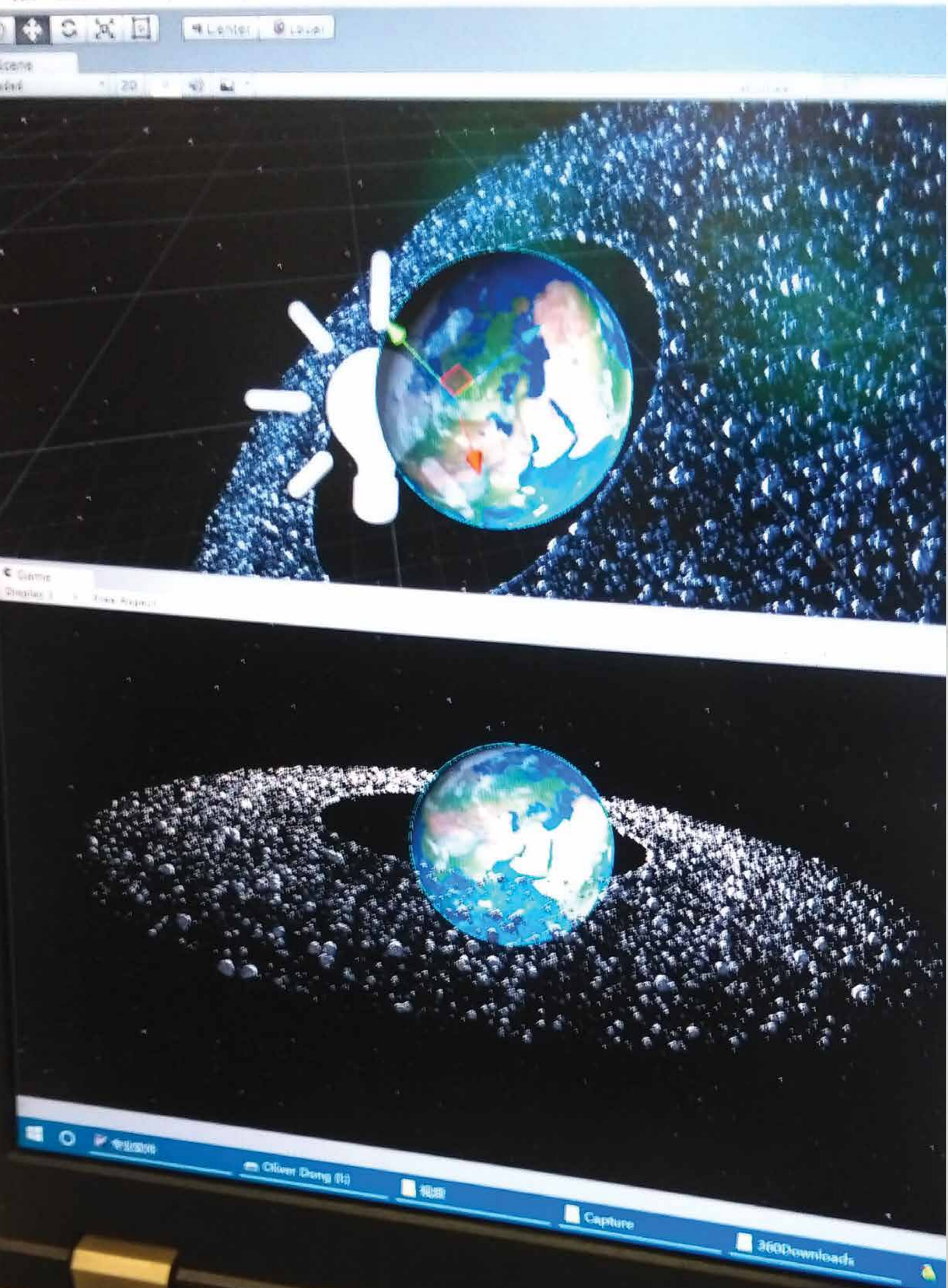
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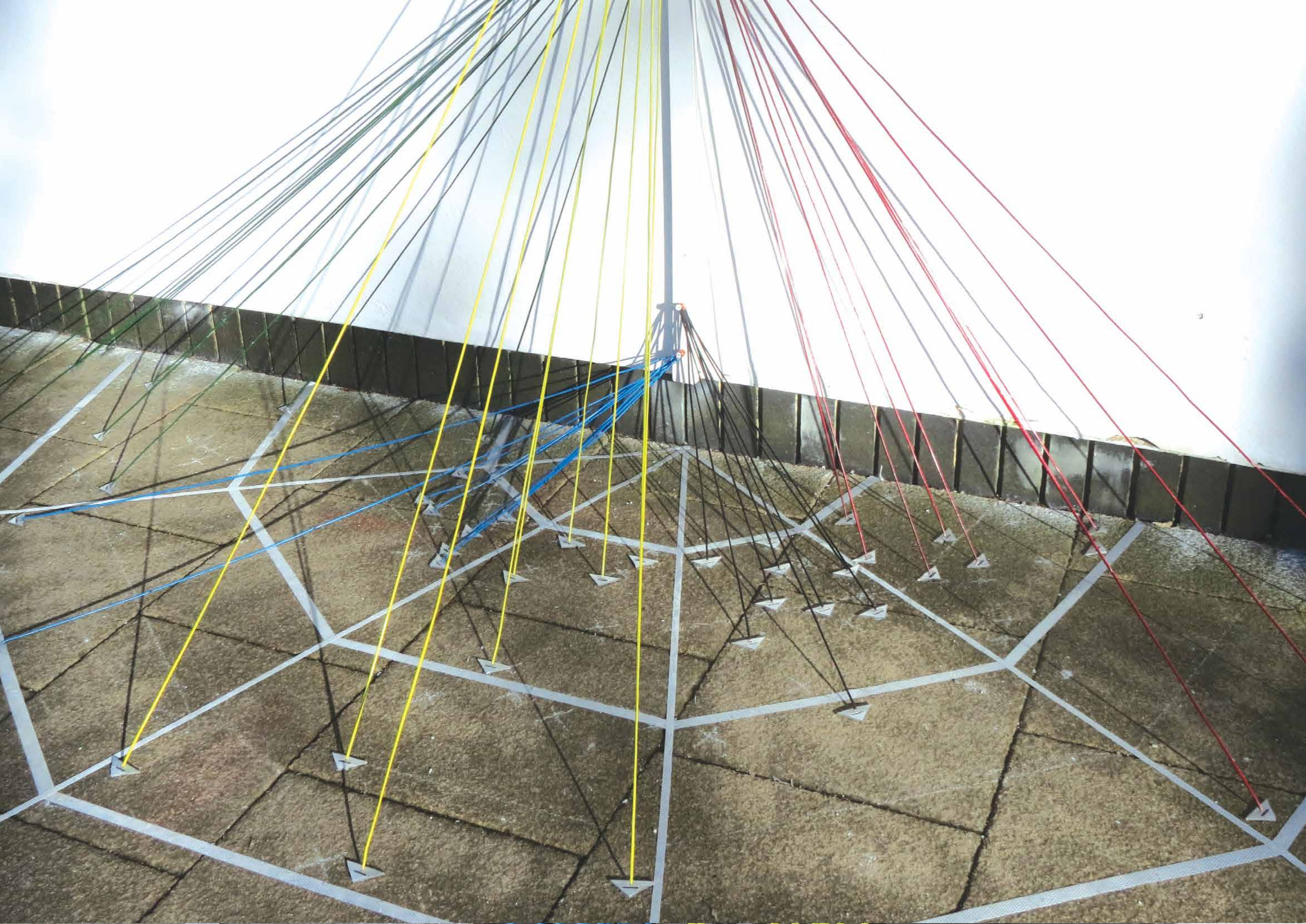
In 2014, people worldwide discarded all estimated 41.8 Mt of electrical and electronic equipment. According to the 'Global E-Waste Monitor 2014', it shows that most e-waste generated by the top six nations: the USA (7.1Mt), China (6.0 Mt), Japan (2.2 Mt), Germany (1.8Mt), India (1.7 Mt) and UK(1.5Mt). However, the situation of e-waste generated by per inhabitant is totally different.

Source:

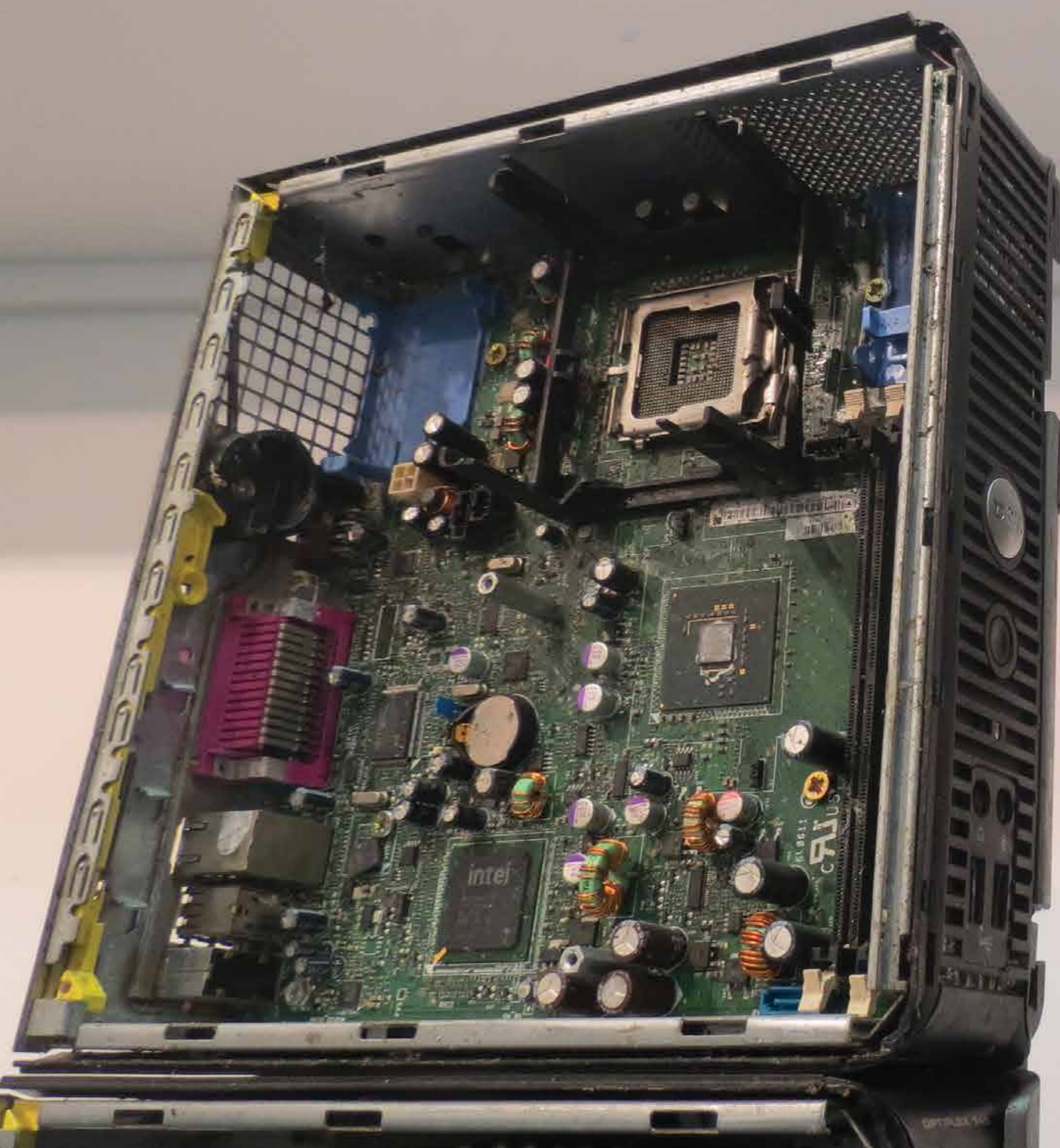
Baldé, C.P., Wang, F. and Huisman,. 2015. THE GLOBAL E-WASTE MONITOR 2014 quantities, flows and resources. Available at: <http://i.unu.edu/media/ias.unu.edu-en/news/7916/Global-E-waste-Monitor-2014-small.pdf> (Accessed: 28 February 2016).

StEP e-waste world map - step 2014, 2015. Available at: <http://www.step-initiative.org/step-e-waste-world-map.html> [Accessed 28 February 2016].





Skylake 10×10^{10}



E-waste: The Other Side of Moore's Law

Gordon E. Moore, the co-founder of Intel, whose 1965 paper described a doubling every year in the number of components per integrated circuit, and projected this rate of growth would continue for at least another decade. In 1975, looking forward to the next decade, he revised the forecast to doubling every two years.

Digital electronics have contributed to world economic growth in the late twentieth and early twenty-first centuries. Moore's law describes a driving force of technological and social change, productivity, and economic growth.

However, there is a dark side to this faster and cheaper advancement. **Those PC (OptiPlex-755) were produced in 2008, but we found that they have been abandoned in backyard WSA 2016.** A PC just has an expected lifetime of three to five years. Rapid obsolescence means the creation of ever-growing mountains of discarded tech junk, known as electronic waste.

Source: <http://catalog.flatworldknowledge.com/bookhub/reader/>
Data Ref: <http://betanews.com/2013/10/15/breaking-moores-law/>

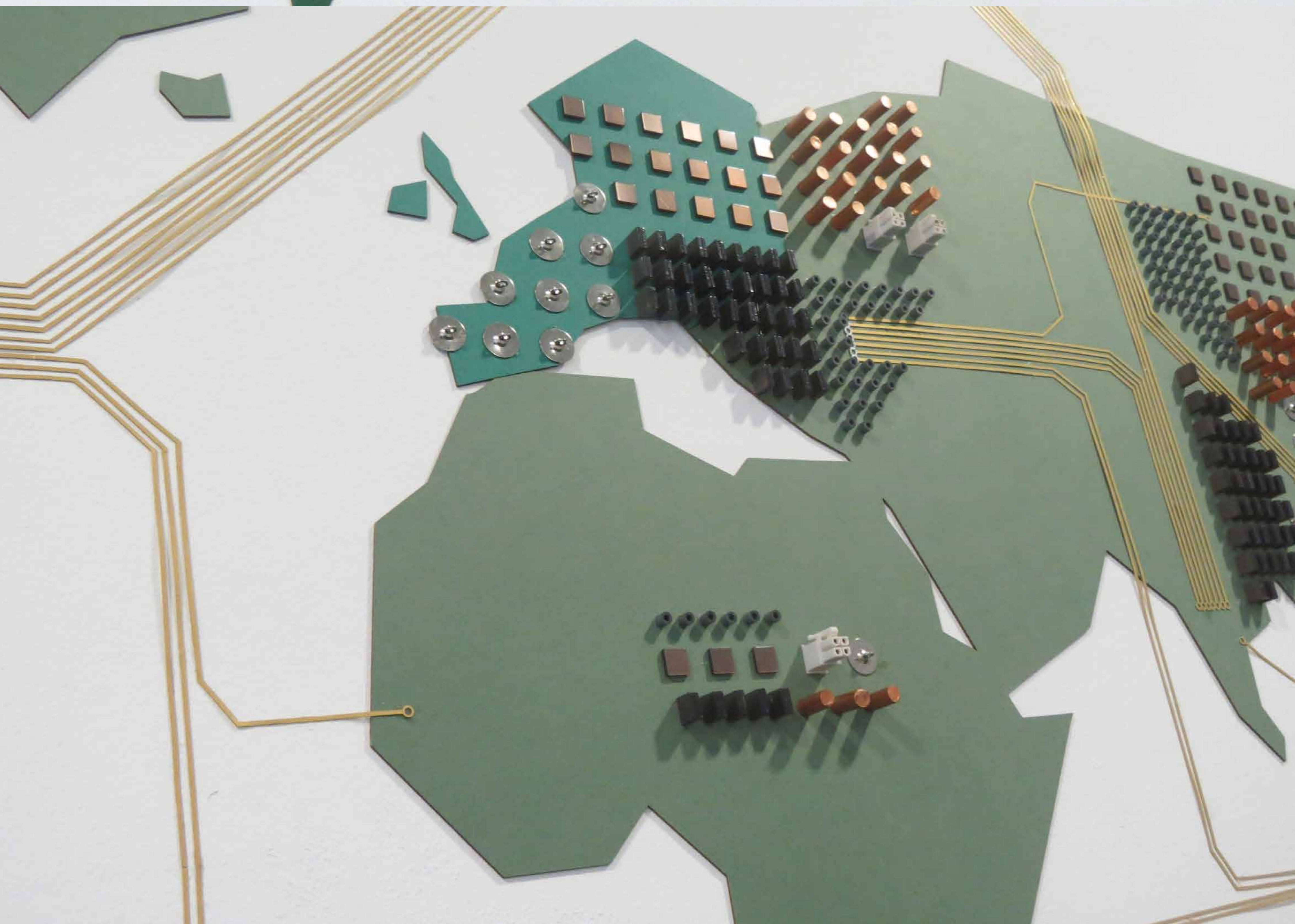
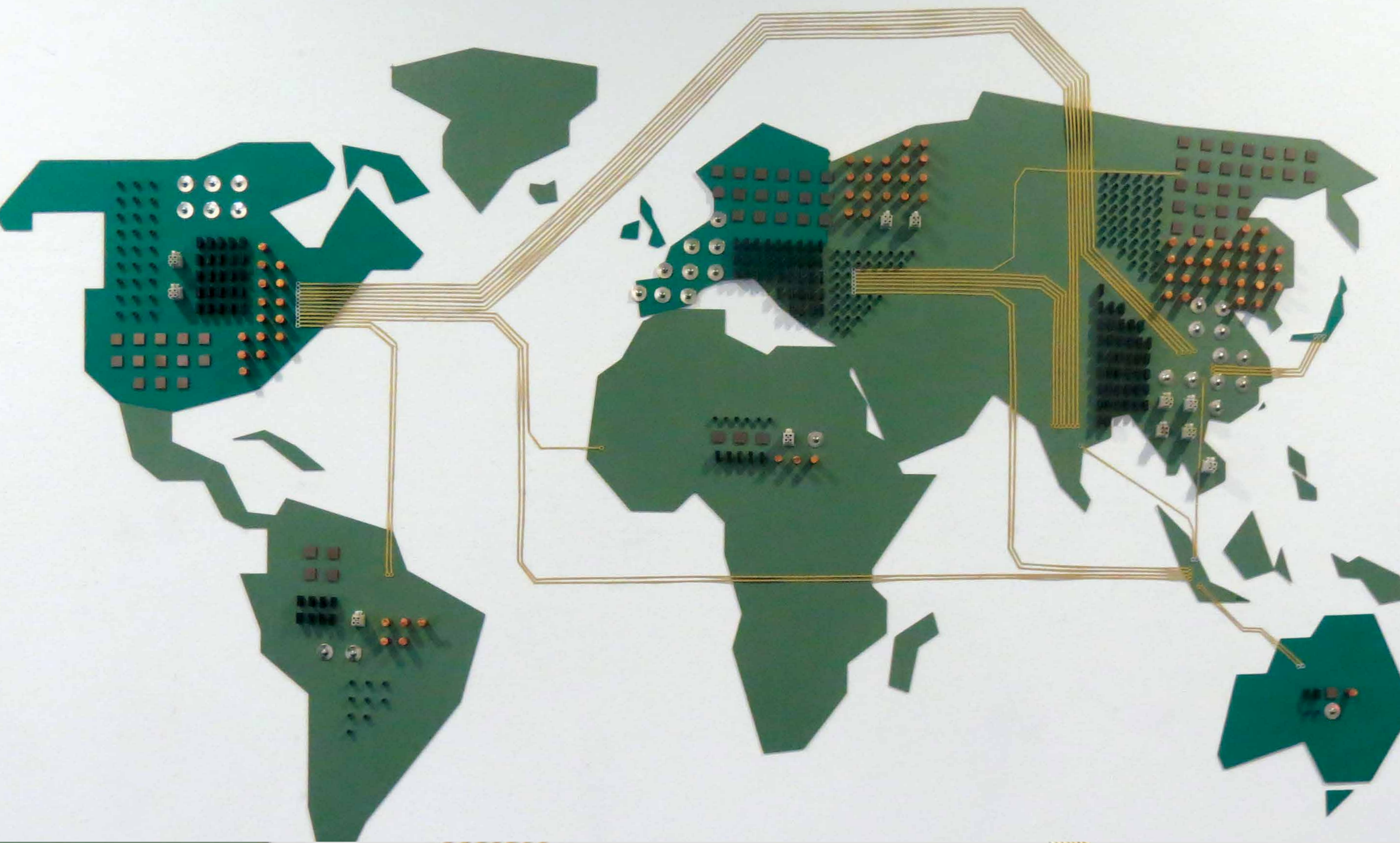


MOORE'S LAW

SPARC T4
 8×10^9



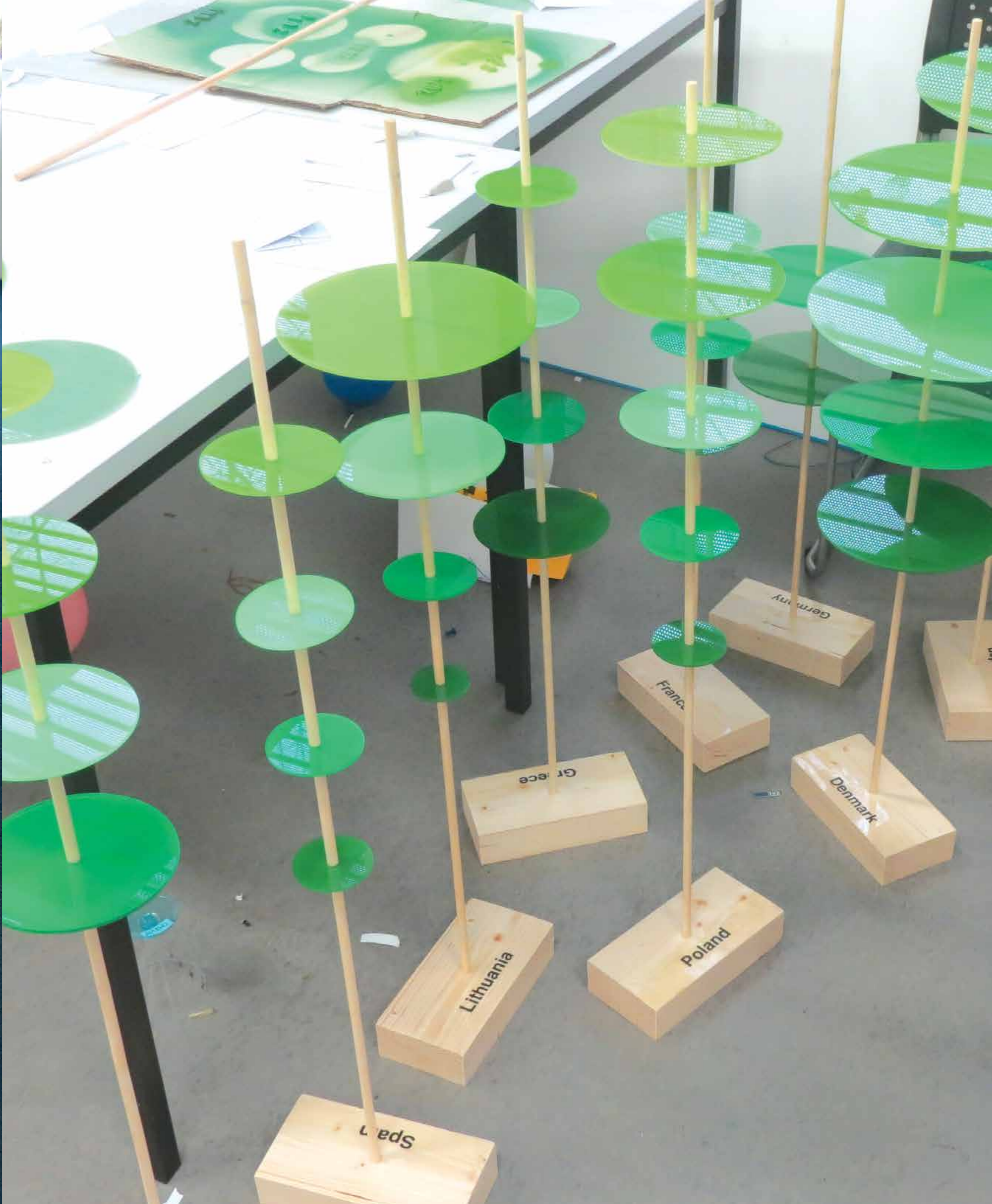
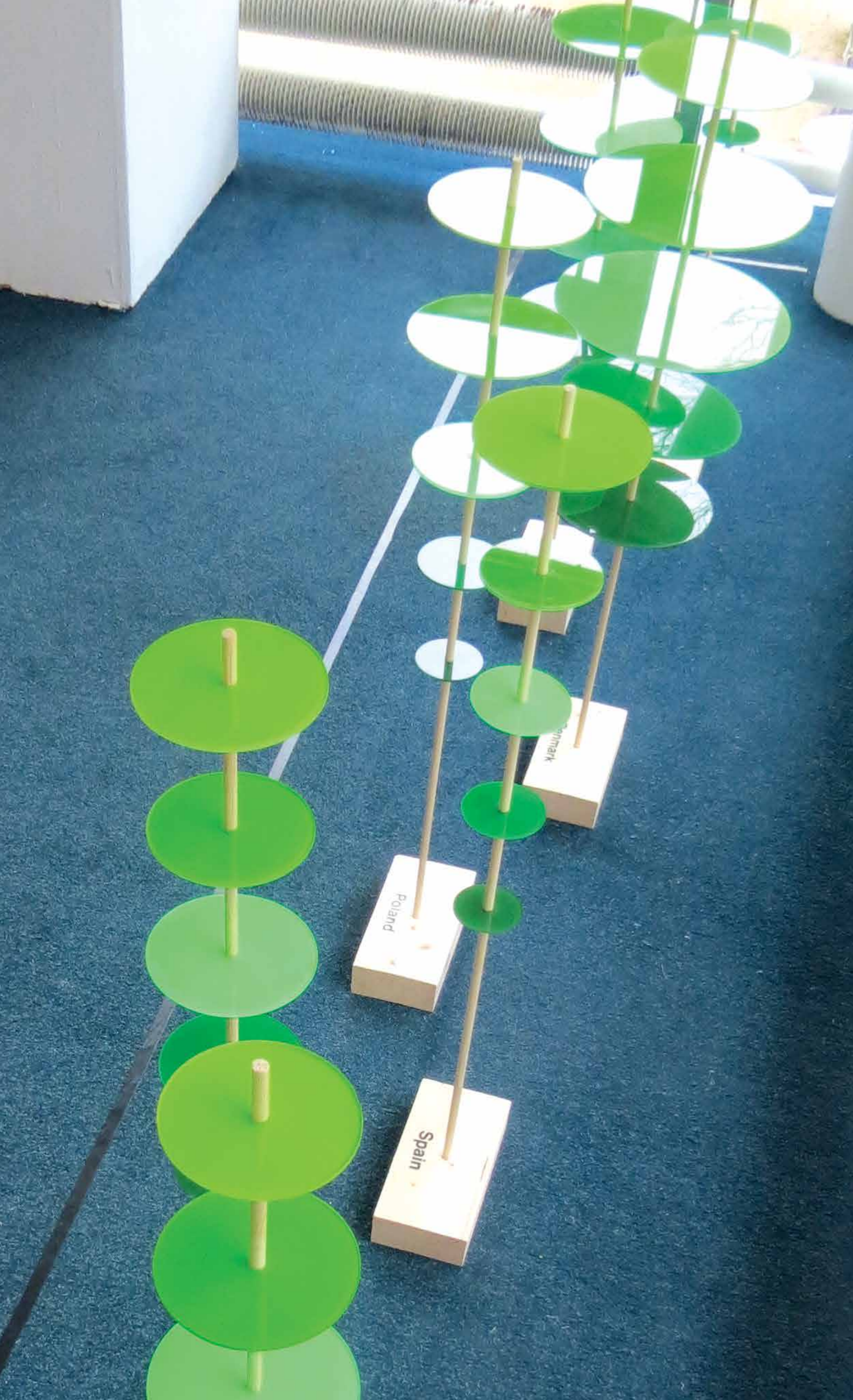
GLOBAL E-WASTE



E-WASTE HAZARDS AN 3.6 MILLION WASTE COMPUTERS IN CH



 ALUMINIUM HAIR LOSS BRAIN DAMAGE	 MERCURY BRAIN DAMAGE LIVER DAMAGE	 ARSENIC LUNG DAMAGE NERVE DAMAGE	 CADMIUM KIDNEY DAMAGE	 POLYVINYL CHLORIDE RESPIRATORY PROBLEM
 CHROMIUM EYE INJURY DNA DAMAGE	 TRICHLOROETHYLENE KIDNEY DAMAGE LIVER DAMAGE	 COPPER SKIN DAMAGE	 BARIUM HEART DAMAGE LIVER DAMAGE SPLEEN DAMAGE BLOOD PRESSURE	
 BERYLLIUM LUNG DAMAGE	 LEAD BRAIN DAMAGE NERVE DAMAGE			



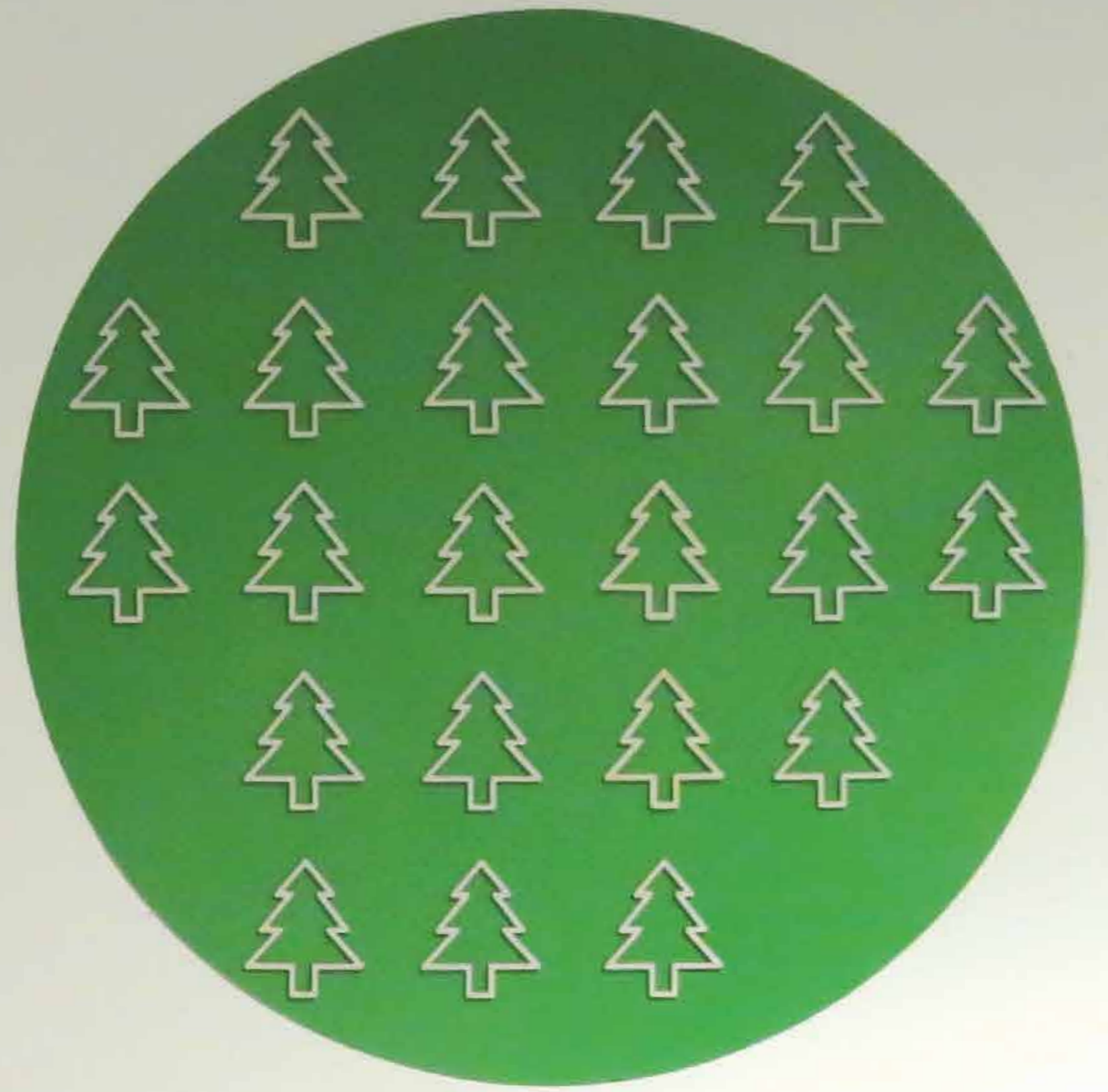




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